Operating instructions

for the system user

Heating system with Vitotronic 200 control unit, type HO2B/HO2C
For weather-compensated operation

VITODENS
VITOSOLAR 300-F

5811580 GB 3/2018

Please keep safe.

For your safety

Please follow these safety instructions closely to prevent accidents and material losses.

Safety instructions explained

Danger
This symbol warns against the risk of injury.

Please note
This symbol warns against the risk of material losses and environmental pollution.

Note
Details identified by the word "Note" contain additional information.

Target group

These operating instructions are intended for heating system users.
This appliance can also be operated by children 8 years and older, as well as by individuals with reduced physical, sensory or mental faculties or those lacking in experience and knowledge, provided such individuals are being supervised or have been instructed in the safe use of this appliance and any risks arising from it.

Please note
Supervise children in the proximity of the appliance.
- Never permit children to play with the appliance.
- Cleaning and maintenance must not be carried out by unsupervised children.

Appliance connection

- The appliance may only be connected and commissioned by authorised contractors.
- Only operate the appliance with suitable fuels.
- Observe the specified electrical connection requirements.
- Modifications to the existing installation may only be carried out by authorised contractors.

Danger
Incorrectly executed work on the heating system can lead to life threatening accidents.
- Work on gas installations must only be carried out by a registered gas fitter.
- Work on electrical equipment must only be carried out by a qualified electrician.

Work on the appliance

- All settings and work on the appliance must be carried out as specified in these operating instructions. Further work on the appliance may only be carried out by authorised contractors.
- Never open the appliance.
- Never remove casings.
- Never change or remove attachments or fitted accessories.
- Never open or retighten pipe connections.

Danger
Hot surfaces can cause burns.
- Never open the appliance.
- Never touch the hot surfaces of uninsulated pipes, fittings or flue pipes.

Damage to the appliance

Danger
Damaged equipment poses a safety hazard.
Check the appliance for external damage. Never start up a damaged appliance.

For your safety (cont.)

If you smell gas

Danger
Escaping gas can lead to explosions which may result in serious injury.
- Never smoke. Prevent naked flames and sparks. Never switch lights or electrical appliances on or off.
- Close the gas shut-off valve.
- Open windows and doors.
- Evacuate any people from the danger zone.
- Notify your gas and power supply utility and your local heating contractor from outside the building.
- Have the power supply to the building shut off from a safe place (outside the building).

If you smell flue gas

Danger
Flue gas can lead to life threatening poisoning.
- Shut down the heating system.
- Ventilate the installation site.
- Close all doors in the living space.

In case of fire

Danger
Fire presents a risk of burns and explosion.
- Shut down the heating system.
- Close the shut-off valves in the fuel supply lines.
- Use a tested fire extinguisher, class ABC.

In case of water leaking from the appliance

Danger
Water leaking from the appliance poses an electrocution hazard.
- Switch off the heating system at the external isolation point (e.g. fuse box, domestic power distribution unit).
- Notify your local heating contractor.

What to do if the heating system develops a fault

Danger
Fault messages point to faults in the heating system. If faults are not rectified, they can have life threatening consequences.
Never acknowledge fault messages several times in quick succession. Inform your heating contractor so the cause can be analysed and the fault rectified.

For your safety (cont.)

Installation room requirements

Danger
Sealed vents result in a lack of combustion air. This leads to incomplete combustion and the formation of life threatening carbon monoxide.
Never cover or close existing vents.
Never make any subsequent modifications to the building characteristics that could affect safe operation (e.g. cable/pipework routing, cladding or partitions).

Danger
Easily flammable liquids and materials (e.g. naphtha, solvents, cleaning agents, paints or paper) can cause deflagration and fire.
Never store or use such materials in the installation room or in direct proximity to the heating system.

Please note
Incorrect ambient conditions can lead to heating system damage and can put safe operation at risk.
- Ensure ambient temperatures are above 0 °C and below 35 °C.
- Prevent air contamination by halogenated hydrocarbons (e.g. as contained in paints, solvents or cleaning fluids) and excessive dust (e.g. through grinding/polishing work).
- Avoid continuously high humidity levels (e.g. through continuous drying of washing).

Extractors

The operation of appliances that extract air to the outside (cooker hoods, extractors, air conditioning units, etc.) can create negative pressure. If the boiler is operated at the same time, this can lead to a reverse flow of the flue gas.

Danger
The simultaneous operation of the boiler and appliances that extract air to the outside can result in life threatening poisoning due to reverse flow of the flue gas.
Take suitable steps to ensure an adequate supply of combustion air. If necessary, contact your heating contractor.

Auxiliary components, spare and wearing parts

Please note
Components not tested with the heating system may damage the system or affect its function.
Have all installation or replacement work carried out exclusively by qualified contractors.

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Index (cont.)

Symbols

Symbol	Meaning
	Reference to other document containing further information
	Step in a diagram: The numbers correspond to the order in which the steps are carried out.
	Warning of material losses and environmental pollution
	Live electrical area
	Pay particular attention.
	▪ Component must audibly click into place. or ▪ Acoustic signal
	▪ Fit new component. or ▪ In conjunction with a tool: Clean the surface.
	Dispose of component correctly.
	Dispose of component at a suitable collection point. Do **not** dispose of component in domestic waste.

Terminology

To provide you with a better understanding of the functions of your Vitotronic control unit, some terminology is explained. The terms are marked as follows:

Further information can be found in chapter "Terminology" in the appendix.

Intended use

The appliance is intended solely for installation and operation in sealed unvented heating systems that comply with EN 12828, with due attention paid to the associated installation, service and operating instructions. It is only designed for heating up heating water that is of potable water quality.

Intended use presupposes that a fixed installation in conjunction with permissible, system-specific components has been carried out.

Commercial or industrial usage for a purpose other than heating the building or DHW shall be deemed inappropriate.

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Intended use (cont.)

Any usage beyond this must be approved by the manufacturer in each individual case.

Incorrect usage or operation of the appliance (e.g. the appliance being opened by the system user) is prohibited and will result in an exclusion of liability. Incorrect usage also occurs if the components in the heating system are modified from their intended use (e.g. if the flue gas and ventilation air paths are sealed).

Commissioning

The commissioning and matching of the control unit to local conditions and building characteristics, as well as instructing the user in the operation of the system, must be carried out by your heating contractor.

As the user of new combustion equipment, you may be obliged to notify your local flue gas inspector of the installation [check local regulations]. Your local flue gas inspector will also inform you [where appropriate] about work he may be required to carry out on your combustion equipment (e.g. regular checks, cleaning).

Your system is preset

Your heating system is preset at the factory and is therefore ready for operation:

Central heating
- Between **06:00 and 22:00 h**, the rooms are heated to 20 °C **"Set room temperature"** (standard room temperature).
- Between **22:00 and 06:00 h**, the rooms are heated to 3 °C **"Reduced room temperature"** (reduced room temperature, frost protection).

DHW heating
- Between **05:30 and 22:00 h**, the DHW is heated to 50 °C **"Set DHW temperature"**. Any installed DHW circulation pump is switched on.
- Between **22:00 and 05:30 h**, the DHW cylinder is not reheated. Any installed DHW circulation pump is switched off.
  Note
  *Any DHW heating begun before **22:00 h** is terminated.*

Mechanical ventilation
- If a ventilation unit is connected to the Vitotronic: Operation with **"Normal"** ventilation level from **00:00 to 24:00 h**.

Frost protection
- Your boiler and DHW cylinder are protected against frost.

Wintertime/summertime changeover
- This changeover is automatic.

Date and time
- The date and time have been set by your heating contractor.

You can change the settings at any time to suit your individual requirements.

Power failure
All settings are saved if there is a power failure.

Energy saving tips

Central heating

- **Standard room temperature** (see page 29):
  Do not overheat your home. Every degree of room temperature reduction saves up to 6 % on your heating bills.
  Never set your standard room temperature (**"Set room temperature"**) higher than 20 °C.
- **Time program** (see page 16):
  Heat your home to the standard room temperature during the day and the reduced temperature at night. Set this via the time program.
- **Operating program**:
  If you do not require central heating, select one of the following operating programs:
  - **"Only DHW"** (see page 35):
    If you require no heating for your home in summer, but you require DHW.
  - **"Standby mode"** (see page 27):
    If you don't need to heat your home and don't require DHW for long periods.
- **Short absence** (see page 32):
  Reduce the room temperature if you are going out shopping, for example. For this, select **"Economy mode"**.
- **Holidays** (see page 29):
  If you are going away, select the **"Holiday program"**:
  The room temperature is reduced and DHW heating is turned off.
- **Ventilation**:
  Close the thermostatic valves when ventilating/airing manually. Open the windows fully for a brief time.
- **Roller shutters**:
  Close roller shutters (if installed) at dusk.
- **Thermostatic valves**:
  Ensure that thermostatic valves are properly adjusted.
- **Radiators**:
  Never cover radiators or thermostatic valves.

Energy saving tips (cont.)

DHW heating

- **DHW circulation pump** (see page 36):
  Only activate the DHW circulation pump for periods in which DHW is regularly drawn off. Set this via the time program.
- **DHW consumption**:
  Consider showering instead of running a bath. A shower generally uses less energy than a full bath.

Mechanical ventilation

If a ventilation unit is connected to the Vitotronic.

- **Short absence**:
  Reduce the ventilation level in the ventilation display area. For this, select **"Eco"** or the **"Basic mode"** operating program.
- **Holidays** (see page 37):
  If you are going away, select the **"Holiday program"**:
  The ventilation level is reduced. The room temperature is reduced and DHW heating is turned off.

For additional energy saving functions of the Vitotronic control unit, please contact your heating contractor.

Tips for greater comfort

Central heating

- **Standard room temperature** (see page 29):
  You can select your individual preferred temperature at any time under **"Set room temperature"** in the standard menu.
- **Time program** (see page 16):
  Make use of the time program. In the time program, you can set time phases with different room temperatures, for example different temperatures for day and night time.
- **Heating curve** (see page 30):
  The heating curve enables you to individually adjust the heating system to the actual heat demand in your home. If set correctly, your preferred temperature will be achieved all year round.
- **"Comfort mode"** (see page 31):
  Select **"Comfort mode"** if you want to heat your rooms to a different temperature from the one set in the time program.
  Example: Late in the evening, the reduced room temperature is set by the time program. Your guests stay longer.

DHW heating

- **Time program** (see page 35 and 36):
  Use the time program for DHW heating.
  Use the time program for the DHW circulation pump. During the selected time phases, DHW is available at the draw-off points at the required temperature.

Mechanical ventilation

If a ventilation unit is connected to the Vitotronic.

- **Increased relative humidity and/or stronger odours,** e.g. when cooking:
  Increase the ventilation level. To do so, select **"Intensive mode"** (see page 37).

Opening the control unit

Fig. 1

Programming unit

You can change any setting on your heating system centrally at the programming unit of the control unit.

Note
The operating instructions are relevant for various "display versions", which is why 2 images are shown.

If remote control units are installed in your rooms, you can also adjust the settings at the remote control units.

Remote control operating instructions

If the controls have not been operated for a certain time, the **screensaver** appears:

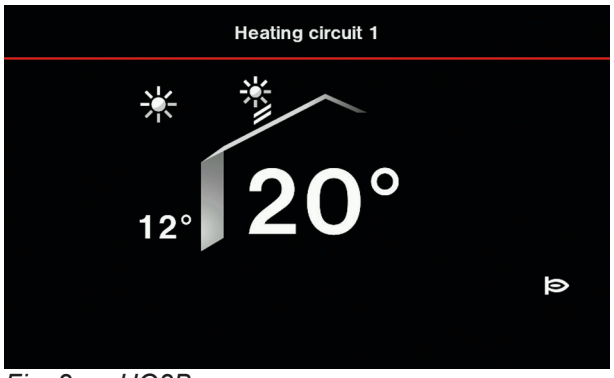

Fig. 2 HO2B

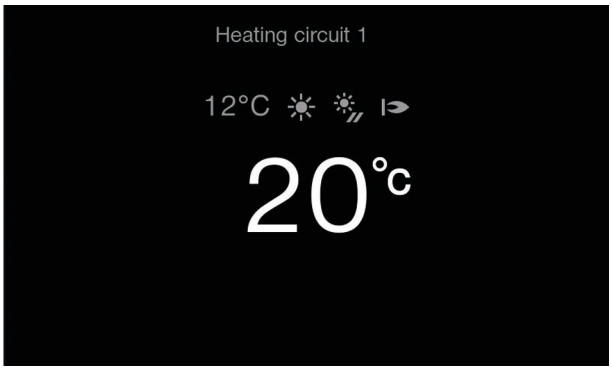

Fig. 3 HO2C

2 **control levels** are available:
- The standard menu: See page 12
- The main menu: See page 14

The programming unit is equipped with a **touchscreen**. To input settings and call up information, tap the on-screen buttons.

Standard menu

In the standard menu you can choose between 4 types of display:
- Default display for heating
- Ventilation
- Energy cockpit
- Favourites

In the delivered condition, the default display for **"Heating"** is always shown after you switch on and tap ⌂. If you would prefer to show a different display area, see page 42.

Call up the standard menu as follows:
- If the screensaver is active:
  Tap the display anywhere.
- From the main menu:
  Tap ⌂.

The default display then appears.

With ◄/► you access the following display areas:
- Energy cockpit
- Favourites
- Ventilation

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Programming unit (cont.)

Default display "Heating"

In the default display (see image below) you can call up and adjust the most frequently used settings:
- Set room temperature
- Operating program
- Comfort mode or
- Economy mode or

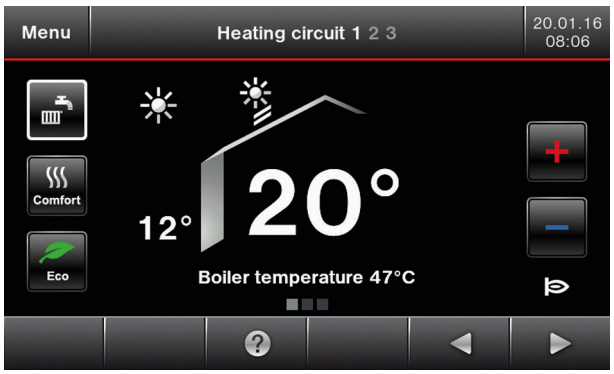

Fig. 4 HO2B

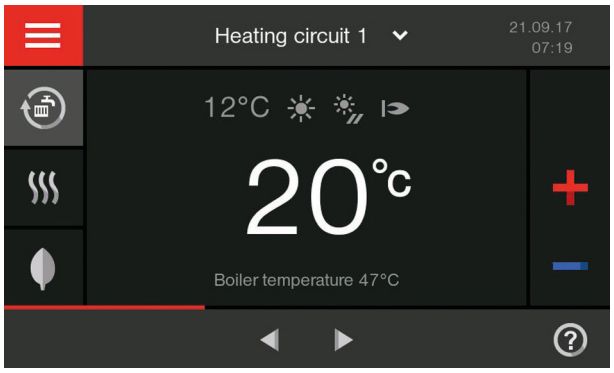

Fig. 5 HO2C

Temperature displays

12° Current outside temperature
20° Selected set room temperature

Symbols and buttons

These symbols are not always displayed, but appear subject to the system version and the operating condition.

