

Glow•worm

Instructions for Use

Envirosorb 5

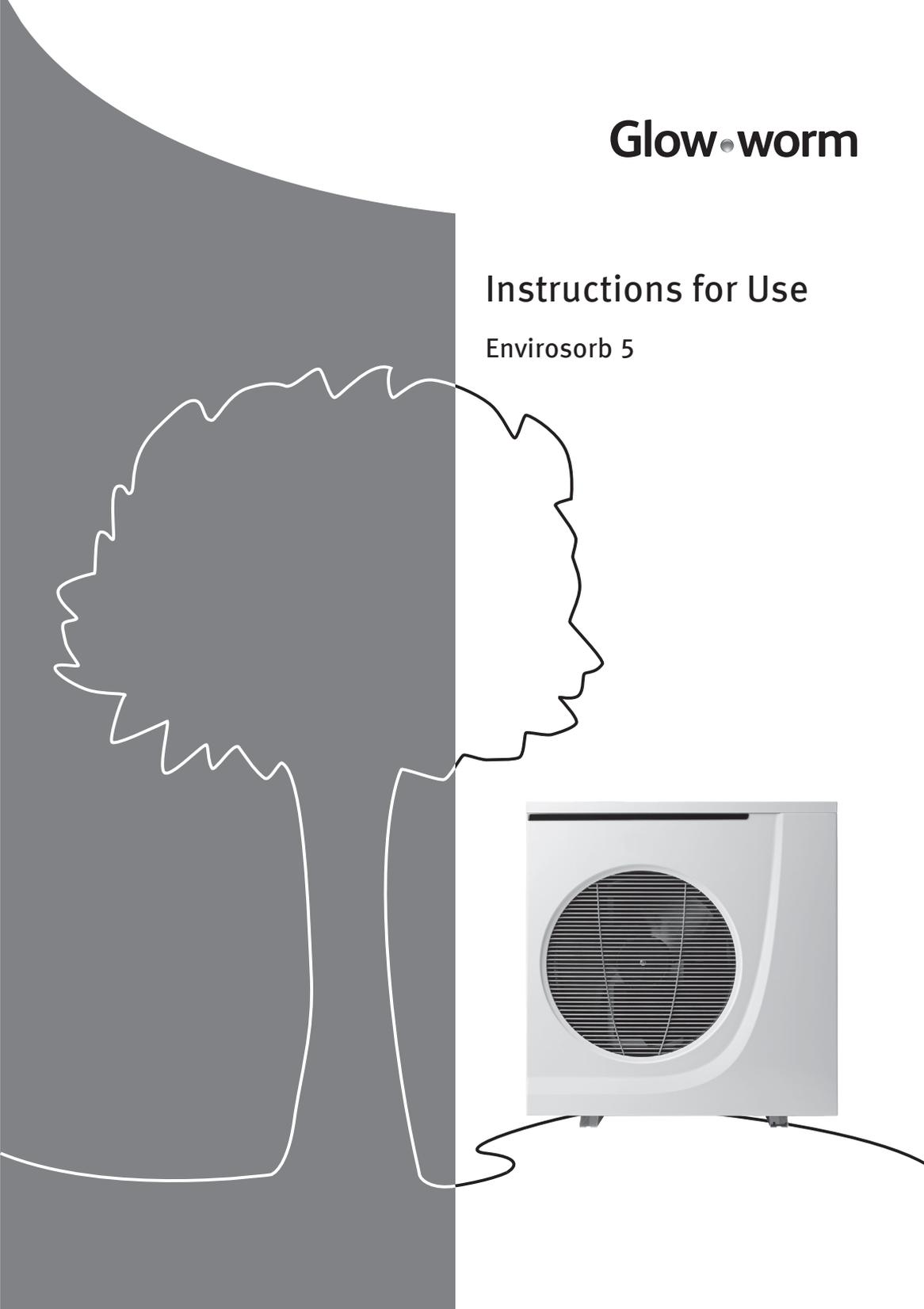


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READ CAREFULLY BEFORE USING

1 Read me

1.1 Welcome

These instructions are an integral part of the heat pump and must be left with the user.

Please ensure that the installer has fully completed the Benchmark Checklist in the centre pages of the installation instructions supplied with the product and that you have signed it to say that you have received a full and clear explanation of its operation. The installer is legally required to complete a commissioning checklist as a means of complying with the appropriate Building Regulations (England and Wales).

