

# Operating instructions

## for the system user

**VIESMANN**

Heating system with the Vitotronic 200 control unit, type HO1B, for weather-compensated mode

**VITODENS  
VITOLADENS  
VITOPEND**



### 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.

#### **Note**

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



#### **Please note**

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

### Target group

These operating instructions are designed for heating system users. This appliance can also be operated by children aged 8 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 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 user maintenance must never be carried out by unsupervised children.

### Safety instructions for working on the system

#### Connecting the appliance

- The appliance may be connected and commissioned only 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 specialists.



#### **Danger**

Incorrectly executed work on the heating system can lead to life threatening accidents.

- Work on gas installations may only be carried out by a registered gas fitter.
- Work on electrical equipment may only be carried out by a qualified electrician.

**For your safety** (cont.)**Working on the appliance**

- All settings and work on the appliance must be performed as specified in these operating instructions. Further work on the appliance may be carried out only by authorised contractors.
- Do not open the appliance.
- Do not remove casings.
- Do not modify or remove attachments or fitted accessories.
- Do not open or tighten pipe connections.

**Danger**

Hot surfaces can cause burns.

- Do not open the appliance.
- Never touch the hot surfaces of uninsulated pipes, fittings or flue pipes.

**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 your contractor.

**Safety instructions for operating the system****Damage to the appliance****Danger**

Damaged equipment poses a safety hazard.

Check the appliance for external damage. Never start up a damaged appliance.

**If you smell gas****Danger**

Escaping gas can lead to explosions which may result in serious injury.

- No smoking! 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.

### If there is a 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.

### If water escapes from the appliance



#### **Danger**

If water escapes from the appliance there is a risk of electric shock.

- Shut down the heating system at the external isolator (e.g. fuse box, domestic distribution board).
- Please notify your contractor.

### If the heating system develops a fault



#### **Danger**

Fault messages indicate faults in the heating system. If faults are not rectified, they can have life threatening consequences.

Do not acknowledge fault messages several times in quick succession. Notify contractor so the cause can be analysed and the fault rectified.

### 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. Do not 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/petrol, solvents, cleaning agents, paints or paper) can cause deflagration and fire. Never store or use such materials in the boiler 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.

- Maintain the permissible ambient temperatures as detailed in these operating instructions.
- 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).

**For your safety** (cont.)**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 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 a reverse flow of flue gas.










Take suitable steps to ensure an adequate supply of combustion air. If necessary, contact your contractor.

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### 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.
	<ul style="list-style-type: none"> <li>▪ Component must audibly click into place.</li> <li>or</li> <li>▪ Acoustic signal</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Fit new component.</li> <li>or</li> <li>▪ In conjunction with a tool: Clean the surface.</li> </ul>
	Dispose of component correctly.
	Dispose of component at a suitable collection point. Do <b>not</b> dispose of component in domestic waste.

### Terminology

To provide you with a better understanding of the functions of your control unit, some terminology is explained. This 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 CECS 215-2017 and 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.

The appliance is intended exclusively for domestic or semi-domestic use; even users who have not had any instruction are able to operate the appliance safely.



## Intended use (cont.)

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

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).

## Product information

The Vitotronic 200 control unit, type HO1B is a boiler and heating circuit control unit for weather-compensated mode.

In weather-compensated mode, the flow temperature level is controlled according to the outside temperature. The lower the outside temperature, the higher the flow temperature. This means that more heat is provided for central heating and domestic hot water heating on cold days than on warmer days.

In weather-compensated mode, 1 heating circuit can be operated with the control unit.

## Permissible ambient temperatures in the installation room



### Please note

The appliance may develop faults if it is operated outside the specified temperature ranges. Ensure that the specified temperature range is maintained in the installation room.

To avoid malfunctions, ensure a temperature between 0 and +40 °C.

## Commissioning

The commissioning and matching of the appliance to local conditions and building characteristics, as well as instructing the user in the operation of the system, must be carried out by your 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 that may have to be carried out on your combustion equipment (such as 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**, the rooms are heated to 20 °C "**Set room temperature**" (standard room temperature).
- Between **22:00 and 06:00**, the rooms are heating to 3 °C "**Set reduced room temp**" (reduced room temperature, frost protection).

### DHW heating

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

### Note

*Any DHW heating begun before 22:00 is terminated.*

### Frost protection

- Your boiler and DHW cylinder are protected against frost.

### Your system is preset (cont.)

#### Wintertime/summertime changeover

- This changeover is automatic.

#### Date and time

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

Your heating contractor can make further settings for you during commissioning.

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

#### Power failure

*All settings are retained if there is a power failure. If the heating system has been shut down for a prolonged period, reset the date and time.*

### Tips on saving energy

#### Saving energy when using central heating

- **Standard room temperature ("Set room temperature"):** See page 21).  
Do not overheat your home. Every degree of room temperature reduction saves up to 6 % on your heating bills.  
Do not set your standard room temperature higher than 20 °C.
- **Time program:** See page 22.  
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 26.  
If you require no heating for your home in summer, but you require DHW.
  - **"Standby mode":** See page 19.  
If you don't need to heat your home and don't require DHW for long periods.
- **Short absence:** See page 24.  
Reduce the room temperature if you are going out shopping, for example. For this, select **"Economy mode"**.
- **Holidays:** See page 25.  
If you are going away, select the **"Holiday program"**:  
The room temperature is reduced and DHW heating is switched off.

- **Ventilation:**  
Close the thermostatic valves when venting/airing. 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.

#### DHW heating

- **DHW circulation pump:** See page 27.  
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.

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

### Tips for greater comfort

#### More comfort in your home

- **Standard room temperature ("Set room temperature"):** See page 21.  
You can select your individual preferred temperature at any time in the standard menu.
- **Preferred heating circuit:** See page 29.  
If your heating system consists of several heating circuits, you can make any important adjustments for your preferred heating circuit directly via the standard menu.

- **Time program:** See page 22.  
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.

**Tips for greater comfort** (cont.)■ **Heating curve:** See page 22.

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.

■ **"Party mode":** See page 23.

If you want to heat rooms to a different temperature from the one set in the time program, select **"Party mode"**.

Example: Late in the evening, the reduced room temperature is set by the time program. Your guests stay longer.

**Sufficient DHW heating for your needs**■ **Time program:** See page 26 and 27.

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.

## Opening the control unit

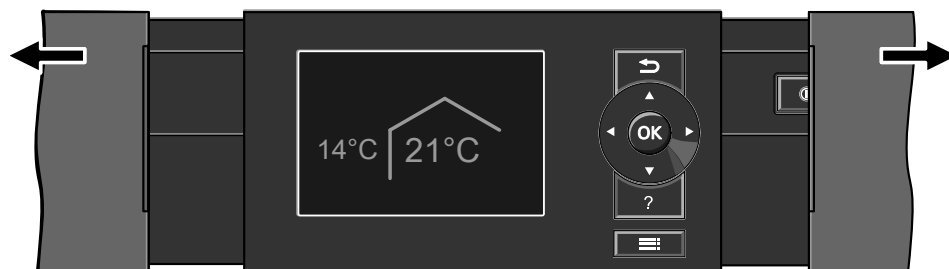


Fig. 1

## Programming unit

You can change any setting on your heating system centrally at the programming unit of the control unit. If remote control units are installed in your rooms, you can also adjust the settings at the remote control units.



Remote control operating instructions

### Note

The programming unit can be placed in a wall mounting base. The wall mounting base is available as an accessory. Ask your heating contractor for further information.

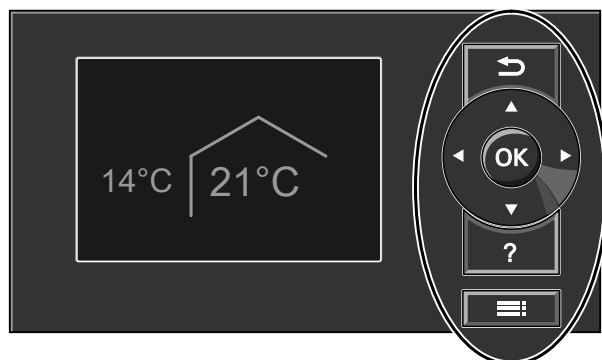


Fig. 2

- ↶ Takes you to the previous step in the menu or cancels a setting that has been started.
- ⬅ Cursor keys  
Scrolls through the menu or adjusts values.
- OK Confirms your selection or saves the setting made.

- ? Calls up "Help" (see following chapter) or additional information on the selected menu.
- ≡ Calls up the extended menu.

There are 2 **operating levels** available:

- The standard menu: See page 13
- The extended menu: See page 14

### Note

The **screensaver** is activated if you have not made any adjustments on the programming unit for a few minutes: See page 14.

## "Help" menu

Displays explanations about operation in the form of a short guide.