Symbols

- or Frost protection is active
- or Central heating at standard room temperature (preferred temperature)
- or Central heating with reduced room temperature
- or In conjunction with a solar thermal system: Solar circuit pump is running
- or Mechanical ventilation is running and the ventilation level is shown
- or Burner in operation

Buttons on the default display

- or Increases the value for standard room temperature.
- or Reduces the value for standard room temperature.
- or
- or
- or Sets the operating program (for operating programs, see page 15).
- or Enables/disables comfort mode.
- or Enables/disables economy mode.

Note
If your heating system is not designed for DHW heating, is not displayed.

Buttons in the header

"Menu" or "" Calls up the main menu.

" Heating circuit 1 2 3" Selects the heating circuit.
Note
This selection is only available if at least 2 heating circuits can be operated.

Programming unit (cont.)

Buttons in the footer

or Returns you to the standard menu.
or Takes you to the previous step in the menu or cancels a setting that has been started.
or Calls up the help text.
or Calls up fault or service messages.
or Standard menu:
Calls up the Energy cockpit or your selected Favourites.
Main menu:
Scrolls through the menu.

Energy cockpit

The Energy cockpit display area provides information on the energy state of the heating system and its components. For further information, see page 21.

When you call up the Energy cockpit for the first time, a notification appears.

- The Energy cockpit is opened once you confirm this notification with **OK**. This notification will not appear again.
- If you tap on Cancel, the notification will appear again the next time you call up the Energy cockpit.

Favourites

In the "Favourites" display you can collate the menu points that you use most frequently. For further information, see page 26.

Ventilation

In the "Ventilation" display area, you can select the ventilation levels and the current ventilation level is shown. For further information, see page 20.

Main menu

In the main menu, you can call up and adjust **all** of the settings for the control unit's range of functions.
You can find the menu overview on page 59.

Call up the main menu as follows:

- If the screensaver is active:
  Tap the display anywhere and then tap on **"Menu"** or "".
- If you are in the standard menu:
  Tap **"Menu"** or "".
- From anywhere in the menu:
  Tap on and then **"Menu"** or "".

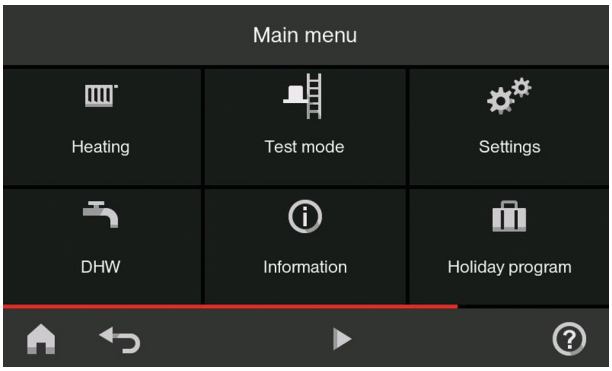

Fig. 6 HO2C

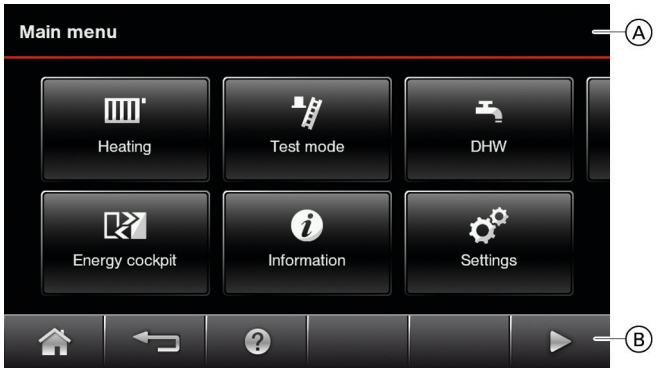

Fig. 7 HO2B

Ⓐ Header
Ⓑ Footer

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Operating program

Operating programs for central heating, DHW, frost protection

Note
DHW heating is only shown if your boiler is equipped with a DHW heating function.

Symbol	Operating program	Function
Central heating and DHW heating		
	"Heating and DHW"	▪ The rooms of the selected heating circuit are heated in accordance with the room temperature and time program specified (see chapter "Central heating"). ▪ DHW is heated in accordance with the DHW temperature and time program specified (see chapter "DHW heating").
DHW heating		
	"Only DHW"	▪ DHW is heated in accordance with the DHW temperature and time program specified (see chapter "DHW heating"). ▪ No central heating ▪ Frost protection for the boiler and the DHW cylinder is enabled.
Frost protection		
	"Standby mode"	▪ No central heating ▪ No DHW heating ▪ Frost protection for the boiler and the DHW cylinder is enabled.

Operating programs for ventilation

Operating program	Operating status	Air flow rate	Ventilation level
"Standby mode"	—	No ventilation	0
"Basic mode"	—	Minimum air flow rate	1
"Automatic mode"	**"Reduced"**	Reduced air flow rate Approx. 70 % of the nominal air flow rate; see operating status **"Normal"**	2
	"Normal"	Standard air flow rate If a humidity and/or CO_2 sensor is installed in your home, the air flow rate is adjusted subject to the humidity and/or CO_2 concentration.	3
	"Intensive operation"	Maximum air flow rate Approx. 125 % of the nominal air flow rate; see operating status **"Normal"**	4

Note
*The respective air flow rates for **"Reduced"**, **"Normal"** and **"Intensive operation"** are set by your heating contractor.*

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Operating program (cont.)

Special operating programs

Special operating programs:
- **"Screed drying"**
  This function is activated by your heating contractor. Your screed is dried in line with a set time program suitable for the relevant building materials (temperature/time profile). Your settings for central heating have no effect on the duration of screed drying (max. 32 days). This function can be altered or cancelled by your heating contractor.
- **"External hook-up"**
  The operating program set at the control unit has been switched over by an external device, e.g. EA1 extension. This function cannot be influenced via the control unit.
- **"External program"**
  The operating program was changed via a communication interface (e.g. Vitocom 100). You can influence this function via the control unit.
- **"Holiday program"** (see page 29)

Note
*The special operating programs are shown on the display in alternation with the boiler water temperature. In the extended menu, you can check the set operating program under **"Information"** (see page 44).*

Time program

The following explains how to input the settings for a time program, using central heating with heating circuit 1 as an example.
The specifics of the individual time programs can be found in the relevant chapters.

You can set up a time program for the following functions:
- Central heating
- DHW heating
- DHW circulation pump
- Mechanical ventilation

- The time program allows you to divide the day into sections. These are called **time phases**.
- You can select several time phases per day:
  - Up to 4 time phases for central heating, DHW heating and the DHW circulation pump
  - Up to 8 time phases for mechanical ventilation
- For each time phase, you define a start and end point.
- You can set the time program **individually**, to be the same, or different, for every day of the week.
- In the main menu, you can call up the time programs under **"Information"** (see from page 44).

Within the time phases, the following functions are active:
- If central heating is enabled, your home will be heated to the standard room temperature.
- If DHW heating is enabled, the water in the DHW cylinder will be heated to the set DHW temperature.
- The DHW circulation pump is operational.
- Mechanical ventilation runs in Automatic mode

Setting time phases

Example
- Time program for **"Monday"** for heating circuit 1
- Time phase 1:
  05:30 to 09:00 h
- Time phase 2:
  E.g. 16:30 to 22:00 h or 19:00 22:00 h

In between these time phases the system heats to a reduced temperature.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Heating"**
3. **Heating circuit 1**
4. **"Time program"**
5. **"Mo"**
6. **"Change"**/"✎"

Time program (cont.)

7. ∧/∨ for the start and end point of time phase 1. The bar in the time diagram is adjusted.

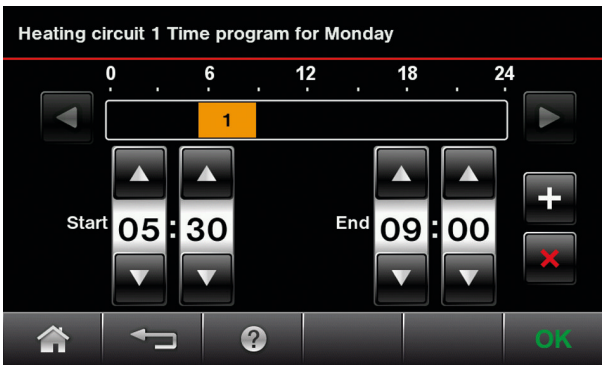

Fig. 8 HO2B

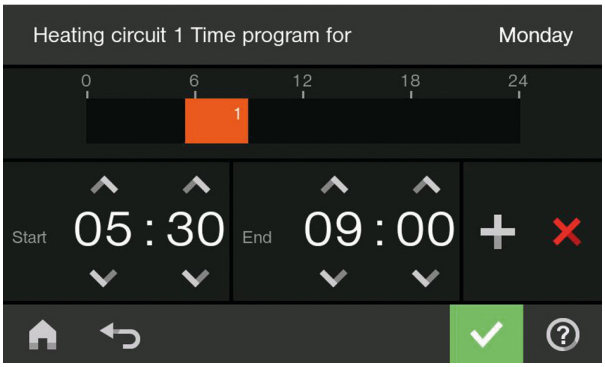

Fig. 9 HO2C

Cancelling the setting of a time phase early
Tap ↩.

8. + to create time phase 2.

9. ∧/∨ for the start and end point of time phase 2. The bar in the time diagram is adjusted (displayed differently depending on the type of control unit).

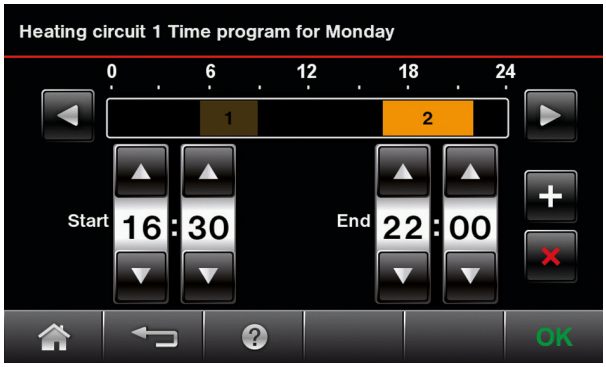

Fig. 10 HO2B

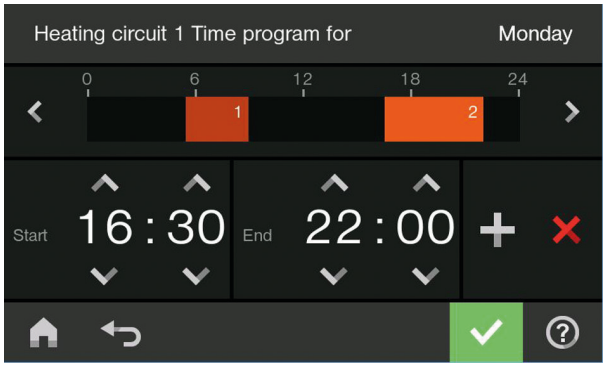

Fig. 11 HO2C

Time program (cont.)

10. **OK**/✓ to confirm

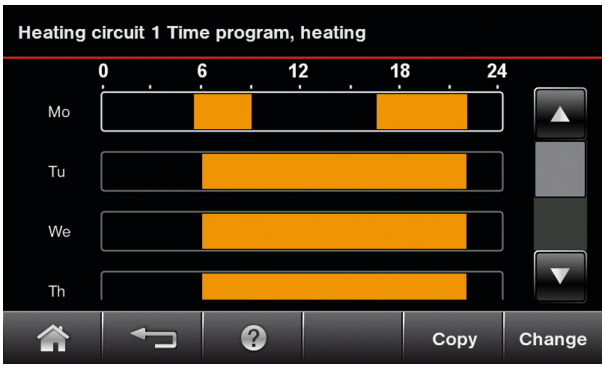

Fig. 12 HO2B

Fig. 13 HO2C

11. ⌂ to quit the time program

Copying the time program to other days of the week

You can **copy** a given time program to every other day of the week.
You want to copy the Monday time program over to Tuesday to Friday.

Tap the following on-screen buttons:

1. **"Menu"**/☰
2. **"Heating"**
3. **Heating circuit 1**
4. **"Time program"**
5. **"Mo"**
6. **"Copy"**/⧉
7. **"Tu"**, **"We"**, **"Th"**, **"Fr"**
8. **OK**/✓ to confirm
9. ⌂ to quit the time program

Changing the time phases

Example:
For **Monday** you want to change the start point of time phase 2 to 19:00 h.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Heating"**
3. **Heating circuit 1**
4. **"Time program"**
5. **"Mo"**
6. **"Change"**/ "✎"
7. › for time phase 2
8. ✓ for the start point of time phase 2. The bar in the time diagram is adjusted.

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Time program (cont.)

9. **OK**/✓ to confirm

10. ⌂ to quit the time program

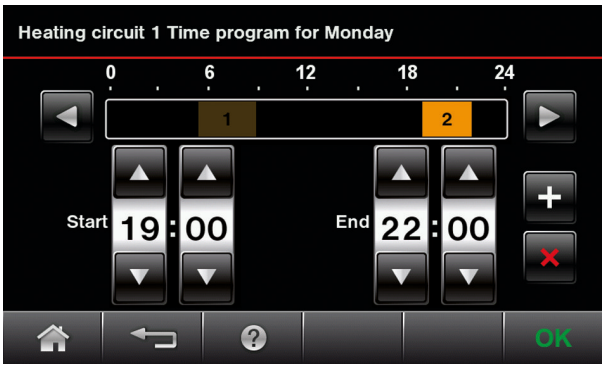

Fig. 14 HO2B

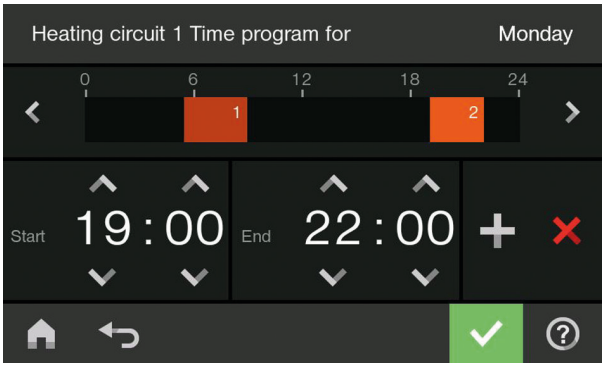

Fig. 15 HO2C

Deleting time phases

Example:
For **Monday** you want to delete time phase 2.

Tap the following on-screen buttons:

1. **"Menu"**/"≡"
2. **"Heating"**
3. **Heating circuit 1**
4. **"Time program"**
5. **"Mo"** to select the required day
6. **"Change"**/"✎"
7. › for time phase 2

Time program (cont.)

