User Manual

Ground source heat pump
NIBE S1156/S1256



UHB EN 2246-1
531696

Quick guide

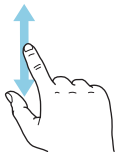
NAVIGATION

Select



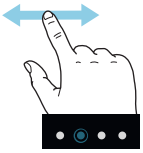
Most options and functions are activated by lightly pressing on the display with your finger.

Scroll



If the menu has several sub-menus, you can see more information by dragging up or down with your finger.

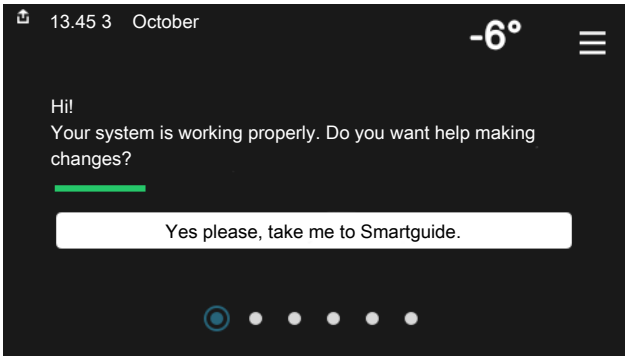
Browse



The dots at the bottom edge show that there are more pages.

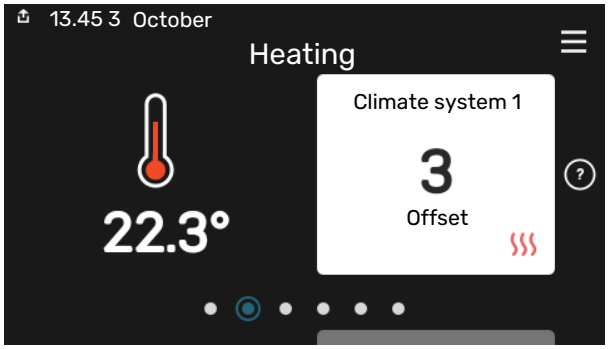
Drag to the right or left with your finger to browse between the pages.

Smartguide



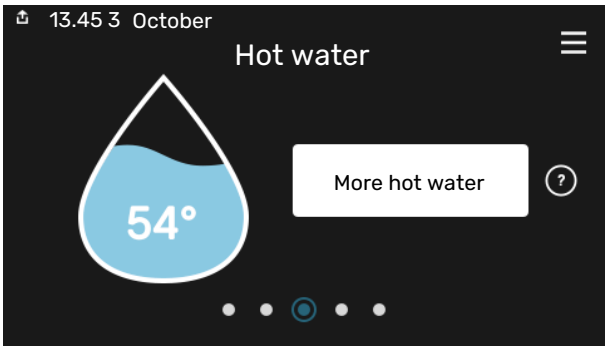
Smartguide helps you both to view information about the current status and to make the most common settings easily. The information that you see depends on the product you have and the accessories that are connected to the product.

Setting the indoor temperature.



Here, you can set the temperature in the installation's zones.

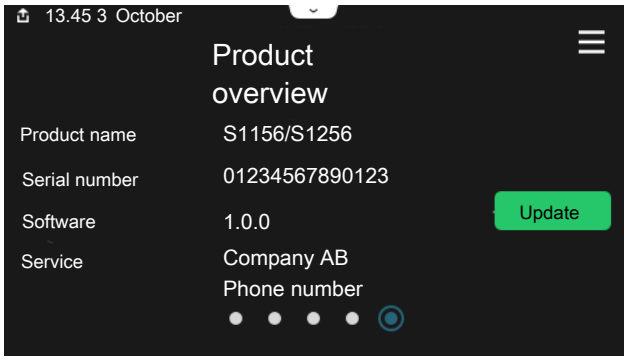
Increasing hot water temperature



Here, you can start or stop a temporary increase in the hot water temperature.

S1156: This function page is only visible in installations with a water heater.

