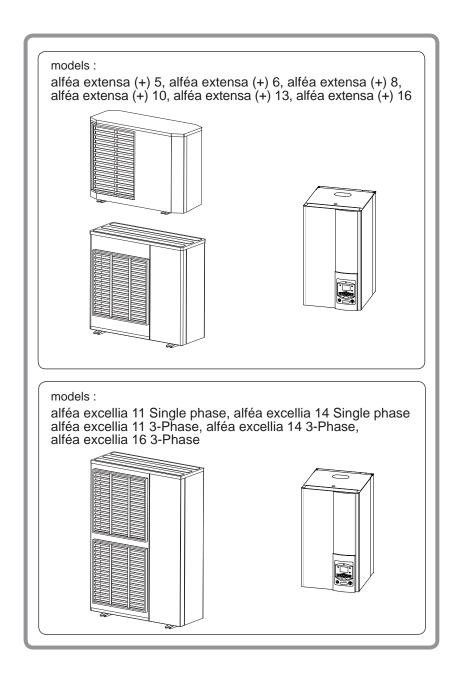
alféa extensa (+) alféa excellia

Heat pump air/water split 1 service







Operation manual

intended for professionals and end users.

To be saved for future consultation



atlantic-comfort.com

Subject to modifications without notice. Non contractual document.

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1 Instructions to be read before using the equipment

Please comply with the following instructions in order to avoid any risk of injury or inappropriate use of the appliance.

1.1 Safety instructions

1.1.1 Start-up

- Do not switch the appliance on until every fillings have been done.
- Do not try to install this appliance yourself.
- This heat pump requires an appropriately qualified person to install it.
- The installation must always be connected to the Earth and fitted with a protective circuit breaker.
- Do not modify the electricity supply.
- The appliances are not fireproof and should therefore not be installed in a potentially explosive atmosphere.

1.1.2 Use

- Do not let children insert foreign bodies into the fan protection grill or climb on top of the outdoor unit. The fins on the air exchanger are extremely fine and cause cuts.
- Nothing should obstruct the air circulation through the evaporator and from the fan.
- The outdoor unit must only be installed outdoor (outdoors). If a shelter is required, it must have broad openings on the 4 walls and observe the installation clearances (see with your installer).
- Do not climb on the top of the outdoor unit.
- The room in which the appliance is operating must be correctly ventilated in order to prevent any loss of oxygen if there is an escape of refrigerant gas.
- Consult your Installer before making any changes or modifications to the premises where the appliance is installed.
- Do not place any heat source under the room control unit.

1.1.3 Maintenance

- Do not try to repair this appliance yourself.
- This appliance does not contain any components capable of being repaired by the user himself. Removing one or other of the covers can expose you to dangerous electrical voltages.
- In any case, switching off the current is not sufficient to protect you from any external electrical shocks (capacitors).
- Do not open the outdoor unit or the hydraulic unit while they are operating.
- Switch off the power supply if there are any abnormal noises, smells or smoke coming from the appliance and contact your installer.
- Switch off the power to the appliance before you clean it.
- Do not use aggressive cleaning liquid or solvents to clean the body work.
- Do not use a pressure washer to clean the outdoor unit. This could damage the air exchanger and the water might penetrate into the electrical circuits.

1.2 Precautions and warnings regarding your installation.

1.2.1 The outdoor unit

The outdoor unit contains the equipment for capturing energy from the ambient air.

Your installer has placed this unit in a location that enables it to operate in an optimum manner.

Nothing should obstruct the air circulation through the evaporator and from the fan.

The control system for your heating system is designed in flow temperature for the water based on the outdoor temperature (water control).

In cold periods, this water freezes in contact with the exchanger and is drained away by regular defrosting cycles. The control system automatically controls the defrosting cycle, whose operation can lead to the quite normal emission of steam.

1.2.2 The hydraulic unit

The hydraulic unit contains the heat pump complete control system, in charge of controlling the heating comfort level and the production of domestic hot water (if the installation is fitted with a DHW tank with electrical back-up heating).

The heat pump is equipped with an electric back-up system, which is designed to provide additional heat during the coldest periods.

1.2.3 Control system

Your installer has carefully adjusted your installation. Do not modify setting parameters without his agreement. If in doubt, do not hesitate to contact him.

The control system for your heating system is designed in flow temperature for the water based on the outdoor temperature (water control).

The installation of a room thermostat (option) allows to improve operation of the regulation (the influence of the room temperature is taken into account).

