Swindon Safe & Warm

Learn to love your heating system

A guide to making the most of your gas central heating or electric storage heaters.

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Swindon Borough Council

Safe & Warm is a Swindon Borough Council led initiative which aims to make homes warmer and cheaper to heat and reduce the risk to people from falls and fires in the home.

The purpose of this booklet is to help you understand and control your heating system. A heating system which is well controlled doesn't waste heat, and your money. Setting it correctly will give you a healthy and comfortable home to live in.

All heating systems are more cost-effective in a well-insulated home. By installing cavity wall and loft insulation, or even internal or external wall insulation, you will make your home much better at retaining heat. This means your heating system doesn't have to work so hard and less heat is wasted. This is especially the case with electric storage heating as once the finite amount of heat stored in the heaters is released you are faced with using expensive peak rate electricity to provide further heating.

Special thanks to Centre for Sustainable Energy for some of the information provided for this booklet. www.cse.org.uk

For further information on the Safe & Warm programme, please contact:

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Central Heating Controls

Using your **central heating controls** will help you heat your home more efficiently and lead to lower fuel bills.

Timer or Programmer

This allows you to control when your **heating** and/or **hot water** comes on and goes off. You can use it to programme your **central heating** to fit in with your life. If you are not in, or in bed asleep your heating will not need to be on, except in exceptionally cold weather or if you are unwell. Set your heating to come on half an hour before you get up, or come home, and to turn off half an hour before you go out, or go to bed. That way you'll get up and come home to a warm house. A typical house takes about half an hour to cool down, so that way you won't be wasting energy.

Setting the hot water timer

If you have a combination boiler then you will not have a hot water tank and your hot water will come straight from the boiler when you need it. You can usually set the water temperature on the boiler.

If you have a hot water tank then the boiler programmer will allow you to set times for the boiler to come on and heat the water in the tank. In the summer months this will work independently of the heating system. Hot water tanks should have a thermostat, which should be set to 60-65°C, which is hot enough to kill any bacteria. There can also be an electric immersion heater in the hot water tank and this can be switched on and off. It is cheaper to use the boiler to heat your water.

Your programmer may have the option of setting different heating patterns for weekdays and the weekend, or even allow you have more than one daytime pattern of heating.

Heating controls jargon-buster

'Auto' means the heating will go on and off during the day, at the times it has been programmed to do so.

'24hrs' or **'On'** means the heating stays on all the time.

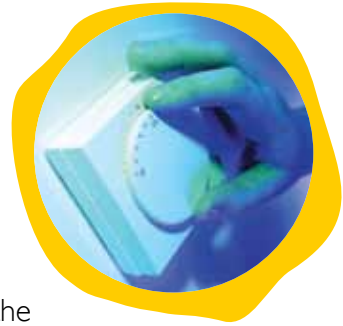
'Off' means the heating will remain off all the time.

'All day' means the heating will switch on at the first 'on' setting you have programmed and then remain on until the last 'off' setting of the day.

'Boost' or **'+1hr'** switches the heating on for a one hour 'boost' of heat.

'Advance' moves the programmer on to the next 'on' or 'off' setting in the daily cycle.

Room Thermostat



A room thermostat is usually in your hall or sitting room. It monitors the temperature in the house and sends a signal to the boiler to switch off when the house is warm enough. Thermostats are normally set between 18°C and 21°C, which is a comfortable and healthy temperature for most people and minimises the risk of ill health. Some people need to keep their house warmer due to age or health problems

Thermostatic radiator valves (TRVs)

These are fitted to the radiators and allow you to control the temperature of a room by regulating the flow of water through the radiator. They allow you to control the temperature individually in rooms, so if you spend a lot of the day at home, downstairs, you can turn the radiators upstairs, and in other rooms you are not using down, or even off. But in cold weather it is a good idea to heat some rooms to reduce condensation problems.

Money saving suggestion

Try turning your room thermostat down by 1°C. You'll barely notice the difference in temperature, but you could cut your heating bills by around £55 a year.

Simple improvements, to your heating system, such as fitting modern controls, a room thermostat and thermostatic radiator valves can give you more control over individual room temperatures and are a cost effective way, together with adequate cavity wall and loft insulation to improve the energy efficiency and running costs of your home.

Looking after your central heating system

Having your boiler serviced once a year should ensure it is not only safe but could identify any potential faults that may be developing. It is a good idea to have the system cleaned and flushed to remove any limescale or sludge that can build up in the system. A chemical inhibitor can also be added to reduce lime scaling and corrosion. This makes your heating system work as efficiently as possible.

There are three main treatments that can be used:

- Flushing – power flushing the system is the most thorough and effective way to cleanse existing systems.
- Inhibitors – chemical inhibitors are added to the system to help prevent build up of limescale and help prevent corrosion.
- Water softeners – if a combination boiler is installed in a hard water area it may help to add a water softener to the system.