Product overview



Here, you can find information about product name, the product's serial number, the version of the software and service. When there is new software to download, you can do it here (provided that S1156/S1256 is connected to myUplink).

IN THE EVENT OF DISTURBANCES IN COMFORT

If you experience a disturbance in comfort of any kind, there are various measures you can take yourself before contacting your installer. For instructions, see section "Troubleshooting".

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Important information

Installation data

Product	S1156/S1256
Serial number, main unit	
Serial number, subordinate heat pump 1	
Serial number, subordinate heat pump 2	
Serial number, subordinate heat pump 3	
Serial number, subordinate heat pump 4	
Serial number, subordinate heat pump 5	
Serial number, subordinate heat pump 6	
Serial number, subordinate heat pump 7	
Serial number, subordinate heat pump 8	
Installation date	
Installer	
Type of brine - Mixing ratio/freezing point	
Active drilling depth/collector length	

No.	Name	Fact. sett.	Set
1.9.1.1	heating curve (offset)	0	
1.9.1.1	heating curve (curve slope)	9	

✔	Accessories

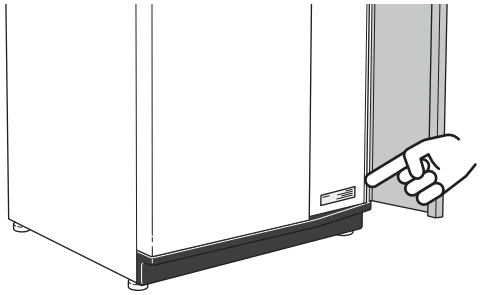
Serial number must always be given.

Certification that the installation is carried out according to instructions in the accompanying installer manual and applicable regulations.

Date _____ Signed _____

Serial number

The serial number can be found at the bottom right on S1156/S1256, in the display on the home screen "Product overview" and on the type plate.

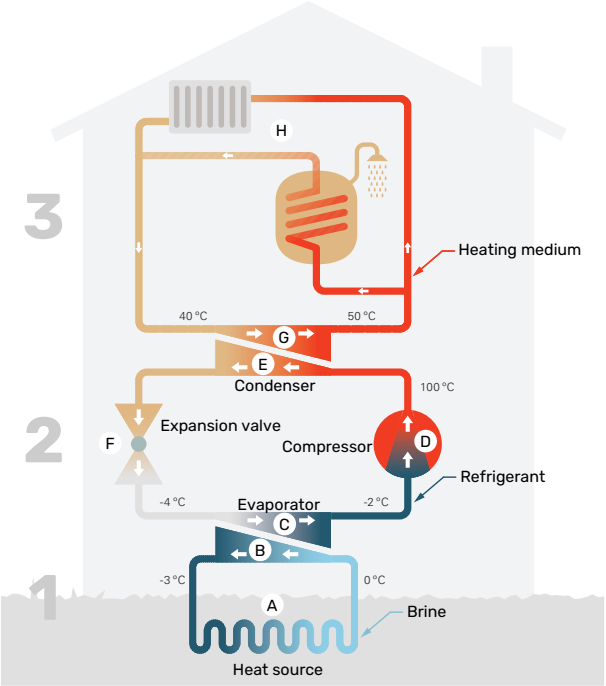


Caution

You need the product's (14 digit) serial number for servicing and support.

Heat pump function

A heat pump can use stored solar energy from rock, ground or water in order to heat a property. The conversion of energy stored in nature to property heating occurs in three different circuits. In the brine circuit, (1), free heat energy is retrieved from the surroundings and transported to the heat pump. The heat pump increases the retrieved heat's low temperature to a high temperature in the refrigerant circuit, (2). The heat is distributed around the house in the heating medium circuit, (3).



The temperatures are only examples and may vary between different installations and time of year.

Brine circuit

A In a hose, collector, an anti-freeze liquid, brine, circulates from the heat pump out to the heat source (rock/ground/lake). The energy from the heat source is stored by it heating the brine a few degrees, from about –3°C to about 0 °C.

