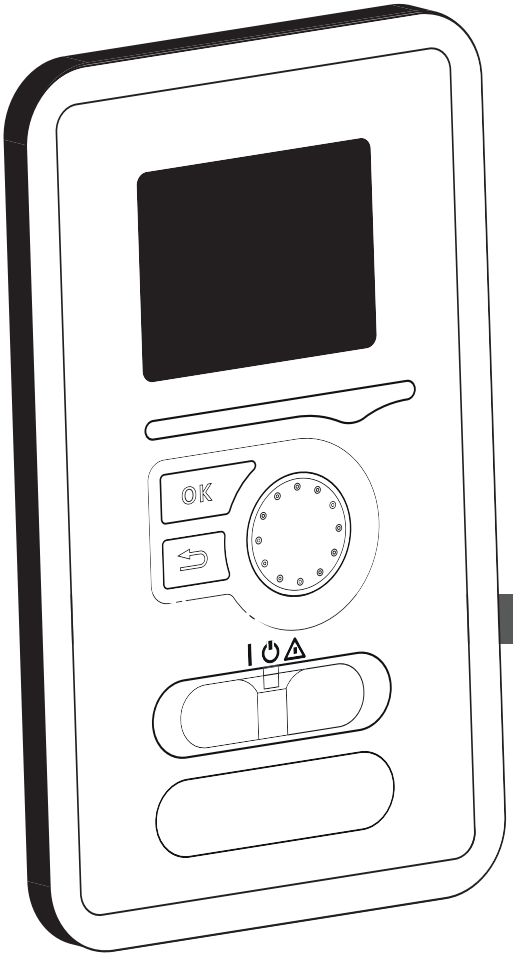
ait DEUTSCHLAND

CREATE A BETTER CLIMATE



Accessories for
Split-heat pumps

Operating Manual
Control module Split – HPC

UK

83019700aUK

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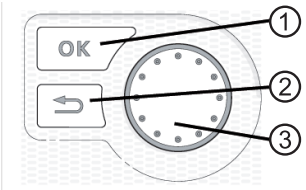
1 Quick guide - Navigation

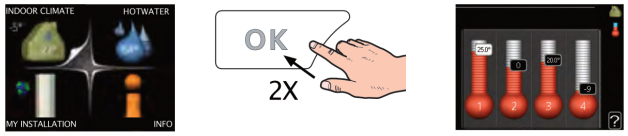


1	Ok button (confirm/select)
2	Back button (back/undo/exit)
3	Control knob (move/increase/reduce)

Detailed explanation of the button functions → Page 5.

Scrolling through menus and making different settings → Page 7.

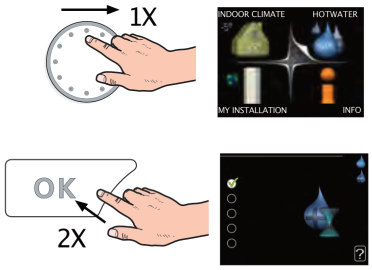
Set the indoor climate



The mode for setting the indoor temperature is accessed by pressing the OK button twice, when in the start mode in the main menu. Read more about the settings → Page 10.

Increase hot water volume

To temporarily increase the amount of hot water (if a hot water heater is installed to your HPC), first turn the control knob to mark menu 2 (water droplet) and then press the OK button twice. Read more about the settings → Page 21.



In event of disturbances in comfort

If you experience a disturbance in comfort of any kind, there are some measures you can take yourself before you need to contact your installer. Instructions → from page 35.

2 Important information

2.1 Personnel qualifications

The operating manuals supplied with the product are intended for all users of the product.

The operation of the product via the control module and work on the product which is intended for end customers / operators is suitable for all age groups of persons who are able to understand the activities and the resulting consequences and can carry out the necessary activities.

Children and adults who are not experienced in handling the product and do not understand the necessary activities and the resulting consequences must be instructed and, if necessary, supervised by persons experienced in handling the product and who are responsible for safety.

Children must not play with the product.

The product may only be opened by qualified personnel.

All instructional information in this operating manual is solely directed at qualified, skilled personnel.

Only qualified, skilled personnel is able to carry out the work on the unit safety and correctly. Interference by unqualified personnel can cause life-threatening injuries and damage to property.

- ► Ensure that the personnel is familiar with the local regulations, especially those on safe and hazard-aware working.
- ► Allow qualified personnel with “electrical” training only to carry out work on the electrics and electronics.
- ► Allow qualified, skilled personnel only to do any other work on the system, e.g.
  - Heating installer
  - Plumbing installer
  - Refrigeration system installer (maintenance work)

During the warranty and guarantee period, service work and repairs may only be carried out by personnel authorised by the manufacturer.

2.2 Symbols and markings

NOTE
This symbol indicates danger to persons or machines.

IMPORTANT
This symbol indicates important information about what you should observe when maintaining your installation.

TIP
This symbol indicates tips on how to facilitate using the product.

2.3 HPC – An excellent choice

HPC is an electric control module, which has been introduced to supply your home with inexpensive and environmentally friendly heating. Heat production is reliable and economical with a ait air/water heat pump and accumulator/water heater.

Additional heat (for example electric/gas boiler) can engage automatically if something unexpected should occur or as emergency operation.

Excellent properties for HPC

• Easy to read display

The control module has an easy to read display with easy-to-understand menus that facilitate setting a comfortable indoor climate.

• Checks all of your installation

HPC is installed together with one or more compatible ait air/water heat pumps. The control module is connected to the air/water heat pumps, which means that all important settings can be made in HPC. HPC can control the entire heating installation and support many accessory functions.

3 The control module – the heart of the house

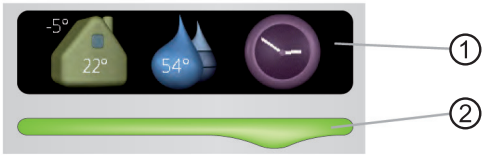
3.1 Control module's function

HPC is a simple electrical control module, which, together with ait air/water heat pump, accumulator/water heater and additional heater (e.g. electric/oil/gas boiler), creates a complete installation. Among other things, it controls the heat pump, circulation pumps, reversing valves and additional heat to supply your home with inexpensive and environmentally friendly heating in the most efficient way.

3.2 Contact with HPC

External information

When the control module door is closed, information can be received via an information window and a status lamp.



1	Information window
2	Status lamp

Information window

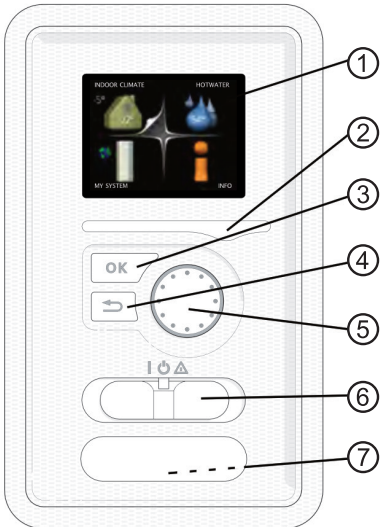
The information window shows part of the display that is on the display unit (located behind the door to the control module). The information window can display different types of information, e.g. temperatures, clock, status etc.

You determine what is to be displayed in the information window. Your own combination of information is entered using the display unit. This information is specific to the information window and disappears when the front hatch of the control module is opened. Instructions on how to set the information window → Page 30.

Status lamp

The status lamp indicates the status of the control module: continuous green light during normal function, continuous yellow light during activated emergency mode or continuous red light in the event of a deployed alarm. informations about alarm management → from page 35.

Display unit



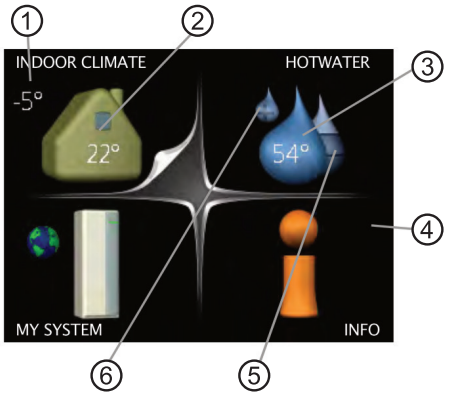
There is a display unit behind the control module door, which is used to communicate with HPC. Here you:

- switch on, switch off or set the installation to emergency mode
- set the indoor climate and hot water as well as adjust the installation to your needs
- receive information about settings, status and events
- see different types of alarms and receive instructions about how they are to be rectified

1	**Display** Instructions, settings and operational information are shown on the display. You can easily navigate between the different menus and options to set the comfort or obtain the information you require.
2	**Status lamp** The status lamp indicates the status of the control module. It: ● lights green during normal operation ● lights yellow in emergency mode ● lights red in the event of a deployed alarm
3	**OK button** The OK button is used to: ● confirm selections of sub menus/options/ set values/page in the start guide
4	**Back button** The back button is used to: ● go back to the previous menu ● change a setting that has not been confirmed
5	**Control knob** The control knob can be turned to the right or left. You can: ● scroll in menus and between options ● increase and decrease the values ● change page in multiple page instructions (for example help text and service info)
6	**Switch** The switch assumes three positions: ● On (I) ● Standby ⏻ ● Emergency mode ⚠ The emergency mode must only be used in the event of a fault in the control module. In this mode, the compressor in the heat pump switches off and any immersion heater engages. The control module display is not lit and the status lamp shines yellow.
7	**USB port** The USB port is hidden beneath the plastic badge with the product name on it. The USB port is used to update the software. Visit www.myUpway.com and click the "Software" tab to download the latest software for your installation.

Menu system

When the door to the control module is opened, the menu system's four main menus are shown in the display as well as certain basic information.



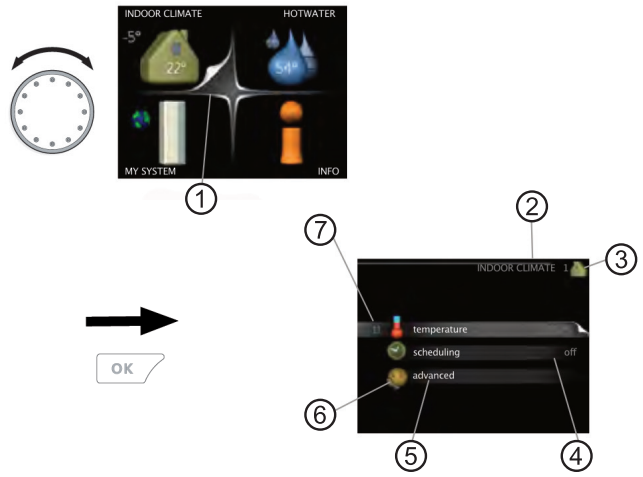
1	Outdoor temperature
2	Indoor temperature (if room sensors are installed)
3	Domestic hot water temperatur
4	Information about operation
5	Estimated amount of domestic hot water
6	Temporary lux (if activated)

Menu 1	**Indoor climate** Setting and scheduling the indoor climate. → from page 10.
Menu 2	**Domestic hot water** Setting and scheduling domestic hot water production. → from page 20. This menu only appears if a domestic hot water heater is installed in the system.
Menu 3	**Info** Display of temperature and other operating information and access to the alarm log. → Page 24.
Menu 4	**My system** Setting time, date, language, display, operating mode etc. → from page 25.

Symbols in the display

The following symbols can appear in the display during operation.

