GEOflo

Ground Source Heat Pump 21.3kW

User Instructions



Working towards a cleaner future



Contents

		Page N°
1	Regarding these instructions	1
1.1	For whom this manual is intended	1
1.2	Contents of this manual	1
2	Safety	1
2.1	Purpose of use	1
2.2	General safety instructions	1
3	General notes	1
3.1	Requirements for the installation location	1
3.2	Commissioning (heating specialist)	1
3.3	Checking the water pressure	2
	0	
4	GeoFlo overview	3
	000110 0101112011	
5	Operation	4
5.1	Controller legend	4
5.2	Display	5
5.3	Operation	6
5.4	Display information	7
3.1	Display information	,
6	Starting the heat pump	8
6.1	Heating system & ground loop water pressure	8
6.2	Switching on	8
0.2	5 witching on	0
7	Programming	8
7.1	Programming procedure	8
7.2	Modification of parameters	8
7.3	Setting the time and date	8
7.4	Setting time and date Setting time programmes	9
7.5	Setting time programmes Setting holiday time programmes	9
7.6	Setting room temperature set points	9
7.7	Adjusting the weather compensating heating curve	10
7.8	Summer/winter heating limit	10
7.9	Domestic hot water set point	10
7.10	Diagnostic heat generation	11
7.10	Emergency operation	11
	Setting table	12
7.12	Setting table	12
8	Fault finding	15
8.1	Fault code table	15
8.2	Maintenance code table	16
0.2	Maintenance code table	10
9	Cleaning and maintenance	16
9.1	Cleaning	16
9.2	Servicing	16

GeoFlo Page 1

1. Regarding these instructions

1.1 For whom this manual is intended.

This manual is intended for the End User (customer) of the heating system. The instructions within this manual explain how to operate the GeoFlo heat pump user controls.

This manual also serves as a basis for the guarantee terms to be met by the End User.

1.2 Contents of this manual.

To ensure reliable and efficient use of the GeoFlo ground source heat pump this instruction booklet must be read thoroughly before operating.

The content of these instructions are for the GeoFlo 21kW ground source heat pump.

This manual must be kept with the GeoFlo ground source heat pump along with the following documents that are supplied with the unit.

- 1. Technical information
- 2. Installation manual
- Programming and hydraulic system manual.
- 4. Commissioning report
- 5. User instruction
- 6. Servicing log book

2. Safety

2.1 Purpose of Use

The GeoFlo heat pump uses an electrically operated compressor and buffer storage tank (optional extra) for heating systems according to BS EN 14511.

The GeoFlo heat pump is only to be used as specified in the installation manual. In cases where the heat pump does not conform to the specified purpose Potterton Commercial does not accept responsibility or liability.

2.2 General safety instructions

The heating system must be installed and commissioned by appropriately trained and qualified personal.

Servicing of the appliance must be carried out by a heating specialist; all accessories that are installed to the heating system must comply with the technical specification and be approved by Potterton Commercial.

Only genuine spare parts must be used, unauthorised modifications to the GeoFlo heat pump are not permitted, as they may endanger persons, cause damage to the heat pump or heating system and approval of the heat pump will become void.

3. General notes

3.1 Requirements for the installation location

The installation location of the ground source heat pump must be kept dry and frost free ($1^{\circ}C - 45^{\circ}C$). The minimum clearances around the heat pump (see Installation Manual) must be complied with

For all required repair works the End User must contact a qualified heating specialist. Potterton Commercial offer a service and break down facility (see contact details on the rear page of this manual).

