User manual

Indoor module
NIBE VVM S320 UK 1x230V

UHB EN 2208-1
631826

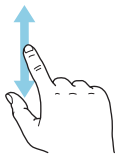
Quick guide

NAVIGATION

Select

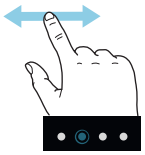
Most options and functions are activated by lightly pressing on the display with your finger.

Scroll



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

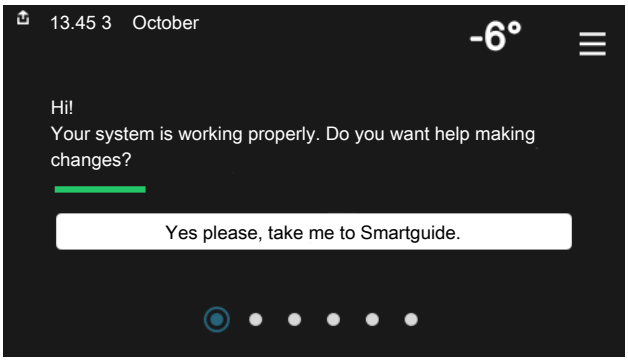
Browse



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

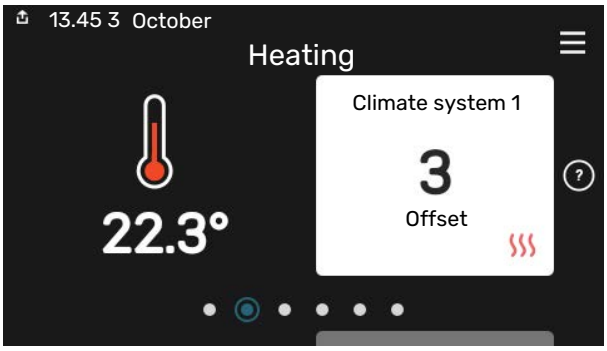
Drag to the right or left with your finger to browse between the pages.

Smartguide



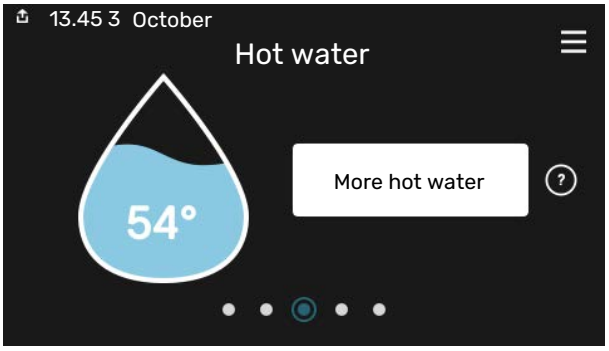
Smartguide helps you both to view information about the current status and to make the most common settings easily. The information that you see depends on the product you have and the accessories that are connected to the product.

Setting the indoor temperature.



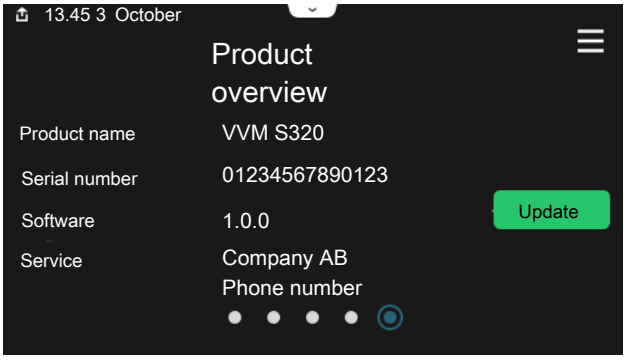
Here, you can set the temperature in the installation's zones.

Increasing hot water temperature



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

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 S320 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".

Table of Contents

Important information

Installation data

Product	VVM S320
Serial number	
Installation date	
Installer	

No.	Name	Default set-tings	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.

NOTE

This symbol indicates danger to person or machine.