8. ✕ to delete the time phase

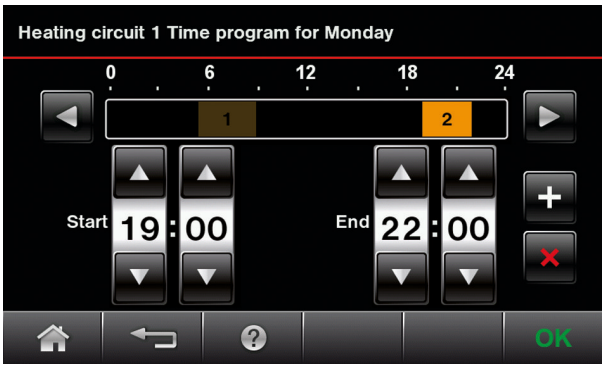

Fig. 16 HO2B

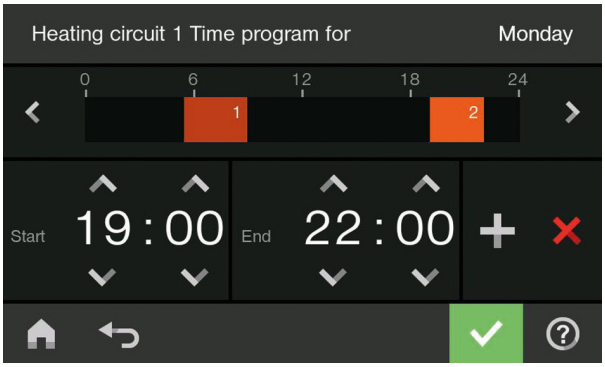

Fig. 17 HO2C

9. **OK**/✓ to confirm

10. ⌂ to quit the time program

Ventilation

If a mechanical ventilation unit is connected to the Vitotronic.
In the ventilation display area, you can select the ventilation intensity according to current requirements. Your ventilation system is preset at the factory. In the delivered condition, the ventilation level is set to **"Normal"**. The symbol for the selected function is highlighted in white.

For further details regarding mechanical ventilation, see page 37.

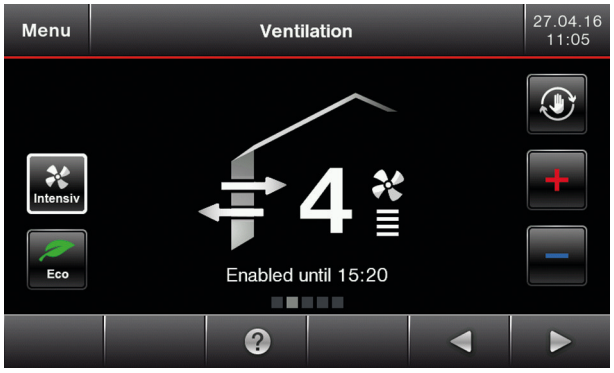

Fig. 18 Display of HO2B

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Ventilation (cont.)

Temporarily changing the ventilation intensity

You can temporarily change the ventilation intensity to suit your current requirements. After this, operation continues with the ventilation level selected in the operating program.

- **Reducing the ventilation intensity**
  Tap:
  

  or
  Economy mode remains active for 12 hours.
- **Increasing the ventilation intensity**
  Tap:
  

  or
  Intensive mode remains active for 2 hours.

Changing the ventilation intensity for a longer period

You can change the ventilation intensity for a longer period to suit your current requirements. Mechanical ventilation then runs with a selectable ventilation level, irrespective of the set operating program.

Tap the following on-screen buttons:

1. 
2. ⊞/⊟ for the required ventilation level
3. To terminate continuous operation, tap again on:
   

   Note
   Continuous operation is also terminated if you activate intensive mode or economy mode.

Energy cockpit

In the Energy cockpit, you can call up the following information on the energy status of your heating system:

- Current temperatures of the solar thermal system (if present in the system)
- Energy yield of the solar thermal system for the last 2 years, in different time segments
- Energy statement for the heating system in combination with the solar thermal system for the last 2 years, in different time segments
- Temperatures and heat-up condition of the DHW cylinder
- Energy consumption of the heat generator (gas and electricity consumption)

Default display in the energy cockpit

The various components present in the system are shown as images. Some information on the components is provided in the default display. To obtain additional information, tap on the relevant system component. See also following chapters.

Energy cockpit (cont.)

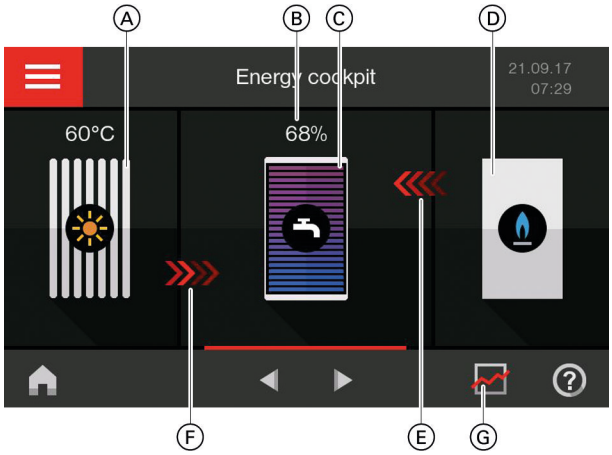

Fig. 19 HO2C

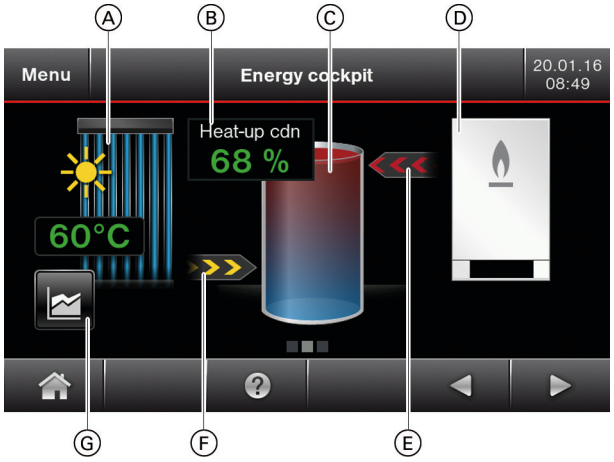

Fig. 20 Image showing HO2B with Vitodens 300

Ⓐ Solar thermal system
Call up energy yield (see page 23)
Ⓑ Heat-up condition of the DHW cylinder
Display according to type of DHW cylinder
Ⓒ DHW cylinder
Call up temperatures and heat-up condition (see page 24)
Ⓓ Heat generator (boiler)
Call up energy status (see page 25)
Ⓔ Heating of DHW cylinder by heat generator is active (red and moving)
Ⓕ Heating of DHW cylinder by solar thermal system is active (yellow and moving)
Ⓖ Call up energy statement for solar thermal system (see page 23)

Note
The depiction of the heat generator and the DHW cylinder depends on the products present in the system. In case of heat generators with integral DHW cylinders, the DHW cylinder is shown inside the heat generator.

Temperature of the solar thermal system

The current temperature of the solar thermal system is permanently displayed in the Energy cockpit default display.

Energy cockpit (cont.)

Energy yield from the solar thermal system

You can call up the energy yield from the solar thermal system for the last 2 years. Values are shown in kilowatt hours.

The following time periods can be called up:
- Last 7 days, including current day
- Last 52 weeks, including current week
- Last 12 months, including current month
- Last 2 years, including current year

Note
Periods longer than 7 days can only be called up in conjunction with the DHW cylinder equipped for this purpose or Vitosolar 300-F.

1. In the standard menu, use ◀/▶ to call up the Energy cockpit.
2. Tap on the collector.
3. Tap on the required period.
   The energy yields are displayed as a graphic.
4. Tap on the graph for a period (e.g. day). The energy yield for that period is displayed numerically.

Fig. 21 HO2B

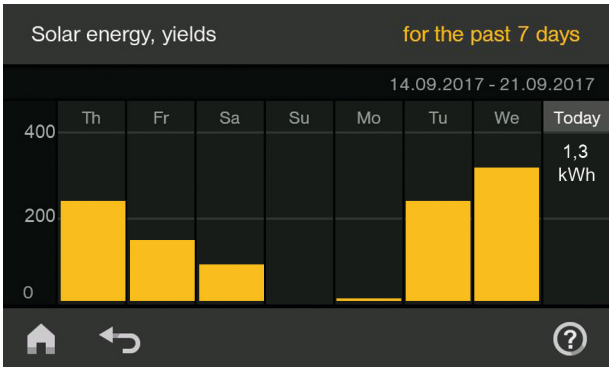

Fig. 22 HO2C

Energy statement in combination with solar thermal system

You can call up the energy status for the entire heating system. The amount of heat generated from insolation and the amount of gas consumed are displayed in kilowatt hours.

The following time periods can be called up:
- Last 7 days, including current day
- Last 52 weeks, including current week
- Last 12 months, including current month
- Last 2 years, including current year

Note
Periods longer than 7 days can only be called up in conjunction with the DHW cylinder equipped for this purpose or Vitosolar 300-F.

1. In the standard menu, use ◀/▶ to call up the Energy cockpit.
2. Tap  below or beside the collector.

Energy cockpit (cont.)

3. Tap on the required period.

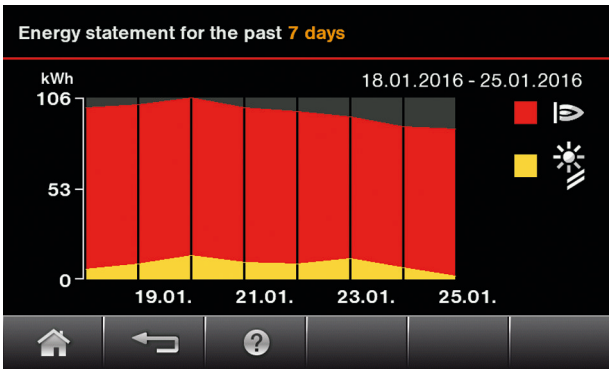

Fig. 23 HO2B

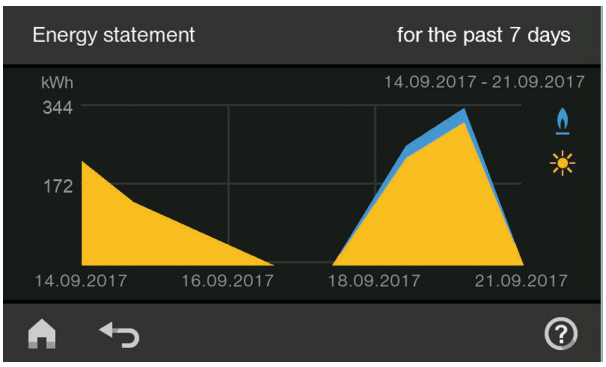

Fig. 24 HO2C

The energy statement is displayed as a graphic.
- The red/blue area (depending on the type of control unit) shows the quantity of gas consumed.
- The yellow area shows the amount of heat generated by the solar thermal system.

Temperature and heat-up condition of the DHW cylinder

You can call up the following information and functions for the DHW cylinder:
- DHW temperatures
- Heat-up condition according to type of DHW cylinder
- Current heating activity:
  - Moving red arrows: Heating by the boiler
  - Moving yellow arrows: Heating by the solar thermal system
- Starting a one-off cylinder heat-up by the boiler (only if cylinder heating is not active in the current operating mode)

1. In the standard menu, use ◀/▶ to call up the Energy cockpit.

2. Tap on the DHW cylinder to call up further information on temperatures and heat-up condition.

Starting a one-off cylinder heat-up

Tap the following on-screen buttons:

1. 

   "One-off cylinder heating"/, to start a one-off cylinder heat-up by the boiler.
   The DHW cylinder is heated to the set DHW temperature.
   To terminate cylinder heating early, tap **"One-off cylinder heating"** again.

2. **OK**/✓ to confirm

Energy cockpit (cont.)

Energy status of the heat generator

You can call up the following information on the energy status and operating data for the heat generator:
- Current heating output
- Operating time (operating hours)
- Power consumption
- Gas consumption

Note
The Energy cockpit also allows the system user to see information on the thermal and electrical consumption of the heating system throughout the year. The calculation of these values takes into account the installed system components and the user behaviour (e.g. operating time and utilisation level). Depending on system-specific parameters (e.g. installation altitude and type of flue system), differences may arise between the displayed and actual consumption values.
To improve the accuracy of the values displayed, it is recommended that system users enter the gross calorific value, gas volume correction factor and gas meter readings. Due to seasonal climate conditions and other factors, discrepancies may nevertheless arise. It should be noted, therefore, that the displayed values are not based on metering equipment but are merely computed values. The Energy cockpit serves to illustrate past consumption and is intended to show increases and decreases in consumption within specific comparative periods. It cannot be used as a binding basis for billing.
To enter additional data, see page 26.

Heating output, operating times and consumption

1. In the standard menu, use ◀/▶ to call up the Energy cockpit.

2. Tap on the heat generator to call up the current output and operating time.
   To reset the operating time, see page 45.

3. **Power consumption**
   Tap on **"Electricity consumption"**.

4. Tap on the required period.

   The following time periods can be called up:
   - Last 7 days, including current day
   - Last 52 weeks, including current week
   - Last 12 months, including current month
   - Last 2 years, including current year

5. Tap on the graph for a period (e.g. day). The electricity consumption for that period is displayed numerically.

6. **Gas consumption**
   Tap on **"Gas consumption"**.

7. Tap on the required period.

   The following time periods can be called up:
   - Last 7 days, including current day
   - Last 52 weeks, including current week
   - Last 12 months, including current month
   - Last 2 years, including current year

   The gas consumption for central heating is shown in red.
   The gas consumption for DHW heating is shown in yellow.

8. Tap on the graph for a period (e.g. day). The gas consumption for that period is displayed numerically.

Energy cockpit (cont.)

Entering additional data on gas consumption

To improve the accuracy of the gas consumption data displayed, you can enter the meter readings from your gas meter for comparison. You should make the first entry shortly after commissioning or at the beginning of the heating season. You should make the second entry at the end of the heating season, after at least 100 m^3 of gas has been consumed. You can then repeat the process if you wish for the subsequent heating season. The greater the number of comparative values entered, the more accurate the display of gas consumption will be.

Note
- *It is not possible to make corrections to values that have already been recorded.*
- *No additional appliances must be connected to the gas meter.*

1. In the standard menu, use ▶ to call up the Energy cockpit.
2. Tap on the heat generator.
3. Tap on **"Gas consumption"**.
4. Tap on **"Input, counter reading"**.
5. Confirm the note with **"Yes"**/✓.
6. Tap the entry field.
7. Enter the gas meter reading.
   You can delete any pre-existing values with ←
8. Confirm twice with **OK**/✓
9. After several months (ideally at the end of the heating season) enter the current meter reading as the second value. Use the method described above.
10. If you subsequently wish to enter additional values:
    Shift the last entered value upwards. Do this by tapping **"Move 2 to 1"**. For next steps, proceed as described above.

Entering gas quality

Here you can enter the gross calorific value of the gas used and its gas volume correction factor. You can find both values on your gas bill. If you have no gas bill available, you can ask for the details from your gas supply utility.

Note
No additional appliances must be connected to the gas meter.

1. In the standard menu, use ▶ to call up the Energy cockpit.
2. Tap on the heat generator.
3. Tap on **"Gas consumption"**.
4. Tap on **"Input, gas quality"**.
5. Tap the entry fields.
6. Enter the relevant value.
   You can delete any pre-existing values with ←
7. Confirm twice with **OK**/✓.