Symbol	Description
	This symbol appears by the information sign if there is information in menu 3.1 that you should note.
  	These two symbols indicate if the compressor in the outdoor module or the additional heat in the installation is blocked via HPC. These can, for example, be blocked depending on which operating mode is selected in menu 4.2, if blocking is scheduled in menu 4.9.5 or if an alarm has occurred that blocks one of them. Blocking the compressor. Blocking additional heater.
	This symbol appears if periodic increase or lux mode for the domestic hot water is activated.
	This symbol indicates whether "holiday setting" is active in menu 4.7.
	This symbol indicates whether HPC has contact with myUpway.com.
	This symbol indicates the actual speed of the fan if the speed has changed from the normal setting. Accessory needed.
	This symbol is visible in installations with active solar accessories.
	This symbol indicates whether pool heating is active. Accessory needed.
	This symbol indicates whether cooling is active. Heat pump with cooling function required.



1	Marked main menu
2	Name and menu number – main menu
3	Symbol – main menu
4	Status information – sub menus
5	Name – sub menus
6	Symbols – sub menus
7	Marked main menu

Operation

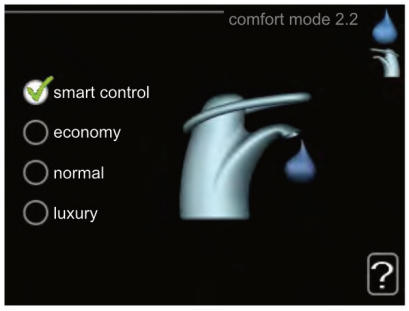
To move the cursor, turn the control knob to the left or the right. The marked position is white and/or has a turned up tab.

Selecting menu

To advance in the menu system select a main menu by marking it and then pressing the OK button. A new window then opens with sub menus.

Select one of the sub menus by marking it and then pressing the OK button.

Selecting options

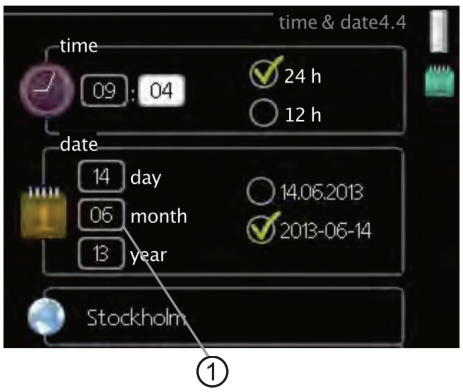


In an options menu the current selected option is indicated by a green tick.

To select another option:

1. Mark the applicable option. One of the options is pre-selected (white). 
2. Press the OK button to confirm the selected option. The selected option has a green tick. 

Setting a value



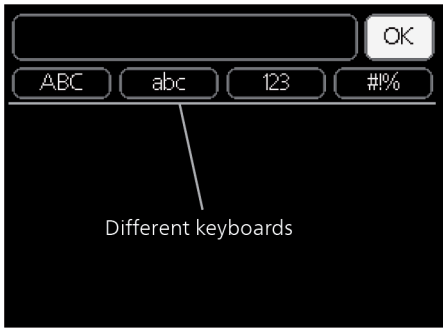
1	Value to be changed

1. Mark the value you want to set using the control knob. 
2. Press the OK button. The background of the value becomes green, which means that you have accessed the setting mode. 
3. Turn the control knob to the right to increase the value and to the left to reduce the value. 

4. Press the OK button to confirm the value you have set. To change and return to the original value, press the Back button

04

Use the virtual keyboard



up	Different keyboards

In some menus where text may require entering, a virtual keyboard is available.

Depending on the menu, you can gain access to different character sets which you can select using the control knob. To change character table, press the Back button. If a menu only has one character set the keyboard is displayed directly.

When you have finished writing, mark "OK" and press the OK button.

Scroll through the windows

A menu can consist of several windows. Turn the control knob to scroll between the windows.

1	Current menu window
2	Number of windows in the menu

1	Arrow to scroll through window in start guide

1. Turn the control knob until one of the arrows in the top left corner (at the page number) has been marked.
2. Press the OK button to skip between the steps in the start guide.

Help menu

In many menus there is a symbol that indicates that extra help is available.

To access the help text:

1. Use the control knob to select the help symbol.
2. Press the OK button.

The help text often consists of several windows that you can scroll between using the control knob.

3.3 Maintenance of HPC

Regular checks

Your heat pump requires minimal maintenance after commissioning. On the other hand, it is recommended that you check your installation regularly. For more information regarding the maintenance of heat pumps and/or accumulator tanks/water heaters, refer to the relevant manual.

If anything unusual occurs, messages about the malfunction appear in the display in the form of various alarm texts. See alarm management → from page 35.

Energy saving tips

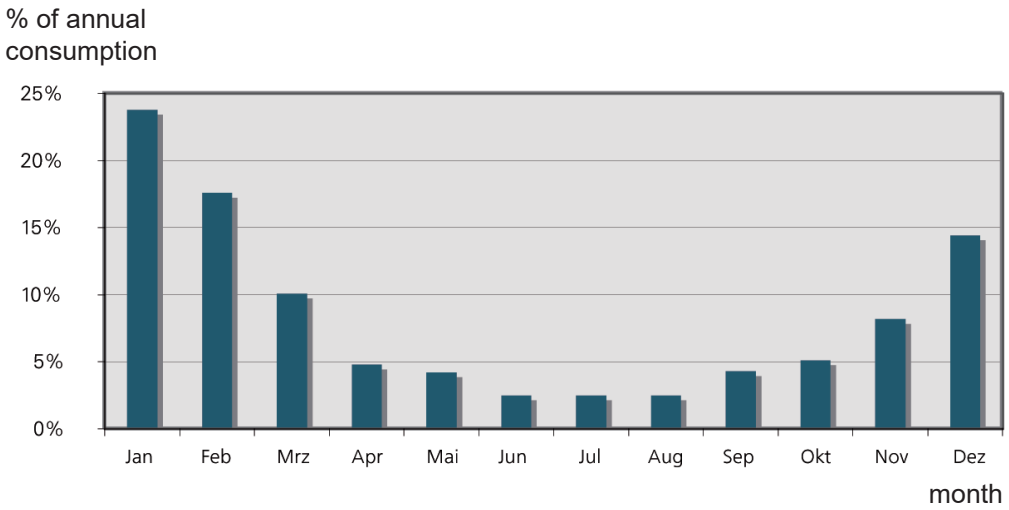
Your installation produces heat and domestic hot water. This occurs via the control settings you made.

Factors that affect the energy consumption are, for example, indoor temperature, domestic hot water consumption, the insulation level of the house and whether the house has many large window surfaces. The position of the house, e.g. wind exposure is also an affecting factor.

Also remember:

- Open the thermostat valves completely (except in rooms where you want it to be cooler). The thermostats slow the flow in the heating system, which HPC wants to compensate by increasing the temperature. The installation will then work harder and consequently also consume more energy.
- You can lower the temperature when away from the house by scheduling "holiday setting" in menu 4.7 → from page 31.
- If you activate "Hot Water Economy", less energy is used.

Power consumption

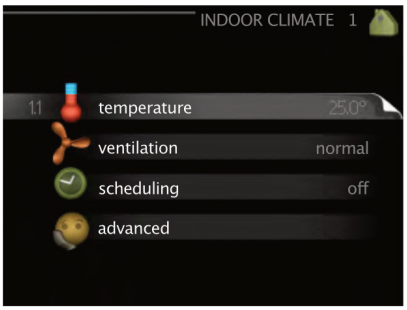


Increasing the indoor temperature by 1° C increases power consumption by approx. 5 %.

4 HPC – at your service

4.1 Set the indoor climate

Overview



Submenus

For the menu **indoor climate** there are several submenus. Status information for the relevant menu can be found on the display to the right of the menus.

Temperature
Setting the temperature for the climate system. The status information shows the set values for the climate system.

Ventilation
Setting the fan speed. The status information shows the selected setting. This menu is only displayed if the exhaust air module is connected (accessory).

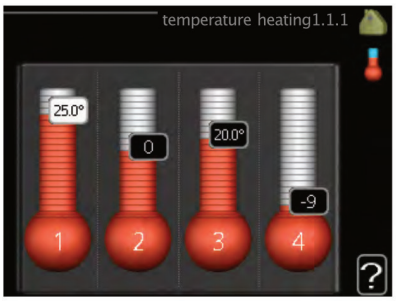
Sheduling
Scheduling heating, cooling and ventilation. Status information "set" is displayed if you set a schedule but it is not active now, "holiday setting" is displayed if the vacation schedule is active at the same time as the schedule (the vacation function is prioritised), "active" displays if any part of the schedule is active, otherwise it displays " off".

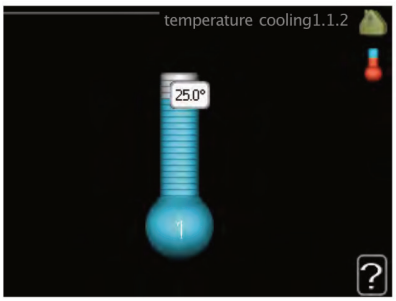
advanced
Setting of heat curve, adjusting with external contact, minimum value for flow temperature, room sensor and cooling function.

Menu 1.1 – Temperature

If the house has several climate systems, this is indicated on the display by a thermometer for each system.

Choose between heating or cooling and then set the desired temperature in the next menu "temperature heating/cooling" in menu 1.1.





Set the temperature (with room sensors installed and activated):

Heating
Setting range: 5 to 30° C
Default value: 20
Cooling (accessory required)
Setting range: 5 to 30° C
Default value: 25

The value in the display appears as a temperature in °C if the climate system is controlled by a room sensor.

IMPORTANT
A slow heating system such as underfloor heating may not be suitable for control using the control module's room sensors.

To change the room temperature, use the control knob to set the desired temperature in the display. Confirm the new setting by pressing the OK button. The new temperature is shown on the right-hand side of the symbol in the display.

Setting the temperature (without room sensors activated):

Setting range: -10 to +10
Default value: 0

The display shows the set values for heating (curve offset). To increase or reduce the indoor temperature, increase or reduce the value on the display.

Use the control knob to set a new value. Confirm the new setting by pressing the OK button.

The number of steps the value has to be changed to achieve a degree change of the indoor temperature depends on the heating installation. One step is usually enough but in some cases several steps may be required.

Setting the desired value. The new value is shown on the right-hand side of the symbol in the display.

IMPORTANT

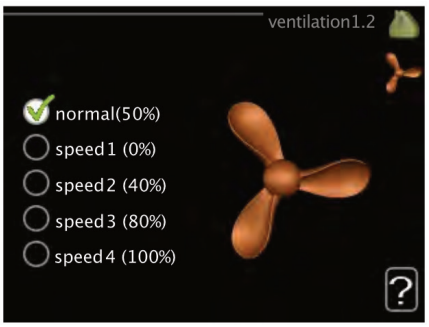
An increase in the room temperature can be slowed by the thermostats for the radiators or under floor heating. Therefore, open the thermostats fully, except in those rooms where a cooler temperature is required, e.g. bedrooms.

TIP

Wait 24 hours before making a new setting, so that the room temperature has time to stabilise.
If it is cold outdoors and the room temperature is too low, increase the curve slope in menu 1.9.1.1 by one increment.
If it is cold outdoors and the room temperature is too high, reduce the curve slope in menu 1.9.1.1 by one increment.
If it is warm outdoors and the room temperature is too low, increase the value in menu 1.1.1 by one increment.
If it is warm outdoors and the room temperature is too high, reduce the value in menu 1.1.1 by one increment.