Caution

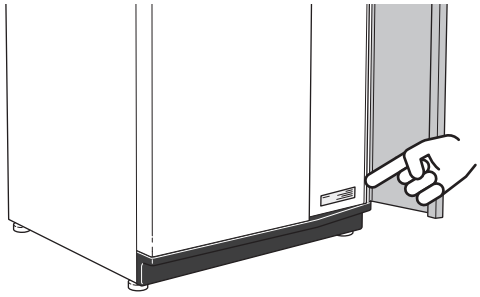
This symbol indicates important information about what you should observe when maintaining your installation.

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 S320, 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.

Country specific information

UNITED KINGDOM

This installation is subject to building regulation approval, notify the local Authority of intention to install.

Use only manufacturer's recommended replacement parts.

For more information see nibe.co.uk.

benchmark COLLECTIVE MARK
THE MARK OF QUALITY FOR THE INSTALLATION, COMMISSIONING AND SERVICING OF DOMESTIC HEATING AND HOT WATER SYSTEMS

Warranty and insurance information

Thank you for installing a new NIBE heat pump in your home.

NIBE heat pumps are manufactured in Sweden to the very highest standard so we are pleased to offer our customers a comprehensive guarantee.

The product is guaranteed for 24 months for parts and labour from the date of installation or 33 months from the date of manufacture, whichever is the shorter.

The NIBE guarantee is based on the unit being installed and commissioned by a NIBE accredited installer, serviced every year and the Benchmark documents completed. Where this condition is not met, any chargeable spare parts or components issued within the applicable guarantee period still benefit from a 12 month warranty from the date of issue by the manufacturer.

We recommend the installer completes and returns as soon as possible, your guarantee registration card or completes the guarantee form on the NIBE website www.nibe.co.uk

Please ensure that the installer has fully completed the Benchmark Checklist in the end of the Installation Instructions supplied with the product and that you have signed to say that you have received a full and clear explanation of its operation. The installer is legally required to complete a commissioning checklist as a means of complying with the appropriate Building Regulations (England and Wales).