1.2.4 The radiators

To ensure the function of the regulation with room influence, it's necessary that the room in which the room thermostat is installed has no thermostatic valve or that they must be completely open.

1.2.5 Floor-heating systems

New floor-heating systems require to be initially heated slowly to avoid any problems with cracking. Check with your installer that this initial heating procedure has indeed been performed before using your heating system freely.

The great stability in a regulation system for floor-heating systems avoids sharp differences in temperature. However, this stability involves a reaction time of the order of several hours, (approx 6 hours).

Any changes to the setting must be made slowly, leaving the installation time to react. Adjusting the system to exaggerated setting or in an untimely manner always results in significant temperature fluctuations during course of the day.

Similarly if your dwelling has a floor-heating system, do not reduce the heating or switch it off if you will be absent for a short period. The reheating period is always quite long (approx 6 hours).

1.2.6 Fan convectors with integrated control system

Do not use a room sensor in the area.

1.2.7 Domestic hot water (DHW)

When the DHW production is required, the heat pump adapts to this demand with higher priority.

No space heating is produced while the domestic hot water is being prepared.

Domestic hot water (DHW) is produced by the heat pump and then topped up, if necessary, by electrical backup heating or the boiler.

To ensure a DHW setting over 45°C, the electrical backup heating or the boiler must be left on (Optional boiler connection kit).

The electrical back-up heating enables anti-legionella cycles to be conducted efficiently.

2 Overall view of the installation

Your heat pump has been configured by your installer. It is composed of the following main elements:

- The outdoor unit is positioned, as its name indicates, outside your dwelling and extracts energy from the outside air.
- The hydraulic unit positioned in your boiler room, cellar, garage or even your kitchen, transfers the energy to the heating circuit (and the domestic hot water).
- The outdoor sensor detects the outdoor temperature. *Optional equipment:*
- Room thermostat.
- Room control unit.

Heat pumps are systems that can be connected to any form of **low temperature heat distribution systems**: the heat captured by the heat pump can therefore be used in different ways:

- Floor-heating systems.
- Radiators or fan coil heaters.
- Domestic hot water (DHW).
- The pool.