Call up the short guide as follows:

- Screensaver is active: See page 14.  
Press ?.
- From anywhere in the menu:  
Press ↶ repeatedly until the standard menu is shown: See page 13.  
Press ?.

## Programming unit (cont.)

### Symbols

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

#### Displays:

- ❄ Frost protection is active
- ☀ Central heating with standard room temperature
- ☾ Central heating with reduced room temperature
- 👤 Party mode is active
- 💡 Economy mode is active
- ☀ In conjunction with a solar thermal system:  
Solar circuit pump is running
- 🔥 Burner in operation
- 🔧 Emissions test mode active

#### Heating circuits:

HC... Heating circuit ...

#### Operating programs:

🔌, 🏠, 📅:

Explanation of symbols: See page 16.

#### Messages:

⚠ Fault

🔧 Service

### Standard menu

The following settings for preferred heating circuit ① can be called up and adjusted in the standard menu:

- Set room temperature
- Heating program

Call up the standard menu as follows:

- Screensaver is active: See page 14.  
Press **OK**.
- If you are in the extended menu: See page 14.  
Press **↩** repeatedly until the standard menu appears.

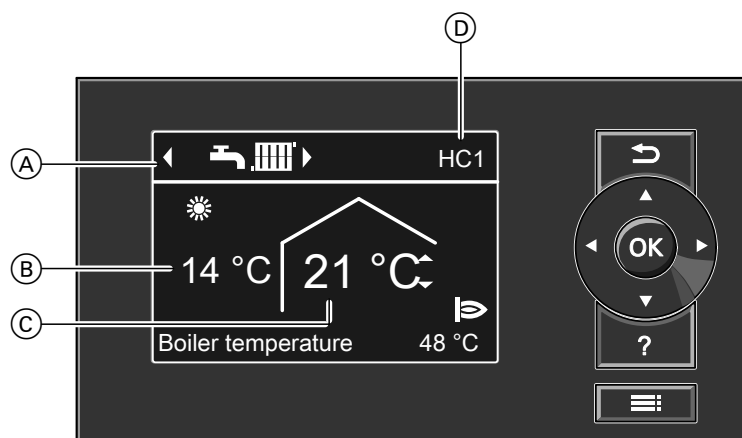


Fig. 3

- ① Operating program for preferred heating circuit ①
- ② Current outside temperature
- ③ Set room temperature for preferred heating circuit ①
- ④ Preferred heating circuit: See page 29.  
Not displayed if only **one** heating circuit is installed.

#### Note

- Settings for the preferred heating circuit can also be adjusted in the **extended menu**: See page 14.
- The settings for any other connected heating circuits can **only** be adjusted in the extended menu.
- Your heating contractor can block operation for the standard menu. In such cases, you will not be able to make adjustments in either the standard menu or the extended menu.

#### Setting the standard room temperature for the preferred heating circuit

##### Press the following buttons:

▲/▼ for the required value

**OK**

## Standard menu (cont.)

### Setting the operating program for the preferred heating circuit

Press the following buttons:

- ◀▶ for the required operating program
- OK

## Extended menu

In the extended menu, you can call up and adjust **all** the settings from the Vitotronic control unit range of functions, e.g. holiday program and time programs. You can find the menu overview on page 41.

### Note

Your heating contractor can block operation for the extended menu. In this case, you can **only** call up service and fault messages.

Call up the extended menu as follows:

- Screensaver is active: See page 14.  
Press **OK** and then ≡.
- From anywhere in the menu:  
Press ≡.

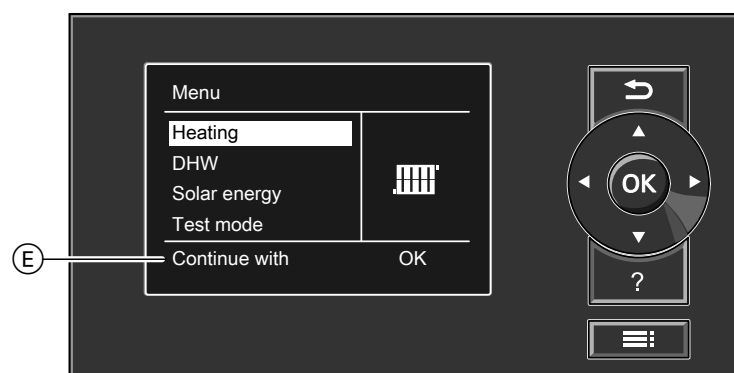


Fig. 4

Ⓔ Dialogue line

## How to use the controls

If you have not made any settings for a few minutes, the **screensaver** is activated. The display brightness is reduced.

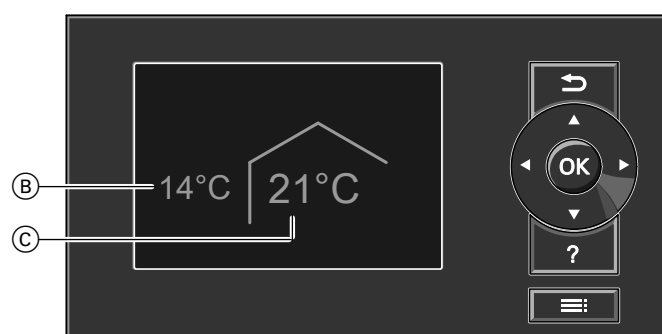


Fig. 5

- Ⓑ Current outside temperature
- Ⓒ Set room temperature

## How to use the controls (cont.)

1. Press **OK**. This takes you to the standard menu:  
See page 13.
2. Press **≡**: This takes you to the extended menu:  
See page 14.  
The selected menu point is highlighted in white.  
Instructions on what to do are provided in dialogue line ⑤: See diagram on page 14.

Adjustments to the central heating can be made for **every** heating circuit. It is therefore necessary to select the required heating circuit **prior** to making any adjustments (e.g. room temperature).  
The following diagram shows how to make adjustments, using the set room temperature as an example. The diagram shows the adjustment without and with selection of the heating circuit, as well as different dialogue lines.

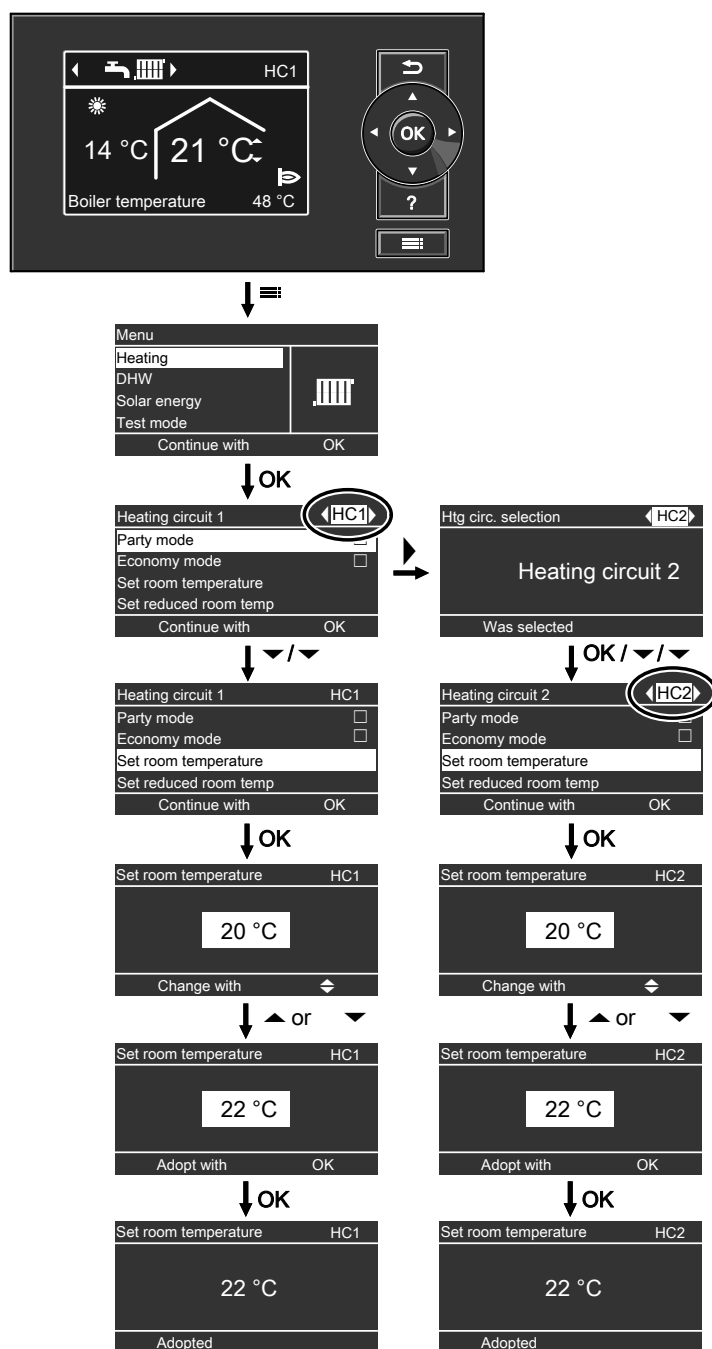





Fig. 6

## Operating program

### Operating programs for central heating, DHW, frost protection

Symbol	Operating program	Function
<b>Central heating and DHW heating</b>		
	"Heating and DHW"	<ul style="list-style-type: none"> <li>The rooms on the selected heating circuit are heated in accordance with the room temperature and time program specified: See chapter "Central heating".</li> <li>DHW is heated in accordance with the specified DHW temperature and time program: See chapter "DHW heating".</li> </ul>
<b>DHW heating</b>		
	"Only DHW"	<ul style="list-style-type: none"> <li>DHW is heated in accordance with the specified DHW temperature and time program: See chapter "DHW heating".</li> <li>No central heating</li> <li>Frost protection is active.</li> </ul>
<b>Frost protection</b>		
	"Standby mode"	<ul style="list-style-type: none"> <li>No central heating</li> <li>No DHW heating</li> <li>Frost protection for the boiler and the DHW cylinder is active.</li> </ul>