B The collector then routes the brine to the heat pump's evaporator. Here, the brine releases heat energy and the temperature drops a few degrees. The liquid then returns to the heat source to retrieve energy again.

Refrigerant circuit

C Another liquid circulates in a closed system in the heat pump, a refrigerant, which also passes the evaporator. The refrigerant has a very low boiling point. In the evaporator the refrigerant receives the heat energy from the brine and starts to boil.

D The gas that is produced during boiling is routed into an electrically powered compressor. When the gas is compressed, the pressure increases and the gas's temperature increases considerably, from approx. 5-C to approx. 100 -C.

E From the compressor, gas is forced into a heat exchanger, condenser, where it releases heat energy to the heating system in the house, whereupon the gas is cooled and condenses to a liquid form again.

F As the pressure is still high, the refrigerant can pass an expansion valve, where the pressure drops so that the refrigerant returns to its original temperature. The refrigerant has now completed a full cycle. It is routed to the evaporator again and the process is repeated.

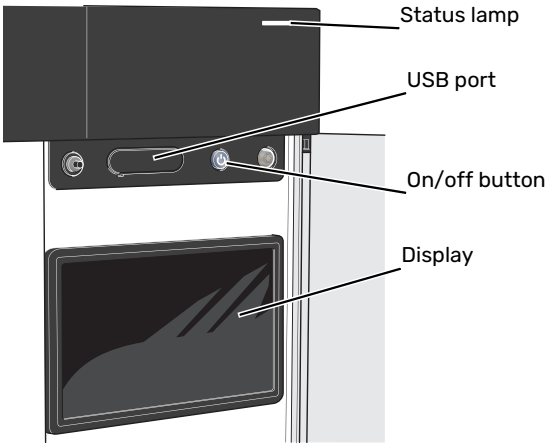
Heat medium circuit

G The heating energy that the refrigerant releases in the condenser is retrieved by the heat pump's boiler section.

H The heating medium circulates in a closed system and transports the heated water's heat energy to the house water heater and radiators/heating coils.

Control - Introduction

Display unit



THE STATUS LAMP

The status lamp shows how well your system is operating. It:

- lights up white during normal operation.
- lights yellow in emergency mode.
- lights red in the event of a deployed alarm.
- flashes white during active notice.
- is blue when S1156/S1256 is switched off.

If the status lamp is red, you receive information and suggestions for suitable actions on the display.

> TIP
>
> You also receive this information via myUplink.

THE USB PORT

Above the display, there is a USB port that can be used e.g. for updating the software. Log into myuplink.com and click the "General" and then "Software" tab to download the latest version of the software for your installation.

THE ON/OFF BUTTON

The on/off button has three functions:

- start
- switch off
- activate emergency mode

To start: press the on/off button once.

To switch off, restart or activate emergency mode: press and hold the on/off button for 2 seconds. This brings up a menu with various options.

For hard switch off: press and hold the on/off button for 5 seconds.

To activate emergency mode when S1156/S1256 is switched off: press and hold the on/off button for 5 seconds. (Deactivate the emergency mode by pressing once.)

THE DISPLAY

Instructions, settings and operational information are shown on the display.

Navigation

S1156/S1256 has a touchscreen where you simply navigate by pressing and dragging with your finger.

SELECT

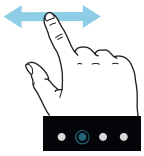
Most options and functions are activated by lightly pressing on the display with your finger.



BROWSE

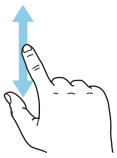
The dots at the bottom edge show that there are more pages.

Drag to the right or left with your finger to browse between the pages.



SCROLL

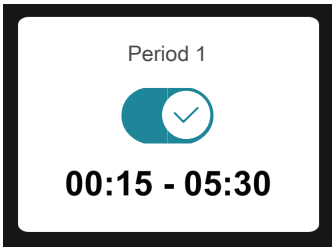
If the menu has several sub-menus, you can see more information by dragging up or down with your finger.