Menu 1.2 – Ventilation

(Use only possible with certain device types)



Setting range: normal and speed 1 to 4
Default value: 0

The **ventilation** in the accommodation can be temporarily increased or reduced here.

When you have selected a new speed a clock starts a count down. When the time has counted down the ventilation speed returns to the normal setting.

If necessary, the different return times can be changed in menu 1.9.6.

The fan speed is shown in brackets (in percent) after each speed alternative.

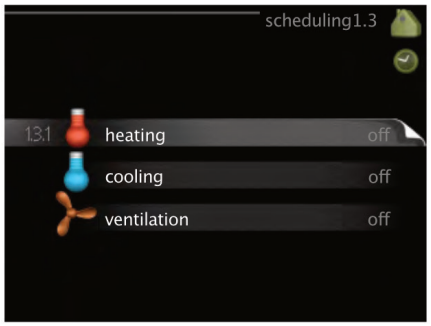
TIP

If longer time changes are required use the holiday function or scheduling.

Menu 1.3 – Scheduling

In the menu **scheduling** indoor climate (heating/cooling/ventilation) is scheduled for each weekday.

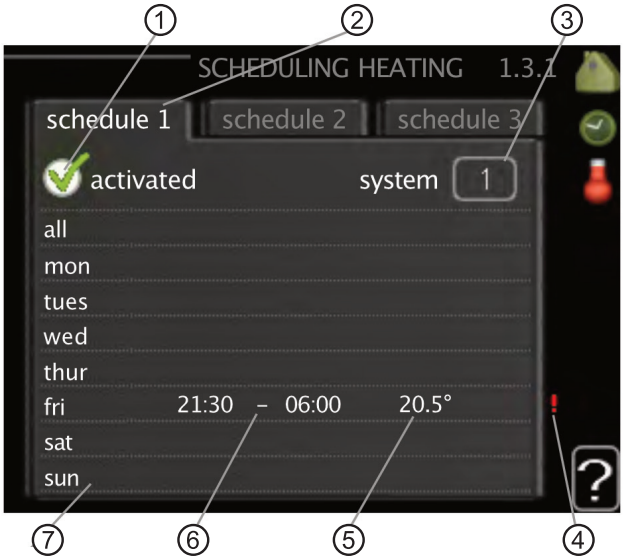
You can also schedule a longer period during a selected period (vacation) in menu 4.7.



Menu 1.3.1 – Heating

Increases or decreases in the accommodation temperature can be scheduled here for up to three time periods per day. One step is usually enough to change the room temperature by one degree, but in some cases several steps may be required.

If a room sensor is installed and activated, the desired room temperature (°C) is set during the time periods.



1	Activated
2	Schedule
3	System
4	Conflict
5	Adjusting
6	Time period
7	Day

Schedule
The schedule to be changed is selected here.

Activated
Scheduling for the selected period is activated here. Set times are not affected at deactivation.

System
The climate system that the relevant schedule relates to is selected here. This alternative is only displayed if there is more than one climate system.

Day
Select which day or days of the week the scheduling is to apply to here. To remove the scheduling for a particular day, the time for that day must be reset by setting the start time to the same as the stop time. If the row "all" is used, all days in the period are set according to that row.

Time period
The start and stop time for the selected day for scheduling are selected here.

Adjustment
How much the heating curve is to be offset in relation to menu 1.1 during scheduling is set here. If a room sensor is installed, the desired room temperature is set in °C.

Conflict
If two settings conflict with each other, a red exclamation mark is displayed.

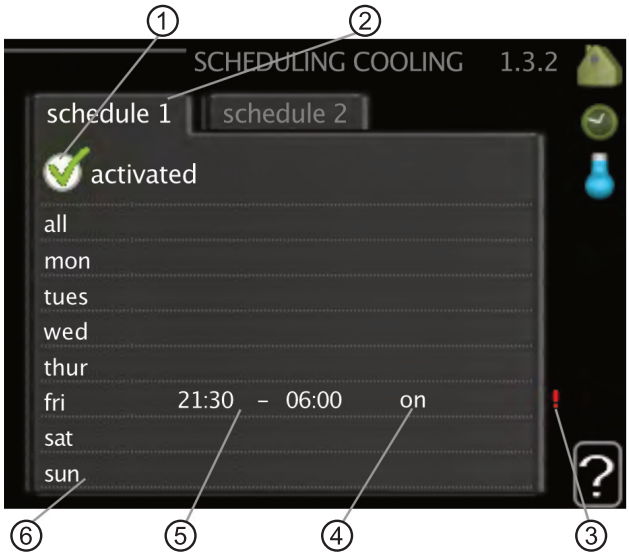
TIP
If you wish to set similar scheduling for every day of the week start by filling in “all” and then changing the desired days.

TIP
Set the stop time earlier than the start time so that the period extends beyond midnight. Scheduling then stops at the set stop time the day after.
Scheduling always starts on the date that the start time is set for.

IMPORTANT
Changes of temperature in accommodation take time. For example, short time periods in combination with underfloor heating will not give a noticeable difference in room temperature.

Menu 1.3.2 – Cooling
(heat pump with cooling function required)

Here you can schedule when cooling is permitted in the accommodation for up to two different time periods per day.



1	Activated
2	Schedule
3	Conflict
4	Adjusting
5	Time period
6	Day

Schedule
The schedule to be changed is selected here.

Activated
Scheduling for the selected period is activated here. Set times are not affected at deactivation.

Day
Select which day or days of the week the scheduling is to apply to here. To remove the scheduling for a particular day, the time for that day must be reset by setting the start time to the same as the stop time. If the row "all" is used, all days in the period are set according to that row.

Time period
The start and stop time for the selected day for scheduling are selected here.

Adjustment
Here, you schedule when cooling will not be permitted.

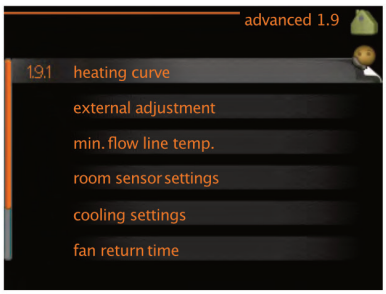
Conflict
If two settings conflict with each other, a red exclamation mark is displayed.

TIP
If you wish to set similar scheduling for every day of the week start by filling in “all” and then changing the desired days.

TIP
Set the stop time earlier than the start time so that the period extends beyond midnight. Scheduling then stops at the set stop time the day after.
Scheduling always starts on the date that the start time is set for.

Menu 1.9 – Advanced

Menu **advanced** has orange text and is intended for the advanced user. This menu has several submenus.



Curve
Setting the curve slope for heating and cooling.

external adjustment
Setting the heat curve offset when the external contact is connected.

min. flow line temp.
Setting minimum permitted flow temperature.

room sensor settings
Settings regarding the room sensor.

cooling settings
Settings for cooling.

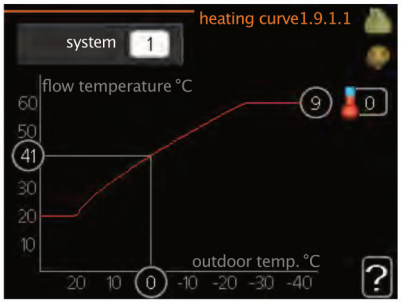
own curve
Setting own curve for heating and cooling.

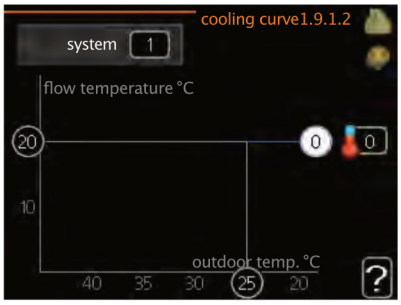
point offset
Setting the offset of the heating curve or cooling curve at a specific outdoor temperature.

night cooling
Setting night cooling.

Menu 1.9.1 – Curve

Heating
Setting range: 0 to 15
Default value: 9
Cooling (accessory required)
Setting range: 0 to 9
Default value: 0

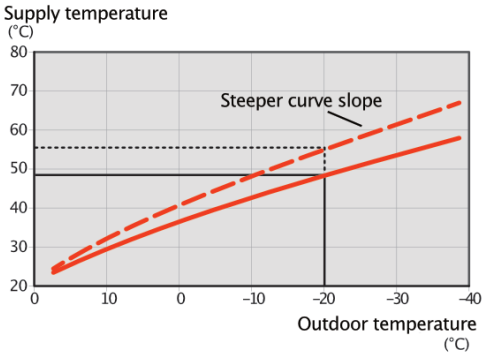




The prescribed heating curve for your house can be viewed in the menu **heating curve**. The task of the heating curve is to give an even indoor temperature, regardless of the outdoor temperature, and thereby energy efficient operation. It is from this heating curve that the control module's control computer determines the temperature of the water to the heating system, flow temperature, and therefore the indoor temperature. Select the heating curve and read off how the flow temperature changes at different outdoor temperatures here. If there is access to cooling the same settings can be made for the cooling curve.

Curve coefficient

The slopes of the heating /cooling curves indicate how many degrees the flow temperature is to be increased/ reduced when the outdoor temperature drops/increases. A steeper slope means a higher flow temperature for heating or a lower flow temperature for cooling at a certain outdoor temperature.



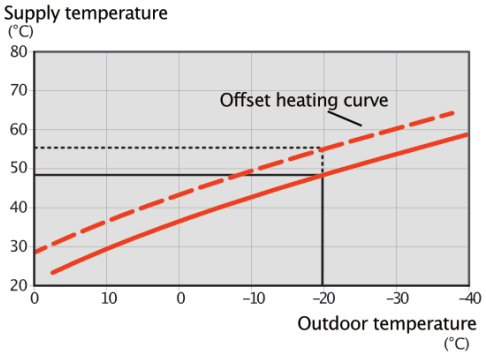
The optimum slope depends on the climate conditions in your location, if the house has radiators or under floor heating and how well insulated the house is.

The curve is set when the heating installation is installed, but may need adjusting later. Normally, the curve will not need further adjustment.

IMPORTANT
When making fine adjustments of the indoor temperature, the curve must be offset up or down instead, this is done in menu 1.1 **Temperature**.

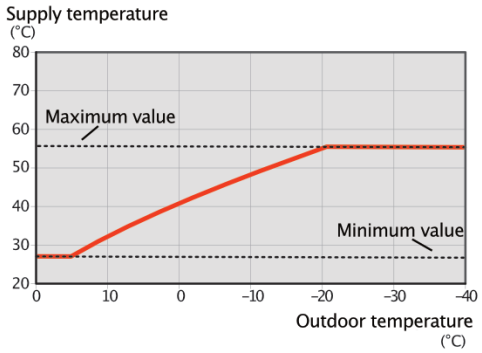
Curve offset

Curve offset of the curve means that the flow temperature changes by the same amount for all the outdoor temperatures, e.g. a curve offset of +2 steps increases the flow temperature by 5 °C at all outdoor temperatures. A corresponding change to the cooling curve results in a reduction of the flow temperature.



Flow temperature – maximum and minimum values

Because the flow temperature cannot be calculated higher than the set maximum value or lower than the set minimum value, the curves flatten out at these temperatures.



IMPORTANT

With underfloor heating systems, **max flow temperature** should normally be set to between 35 and 45 °C.
Must be restricted with underfloor cooling min. flow line temp. to prevent condensation.
Check the max temperature for your floor with your installer/floor supplier.