Favourites

Compiling a list of favourite menu points

You can select your favourite menu points from a list. They can then be called up using the **"Favourites"** button.
You can change the selection at any time.

Tap the following on-screen buttons:

1. ▶ until the **"Select favourites"** menu point appears.
2. **"Select favourites"**/"✎"
   A list appears of the menu points available for selection.
3. Tap on the required menu points. Those selected will be marked with a tick.
   You may choose up to 11 menu points.
4. **OK**/✓ to confirm

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Starting up the heating system

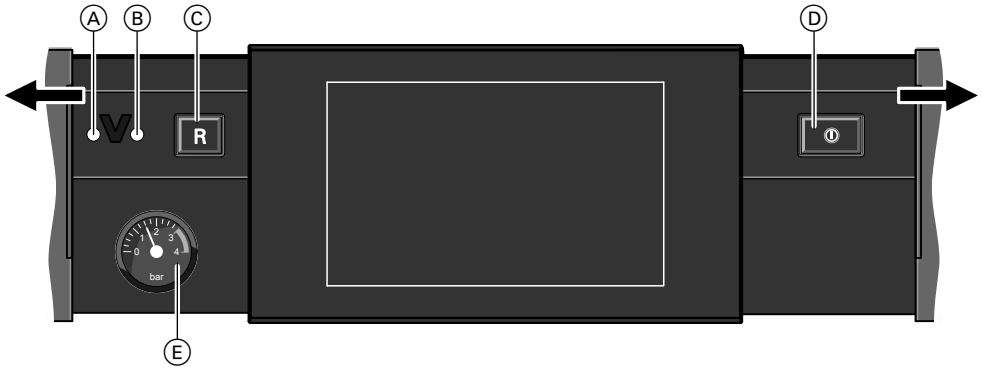

Fig. 25

Ⓐ Fault indicator (red)
Ⓑ ON indicator (green)
Ⓒ Reset button
Ⓓ ON/OFF switch
Ⓔ Pressure gauge (heating system pressure indication)

Ask your heating contractor about the following:
- Level of the required system pressure
- Position of the following components:
  - Pressure gauge
  - Gas shut-off valve
  - Vents

1. Check the heating system pressure at the pressure gauge. The heating system pressure is too low if the indicator points to the area below 1.0 bar. Top up with water or notify your local heating contractor.

2. For **open** flue operation:
Check that the vents in the installation room are open and unrestricted.

Note
With open flue operation, the combustion air is drawn from the installation room.

3. Open the gas shut-off valve.

4. Switch ON the power supply, e.g. at a separate MCB/fuse or a mains isolator.

5. Turn on the ON/OFF switch.
After a short time, the standard menu is displayed. The green ON indicator illuminates. Your heating system and, if installed, your remote controls are ready for use.

Shutting down the heating system

With frost protection monitoring

For **every** heating circuit, select the **"Standby mode"** operating program.
- No central heating
- No DHW heating
- Frost protection for the boiler and the DHW cylinder is enabled.

See also chapter "Stopping central heating" on page 31.

Note
The circulation pumps are briefly started every 24 hours to prevent them from seizing up.

Without frost protection monitoring (shutdown)

1. Turn off the ON/OFF switch.

2. Close the gas shut-off valve.

Shutting down the heating system (cont.)

3. Isolate the heating system from its main power supply, e.g. at the separate MCB/fuse or at a mains isolator.

! **Please note**
If outside temperatures of below 3 °C are expected, take appropriate measures to protect the heating system from frost.
If necessary, contact your heating contractor.

Information on prolonged shutdown

- *Circulation pumps may seize up as they are not being supplied with power.*
- *After an extended shutdown, it may be necessary to reset the date and time (see page 42).*

Heating circuit selection

The heating of your rooms can be split over several heating circuits if necessary.
At the factory, heating circuits are designated **1**, **2**, **3** in the header.

- If you are operating several heating circuits, always first select the heating circuit to which the change should apply, before adjusting any central heating settings.
- If you are only operating one heating circuit, this option is not available.

Repeatedly tap **"Heating circuit 1 2 3"** or **"Heating circuit 1 ⌄"** in the header until the required heating circuit is active.

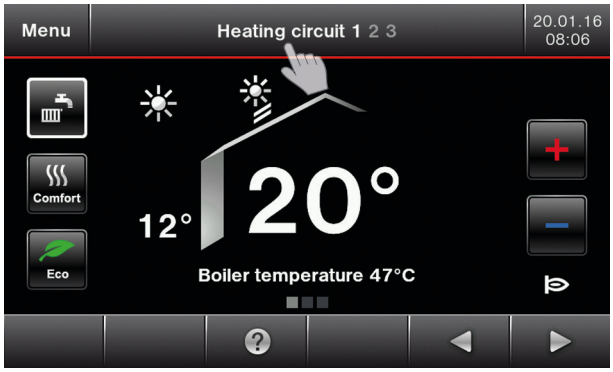

Fig. 26 HO2B

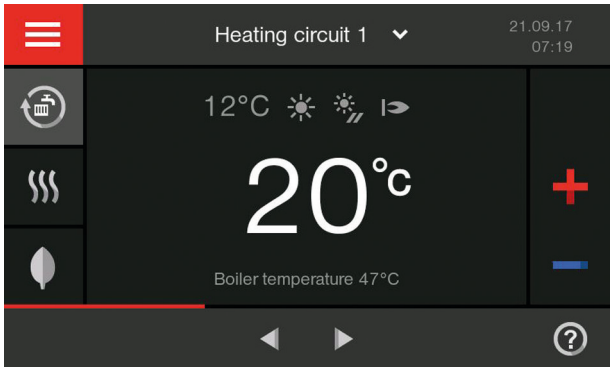

Fig. 27 HO2C

Room temperature

Further information can be found in chapter "Terminology" in the appendix.

Setting the standard room temperature for the selected heating circuit

Factory setting: 20 °C
Setting range: 3 to 37 °C

Tap the following on-screen buttons:

1. **"Heating circuit 1 2 3"** or **"Heating circuit 1 ⌄"** in the header for heating circuit selection
2. **+/–** for the required value
3. **OK/✓** to confirm

Setting the reduced room temperature

Factory setting: 3 °C
Setting range: 3 to 37 °C

Tap the following on-screen buttons:

1. **"Menu"** or "☰"
2. **"Heating"**
3. **"Heating circuit 1 2 3"** or **"Heating circuit 1 ⌄"** for the required heating circuit
4. **"Reduced room temperature"**

Room temperature (cont.)

5. **+/–** for the required value
6. **OK/✓** to confirm

Central heating with this temperature:
- Between the time phases for central heating at standard temperature
- In the holiday program

Operating program

Further information can be found in chapter "Terminology" in the appendix.

Setting the operating program

This is only necessary if **"Only DHW"** / or **"Standby mode"** / is set.

Tap the following on-screen buttons:

1. **"Heating circuit 1 2 3"** or **"Heating circuit 1 ⌄"** in the header for heating circuit selection
2.  or

    or

   The set operating program is highlighted.
3. Select **"Heating and DHW"** to set central heating
4. **OK/✓** to confirm

For information on the operating programs, see page 15.

Time program

Further information can be found in chapter "Terminology" in the appendix.

Setting a time program

Factory setting: **One** time phase from 06:00 to 22:00 h for every day of the week

1. **"Menu"**/"≡"
2. **"Heating"**
3. **"Heating circuit 1"**, **"Heating circuit 2"** or **"Heating circuit 3"** as the required heating circuit
4. **"Time program, heating"**

To see how to set a time program, see page 16.

Note
When adjusting the setting, bear in mind that your heating system requires some time to heat the rooms to the required temperature.

Heating curve

Further information can be found in chapter "Terminology" in the appendix.

Heating curve (cont.)

Setting a heating curve

Factory setting:
- **"Slope"**: 1.4
- **"Level"**: 0

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Heating"**
3. **"Heating circuit 1"**, **"Heating circuit 2"** or **"Heating circuit 3"** as the required heating circuit
4. **"Heating curve"**
5. **+/–** for the required value for **"Slope"** or **"Level"**
6. **OK**/✓ to confirm

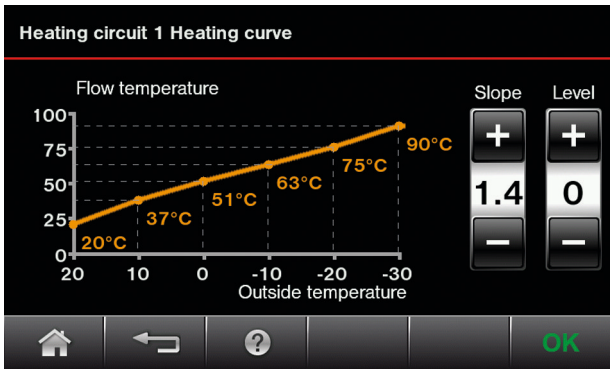

Fig. 28 HO2B

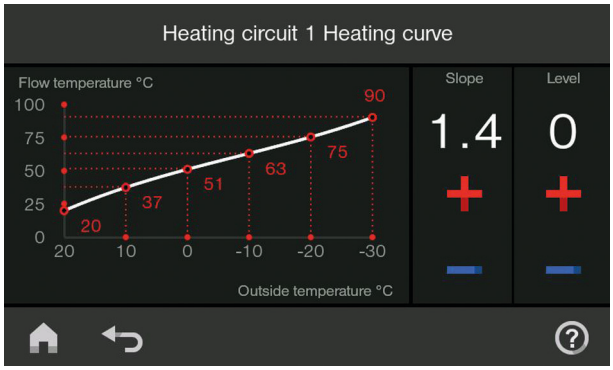

Fig. 29 HO2C

The graph clearly shows the change in the heating curve as soon as you alter the value for the slope or level.
Depending on the differing outside temperatures (shown on the horizontal axis), the assigned set flow temperatures for the heating circuit are displayed.

Stopping central heating

Only required if **"Heating and DHW"** is set.

Tap the following on-screen buttons:

1. **"Heating circuit 1 2 3"** in the header to select the required heating circuit
2.  or 
3. ▪ **"Only DHW"** (no central heating)
   or
   ▪ **"Standby mode"** (frost protection for the boiler and DHW cylinder is enabled)
4. **OK**/✓ to confirm

Comfort function

Setting "Comfort mode" (if available)

Tap the following on-screen buttons:

1. **"Heating circuit 1 2 3"** in the header to select the required heating circuit
2. 

or ≋
3. ⊞/⊟ for the required set room temperature in comfort mode

Comfort function (cont.)

4. Tap **OK**/✔ to confirm. The frame around the symbol is highlighted in white.

- The rooms are heated to the required temperature.
- Firstly, the DHW is heated to the set DHW temperature, before central heating.
- The DHW circulation pump is switched on (if installed).

Note
The standard set room temperature continues to be shown in the standard menu. ***"Comfort mode"*** *and the set temperature is displayed in alternation with the boiler water temperature.*

Ending "Comfort mode"

Again tap on

or

or
Ends automatically when the system switches to standard heating mode in accordance with the time program
or
Ends automatically after 8 hours

Energy saving function "Economy mode"

Setting "Economy mode"

Tap the following on-screen buttons:

1. **"Heating circuit 1 2 3"** in the header to select the required heating circuit
2. 

or
3. Tap **OK** to confirm. The frame around symbol is highlighted in white.

Note
You can only enable this energy saving function in standard heating mode.

Ending "Economy mode"

Again tap on

or
Ends automatically when the system switches to reduced heating mode in accordance with the time program

"Holiday program" energy saving function

Setting the "Holiday program" (HO2B)

Note
The holiday program applies to ***all*** *heating circuits. If you want to make changes to this, contact your local heating contractor.*

The holiday program starts at 00:00 h the day after the departure date. The holiday program ends at 00:00 h on the return date. This means that the set time program is active on the days of departure and return.

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"Holiday program" energy saving function (cont.)

While the holiday program is active, **"Holiday program"** is shown in the default display.

Tap the following on-screen buttons:

1. **"Menu"**
2. **"Heating"**
3. **"Heating circuit 1 2 3"** for the required heating circuit
4. **"Holiday program"**
5. ▲/▼ for **"Departure date"** and **"Return date"**

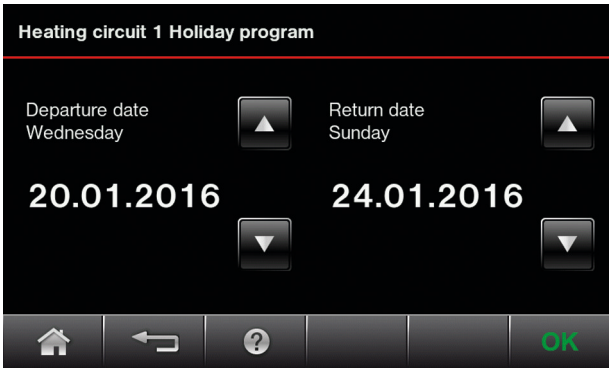

Fig. 30

6. **OK** to confirm
   "Holiday program" appears in the default display.
7. If you would also like to apply the holiday program to mechanical ventilation:
   ✕

The holiday program has the following effects:

- **Central heating**:
  - For heating circuits in the **"Heating and DHW"** operating program:
    The rooms are heated to the set reduced room temperature (see page 29).
  - For heating circuits in the **"Only DHW"** operating program:
    No central heating. Frost protection for the boiler and the DHW cylinder is enabled.
- **DHW heating**:
  No DHW heating. Frost protection for the DHW cylinder is active.
- **Mechanical ventilation** (if the holiday program was applied to mechanical ventilation):
  Mechanical ventilation runs in basic mode (ventilation level 1).

Cancelling or deleting the "Holiday program" (HO2B)

Tap the following on-screen buttons:

1. **"Menu"**
2. **"Heating"**
3. **"Heating circuit 1"**, **"Heating circuit 2"** or **"Heating circuit 3"** as the required heating circuit
4. **"Holiday program"**
5. **"▼"** to set the same date for the **"Return date"** as for the **"Departure date"**
6. **"OK"** to confirm

Note
The holiday program for mechanical ventilation must be terminated separately. See page 38 (only HO2B).

Setting the "Holiday program" (HO2C)

The holiday program starts at 00:00 h the day after the departure date. The holiday program ends at 00:00 h on the return date. This means that the set time program is active on the days of departure and return. While the holiday program is active, **"Holiday program"** is shown in the default display.

Tap the following on-screen buttons:

1. **"☰"**
2. **"Holiday program"**
3. Select **"Heating circuit 1 2 3"** for the required heating circuit and/or ventilation
4. **"✎"**

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"Holiday program" energy saving function (cont.)

5. "^"/ "v" for **"Departure date"** and **"Return date"**

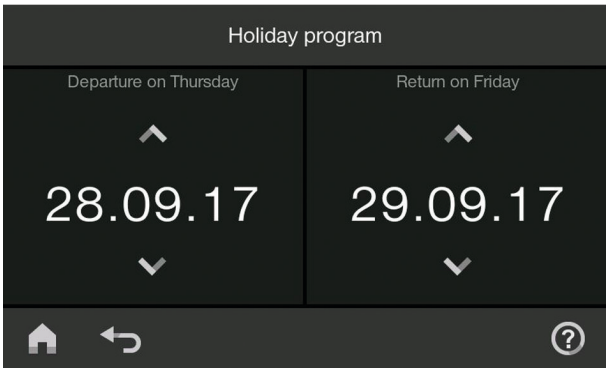

Fig. 31

6. "v" to confirm
"Holiday program" appears in the default display.

