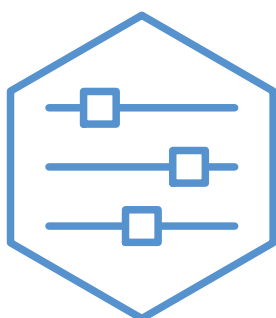


User manual

NIBE

Indoor module **NIBE VVM S500**



UHB EN 2423-1
831157

Quick guide

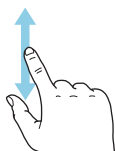
NAVIGATION

Select



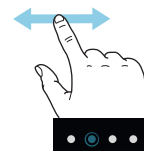
Most options and functions are activated by lightly pressing on the display with your finger.

Scroll



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

Browse



The symbols at the bottom edge show if there are more pages.

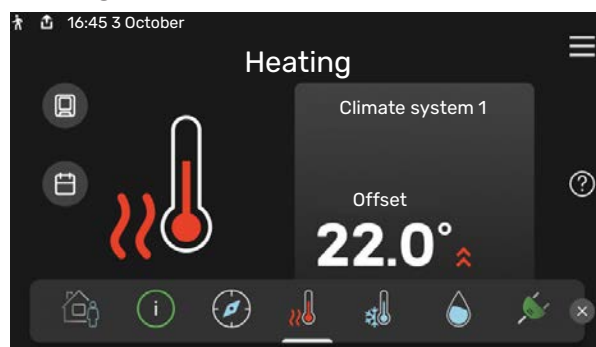
Drag to the right or left with your finger to browse between the pages.

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.



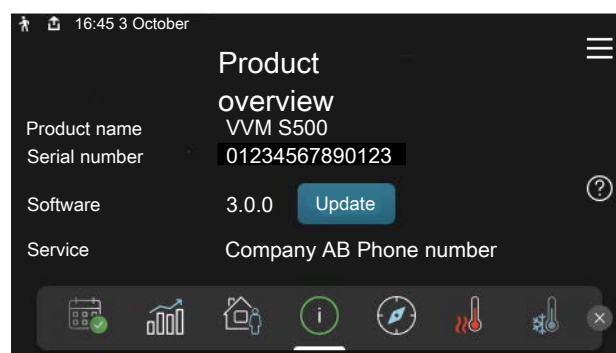
Here, you can set the temperature in the installation's zones.

Increasing hot water temperature



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

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 VVM S500 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

For the latest version of the product’s documentation, see nibe.eu.

Installation data

Product	VVM S500
Serial number	
Installation date	
Installer	

No.	Name	Default settings	Set
1.30.1	Curve, heating (offset)	9	
1.30.2	Curve, cooling (offset)	0	
1.30.7	Own curve (curve slope)		
1.30.4	Lowest supply heating	20	

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 _____

Symbols

Explanation of symbols that may be present in this manual.



CAUTION!

This symbol indicates danger to person or machine.



NOTE!

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

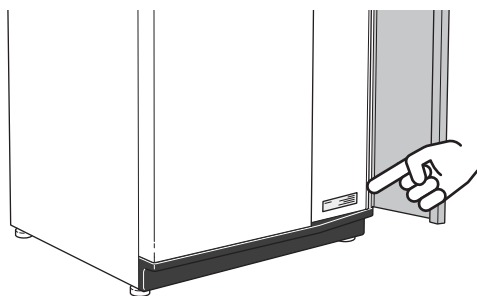


TIP!

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

Serial number

The serial number can be found at the bottom right on VVM S500, in the display on the home screen "Product overview" and on the type plate.