3.2 Commissioning (heating specialist)

On completion of the installation of the heat pump the installation engineer has an obligation to provide the following: -

- 1. Demonstrate the operation of the heat pump and heating system.
- Explain all safety precautions associated with the operation of the heating system.
- 3. Inform the End User of the maintenance requirements of the heating system (which must be carried out by a heating specialist)
- 4. Inform the End User about any local regulations associated with the operation of the heating system

GeoFlo Page 2

The installation engineer must hand over the following documentation: -

- 1. Operating instructions
- 2. Installation manual
- 3. Operating instructions for any accessories that have been used
- 4. Short operating instructions
- 5. Completed commissioning check list signed by the commissioning engineer (Potterton Commercial or its authorised representative)

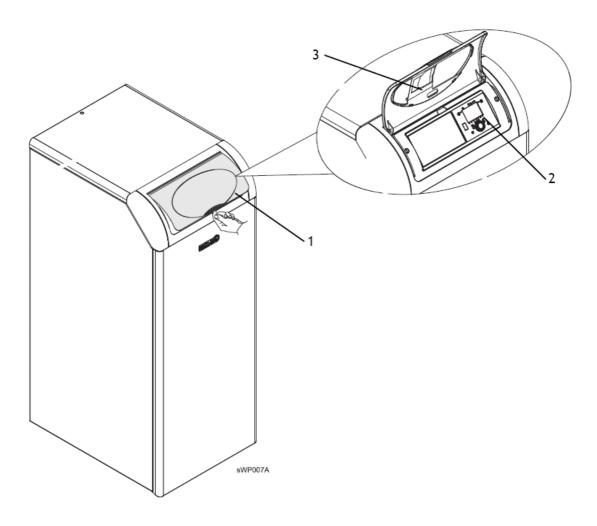
Documentation should be kept with the ground source heat pump for future reference by the End Users and or maintenance engineers.

3.3 Checking the water pressures

The water pressure of the heating system should be checked to ensure the pressure is not too high or low. The minimum and maximum pressures must be marked on the pressure gauges by the heating specialist.

GeoFlo Page 3

4. GeoFlo overview



- Control panel cover. GeoFlo controller
- 2.

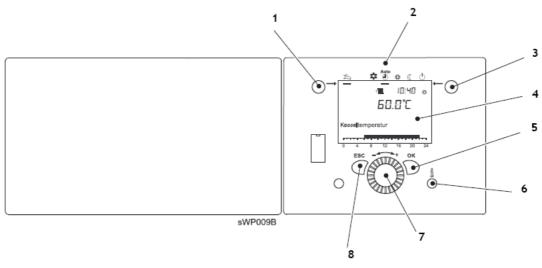
3. Location of short operating instructions

Note: - All other technical data, dimensions and electrical wiring diagrams are in the Installation Manual.

POTTERTON COMMERCIAL	
USER INSTRUCTIONS	
GeoFlo	Page 4

5. Operation

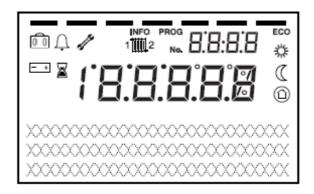
5.1 Controller legend



1	Domestic hot water operation mode button	5	OK-button (acknowledgement)
2	Heating/hot water operation symbols	6	Information button
3	Heating operation mode button	7	Selector knob
4	Display	8	Escape button

GeoFlo Page 5

5.2 Display

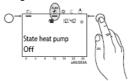


Explanation of displayed symbols: -

禁	Heating operating at nominal set point
\mathbb{C}	Heating operating in night set back
(Heating in frost protection mode
00	Holiday function activated
1 1 2	Reference to which heating zone is in operation (heating zone 1 or 2)
4	Heat pump is operating in service mode
Ù	Indicates that a fault exists with the heat pump
INFO	Information level activated (displays when the i button is pressed)
PROG	Programming level has been activated (displays during programming of the heat
	pump)
ECO	Heating operation has been stopped due to automatic summer/winter change over e.g.
	high outside ambient temperature

GeoFlo Page 6

5.3 Operation



Automatic operation



Changing between heating operating modes can be made by pressing the "Heating operation mode button" the selected setting will be indicated by a bar underneath the operating symbol.

The heating will operate in accordance with the heating time program.

The heating will operate at nominal set point during the heating on times and in night setback (reduced) outside the heating on times.

Automatic summer/winter changeover will prevent the operation of the heating if the outside temperature is above the summer/winter temperature set point or if the outside temperature exceeds the internal temperature set point.