The holiday program has the following effects:

- **Central heating**:
  - For heating circuits in the **"Heating and DHW"** operating program:
    The rooms are heated to the set reduced room temperature (see page 29).
  - For heating circuits in the **"Only DHW"** operating program:
    No central heating. Frost protection for the boiler and the DHW cylinder is enabled.
- **DHW heating**:
  No DHW heating. Frost protection for the DHW cylinder is active.
- **Mechanical ventilation** (if the holiday program was applied to mechanical ventilation):
  Mechanical ventilation runs in basic mode (ventilation level 1).

Cancelling or deleting the "Holiday program" (HO2C)

Tap the following on-screen buttons:

1. **"Menu"** or "≡"
2. **"Holiday program"**
3. **"Heating circuit 1"**, **"Heating circuit 2"** or **"Heating circuit 3"** as the required heating circuit
4. "🗑"

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DHW temperature

Factory setting: 50 °C
If you want to make changes to this, contact your local heating contractor.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"DHW"**
3. **"Set temperature, DHW"**
4. ⊞/⊟ for the required value
5. **OK**/✓ to confirm

Operating program

Further information can be found in chapter "Terminology" in the appendix.

Setting the operating program

Only required if **"Standby mode"** ⏲ is set.

Tap the following on-screen buttons:

1. **"Heating circuit 1 2 3"** in the header to select the required heating circuit
2. ⏻
3. **"Only DHW"** (no central heating)
   or
   "Heating and DHW" (with central heating)
4. **OK**/✓ to confirm

For information on the operating programs, see page 15

Time program

Further information can be found in chapter "Terminology" in the appendix.

Setting a time program

Factory setting: **"Automatic"**
During operation with standard room temperature, DHW in the DHW cylinder is heated to the set DHW temperature (see page 35).
The time phase for DHW heating automatically starts half an hour earlier than the time phase for central heating with standard room temperature. For example, DHW heating will start at 05:30 h if the start time for central heating is 06:00 h. This means hot water is already available when your system starts operating at standard room temperature.
You can change the time program **individually** in accordance with your requirements.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"DHW"**
3. **"Time program, DHW"**

   Note
   *Only if set to **"Apartment building"**:*
   ***"Heating circuit 1 2 3"** in the header to select the required heating circuit*
4. **"Individual"**
5. **OK**/✓ to confirm

To see how to set a time program, see page 16.

Note
- *The DHW is not heated between the time phases. Frost protection for the DHW cylinder is active.*
- *When setting time programs, bear in mind that your heating system requires some time to heat the DHW cylinder to the required temperature.*
- *Any started water heating process continues until the set DHW temperature is achieved, even if the stop time has been reached.*

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Time program (cont.)

Increased DHW hygiene

This function can be used to heat the water in the DHW cylinder to a higher set DHW temperature.
Your heating contractor can enable this function by specifying a second set DHW temperature.
Set time phase 4 for this (see page 16). During this time, DHW will be heated to the second set DHW temperature.

Note
A start and stop time must be set for time phases 2 and 3. These may also be within time phase 1.

DHW heating once, outside the time program

Note
*The **"Heating and DHW"** or **"Only DHW"** operating program must be set for at least one system heating circuit.*

In the Energy cockpit or Favourites, tap the **"One-off cylinder heating"** button (see page 24).

Setting the time program for the DHW circulation pump

Factory setting: **"Automatic"**
The DHW circulation pump operates in parallel to the DHW heating time program.
You can change the time program **individually** in accordance with your requirements.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"DHW"**
3. **"Time program, DHW circulation"**

   Note
   *Only if set to **"Apartment building"**:*
   ***"Heating circuit 1 2 3"** in the header to select the required heating circuit*

4. **"Individual"**
5. **OK**/✓ to confirm

To see how to set a time program, see page 16.

Note
The DHW circulation pump remains off between the time phases.

Switching off DHW heating

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"DHW"**
3. **"Set temperature, DHW"**
4. ⊟ for 10 °C
5. **OK**/✓ to confirm

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Starting mechanical ventilation

Further information can be found in chapter "Terminology" in the appendix.

The ventilation unit is started by your heating contractor during commissioning.
The air flow rates of the ventilation levels have been preset by your heating contractor. See page 15.
The preset air flow rates of the ventilation levels and the duration of intensive ventilation and economy mode can be changed by your heating contractor.

Note
*In order to remove naturally occurring moisture from rooms, the ventilation unit must **always** be operated using at least the lowest ventilation level (**"Basic mode"**).*

Setting the operating program

Factory setting: Automatic mode

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Ventilation"**
3. ▪ Required operating program:
   ▪ **"Standby mode"**
   ▪ **"Basic mode"**
   ▪ **"Automatic mode"**
   For the function of the operating programs, see page 15.

Setting the time program

For general information on the time program, see page 16.

- Factory setting: Automatic mode with **"Normal"** ventilation level from 00:00 to 24:00 h
- You can select up to 8 time phases per day
- During the time phases, you can select the following ventilation levels:
  - **"Reduced"**
  - **"Normal"**
  - **"Intensive operation"**
- **"Basic mode"** (ventilation level 1) is active outside the time phases

Setting time phases

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Ventilation"**
3. **"Time program, ventilation"**
4. **"Select the day of the week, e.g. Mo"**
5. **"Change"**/"✎"

For further time program settings, see page 16.

"Holiday program" energy saving function

Setting the "Holiday program" (HO2B)

Note
*The holiday program applies to **all** heating circuits.*
If you want to make changes to this, contact your local heating contractor.

The holiday program starts at 00:00 h the day after the departure date. The holiday program ends at 00:00 h on the return date. This means that the set time program is active on the days of departure and return. While the holiday program is active, **"Holiday program"** is shown in the default display.

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"Holiday program" energy saving function (cont.)

Tap the following on-screen buttons:

1. **"Menu"**
2. **"Ventilation"**
3. **"Holiday program"**
4. ▲/▼ for **"Departure date"** and **"Return date"**

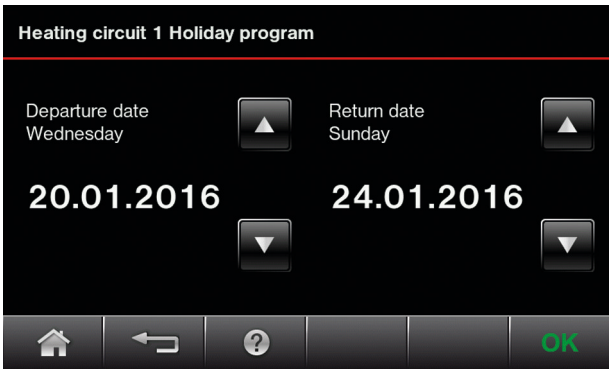

Fig. 32

5. **OK** to confirm
   "Holiday program" appears in the default display.

   Note
   During the holiday program, mechanical ventilation runs in basic mode (ventilation level 1).
   This only applies if the holiday program has also been activated for ventilation.

Setting the "Holiday program" (HO2C)

Note
*The holiday program applies to **all** heating circuits.*
If you want to make changes to this, contact your local heating contractor.

The holiday program starts at 00:00 h the day after the departure date. The holiday program ends at 00:00 h on the return date. This means that the set time program is active on the days of departure and return. While the holiday program is active, **"Holiday program"** is shown in the default display.

Tap the following on-screen buttons:

1. ☰
2. **"Holiday program"**
3. **"Ventilation"**
4. ✎

5. Using ^/v, select **"Departure date"** and **"Return date"**.

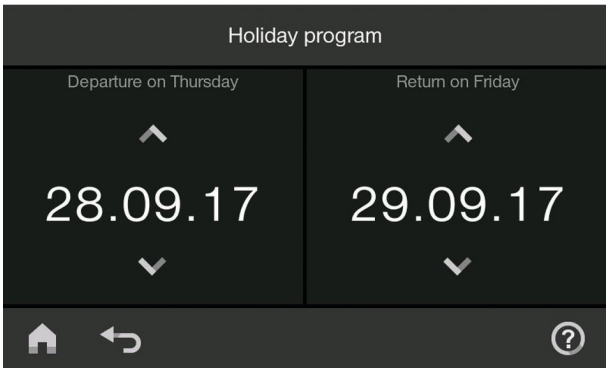

Fig. 33

6. ✓ to confirm
   "Holiday program" appears in the default display.

   Note
   During the holiday program, mechanical ventilation runs in basic mode (ventilation level 1).
   This only applies if the holiday program has also been activated for ventilation.

Cancelling or deleting the "Holiday program" (only HO2B)

Tap the following on-screen buttons:

1. **"Menu"**
2. **"Ventilation"**
3. **"Ventilation, holiday program"**
4. ▼ to set the same date for the **"Return date"** as for the **"Departure date"**

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"Holiday program" energy saving function (cont.)

5. **OK** to confirm

Selecting the set room temperature for ventilation without heat recovery

Factory setting: 20 °C
As soon as the room temperature exceeds the selected set value by more than 1 °C, ventilation continues without heat recovery.

Note
To ensure correct heat recovery functionality, select a set value that is at most 4 °C lower than the set room temperature for central heating.

Not for Vitovent 300-C and 300-W.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Ventilation"**
3. **"Set room temperature"**
4. ⊞/⊟ for the required value
5. **OK**/✓ to confirm

Selecting the minimum set supply air temperature for ventilation without heat recovery

Factory setting: 16 °C
As soon as the supply air temperature exceeds the selected set value, ventilation continues without heat recovery.

Note
The lower the setting for this temperature, the higher the risk of condensate formation on the outside of the ductwork. This condensate build-up can cause damage to the building.

Not for Vitovent 300-C and 300-W.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Ventilation"**
3. **"Min. supply air temp. Bypass "**
4. ⊞/⊟ for the required value
5. **OK**/✓ to confirm

Cleaning or replacing the filters

Replace filters if one of the following conditions applies:
- **"Check filter(s)"** is shown in the standard menu for ventilation.
  or
- The last filter change was more than 1 year ago

Note
*The number of days remaining before the next filter change can be called up from the extended menu under **"Information"**.*
If the ventilation unit has several filters, they should always be cleaned or replaced together.

Confirm on the control unit that filters have been replaced or cleaned.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Ventilation"**
3. **"Filter change "**
4. **OK**/✓ to confirm
   The counter is reset to 365 days.

Setting intensive mode

The increased ventilation intensity remains active for 2 hours. After this, operation continues with the ventilation level that is active in the operating program.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"

Setting intensive mode (cont.)

2. **"Ventilation"**
3. **"Intensive mode"**
4. **ON**

Setting reduced mode

The reduced ventilation intensity remains active for 12 hours. After this, operation continues with the ventilation level that is active in the operating program.

Tap the following on-screen buttons:

1. **"Menu"/"☰"**
2. **"Ventilation"**
3. **"Eco"**
4. **ON**

Locking the controls

You can lock the controls via the display in 2 steps:
- All functions in the standard menu are operable. The emissions test mode can be enabled.
  All other functions are disabled.
- All functions are disabled. The emissions test mode can be enabled.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Settings"**
3. **"Disable operation"**
4. **"Only default display operational"** or **"Lock everything"**
5. Enter the password **"vitotronic"**.
   This password can be changed (see page 41).
6. **OK**/✓ to confirm

Cancelling control lock

Tap the following on-screen buttons:

1. Tap the display anywhere.
   "Operation disabled" appears.
2. Tap on **"Unlock"**.
   An entry field and keyboard appear.
3. Enter the password **"vitotronic"** or the password you have specified.
4. **OK** to confirm

Changing the password for the "Disable operation" function

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Settings"**
3. **"Change passwords"**
4. Enter the current password.
5. Enter the new password.

   Note
   You will not be required to confirm the new password.
6. **OK**/✓ to confirm

Setting the display illumination

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Settings"**
3. **"Screen"/"Brightness, display"**
4. **"Brightness, standby"** or **"Brightness, operation"**
5. ▲/▼ for the required value
6. **OK**/✓ to confirm

Signal tone for display (key tone)

Under factory settings, a signal tone is activated to produce a sound every time a button is tapped. You can turn this signal tone off.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Settings"**
3. **"Buzzer"/"Sound ON/OFF"**
4. **"ON"** or **"OFF"** for the required function.
5. **"OK"**/✓ to confirm.

Naming heating circuits

You can name all heating circuits individually.

Note
*The abbreviations **1**, **2**, **3** in the standard menu are retained.*

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Settings"**
3. **"Rename heating circuits"**
4. Select **"Heating circuit 1"**, **"Heating circuit 2"** or **"Heating circuit 3"** and enter the required name, such as "Ground floor".
5. **OK**/✓ to confirm

The name assigned to the relevant heating circuit appears in the main menu.

Setting the time and date

The time and date are factory-set. If your heating system has been shut down for a prolonged period, you may need to reset the time and date.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Settings"**
3. **"Date and time"**
4. **"Date"** or **"Time"**
5. ∧/∨ for the required value
6. **OK**/✓ to confirm

Setting the language

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Settings"**
3. **"Language"**
4. Required language
5. **OK**/✓ to confirm

Entering the heating contractor contact details

You can enter your heating contractor's contact details. These can then be called up under Information.

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Settings"** or **"Information"**
3. **"Service contact details"**
4. Relevant entry field
5. Enter the text in the individual fields (see page 42).
6. **OK**/✓ to confirm

Permanently selecting the default display

You can select one of the following displays as the default display:
- **"Heating"**
- **"Ventilation"**
- **"Energy cockpit"**
- **"Favourites"**

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Settings"**
3. **"Selecting the default display"**

Permanently selecting the default display (cont.)

4. Required display
5. **OK**/✓ to confirm

Note
If you tap ⌂, the selected display will appear.

Deactivating the display screen for cleaning

If you wish to clean the display screen, you can deactivate it for 30 seconds. This prevents unintentional actions while touching the screen.

Tap the following on-screen buttons:

1. **"Menu"**/"≡"
2. **"Settings"**
3. **"Clean screen"**
   The screen is deactivated and a countdown begins.

Restoring the factory settings

You can individually restore all modified values for each heating circuit to their factory setting.

Note
If heating circuits have been named (see chapter "Naming heating circuits") the assigned name is retained.

Settings and values that are reset:
- Set room temperature
- Set reduced room temperature
- Operating program
- Set DHW temperature
- Time program for central heating
- Time program for DHW heating
- Time program for DHW circulation pump
- Heating curve slope and level
- Comfort and energy saving functions are deleted.

Tap the following on-screen buttons:

1. **"Menu"**/"≡"
2. **"Settings"**
3. **"Factory setting"**
4. **"Heating circuit 1 2 3"** for the required heating circuit
5. **OK**/✓ to confirm

Scanning information

Subject to the components connected and the settings made, you can scan current temperatures and operating conditions.