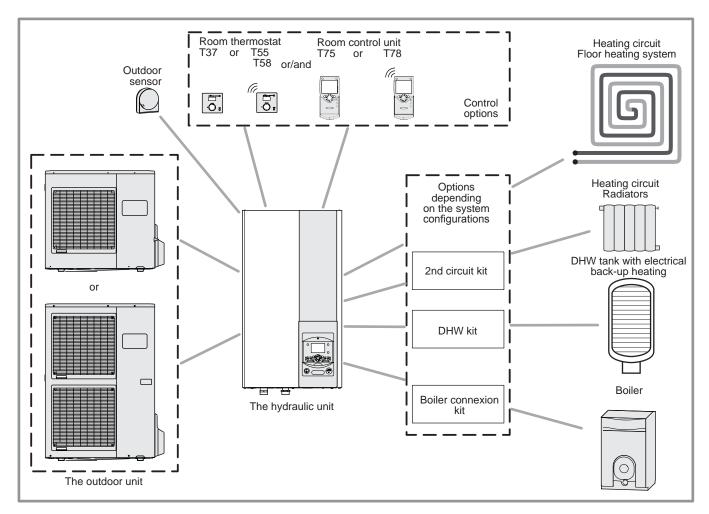


figure 1 - Overall view of the configuration of a complete installation

3 Operation of the installation

3.1 User interface, Room control unit (option) and Room thermostat (option)

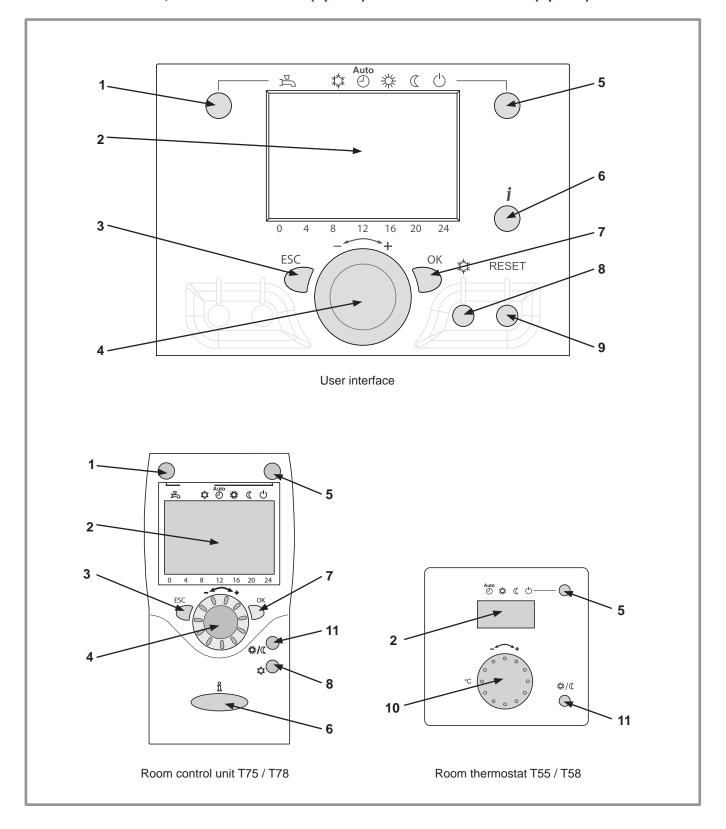


figure 2 -

Ref.	Functions	- Definitions
1	Selecting of the DHW operating mode	- If the installation is fitted with a DHW tank.
	(Domestic hot water).	- On: Production of DHW according to the time program.
	<u></u> _ On	- Off : Preparing the domestic hot water for stopping with the anti-frost function active.
	一 Off	- Manual start button : Hold down the DHW key for 3 seconds. Switch from "reduced" to "comfort" until the next time the ECS timer switches over.
2	Digital display.	- Operating control. Readout of the current temperature, of the heating mode and of any faults $ {}^{\bigtriangleup}_{} $.
		- View the settings.
3	Exit "ESC".	- Quit the menu.
4	Navigation and setting.	- Selecting the menu.
		- Setting parameters.
		- Adjusting the ambient temperature setpoint.
5	Selecting the heating mode.	- ৩ Heating operating according to the heating programme (Summer/winter mode switchover is automatic).
		- 🌣 Constant comfort temperature.
		- Constant reduced temperature.
		- O Stand-by mode with anti-frost protection (Provided that the heat pump's electrical power supply is not interrupted).
6	Information display.	- Various data (see page 16).
		- 🗘 Reading error codes (see Installation and operating manual).
		- 🖑 Information concerning maintenance, special mode.
7	Confirm "OK".	- Input into the selected menu.
		- Confirmation of the parameter settings.
		- Confirmation of the adjustment to the comfort temp. setting.
8	Selecting cooling mode.	- If the installation is fitted with the cooling kit:
		 Cooling operating according to the heating programme (Summer/winter mode switchover is automatic).
9	RESET button (Hold down the "RESET" key for 3 sec).	- Reinitialising the parameters and cancelling error messages. Do not use during normal operation.
10	Control knob.	- Adjusting the ambient temperature setpoint.
11	Presence key.	- Comfort / Reduced switchover.

3.2 Description of the display

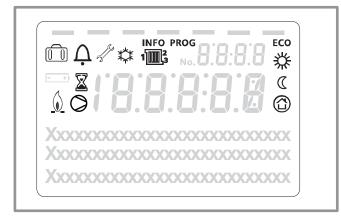


figure 3 -

	ngure o
Symbols	Definitions
1 23	Heating mode active with reference to the heating circuit.
*	- Heating in comfort mode.
	- Heating in reduced mode.
	 Heating in "standby" mode (freeze protection).
*	- Cooling mode active.
	- Holiday mode activated.
X	- Process in progress.
	- Compressor operation.
<u> </u>	- Burner operation.
Ç	- Default message.
d of the second	- Service / Special operation.
INFO	- Information level activated.
PROG	- Programme activated.
ECO	 ECO mode activated (Heating temporarily stopped).
1828 o	- Hour / Parameter number / Setpoint value.
205C temperature architectus	- Room temperature / Setpoint value.
[

- Setpoint information / Parameter Information.

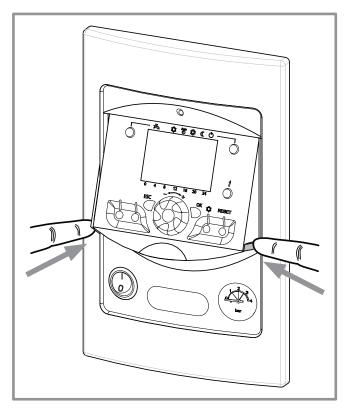


figure 4 - Closing the display

3.3 Appliance start up

- The installation and 1st start up of the appliance must be done by a qualified installer. That person will also give you instructions on starting and running the appliance.
- Ensure that the installation is fully filled with water and has been correctly bled and that there is a sufficient pressure of 1,5 to 2 bars on the manometer (ref. 2, figure 5).
- Close the installation's main circuit breaker.