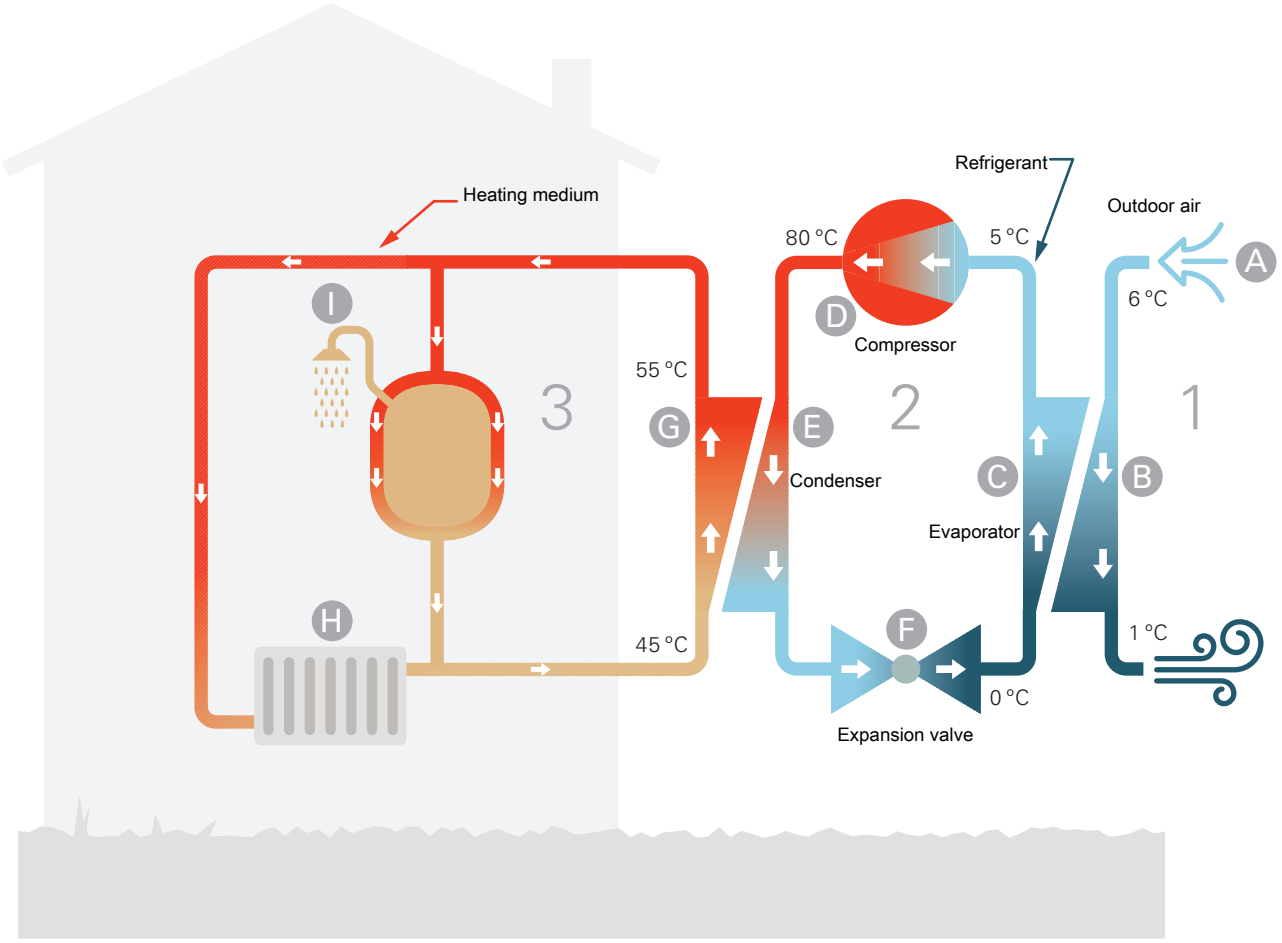
All installations must be notified to Local Area Building Control either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer who should, on receipt, write the Notification Number on the Benchmark Checklist.

This product should be serviced regularly to optimise its safety, efficiency and performance. The service engineer should complete the relevant Service Record on the Benchmark Checklist after each service.

The Benchmark Checklist may be required in the event of any warranty work and as supporting documentation relating to home improvements in the optional documents section of the Home Information Pack.

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 sucked into the heat pump.

B The fan then routes the air to the heat pump's evaporator. Here, the air releases the heating energy to the refrigerant and the air's temperature drops. The cold air is then blown out of the heat pump.

Refrigerant circuit

C A gas 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 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.

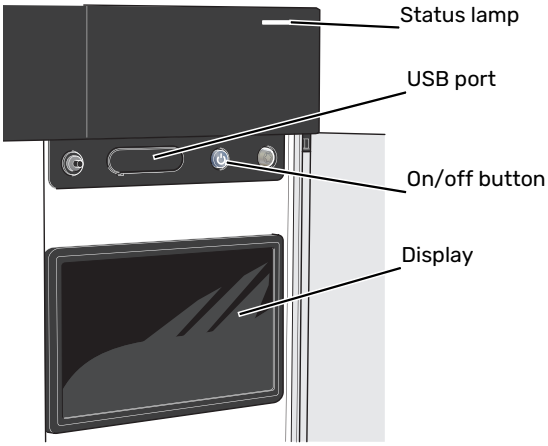
Heat medium circuit

G The heat energy that the refrigerant produces in the condenser is retrieved by the indoor module's water, the heating medium, which is heated to 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 charge coil is placed in the boiler section. The water in the coil heats up the surrounding domestic hot water.

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 S320 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 VVM S320 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 S320 has a touchscreen where you simply navigate by pressing and dragging with your finger.

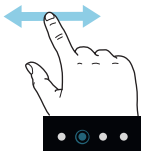
SELECT

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

BROWSE

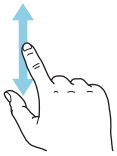
The dots at the bottom edge show that there are more pages.