Continuous operation



The heating will operate at the nominal set point without time control.

Automatic summer/winter changeover is deactivated



The heating will operate at night set back without time control

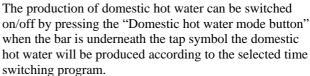
Automatic summer winter changeover is deactivated



No heating operation

Frost protection activated, when the outside temperature drops to 3°C.

Domestic hot water operation



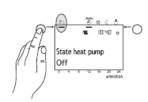
When there is no bar underneath the tap symbol then the domestic hot water production is deactivated.

Setting the room temperature set point

Setting the nominal room temperature set point is achieved by simply turning the rotating knob higher (+) lower (-) once the adjustment has been made press the "OK" button to accept the adjustment.

Setting the night setback temperature (reduced set point)

- Press the "OK" button
- Select heating circuit with the rotating knob & press the "OK" button
- Select parameter "Reduced setpoint" & press the "OK" button
- Set the reduced setpoint with the rotating knob
- Press the "OK" button to accept the adjustment





GeoFlo Page 7

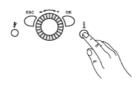
Press the "Heating mode button" to return back to the basic display

5.4 Display Information

Various temperatures and messages can be displayed by pressing the Information button (i) these are as follows: -

- Outside temperature
- Room temperature
- Fault messages (only displayed if a fault is present)

If the fault symbol appears in the display a fault exists on the system, additional information regarding to the fault can be obtained by pressing the information button (i) this will display a fault code and a brief description of the fault (see fault code table on page 15).



Fault Symbol



GeoFlo Page 8

6. Starting the heat pump

6.1 Heating system & ground loop water pressure

Before switching on the heat pump the water pressure of the heating system and ground loop must be checked.

The pressure in the heating system must be over 1 bar, if the pressure is below 0.5bar then the system pressure must be increased. If the pressure is over 2.5 bar the heat pump must not be switched on, the excess pressure will need to be reduced by draining off some water from the system.

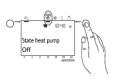
The pressure in the ground loop circuit must be approximately 1.5 bar.

If the pressure is less than 0.4 bar the heat pump will not start and your heating specialist will need to be informed.

Make sure a container is placed under the ground loop pressure relief valve discharge pipe to collect any water/glycol that is released due to over pressure (2.5 bar).

6.2 Switching on

- Switch on the electrical isolator
- Open the control panel cover



Select the heating operation mode to automatic operation



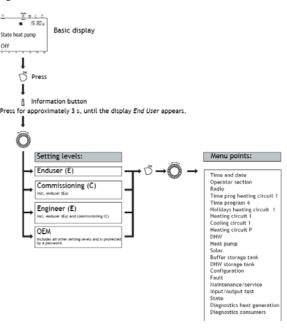
Set the required room temperature on the rotating knob on the control unit & then press the "OK button to accept the new setting.

7. Programming

7.1 Programming procedure

The programming of the heat pump is split into 4 levels of programming End user, Commissioning, Engineer and OEM. Each level of programming offers the ability to view and adjust different parameters. To access the different programming levels follow the diagram in figure 3.

Figure 3



Note: - The menu points that are visible are dependant on the setting level entered.

7.2 Modification of parameters

Settings that are not directly modified via the front panel have to be carried out in the setting levels.

The basic programming procedure for setting the time and date are as follows: -

7.3 Setting the time and date

Step		Function	
1	OK	Select level "End user"	
2		Select "time and date" (program $N^{\circ}1$)	°K O
3		Select "hours and minutes"	°K ○
4		Set hours	°K ○
5		Set minutes	Š
6		Select "day/month" (Program $N^{\circ}2$)	°K
7		Set month	° ^K
8		Set day	Š
9		Select "year" (Program N°3)	OK OK
10		Set year	°K OK
11	10.40.	Leave programming level	

GeoFlo Page 9

7.4 Setting time programs

Up to 3 heating phases may be set per heating circuit per day. The heating will operate at the nominal temperature set point during these time settings. Outside the heating phases the heating will operate in a night setback mode.