In winter, so that the compressor can be preheated, close the installation's main circuit breaker (outdoor unit's power supply) some hours before pressing the on/off button.

1. User interface 2. Manometer (installation hydraulic pressure) 3. Start/stop switch

figure 5 - Start-up

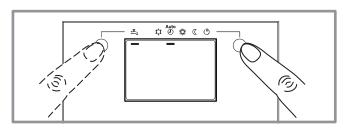


figure 6 - Selecting the heating mode AUTO and Select the DHW mode

3.4 Quick start-up

Once your installer has started your installation for the first time:

- Engage the start/stop switch.
 - During the regulator initialisation phase, the display shows all the symbols and then "Data, update" and then "State heat pump".
- Select the "AUTO" heating mode (figure 6).
- Select the DHW mode (figure 6).
- Adjust the date and time if necessary (figure 7).

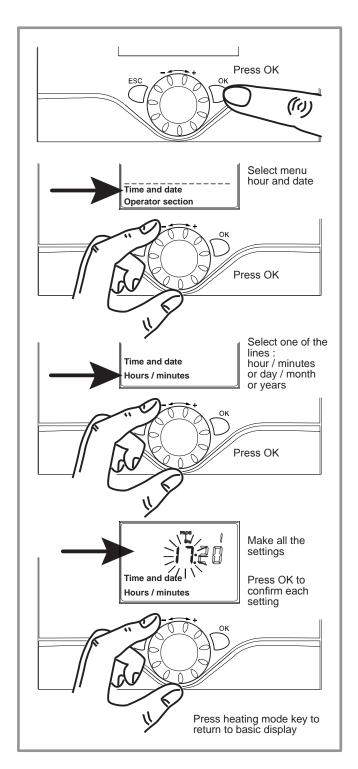


figure 7 - Setting the time and the date

3.5 Setting the time

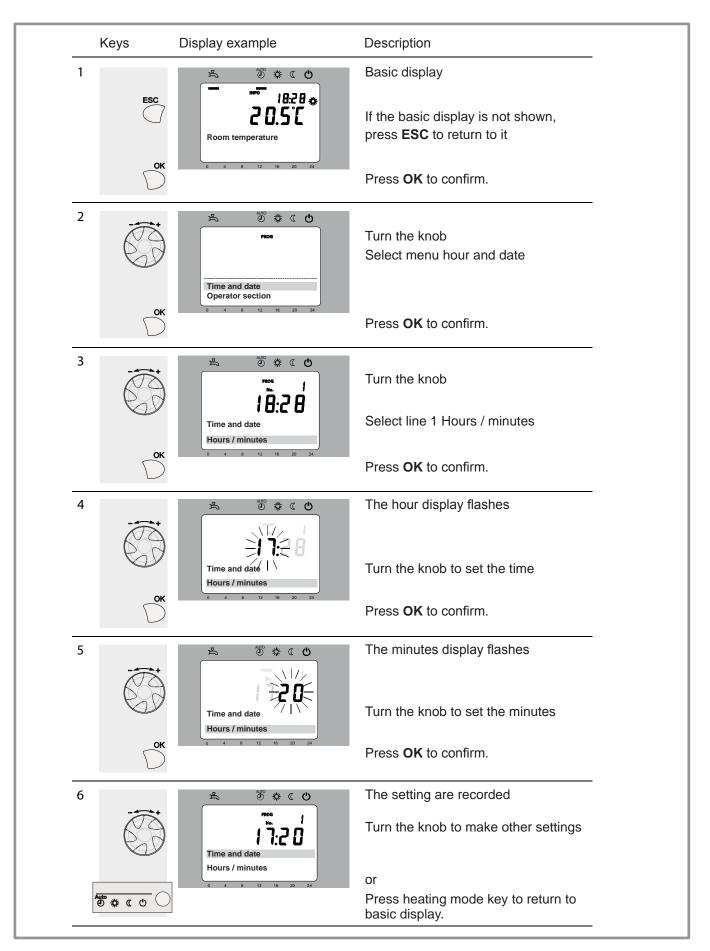


figure 8 -

3.6 Structure of the "End user" control menu

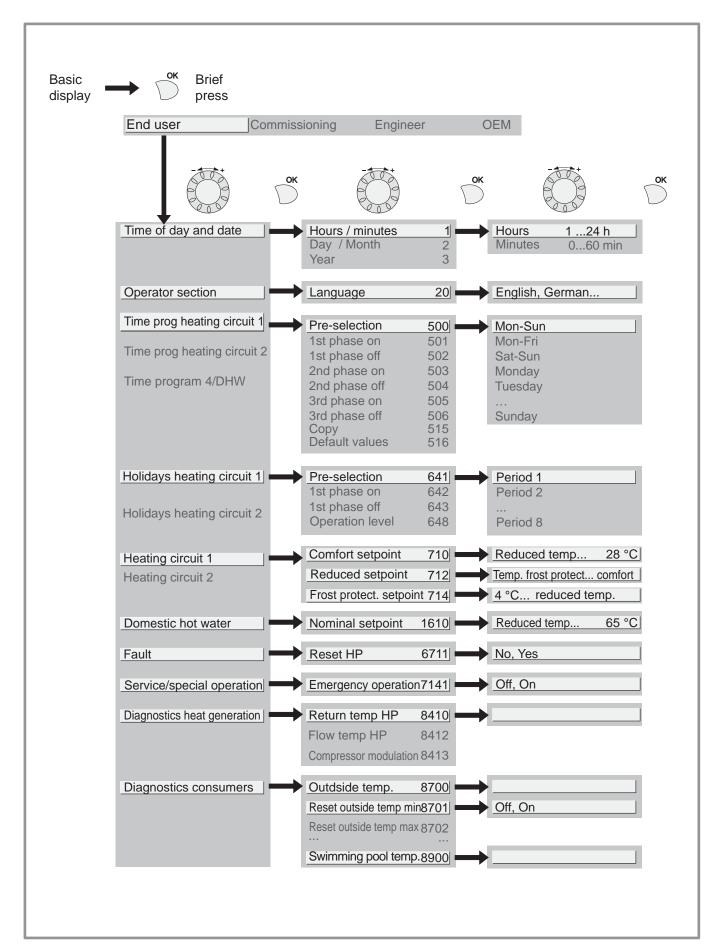


figure 9 -

3.7 Parametering the setting

3.7.1 General