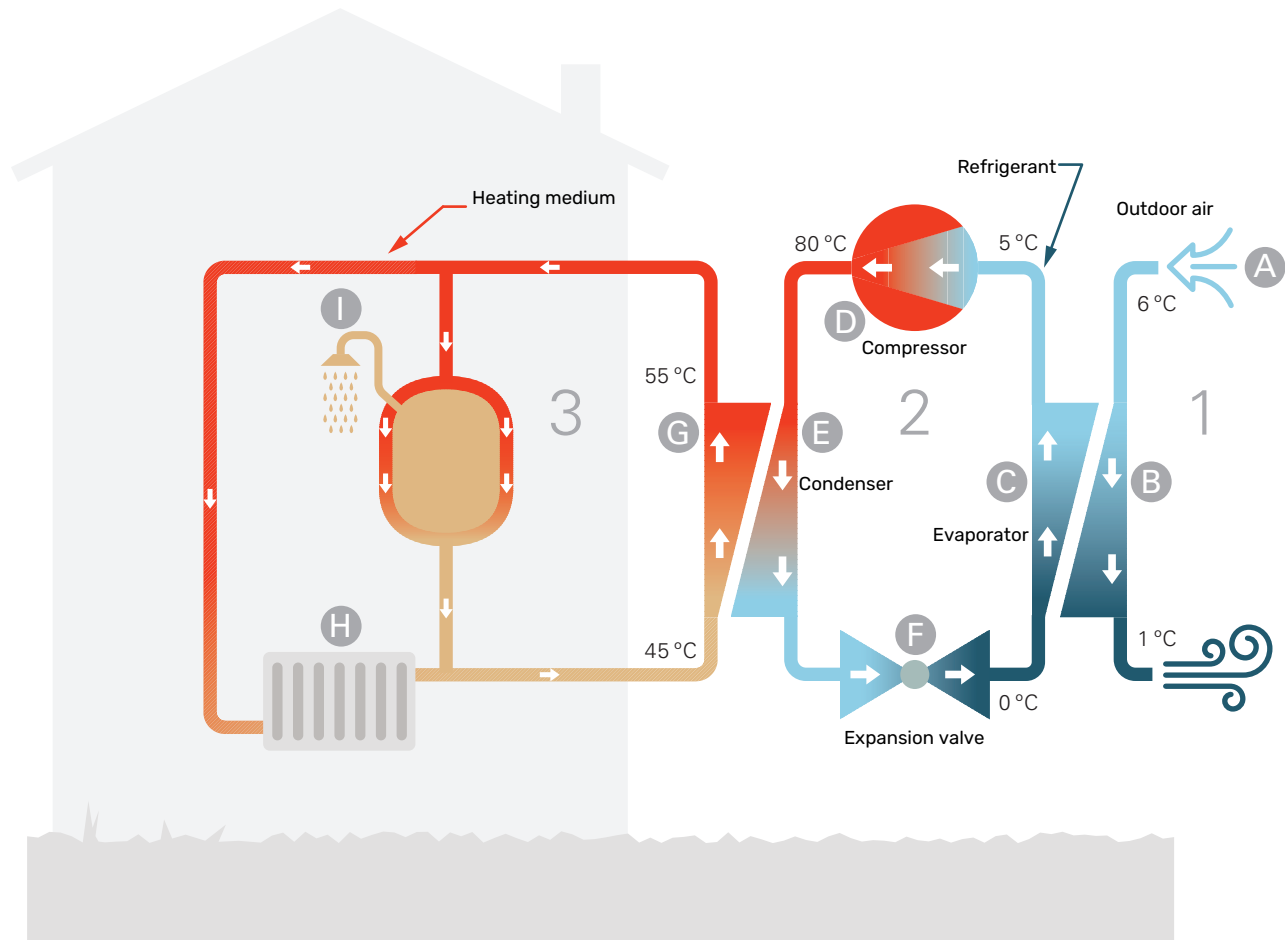
NOTE!

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

Installation function

An air/water heat pump installation uses the outdoor air to heat up a home. The conversion of the outdoor air's energy into residential heating occurs in three different circuits. From the outdoor air, (1), free heat energy is retrieved 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 building in the heating medium circuit, (3).



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

Outdoor air

- A** The outdoor air is drawn into the outdoor unit.
- B** The fan then routes the air to the outdoor unit's evaporator. Here, the air releases thermal energy to the refrigerant and the air's temperature drops. The cold air is then blown out of the outdoor unit.

Refrigerant circuit

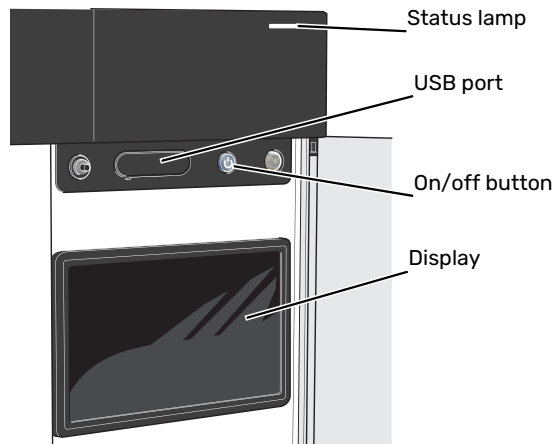
- C** In a closed system in the outdoor unit, a gas (a refrigerant) circulates, which also passes the evaporator. The refrigerant has a very low boiling point. In the evaporator, the refrigerant collects the heat energy from the outdoor air and starts to boil.
- D** The gas that is produced during boiling is routed into an electrically powered compressor. When the gas is compressed, the pressure increases and the gas's temperature increases considerably, from 0 °C to approx 80 °C.
- E** From the compressor, gas is forced into a heat exchanger, condenser, where it releases heat energy to the indoor module, 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 heat energy that the refrigerant produces in the condenser is retrieved by the indoor unit's heating medium, water, which is heated to approx. 55 °C (supply temperature).
- H** The heating medium circulates in a closed system and transports the heated water's heat energy to the house radiators/heating coils.
- I** The indoor module's integrated hot water coil is in the boiler section. The surrounding hot boiler water heats up the water in the coil.