The heating times can be set on individual days or blocks of days (e.g. Mo, Tue, Wed, etc) or day groups (Mo-Sun, Mo-Fri, Sa-Su) to suit the occupancy periods of the building.

Step		Function		
1	OK	Select level "End user"		
2		Select from the following: - Time program heating circuit 1 Time program heating circuit 2 Time program heating circuit 3/HCP Time program 4/DHW	š()	
3		Select "preselection Mo-Sun" (as required)	o _K	
4		Select the required day or block of days	OK O	
5		Select 1st Phase on	Š	
6		Select the required on time	Š	
7		Select 1st Phase off	Š	
8		Select the required off time	°K O	
9	Carry out the settings for heating phases 2 and 3 as above			
10	10.40.	Leave programming level		

The switching on and off time can be set in 10 minute cycles; the heating times are only active when the heating mode is in the "Automatic" position.

The times for the domestic hot water production are set in time program 4/DHW. To prevent long heat up times of the heating circuits the domestic hot water should be programmed to come on approximately 1 hour prior to the heating.

If you wish to return to the previous menu point then without adopting the modified value then press the ESC button.

If no settings are carried out for approximately 8 minutes then the display will revert back to its basic display with none of the previously modified values will be adopted.

7.5 Setting holiday time programmes

The heating circuits can be operated in a frost protection level or at a reduced set point during selected holiday periods. To set the holiday periods follow the instructions below: -

Step		Function	
1	OK O	Select level "End user"	
2		Select from the following: - Holidays heating circuit 1 or Holidays heating circuit 2	OK O
3		Select "Start date" (prog. No. 642,652)	Š.
4		Set the month	OK O
5		Set the day	Š
6		Select "End date" (Prog. No. 643, 653)	*()
7		Set the month	Š
8		Set the day	Š
9		Select "Operating level (Prog. No. 648, 658)	o _K
10	Ö	Select operating level for the heating during the holiday period (Frost protection or Reduced)	OK OK
11	10.40.	Leave programming level	

Note: - The holiday programmes are only activated in the "Automatic" operation mode.

7.6 Setting room temperature set points

The desired room temperature can be set for nominal heating during occupied times, reduced heating (night set back) outside of occupancy times and frost protection.

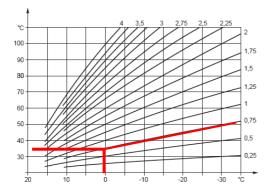
Step		Function	
1	OK	Select level "End user"	
2	Ö	Select from the following: - Heating circuit 1 or Heating circuit 2	OK OK
3		Select "Comfort set point" (Prog no. 710, 1010)	ŏ
4		Set comfort set point	Š
5		Select "Reduced set point" (Prog no. 712, 1012)	ŏ
6		Set reduced set point	°K ○
7	Ö	Select "Frost protection set point" (Prog no. 714, 1014)	o _K
8		Set frost protection set point	°K ○
11	10.40.	Leave programming level	•

GeoFlo Page 10

7.7 Adjusting the weather compensating heating curve.

The weather compensating heating curve automatically adjusts the heating water flow temperature leaving the ground source heat pump according to the outside temperature, the colder the outside temperature the hotter the flow temperature.

The required flow temperature to achieve the desired room temperature is dependant on the type of heating system that is installed. Should you find that the heat generated does not satisfy your requirements the heating curve will need to be modified. The adjustment of the heating curve for your system can be achieved by increasing or decreasing the heating curve, the graph below shows the relationship between the outside temperature and the heating flow temperature.



Example: - The heating curve is set to 0.75 and the outside temperature is 0°C, the flow temperature of the heating circuit will be heated to approximately 35°C, to reach a room temperature of 20°C. Raising the heating curve to 1 will raise the flow temperature to approximately 40°C, to reach the room temperature of 20°C.

When setting the heating curve, only make small adjustments at a time until you achieve the optimum result for your comfort. Heating systems can be slow to react to changes therefore always wait for a few days between adjustments of the heating curve.