Only the parameters accessible to levels:

End user

Are described in this document.

The parameters accessible at level:

Commissioning

Engineer

... are described in the document reserved for these professional specialists. Do not make any modifications to these parameters without advice from these professional specialists. Incorrect use of any kind may result in serious malfunctioning.

3.7.2 Setting parameters

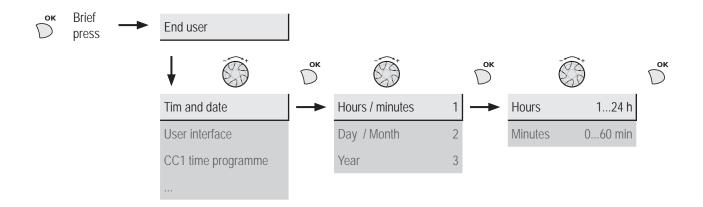
With the screen on basic display.

- Press OK.

Once in "End user" level.

- Scroll the menu list.
- Choose the desired menu.
- Scroll the function lines.
- Choose the desired line.
- Adjust the parameter.
- Check the setting by pressing OK.
- To return the menu, press ESC.

If no setting is made for 8 minutes, the screen returns automatically to the basic display.



3.7.3 List of "End user" settings

Line	Function	Setting range or display	Setting increment	Basic setting
Time and	date			
1	Hours / minutes	00:00 23:59	1	
2	Day / Month	01.01 31.12	1	
3	Year	1900 2099	1	
User inte	rface			
20	Language	English, Deutsch, Françai Italiano, Nederlands,	S,	English