Information in the main menu is split into groups:
- **"General"**
- **"Heating circuit 1"**
- **"Heating circuit 2"**
- **"Heating circuit 3"**
- **"DHW"**
- **"Solar"**
- **"Ventilation"**
- **"Service contact details"**
- **"Reset data"**

Note
If heating circuits have been named (see chapter "Naming heating circuits") the assigned name is displayed.
Detailed options for data scanning on individual groups can be found in chapter "Data call-up options".

Tap the following on-screen buttons:

1. **"Menu"/"☰"**
2. **"Information"**

Temperature profile of the DHW cylinder

Subject to the type of DHW cylinder, the temperature curve is displayed graphically.
The curves show the temperature profile at the individual test points in the DHW cylinder.

Tap the following on-screen buttons:

1. **"Menu"/"☰"**
2. **"Information"**
3. **"DHW"**
4. **"Cylinder bar chart"/"Overview, DHW cylinder"**
5. Required period

   You can call up the following periods:
   - 24 hours
   - 7 days
   - 30 days

Temperature stratification in the DHW cylinder

Subject to the type of DHW cylinder, the temperature stratification is displayed graphically.

Tap the following on-screen buttons:

1. **"Menu"/☰**
2. **"Information"**
3. **"DHW"**
4. **"Cylinder, temperature stratification"**
5. Required period

   You can call up the following periods:
   - 24 hours
   - 7 days
   - 30 days

Calling up the solar energy yield in conjunction with solar thermal systems

Only in conjunction with the solar control module, type SM1. When connected to a Vitosolic solar control unit, you can call up the solar energy yield on the Vitosolic.

Tap the following on-screen buttons:

1. **"Menu"/☰**
2. **"Information"**
3. **"Solar"/"Solar energy"**
4. **"Solar energy bar chart"/"Overview, solar energy"**
5. **"Required period (if available)"**

Note
For further options on calling up data, e.g. the solar circuit pump hours run, see the extended menu under ***"Information"*** *in the* ***"Solar"*** *group.*

Scanning information (cont.)

Calling up the contact details for your heating contractor

Tap the following on-screen buttons:

1. **"Menu"**
2. **"Information"**
3. **"Service contact details"**

Note
If no details have been entered, see page 42.

Resetting operating data (meters)

You can reset the following data to zero:
- **"Burner hours run "**
- **"Burner starts"**
- **"Solar circuit pump"**
- **"Solar energy"**
- **"SM1 output 22"** (hours run)
- **"All data"**

Tap the following on-screen buttons:

1. **"Menu"/**☰
2. **"Information"**
3. **"Reset data"**
4. Select required data point or **"All data"**
5. **OK/**✓ to confirm or ✕ to cancel

Calling up service messages

Your heating contractor can set service intervals (limits) (e.g. for burner hours run). A service message is generated when this value is exceeded.
If your heating system is due for a service, this is indicated on the display with the symbol 🔧 and **"Service"**.

Tap on **"Confirm"**.
⚠ flashes in the footer.

Calling up a service message

1. Tap on ⚠ in the footer.
   The service message appears in yellow in a list.
2. Notify your heating contractor.
   If your heating system also has fault messages to display, the following will appear after tapping on ⚠:
   "Faults" and **"Service messages"**.
3. Tap on **"Service messages"**
   The service messages appear in yellow in a list.

   Note
   If the service cannot be carried out until a later date, the service message will be displayed again the following Monday.

Scanning fault messages

If your heating system has developed faults, this is shown on the display by the symbol ⚠ and **"Fault"**.
The red fault indicator flashes on the control unit (see chapter "Starting the heating system").

Tap on **"Confirm"**.
⚠ flashes in the footer.

Note
- *If you have connected an alarm to alert you to fault messages (e.g. a buzzer), this is deactivated when the fault message is acknowledged.*
- *If troubleshooting cannot be carried out until a later date, the fault message will be displayed again the following day at 07:00 h. The alarm equipment is switched on again.*

Calling up a fault message

1. Tap on ⚠ in the footer.
   The fault message appears in red in a list.
   Pending service messages appear in yellow.
2. Tapping on **?** calls up information on the heating system characteristics.
   Tips on measures you can take yourself **before** notifying your heating contractor are displayed.

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Scanning fault messages (cont.)

3. Make a note of the fault code and the cause of the fault. For example: **10**: **"Outside temperature sensor"**.
   This enables the heating contractor to be better prepared and may save you unnecessary travelling costs.

4. Notify your heating contractor.

5. Tap on **"Ackn."**

⚠ **Danger**
If faults are not rectified, they can have life threatening consequences.
Do not acknowledge fault messages several times in quick succession. Notify your heating contractor if a fault recurs. Your heating contractor will be able to analyse the cause and rectify the fault.

Note
If there are any service messages pending on your heating system at the time, ***"Faults"*** *and* ***"Service messages"*** *will appear.*

Tap on **"Faults"**
The fault messages are listed in red.

Calling up help messages

You can call up help messages relating to the displays and functions.

Tap the following on-screen buttons:

1. ⓘ to call up the help messages
2. ⮌ to return to the original display

Emissions test mode

Emissions test mode for testing flue gas with briefly raised boiler water temperature.
Emissions test mode should only be activated by your flue gas inspector during the annual inspection.

Note
The flue gas inspector can also activate emissions test mode if the controls have been locked by your heating contractor.

Activating emissions test mode

Tap the following on-screen buttons:

1. **"Menu"**/"☰"
2. **"Test mode"**
3. **"ON"**/"✓"

   The following functions are activated:
   - The burner is switched on. The display shows ⊱
   - The pumps are started.
   - The mixers remain set to the control function.
   - The electronic temperature controller regulates the boiler water temperature.

   Note
   Ensure that enough heat is being drawn while the function is active.

Ending emissions test mode

- Automatically after 30 minutes
  or
- Tap on **"Off"**.

Rooms are too cold

Cause	Remedy
The heating system is switched off.	▪ Turn on the ON/OFF switch (see page 27). ▪ Switch ON the mains isolator if installed (outside the boiler room). ▪ Set the MCB in the power distribution board (main domestic MCB).
▪ Control unit incorrectly adjusted. ▪ The remote control (if installed) is set incorrectly.  Separate operating instructions	Central heating must be enabled. Check the settings and correct if required: ▪ Operating program (see page 15) ▪ Room temperature (see page 29) ▪ Time (see page 42) ▪ Time program, central heating (see page 30) ▪ Heating curve (see page 30)
The DHW cylinder is being heated.	Wait until the DHW cylinder has been heated up. Reduce the DHW draw-off rate or temporarily reduce the DHW temperature as required.
No fuel.	For operation with LPG: Check the fuel reserves and re-order if required. For operation with natural gas: Open the gas shut-off valve. If necessary, check with your gas supply utility.
"Burner fault" is displayed.	Press button **R** (see page 27). Acknowledge the fault (see page 45). ⚠ **Danger** If faults are not rectified, they can have life threatening consequences. Do not acknowledge fault messages several times in quick succession. Notify your heating contractor if a fault recurs. Your heating contractor will be able to analyse the cause and rectify the fault.
"Fault" is displayed. The red fault indicator flashes.	Check what type of fault it is. Acknowledge the fault (see page 45). If necessary, notify your heating contractor.
"Screed drying" is activated.	No action required. After expiry of the screed drying time, the selected operating program will become active.
The mixer motor is faulty.	Adjust the mixer manually.
In conjunction with a mechanical ventilation unit: ▪ Bypass does not close. ▪ Preheating coil faulty. ▪ Supply/extract air fan faulty.	Notify your heating contractor.

Rooms are too hot

Cause	Remedy
▪ Control unit incorrectly adjusted. ▪ The remote control (if installed) is set incorrectly.  Separate operating instructions	Check the settings and correct if required: ▪ Operating program (see page 15) ▪ Room temperature (see page 29) ▪ Time (see page 42) ▪ Time program, central heating (see page 30) ▪ Heating curve (see page 30)
"Fault" is displayed. The red fault indicator flashes.	Check what type of fault it is. Acknowledge the fault (see page 45). If necessary, notify your heating contractor.
The mixer motor is faulty.	Adjust the mixer manually.
In conjunction with a mechanical ventilation unit: The bypass does not open.	Check the following settings and correct if required: ▪ Set room temperature for ventilation **"Set room temperature"** (see page 39) ▪ Minimum supply air temperature for ventilation **"Ventilation, minimum supply air temperature, bypass"** (see page 39) If necessary, notify your heating contractor.

There is no hot water

Cause	Remedy
The heating system is off.	▪ Turn on the ON/OFF switch (see page 27). ▪ Switch ON the mains isolator if installed (outside the boiler room). ▪ Set the MCB in the power distribution board (main domestic MCB).
▪ Control unit incorrectly adjusted. ▪ The remote control (if installed) is set incorrectly.  Separate operating instructions	DHW heating must be enabled. Check the settings and correct if required: ▪ Operating program (see page 15) ▪ Room temperature (see page 29) ▪ Time (see page 42) ▪ Time program, central heating (see page 30) ▪ Heating curve (see page 30)
No fuel.	For operation with LPG: Check the fuel reserves and re-order if required. For operation with natural gas: Open the gas shut-off valve. If necessary, check with your gas supply utility.
"Fault" is displayed. The red fault indicator flashes.	Check what type of fault it is. Acknowledge the fault (see page 45). If necessary, notify your heating contractor.

The DHW is too hot

Cause	Remedy
The control unit is set incorrectly.	Check the DHW temperature and correct it if required (see page 35).
The DHW is being heated by the solar thermal system.	Check the settings at the solar control unit and correct them if required. Separate operating instructions

"Fault" is displayed

Cause	Remedy
Heating system fault	Proceed as described on page 45.

and "Service" are displayed

Cause	Remedy
The service time, as specified by your heating contractor, has arrived.	Proceed as described on page 45.

"Operation disabled" is displayed

Cause	Remedy
The controls have been locked.	Unlock them (see page 41).

"External hook-up" is displayed

Cause	Remedy
The operating program set at the control unit has been switched over by an external device, e.g. EA1 extension.	No action required. Once the external changeover no longer applies, the set operating program becomes active again.

"External program" is displayed

Cause	Remedy
The operating program set at the control unit has been switched over by the Vitocom communication interface.	You can change the operating program.

"Check filter" is displayed

Cause	Remedy
▪ The filters in your ventilation unit and in your exhaust air valves are severely contaminated. ▪ The last filter change was more than 1 year ago.	Change the filters (see page 53).

Doors/windows are difficult to open

Cause	Remedy
In highly airtight buildings, e.g. a passive house: The air flow rates for supply and extract air in your ventilation unit are out of balance.	Notify your heating contractor.

Doors/windows bang when opened

Cause	Remedy
In highly airtight buildings, e.g. a passive house: The air flow rates for supply and extract air in your ventilation unit are out of balance.	Notify your heating contractor.

Cleaning

The appliances can be cleaned with a commercially available domestic cleaning agent (non-scouring). Clean the surface of the programming unit with a microfibre cloth.

Inspection and maintenance

The inspection and maintenance of a heating system is prescribed by the Energy Saving Ordinance [EnEV - Germany] and the DIN 4755, DVGW-TRGI 2008 and DIN 1988-8 standards.

Regular maintenance ensures trouble-free, energy efficient, environmentally responsible and safe heating. Your heating system must be serviced by an authorised contractor at least every 2 years. For this, it is best to arrange an inspection and maintenance contract with your local heating contractor.

Appliance

Increased contamination raises the flue gas temperature and thereby increases energy losses. We recommend the appliance is cleaned annually.

DHW cylinder (if installed)

Standards DIN 1988-8 and EN 806 specify that maintenance and cleaning should be carried out no later than 2 years after commissioning and as required thereafter.
Only a qualified heating contractor should clean the inside of a DHW cylinder and the DHW connections.
If any water treatment equipment (e.g. a sluice or injection system) is installed in the cold water supply of the DHW cylinder, ensure this is refilled in good time. In this connection, observe the manufacturer's instructions.

In addition for Vitocell 100:
We recommend that the correct function of the sacrificial anode is checked annually by your heating contractor.
The function of the sacrificial anode can be checked without interrupting the system operation. The heating contractor will check the earth current with an anode tester.

Safety valve (DHW cylinder)

The function of the safety valve must be checked every six months by the user or a contractor through venting (see valve manufacturer's instructions). The valve seat may become contaminated.
Water may drip from the safety valve during a heat-up process. The outlet is open to the atmosphere.

! **Please note**
Overpressure can cause damage.
Do not close the safety valve.

Potable water filter (if installed)

To maintain high hygienic standards, proceed as follows:
- Replace filter element on non-back flushing filters every six months (visual inspection every two months).
- On back flushing filters, back flush every two months.

Cleaning the mechanical ventilation system

- The casing of the ventilation unit may be cleaned with a commercially available domestic cleaning agent (non-scouring).
- Clean the outdoor air and extract air filters in the ventilation unit as well as the filters in the extract air valves regularly. We recommend replacing these filters **once** per year.

! **Please note**
Dust deposits in the appliance can result in malfunctions.
Never start the appliance without outdoor air and extract air filters.

- We recommend that the ventilation unit and the ductwork are serviced regularly (once per year) and cleaned if necessary by your HVAC contractor.
- We recommend entering into a maintenance contract with your HVAC contractor.
  Failure to carry out maintenance represents a risk factor. Regular cleaning and maintenance ensure that the operation remains hygienic, environmentally sound and energy efficient.

Cleaning or replacing filters

If **"Check filter(s)"** is shown in the standard menu, the filters in the ventilation unit and/or extract air vents are contaminated.

Cleaning filters

In the case of **light** contamination, clean filters with the aid of a vacuum cleaner.

Replacing filters

If **one** of the following conditions applies, replace the filters:
- The filters are **heavily** contaminated.
- Filters have already been cleaned several times.
- The last filter change was more than 12 months ago.

Dispose of contaminated filters through domestic waste.

Filter in the ventilation unit

⚠ **Danger**
The ventilation unit terminals are located behind the r.h. casing door. Contact with 'live' components can lead to serious injury from electric current.
Never open the r.h. casing door.

! **Please note**
Dust deposits in the appliance can result in malfunctions.
Unplug the power supply plug before opening the ventilation unit.

Cleaning or replacing filters (cont.)

Vitovent 300-W

Opening the ventilation unit

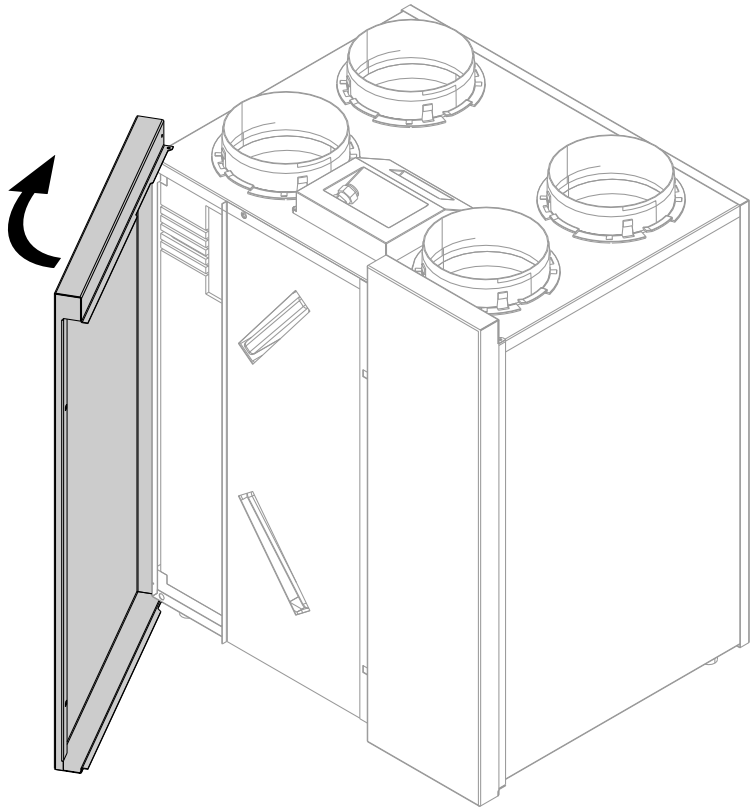

Fig. 34

Cleaning or replacing filters (cont.)