The figure at the end of the curve indicates the curve slope. The figure beside the thermometer gives the curve offset. Use the control knob to set a new value. Confirm the new setting by pressing the OK button.

Curve 0 is an own curve created in menu 1.9.7.

To select another curve (slope):

NOTE

If you only have one climate system, the number of the curve is already marked when the menu window opens..

1. Select the climate system (if more than one) for which the curve is to be changed.
2. When the climate system selection has been confirmed, the curve number is marked.
3. Press the OK button to access the setting mode.
4. Select a new curve. The curves are numbered from 0 to 15, the greater the number, the steeper the slope and the greater the flow temperature. Curve 0 means that own curve (menu 1.9.7) is used.
5. Press the OK button to exit the setting.

To read off a curve:

1. Turn the control knob so that the ring on the shaft with the outdoor temperature is marked.
2. Press the OK button.
3. Follow the grey line up to the curve and out to the left to read off the value for the flow temperature at the selected outdoor temperature.
4. You can now select to take read outs for different outdoor temperatures by turning the control knob to the right or left and read off the corresponding flow temperature.
5. Press the OK or Back button to exit read off mode.

TIP

Wait 24 hours before making a new setting, so that the room temperature has time to stabilise.
If it is cold outdoors and the room temperature is too low, increase the curve slope by one increment.
If it is cold outdoors and the room temperature is too high, lower the curve slope by one increment.
If it is warm outdoors and the room temperature is too low, increase the curve offset by one increment.
If it is warm outdoors and the room temperature is too high, lower the curve offset by one increment.

Cooling in 2-pipe system

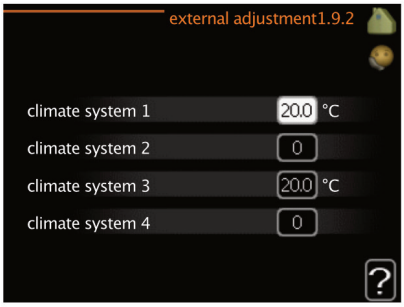
HPC contains a built-in function for operating cooling in a 2-pipe system down to 7 °C, factory setting 18 °C. This requires that the outdoor module can perform cooling. (See the Installer Manual for your air/water heat pump.) If the outdoor module is permitted to run cooling, the cooling menus are activated in the display on HPC.

In order for operating mode “cooling” to be permitted, the average temperature must be above the setting value for “start cooling” in menu 4.9.2.

The cooling settings for the climate system are adjusted in the indoor climate menu, menu 1.

Menu 1.9.2 – External adjustment

Climate system
Setting range: -10 to +10
Or desired room temperature if the room sensor is installed. See illustration.
Default value: 0

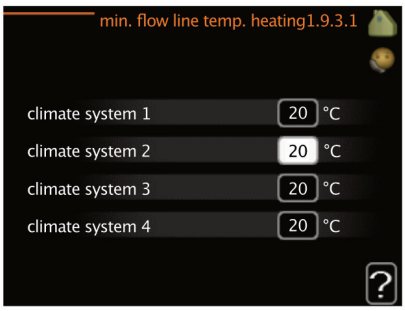


Connecting an external contact, for example, a room thermostat or a timer allows you to temporarily or periodically raise or lower the room temperature while heating. When the contact is on, the heating curve offset is changed by the number of steps selected in the menu. If a room sensor is installed and activated the desired room temperature (°C) is set.

If there is more than one climate system the setting can be made separately for each system.

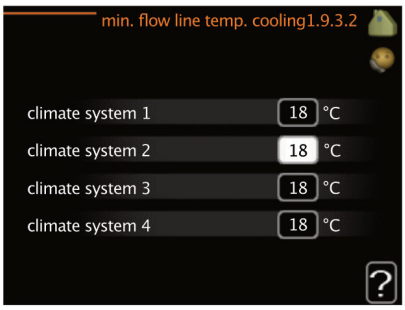
Menu 1.9.3 – Min. flow line temp.

Heating
Setting range: 5 to 70 °C
Default value: 20 °C



Cooling (heat pump with cooling function required)
Setting range: 7 to 30 °C
Default value: 18 °C
Depending on which cooling function (in 2-pipe system or 4-pipe system) is used, the lower limit of the setting range can vary from 7 to 18 °C.

IMPORTANT
At low flow temperatures In cooling mode, there is a risk of falling below the dew point.



In menu 1.9.3 you select heating or cooling, in the next menu (min. supply temp.heating/cooling) set the minimum temperature on the flow temperature to the climate system. This means that HPC never calculates a temperature lower than that set here.

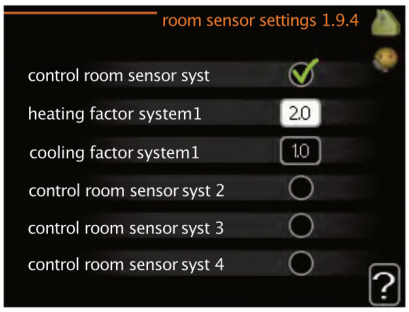
If there is more than one climate system the setting can be made separately for each system.

TIP
The value can be increased if you have, for example, a cellar that you always want to heat, even in summer.
You may also need to increase the value in "stop heating" menu 4.9.2" auto mode setting".

Menu 1.9.4 – Room sensor settings

Factor system

Heating
Setting range: 0.0 to 6.0
Default value Heizung: 1.0
Cooling (accessory required)
Setting range: 0.0 to 6.0
Default value cooling: 1.0



Room sensors to control the room temperature can be activated here.

IMPORTANT
A slow heating system such as underfloor heating may not be suitable for control using the installation's room sensors.

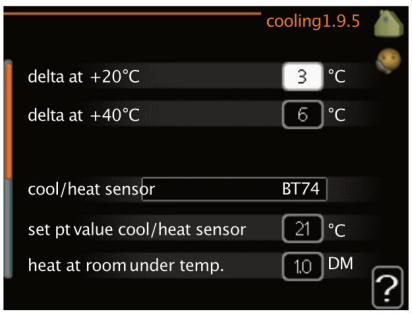
Here you can set a factor (a numerical value) that determines how much an over or sub normal temperature (the difference between the desired and actual room temperature) in the room is to affect the flow temperature to the climate system. A higher value gives a greater and faster change of the heating curve's set offset.

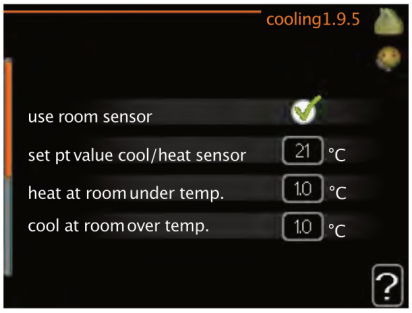
NOTE
Too high a set value for "factor system" can (depending on your climate system) produce an unstable room temperature.

If several climate systems are installed the above settings can be made for the relevant systems.

Menu 1.9.5 – Cooling settings
(heat pump with cooling function required)

Delta at +20 °C
Setting range: 3 to 10 °C
Default value: 3
Delta at +40 °C
Setting range: 3 to 20 °C
Default value: 6





Cool / heat sensor
Setting range: BT74 (BT50)
Default value: BT74
Set point cool / heat sensor
Setting range: 5 to 40 °C
Default value: 21
Heat at room under temp.
Setting range: 0.5 to 10.0 °C
Default value: 1.0
cool at room over temp.
Setting range: 0.5 to 10.0 °C
Default value: 3.0
start active cooling
Setting range: 10 to 300 GM
Default value: 30 GM

Step difference compressors
Setting range: 10 to 150
Default value: 30
Degree minutes cooling
Setting range: -3000 to 3000 cooling degree minutes
Default value: -1
Time betw. switch heat/cool (displayed if cooling in 2-pipe system is activated.)
Setting range: 0 to 48 h
Default value: 2

You can use HPC to control the cooling in your house during hot periods of the year.

IMPORTANT
Certain setting options only appear if their function is installed and activated in HPC.

Delta at +20 °C

Set the desired temperature on the temperature difference between supply and return lines to the climate system during cooling operation when the outdoor temperature is +20 °C. HPC then attempts to get as close to the set temperature as possible.

Delta at +40 °C

Set the desired temperature on the temperature difference between supply and return lines to the climate system during cooling operation when the outdoor temperature is +40 °C. HPC then attempts to get as close to the set temperature as possible.

Cool/heat sensor

If a single room is to determine how the whole installation will work, a cooling/ heating sensor (BT74) is connected to HPC. This sensor determines when it is time to switch between cooling and heating operation for the whole installation.

IMPORTANT
When the heating/cooling sensors (BT74) have been connected and activated in menu 5.4, no other sensor can be selected in menu 1.9.5.

Set pt value cool/heat sensor

Here you can set at which indoor temperature HPC is to shift between heating respectively cooling operation.

Heat at room under temp.

Here you can set how far the room temperature can drop below the desired temperature before HPC switches to heating operation.

Cool at room over temp.

Here you can set how high the room temperature can increase above the desired temperature before HPC switches to cooling operation.

Alarm in case of sensor defect

This is where you set whether HPC is to initiate an alarm if the room sensor is disconnected or breaks during cooling operation.

Start active cooling

Here you can set when active cooling is to start. Degree minutes are a measurement of the current heating demand in the house and determine when the compressor, cooling operation respectively additional heat will start/stop.

Step difference compressors

IMPORTANT
This setting option only appears if cooling is activated in menu 5.2.4.

The degree minute difference for controlling when the next compressor is to start is set here.

Degree minutes cooling

This selection is only available when the connected accessory itself counts cooling degree minutes. After a min or max value has been set, the system will automatically set the real value in relation to the number of compressors that are running cooling.

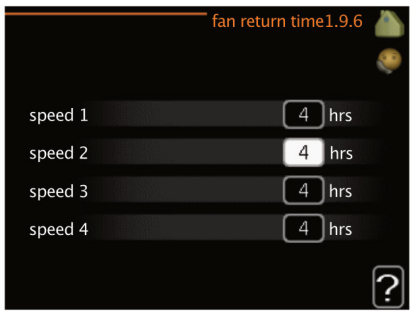
Time betw. switch heat/cool

This option is only available when cooling in 2-pipe systems.

Here you can set how long HPC is to wait before it returns to heating mode when the cooling demand has ceased or vice versa.

Menu 1.9.6 – Fan return time

Speed 1-4
Setting range: 1 to 99 h
Default value: 4 h



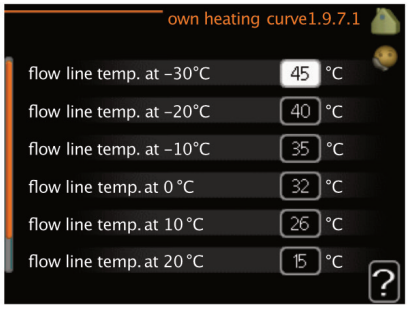
Here you select the return time for temporary speed change (speed 1-4) on the ventilation in menu 1.2. Return time is the time it takes before ventilation speed returns to normal.

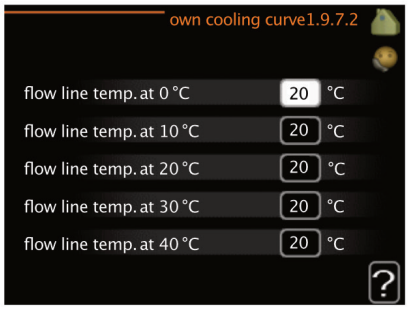
Menu 1.9.7 – Own curve

Flow temperature.