Line	Function	Setting range or display	Setting increment	Basic setting
leating ti	me programme, circuit 1			
500	Pre-selection (Day / Week)	Mon-Sun, Mon-Fri, Sat-Su Monday, Tuesday,	ın,	Mon-Sun
501	1st phase On (start)	00:00:	10 min	6:00
502	1st phase Off (end)	00:00:	10 min	22:00
503	2nd phase On (start)	00:00:	10 min	:
504	2nd phase Off (end)	00:00:	10 min	;
505	3rd phase On (start)	00:00:	10 min	;
506	3rd phase Off (end)	00:00:	10 min	:
515	Сору			
516	Standard values, Circuit 1	No, Yes		No
	Yes + OK: The standard values memoris Your customised settings are therefore lo	sed in the regulator replace and cancel st.	the customised hea	ting programm
leating ti	me programme, circuit 2			
	Only with the 2nd circuit kit option.			
520	Pre-selection (Day / Week)	Mon-Sun, Mon-Fri, Sat-Su Monday, Tuesday,	ın,	Mon-Sur
521	1st phase On (start)	00:00:	10 min	6:00
522	1st phase Off (end)	00:00:	10 min	22:00
523	2nd phase On (start)	00:00:	10 min	:
524	2nd phase Off (end)	00:00:	10 min	:
525	3rd phase On (start)	00:00:	10 min	:
526	3rd phase Off (end)	00:00:	10 min	:
535	Сору			
536	Standard values, Circuit 2	No, Yes		No
	Yes + OK: The standard values memoris Your customised settings are therefore lo		the customised hea	ting programm
ime prog	gramme 4 / DHW			
	If the installation is fitted with the DHW ki	t.		
560	Pre-selection (Day / Week)	Mon-Sun, Mon-Fri, Sat-Su Monday, Tuesday,	ın,	Mon-Sur
561	1st phase On (start)	00:00:	10 min	00:00
562	1st phase Off (end)	00:00:	10 min	05:00
563	2nd phase On (start)	00:00:	10 min	14:30
564	2nd phase Off (end)	00:00:	10 min	17:00
565	3rd phase On (start)	00:00:	10 min	:
566	3rd phase Off (end)	00:00:	10 min	:
575	Сору			
576	Standard values	No, Yes		No

Yes + OK: The standard values memorised in the regulator replace and cancel the customised heating programmes. Your customised settings are therefore lost.

Line	Function	Setting range or display		Basic setting
Time prog	ramme 5 / Cooling			
	If the installation is fitted with the cooling kit (O	Only with the cooling kit option).		
600	Pre-selection (Day / Week)	Mon-Sun, Mon-Fri, Sat-Sun, Monday, Tuesday,		Mon-Sun
601	1st phase On (start)	00:00:	10 min	8:00
602	1st phase Off (end)	00:00:	10 min	20:00
603	2nd phase On (start)	00:00:	10 min	:
604	2nd phase Off (end)	00:00:	10 min	:
605	3rd phase On (start)	00:00:	10 min	:
606	3rd phase Off (end)	00:00:	10 min	:
615	Сору			
616	Standard values	No, Yes		No
	Yes + OK: The standard values memorised in Your customised settings are therefore lost.	the regulator replace and cancel the	customised heating	g programme
Holidays, I	neating circuit 1 (For the Holiday program is activ	re, the heating mode should be on AUT	ГО).	
641	Preselection	Period 1 to 8		Period 1
642	Date holidays start (Day / Month)	01.01 31.12	1	
643	Date holidays end (Day / Month)	01.01 31.12	1	
648	Heating schedule during the holidays	Frost protection, Reduced		Frost protection
Holidays, I	heating circuit 2 (For the Holiday program is activ	re, the heating mode should be on AUT	ГО).	
	If the installation consists of 2 heating circuits	(Only with the 2nd circuit kit option).		
651	Preselection	Period 1 to 8		Period 1
652	Date holidays start (Day / Month)	01.01 31.12	1	
653	Date holidays end (Day / Month)	01.01 31.12	1	
658	Heating schedule during the holidays	Frost protection, Reduced		Frost protection
Heating ac	ljustment, circuit 1			
710	Comfort ambient temperature setpoint	Reduced setpoint Comfort setpoint max	0,5 °C	20 °C
712	Reduced ambient temperature setpoint	Frost-free temp Comfort temperature	0,5 °C	19 °C
714	Frost-free ambient temperature setpoint	4 °C Reduced temperature	0,5 °C	8 °C
Cooling ci	rcuit 1 (Only with the cooling kit option).			
901	Operating mode	Off, Automatic		Off
902	Comfort cooling setpoint	17 40 °C	0,5 °C	24 °C
907	Release	24h/day, Time program HC, Time program 5 / Refresh		Time program 5
	If the installation is fitted with a DHW tank, set (In order to activate cooling only during the day			
Heating ac	ljustment, Circuit 2			
	Only with the 2nd circuit kit option (If the instal	lation consists of 2 heating circuits).		
1010	Comfort ambient temperature setpoint	Reduced setpoint Comfort setpoint max	0,5 °C	20 °C
1012	Reduced ambient temperature setpoint	Frost-free temp Comfort temperature	0,5 °C	19 °C
1014	Frost-free ambient temperature setpoint	4°C Reduced temperature	0,5 °C	8 °C

