Living with your Aerona air source heat pump

Thank you…

… for choosing a Grant Aerona Air Source Heat Pump.
Grant heating appliances are designed to provide you with years of highly efficient and hassle-free sustainable home heating.

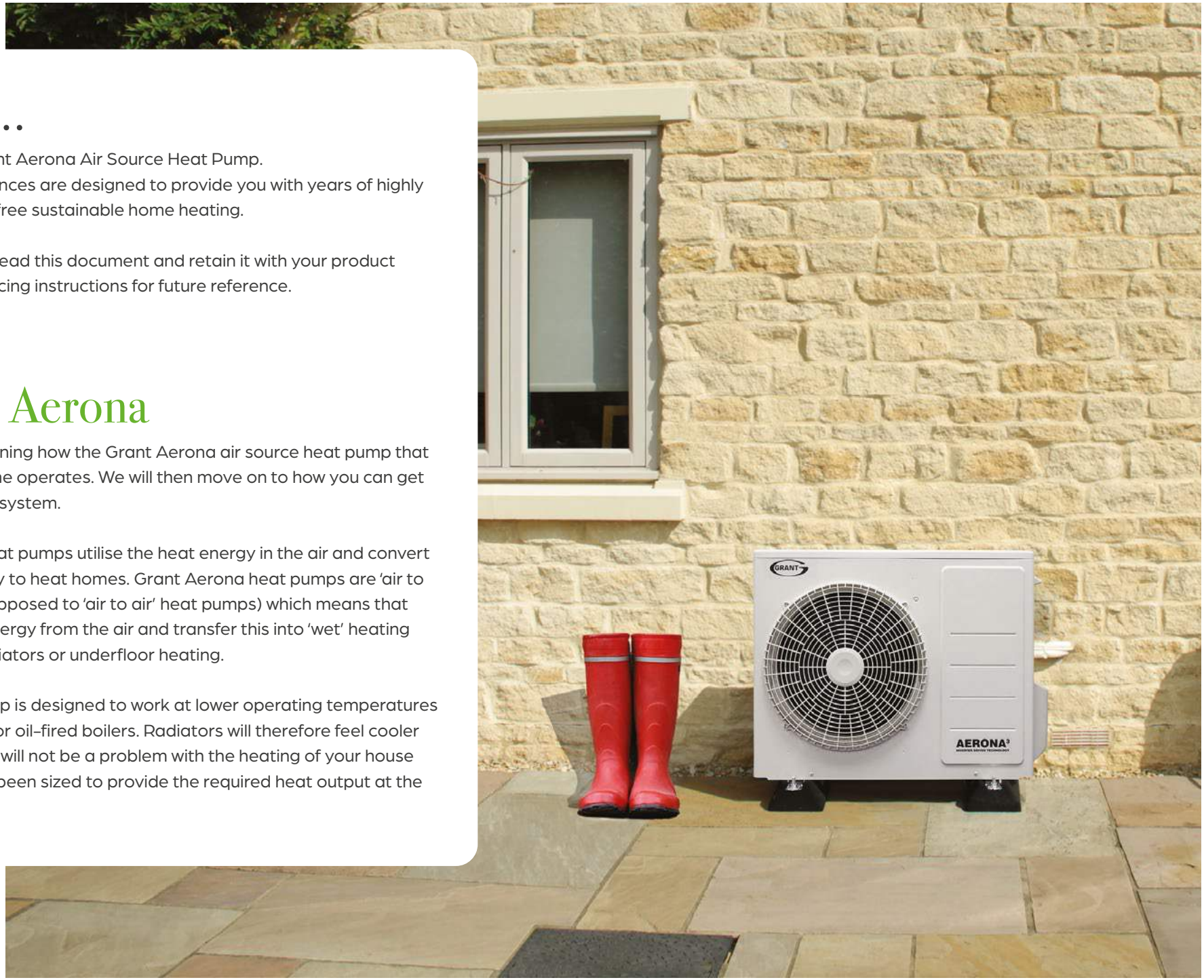
Please take time to read this document and retain it with your product installation and servicing instructions for future reference.

About your Aerona

Let us start by explaining how the Grant Aerona air source heat pump that you have in your home operates. We will then move on to how you can get the most out of your system.