Heating
Setting range: 5 to 80 °C

Cooling (accessory required)
Depending on which accessory is used the setting range can vary.
Setting range: 7 to 40 °C



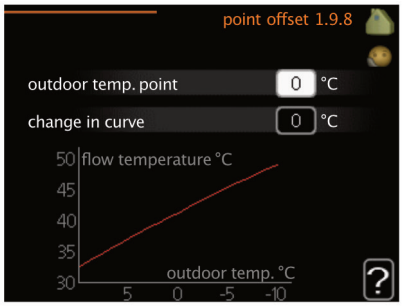


Create your own heating or cooling curve here, by setting the desired flow temperatures for different outdoor temperatures.

IMPORTANT
Curve 0 in menu 1.9.1 must be selected for own curve to apply.

Point offset

outdoor temp. point
Setting range: -40 to 30 °C
Default value: 0 °C
change in curve
Setting range: -10 to 10 °C
Default value: 0 °C



Select a change in the heating curve at a certain outdoor temperature here. One step is usually enough to change the room temperature by one degree, but in some cases several steps may be required.

The heat curve is affected at ± 5 °C from set outdoor temp. point.

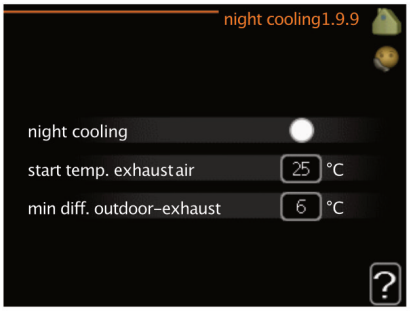
It is important that the correct heating curve is selected so that the room temperature is experienced as even.

TIP
If it is cold in the house, at, for example -2 °C, "outdoor temp. point" is set to "-2" and "change in curve" is increased until the desired room temperature is maintained.

IMPORTANT
Wait 24 hours before making a new setting, so that the room temperature has time to stabilise.

Night cooling (accessory required)

start temp. exhaust air
Setting range: 20 to 30 °C
Default value: 25 °C
min diff. outdoor-exhaust
Setting range: 3 to 10 °C
Default value: 6 °C



Activate night cooling here.

If the temperature in the house is high and the outdoor temperature is lower, a cooling effect can be obtained by forcing the ventilation.

If the temperature difference between the exhaust air and the outdoor air temperature is greater than the set value ("min diff. outdoor-exhaust") and the exhaust air temperature is higher than the set value ("start temp. exhaust air") run the ventilation at speed 4 until one of the conditions is no longer met.

IMPORTANT
Night cooling can only be activated when house heating has been deactivated. This is done in menu 4.2.

4.2 Set the domestic hot water capacity

Overview

Submenus

This menu only appears if a domestic hot water tank is docked to the heat pump.

For the menu **Hot water** there are several submenus. Status information for the relevant menu can be found on the display to the right of the menus.

temporary lux
Activation of temporary increase in the domestic hot water temperature. Status information displays “off" or what length of time of the temporary temperature increase remains.

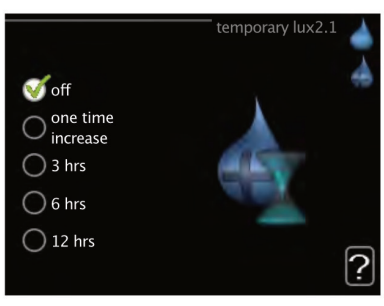
comfort mode
Setting domestic hot water comfort. The status information displays what mode is selected, "economy", "normal" or "luxury".

scheduling
Scheduling domestic hot water comfort. The status information "set" appears if you have set scheduling but it is not currently active, "holiday setting" appears if holiday setting is active at the same time as scheduling (when the holiday function is prioritised), "active" appears if any part of scheduling is active, otherwise "off" appears.

advanced
Setting periodic increase in the domestic hot water temperature.

Menu 2.1 – Temporary lux

Setting range: 3, 6 and 12 hours and mode "off" and "one time increase"
Default value: "off"



If domestic hot water requirement has temporarily increased this menu can be used to select an increase in the domestic hot water temperature to lux mode for a selectable time.

IMPORTANT
If comfort mode "luxury" is selected in menu 2.2 no further increase can be carried out.

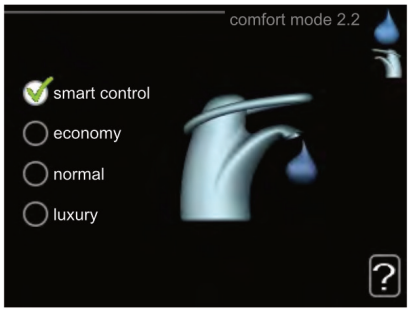
The function is activated immediately when a time period is selected and confirmed using the OK button. The remaining time for the selected setting is shown to the right.

When the time has run out HPC returns to the mode set in menu 2.2.

Select “off" to switch off temporary lux.

Menu 2.2 – Comfort mode

Setting range: smart control, economy, normal, luxury
Default value: normal



The difference between the selectable modes is the temperature of the hot tap water. Higher temperature means that the domestic hot water lasts longer.

Smart Control
In this menu you activate the Smart Control function. The function learns the previous week’s domestic hot water consumption and adapts the temperature in the water heater for the coming week to ensure minimal energy consumption.

If the domestic hot water demand is greater, there is a certain additional amount of domestic hot water available.

If the Smart Control function is activated, the water heater delivers the reported performance according to the energy decal.

economy
This mode produces less domestic hot water than the others, but is more economical. This mode can be used in smaller households with a small domestic hot water requirement.

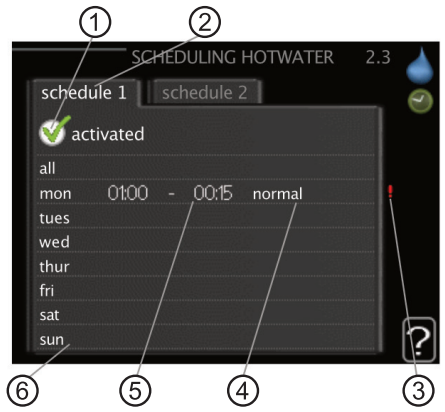
normal
Normal mode gives a larger amount of domestic hot water and is suitable for most households.

luxury
Lux mode gives the greatest possible amount of domestic hot water. In this mode, the immersion heater is used to heat domestic hot water as well as the compressor, which increases operating costs.

Menu 2.3 – Scheduling

Here you can define via a schedule the domestic hot water mode in which the system is to operate. Two different periods of domestic hot water comfort per day can be scheduled here.

Scheduling is activated/deactivated by ticking/unticking"activated". Set times are not affected at deactivation.



1	Activated
2	Schedule
3	Conflict
4	Adjusting
5	Time period
6	Day

Schedule
The schedule to be changed is selected here.

Activated
Scheduling for the selected period is activated here. Set times are not affected at deactivation.

Day
Select which day or days of the week the scheduling is to apply to here. To remove the scheduling for a particular day, the time for that day must be reset by setting the start time to the same as the stop time. If the row "all" is used, all days in the period are set according to that row.

Time period
The start and stop time for the selected day for scheduling are selected here.

Adjustment

Set the domestic hot water comfort that is to apply during scheduling here.

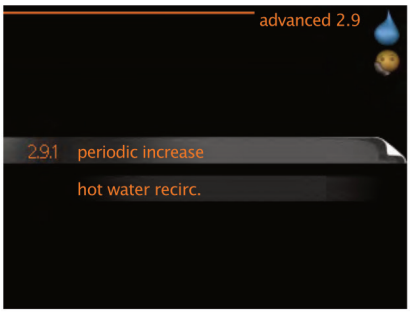
Conflict
If two settings conflict with each other, a red exclamation mark is displayed.

TIP
If you wish to set similar scheduling for every day of the week start by filling in “all” and then changing the desired days.

TIP
Set the stop time earlier than the start time so that the period extends beyond midnight. Scheduling then stops at the set stop time the day after.
Scheduling always starts on the date that the start time is set for.

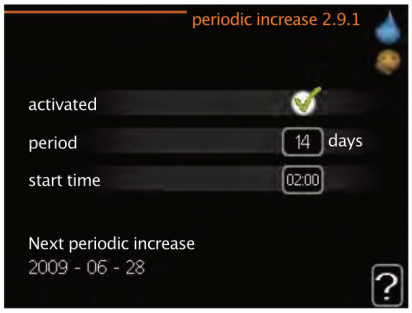
Menu 2.9 – Advanced

Menu **advanced** has orange text and is intended for the advanced user. This menu has several submenus.



Menu 2.9.1 – Periodic increase

period
Setting range: 1 to 90 days
Default value: 14 days
start time
Setting range: 00:00 to 23:00
Default value: 00:00



To prevent bacterial growth in the water heater, the heat pump and any additional heater can increase the domestic hot water temperature for a short time at regular intervals.

The length of time between increases can be selected here. The time can be set between 1 and 90 days. Default value is 14 days. Tick/untick "activated" to start/switch off the function.

Menu 2.9.2 – Domestic hot water recirc.
(accessory required)

operating time
Setting range: 1 to 60 min
Default value: 60 min
downtime
Setting range: 0 to 60 min
Default value: 0 min

Set the domestic hot water circulation for up to three periods per day here. During the set periods the domestic hot water circulation pump will run according to the settings above.

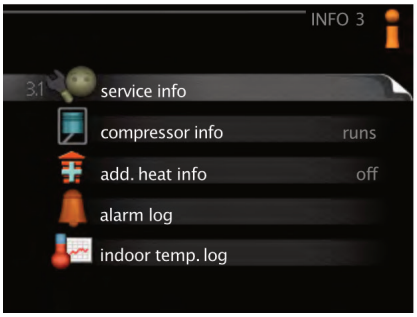
"operating time" decide how long the domestic hot water circulation pump must run per operating instance.

"downtime" decide how long the domestic hot water circulation pump must be stationary between operating instances.

Domestic hot water circulation is activated in menu 5.4 "soft inputs and outputs".

4.3 Get information

Overview



Submenus

For the menu **info** there are several submenus. No settings can be made in these menus, they just display information. Status information for the relevant menu can be found on the display to the right of the menus.

service info
displays temperature levels and settings in the installation.

compressor info
displays operating times, number of starts etc for the compressor in the heat pump.

add. heat info
displays information about the additional heat's operating times etc.

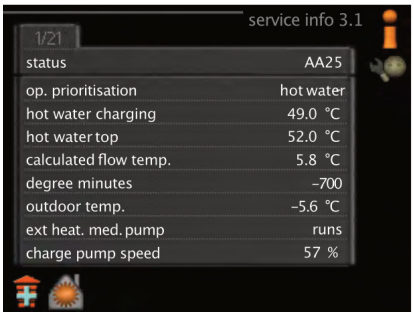
alarm log
displays the latest alarms.

indoor temp. log
the average temperature indoors week by week during the past year.

Menu 3.1 – Service info

Information about the actual operating status of the installation (e.g. current temperatures etc.) can be obtained here. No changes can be made.

The information is on several pages. Turn the control knob to scroll between the pages. This figure shows the number of compressors that are needed for the current demand.