Line	Function	Setting range or display	Setting increment	Basic setting
DHW setti	ng (domestic hot water)			
	If the installation is fitted with the DHW kit.			
1610	Comfort setting	Reduced setting (line 1612) 65 °C	1	55 °C
	The backup electrical system is required to rea	ach this level.		
1612	Reduced setting	8 °C Comfort setting (line 1610)	1	40 °C
Swimming	pool (Only with swimming pool kit option)			
2056	Generator heating setting	8 35 °C		22 °C
Error				
6711	Heat pump Reset	No, Yes		No
Maintenar	nce / special regime			
7141	Emergency regime	Off, On		Off
	Off: Heat pump functions normally (with booste On: Heat pump uses the electric boost system Use the "On" position only in Assist mode or Te	or the boiler connection.	S.	
Generator	diagnosis			
8410	Heat pump return temperature	0 140 °C		
	Setpoint (flow) HP			
8412	Heat pump flow temperature	0 140 °C		
	Setpoint (flow) HP			
8413	Compressor modulation	0 100%		
Diagnosti	cs consumers			
8700	Outside temperature	-50 50 °C		
8701	Minimum outside temperature Reset ? (no, yes)	-50 50 °C		
8702	Maximum outside temperature Reset ? (no, yes)	-50 50 °C		
8740	Room temperature 1	0 50 °C		
	Ambient temperature setting 1			20 °C
8743	Flow temperature 1	0 140 °C		
	Flow temperature setpoint 1			
8756	Cooling flow temperature 1	0 140 °C		
	Cooling flow temperature setpoint 1			
8773	Flow temperature 2	0 140 °C		
0.10	Flow temperature setpoint 2			
8830	DHW (domestic hot water) temperature	0 140 °C		
0030	DHW temperature setpoint			50 °C
8900	Swimming pool temperature	0 140 °C		
	Swimming pool temperature setpoint			22 °C

3.8 Information display

Various data can be displayed by pressing the info button.

Depending on the type of unit, configuration and operating state, some of the info lines listed below may not appear.

- Possible error messages: The display shows the "Bell" symbo $\ \ \ \ \ \ \$
 - Consult your heating technician.
- Service messages ; Special mode messages: The display shows the "Key" symbol &.
- Consult your heating technician.

- Various data (see below).

Designation	Line	
Floor drying current setpoint .	-	
Current drying day.	-	
Terminated drying days.	-	
State heat pump.	8006	
State supplementary source.	8022	
State DHW.	8003	
State swimming pool.	8011	
State heating circuit 1.	8000	
State heating circuit 2.	8001	
State cooling circuit 1.	8004	
Outdoor temperature.	8700	
Room temperature 1.	0740	
Room setpoint 1.	8740	
Flow temperature 1.	0740	
Flow temperature setpoint1.	8743	
Room temperature 2.	0770	
Room setpoint 2.	8770	
Flow temperature 2.	0772	
Flow temperature setpoint 2.	8773	
DHW (domestic hot water) temperature.	8830	
Heat pump return temperature.	8410	
Setpoint (return) HP.		
Heat pump flow temperature.	8412	
Setpoint (flow) HP.		
Swimming pool temperature.	8900	
Swimming pool temperature setpoint.		
Minimum remaining stop time for compressor 1.	-	
Minimum remaining running time for compressor 1.	-	

3.9 Details

If the electrical power supply has been cut off while the heat pump is operating (electrical power failure or unprogrammed pressing of the on/off switch on the hydraulic unit) the display will show error 370 when the appliance restarts. Do not be concerned, the communication between the outdoor and hydraulic unit will re-establish itself in a few moments.

3.10 Operation of the DHW system

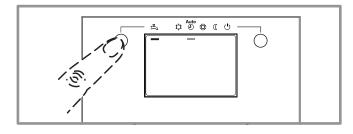


figure 10 - Select the DHW mode

The key enables you to switch the DHW (domestic hot water) mode on and off. The selection is shown by a bar, which appears under the corresponding symbol.