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



SCROLL

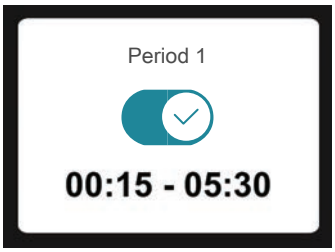
If the menu has several sub-menus, you can see more information by dragging up or down with your finger.



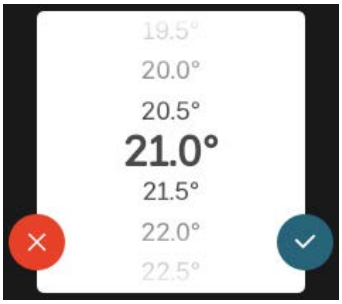
CHANGE A SETTING

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.

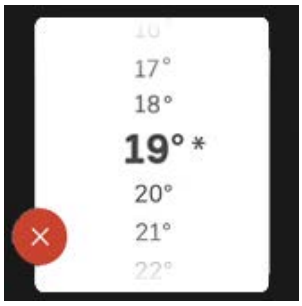


Press ✓ to save your change, or ✗ if you don't want to make a change.

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.

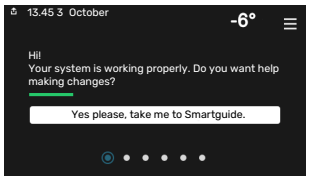
Menu types

HOME SCREENS

Smartguide

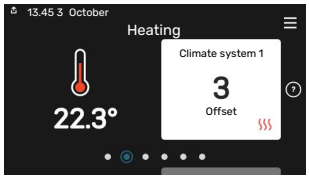
Smartguide helps you both to view information about the current status and to make the most common settings easily. The information that you see depends on the product you have and the accessories that are connected to the product.

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.

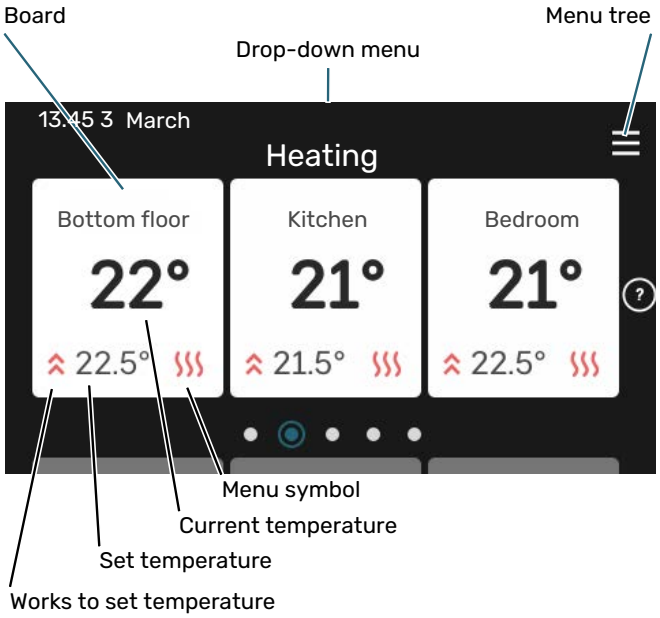


Function pages

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.

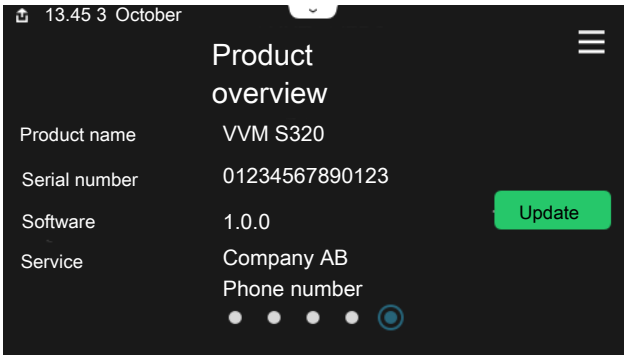


Press the card to adjust the desired value. On certain function pages, drag your finger up or down to obtain more cards.

