

USERS GUIDE

GROUND THERM

Ground Source Heat Pump

3.5 & 5

For installation guide see reverse of book

When replacing any part on this appliance, use only spare parts that you can be assured conform to the safety and performance specification that we require. Do not use reconditioned or copy parts that have not been clearly authorised by Ideal.

Groundtherm 3.5 & 5 Ground Source Heat Pump



INTRODUCTION

Your ground source heat pump is designed to heat your home and to provide domestic hot water (DHW). Your installer will have ensured that your heat pump has sufficient heating output to provide these services without any supplementary heating being required. The heat pump uses refrigeration technology to extract heat from the ground producing as much as four times as much heat energy as the electrical input required to drive it. This results in an efficient low cost, low carbon, heating system.

HEATING SYSTEM CONTROLS

The heat pump is designed to operate with a standard heating programmable controller linked to a room thermostat, providing space heating or DHW according to demand. The unit has two modes of operation, one for space heating through under floor heating or radiators adjustable between 35°C and 55°C and a second for DHW preset at 65°C. We recommend that you review the electricity tariffs from all suppliers in your area and select that which will give you the optimum economy in relation to your lifestyle and hot water demand. Timings appropriate to your heating and hot water demand and to the selected tariff should be programmed into the controller.

We recommend that you set your programmer to heat the hot water for 1 ½ to 2 hours before you require it first thing in the morning or later in the day. A typical winter heating programme is illustrated below.

On/Off	Heating	Hot water
On		4.00 am
Off		5.30 am
On	5.30 am	
Off	12.00 am	
On		12.00 pm
Off		2.00 pm
On	2.00 pm	
Off	10.30 pm	

OPERATING THE HEAT PUMP

When setting the programmer, allow extra time for the heat pump to raise the room temperature when first switching on, as it will take longer than a traditional boiler to reach the required temperature.

Because a heat pump operates in heating mode at a temperature up to 55°C, radiators will feel cooler than those linked to a gas or oil boiler traditionally supplying water at 80°C. Your installer will have ensured that your radiators are correctly sized for operation with a heat pump but you may also notice that they remain warm for longer periods rather than cycling on and off as is the case with traditional boilers.

The heat pump supplies domestic hot water at 65°C. This is stored in the special hot water cylinder provided with your heat pump to ensure that you always have hot water on tap. The temperature of the stored hot water is controlled by the cylinder thermostat and you should set this at a level which gives you hot water at a temperature which suits you.

SHUTDOWN

If the heat pump is being left for a short period of time AND has adequate frost protection, i.e. frost protection stat and/or antifreeze, the heat pump can be left in the same way as you would leave a conventional central heating boiler.

LOSS OF SYSTEM WATER PRESSURE

The system pressure gauge indicates the central heating system pressure and if the normal COLD pressure of the system is seen to decrease over a period of time then a water leak is indicated. Re-pressurise the system, if unable to re-pressurise or if the pressure continues to drop a registered local heating installer should be consulted.

SAFETY PRECAUTIONS

1. Minimum clearances - distances to be maintained.
2. Do not stand on the heat pump for any reason.
3. Outer panels should only be removed by a qualified service engineer.

CLEANING

The painted surfaces of the Heat pump can be cleaned with warm soapy water using a soft non abrasive cloth.

Do not use alcohol based cleaners. Diluted washing up liquid is probably the strongest cleaner that should be used.

SERVICING

No regular servicing of the groundtherm heat pump is required. Minimum service distances must always be maintained around the unit as stated in the installation instructions.

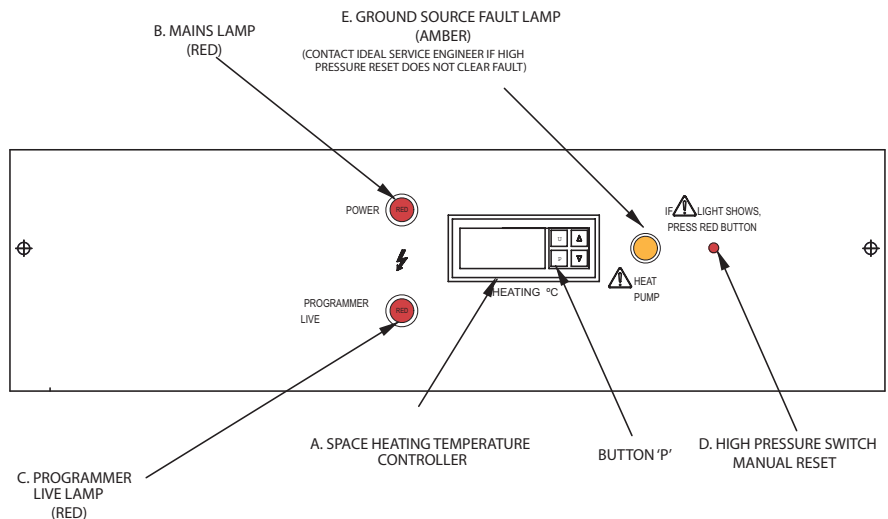
TROUBLE SHOOTING

- The red mains lamp (B) confirms that mains power is connected
- The red programmer live lamp (C) confirms that the unit is connected to the heating system controller
- The space heating temperature controller (A) is used to adjust the return water temperature from the space heating system. For maximum economy, this should be set to the lowest acceptable level. The setting is adjusted by first pressing and then releasing button P followed by pressing the up or down arrow buttons to display the required temperature. After 5 seconds the display will revert to the actual water temperature
- The amber fault lamp (E) indicates a possible problem in the system. This may be cleared by the manual reset of the high pressure switch. However, if this does not clear the fault, you should contact your service engineer.



LEGEND

- A** Space Heating Temperature Controller
- B** Mains Lamp (red)
- C** Programmer Live Lamp (red)
- D** High Pressure Switch Manual Reset
- E** Fault Lamp (amber)
(contact service engineer if high pressure reset does not clear fault)





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