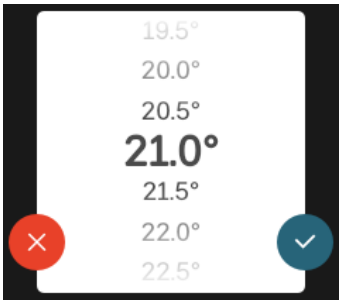
CHANGE A SETTING

Press the setting you want to change.

If it is an on/off setting, it changes as soon as you press it.



If there are several possible values, a spinning-wheel appears that you drag up or down to find the desired value.

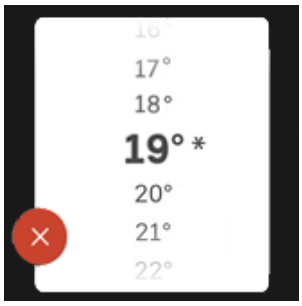


Press to save your change, or if you don't want to make a change.

FACTORY SETTING

Factory set values are marked with *.

Your installer may have chosen other values that suit your system better.



HELP MENU

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

Press the symbol to open the help text.

You may need to drag with your finger to see all text.

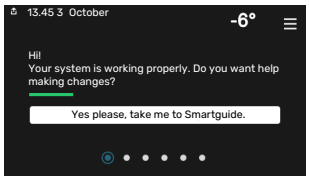
Menu types

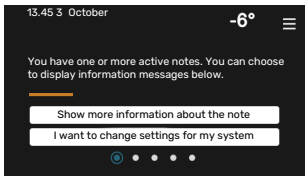
HOME SCREENS

Smartguide

Smartguide helps you both to view information about the current status and to make the most common settings easily. The information that you see depends on the product you have and the accessories that are connected to the product.

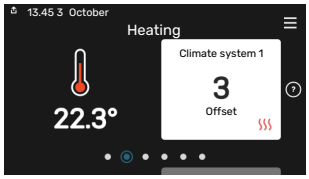
Select an option and press it to proceed. The instructions on the screen help you to choose correctly or give you information about what is happening.

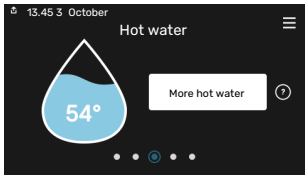




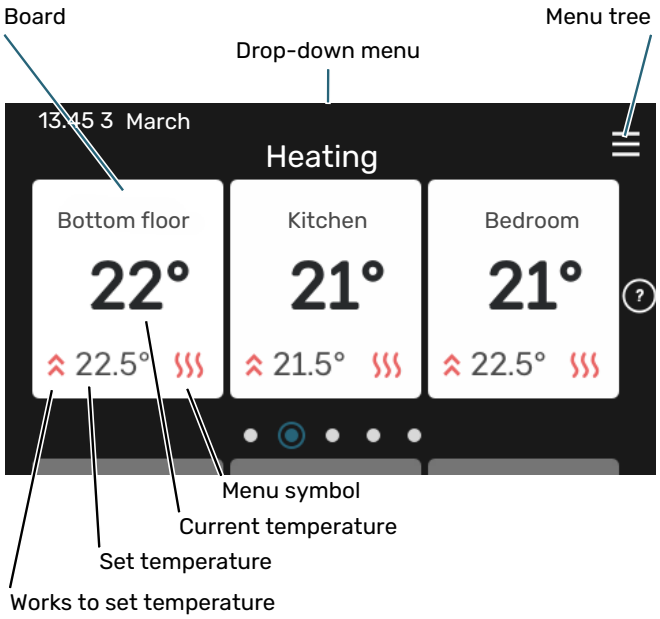
Function pages

On the function pages, you can both view information about the current status and easily make the most common settings. The function pages that you see depend on the product you have and the accessories that are connected to the product.