### Special operating programs

Display in the standard menu

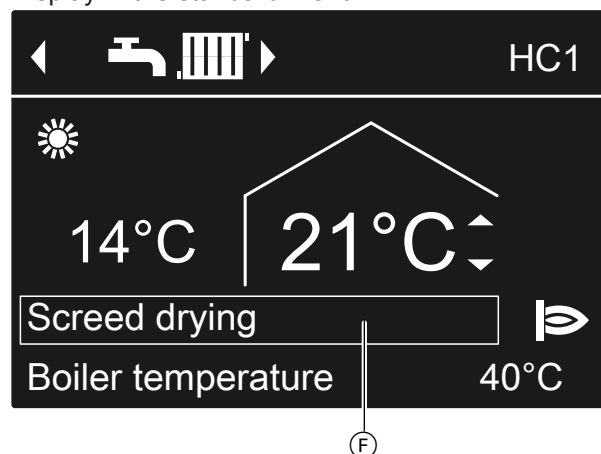


Fig. 7

Special operating programs (F):

- **"Screed drying"**  
This function is activated by your heating contractor. Your screed is dried in line with a set time program (temperature/time profile) suitable for the relevant building materials. Your settings for central heating are deactivated for the duration of the screed drying.
- **"External hook-up"**  
Your Vitotronic control unit is regulated by a higher ranking control unit.
- **"External program"**  
The operating program was changed via a communication interface (e.g. Vitocom 100).
- **"Holiday program"**: See page 25.

#### Note

In the extended menu, you can call up the set operating program under **"Information"**: See page 41.

## Time program

The following explains how to input the settings for a time program. The special features of individual time programs are described in the relevant chapters.

You can set up a time program for the following functions:

- Central heating: See page 22.
- DHW heating: See page 26.
- DHW circulation pump: See page 27.

The time program allows you to divide the day into sections. These are called **time phases**. It is for you to decide what happens in these time phases, e.g. whether your rooms should be heated to the standard room temperature.

- You can set the time program **individually**, to be the same, or different, for every day of the week.
- You can select up to 4 time phases per day.








## Time program (cont.)


- For each time phase you set the start and end points.  
The selected time phase is illustrated by a white bar on the time chart.
- In the extended menu, you can check the time programs under **"Information"**: See page 41.

### Setting a time program, using central heating as an example


Extended menu:

1. 
2. **"Heating"**
3. If required,  for the required heating circuit
4. **"Heating time program"**
5. Select part of the week or a day.
6. Select a time phase  to . The selected time phase is illustrated by a white bar on the time chart.
7. Set the start and end points for the relevant time phase. The length of the white bar on the time chart is adjusted.
8. To exit the menu, press .

- Time program for **"Monday-Friday" ("Mo-Fr")**

- Time phase :

05:00 to 08:30

- Time phase :

16:30 to 23:00

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

#### **Cancelling the setting of a time phase early**

Press  repeatedly until the required display appears.

#### **Example of time phases within the time program for central heating**

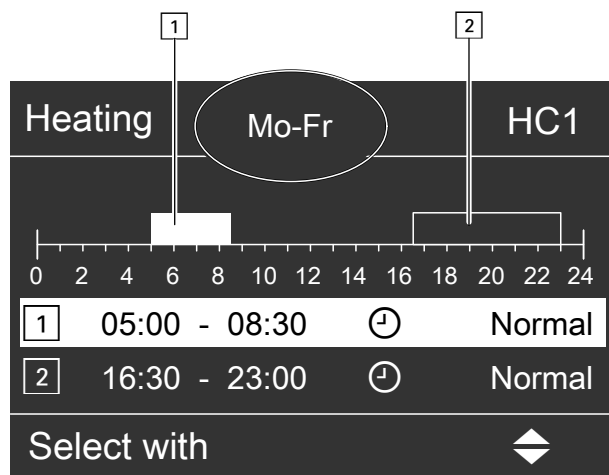


Fig. 8

### Setting the time program effectively

If you would like to set a different time program for just one day of the week, proceed as follows.

**Time program (cont.)**

Example: You want to set a different time program for Monday:

1. Select **"Monday-Sunday"**. Set the time program.

Heating time program		HC1
Monday-Sunday	<input checked="" type="checkbox"/>	
Monday-Friday	<input type="checkbox"/>	
Saturday-Sunday	<input type="checkbox"/>	
Monday		
Select with		⬆⬇⬆

Fig. 9

**Note**

The tick is always set at the sections of the week with identical time phases.

Factory setting: Same for all days of the week, therefore **"Monday-Sunday"** is ticked.

2. Select **"Monday"**. Set the time program for this.

**Note**

The **"Saturday-Sunday"** part of the week will be ticked because this is now the only part of the week which has identical time phases.

Heating time program		HC1
Monday-Sunday	<input type="checkbox"/>	
Monday-Friday	<input type="checkbox"/>	
Saturday-Sunday	<input checked="" type="checkbox"/>	
Monday		
Select with		⬆⬇⬆

Fig. 10

**Deleting time phases**

- Set the time for the end point to the same time that was set for the start point.  
Or
  - For the start point, select a time prior to 00:00.
- The display shows the selected time phase as **"--:--"**.

Heating		Mo-Fr	HC1
<div><div></div><div>0 2 4 6 8 10 12 14 16 18 20 22 24</div></div>			
2	--:--	⌚	Normal
3	--:--	⌚	Normal
Adopt with		OK	

Fig. 11

## Starting the heating system

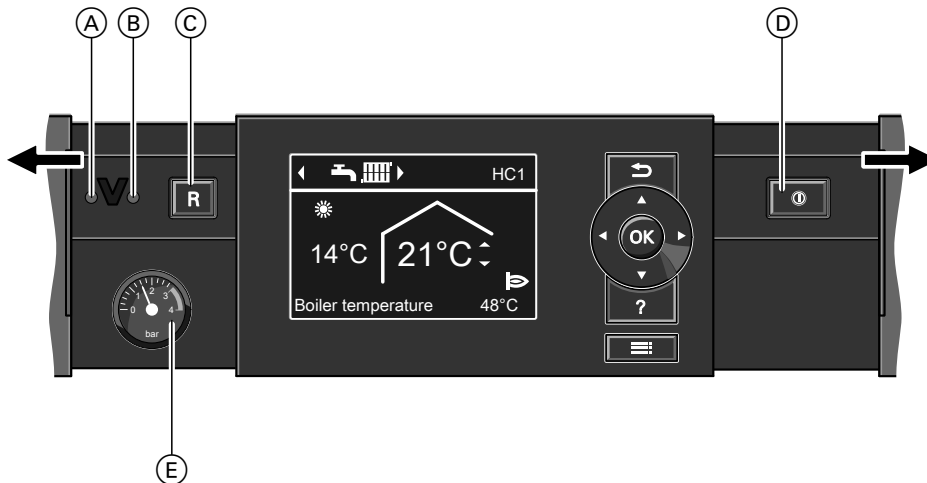


Fig. 12

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

Ask your heating contractor about the following:

- Level of the required system pressure
- Position of the following components:
  - Pressure gauge
  - Shut-off valve
  - 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. For Vitodens and Vitopend:

Open the gas shut-off valve.

#### For Vitoladens:

Open the shut-off valves in the oil lines (at the tank and filter).

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: See page 13. The green ON indicator illuminates. Your heating system and, if installed, remote controls are ready for operation.