In brief, air source heat pumps utilise the heat energy in the air and convert it into useable energy to heat homes. Grant Aerona heat pumps are 'air to water' systems (as opposed to 'air to air' heat pumps) which means that they capture heat energy from the air and transfer this into 'wet' heating systems, such as radiators or underfloor heating.

Your Grant heat pump is designed to work at lower operating temperatures than traditional gas or oil-fired boilers. Radiators will therefore feel cooler to the touch, but this will not be a problem with the heating of your house as they should have been sized to provide the required heat output at the lower temperature.



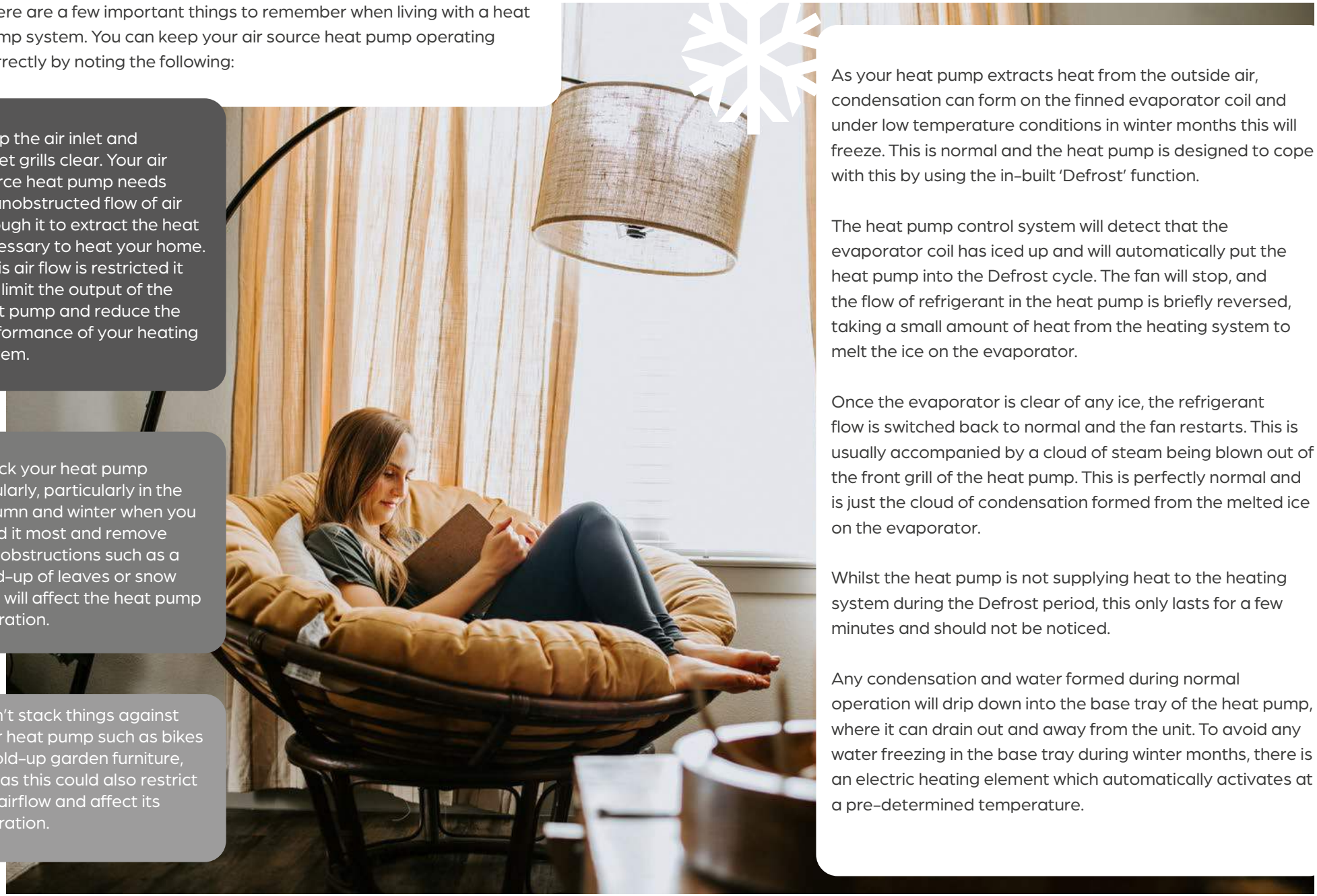
Living with a heat pump

There are a few important things to remember when living with a heat pump system. You can keep your air source heat pump operating correctly by noting the following:

1. Keep the air inlet and outlet grills clear. Your air source heat pump needs an unobstructed flow of air through it to extract the heat necessary to heat your home. If this air flow is restricted it can limit the output of the heat pump and reduce the performance of your heating system.