Drag to the right or left with your finger to browse between the function pages.

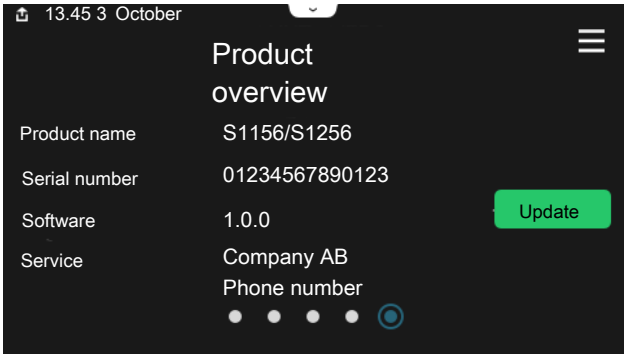


Press the card to adjust the desired value. On certain function pages, drag your finger up or down to obtain more cards.

Product overview

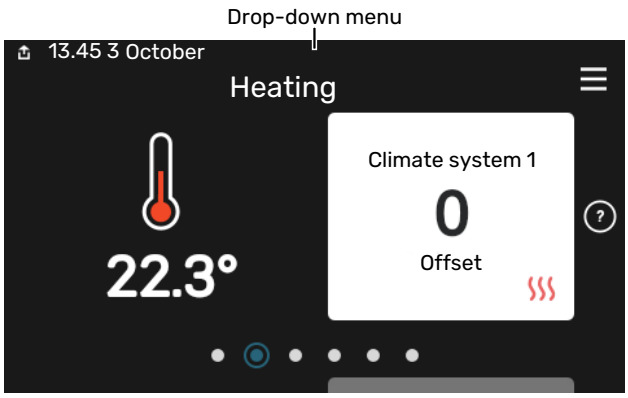
It can be a good idea to have the product overview open during any service cases. You can find it among the function pages.

Here, you can find information about product name, the product's serial number, the version of the software and service. When there is new software to download, you can do it here (provided that S1156/S1256 is connected to myUplink).

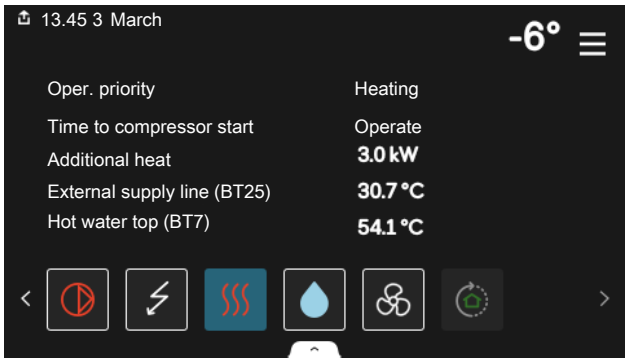


Drop-down menu

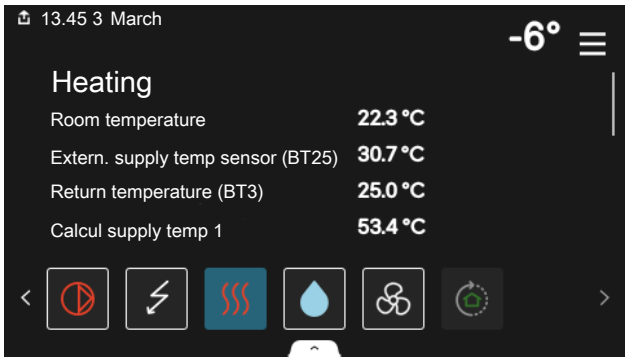
From the home screens, you reach a new window containing further information by dragging down a drop-down menu.



The drop-down menu shows the current status for S1156/S1256, what is in operation and what S1156/S1256 is doing at the moment. The functions that are in operation are highlighted with a frame.