The setting of the heating curve can be achieved as follows: -

Step		Function	
1	Ç	Select level "End user"	
2		Select from the following: - Heating circuit 1 or Heating circuit 2	O _K
3		Select "Heating curve gradients" (prog no. 720, 1020)	°K ○
4		Set required heating curve gradient	°K ○
5	10.40.	Leave programming level	•

7.8 Summer/winter heating limit

The summer/winter heating limit changes over the operation of the heating from summer to winter according to the outside temperature, once the outside temperature reaches the summer/winter temperature set point the heating will be inhibited form operation; this prevents the operation of the heat pump when there is no heat demand.

Increasing the temperature value causes an earlier change over to winter operation and a later change over to summer operation.

Decreasing the temperature value causes an earlier change over to summer operation and a later change over to

Step		Function	
1	OK	Select level "End user"	
2		Select from the following: - Heating circuit 1 or Heating circuit 2	Š.
3		Select "Summer/winter heating limit (Prog no. 730, 1030)	°K ○
4		Set required heating limit temperature	o _K
5	10.40-	Leave programming level	

winter operation.

7.9 DHW temperature set point

With the DHW (Domestic Hot Water) set point you can set how warm your DHW will be heated for normal use (e.g. 55°C)

Step		Function	
1	OK	Select level "End user"	
2		Select "Domestic hot water"	°K ○
3		Select "Nominal set point" (Prog no. 1610)	OK
4		Set required DHW temperature	Š
5	10.40.	Leave programming level	

GeoFlo Page 11

7.10 Diagnostic heat generation

Display of heating set points for diagnostic purposes only.

Step		Function	
1	OK O	Select level "End user"	
2		Select "Diagnostic heat generation"	OK
3		Display of various set points for the heating circuit	o _K
4	10.40-	Leave programming level	

7.11 Emergency operation

In the event that the GeoFlo heat pump fails to operate an emergency operation mode can be used.

The emergency operation operates an alternative heating source for the heating operation and production of domestic hot water.

This function is only possible if an alternative heating source has been connected to the system.

Activation of the emergency operation mode can be achieved as follows:-

Step		Function	
1	OK O	Select level "End user"	
2		Select "Maintenance/Service"	Š
3		Switch on or off emergency operation (Prog no. 7141)	OK O
5	10.40.	Leave programming level	

GeoFlo Page 12

7.12 Setting table

- -The parameters listed below are those that are only visible from the End User programming level
- -Depending on the configuration of the heating system, not all of the parameters listed will be visible
- -In order to get to the setting level "End user" (Eu) press the OK button

Function	Program N°	Setting level	Factory setting	Modified value
Time and date				
Hours/minutes	1	Eu	00:00(h:min)	
Day / month	2	Eu	01.01	
			(day/month	
Year	3	Eu	2004 (year)	
Operating unit				T
Language	20	Eu	English	
Time programme heating circuit 1	T		T = = =	T
Pre-selection Mo-Su	500	Eu	Mo-Su	
Mo-Su Mo-Fr Sa-Su Mo Tu We Th Fr				
Sa Su	501	-	07.00.4 / :)	
1st phase on	501	Eu	05:00 (h/min)	
1st phase off	502	Eu	23:00 (h/min)	
2nd phase on	503	Eu	:	
2nd phase off	504	Eu	:	
3rd phase on	505	Eu	:	
3rd phase off	506	Eu	: N.	
Standard values	516	Eu	No	
No Yes				
Time programme 4 Pre-selection Mo-Su	560	Eu	Mo-Su	T
Mo-Su Mo-Fr Sa-Su Mo Tu We Th Fr	300	Eu	1V10-Su	
Sa Su				
1st phase on	561	Eu	00:00 (h/min)	
1st phase off	562	Eu	05:00 (h/min)	
2nd phase on	563	Eu	:	
2nd phase off	564	Eu	:	
3rd phase on	565	Eu	:	
3rd phase off	566	Eu	:	
Standard values	576	Eu	No	
No Yes		2.0	110	
Holidays heating circuit 1				
Start	642	Eu	: (day/month)	
Finish	643	Eu	: (day/month)	
Operation level	648	Eu	Frost Protection	
Frost protection / reduced				
Heating circuit 1		•		
Comfort set point	710	Eu	21.0°C	
Reduced set point	712	Eu	19.0°C	
Frost protection set point	714	Eu	10.0°C	
Nominal line gradient	720	Eu	0.76	
Summer/winter heating limit	730	Eu	20.0°C	
Floor curing set point manually	851	Eu	25°C	
Re-cooling storage tank	860	Eu	Always	
Off Heating mode Always				
Cooling circuit 1				
Operating mode	901	Eu	Automatic	
Off automatic				