All installations must be notified to Local Area Building Control either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer who should, on receipt, write the Notification Number on the Benchmark Checklist.

- Please read these instructions and follow them carefully for the safe and economical use of your heat pump.



Do not forget to read the chapters "Safety" and "Guarantee" where you will find important information for your safety.

1.2 Guarantee Pack

The pack contains the letter of introduction and the guarantee. The extended guarantee is supplied loose and we recommend that you should read it.

- Complete and return as soon as possible your guarantee registration card.

If your guarantee registration card is missing you can obtain a copy or record your registration by telephoning the Glow-worm Customer Service number 0800 073 2142.

1.3 Servicing

This product should be serviced regularly to optimise its safety, efficiency and performance. The service engineer should complete the relevant Service Record on the Benchmark Checklist after each service. The Benchmark Checklist may be required in the event of any warranty work and as supporting documentation relating to home improvements in the optional documents section of the Home Information Pack.

To ensure the continued efficient and safe operation of the heat pump it is recommended that it is checked and serviced at regular intervals. The frequency of servicing will depend upon the site conditions and usage, but in general, once a year should be enough.

- To obtain service, please call your installer or Glow-worm's own service organisation.

1.4 Benchmark

Glow-worm is a licensed member of the Benchmark Scheme which aims to improve the standards of installation and commissioning of domestic heating and hot water systems in the UK and to encourage regular servicing to optimise safety, efficiency and performance.

Benchmark is managed and promoted by the Heating and Hotwater Industry Council.

- For more information visit www.centralheating.co.uk



2 Introducing your appliance

2.1 Appliance description

The **Envirosorb 5** heat pump is a AIR - WATER system which heats all types of buildings by using the energy contained in the exterior air.

The system enhances the recuperated energy so that it can be utilized by traditional heating (heating floor and/or low-temperature radiators).

Installation and commissioning of the appliance should only be carried out by a competent person. They are responsible for the installation and the commissioning in accordance with standards in force.

You should also consult a competent person for maintenance and repair of the appliance as well as for any adjustment necessary.

2.2 Accessories

The **Envirosorb 5** is compatible with most makes of programmable room thermostats.

For increased system compatibility and increased energy saving with intelligent control Glow-worm offer a range of controls dedicated to work using a unique communication system - eBus.

- For further details please contact your installer.

3 Product documentation

3.1 Document storage

- Make sure that this manual is stored close to your appliance for future reference. Should you move home ensure that this manual is handed over to the new home owners.
- Read these instructions and follow them carefully for the safe and efficient use of your appliance.

No responsibility or liability can be accepted for damages caused by failure to follow the instructions in this manual.

3.2 Explanation of symbols



DANGER: Risk of injuries.



DANGER: Risk of electric shock.



ATTENTION: Risk of damage to the appliance or to its surroundings.



IMPORTANT INFORMATION

4 Safety

4.1 Safety recommendations



You must comply with the following recommendations and safety instructions:

- Never perform any maintenance or repair of the appliance yourself. Only competent persons are allowed to work on the appliance.
- Never tamper with safety devices.
- Do not attempt to modify the appliance or its immediate surroundings as this may affect on the safe use of the appliance.
- Under no circumstances must the user interfere with or adjust sealed parts.
- Do not allow children to operate the appliance.

Certain home improvements may adversely affect the operation of your appliance – you should consult your installer for advice before carrying out any work.

- Do not expose the appliance to high humidity.
- Do not use or store explosive or inflammable materials (e.g. petrol, aerosols, solvents, chlorine based detergents, paint, glue etc.) in the same room as the appliance. Under certain conditions, these substances can prove to be corrosive.
- Do not touch the heated surfaces of the appliance, such as outlet duct, hydraulic connections, also after the appliance operation because, for a certain time, these surfaces may become hot. Any contact with them can cause burns.

This appliance contains metal parts (components) and care should be taken when handling and cleaning, with particular regard to edges.

- Do not store or place articles on the appliance.
- Do not cover the appliance as this will give rise to a risk of overheating.
- Do not climb on the heat pump, and do not attempt to move it once installed.
- Do not insert sticks or your fingers through the protective grill of the fan as it rotates at high speed.
- Do not clean the appliance by hosing it down.
- Do not unplug the appliance while in operation. In case of emergency, cut off power supply at the switchboard.

4.2 Refrigerating fluid

The refrigerant fluid contains gases that, when released into the atmosphere, may affect the environment by depleting the ozone layer, contributing to the greenhouse effect and an increase in temperature. The risk of leakage cannot be excluded for devices intended to operate for many years and subject to the effects of the environment.