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 VVM S500 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 10 seconds.

To activate emergency mode when VVM S500 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

VVM S500 has a touchscreen where you simply navigate by pressing and dragging with your finger.

SELECT

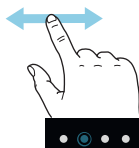
Most options and functions are activated by lightly pressing on the display with your finger.



BROWSE

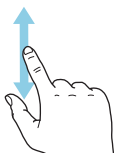
The symbols at the bottom edge show if there are more pages.

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



SCROLL

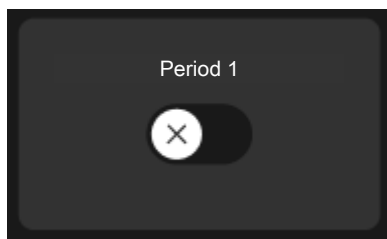
If the menu has several sub-menus, you can see more information by dragging up or down with your finger.



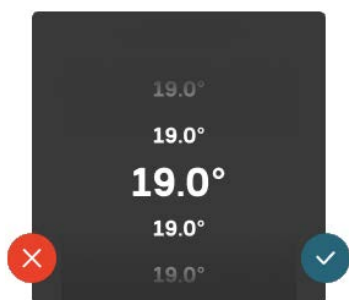
CHANGE A SETTING

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.

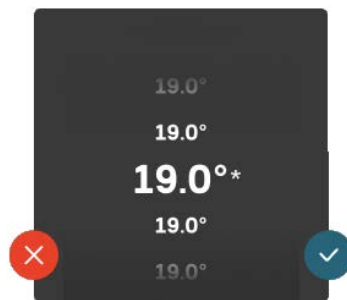


Press  to save your change, or  if you don't want to make a change.

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.

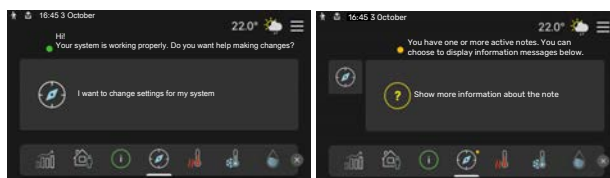
Menu types

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.

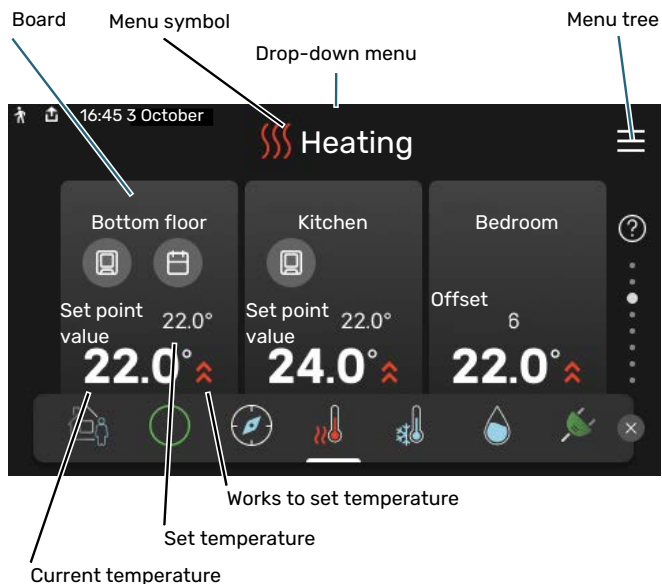


Function pages

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.

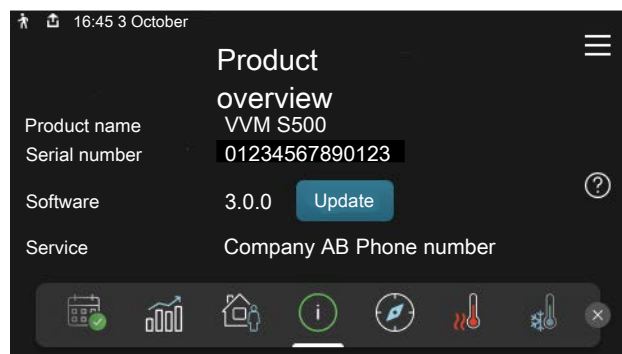


Press the card to adjust the desired value. On certain function pages, drag your finger up or down to obtain more cards.