GeoFlo Page 13

Comfort set point	902	Eu	24°C
Release	907	Eu	24h/day
24h/day Time programmes HCs Time	907	Lu	2411/day
programme			
4/DHW			
Flow temp set point at OT 25°C	908	Eu	20°C
Flow temp set point at OT 35°C	909	Eu	16°C
Cooling limit at OT	912	Eu	24°C
Heating circuit P	712	Lu	24 6
Operating mode	1300	Eu	Automatic
Protection Automatic Reduced Comfort	1300	Lu	ratomatic
DHW Drinking Water		· L	
Set point	1610	Eu	55°C
Configuration	1	1	
Check no heat source 1	6212	Eu	-
Check no heat source 2	6213	Eu	-
Check no storage tank	6215	Eu	-
Check no heating circuits	6217	Eu	-
Maintenance / Service	<u>,</u>	,	
Emergency operation	7141	Eu	Off
Off On	1		
Diagnostics heat generation	·	L	
Compressor 1 K1	8400	Eu	-
Off On			
Compressor 2 K2	8401	Eu	-
Off On			
El imm heater flow K25	8402	Eu	-
Off On			
Source pump Q8	8403	Eu	-
Off On			
Condenser pump Q9	8405	Eu	-
Off On			
Return temp HP	8410	Eu	-°C
Set point HP	8411	Eu	-°C
Flow temp HP	8412	Eu	-°C
Hot-gas temp 1	8415	Eu	-°C
Hot-gas temp max	8416	Eu	-°C
Hot-gas temp 2	8417	Eu	-°C
Refrigerant temp liquid	8420	Eu	-°C
Temp diff condenser	8425	Eu	-°C
Temp diff evaporator	8426	Eu	-°C
Source inlet temp	8427	Eu	-°C
Source outlet temp	8429	Eu	-°C
Hours run compressor 1	8450	Eu	0 h
Start counter compressor 1	8451	Eu	0
Hours run compressor 2	8452	Eu	0 h
Start counter compressor 2	8453	Eu	0
Locking time HP	8454	Eu	0 h
Counter number of locks HP	8455	Eu	0
Hours run el flow	8456	Eu	0 h
Start counter el flow	8457	Eu	0
Collector temp 1	8510	Eu	-°C
Diagnostics consumers			,
Outside temp	8700	Eu	-°C
Heating circuit pump Q2	8730	Eu	-

GeoFlo Page 14

Off On			
Heat circ mix valve op Y1	8731	Eu	-
Off On			
Heat circ mix valve cl Y2	8732	Eu	-
Off On			
Room temp 1	8740	Eu	-°C
Room set point 1		Eu	-°C
Flow temp 1	8743	Eu	-°C
Flow temp set point 1		Eu	-°C
Heating circuit pump Q6	8760	Eu	-
Off On			
Heat circ mix valve op Y5	8761	Eu	-
Off On			
Heat circ mix valve cl Y6	8762	Eu	-
Off On			
Room temp 2	8770	Eu	-°C
Room set point 2		Eu	-°C
Flow temp 2	8773	Eu	-°C
Flow temp set point 2		Eu	-°C
Room temp P	8800	Eu	-°C
Room set point P		Eu	-°C
Flow temp set point P	8803	Eu	-°C
DHW pump Q3	8820	Eu	-
Off On			
El imm heater DHW K6	8821	Eu	-
Off On			
DHW temp 1	8830	Eu	-°C
DHW temp set point		Eu	-°C
DHW temp 2	8832	Eu	-°C
DHW pump Q3	8820	Eu	-
Off On			
El imm heater DHW K6	8821	Eu	-
Off On			
Flow temp set point H1	9000	Eu	-°C
Relay output QX1	9031	Eu	-
Off On			
Relay output QX2	9032	Eu	-
Off On			
Relay output QX3	9033	Eu	-
Off On			
Relay output QX4	9034	Eu	-
Off On			

