

CORNWALL
HOUSING

Air-source heating

A guide for residents



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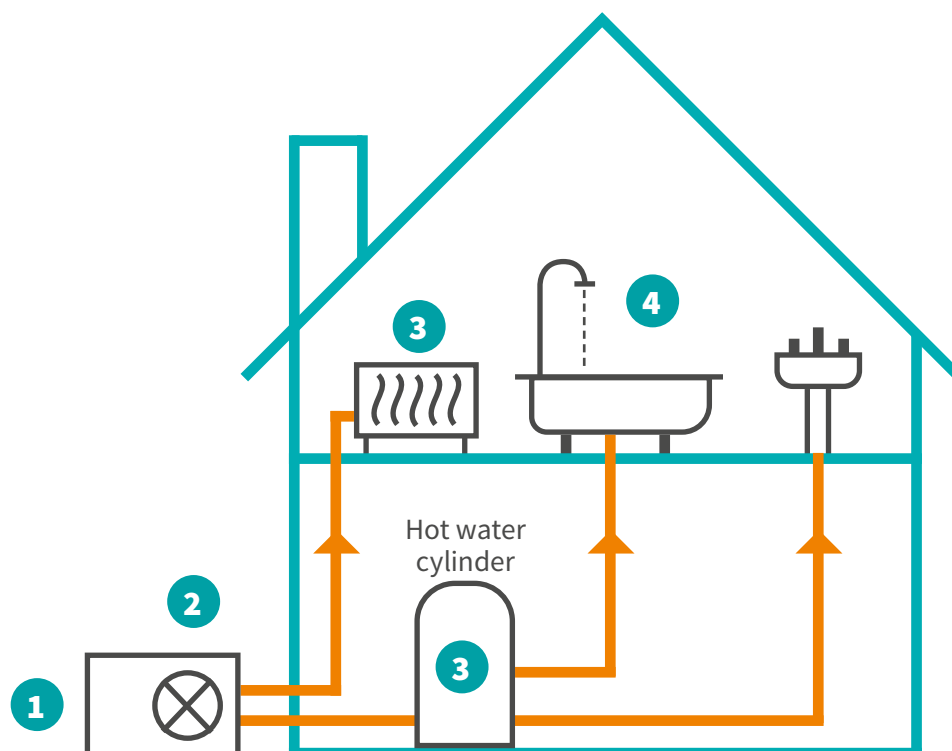
An air source heat pump works by absorbing heat from the environment, even when temperatures are well below freezing. It extracts heat from the air around us and transfers that heat to the inside of your home, keeping you warm and comfortable.

If you have an air source heat pump, you'll need to know how to get the most from your heating as it doesn't work in quite the same way as oil or gas central heating.

Unlike oil or gas, air-source heating is designed to run all the time, continually heating the hot water for your home, and keeping your home heat at the desired level. It is not designed to be turned on and off when you need it – the system will have to work much harder if you do this and it could cost you a lot more in bills.

How does an ASHP heating system work?

- 1 The air source heat pump (ASHP) and fan takes in heat from the outside air. It's located to the side or rear of your home and requires no special attention but it must be free from debris and not have things stored on or next to it.
- 2 Using electricity and a compressor, heat from the air warms the hot water system's refrigerant.
- 3 The system heats the radiators to heat the home, with any remaining heat stored in the hot water cylinder (tank).
- 4 Stored hot water is used for taps, baths, and showers.



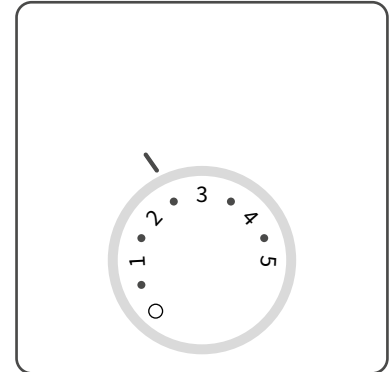
- 5 The control panel (below) is what the installer and service engineer use to set the system up, and is what runs the heating system. We recommend that you leave the control panel as set to make sure that it is running as efficiently as possible.
- 6 Your thermostat(s) tells your hot water system what temperature it is in your home and this signals to the control panel to increase or reduce heating.



5 An example control panel



6 Types of room thermostat



The heat pump provides water at a lower temperature than the gas or oil-fired boiler you may be used to. This means that you may notice some differences between this system and ones you have used before. Below is a list of the main differences and things to consider:

- **The radiators aren't designed to get super hot.** Do not cover the radiators or store anything in front of them. This will prevent air circulation and they won't heat your home as well.
- **Avoid changing the thermostat regularly** - Each degree you increase your thermostat by can add 6% to your heating costs. It can take time for the room to heat up to any thermostat changes, so avoid changing it to try and speed up the room's temperature. Keep it set at a standard temperature that suits your needs to save costs.
- **Try and avoid large changes to the room's desired temperature** and do not let the room temperature drop too low. It will take more time and energy to heat up the room again. Partly opening your window to allow ventilation is fine.
- **You should never turn your heat pump off completely**, as the system has been designed to keep a steady temperature in your home. It can take several days to get your home back to a comfortable temperature if you have turned off your heating for a long period of time, and your heat pump would be running at its least efficient too.
- **Check you have the best electricity tariff** for the system. You can do this by contacting your energy supplier or visiting an online comparison site.
- **Once the system is set up, leave it alone.** Talk to other people in your household so they know that the system doesn't work like gas or oil heating, and that it will cost more if big adjustments are made.
- To prevent your home being over heated in the summer, you can lower your thermostat setting so the heating will only turn on when the outside temperature drops significantly. This also ensures your hot water will continue to heat as per its usual schedule.



How warm should my hot water tank be?

The heat pump thermostat will be set to keep your hot water tank between 40°C and 50°C. This is recommended to ensure optimum efficiency for the system.

In addition to this, your system will be programmed to run a 'hygiene' cycle once a week to ensure that your hot water system remains free of bacteria. During this cycle the temperature within your tank will be increased to over 60°C.

One of the main differences between air source heat pumps and regular heaters is that they can take much longer to heat your property. Air source heat pumps also use up the most amount of energy when they're set to increase the temperature of a home by more than a few degrees.

This is why it's best to leave air source heat pumps on all the time at a consistent temperature, as opposed to a gas boiler heating system you might switch on and off throughout the day. Leaving your air source heat pump on constantly to regulate the temperature in your home is the most energy-efficient and cost-effective way to run it, and will help you stay comfortable year-round.

Remember these top tips:

To make the most of your air source heat pump and stay comfortable year-round, remember these tips:

- **Keep it on:** It's best to leave your air source heat pump on, even when you're not at home. This allows the system to maintain a consistent temperature and reduces the warm-up time when you return.
- **Make small temperature changes:** If you need to make a change to the temperature, only do this by a degree or two at a time. To increase the temperature setting, move the thermostat only a degree or two each day until you reach your desired comfort level.
- **Ensure the annual service is carried out:** We will contact you once a year to check on your system and make sure that it is running efficiently. It's important that we can make sure your system is running well.

Contact us:

Email: info@cornwallhousing.org.uk Telephone: 0300 1234 161

By letter, to **Cornwall Housing, Chy Trevail, Beacon Technology Park, Bodmin, PL31 2FR**

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