Symbols in this menu


Compressor


Addition


Cooling


Heating medium pump (orange)


Solar accessory


Additional heat in tank


Heating


Domestic hot water

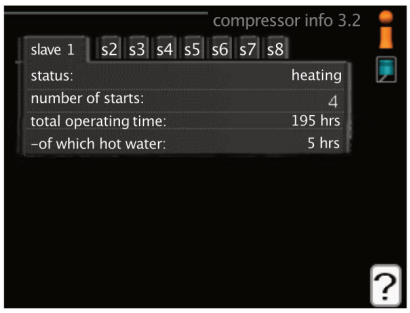

Pool


Ventilation

Menu 3.2 – Compressor info

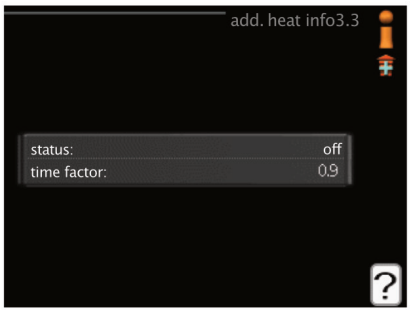
Information about the compressor's operating status and statistics can be obtained here. No changes can be made.

The information is on several pages. Turn the control knob to scroll between the pages.



Menu 3.3 – Add. heat info

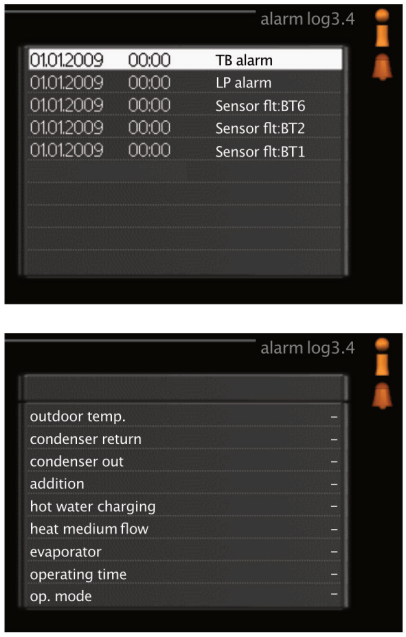
Information about the additional heat's settings, operating status and statistics can be obtained here. No changes can be made. The information is on several pages. Turn the control knob to scroll between the pages.



Menu 3.4 – Alarm log

To facilitate fault-finding the installation's operating status at alarm alerts is stored here. You can see information for the 10 most recent alarms.

To view the run status in the event of an alarm, mark the alarm and press the OK button.

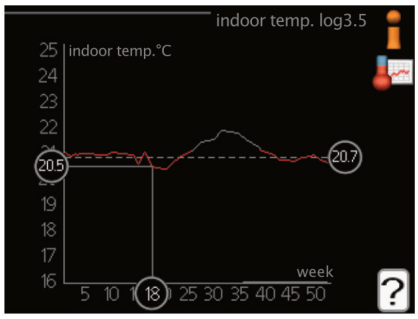


Information about an alarm

Menu 3.5 – Indoor temp. log

Here you can see the average temperat- indoor temp. log ure indoors week by week during the past year. The dotted line indicates the annual average temperature.

The average outdoor temperature is only shown if a room temperature sensor/room unit is installed.

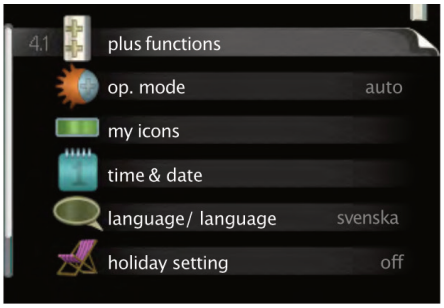


To read off an average temperature:

1. Turn the control knob so that the ring on the shaft with the week number is marked.
2. Press the OK button.
3. Follow the grey line up to the graph and out to the left to read off the average indoor temperature at the selected week.
4. You can now select to take read outs for different weeks by turning the control knob to the right or left and read off the average temperature.
5. Press the OK or Back button to exit read off mode.

4.4 Adjust the heat pump

Overview



Submenus

For the menu **My System** there are several submenus. Status information for the relevant menu can be found on the display to the right of the menus.

plus functions
Settings applying to any installed extra functions in the heating system.

op. mode
Activation of manual or automatic operating mode. The status information shows the selected operating mode.

my icons
Settings regarding which icons in the control module's user interface that are to appear on the hatch when the door is closed.

time & date
Setting current time and date.

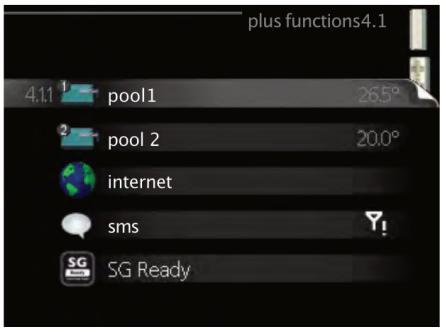
language
Select the language for the display here. The status information shows the selected language.

holiday setting
Vacation scheduling heating, domestic hot water and ventilation. Status information "set" is displayed if you set a vacation schedule but it is not active at the moment, "active" is displayed if any part of the vacation schedule is active, otherwise it displays " off".

advanced
Settings of control module work mode.

Menu 4.1 – Plus functions

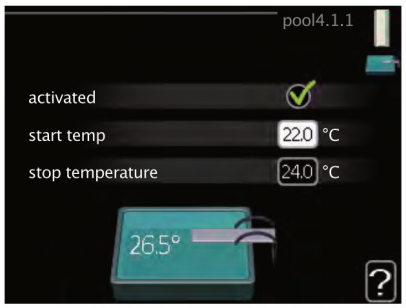
Settings for any additional functions installed in HPC can be made in the sub menus.



Menu 4.1.1 – 4.1.2 Pool 1 – Pool 2

(accessory is required)

start temp
Setting range: 5.0 to 80.0 °C
Default value: 22.0 °C
stop temperature
Setting range: 5.0 to 80.0 °C
Default value: 24.0 °C
maximum number of compr.
Setting range: 1 to 8
Default value: 8



Select whether the pool control is to be activated, within what temperatures (start and stop temperature) pool heating must occur and how many compressors may work against the pool at the same time.

Maximum number gives the possibility of restricting the number of compressors that are permitted to work with pool heating. The setting can be adjusted if requirements other than pool heating must be prioritised for example.

If the pool temperature drops below the set start temperature and there is no domestic hot water or heating requirement, HPC starts pool heating.

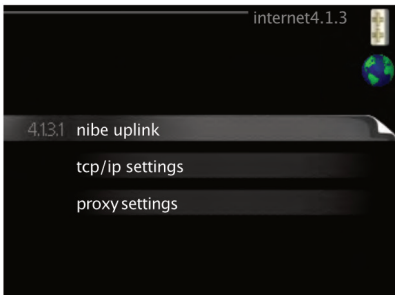
Untick "activated" to switch off the pool heating.

IMPORTANT

The start temperature cannot be set to a value that is higher than the stop temperature.

Menu 4.1.3 – Internet

Here you make the settings for connecting HPC via myUpway, which uses the Internet.



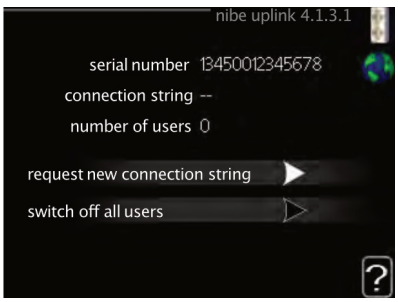
NOTE

For these functions to work the network cable must be connected.

Menu 4.1.3.1 – myUpway

Here you can manage the installation's connection to myUpway (www.myUpway.com) and see the number of users connected to the installation via the internet.

A connected user has a user account in myUpway , which has been given permission to control and/or monitor your installation.



Request new connection string

To connect a user account on myUpway to your installation, you must request a unique connection code.

1. Mark “request new connection string" and press the OK button.
2. The installation now communicates with myUpway to create a connection code.
3. When a connection string has been received, it is shown in this menu at "connection string" and is valid for 60 minutes.

Disconnect all users

1. Mark “switch off all users" and press the OK button.
2. The installation now communicates with myUpway to release your installation from all users connected via the internet.

NOTE
After disconnecting all users none of them can monitor or control your installation via myUpway without requesting a new connection string.

Menu 4.1.3.8 – TCP/IP Settings

You can set TCP/IP settings for your installation here.

Automatic setting (DHCP)

1. Tick “automatic". The installation now receives the TCP/IP settings using DHCP.
2. Mark “confirm" and press the OK button.

Manual setting

1. Untick "automatic", you now have access to several setting options.
2. Mark “ip-address" and press the OK button.
3. Enter the correct details via the virtual keyboard.
4. Select "OK" and press the OK button.
5. Repeat 1 – 3 for "net mask", "gateway" and "DNS".
6. Mark “confirm" and press the OK button.

IMPORTANT
The installation cannot connect to the internet without the correct TCP/IP settings. If unsure about applicable settings use the automatic mode or contact your network administrator (or similar) for further information.

TIP
All settings made since opening the menu can be reset by marking "reset" and pressing the OK button.

Menu 4.1.3.9 – Proxy settings

You can set proxy settings for your installation here.

Proxy settings are used to give connection information to a intermediate server (proxy server) between the installation and Internet. These settings are primarily used when the installation connects to the Internet via a company network. The installation supports proxy authentication of the HTTP Basic and HTTP Digest type.

If unsure about applicable settings, contact your network administrator (or similar) for further information.

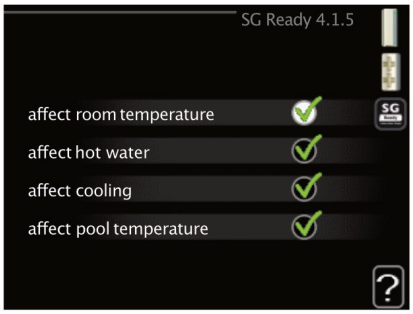
Setting

1. Tick “use proxy" if you do not want to use a proxy.
2. Mark “server" and press the OK button.
3. Enter the correct details via the virtual keyboard.
4. Select "OK" and press the OK button.
5. Repeat 1 – 3 for "port", "user name" and "password".
6. Mark “confirm" and press the OK button.

TIP
All settings made since opening the menu can be reset by marking "reset" and pressing the OK button.

Menu 4.1.5 – SG Ready

This function can only be used in mains SG Ready 4.1.5 networks that support the "SG Ready"-standard. Make settings for the function "SG Ready" here.



Affect room temperature

Here you set whether room temperature should be affected when activating "SG Ready".

With low price mode on "SG Ready" the parallel offset for the indoor temperature is increased by "+1". If a room sensor is installed and activated, the desired room temperature is instead increased by 1 °C.

With over capacity mode on "SG Ready" the parallel offset for the indoor temperature is increased by "+2". If a room sensor is installed and activated, the desired room temperature is instead increased by 2 °C.

Affect domestic hot water temperature

Here you set whether the temperature of the domestic hot water should be affected when activating "SG Ready".

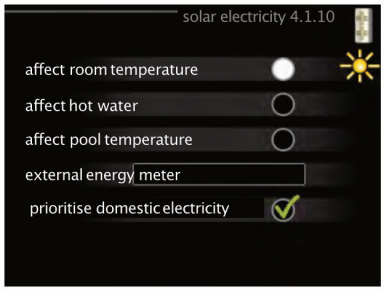
With low price mode on "SG Ready", the stop temperature for the domestic hot water is set as high as possible with compressor operation only (immersion heater not permitted).