The Global Warming Potential (GWP) is composed, on one hand, of indirect carbon dioxide (CO₂) emissions originating from the energy consumed by the installations, and on the other hand, of direct emissions of refrigerant gas resultant from leaks in the installations.

The Global Warming Potential (GWP) is a simple means by which to compare the different greenhouse gas emissions that affect the climate system.

- Example: 1 kg of refrigerant fluid R410A is equivalent to 1,890 kg of CO₂, or to travelling 13 000 miles in a car emitting 150g CO₂ / km.

The Ozone Depletion Potential (ODP) of a chemical compound is the relative theoretical degradation that it is capable of inflicting on the ozone layer in the form of the destruction of ozone in the upper atmosphere.

- Example: refrigerant R410A has an ODP of 0, given that it is an HFC (Hydro-Fluoro-Carbon) fluid which contains no chlorine.

4.3 Safety regulations

Servicing/maintenance should be carried out by a **competent person** approved at the time by the Health and Safety Executive, in accordance with the rules in force in the countries of destination.

4.3.1 Electrical Connection

The heat pump **MUST** be earthed.

The heat pump **MUST** be connected to a permanent 230V ac, 50Hz supply.

Connection of the whole electrical system of the heat pump, including any heating controls, to the electrical supply must be through one common isolator.

The colours of three core flexible cable are, blue - neutral, brown - live, green and yellow - earth.

4.3.2 Testing and Certification

This appliance is certificated for performance and safety in use.

It is important that no alteration is made to the appliance unless approved, in writing, by Glow-worm.

Any alteration not approved by Glow-worm, could invalidate the certification, appliance warranty and may also infringe the current issue of the statutory requirements.

4.3.3 CE Mark

Under CE directive these appliances are approved and tested to EN14511 parts 1 to 4.

The CE mark on this appliance shows compliance with:

- Directive 2006/95/EEC on the harmonisation of the Laws of the Member States relating to electrical equipment designed for use within certain voltage limits.
- Directive 2004/108/EEC on the approximation of the Laws of the Member States relating to electromagnetic compatibility.
- Directive 1997/23/EEC relating to pressure equipment
- Directive 2007/1494/EEC, dated December 17, 2007, determining, in accordance with Directive 2006/842/EEC relating to the label type and the additional requirements as regards the labelling of products and equipment containing certain fluorinated greenhouse effect gas.
- Directive 2006/842/EEC of May 17, 2006 relating to certain fluorinated greenhouse gasses (OJEU of June 14, 2006)



The CE mark shows that this appliance has been designed according to the safety techniques and rules in force. The compliance of this appliance with the relevant standards has been certified.

5 Guarantee / Responsibility

5.1 Detailed guarantee

Thank you for installing a new Glow-worm appliance in your home.

Glow-worm appliances are manufactured to the very highest standard so we are pleased to offer our customers a Comprehensive Guarantee.

This product is guaranteed for 24 months from the date of installation or 30 months from the date of manufacture, whichever is the shorter, for parts and labour.

The second year of the parts guarantee, from the beginning of the 13th month onwards after installation or manufacture, is conditional upon the heat pump having been serviced by a competent person approved at the time by the Health and Safety Executive, in accordance with the manufacturer's recommendations. We strongly recommend regular servicing of your appliance, but where the condition is not met, any chargeable spare parts or components issued within the applicable guarantee period still benefit from a 12 month warranty from the date of issue by the manufacturer.

5.2 Appliance use / manufacturer responsibility

Servicing/maintenance should be carried out by a competent person approved at the time by the Health and Safety Executive, in accordance with the rules in force in the countries of destination.



The guarantee is applicable on the condition that:

- The appliance is installed by a competent person in accordance with installation instructions.

- The appliance is used for normal domestic purposes and in accordance with the manufacturer's operating and maintenance instructions.
- The appliance is serviced, maintained, by a competent person.
- The repair or replacement of parts during the guarantee period does not have the effect of extending the period.



The manufacturer has no responsibility whatsoever for any damage resulting from:

- Any defects or damage resulting from incorrect or poor installation, inadequate servicing, or maladjustment or water used.
- Any defects in the system to which the appliance is connected.
- Any defects caused by inadequate frost protection.
- Any deterioration or maladjustment following changes in the water used, or a change in the characteristics of the electrical supply voltage.
- For further details, refer to your Terms and Conditions.