## 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 active.

### For the preferred heating circuit




#### Standard menu

1. ►/◄ for the operating program "**Standby mode**" (frost protection monitoring)
2. OK

## Shutting down the heating system (cont.)

### For all heating circuits

#### Extended menu

1. 
2. "Heating"
3. If required, /  for the required heating circuit

#### 4. "Heating program"

#### 5. "Standby mode"

#### 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 shut-off valves in the oil lines (at the tank and filter) or close the gas shut-off valve.
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

- *As they are not being supplied with power, the circulation pumps may seize up.*
- *After an extended shutdown, it may be necessary to reset the date and time: See page 29.*

## Room temperature



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

### Setting the standard room temperature for heating

Factory settings: 20 °C

#### For the preferred heating circuit

##### Standard menu

1. ▲/▼ for the required value
2. OK

#### For all heating circuits

##### Extended menu

1. ≡:

#### 2. "Heating"

3. If required, ◀▶ for the required heating circuit

#### 4. "Set room temperature"

5. Set the required value.

### Setting the reduced room temperature for heating

Factory settings: 3 °C

##### Extended menu

1. ≡:
2. "Heating"
3. If required, ◀▶ for the required heating circuit

#### 4. "Set reduced room temp"

5. Set the required value.

Central heating to this temperature:

- Between the time phases for standard heating mode: See page 22.
- In the holiday program: See page 25.

## Operating program



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

### Setting the operating program for heating

#### For the preferred heating circuit

##### Standard menu

1. ◀▶ for the operating program: "Heating and DHW"
2. OK

#### For all heating circuits

##### Extended menu

1. ≡:

#### 2. "Heating"

3. If required, ◀▶ for the required heating circuit

#### 4. "Heating program"

5. E.g. "Heating and DHW"

For information on the operating program: See page 16.

## Time program



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

### Setting the time program for central heating

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

#### Extended menu:

- 1.
2. "Heating"
3. If required, for the required heating circuit

#### 4. "Heating time program"

5. Set the required time phases.  
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.

### Setting a heating curve

Factory setting:

- "Slope": 1.4
- Heating curve "Level": 0

#### Extended menu:

- 1.
2. "Heating"
3. If required, for the required heating circuit

#### 4. "Heating curve"

#### 5. "Slope" or "Level"

Set the required value.

#### 6. Note

If you press , you will be given tips on how to set the heating curve.

#### Example: Changing the heating curve slope to 1.5

A graph clearly shows the change in the heating curve as soon as you alter the value for the slope or level.

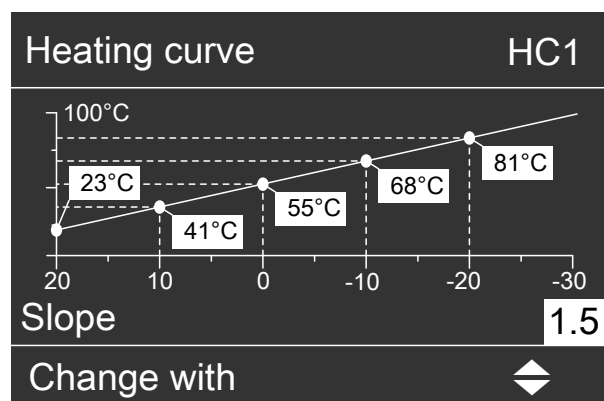


Fig. 13

Depending on various outside temperatures (shown on the horizontal axis), the assigned set flow temperatures for the heating circuit are highlighted in white.

## Central heating shutdown

### For the preferred heating circuit

#### Standard menu

1. for the operating program:
  - "Only DHW" (no central heating)
  - Or
  - "Standby mode" (frost protection active)

2. OK

### For all heating circuits

#### Extended menu

- 1.
2. "Heating"
3. If required, for the required heating circuit

4. "Heating program"

5. "Only DHW" (no central heating)  
Or  
"Standby mode" (frost protection active)

## Comfort function "Party mode"

### Setting "Party mode" for central heating

#### Extended menu

- 1.
2. "Heating"
3. If required, for the required heating circuit
4. "Party mode"
5. Set the required room temperature for "Party mode".

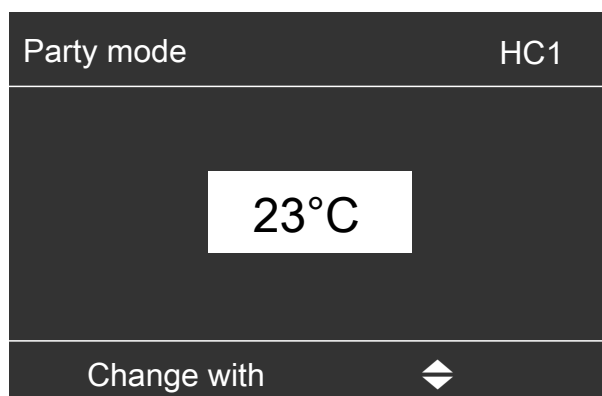


Fig. 14

Display in the standard menu

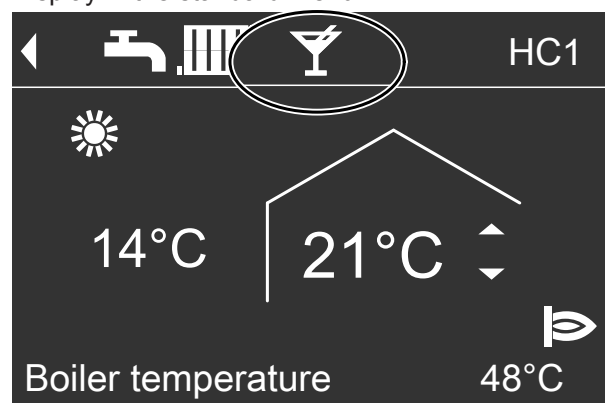


Fig. 15

#### Note

The display of the set room temperature does not change.

- The rooms are heated to the required temperature.
- Provided your heating contractor has not altered the settings, DHW is heated to the selected DHW temperature **first**, before central heating begins.
- The DHW circulation pump is switched on (if installed).

## Comfort function "Party mode" (cont.)

### Terminating "Party mode"

- Automatically after 8 hours

**Note**

*If you want to make changes to this, contact your local heating contractor.*




Or

- Ends automatically when the system switches to standard heating mode in accordance with the time program
- Or
- Set "Party mode" to "OFF".

## Energy saving function "Economy mode"

### Setting "Economy mode" for heating

#### Extended menu

1. 
2. "Heating"
3. If required,   for the required heating circuit
4. "Economy mode"

**Note**

*The display of the set room temperature does not change.*

#### Display in the standard menu

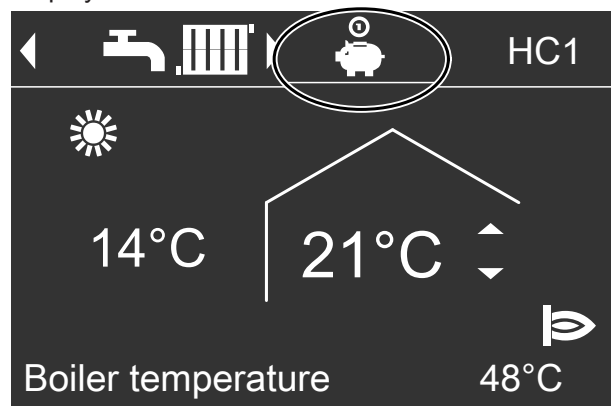


Fig. 16

### Terminating "Economy mode"

- Ends automatically when the system switches to reduced heating mode in accordance with the time program
- Or
- Set "Economy mode" to "OFF".



## "Holiday program" energy saving function


### Setting the "Holiday program" for central heating

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

#### Extended menu:

1. 
2. "Heating"
3. "Holiday program"
4. Set the required departure and return dates.


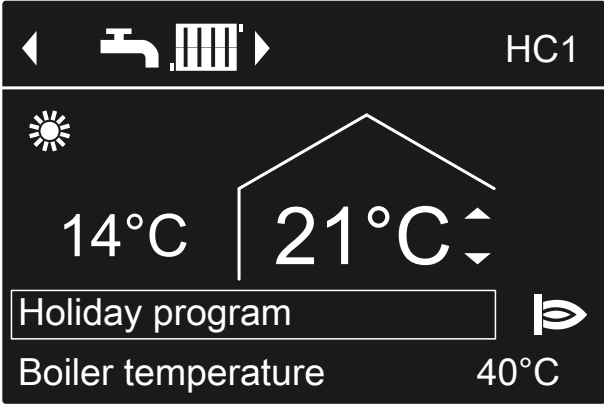
Holiday program		HC1
Leaving date:		
Date	We 13.06.2012	
Return date:		
Date	Fr 15.06.2012	
Select with		

Fig. 17

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 21.
  - For heating circuits in the "Only DHW" operating program:  
No central heating. Frost protection for the boiler and the DHW cylinder is active.
- **DHW heating:**  
No DHW heating. Frost protection for the DHW cylinder is enabled.