2. Check your heat pump regularly, particularly in the autumn and winter when you need it most and remove any obstructions such as a build-up of leaves or snow that will affect the heat pump operation.

3. Don't stack things against your heat pump such as bikes or fold-up garden furniture, etc. as this could also restrict the airflow and affect its operation.



What is a Defrost Cycle?

As your heat pump extracts heat from the outside air, condensation can form on the finned evaporator coil and under low temperature conditions in winter months this will freeze. This is normal and the heat pump is designed to cope with this by using the in-built 'Defrost' function.

The heat pump control system will detect that the evaporator coil has iced up and will automatically put the heat pump into the Defrost cycle. The fan will stop, and the flow of refrigerant in the heat pump is briefly reversed, taking a small amount of heat from the heating system to melt the ice on the evaporator.

Once the evaporator is clear of any ice, the refrigerant flow is switched back to normal and the fan restarts. This is usually accompanied by a cloud of steam being blown out of the front grill of the heat pump. This is perfectly normal and is just the cloud of condensation formed from the melted ice on the evaporator.

Whilst the heat pump is not supplying heat to the heating system during the Defrost period, this only lasts for a few minutes and should not be noticed.

Any condensation and water formed during normal operation will drip down into the base tray of the heat pump, where it can drain out and away from the unit. To avoid any water freezing in the base tray during winter months, there is an electric heating element which automatically activates at a pre-determined temperature.

What to do now…

Ensure your product has been registered for its guarantee.

Grant UK guarantees the manufacture of their heat pumps for a period of twelve months from the date of installation as standard, provided that the product has been installed in full accordance with the installation and servicing manual supplied. This guarantee will be extended to a total period of two years if the product is registered with Grant UK (via www.grantuk.com) within thirty days of installation and serviced at twelve monthly intervals. Please be advised that in cases when the installation is completed more than six months from the date of purchase, the guarantee period will commence six months from the date of purchase.

If your heat pump has been installed by a Grant G1 Installer, it will be eligible for a longer guarantee and it is the responsibility of your installer to register your heat pump for its product guarantee under the Terms and Conditions of the membership scheme. Your installer must register the appliance within thirty days of installation and, upon the successful completion of the product registration, your installer will then be able to give you the certificate of guarantee and Terms and Conditions for your records.

Setting your comfort.

To get the best performance from your heat pump and heating system, the controls must be used correctly. Do not be tempted to tamper with the heat pump controller settings to try to raise the temperature of your radiators. The controller should be left as set by the installer to ensure that the system operates correctly.

Heat pumps should not be turned off completely, as it would be costly to try to reach the desired temperature after it has dropped considerably. Instead 'setback' controls should be used so that the system is 'energised' at times when you are at home and setback to a lower temperature at night and during times when you are away.

Here is an example of typical temperature setback timings:

Heat pump systems are not designed to heat your home and heat your hot water at the same time. The controls fitted by your installer may involve a simple two-channel programmer that controls when your heat pump is working to provide space heating and when it is working to heat your hot water.

Some control systems may have a 'hot water priority' control where the operation of the heat pump is automatically switched to heat hot water when required, returning automatically back to heating as soon as the demand for hot water stops.

Domestic hot water priority should not be set for longer than an hour in any two or three hour period. This should preferably be set to come on during a set back period to have minimal effect on space heating. Your installer will have programmed this on installation. If in doubt you should always speak with your installer before adjusting the controls.

Always remember, air source heat pump systems operate at lower water temperatures than those with an oil or gas boiler, so any radiators will feel cooler to the touch than you may be used to. However, the size of the radiators will be larger so they can still provide the required amount of heat.

Service your heat pump.

Annual servicing is a requirement to preserve your Grant product warranty, but regular servicing can identify and resolve any issues which could affect your heating system. So even if your Grant product warranty has expired, we strongly recommend that heat pumps are serviced annually to ensure that both the appliance and system are working as efficiently as possible.