With over capacity mode of "SG Ready" the domestic hot water is set to "luxury" (immersion heater permitted).

Menu 4.1.10 – Solar electricity
(accessory is required)

NOTE
The function must be connected and activated in your HPC.

affect room temperature
Setting range: on/off
Default value: off
affect hot water
Setting range: on/off
Default value: off
affect pool temperature
Setting range: on/off
Default value: off
prioritise domestic electricity (PV Split)
Setting range: on/off
Default value: off



This is where you set which part of your installation (room temperature, domestic hot water temperature, pool temperature) is to benefit from the solar electricity surplus.

When the solar panels produce more electricity than HPC requires, the temperature in the property is adjusted and/or the temperature of the domestic hot water is increased.

PV Split

In this menu you can also make settings that are specific for your PV Split.

For PV Split, you can select whether you want domestic electricity to be prioritised ahead of room temperature and domestic hot water, provided that HPC is equipped with an external energy meter.

Menu 4.2 – OP. mode

NOTE
The function must be connected and activated in your HPC.

op. mode
Setting range: auto, manual, add. heat only
Default value: auto
Funktionen
Setting range: compressor, addition, heating, cooling

The control module operating mode is usually set to "auto". It is also possible to set the control module to "add. heat only", when only additional heat is used, or "manual" and then select what functions are to be permitted.

Change the operating mode by marking the desired mode and pressing the OK button. When an operating mode is selected it shows what in the control module is permitted (crossed out = not permitted) and selectable alternatives to the right. To select selectable functions that are permitted or not, mark the function using the control knob and press the OK button.

Operating mode auto

In this operating mode the control module automatically selects what functions are permitted.

Operating mode manual

In this operating mode you can select what functions are permitted. You cannot deselect "compressor" in manual mode.

Operating mode add. heat only

In this operating mode the compressor is not active, only additional heat is used.

IMPORTANT
If you choose mode "add. heat only" the compressor is deselected and there is a higher operating cost.

IMPORTANT
You cannot change from only additional heat if you do not have a heat pump connected.

Functions

compressor
is the unit that produces heating and domestic hot water for the home. If “compressor” is deselected in auto mode, this is displayed with a symbol in the main menu. You cannot deselect "compressor" in manual mode.

addition
is the unit that helps the compressor to heat the home and/or the domestic hot water when it cannot manage the entire requirement alone.

heating
means you obtain heating in the home. You can deselect the function when you do not wish to have the heating on.

cooling
means that you obtain cooling in the home in hot weather. This alternative requires an accessory for cooling, or for the air/water heat pump to have a built-in function for cooling, and is activated in the menu. You can deselect this function when you do not wish to have cooling in operation.

Menu 4.3 – My icons

You can select what icons should be visible when the door to HPC is closed. You can select up to 3 icons. If you select more, the ones you selected first will disappear. The icons are displayed in the order you selected them.

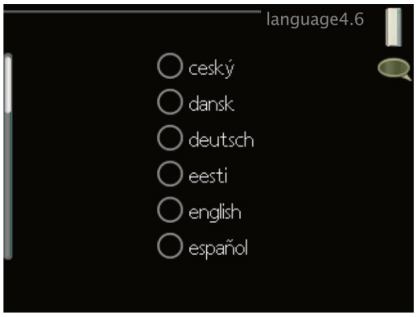
Menu 4.4 – Time & date

Set time and date, display mode and time zone here.

TIP
Time and date are set automatically if the heat pump is connected to myUpway. To obtain the correct time, the time zone must be set.

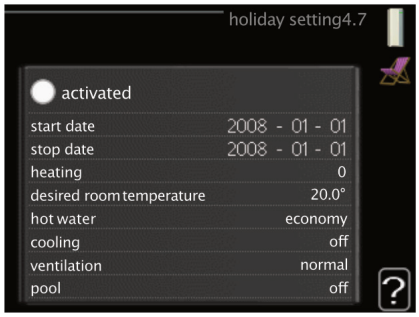
Menu 4.6 – Language

Choose the language that you want the language information to be displayed in here.



Menu 4.7 – Holiday setting

To reduce energy consumption during a holiday you can schedule a reduction in heating and domestic hot water temperature. Cooling, ventilation, pool and solar panel cooling can also be scheduled if the functions are connected.



If a room sensor is installed and activated, the desired room temperature (°C) is set during the time period. This setting applies to all climate systems with room sensors.

If a room sensor is not activated, the desired offset of the heating curve is set. One step is usually enough to change the room temperature by one degree, but in some cases several steps may be required. This setting applies to all climate systems without room sensors.

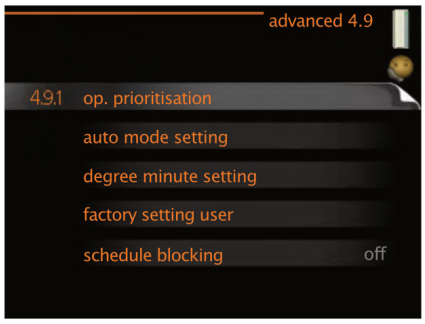
Vacation scheduling starts at 00:00 on the start date and stops at 23:59 on the stop date.

TIP
Stop the holiday setting about a day before your return so that room temperature and domestic hot water have time to return to their usual levels.

TIP
Set the vacation setting in advance and activate just before departure in order to maintain the comfort.

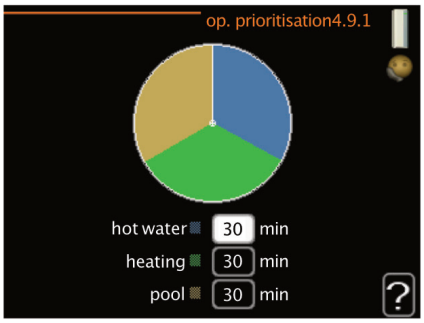
Menu 4.9 – Advanced

Menu **advanced** has orange text and is intended for the advanced user. This menu has several submenus.



Menu 4.9.1 – Op. prioritisation

Setting range: 0 to 180 min
Default value: 30 min



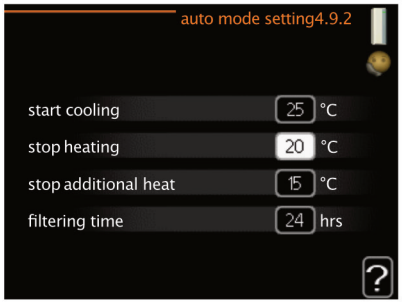
Choose here how long the installation should work with each requirement if there are several requirements at the same time. If there is only one requirement the installation only works with that requirement.

The indicator marks where in the cycle the installation is.

If 0 minutes is selected it means that requirement is not prioritised, but will only be activated when there is no other requirement.

Menu 4.9.2 – Auto mode setting.

start cooling
Setting range: -20 to 40 °C
Default value: 25
stop heating
Setting range: -20 to 40 °C
Default value: 17
stop additional heat
Setting range: -25 to 40 °C
Default value: 5
filtering time
Setting range: 0 to 48 h
Default value: 24 h



If the operating mode is set to "auto", the control module selects when start and stop of additional heat and heat production is permitted, depending on the average outdoor temperature. If the heat pump has the integrated cooling function and it is activated in the menu you can also select the start temperature for cooling.

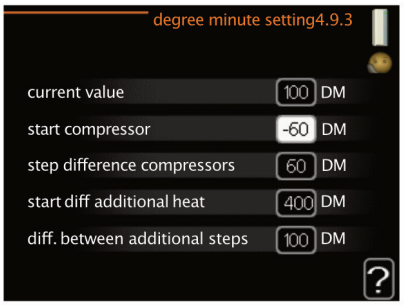
Select the average outdoor temperatures in this menu.

IMPORTANT
It cannot be set "stop additional heat" higher than "stop heating".

filtering time
You can also set the time (filtering time) over which the average temperature is calculated. If you select 0, the current outdoor temperature is used.

Menu 4.9.3 – Degree minute setting

current value
Setting range: -3000 to 3000
start compressor
Setting range: -1000 to -30
Default value: -60
step difference compressors
Setting range: 10 to 2000
Default value: 60
start diff additional heat
Setting range: 100 to 2000
Default value: 400
diff. between additional steps
Setting range: 10 to 1000
Default value: 30



Degree minutes are a measurement of the current heating requirement in the house and determine when the compressor respectively additional heat will start/stop.

IMPORTANT
Higher value on "start compressor" gives more compressor starts, which increase wear on the compressor. Too low value can give uneven indoor temperatures.

Menu 4.9.4 – Factory setting user

All settings that are available to the user (including advanced menus) can be reset to default values here.

IMPORTANT
After factory setting, personal settings such as heating curves must be reset.

Menu 4.9.5 – Schedule blocking

The additional heat can be scheduled to be blocked for up to two different time periods here.

If scheduling is active the relevant blocking symbol is shown in the main menu on the symbol for the control module.

Schedule
The period to be changed is selected here.

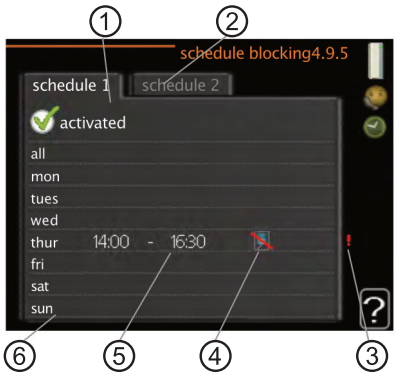
Activated
Scheduling for the selected period is activated here. Set times are not affected at deactivation.

Day
Select which day or days of the week the scheduling is to apply to here. To remove the scheduling for a particular day, the time for that day must be reset by setting the start time to the same as the stop time. If the row "all" is used, all days in the period are set according to that row.

Time period
The start and stop time for the selected day for scheduling are selected here.

Blocking
The desired blocking is selected here.

Conflict
If two settings conflict with each other, a red exclamation mark is displayed.



1	Activated
2	Schedule
3	Conflict
4	Blocking
5	Time period
6	Day

Blocking the compressor in the outdoor module

Blocking additional heat.

TIP
If you wish to set similar scheduling for every day of the week start by filling in “all” and then changing the desired days.

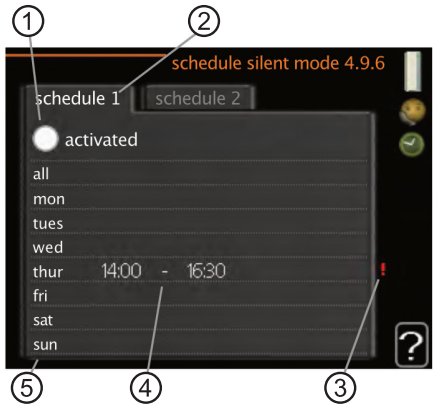
TIP
Set the stop time earlier than the start time so that the period extends beyond midnight. Scheduling then stops at the set stop time the day after.
Scheduling always starts on the date that the start time is set for.

IMPORTANT
Long term blocking can cause reduced comfort and operating economy.

Menu 4.9.6 – Schedule silent mode

Here you can schedule whether the heat pump is to be set to "quiet mode" (the heat pump must support this) for up to two different time periods and two different max. frequencies. In this way, you can reduce the sound during the day and also reduce it further at night.

If scheduling is active the "quiet mode" symbol is shown in the main menu on the symbol for the control module.



1	Activated
2	Schedule
3	Conflict
4	Time period
5	Day

Schedule
The period to be changed is selected here.