#### Display in the standard menu



HC1

14°C | 21°C

Holiday program

Boiler temperature 40°C

Fig. 18

#### Display in the extended menu

In the extended menu, you can check the set holiday program under "Information": See page 41.

### Cancelling or deleting the "Holiday program"

#### Extended menu

1. 
2. "Heating"
3. "Holiday program"
4. "Delete program"

### DHW temperature

Factory settings: 50 °C

#### Extended menu

1. 

2. "DHW"

3. "Set DHW temperature"

4. Set the required value.

### Operating program




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

### Setting the operating program for DHW heating

#### For the preferred heating circuit

#### Standard menu

1.  for the operating program:  
"Heating and DHW"  
Or  
"Only DHW"

2. OK

#### For all heating circuits

#### Extended menu

1. 

2. "Heating"

3. If required,  for the required heating circuit

4. "Heating program"

5. "Heating and DHW"  
or  
"Only DHW"

For information on the operating programs, see page 16.

### Time program



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

### Setting the time program for DHW heating

Factory setting: "Automatic"

This means that during operation with standard room temperature (see page 21), the water in the DHW cylinder will be heated to the set DHW temperature. The time phase for DHW heating automatically starts half an hour earlier than the time phase for central heating with standard room temperature. This means hot water is already available when your system starts operating at standard room temperature.

#### Extended menu:

1. 

2. "DHW"

3. "DHW time prog"

4. Set the required time phases.  
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 enabled.
- When setting time programs, bear in mind that your heating system requires some time to heat the DHW cylinder to the required temperature.

## Time program (cont.)

### 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.

#### Extended menu

1. 

2. **"Heating"**

3. **"Party mode"**

4. Deactivate **"Party mode"** again with **"OFF"** to prevent unintentional central heating to standard room temperature.

### Setting the time program for the DHW circulation pump

Factory setting: **"Automatic"**

In other words, the DHW circulation pump operates in parallel to the DHW heating time program.

#### Extended menu:

1. 

2. **"DHW"**

3. **"DHW circ time prog"**

4. Set the required time phases.  
How to set a time program: See page 16.

#### Note


Between the time phases, the DHW circulation pump remains off.

## Shutting down DHW heating

### If you do not want to heat DHW or provide central heating

#### For the preferred heating circuit

#### Standard menu

1.  for the **"Standby mode"** operating program (frost protection is active)
2. **OK**

2. **"Heating"**

3. If required,  for the required heating circuit

4. **"Heating program"**

5. **"Standby mode"** (frost protection active)

#### For all heating circuits

#### Extended menu

1. 

### If you do not want to heat DHW, but do want to provide central heating

#### For all heating circuits

#### Extended menu


1. 

2. **"Heating"**

3. If required,  for the required heating circuit

4. **"Heating program"**

5. **"Heating and DHW"**

6.  until the menu appears

7. **"DHW"**

8. **"Set DHW temperature"**


9. Set 10 °C.

Further adjustments

Setting the display contrast

You can make the menu texts easier to read. To do so, adjust the contrast of the display to suit the lighting conditions in the room.

1. Extended menu:


2. "Settings"


3. "Contrast"

4. Set the required contrast.

Setting the display brightness

You would like to be able to read the text in the menu better. Change the brightness level of the "Control" display.  
You can also alter the "Screen saver" brightness.

Extended menu

1. 
2. "Settings"

3. "Brightness"


4. "Control" or "Screen saver"

5. Set the required brightness.

Naming heating circuits

You can name all heating circuits individually. The abbreviations "HC1", "HC2" and "HC3" will be retained.

Advanced menu

1. 

2. "Settings"

3. "Name for heating circ."

4. "Heating circuit 1", "Heating circuit 2" or "Heating circuit 3".

5. "Change?"

6. Use ▲/▼ to select the required character.

7. Use ►/◀ to move to the next character.

8. Press **OK** to accept all entered characters at once and simultaneously exit this menu.

Note

You can delete the name entered with "Reset?".

Example:  
Name for "Heating circuit 2": Apartment

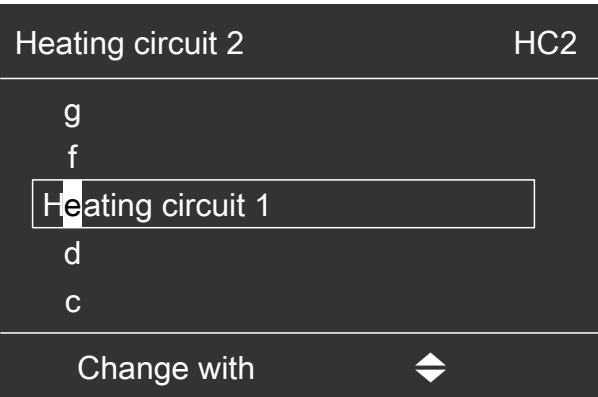


Fig. 19

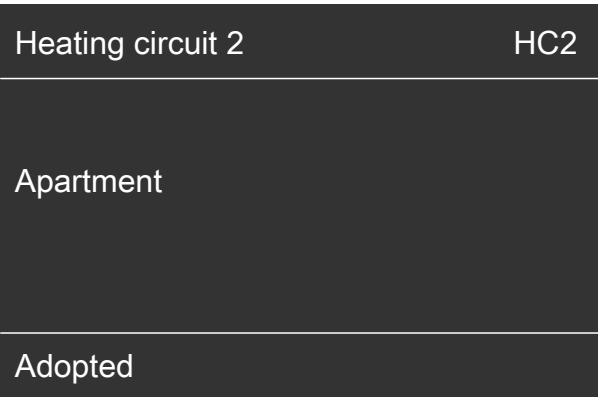


Fig. 20

## Naming heating circuits (cont.)

The menu shows "Apartment" for **"Heating circuit 2"**.

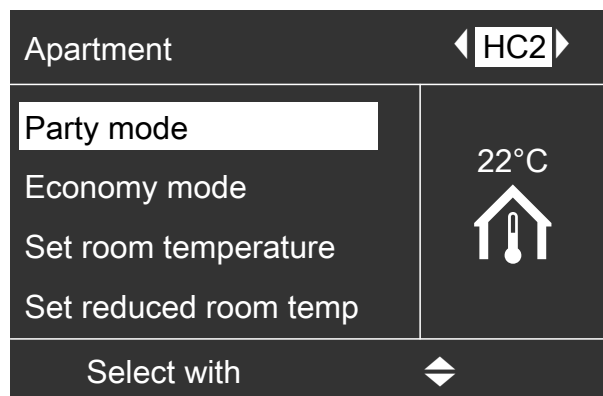


Fig. 21

## Setting the preferred heating circuit for the standard menu

If your heating system has **several** heating circuits, you can select the heating circuit to be displayed in the standard menu.

### Extended menu

- 1.
2. **"Settings"**
3. **"Standard menu"**
4. Select the heating circuit:
  - **"Heating circuit 1"** (for heating circuit 1)  
"HC1" is displayed
  - **"Heating circuit 2"** (for heating circuit 2)  
"HC2" is displayed
  - **"Heating circuit 3"** (for heating circuit 3)  
"HC3" is displayed

## 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.

### Extended menu

- 1.
2. **"Settings"**
3. **"Time / Date"**
4. Set the time and date.

## Setting the language

### Extended menu

- 1.
2. **"Settings"**
3. **"Language"**
4. Select the required language.

## Setting the temperature unit (°C/°F)

Factory setting: °C

### Extended menu

- 1.

Setting the temperature unit (°C/°F) (cont.)

2. "Settings"
3. "Temperature unit"
4. Select the temperature unit "°C" or "°F".

Restoring factory settings

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

Extended menu

1. 
2. "Settings"
3. "Standard setting"
4. "Heating circuit 1", "Heating circuit 2" or "Heating circuit 3".

System setting	Settings and values that are reset
"Heating circuit 1", "Heating circuit 2" or "Heating circuit 3"	<div><ul style="list-style-type: none"><li>Set room temperature: 20 °C</li><li>Set reduced room temperature</li><li>Operating program</li><li>DHW set temperature</li><li>Time program for central heating</li><li>Time program for DHW heating</li><li>Time program for DHW circulation pump</li><li>Heating curve slope and level</li><li>Comfort and energy saving functions ("Party mode", "Economy mode" and "Holiday program") are deleted.</li></ul></div> <div><p><b>Note</b></p><p><i>If heating circuits have been named (see chapter "Naming heating circuits") the assigned name is retained.</i></p></div>

## Checking information

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

In the extended menu, information is split into groups:


- "General"
- "Heating circuit 1"
- "Heating circuit 2"
- "Heating circuit 3"
- "DHW"
- "Solar"
- "Reset data"

### Note

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

Detailed options for checking the individual groups can be found in chapter "Checking options".