Clean the filters. Replace if necessary

Note
***Prior** to removing filters, note their installation position.*
If necessary, mark positions with a pen.

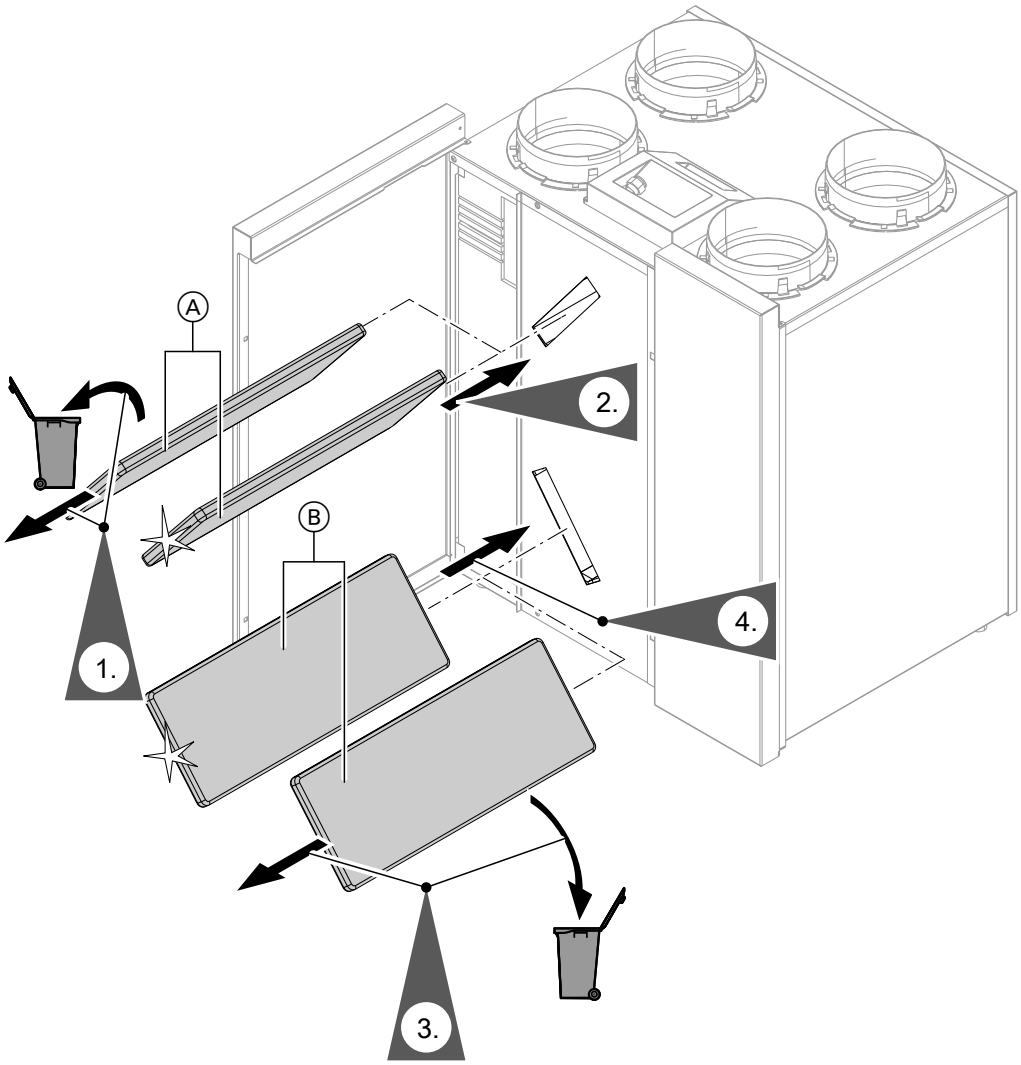

Fig. 35

Ⓐ Extract air filter
Ⓑ Outdoor air filter

Cleaning or replacing filters (cont.)

Vitovent 300-C

Removing the filter boxes from the unit

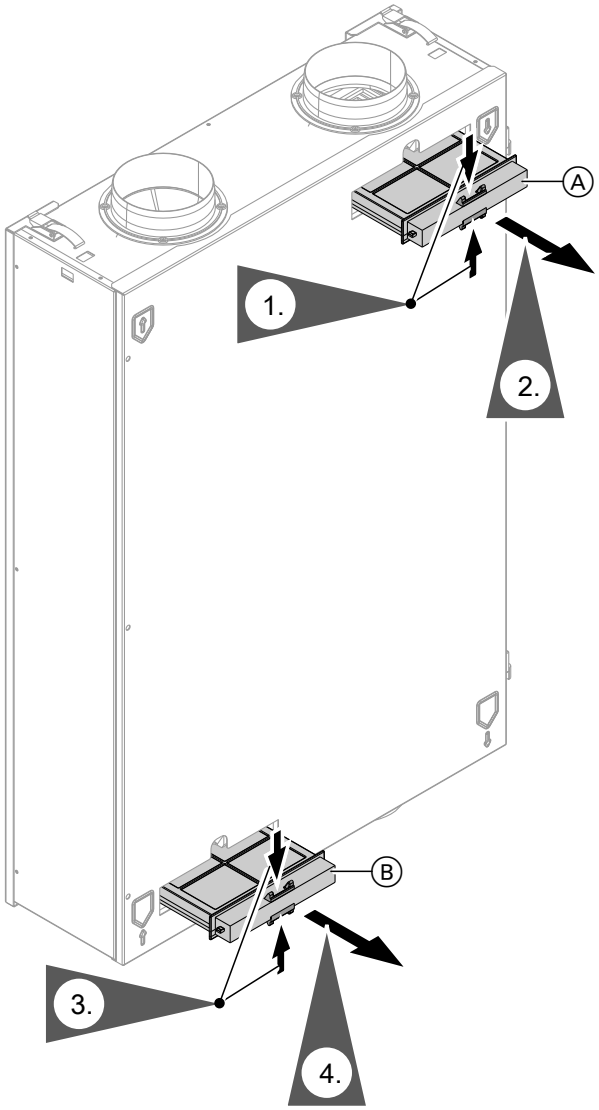

Fig. 36

Ⓐ Extract air filter box
Ⓑ Outdoor air filter box

Cleaning or replacing filters (cont.)

Clean the filters. Replace if necessary

Note
*If you use a fine filter: **Before** removing the filter from the filter box, make a note of which is the top and which is the bottom. If necessary, mark the position on the filter box with a pen.*

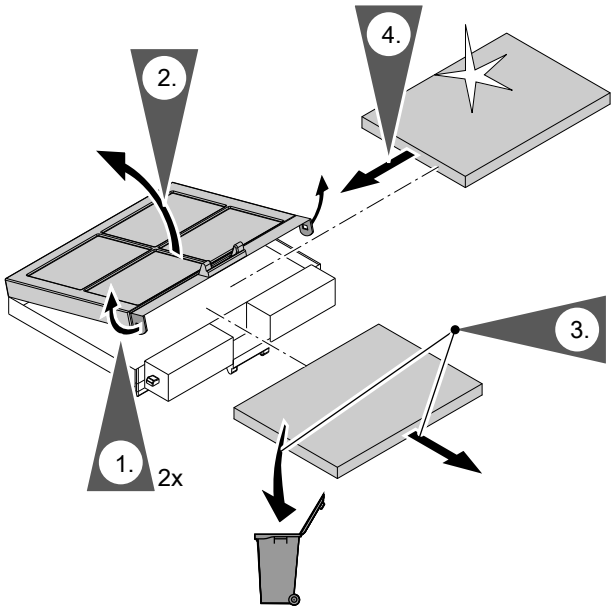

Fig. 37

Cleaning or replacing filters (cont.)

Inserting the filter boxes into the unit

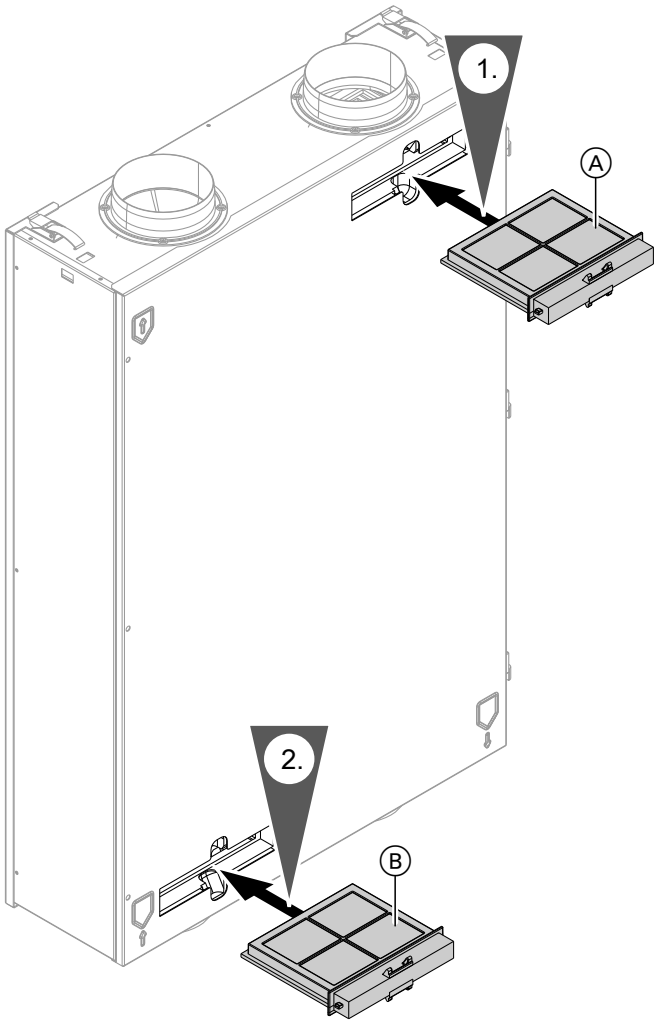

Fig. 38

Ⓐ Extract air filter
Ⓑ Outdoor air filter

Damaged cables / lines

If there is damage to the connecting cables or lines of the appliance or externally installed accessories, these must be replaced with special cables or lines. Only use Viessmann cables / lines as replacement. For this, notify your qualified contractor.

Overview of extended menu

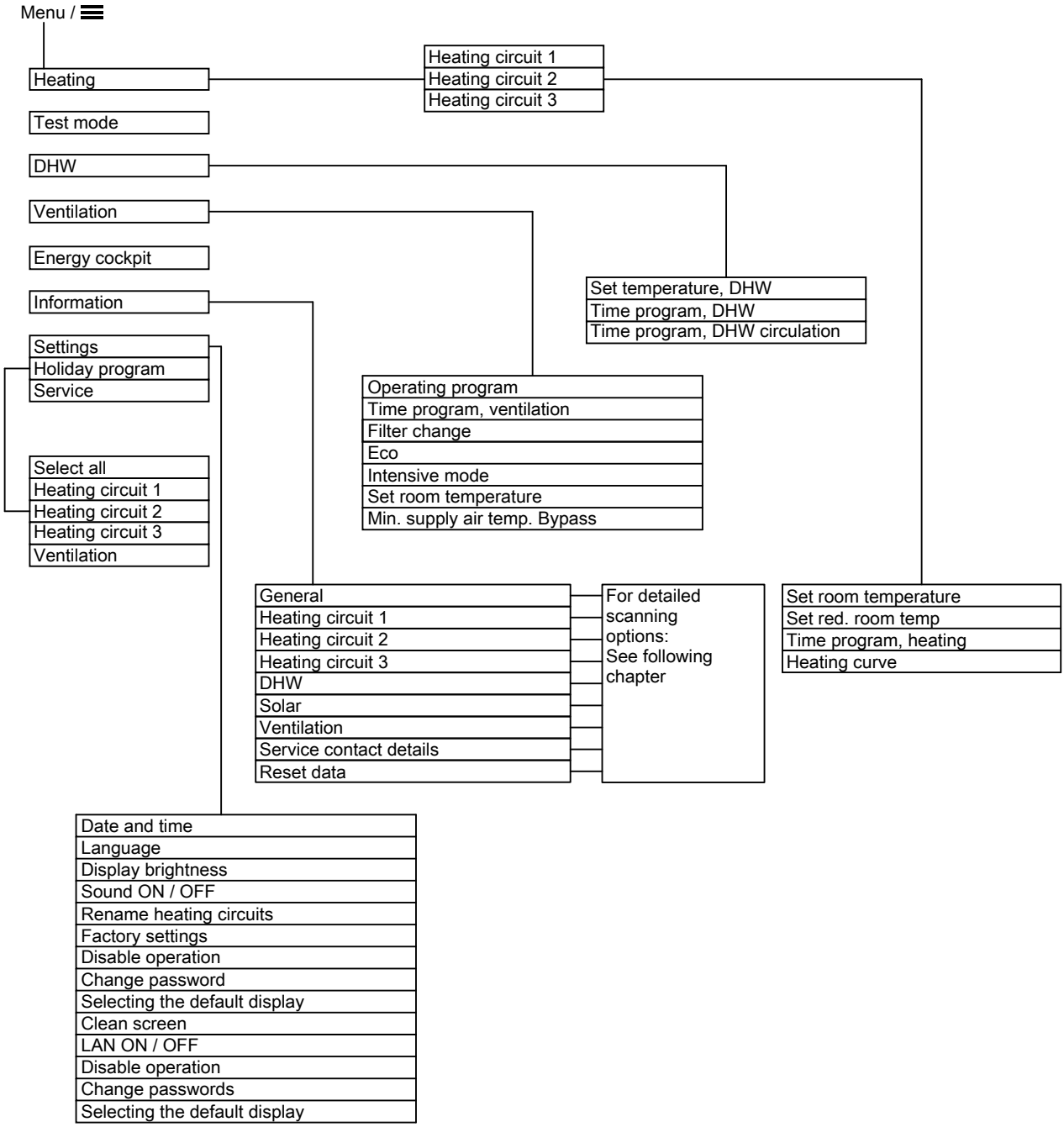

Fig. 39

Data call-up options under "Information"

Note
Subject to the features of your heating system, not all of the information listed here may be available to call up.
You can call up more details where information is marked with ►.