Product overview

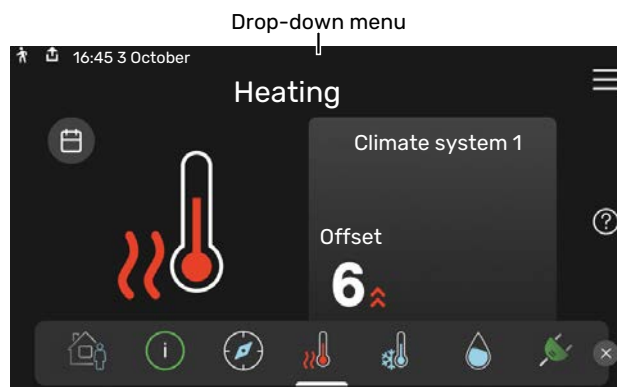
It can be a good idea to have the product overview open during any service cases. You can find it among the function pages.

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 VVM S500 is connected to my-Uplink).

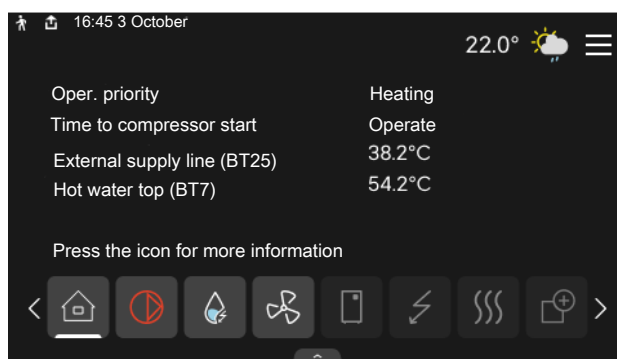


Drop-down menu

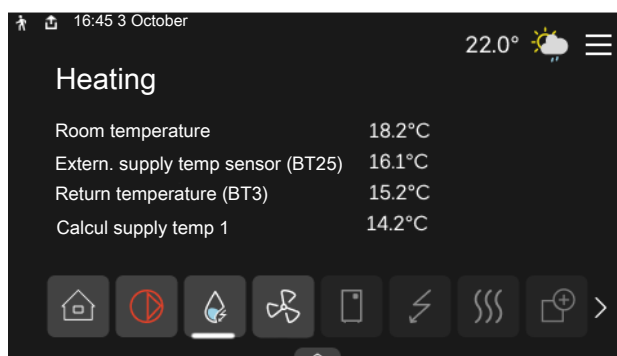
From the home screens, you reach a new window containing further information by dragging down a drop-down menu.



The drop-down menu shows the current status for VVM S500, what is in operation and what VVM S500 is doing at the moment. The functions that are in operation are highlighted with a frame.

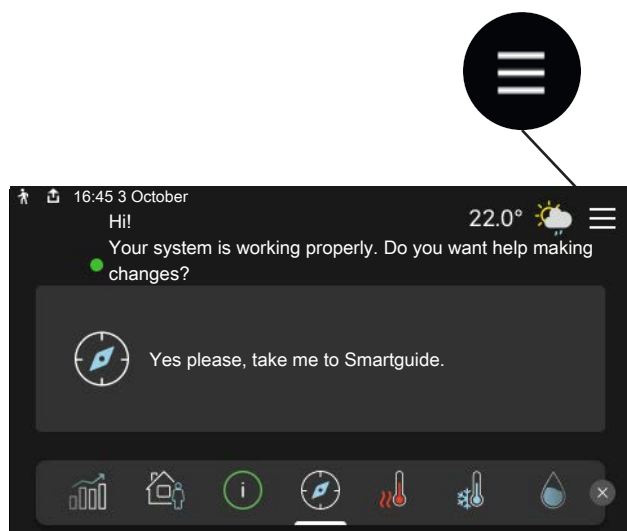


Press the icons on the menu's lower edge for more information about each function. Use the scroll bar to view all information for the selected function.

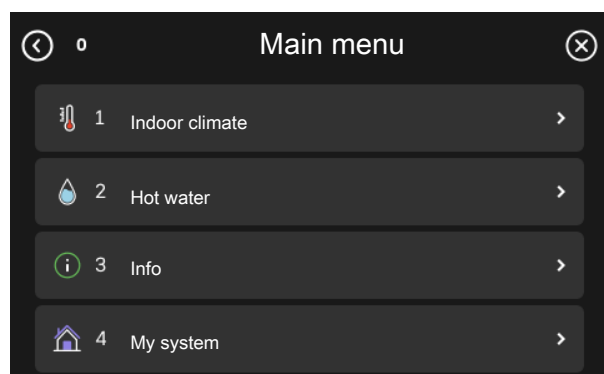


MENU TREE AND INFORMATION

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.