### Extended menu

1. 
2. "Information"
3. Select the group.
4. Select the information you wish to check.

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

#### Extended menu

1. 
2. "Solar energy"

The solar energy yield is shown in diagrammatic form.

The flashing line on the graph indicates that the current day is not yet over.

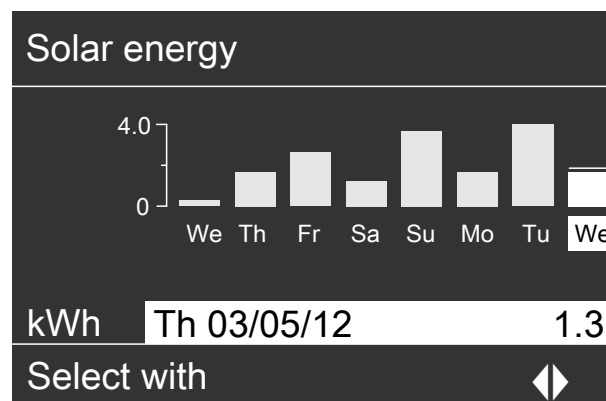


Fig. 22

### Note


For further scanning options, e.g. for the solar circuit pump hours run, see the extended menu under "Information" in the "Solar" group.

### Resetting data


You can reset the following data:

- Burner hours run
- Fuel consumption
- In conjunction with a solar thermal system:  
Solar energy yield, solar circuit pump hours run and hours run output 22.
- All the above data simultaneously

#### Extended menu

1. 
2. "Information"
3. "Reset data"

## Checking maintenance messages

If your heating system is due for a service, the  symbol flashes on the display and "Service" is shown.

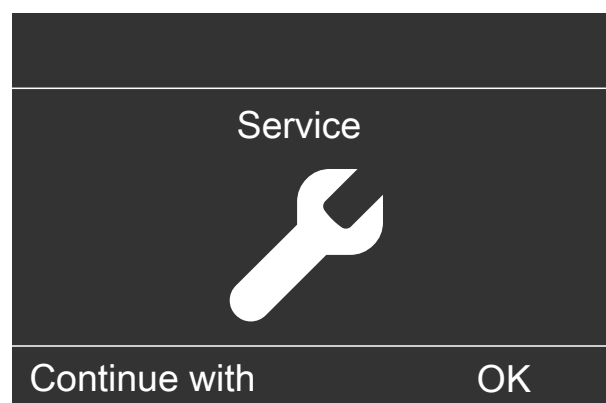


Fig. 23

## Checking maintenance messages (cont.)

1. You can call up the reason for the service with **OK**.

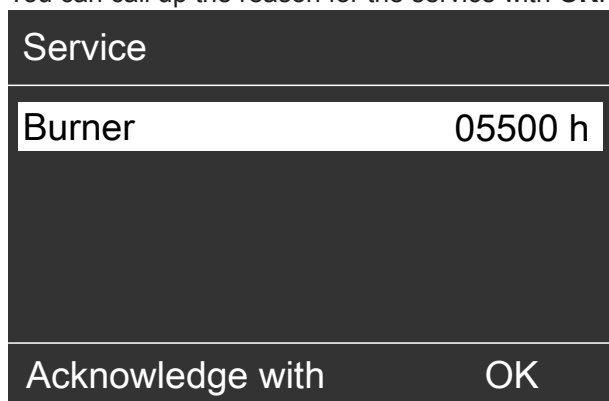


Fig. 24

2. Pressing **?** calls up information on the service that is due.
3. If you want to acknowledge the service message, follow the instructions in the menu.  
Notify your heating contractor.  
The service message is copied to the menu.  
Display in the standard menu

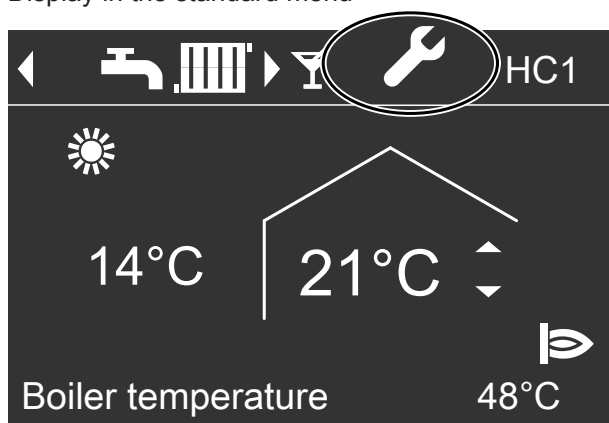


Fig. 25

Display in the extended menu

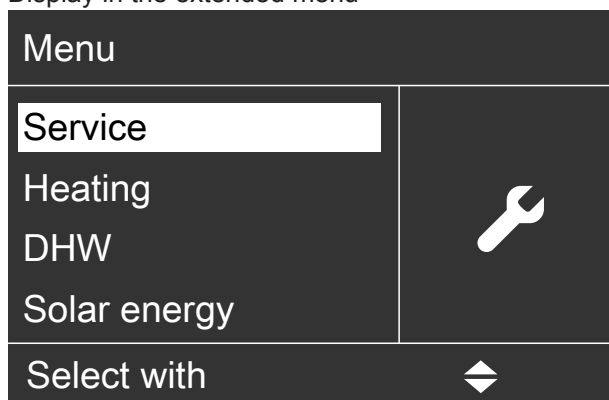


Fig. 26

### Note

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

### Calling up an acknowledged service message


1. **Extended menu:**



2. **"Service"**



## Checking fault messages

If any faults have occurred in your heating system, the  symbol flashes on the display and **"Fault"** is shown. The red fault indicator flashes (see chapter "Starting the heating system").

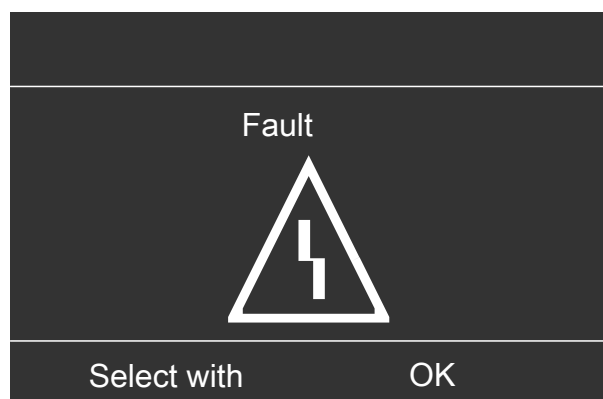


Fig. 27



### 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.

1. You can call up the cause of the fault with **OK**.

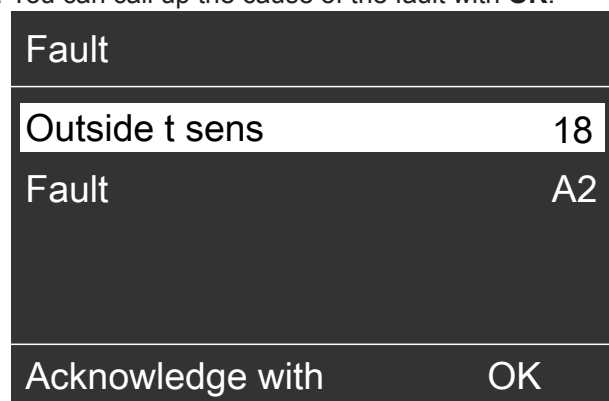


Fig. 28

2. Pressing **?** calls up information on the heating system characteristics. Tips on measures you can take yourself **before** notifying your heating contractor are displayed.