Product overview

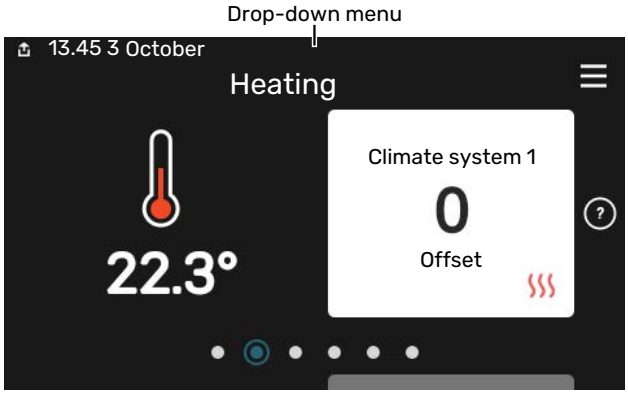
It can be a good idea to have the product overview open during any service cases. You can find it among the function pages.

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 VVM S320 is connected to myUplink).

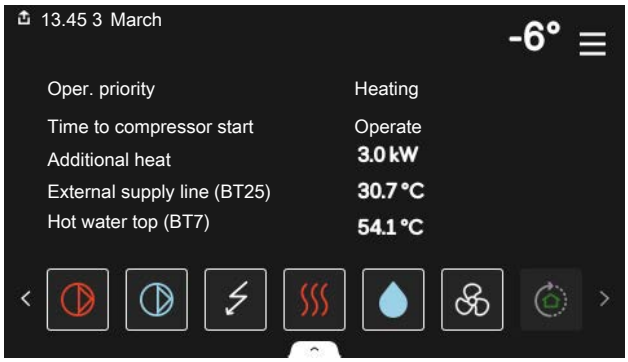


Drop-down menu

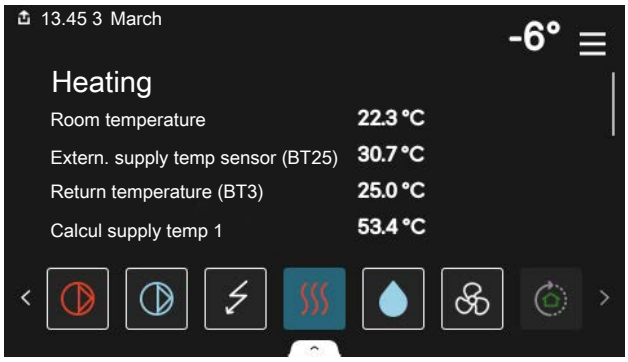
From the home screens, you reach a new window containing further information by dragging down a drop-down menu.



The drop-down menu shows the current status for VVM S320, what is in operation and what VVM S320 is doing at the moment. The functions that are in operation are highlighted with a frame.

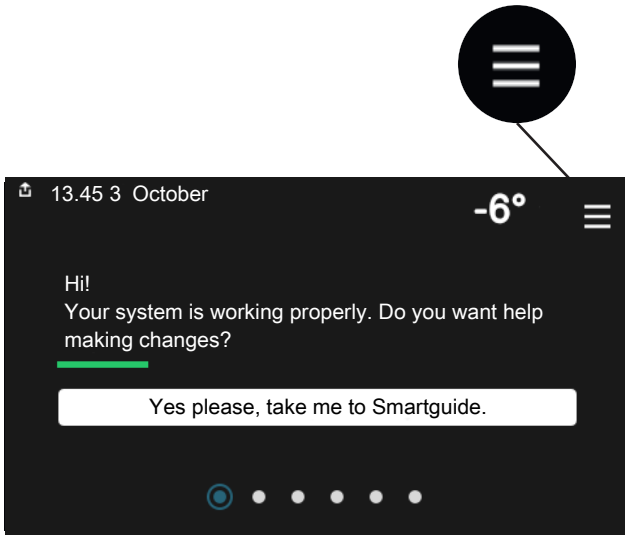


Press the icons on the menu's lower edge for more information about each function. Use the scroll bar to view all information for the selected function.