This appliance is intended to be installed only within the designated countries displayed on the type plate.

This appliance is not designed to be used by persons (including children) with physical, sensory or mental restrictions, or a lack of experience or knowledge. To ensure the safety of these persons, they must seek help from and be guided by persons who are competent to explain the usage of this appliance.

- Make sure that children do not play with this appliance.

6 Recycling



This appliance contains many recyclable parts and should be disposed of according to the current regulations. The packaging should also be disposed of according to the current regulations.

6.1 Appliance



This symbol indicates that this appliance must not be disposed of with household waste, that it should be selectively collected for energy recovery, reuse or recycling.

- Take the appliance to an appropriate collection point for the treatment, evaluation and recycling. The collection point must accept appliances containing refrigerant fluids for their recovery via recycling either within the elimination centre or by an authorised service provider.



By complying with this directive, you will contribute to the preservation of natural resources and the protection of human health.

6.2 Packaging

The competent person who installed the appliance must:

- sort the waste so as to separate those which can be recycled (cardboard, plastics...) from those that cannot.
- dispose of the waste in compliance with regulations in force.

6.3 Refrigerant



The appliance contains R410A refrigerant. The refrigerant should only be handled by an approved specialist. Avoid all contact with skin and eyes.

R410A fluorinated greenhouse gases are contained within a fully sealed system (Kyoto Protocol PES 1975).

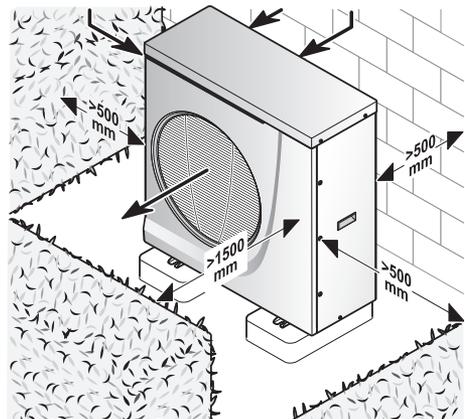
Under normal use and conditions, the refrigerant is not dangerous.

Degassing refrigerant into the atmosphere is prohibited, except when necessary to ensure personal safety.

Prior to disposing of the appliance, the refrigerant must be properly recovered in a container suitable for recycling.

The personnel approved for this recuperation must have an adapted certification according to the regulations in force.

7 Clearances



- To allow periodic maintenance and obtain a correct air flow, ensure the distances indicated on the diagram.

HOW TO OPERATE YOUR APPLIANCE



No work need be carried out on the heat pump.

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- Refer to the room thermostat and control unit instruction guide.

ANY ASSISTANCE?

8 Fault Finding

In this chapter, you will find defects that may appear, as well as the corrective actions you may carry out to put the appliance back in service. Other fault codes **MUST** be solved by a competent person only.

Defect	Possible cause	Solution
The appliance stops working	Electrical circuit interrupted	Check that there is no power cut and that the appliance is correctly connected. When electrical power comes back on, the appliance automatically comes back into service. If the fault persists, contact your Installation/ Servicing company or Glow-worm Service.
Noise (hissing, banging, buzzing)	<p>When the heating has stopped, a whistling or bubbling noise may be heard. This noise is generated when the refrigerant flows through the unit.</p> <p>When the unit is started or stopped, a cracking noise may be heard. This noise is generated as a result of the expanding or contracting of the housing caused by changes in temperature of the different materials and is quite normal.</p> <p>When the system is in operation a humming may be heard. This noise is generated when the unit defrosts in heating mode and is caused by the reversal of the refrigerant flow.</p>	
Emits mist	In winter and during the defrosting period, a cloud of mist may be produced in the outdoor unit; this is due to the heat melting the ice which has formed.	
Other defects	-	Contact your Installation/Servicing company or Glow-worm Service.

- If after carrying out this basic advice and your appliance still does not work, leave it turned off and contact your competent person.

9 Appliance safety devices

- In case of the risk of frost, make sure that the electrical supply to the appliance is turned on.

10 Appliance maintenance and servicing

The refrigerant fluid contains gases that, when released into the atmosphere, may affect the environment by depleting the ozone layer, contributing to the greenhouse effect and an increase in temperature. The risk of leakage cannot be excluded for devices intended to operate for many years and subject to the effects of the environment.