Manual activation: Hold down the DHW key for 3 seconds (Switch from "reduced" to "nominal" until the next time the DHW timer switches over).

To ensure a DHW setting over 45°C, the electrical backup heating or the boiler must be left on.

In order to optimise operation of the DHW, it is possible to:

- Programme the timer settings (parameters 560 to 576),
- Adjust the comfort temperature set point (parameter 1610),
- Adjust the reduced temperature set point (parameter 1612).

Press the info key to obtain the details on the DHW (temperature setting operation).

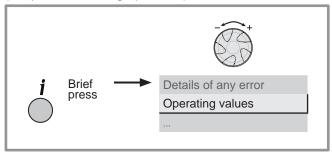


figure 11 - Information key

3.11 Pilot wire (if kit regulation extension AVS 55)

It's possible to order up to 15 electric heaters via output "pilot wire".

The "pilot wire" handles only the hourly operation of electric heaters (comfort mode / reduced mode commutation and Frost protection mode).

The comfort temperature setting should be done directly on the electric heater(s). The "pilot wire" does not handle the temperature of the electric heaters. Refer to the manual supplied with the electric heater(s).

Put the electric heaters on "PROG" mode or "AUTO" mode for piloting by the regulation board.

The difference between the comfort temperature and the reduced temperature is from 3,5 $^{\circ}$ C.

Frost protection temperature is set directly on the electric heaters. Refer to the manual supplied with the electric heater(s).

In the absence of signal, electric heaters operating in comfort mode.

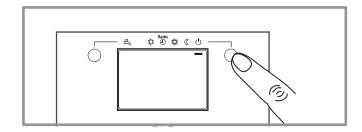


figure 12 - Selecting the frost protection

3.12 Telephone modem (if Regulation extension kit AVS 55)

It is possible to command the switching of the heating mode to the freeze protection mode (and vise versa) on the heat pump using a modem contact (e.g. Siemens TEL50.GSM).

The telephone command switches the current heat pump settings to freeze protection mode (and vise versa). In accordance with the setting, any temperature requests from the heating circuits and the DHW are ignored or activated.

The freeze protection mode must not be selected on the heat pump and/or the remote control.

3.13 Configuring room control unit (option)

In the event that the room control unit (see figure 2), is used, on start-up, after initialising for around 3 minutes, the language needs setting:

- Press OK.
- Choose menu "Operator section".
- Choose language "Language" **English**.

4 Maintenance

In order to insure your appliance operates correctly for many years, the maintenance operations described below are required at the start of each heating season. Generally, these are performed as part of a service contract.

4.1 Regular checks

- Periodically check the water pressure in the heating circuit (Refer to the pressure recommended by the installer between 1 to 2 bar).
- If filling and re-pressurization are required, check what type of fluid has been used initially (If in any doubt, contact your installer).
- If frequent refills are required it is essential that you look for any leaks.
- The frequent water supply is at risk of scaling for the Heat exchanger and degrades performance and longevity of it.

4.2 Checking the outdoor unit

Dust off the heat exchanger if necessary, being careful not to damage the fins.

Check that there is nothing obstructing the passage of air.

· Checking the refrigeration circuit

When the refrigerant charge is in excess of 2kg (models > 8 kW) it is compulsory to have an approved after sales service check the refrigeration circuit every year (with a certificate of capacity for the handling of refrigerants). Consult your heating technician.

	OFF	LED Off: The pump does not work, no electrical power.
0	✓	Green LED on: The pump works normally.
÷Ö;	oair 10 min.	Green LED blink: Venting operating mode (10 minutes).
·O	Auto Test	Green/Red LED blink: Operating error with automatic reboot.
÷Ö;		Red LED blink: Operating error.

figure 13 - Operation signals the HP circulator



This appliance is marked with this symbol. This means that electrical and electronic products shall not be mixed with general household waste. European Community countries(*), Norway, Iceland and Liechtenstein should have a dedicated collection system for these products. Do not try to dismantle the system yourself as this could have harmful effects on your health and on the environment.

The dismantling and treatment of refrigerant, oil and other parts must be done by a qualified installer in accordance with relevant local and national regulations. This appliance must be treated at a specialized treatment facility for re-use, recycling and other forms of recovery and shall not be disposed of in the municipal waste stream. Please contact the installer or local authority for more information.

* subject to the national law of each member state

Contact of your heating technician or your after-sales service.

Date of installation:



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