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, manage wireless accessories 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.



NOTE!

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 VVM S500:

- 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 VVM S500

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.

SAFETY VALVE

The hot water coil's externally mounted safety valve sometimes releases water after hot water usage. This is because the cold water that enters the hot water coil expands as it heats up, causing the pressure to rise and the safety valve to open. The climate system's safety valve must be completely closed and it does not release any water normally.

The safety valve's function should be checked regularly. Perform the checks as follows:

1. Open the valve.
2. Check that water is flowing through it.
3. Close the valve.
4. Check the system pressure, top up if required.



TIP!

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

CHECK PRESSURE

VVM S500 must be fitted with an external pressure gauge, which shows the heating system pressure. The pressure should be between 0.5 and 1.5 bar, but varies during temperature changes. If the pressure drops to 0 or rises to 2.5 bar frequently, contact your installer for troubleshooting.

FILLING THE CLIMATE SYSTEM

If the pressure is too low in the climate system, it needs to be topped up.

1. Open the vent valve.
2. Open the externally mounted filler valve. The boiler section and the rest of the climate system are filled with water.
3. When the water exiting the vent valve is no longer mixed with air, close the valve.
4. After a while, the pressure rises on the externally mounted pressure gauge. When the opening pressure for the externally mounted safety valve has been reached, it starts to release water. Close the filling valve.
5. Reduce the pressure in the climate system to the normal working range (approx. 1 bar) by opening the vent valve or the externally mounted safety valve.

VENTING THE CLIMATE SYSTEM

In event of repeated filling of the climate system, or if bubbling sounds are heard from the indoor module, the system may need venting. This is done as follows:

1. Turn off VVM S500 using the on/off button.
2. Vent the indoor module via the vent valve and the rest of the climate system via the relevant vent valves.
3. Keep topping up and venting until all air has been removed and the pressure is correct.

Saving tips

Your installation produces heating/cooling and hot water. It does this based on the control settings that are set.

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 VVM S500 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.
- You can influence the energy consumption by connecting the indoor module to different additional heating sources such as solar, wood, gas or oil.

Disturbances in comfort

In most cases, VVM S500 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 indoor module's measured values are gathered under menu 3.1 - "Operating info" in the indoor module'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 VVM S500 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" for the installation to revert to normal operation.

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

"Auxiliary operation" is a type of emergency mode. This means that the installation tries to produce heat and/or hot water, even though there is some kind of problem. This could mean that the compressor is not in operation. In this case, any electric additional heating produces heat and/or hot water.

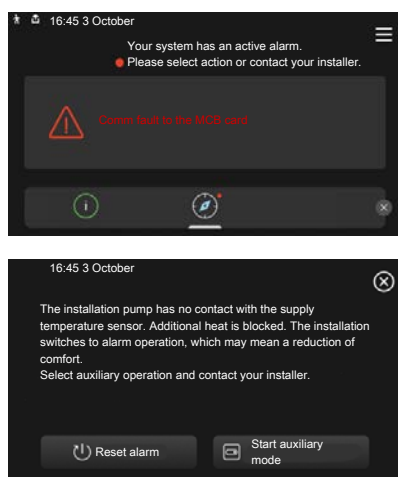
NOTE!

Selecting "Start auxiliary mode" is not the same as correcting the problem that caused the alarm. Therefore, the status lamp will remain red.

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

NOTE!

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.
- Indoor unit's RCD.

LOW HOT WATER TEMPERATURE OR A LACK OF HOT WATER

- 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.
- VVM S500 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.
- VVM S500 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.
 - 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 in 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 "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 OUTDOOR UNIT'S COMPRESSOR DOES NOT START

- There is no heating or hot water demand, nor cooling demand.
 - VVM S500 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.

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 installation in emergency mode or "Add. heat only" mode. "Add. heat only" mode means that additional heat only is used to heat the house.

SET THE INSTALLATION TO ADDITIONAL HEAT MODE

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



NOTE!

When commissioning without NIBE outdoor unit the "communication error" alarm may appear in the display.

EMERGENCY MODE

You can activate the emergency mode both when VVM S500 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 VVM S500 is switched off: press and hold the on/off button for 5 seconds. (Deactivate the emergency mode by pressing once.)

Contact information

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UHB EN 2423-1 831157

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