For your safety and in accordance with the section R543-76 and the following section of the environmental code, any maintenance and repair operations to be carried out on your appliance and requiring work to be effected on the refrigerant circuit, checks on the appliance's airtightness, dismantling, the recovery and loading of refrigerants and, in general, any operations performed on the appliance requiring the handling of refrigerants, should be performed by a professional holding a corresponding certificate of competence as issued by an authorised authority.

By failing to observe the above, and notwithstanding the risks to safety and your own responsibility in the event of non compliance, you risk a being subject to a fine.

10.1 Cleaning



Before cleaning turn the appliance off.

- The appliance casing can be cleaned using a mild liquid detergent with a damp cloth, then a dry cloth to polish.



Do not use any form of abrasive or solvent cleaner as you may damage the paintwork.

- Periodically check that no obstacles (cardboard, twigs, leaves ...) are impeding ventilation around the appliance.

10.2 Regular servicing

Regular servicing of the appliance is important to the prolonged, safe and efficient use of your appliance.



Incorrect or inadequate servicing can severely affect the safety of the appliance and can lead to injury.

We recommend that your appliance is serviced every year.

- Only use a competent person.

The service engineer should complete the relevant Service Record on the Benchmark Checklist after each service. The Benchmark Checklist may be required in the event of any warranty work and as supporting documentation relating to home improvements in the optional documents section of the Home Information Pack.

- To obtain service, please call your installer or Glow-worm's own service organisation.

10.3 Spare Parts

In order to guarantee the safe and prolonged life of the product, insist that only the manufacturer's genuine spare parts are used.

- Do not use reconditioned or copy parts that have not been clearly authorised by Glow-worm.
- If replacement parts are required contact Glow-worm's own service organisation for advice using the telephone number below.

Tel: 01773 828100

or for approved stockist, visit www.glow-worm.co.uk.

- Please quote the name and model of the appliance.

10.4 Sealed Water Systems

The draining, refilling and pressurising **MUST** be carried out by a **competent person** approved at the time by the Health and Safety Executive.

- Contact Glow-worm's own service organisation using the telephone number below.

Tel: 01773 828100

11 Tips for saving energy

Your installer will be able to give energy saving advice about your system and its controls.

For energy saving advice you can contact the Energy Savings Trust for advice or visit www.energysavingtrust.org.uk who offer simple effective advice about saving energy.

Regular servicing of your appliance will help maintain its efficiency - servicing once a year is recommended.

- Turn your thermostat down.
Reducing your room temperature by 1°C could cut your heating bills by up to 10 percent.
- Set your heating and hot water at the time controller to come on only when required rather than all the time.

12 Contact your after-sales organisation

Customer service call

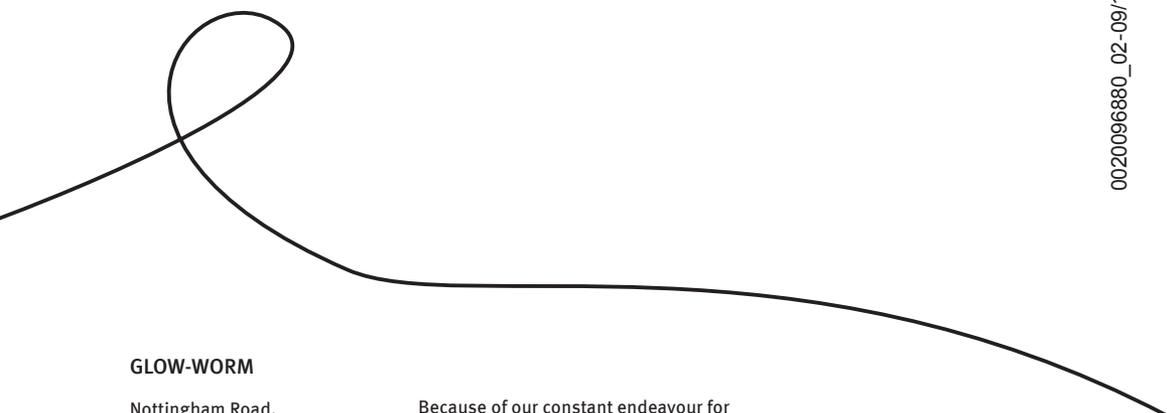
Tel: 01773 828100

Technical helpline

Tel: 01773 828300



0020096880_02-09/10 Subject to engineering changes



GLOW-WORM

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Belper, Derbyshire.
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Because of our constant endeavour for
improvement, details may vary slightly
from those shown in these instructions.

Glow•worm

www.glow-worm.co.uk