3. Make a note of the cause of the fault and the fault code next to it on the right. In the example: **"Outside t sens 18"** and **"Fault A2"**. This enables the heating contractor to be better prepared and may save you unnecessary travelling costs.
4. If you want to acknowledge the fault message, follow the instructions in the menu. The fault message is copied to the menu. Display in the standard menu

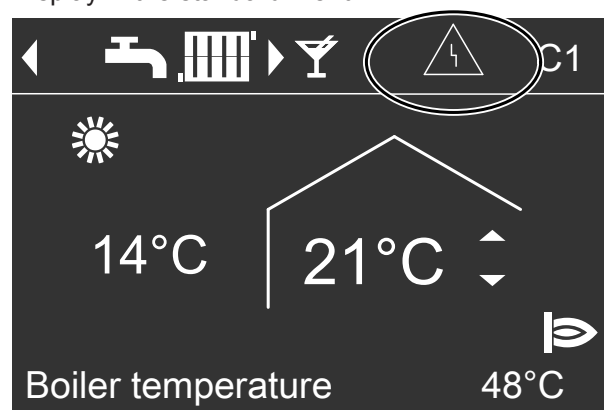


Fig. 29

Display in the extended menu

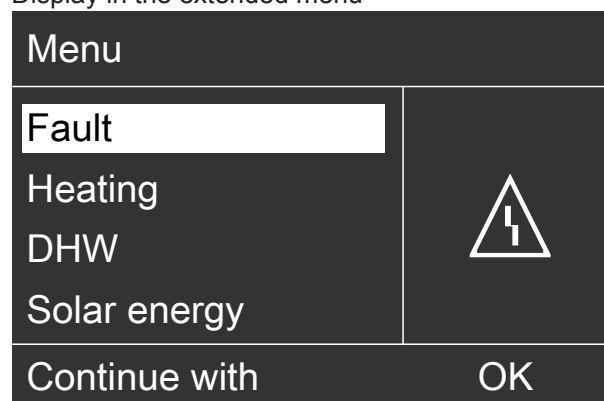


Fig. 30

### 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 is switched on again.

## Calling up an acknowledged fault message

1. Extended menu:



2. "Fault"

## Emissions test mode



### Emissions test mode

Emissions test mode for flue gas measurement 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.*

#### Extended menu

1. 
2. "Test mode"  
Should the current flow rate be insufficient (only for boilers with flow meters), the message "**Check flow rate**" appears and symbol  rotates. Ensure adequate heat transfer (e.g. open thermostatic valves).
3. "Activate?" "Yes"  
"Flue gas test ON"




Test mode	
Boiler temperature	62°C 
Terminate with	OK

Fig. 31

The following functions are activated:

- The burner is switched on (the display shows .

#### Note



*Burner start-up can be delayed, e.g. due to fuel oil preheating.*

- The pumps are started.
- The mixers remain set to the control function.
- The temperature controller regulates the boiler water temperature.

#### Ending emissions test mode


- Automatically after 30 minutes  
Or
- Press **OK**.

## Rooms are too cold


Cause	Remedy
The heating system is switched off.	<ul style="list-style-type: none"> <li>Turn on the ON/OFF switch (see diagrams on page 19 onwards).</li> <li>Switch ON the mains isolator if installed (outside the boiler room).</li> <li>Reset the MCB in the power distribution board (main domestic MCB).</li> </ul>
<ul style="list-style-type: none"> <li>Control unit incorrectly adjusted.</li> <li>The remote control (if installed) is set incorrectly.</li> </ul>  Separate operating instructions	<p>Central heating must be enabled.</p> <p>Check the settings and correct if required:</p> <ul style="list-style-type: none"> <li>Operating program: See page 21.</li> <li>Room temperature: See page 21.</li> <li>Time: See page 29.</li> <li>Time program for central heating: See page 21.</li> <li>Heating curve: See page 22.</li> </ul>
The DHW cylinder is being heated.	<p>Wait until the DHW cylinder has been heated up. Reduce the DHW draw-off rate or temporarily reduce the standard DHW temperature as required.</p> <p><b>Note</b>  <i>In the case of operation with an instantaneous water heater, stop DHW draw-off.</i></p>
No fuel.	<p>With oil/LPG:          Check the fuel reserves and re-order if required.</p> <p>With natural gas:          Open the gas shut-off valve. If necessary, check with your gas supply utility.</p>
"Combustion controller" is displayed.	<p>Press <b>R</b>: See page 19.          Acknowledge the fault: See page 33.</p> <p> <b>Danger</b>          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.</p>
"Fault" is displayed. The red fault indicator flashes.	<p>Check what type of fault it is. Acknowledge the fault: See page 33. If necessary, notify your heating contractor.</p>
"Screed drying" is activated.	<p>No action required.          After expiry of the screed drying time, the selected operating program will become active.</p>
The mixer motor is faulty.	<p>Adjust the mixer manually.</p>

What to do if...


## Rooms are too hot

Cause	Remedy
<ul style="list-style-type: none"><li>Control unit incorrectly adjusted.</li><li>The remote control (if installed) is set incorrectly.  Separate operating instructions</li></ul>	<p>Check the settings and correct if required:</p> <ul style="list-style-type: none"><li>Operating program: See page 21.</li><li>Room temperature: See page 21.</li><li>Time: See page 29.</li><li>Time program for central heating: See page 21.</li><li>Heating curve: See page 22.</li></ul>
"Fault" is displayed. The red fault indicator flashes.	Check what type of fault it is. Acknowledge the fault: See page 33. If necessary, notify your heating contractor.
The mixer motor is faulty.	Adjust the mixer manually.

## There is no hot water

Cause	Remedy
The heating system is off.	<ul style="list-style-type: none"><li>Turn on the ON/OFF switch (see diagrams on page 19 onwards).</li><li>Switch ON the mains isolator if installed (outside the boiler room).</li><li>Reset the MCB in the power distribution board (main domestic MCB).</li></ul>
<ul style="list-style-type: none"><li>Control unit incorrectly adjusted.</li><li>The remote control (if installed) is set incorrectly.  Separate operating instructions</li></ul>	<p>DHW heating must be enabled.</p> <p>Check the settings and correct if required:</p> <ul style="list-style-type: none"><li>Operating program: See page 26.</li><li>DHW temperature: See page 26.</li><li>Time program for DHW heating: See page 26.</li><li>Time: See page 29.</li></ul>
No fuel.	<p>With oil/LPG: Check the fuel reserves and re-order if required.</p> <p>With natural gas: Open the gas shut-off valve. If necessary, check with your gas supply utility.</p>
"Fault" is displayed. The red fault indicator flashes.	Check what type of fault it is. Acknowledge the fault: See page 33. 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 if necessary: See page 26.
The DHW is being heated by the solar thermal system.	<p>Check the settings at the solar control unit and correct them if required.</p> <p> Separate operating instructions</p>

**⚠ flashes and "Fault" is displayed**

Cause	Remedy
Heating system fault	Proceed as described on page 33.

**🔑 flashes and "Service" is displayed**

Cause	Remedy
The service time, as specified by your heating contractor, has arrived.	Proceed as described on page 31.

**"Controls locked out" is displayed**

Cause	Remedy
Control was blocked by your heating contractor.	Your heating contractor can lift this block.

**"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

**"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.

## Maintenance

### Cleaning

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

### Inspection and maintenance

The inspection and maintenance of a heating system is prescribed by the German Energy Saving Ordinance [EnEV] and the DIN 4755, DVGW-TRGI 2018, DIN 1988-8 and EN 806 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.

## **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.

## Ordering fuel oil

### Fuel oil quality

Vitoladens appliances are approved for the combustion of low sulphur fuel oil to DIN 51603-EL-1 (max. sulphur content 50 ppm).

A condensate neutralising system is not required (according to Code of Practice ATV-DVWK-A 251 [Germany]) when using this low sulphur fuel.

### Fuel oil additives

Fuel oil additives are substances that can be used providing they have the following properties:

- Improvement of stability during fuel storage.
- Increase in the thermal stability of the fuel.
- Reduction of odour development during filling.



#### **Please note**

Fuel oil additives can create residues and impair the safe operation of your heating system. The use of fuel oil additives that leave residues is not permissible.

### Combustion improvers

Combustion improvers are additives for optimising fuel oil combustion.

Viessmann pressure-jet oil burners do not require combustion improvers, as these burners operate with clean and efficient combustion.



#### **Please note**

Combustion improvers can create residues and impair the safe operation of your heating system. The use of combustion improvers that leave residues is not permissible.

### Biofuels

Biofuels are made from vegetable oil, e.g. sunflower or rapeseed oil.



#### **Please note**

Biofuels can cause damage to Viessmann pressure-jet oil burners. With boilers built in or after 2012, blends of up to 10 % bio-components (FAME) are generally allowed. Fuel oil must comply with DIN 51603-6-EL A Bio 10.

If you have questions, contact your local heating contractor.