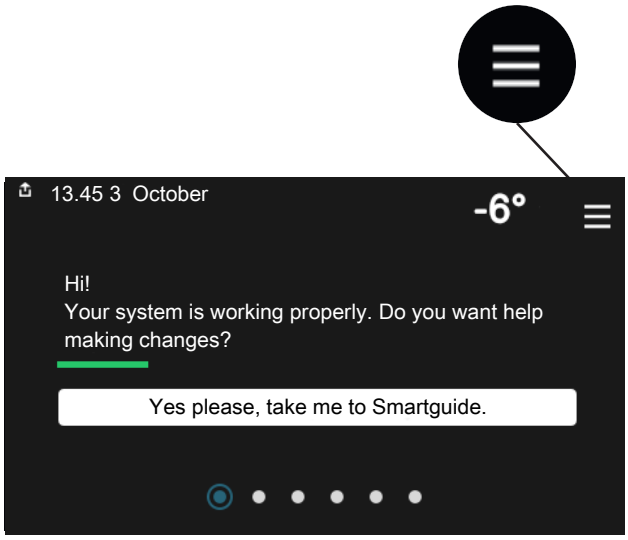


Press the icons on the menu's lower edge for more information about each function. Use the scroll bar to view all information for the selected function.

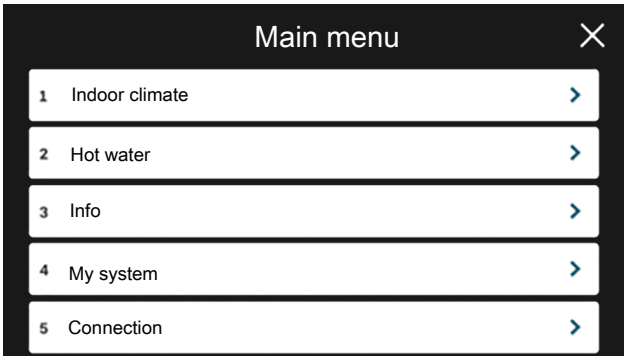


MENU TREE

In the menu tree, you can find all menus and can make more advanced settings.



You can always press "X" to return to the home screens.



Menu system

MENU TREE

The menu tree consists of eight main menus. For a detailed description, see the Installer Manual.

Menu 1 – Indoor climate

Here, you make settings for indoor temperatures and ventilation (accessory is required).

Menu 2 – Hot water

You make settings for hot water operation here.

S1156: This menu is only visible in installations with water heaters.

Menu 3 - Info

Here, you can read current operating information and you can find various logs with older information

Menu 4 - My system

Here, you set date, language, operating mode, etc.

Menu 5 - Connection

Here, you connect your system to myUplink and make network settings.

Menu 6 - Scheduling

Here, you schedule different parts of the system.

Menu 7 - Installer settings

Advanced settings are made here. This menu is only intended for installers or service engineers.

Menu 8 - USB

This menu lights up when a USB memory is connected. You can update the software here, for example.

myUplink

With myUplink you can control the installation – where and when you want. In the event of any malfunction, you receive an alarm directly to your e-mail or a push notification to the myUplink app, which allows you to take prompt action.

Visit myuplink.com for more information.

> **Caution**
>
> Before you can start using myUplink, the product has to be installed and set up according to the instructions in the Installer Manual.

Specification

You need the following in order for myUplink to be able to communicate with your S1156/S1256:

- wireless network or network cable
- Internet connection
- account on myuplink.com

We recommend our mobile apps for myUplink.

Connection

To connect your system to myUplink:

1. Select connection type (wifi/Ethernet) in menu 5.2.1 or 5.2.2.
2. In menu 5.1 you select "Request new connection string".
3. When a connection string has been produced, it is shown in this menu and is valid for 60 minutes.
4. If you do not already have an account, register in the mobile app or on myuplink.com.
5. Use the connection string to connect your installation to your user account on myUplink.

Range of services

myUplink gives you access to various levels of service. The base level is included and, apart from this, you can choose two premium services for a fixed annual fee (the fee varies depending on the functions selected).