Activated
Scheduling for the selected period is activated here. Set times are not affected at deactivation.

Day
Select which day or days of the week the scheduling is to apply to here. To remove the scheduling for a particular day, the time for that day must be reset by setting the start time to the same as the stop time. If the row "all" is used, all days in the period are set according to that row.

Time period
The start and stop time for the selected day for scheduling are selected here.

Conflict
If two settings conflict with each other, a red exclamation mark is displayed.

TIP
If you wish to set similar scheduling for every day of the week start by filling in “all” and then changing the desired days.

TIP
Set the stop time earlier than the start time so that the period extends beyond midnight. Scheduling then stops at the set stop time the day after.
Scheduling always starts on the date that the start time is set for.

IMPORTANT
Long term scheduling of "quiet mode" can cause reduced comfort and operating economy.

Menu 4.9.7 – Tools

This function ensures that any ice on the fan or fan grille is removed.

In the event of a heavily iced outdoor module, "de-icing fan" may need to be run as a complement to defrosting, which is performed automatically. Activation takes place by ticking "de-icing fan” in the menu, after which de-icing is performed once.

5 Disturbances in comfort

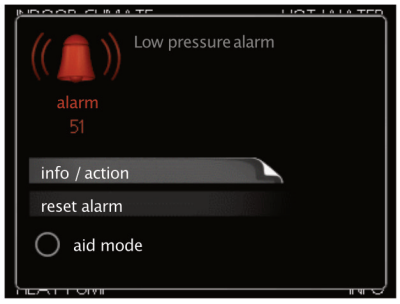
In most cases, HPC notes a malfunction (a malfunction can lead to disruption in comfort) and indicates this with alarms, and instructions for action, in the display.

5.1 Info-menu

All the installation's measurement values are gathered under menu 3.1 in the control module's menu system. Examining the values in this menu can often make it easier to identify the source of the fault.

5.2 Manage alarm

In the event of an alarm, some kind of malfunction has occurred, which is indicated by the status lamp changing from green continuously to red continuously. In addition, an alarm bell appears in the information window.



Alarm

In the event of an alarm with a red status lamp a malfunction has occurred that the heat pump and/or control module cannot remedy itself. In the display, by turning the control knob and pressing the OK button, you can see the type of alarm it is and reset it. You can also choose to set the installation to aid mode.

info/action
Here you can read what the alarm means and receive tips on what you can do to correct the problem that caused the alarm.

reset alarm
In many cases, it is sufficient to select “reset alarm” in order for the product to revert to normal operation. If a green light comes on after selecting “reset alarm”, the alarm has been remedied. If a red light is still visible and a menu called “alarm” is visible in the display, the problem causing the alarm still remains. If the alarm initially disappears and then returns, you should contact your installer.

aid mode
is a type of emergency mode. This means that the installation produces heat and/or domestic hot water even if there is some kind of problem. This could mean that the heat pump’s compressor is not in operation. In this case, any electric additional heat produces heat and/or domestic hot water.

IMPORTANT
To select aid mode an alarm action must be selected in the menu 5.1.4.

IMPORTANT
Selecting "aid mode” is not the same as correcting the problem that caused the alarm. The status lamp will therefore continue to be red.

If the alarm does not reset, contact your installer for suitable remedial action.

If the operational interference is not shown in the display the following tips can be used:

Basic actions

Start by checking the following items:

- the switch's position.
- group and main fuses of the accommodation.
- the property's earth circuit breaker.
- correctly set load monitor (if installed).

Low domestic hot water temperature or a lack of domestic hot water

This part of the fault-tracing chapter only applies if the water heater is installed in the system.

- Closed or choked filling valve for the domestic hot water.
  - ► Open the valve.
- Mixing valve (if there is one installed) set too low.
  - ► Adjust the mixer valve.

- HPC in incorrect operating mode.
  - ► Enter menu 4.2. If mode "auto" is selected, select a higher value on "stop additional heat" in menu 4.9.2.
  - ► If mode "manual" is selected, select "addition".
- Large domestic hot water consumption.
  - ► Wait until the domestic hot water has heated up. Temporarily increased domestic hot water capacity (temporary lux) can be activated in menu 2.1.
- Too low domestic hot water setting.
  - ► Enter menu 2.2 and select a higher comfort mode.
- Low domestic hot water access with the “Smart Control” function active.
  - ► If the domestic hot water usage has been low, the installation will produce less domestic hot water than normal. Restart the installation.
- Too low or no operating prioritisation of domestic hot water.
  - ► Enter menu 4.9.1 and increase the time for when domestic hot water is to be prioritised. Note that if the time for domestic hot water is increased, the time for heating production is reduced, which can give lower/uneven room temperatures.
- "Holiday mode" activated in menu 4.7.
  - ► Enter menu 4.7 and select "Off".

Low room temperature

- Closed thermostats in several rooms.
  - ► Set the thermostats to max, in as many rooms as possible. Adjust the room temperature via menu 1.1, instead of choking the thermostats.
- HPC in incorrect operating mode.
  - ► Enter menu 4.2. If mode "auto" is selected, select a higher value on "stop heating" in menu 4.9.2.
  - ► If mode "manual" is selected, select "heating". If this is not enough, select "addition".
- Too low set value on the automatic heating control.
  - ► Enter menu 1.1 "temperature" and adjust the offset heating curve up. If the room temperature is only low in cold weather the curve slope in menu 1.9.1 "heating curve" needs adjusting up.
- Too low or no operating prioritisation of heat.
  - ► Enter menu 4.9.1 and increase the time for when heating is to be prioritised. Note that if the time for heating is increased the time for domestic hot water production is reduced, which can give smaller amounts of domestic hot water.
- "Holiday mode" activated in menu 4.7.
  - ► Enter menu 4.7 and select "Off".
- External switch for changing the room heating activated.
  - ► Check any external switches.
- Air in the climate system.
  - ► Vent the climate system.
- Closed valves to the climate system or heat pump.
  - ► Open the valves (contact your installer for assistance in finding them).

High room temperature

- Too high set value on the automatic heating control.
  - ► Enter menu 1.1 (temperature) and reduce the offset heating curve. If the room temperature is only high in cold weather the curve slope in menu 1.9.1 "heating curve" needs adjusting down.
- External switch for changing the room heating activated.
  - ► Check any external switches.

Low system pressure

- Not enough water in the climate system.
  - ► Fill the climate system with water and check for leaks. In event of repeated filling, contact the installer.

The air/water heat pump's compressor does not start

- There is no heating requirement.
  - ► HPC does not call on heating or domestic hot water.
- Compressor blocked due to the temperature conditions.
  - ► Wait until the temperature is within the product's working range.
- Minimum time between compressor starts has not been reached.
  - ► Wait for at least 30 minutes and then check if the compressor has started.
- Alarm tripped.
  - ► Follow the display instructions.

5.3 Add. heat only

If you are unsuccessful in rectifying the fault and are unable to heat the house, you can, whilst waiting for assistance, continue running the heat pump in "add. heat only". This means that additional heating only is used to heat the house.

Set the installation to additional heat mode

1. Go to menu 4.2 op. mode.
2. Mark "add. heat only" using the control knob and then press the OK button.
3. Return to the main menus by pressing the Back button.

IMPORTANT
When commissioning without ait air/water heat pump, the "communication error" alarm may appear in the display.

6 Glossary

Additional heat

The additional heat is the heat produced in addition to the heat supplied by the compressor in your heat pump. Additional heaters can be for example, immersion heater, electric heater, solar power system, gas/oil/pellet/wood burner or district heating.

Calculated flow temperature

The temperature that the heat pump calculates that the heating system requires for an optimum accommodation temperature. The colder the outdoor temperature, the higher the calculated flow temperature.

Circulation pump

Pump that circulates liquid in a pipe system.

Climate system

Climate systems can also be called heating systems. The building is heated using radiators, under floor coils or convector fans.

Compressor

Compresses the gas state refrigerant. When the refrigerant is compressed, the pressure and the temperature increase.

Condenser

Heat exchanger where the hot gas state refrigerant condenses (cooled and becomes a liquid) and releases heat energy to the house heating and domestic hot water systems.

COP

If a heat pump has COP of 5, this means that you only pay for a fifth of your heating demand. This is the efficiency of the heat pump. This is measured at different measurement values, e.g.: 7/45 where 7 stands for the outdoor temperature and where 45 stands for how many degrees the flow temperature is maintaining.

Disturbances in comfort

Disturbances in comfort are undesirable changes to the domestic hot water/indoor comfort, for example when the temperature of the domestic hot water is too low or if the indoor temperature is not at the desired level.
A malfunction in the heat pump can sometimes be noticed in the form of a disturbance in comfort.
In most cases, the heat pump notes operational interference and indicates this with alarms and shows instructions in the display.

Domestic hot water

The water one showers in for example.

Dot, dimensioned outdoor temperature

The dimensioned outdoor temperature differs depending on where you live. The lower the dimensioned outdoor temperature, the lower the value should be selected on "selecting a heat curve".

Efficiency

A measurement of how effective the heat pump is. The higher the value is the better it is.

Electrical addition

This is electricity that, for example, an immersion heater uses as addition during the coldest days of the year to cover the heating demand that the heat pump cannot manage.

Filtering time

Indicates the time the average outdoor temperature is calculated on.

Flow pipe

The line in which the heated water is transported from the heat pump out to the house heating system (radiators/heating coils).

Heat exchanger

Device that transfers heat energy from one medium to another without mixing mediums. Examples of different heat exchangers include evaporators and condensers.

Heat factor

Measurement of how much heat energy the heat pump gives off in relation to the electric energy it needs to operate. Another term for this is COP.

Heating curve

The heating curve determines which heat the heat pump is to produce depending on the temperature outdoors. If a high value is selected, this tells the heat pump that it must produce a lot of heat when it is cold outdoors in order to achieve a warm indoor temperature.

Heating medium

Hot liquid, usually normal water, which is sent from the heat pump to the house climate system and makes the accommodation warm. The heating medium also heats the domestic hot water through the double jacketed tank or coil tank.

Heating medium side

Pipes to the house's climate system and condenser make up the heating medium side.

Mixing valve

A valve that mixes the cold water with the domestic hot water leaving the heater.

Outside sensor

A sensor that is located outdoors. This sensor tells the heat pump how hot it is outdoors.

Pressostat

Pressure switch that triggers an alarm and/or stops the compressor if non-permitted pressures occur in the system. A high pressure pressostat trips if the condensing pressure is too great. A low pressure pressostat trips if the evaporation pressure is too low.

Radiator

Another word for heating element. They must be filled with water in order to be used with HPC.

Return pipe

The line in which the water is transported back to the heat pump from the house heating system (radiators/ heating coils).

Return temp

The temperature of the water that returns to the heat pump after releasing the heat energy to the radiators/ heating coils.

Room sensor

A sensor that is located indoors. This sensor tells the heat pump how hot it is indoors.

Safety valve

A valve that opens and releases a small amount of liquid if the pressure is too high.

Shuttle valve

A valve that can send liquid in two directions. A shuttle valve that enables liquid to be sent to the climate system, when the heat pump produces heating for the house, and to the domestic hot water heater, when the heat pump produces domestic hot water.

Flow temperature

The temperature of the heated water that the heat pump sends out to the heating system. The colder the outdoor temperature, the higher the supply line temperature becomes.

Water heater / Water tank

Container where domestic water is heated. Is located somewhere outside the heat pump.

UK

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