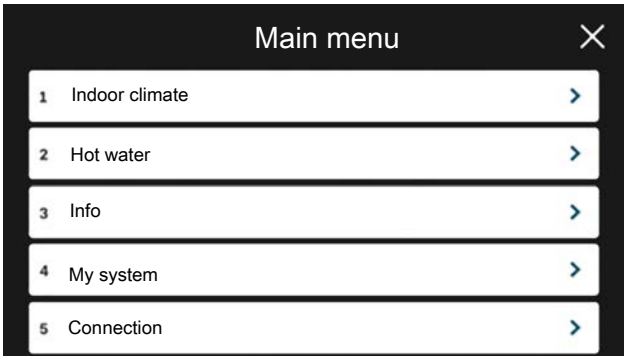


MENU TREE AND INFORMATION

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 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 VVM S320:

- 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. Scroll down in menu 5.1 and 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 this 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 set-tings
Viewer	X	X	X
Alarm	X	X	X
History	X	X	X
Extended history	-	X	-
Manage	-	-	X

Maintenance of VVM S320

Regular checks

Your installation should be checked and serviced annually by qualified personnel. This is to ensure the continued efficient operation of VVM S320, and for the warranty to remain valid during the warranty period.

All servicing must be carried out by a person competent for the job.

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

SAFETY VALVE

VVM S320 has two safety valves, one for the water heater and one for the climate system. The water heater's safety valve is fitted by the installer.

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, expands when heated causing the pressure to rise and the safety valve to open. The climate system's safety valve must be completely closed and must not normally release any water.

The functioning of the safety valve should be checked regularly. You can find the safety valve behind the inspection panel on the front. Perform the checks as follows:

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

> **NOTE**
>
> Do not remove or adjust any components that are part of this pressurised water heater. Contact your installer!

> **NOTE**
>
> If this pressurised water heater develops a fault, e.g. a flow of hot water from the overflow pipe, turn the heat pump off and contact your installer.

CHECK PRESSURE

VVM S320 has a 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. See the Installer Manual for more information.

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 the power supply to the indoor module.
2. Vent the indoor module via the vent valves 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.

The climate system may require topping up after venting.

Saving tips

Your 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 VVM S320 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 supplements such as solar, gas or oil.

Disturbances in comfort

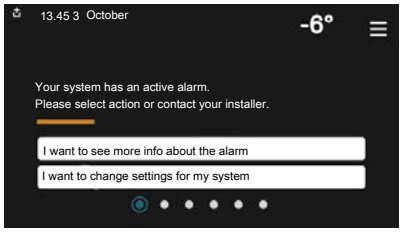
In most cases, VVM S320 notes a malfunction (a malfunction can lead to disruption in comfort) and indicates this with alarms, and instructions for action, in the display.

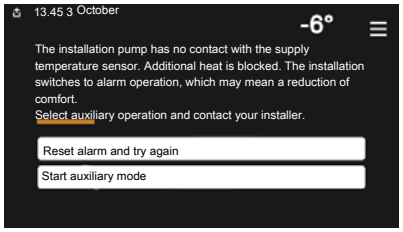
Info-menu

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 S320 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.
- Correctly set load monitor.

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 S320 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 S320 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 air/water heat pump's compressor does not start

- There is no heating or hot water demand, nor cooling demand.
  - VVM S320 does not call on heating, hot water or cooling.
- Alarm tripped.
  - VVM S320 temporarily blocked, see menu 3.1 - "Operating info" for more information.

Only additional heat

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 4.1 - "op. mode".
2. Select "add. heat only".
3. Return to the main menus.

Caution

When commissioning without NIBE air/water heat pump an alarm communication error may appear in the display.

The alarm is reset if the relevant heat pump is deactivated in menu 7.3.2 - "Installed heat pump".

Item register

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