Service level	Basic	Premium extended history	Premium change settings
Viewer	X	X	X
Alarm	X	X	X
History	X	X	X
Extended history	-	X	-
Manage	-	-	X

Maintenance of S1156/S1256

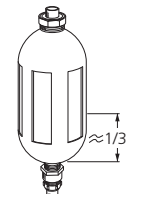
Regular checks

You should check your installation at regular intervals.

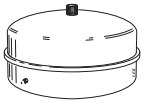
If anything unusual occurs, messages about the malfunction appear in the display in the form of different alarm texts.

BRINE

The brine that obtains the heat in the ground is not normally consumed, but just pumped around.



In most installations, there is a level vessel where you can check if there is sufficient fluid in the system. The level can vary slightly due to the temperature of the fluid. If the level is below 1/3, topping up is required.



In some installations, there is an expansion vessel instead of a level vessel (for example, where the heat pump is not at the highest point in the brine system), where the system pressure can be checked. The pressure may vary slightly due to the temperature of the fluid. The pressure should not fall below 0.5 bar.

Ask your installer if you are unsure where the level vessel/expansion vessel is located.

Your installer can also help you to top-up if the level/pressure has dropped.

SAFETY VALVE

S1156

For installations with a water heater.

You can find the safety valve on the incoming pipe (cold water) to the water heater.

S1256

You can find the safety valve on the incoming pipe (cold water) to S1256.

The water heater's safety valve sometimes releases a little water after hot water usage. This is because the cold water, which enters the water heater to replace the hot water, expands when heated causing the pressure to rise and the safety valve to open.

The function of the safety valve must be checked regularly. Perform checks as follows:

1. Open the valve.
2. Check that water is flowing through it.
3. Close the valve.

> **TIP**
>
> The safety valve is fitted by your installer. Contact your installer if you are unsure how to check it.

Saving tips

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

Factors that affect the energy consumption are, for example, indoor temperature, 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). This is important, as fully or partially closed thermostat valves slow the flow in the climate system, which results in S1156/S1256 working at a higher temperature. This in turn can lead to increased energy consumption.
- You can lower the operating cost when away from home by scheduling selected parts of the system. This is done in menu 6 - "Scheduling".
- If you select "Small" in menu 2.2 - "Hot water demand", less energy is used.

Disturbances in comfort

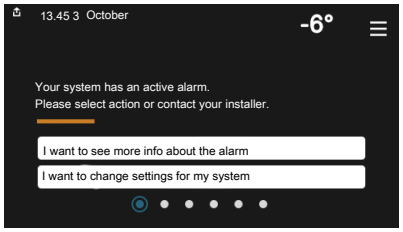
In most cases, S1156/S1256 notes a malfunction (a malfunction can lead to disruption in comfort) and indicates this with alarms, and instructions for action, in the display.

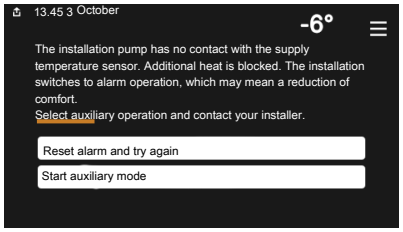
Info-menu

All the heat pump's measurement values are gathered under menu 3.1 - "Operating info" in the heat pump's menu system. Examining the values in this menu can often make it easier to identify the source of the fault.

Manage alarm

In the event of an alarm, a malfunction has occurred and the status lamp shines with a steady red light. You receive information about the alarm in the smartguide on the display.





ALARM

In the event of an alarm with a red status lamp, a malfunction has occurred that S1156/S1256 cannot remedy itself. On the display, you can see what type of alarm it is and reset it.

In many cases, it is sufficient to select "Reset alarm and try again" for the installation to revert to normal operation.

If a white light comes on after selecting "Reset alarm and try again", the alarm has been remedied.

"Auxiliary operation" is a type of emergency mode. This means that the installation attempts to produce heat and/or hot water, even though 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 hot water.