GeoFlo Page 15

8. Fault Finding

The con	troller	displa	y is	blank
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Check that the power supply is turned on to the heat pump

Contact your heating specialist to check the supply to the unit.

The heat pump does not operate

No heat demand exists (check operation mode, time programmes and temperature setpoints)

Check circulating pumps are operating

Check to see if there is a fault message displayed (See fault code table)

Domestic hot water does not get hot enough

Check operation mode of DHW

Check time program for DHW

Check the nominal temperature set point and the actual temperature value of the DHW

Check to see if there is a fault message displayed (See fault code table)

Room does not reach the desired temperature

Check room temperature set points

Check time program of the heating circuits

Check the operating mode is set correctly

Check the heating curve has been set correctly

Check to see if there is a fault message displayed (See fault code table)

8.1 Fault Code table

Fault code	Fault Description	Explanation/Causes
10	Outside temperature Sensor fault	Connection or AT-sensor, emergency operation
30	Flow temperature 1 Sensor fault	Check connection, inform heating specialist1)
31	Flow temperature cooling 1 Sensor fault	Check connection, inform heating specialist1)
32	Flow temperature 2 Sensor fault	Check connection, inform heating specialist1)
33	Flow temperature heat pump sensor fault	Check connection, inform heating specialist1)
35	Source inlet temp sensor fault	Check connection, inform heating specialist1)
36	Hot-gas temperature 1 sensor fault	Check connection, inform heating specialist1)
37	Hot-gas temperature 2 sensor fault	Check connection, inform heating specialist1)
39	Evaporator temperature sensor fault	Check connection, inform heating specialist1)
44	Return temperature heat pump sensor fault	Check connection, inform heating specialist1)
45	Source outlet temperature sensor fault	Check connection, inform heating specialist1)
48	Refrig temperature liquid sensor fault	Check connection, inform heating specialist1)
50	DHW temperature 1 sensor fault	Check connection, inform heating specialist1)
52	DHW temperature 2 sensor fault	Check connection, inform heating specialist1)
60	Room temperature 1 sensor fault	Check connection, inform heating specialist1)
65	Room temperature 2 sensor fault	Check connection, inform heating specialist1)
68	Room temperature 3 sensor fault	Check connection, inform heating specialist1)
70	Buffer storage temperature 1 sensor fault	Check connection, inform heating specialist1)
71	Buffer storage temperature 2 sensor fault	Check connection, inform heating specialist1)
73	Collector temperature 1 sensor fault	Check connection, inform heating specialist1)
83	BSB-wire short&-circuit	Communication fault, check bus line or connector
84	BSB Address collision	Check addresses of connected control modules
85	BSB-radio communication fault	Check connection of radio receiver and batteries; carry out new binding
98	Expansion module 1fault (collective fault)	Internal fault, check module, inform heating specialist
105	Maintenance message	See maintenance code (press information button once) for detailled information
106	Source temperature too low	Source inlet temperature too low or flow to low. inform heating specialist
107	Hot-gas compressor 1	Gas temp of the refrigerant has been exceeded,
108	Hot-gas compressor 2	if fault occurs more often, inform a heating specialist
121	Alarm flow temperature 1 (HC1)	Flow temperature HC1 or 2 does not reach setpoint, heating capacity
122	Alarm flow temperature 2 (HK2)	insufficient, check system (function pump/mixer)
127	Anti legionaries temperature not	Domestic hot water draw off too large during anti legionnaire's
	reached	function, no priority for domestic hot water
146	Sensor/actuator configuration fault	Connected sensors or outputs do not match the configuration, Check
		Programming and sensor connection.