Tap the following on-screen buttons:

1. **"Menu"/☰**
2. **"Information"**
3. ▪ **"General"**
   ▪ **"Heating circuit 1"**
   ▪ **"Heating circuit 2"**
   ▪ **"Heating circuit 3"**
   ▪ **"DHW"**
   ▪ **"Solar"**
   ▪ **"Ventilation"**
   ▪ **"Reset data"**
   ▪ **"Service contact details"**

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Data call-up options under "Information" (cont.)

General

"Outside temperature"
"Boiler temperature"
"Common flow temperature"
"Flue gas temperature"
"Burner"
"Burner hours run"
"Central fault message"
"Subscriber no."
"Inputs, extension EA1" ▸
"Function, input, ext. EA1, input DE1" ▸
"Function, input, ext. EA1, input DE2" ▸
"Function, input, ext. EA1, input DE3" ▸
"External hook-up 0 .. 10 V, extension EA1"
"Time"
"Date"
"Serial number boiler"
"Serial number control unit"

Heating circuit 1, 2 or 3

"Operating program" ▸
"Operating status" ▸
"Time program"
"Room temperature"▸
"Set reduced room temperature"
"External set room temperature"
"Comfort temperature"
"Heating curve slope"
"Heating curve level"
"Heating circuit pump"
"Mixer"
"Flow temperature"

DHW

"Time prog. DHW" ▸, heating circuit 1, 2 or 3
"Time prog. DHW circulation" ▸, heating circuit 1, 2 or 3
"Overview of DHW cylinder"▸
"Cylinder, temperature stratification"▸
"DHW temperature"
"Calculated cylinder temperatures" ▸
"DHW circulation pump"
"Cylinder loading pump"
"Heat-up condition, DHW cylinder"
"Cylinder type"

Solar

"Solar energy bar chart" ▸
"Collector temperature"
"Solar DHW"
"Solar circuit pump" (hours run)
"Solar energy"
"Solar circuit pump" or **"Speed, solar circuit pump"**
"Heating suppression, DHW"
"SM1 output 22"
"Sensor 7"
"Sensor 10"
"Heating suppression, heating"
"Absorber area"

Ventilation

"Operating program"
"Operating status"
"Overview"
"Supply air flow rate"
"Exhaust air flow rate"
"Set room temperature"
"Min. supply air temperature, bypass"
"Time program"
"Bypass switched "
"Humidity concentration"
"CO2 concentration"
"Set CO2 value"
"Electric preheater coil"
"Filter change no later than ..."
"Holiday program"

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Heating terminology

Setback mode (reduced heating mode)

See "Reduced heating mode".

Operating program

You define the following with the operating program:
- Central heating and DHW heating
  or
- DHW heating only, no central heating
  or
- Only frost protection for the boiler and the DHW cylinder is active.
  No central heating, no DHW heating

Note
No operating program is available for central heating without DHW heating. When central heating is needed, hot water is generally also required (winter mode).

Operating status

In the **"Heating and DHW"** operating program, the operating status changes from "Standard heating mode" to "Reduced heating mode" and vice versa. The times at which the operating status is changed over are defined by you when setting the time program.

Extension kit for heating circuit with mixer

Assembly (accessories) for controlling a heating circuit with mixer, see "Mixers"

Screed drying

Your heating contractor can activate this function for screed drying, for example in your new build or extension. This means your screed is dried in line with a fixed time program (temperature/time profile) that is appropriate for the building materials used.

The screed drying function affects heating circuits with mixer:
- All rooms are heated according to the temperature/time profile.
  Your settings for central heating have no effect on the duration of screed drying (max. 32 days).
- DHW heating is carried out (but priority control is cancelled).

Underfloor heating

Underfloor heating systems are slow, low temperature heating systems that respond only very slowly to short term temperature changes.
Therefore, heating to the reduced room temperature at night or switching on **"Economy mode"** during short absences does not result in significant energy savings.

Heating mode

Standard heating mode

For periods when you will be at home during the day, heat your rooms to the standard room temperature. Set the periods (time phases) using the time program for central heating.

Reduced heating mode

For periods when you will be absent or during the night, heat your rooms to the reduced room temperature. Set the periods using the time program for central heating. With underfloor heating systems, reduced heating mode only yields limited energy savings (see "Underfloor heating system").

Room temperature-dependent heating mode

In room temperature-dependent mode, the flow temperature is controlled according to the room temperature. More heat is made available at a lower room temperature than at a higher one.
The room temperature is captured and transmitted to the control unit by a sensor. The sensor is fitted in the room.
The flow temperature is regulated independently of the outside temperature.

Weather-compensated heating mode

In weather-compensated mode, the flow temperature is controlled according to the outside temperature. More heat is made available at a lower outside temperature than at a higher one.
The outside temperature is captured and transmitted to the control unit by a sensor. The sensor is fitted to the exterior of the building.

Heating curve

Heating curves illustrate the relationship between the outside temperature, the set room temperature and the boiler water temperature or flow temperature. The lower the outside temperature, the higher the boiler water temperature or flow temperature.
In order to guarantee sufficient heat and minimum fuel consumption at any outside temperature, the conditions of your building and your heating system must be taken into consideration. The heating curve is set by your heating contractor for this purpose.

The heating curves shown apply with the following settings:
- Heating curve level = 0
- Standard room temperature (set value) = 20 °C

Heating terminology (cont.)

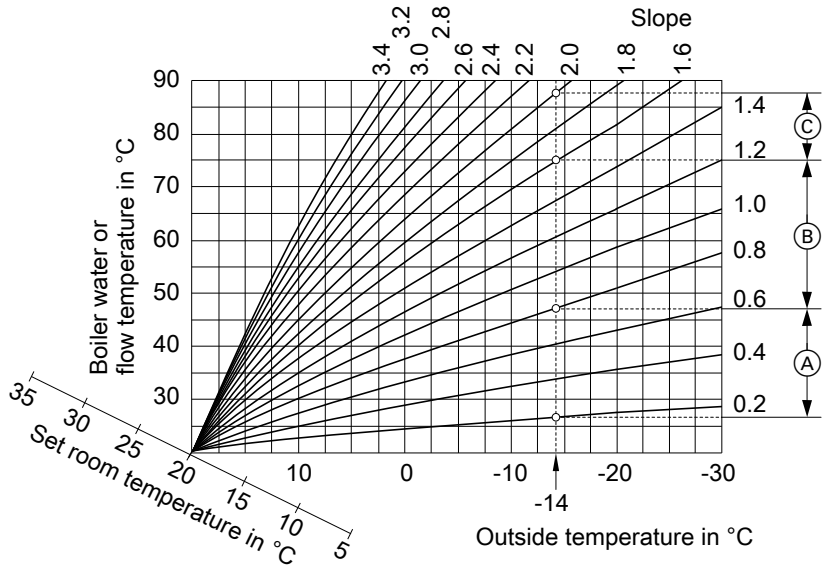

Fig. 40

Example:
For outside temperature **−14 °C**:
Ⓐ Underfloor heating system, slope 0.2 to 0.8
Ⓑ Low temperature heating system, slope 0.8 to 1.6
Ⓒ Heating system with a boiler water temperature in excess of 75 °C, slope 1.6 to 2.0
Factory-set slope = 1.4 and level = 0.

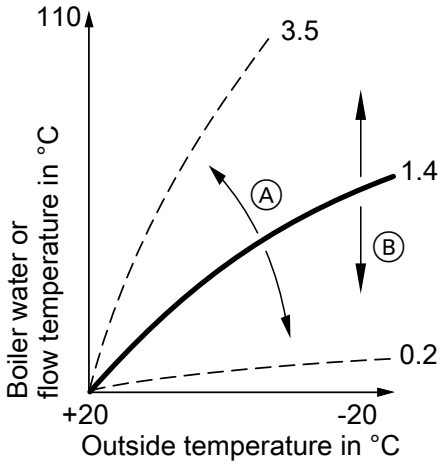

Fig. 41

Ⓐ Changing the slope:
The steepness of the heating curve changes.
Ⓑ Changing the level:
The heating curves are shifted in parallel in a vertical direction.

Heating circuit

A heating circuit is a sealed unvented circuit that connects the boiler and radiators, in which the heating water circulates.
A heating system may comprise several heating circuits. For example, one heating circuit for the rooms occupied by you and one heating circuit for the rooms of a separate apartment.

Heating circuit pump

Circulation pump for circulating the heating water in the heating circuit

Mixer

Hot heating water from the boiler is mixed with cooled heating water from the heating circuit. The heating water, thus brought to the required temperature, is pumped to the heating circuit by the heating circuit pump. The control unit adjusts the flow temperature via the mixer to suit different conditions, e.g. changing outside temperatures.

Night setback

See "Reduced heating mode"

Open flue operation

The combustion air is drawn from the room where the boiler is installed.

Room sealed operation

The combustion air is drawn from outside the building.

Room temperature

- Standard room temperature:
  Set the standard room temperature for periods when you are at home during the day.
- Reduced room temperature:
  For periods when you will be absent or during the night, set the reduced room temperature; see "Heating mode".

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Heating terminology (cont.)

Safety valve

Safety equipment that must be installed in the cold water line by your heating contractor. The safety valve opens automatically to prevent excess pressure in the DHW cylinder.

Solar circuit pump

In conjunction with solar thermal systems.
The solar circuit pump delivers the cooled heat transfer medium from the indirect coil of the DHW cylinder to the solar collectors.

Set temperature

Specific temperature that should be reached, e.g. set DHW temperature for example.

Summer mode

Operating program **"Only DHW"**.
In warmer months, you can switch off heating mode. The boiler remains operational for DHW heating. Central heating is switched off.

Cylinder loading pump

Circulation pump for heating the potable water inside the DHW cylinder

Drinking water filter

A device that removes solids from the water. The drinking water filter is installed in the cold water pipe upstream of the DHW cylinder or the instantaneous water heater.

Weather-compensated mode

See "Heating mode"

DHW circulation pump

The DHW circulation pump transports the DHW around a loop line between the DHW cylinder and the draw-off points (e.g. hot tap). This ensures that hot water is rapidly available at the draw-off points.

Mechanical ventilation terminology

Mechanical ventilation

A mechanical ventilation system provides continuous ventilation of your interior. The mechanical ventilation system comprises a ventilation unit, the ductwork, as well as supply air and extract air valves.
An outdoor air filter installed in the ventilation unit protects against the ingress of pollen.

Operating principle of the ventilation unit

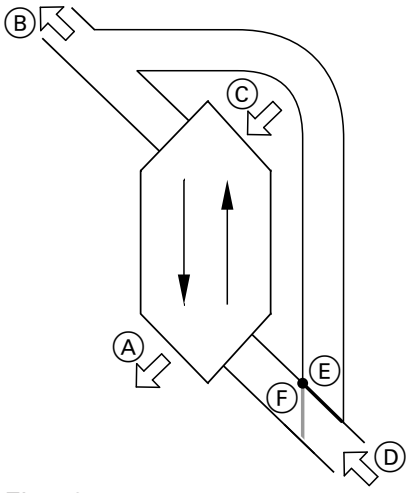

Fig. 42

Ⓐ Supply air
(e.g. for bedrooms, children's room, living room)
Ⓑ Exhaust air
Ⓒ Outdoor air
Ⓓ Extract air
(e.g. from kitchen, bathroom, WC)
Ⓔ Bypass not enabled, ventilation with heat recovery
Ⓕ Bypass active, ventilation without heat recovery

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Mechanical ventilation terminology (cont.)

Ventilation with heat recovery, bypass blocked

The air that is introduced into the rooms (supply air) is preheated with the heat from the extracted air (extract air) via a heat exchanger in the ventilation unit. For this, bypass Ⓔ is **not** active.
This means the heat loss is very low, compared to airing via open windows.

Ventilation without heat recovery, bypass enabled

When bypass Ⓕ is **active**, 100 % of the extract air flow is routed past the heat exchanger, and filtered fresh outdoor air at outside temperature is introduced into the rooms.
This allows cool outdoor air to be routed into the rooms, e.g. during cooler summer nights (passive cooling).

The bypass is enabled if all of the following conditions are met:
- The outdoor air is cooler than the indoor air:
  The outdoor air is at least 4 °C cooler than the room temperature.
- The rooms are warmer than required:
  The room temperature is at least 1 °C higher than the **"Set room temperature"** for ventilation.
- The temperature of the air being introduced exceeds the minimum temperature for passive cooling (**"Min. supply air temp. Bypass"**).

Air flow rates

In order to prevent any negative or positive pressures developing in your rooms, the flow rate of the supply air must exactly match the flow rate of the extract air. These air flow rates are set by your qualified contractor during commissioning.

Only with Vitovent 300-F: Regulating the humidity and carbon dioxide concentration (CO_2 concentration)

If a CO_2/humidity sensor is connected to the ventilation unit, the air flow rate is automatically adjusted subject to the captured CO_2 concentration and the humidity level. For this, the **"Normal"** operating status must be active in the **"Automatic ventilation"** operating program.

Frost protection for the heat exchanger in the ventilation unit

In the heat exchanger of the ventilation unit the outdoor air is heated by the extract air from the rooms. This causes the extract air to cool down, which in turn leads to condensate forming in the heat exchanger. At low outside temperatures, this condensate can freeze in the heat exchanger.

Frost protection function:
- The outdoor air is preheated by an electric preheating coil, if installed (accessories).
- The air flow rate is reduced, if necessary to a point where the fans go into standby.

Note
If the frost protection function is active, the indicated ventilation level may deviate from the ventilation level selected. The ventilation level displayed is adjusted to reflect the reduced air flow rate brought about by the frost protection function.

Supply air heating via heating circuit 1 (ventilation heating circuit).

If a hydraulic reheating coil (accessories) is installed in your ventilation unit, the supply air can be heated by the heat generator. The outdoor air preheated in the heat exchanger of the ventilation unit is then reheated via the hydraulic reheating coil of the heat generator. In such a case, set the room temperature and time program for central heating via the menu for heating circuit 1.

Note
The level of (central) heating output that can be transmitted via the ventilation heating circuit is only minimal. Using supply air heating as the sole heat source is therefore only recommended for highly insulated buildings (e.g. passive house).

Information on disposal

Disposal of packaging

You heating contractor will dispose of the packaging of your Viessmann product.

Information on disposal (cont.)

DE: Packaging waste is channelled for recycling to a certified disposal contractor in line with statutory regulations.

AT: Packaging waste is channelled for recycling to a certified disposal contractor in line with statutory regulations. Use the ARA statutory disposal system (Altstoff Recycling Austria AG, licence number 5766).

Final decommissioning and disposal of the heating system

Viessmann products can be recycled. Components and fluids from your heating systems are not part of ordinary domestic waste.
Please contact your heating contractor in connection with the correct disposal of your old system.

DE: Operating fluids (e.g. heat transfer medium) can be disposed of at municipal collection points.

AT: Operating fluids (e.g. heat transfer medium) can be disposed of at municipal collection points (ASZ).

Keyword index

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Keyword index (cont.)

Keyword index (cont.)

RoHS
compliant
2002 / 95 / EC

Your contact

Contact your local contractor if you have any questions about your system or wish to arrange maintenance or repair work. You can find local contractors on the internet at www.viessmann.de.

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