> **Caution**
>
> Selecting "Auxiliary operation" is not the same as correcting the problem that caused the alarm. The status lamp will therefore remain red.

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

> **Caution**
>
> You need the product's (14 digit) serial number for servicing and support.

Troubleshooting

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

BASIC ACTIONS

Start by checking the following items:

- Group and main fuses of the accommodation.
- The property's earth circuit breaker.

LOW HOT WATER TEMPERATURE OR A LACK OF HOT WATER

S1156: This part of the fault-tracing chapter only applies if a water heater is installed in the system.

- Closed or throttled externally mounted filling valve for the hot water.
  - Open the valve.
- Mixing valve (if there is one installed) set too low.
  - Adjust the mixer valve.
- S1156/S1256 in incorrect operating mode.
  - Contact your installer!
- Large hot water consumption.
  - Wait until the hot water has heated up. Temporarily increased hot water capacity can be activated in the "Hot water" home screen, in menu 2.1 - "More hot water" or via myUplink.
- Too low hot water setting.
  - Enter menu 2.2 - "Hot water demand" and select a higher demand mode.
- Low hot water access with the "Smart Control" function active.
  - If the hot water usage has been low for an extended period of time, less hot water than normal will be produced. Activate "More hot water" via the "Hot water" home screen, in menu 2.1 - "More hot water" or via myUplink.
- Too low or no operating prioritisation of hot water.
  - Contact your installer!
- "Holiday" activated in menu 6.
  - Enter menu 6 and deactivate.

LOW ROOM TEMPERATURE

- Closed thermostats in several rooms.
  - Set the thermostats to max in as many rooms as possible. Adjust the room temperature via the "Heating" home screen, rather than turning down the thermostats.

- S1156/S1256 in incorrect operating mode.
  - Contact your installer!
- Too low set value on the automatic heating control.
  - Go to the Smartguide for help in increasing heating. You can also change the heating in the "Heating" home screen.
- Too low or no operating prioritisation of heat.
  - Contact your installer!
- "Holiday" activated in menu 6 - "Scheduling".
  - Enter menu 6 and deactivate.
- External switch for changing room temperature 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.
  - Go to the Smartguide for help in lowering the heating. You can also change the heating from the "Heating" home screen.
- External switch for changing room temperature activated.
  - Check any external switches.

UNEVEN ROOM TEMPERATURE.

- Incorrectly set heating curve.
  - Fine-tune the heating curve in menu 1.30.1.
- Too high set value on "dT at DOT"..
  - Contact your installer!
- Uneven flow over the radiators.
  - Contact your installer!

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 COMPRESSOR DOES NOT START

- There is no heating or hot water demand, nor cooling demand (accessory is required for cooling).
  - S1156/S1256 does not call on heating, hot water or cooling.
- 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.

WHINING NOISE IN THE RADIATORS

- Closed thermostats in the rooms and incorrectly set heating curve.
  - Set the thermostats to max in as many rooms as possible. Fine-tune the heating curve via home screen heating, rather than choking the thermostats.
- Circulation pump speed set too high.
  - Contact your installer!
- Uneven flow over the radiators.
  - Contact your installer!

Add. heat only

If you are unsuccessful in rectifying the fault and are unable to heat the house, you can continue running the heat pump in emergency mode, or "Add. heat only" mode, while waiting for assistance. "Add. heat only" mode means that the heat pump only uses the immersion heater to heat the house.

SET THE HEAT PUMP TO ADDITIONAL HEAT MODE

1. Go to menu 4.1 - "Operating mode".
2. Select "Add. heat only".

EMERGENCY MODE

You can activate the emergency mode both when S1156/S1256 is running and when it is switched off.

To switch off, restart or activate emergency mode: press and hold the on/off button for 2 seconds. This brings up a menu with various options.

To activate emergency mode when S1156/S1256 is switched off: press and hold the on/off button for 5 seconds. (Deactivate the emergency mode by pressing once.)

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