GeoFlo Page 16

171	Alarm contact H1 activated.	The device, connected to the H1-contact, reports a fault
222	High pressure during heat pump operation.	High pressure switch triggered in refrigeration circuit, heat cannot
223	High pressure at start HC	be disposed off. Heating curve possibly set too high, check flow heating
224	High pressure at start DHW	water, dampers or thermostats closed, setting overflow valve.
		Possibly also refrigerating circuit defect, inform heating specialist.
225	Low pressure	Low pressure switch in refrigeration circuit triggered, no flow of
		brine in evaporator
228	Flow monitor heat source	Source pressure switch in device triggered, internal brine pressure
		too low.
229	Pressure monitor heat source	Water pressure too low in ground loop
230	Thermal relay source pump	Motor protection of brine/groundwater pump triggered
Externally	External lock of energy supply company	No fault, check if release of EW exists, check of installed rotating
locked	(EVU) or power station (EW)	field monitoring relay

8.2 Maintenance Code Table

Maintenance Code	Code Description	
1	Heat pump operating hours exceeded	
2	Heat pump starts exceeded	
3	Maintenance interval exceeded	

9. Cleaning and Maintenance

9.1 Cleaning

Before any maintenance or cleaning works are carried out the electrical supply to the unit must be isolated, If necessary clean the outside casing of the unit using a mild cleaning solution that will not damage the coating of the casing panels. Cleaning of the inside of the unit must only be carried out by a heating specialist.

9.2 Servicing

Servicing of the GeoFlo heat pump must only be carried out by persons approved and competent to do so, do not attempt to carry out these works yourself as you may endanger yourself and others.

It is recommended to carry out the maintenance of the GeoFlo heat pump along with the heating system annually for this we recommend that a service contract is obtained with a heating specialist company, so the long life of the heat pump and reliable safe operation of the heating system can be guaranteed.

The End User can perform some simple regular checks that do not require any technical knowledge that can prevent premature failure of the unit and the need for a heating specialist, these checks are as follows: -

- 1. Check the condition of the housing, to make sure all fastenings of the casing are intact as loose casing panels can cause excess noise and vibrations.
- Avoid leaning and depositing of items against the GeoFlo heat pump to protect the casings from damage.
- 3. Check for any signs of water leakage around the unit and associated pipe work.

There is a servicing booklet in the information pack provided with the GeoFlo heat pump, Ask your heating specialist to complete and sign this on completion of any service or maintenance works.

Notes:-			

POTTERTON COMMERCIAL	
USER INSTRUCTIONS	
GeoFlo	Page 17

Commercial sales technical & service enquiries

 Tel:
 0845 070 1055

 Fax:
 0845 070 1059

 Sales hotline:
 0845 070 1056

 Technical helpline:
 0845 070 1057

 Service hotline:
 0845 070 1058

e-mail: potterton.commercial@baxigroup.com web: www.pottertoncommercial.co.uk

Spares

Potterton Commercial spares are available nationwide through the interpart network of approved stockists. Alternatively please contact:-

Interpart

Brooks House Coventry Road Warwick CV34 4LL

Tel: 0844 871 1540

Applications & Installations

Our experienced technical support team are available to offer advice on any aspect of heating system design and boiler installation.

Please contact: 0845 070 1057

Commercial service offices

Our service organisation covers the whole of the UK to look after your needs for all Potterton Commercial products.

Our service office offers a wide range of specialised services including:

- Burner commissioning for all fuels
- Boiler service contracts
- Breakdown and repair services
- Burner and boiler replacement
- Oil/gas conversions
- Water treatment and descaling
- Packaged units

All descriptions and illustrations contained within this leaflet have been carefully prepared, but we reserve the right to make changes and improvements in our products which may affect the accuracy of the information in this leaflet.



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