## Overview of extended menu

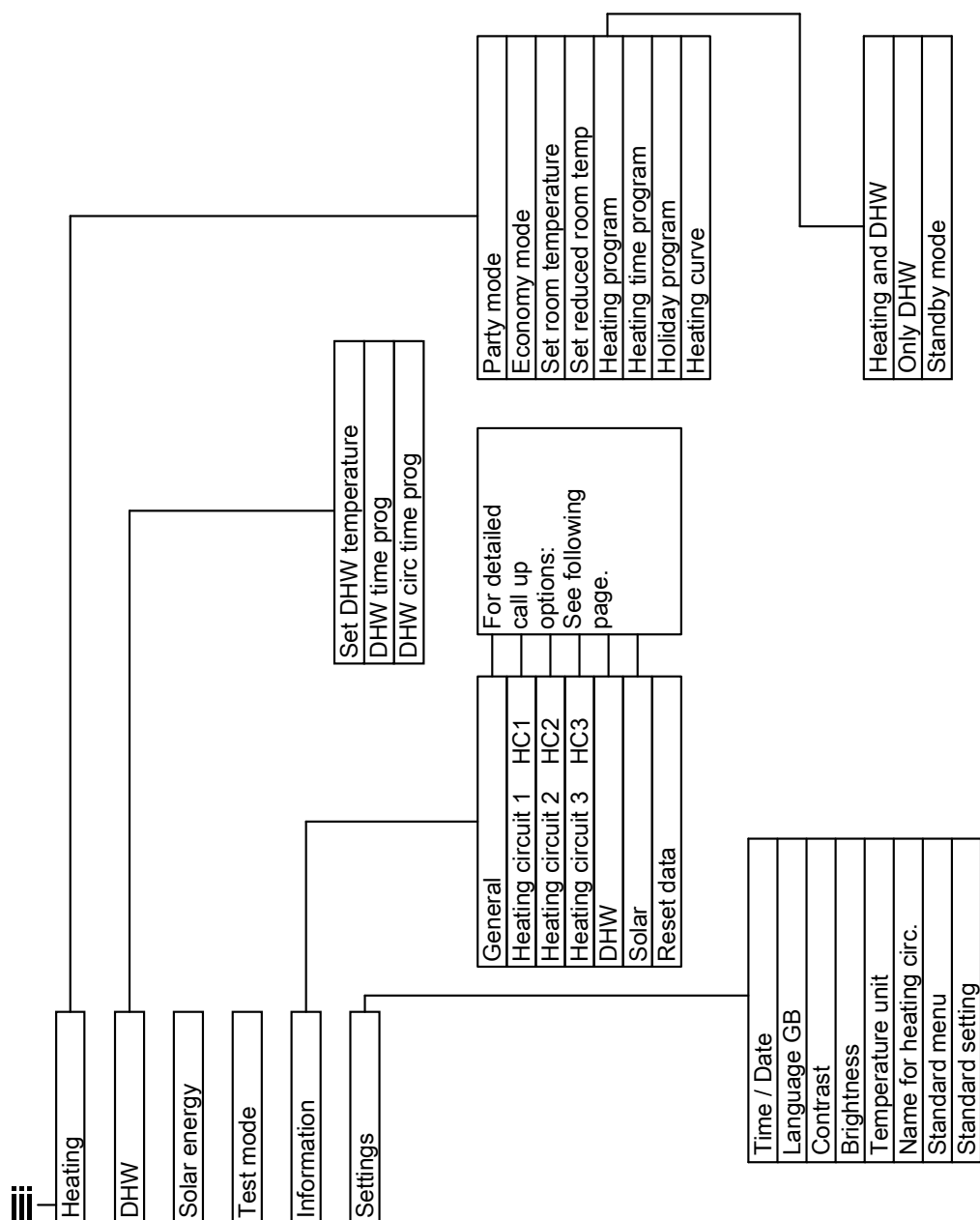


Fig. 32

## Scanning options under "Information"

**Note**

Depending on the features of your heating system, not all of the checks listed may be available.

Where information is marked with ►, you can call up further details.

## Scanning options under "Information" (cont.)

## General

"Outside temp"
"Boiler temperature"
"Common flow temp"
"Flue gas temp"
"Burner"
"Hours run"
"Burner stage 1"
"Hours run"
"Burner stage 2"
"Hours run"
"Fuel consumption"
"Feed pump"
"Central fault mess."
"Subscriber no."
"Input ext. EA1" ►
"Wireless repeater Yes/No"
"Wireless outside t sens" ►
"Wireless remote control" ►
"Time"
"Date"
"Radio clock signal"

## Heating circuit 1 (HC1)

"Heating program" ► ▪ "External hook-up" ▪ "Holiday program" ▪ "External program" ▪ "Party mode" ▪ "Economy mode" ▪ "Heating and DHW" ▪ "Only DHW" ▪ "Standby mode"
"Operating status:" ► ▪ "Standard heating mode" ▪ "Reduced mode" ▪ "Standby mode"
"Time program" ►
"Set room temperature"
"Room temperature"
"Set reduced room temp"
"Set ext. room temp"
"Set party temp"
"Slope"
"Level"
"Heating circ pump"
"Holiday program" ►

## Heating circuit 2, 3 (HC2, HC3)

"Heating program" ► ▪ "External hook-up" ▪ "Holiday program" ▪ "External program" ▪ "Party mode" ▪ "Economy mode" ▪ "Heating and DHW" ▪ "Only DHW" ▪ "Standby mode"
"Operating status:" ► ▪ "Standard heating mode" ▪ "Reduced mode" ▪ "Standby mode"
"Time program" ►
"Set room temperature"
"Room temperature"
"Set reduced room temp"
"Set ext. room temp"
"Set party temp"
"Slope"
"Level"
"Heating circ pump"
"Mixer"
"Flow temperature"
"Holiday program" ►

## DHW

"DHW time prog" ►
"DHW circ time prog" ►
"DHW temperature"
"Cylinder prim pump"
"DHW circ pump"
"Flow switch"
"Plate heat exchanger" ►

## Scanning options under "Information" (cont.)

### Solar

"Collector temp"
"Solar DHW"
"Solar circuit pump" (hours run)
"Solar energy history" ►
"Solar energy"
"Solar circuit pump" (ON/OFF) Or "Solar circ pump speed" (%)
"Heating suppr. DHW"
"SM1 output 22" (ON/OFF)
"SM1 output 22" (hours run)
"Sensor 7"
"Sensor 10"
"Heat suppr. 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 when you set the time program.

### Extension kit for heating circuit with mixer

Assembly (accessories) for controlling a heating circuit with mixer: See "Mixer".

### 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 starting **"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.

**Terminology** (cont.)**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".

**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 operation, 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

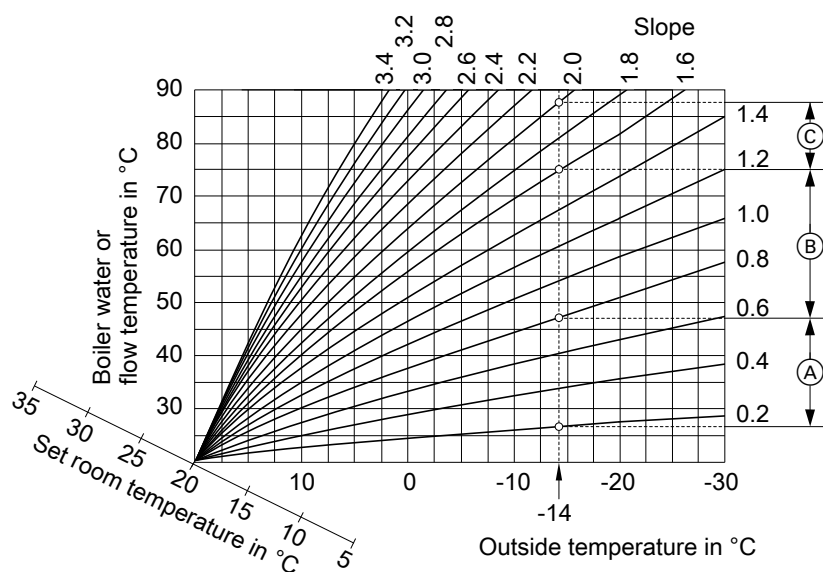


Fig. 33

**Example:**

For an outside temperature of **-14 °C**:

- (A) Underfloor heating system, slope 0.2 to 0.8
- (B) Low temperature heating system, slope 0.8 to 1.6
- (C) Heating system with a boiler water temperature in excess of 75 °C, slope 1.6 to 2.0

## Terminology (cont.)

Factory settings: Slope = 1.4 and level = 0.

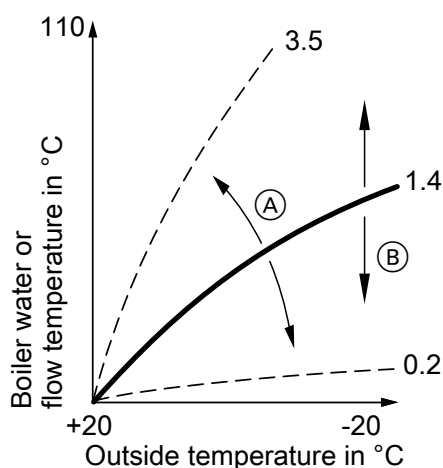


Fig. 34

- (A) Changing the slope:  
The steepness of the heating curve changes.
- (B) 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 heat generator 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".

### 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.

### Summer mode

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

### Cylinder loading pump

Circulation pump for heating the water inside the DHW cylinder

### Drinking water filter

A device that removes solids from the drinking water. The drinking water filter is built into the cold water pipework to the DHW cylinder.

### Weather-compensated mode

See "Heating mode".

### Time program

In the time programs you determine what your heating system should do at what time.

#### **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.

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**RoHS**  
compliant  
2002 / 95 / EC  
*Fig. 35*

## 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](http://www.viessmann.de).



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