Your heating service technician can advise on what method of treatment is suitable, but your system may benefit from cleaning if you notice the following:

- If the radiators have cold spots where they are not providing uniform heat and feel cold to the touch.
- If the system pump seems to be labouring – it may sound noisy if the system is pumping around sludge or limescale along with the water.

If your radiator is cold at the top but warm at the bottom it may just need "bleeding". This can happen if air is trapped in the radiator preventing the warm water from rising to the top of the radiator. Turn off the heating system and the air can be released by using a radiator key to turn the nut at the top of the radiator slightly (normally on the opposite side to where the water comes into the radiator). Air should begin to hiss as it comes out of the radiator. Hold a cloth under the radiator key as water starts to dribble out when all the air is removed – once this happens you can tighten the nut back up. Only undo the nut enough to hear the air start coming out, if you undo it completely air and water will come out very quickly.

Night Storage Heaters

These can be a good option where electricity is used to heat the home. They work by taking electricity over several hours at night and storing it as heat, in a 'bank' of clay or ceramic bricks to use the next day to heat your home.

To be economical the electricity supply needs to be on an **Economy 7 tariff.** This is where the energy supplier sells cheaper electricity at night, at around a third of the cost. In the winter the cheaper rate is typically between mid-night and 07:00, in the summer between 01:00 and 08:00.

Every storage heater has a set of simple controls. An input setting allows you to regulate the amount of heat stored during the night.

The output setting allows you to regulate the heat given out from the storage heater.

It is important to set the **input** correctly as you don't want to pay for more than you need. If the weather is mild, or you're out for most of the next day then you don't need to store too much heat to use the following day. You also need to judge the weather, so when there is a cold spell the input needs turning up so that there is enough heat stored to keep you warm the next day.

You don't have to let all the heat out once, and by setting the **output** carefully you can save heat for later on in the day.

It is important to note that even when the output is turned down to the minimum setting some heat will be lost during the day.

Some modern storage heaters have a timer so you can set the times you want the heat to be released during the day. Some have an automatic control which regulates the charge the heater draws at night, depending on the temperature.

Harry and Dorothy's Storage Heating

Harry and Dorothy are retired and use electricity for their heating and hot water. They have **storage heaters** and take advantage of the **Economy 7 tariff** to heat their home. They have a well insulated home.

In the winter, they are in for most of the day, and so each night they set the 'input' to the highest number and the 'output' to '1' or 'off'

In the morning, to warm the house up, they turn the **'output'** to '4'. Once the house is warm they turn it down to '2'. In the evening, when it is chillier they turn it up to '5' or '6' to use up the stored heat.

Tips for getting the best from your storage heaters

The 'output' setting of your storage heater should be turned off at night and also when you are out of the room or house.

The 'boost' setting on the storage heater can be used to give extra warmth, using an element that only operates when the useful core heat is exhausted. It will use electricity at peak prices to provide heat.

Avoid using plug in heaters. It's more economical to turn up the input on your storage heater and store more heat at night.

Fan-assisted storage heaters

These are more efficient and a worthwhile upgrade when your heaters need replacing. More modern heaters have much more insulation around the heat storage 'bank' and are more controllable.

Dimplex fan-assisted storage heater

Traditional storage heaters release heat by convection. Fan-assisted storage heaters use a quiet fan to draw air through the heater and discharge the warm air into the room. The 'output' control may be called the 'fan' control. Don't forget to turn the fan back down overnight so the heaters can charge up properly.

Fan-assisted storage heaters usually have a thermostat to control the fan, so the temperature in each room can be better controlled.

Combination storage heaters

Some storage heaters have a built-in, top-up convector heater which can provide an independent heat source to supplement stored heat in severe weather, or as the sole heating if heat is required unexpectedly - for example in the spring or autumn.

The convector will often have its own thermostat to control the temperature.

Dimplex combination storage heater

Further information and guidance

As there are several different types of storage heater and many different makes and models of heater, it is always best to try and find the manufacturer's instructions. Many of the manufacturers provide access to their instruction booklets on-line on their websites. These booklets will show you exactly how to control the heaters to get the best out of them.

All you need to do is find the make and model number of the storage heater which can often be found near the heater controls. Then look up the manufacturer's website and the instructions will often be in the customer support section. If you don't have access to the internet, contact us with the make and model number and we can look for you.

An alternative source of information is the website **www.storageheaters.com** which is an independent website all about storage heaters.

Safe and Warm is a Swindon Borough Council led initiative which aims to make homes warmer and cheaper to heat and reduce the risk to people from falls and fires within the home.

We can help you in a number of ways, including:

Help with heating, insulation and other measures to keep you warm in your home

Free income maximisation advice to make sure you have a good level of household income

Advice on managing your fuel bills and keeping them more affordable.

Fire safety measures

Reducing the risk of falling in your home

Advice on keeping your home free from damp, condensation and mould.

For further help and information contact:

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If you require this information in large print or another format,
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