If you are located within 2 miles of the sea your heat pump may need to be been treated with an anti-corrosion coating. In this case it is important that its evaporator is correctly cleaned and in some instances the anti-corrosion coating re-applied. Read more about anti-corrosion treatment on our blog – www.grantuk.com/about/blog/

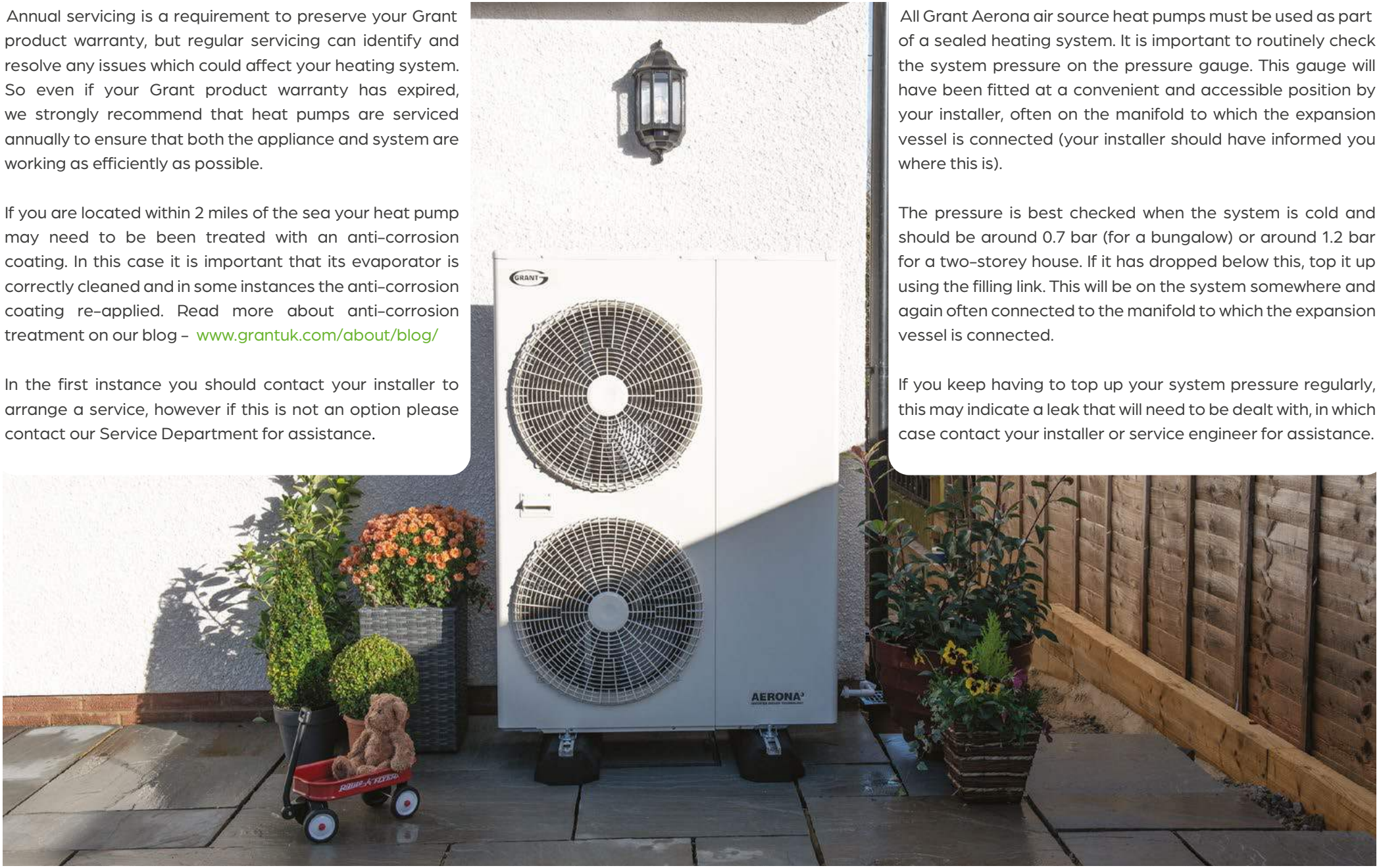
In the first instance you should contact your installer to arrange a service, however if this is not an option please contact our Service Department for assistance.

Monitor the system pressure.

All Grant Aerona air source heat pumps must be used as part of a sealed heating system. It is important to routinely check the system pressure on the pressure gauge. This gauge will have been fitted at a convenient and accessible position by your installer, often on the manifold to which the expansion vessel is connected (your installer should have informed you where this is).

