

Electric Warm-air central heating

Warm air heating has a room thermostat, which controls the fan that draws air over the hot core of the heating unit, like a big storage radiator. This acts as output control along with the louvers. The other control on a warm air central heating unit is the core thermostat. This can be adjusted to alter the amount of heat stored overnight. The daytime boost operates only when the core thermostat is set to its maximum.

An air filter cleans the air before it passes over the heater unit. It is very important that this filter is kept clean and dust free so it must be cleaned regularly.

Electric Underfloor heating

Electric elements are embedded in concrete floor slabs and run on 'off peak' or special tariff electricity. The main control is a time switch that turns the electrical current on and off during the overnight off-peak period. There is also a thermostat to shut off the electrical current when the room reaches the desired temperature. The thermostat therefore controls the amount of heat stored overnight. It is not possible to control the rate at which the heat is given out. It is advisable to insulate the property to limit the amount of heat loss.

Electric fires and convectors

An electric fire or fan heater, using full price electricity, is the most expensive kind of heating. Try to minimize the use if these if you have an alternative form of heating available. When you are heating a room with these, make sure that they are fitted with timers to ensure they are only on when needed. If they do not have one, buy a timeswitch that plugs into the electric socket. If the heater has a thermostat make sure it is not set too high.

Controlling Electric Heating Systems Effectively

This leaflet aims to help you to control your electric heating systems more effectively.

By controlling your heating system more effectively you can:

- Improve comfort in the home
- Reduce your energy use therefore your fuel bills
- Avoid the risk of condensation
- Reduce your impact on the environment

Storage Heaters

These heaters use a lower rate of electricity known as economy seven as they use electricity during the night to charge up. Where they are installed you will have a dual tariff electricity meter fitted or, in some cases two separate meters.



At approximately 11pm an automatic time clock will switch the metering to the low rate, (known as off peak); at this point the heaters are turned on. The heaters will then charge up and store the heat. The actual amount of heat that is stored will depend on how you have set the controls for that heater.

Your immersion heater that heats up the hot water can also be turned on at this time again taking advantage of the lower price electricity. By the morning you should have a full tank of hot water. If you use all this water up and cannot wait until the next morning the 'boost' facility on the hot water control switch will allow you to heat the water during the day, however this boost facility will cost the normal rate on your electricity.

Approximately seven hours later the time clock will automatically switch the meter back to the normal rate electricity and the electricity supply to the heaters will be switched off.

The temperature of the room can be controlled using the controls on each individual heater.

Most storage heaters have two control knobs as shown in the picture below:



Input or charge control – older heaters have to be adjusted manually to ensure an appropriate amount of heat is stored overnight. Set this to low in summer months and high in colder weather. You may wish to switch them off entirely during summer months – you do this by switching them off at the isolator switch adjacent to each individual heater (on the wall). Automatic input controls include thermostatic sensors, so that the temperature of the room overnight determines how much heat is stored up for the following day. This also determines how much they cost to run.

Output control – on older heaters a damper is lifted manually by turning a knob marked 'boost' or 'output'. This allows warm air to rise over the heated blocks and out through the grilles at the top of the heater. If this damper is left open (e.g. 'output' on max) the heat will escape from the heater early in the day. To obtain the most even temperature, close this flap as you go to bed and leave it closed during the day by turning the output control right down, and open it in the evening.

On newer models this flap is operated by a thermostat. As the room temperature cools down during the day the damper opens to allow heat to escape. It is important that the house is well insulated, so that the heat has not all escaped before evening – there are grants available to assist with installing insulation – look out for them in the press. If you live in private rented accommodation, a housing association property or in a council property, always ensure you get permission to install insulation. Fan assisted storage heaters allow for better output control. On warm days the fan can be left off, so that very little heat is released. The next night, less electricity will be needed to bring the bricks up to full temperature.

SAFETY - Never cover up or attempt to dry clothes on a storage heater, they may get burnt and it can be a serious fire risk – the heater will overheat and trip out, resulting in the need for an engineer to be called to reset it before it will work again.