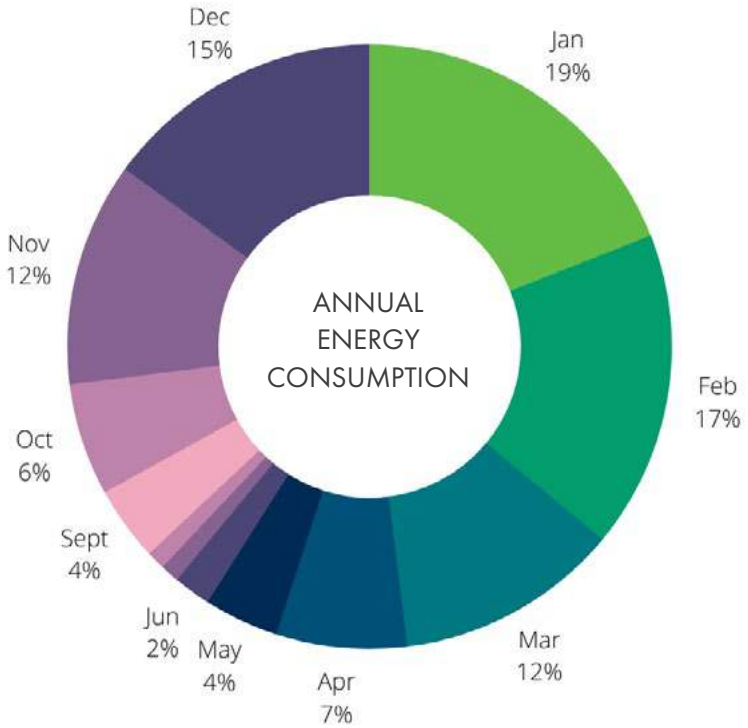
The pressure is best checked when the system is cold and should be around 0.7 bar (for a bungalow) or around 1.2 bar for a two-storey house. If it has dropped below this, top it up using the filling link. This will be on the system somewhere and again often connected to the manifold to which the expansion vessel is connected.

If you keep having to top up your system pressure regularly, this may indicate a leak that will need to be dealt with, in which case contact your installer or service engineer for assistance.



Understanding energy usage.

As your heat pump is driven by electricity, you will naturally see an increase in your electrical power consumption, especially if you have replaced a gas boiler for example. As with all domestic heating systems, running costs will always be greater during the winter months. Any comparison of heat pump running costs with conventional heating appliances should be made over the whole year. In fact, it is estimated that a heat pump may typically use 63% of its annual energy usage between November and February, with minimal energy consumption for the remainder of the year. See below an estimated breakdown of a household's annual energy consumption.



Some energy suppliers can provide specific energy tariffs for heat pumps. These tariffs can offer reduced rates for power usage, as well as reductions in rates during specific times of the day. It is important to remember that traditional electricity tariffs will not accommodate for technologies like heat pumps, so it is recommended that you speak with your energy supplier straight away to discuss the best tariff.

Controller display symbols.

Aerona³ R32 Remote Controller

This indicates the frost protection is active.	This indicates the heat pump defrost cycle is active.
This symbol indicates a heating demand. If this is steady it means the programmer and room thermostat are calling for heating. If the symbol is flashing it indicates that the heat pump is in heating mode but the heating has stopped due to a hot water demand that has priority.	This indicates the circulating pump (in the heat pump) is running.
This indicates a hot water demand.	This indicates the heat pump compressor is running. If this symbol is flashing it indicates that the operation of the compressor is being delayed by the internal controls of the heat pump. This delay should normally stop after a short period and the compressor (and heat pump) will operate.
This indicates the heat pump fan is running.	

Aerona Smart Controller

This gives access to heating circuit controls.	This allows you to access your hot water schedules.
This allows you to view and amend your heating shedules.	This allows you to access to settings menu.
This displays the heat pump schematic.	Access to active system schematic.
This symbol will appear in red at the top of the screen and highlights that there is an active alarm	This indicates if there is aconnection to the ecoNET24 external server (Green: Connected/ Red: Disconnected).
This shows the outdoor temperature value.	This indicates an active heat demand.
This icon indicates the set heating circuit temperature.	This shows the current circuit work mode. Tap to quick access the circuit work mode screen.
Indicates you can scroll to view additional heating circuits.	Tap this icon to move between multiple circuits.

Smart Controller videos.

A playlist of handy videos about the Aerona Smart Controller are available to watch on Grant UK's YouTube Channel. The videos provide an overview of this intuitive heat pump controller as well sharing step-by-step demonstrations on how to set the core settings.

This playlist includes videos explaining the controller display icons, how to adjust the circuit temperature and heating schedule, setting up an ecoNET account and much more.

YouTube

Scan to view or head to youtube.com/MyGrantUK to subscribe

Remote Controller videos.

Also available on the Grant UK YouTube channel is a video playlist on the Aerona³ remote controller. Including videos on programming through to fault finding, the playlist is a great resource if you have an Aerona remote controller installed in your home.

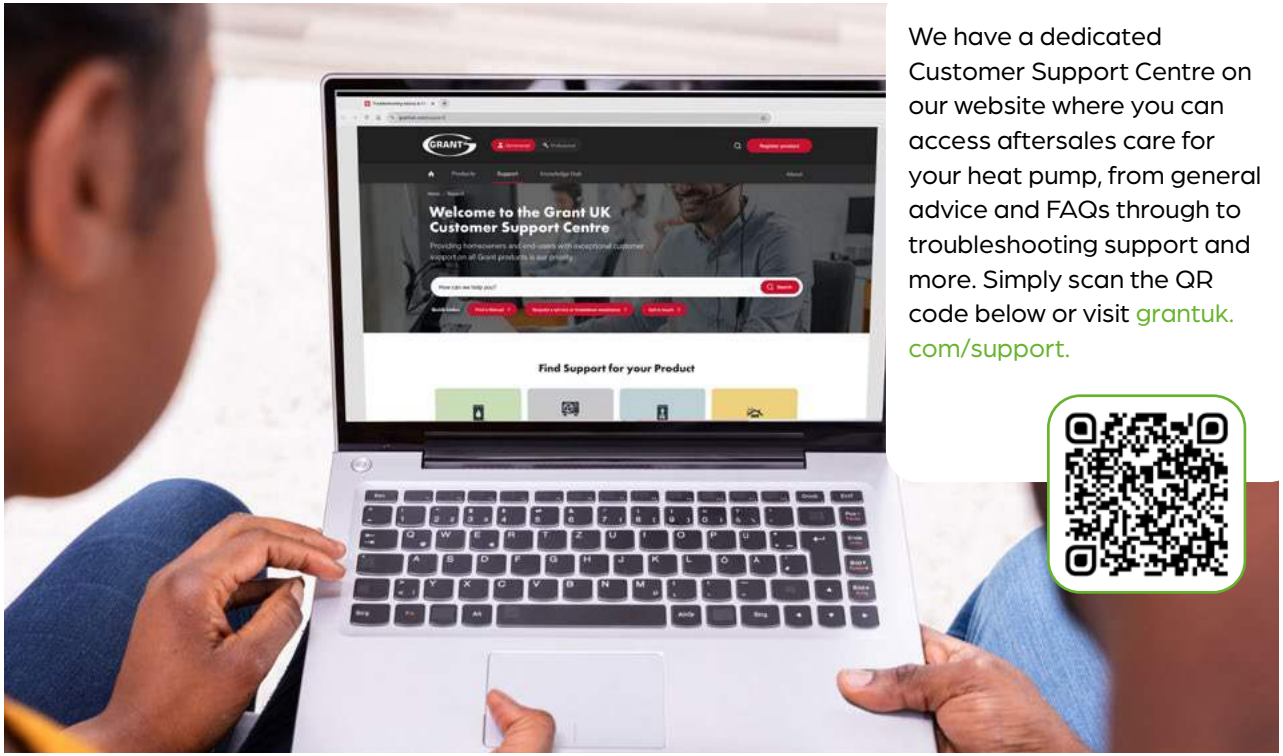
Additional resources.

If you need to contact us, you can do so via the contact page on our website: www.grantuk.com or by emailing our Technical & Customer Services Teams on technical@grantuk.com

Please ensure you have the following information available:

- Heat Pump model
- Heat Pump serial number – see data plate (on side panel)
- Date of purchase/installation
- The correct name and address for the installation
- The installer's name, address and telephone number

Online customer support.



We have a dedicated Customer Support Centre on our website where you can access aftersales care for your heat pump, from general advice and FAQs through to troubleshooting support and more. Simply scan the QR code below or visit grantuk.com/support.

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