

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.



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 designed for heating system users.

This appliance can also be operated by children of 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 as well as in 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.



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.



Danger

The appliance generates heat. Hot surfaces can cause burns.

- Never open the appliance.
- Never touch the hot surfaces of uninsulated pipes, fittings or flue pipes.

If you smell gas



Danger

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

- Do not smoke. Prevent naked flames and sparks. Do not 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 or electricity supplier and your local heating contractor from outside the building.
- Shut off the electricity supply to the building 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

If there is a fire, there is a risk of burns and explosion.

- Shut down the heating system.
- Close shut-off valves in the fuel supply lines.
- Use a tested fire extinguisher, class ABC.

What to do if the heating system develops faults



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. Inform your heating contractor so the cause can be analysed and the fault rectified.

Installation room conditions



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).

For your safety (cont.)**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

Operating 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 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 it or affect its functions. Have installation or replacement work only carried out by qualified contractors.

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Intended use

The appliance is only intended to be installed and operated 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 the heating of water that is of potable water quality.

Intended usage 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 does not comply with regulations.

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

Incorrect usage or operation of the appliance (e.g. the appliance being opened by the system user) is prohibited and results in an exclusion of liability. Incorrect usage also occurs if the components in the heating system are modified from their intended function (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).

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.

Your system has been 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 heating mode).
- Between **22:00 and 06:00 h**, the rooms are heated to 3 °C "**Set reduced room temp**" (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

If DHW heating began before 22:00 h, it is stopped.

Frost protection

- Your boiler and DHW cylinder are protected against frost.

Wintertime/summertime changeover

- This changeover is automatic.

Your system has been preset (cont.)**Date and time**

- The date and time were 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 saved 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**Central heating**

- **Standard room temperature** ("Set room temperature", see page 18):
Never overheat your home. Every degree of room temperature reduction saves up to 6 % on your heating bills.
Never set your standard room temperature higher than 20 °C.
- **Time program** (see page 18):
Heat your rooms to the standard room temperature during the day and the reduced temperature at night. Set the time program for this.
- **Operating program**:
If you do not require central heating, select one of the following operating programs:
 - **"Only DHW"** (see page 23):
If you require no heating for your home in summer, but you need hot water.
 - **"Standby mode"** (see page 16):
If you don't need to heat your home and don't need hot water for long periods.
- **Short absence** (see page 20):
Reduce the room temperature if you are going shopping, for example. For this, select **"Economy mode"**.
- **Holidays** (see page 21):
If you are going away, select the **"Holiday program"**:
The room temperature will be reduced, and DHW heating will be turned off.

■ **Ventilation**:

Close the thermostatic valves to ventilate. Open the windows fully for a brief time.

■ **Roller shutters**:

Close roller shutters (where installed) at dusk.

■ **Thermostatic valves**:

Ensure that thermostatic valves are properly set.

■ **Radiators**:

Never cover radiators or thermostatic valves.

DHW heating

- **DHW circulation pump** (see page 24):
Only activate the DHW circulation pump for periods in which DHW is regularly drawn off. Set the time program for this.
- **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**Central heating**

- **Standard room temperature** ("Set room temperature", see page 18):
You can select your individual preferred temperature at any time in the standard menu.
- **Preferred heating circuit** (see page 26):
If your heating system consists of several heating circuits, you can make the most important adjustments for a preferred heating circuit directly via the standard menu.

■ **Time program** (see page 18):

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 19):

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 20):

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.

DHW heating

- **Time program** (see page 23 and 24):

Use the time program for DHW heating.

Use the time program for the DHW circulation pump.

During the selected time phases, DHW will be available at the draw-off points at the required temperature.

Opening the control unit

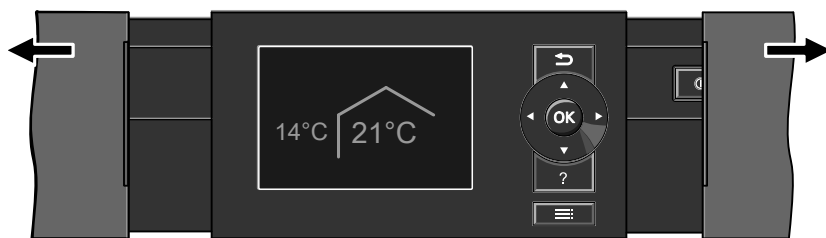


Fig. 1

Programming unit

You can change any settings 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 more information.

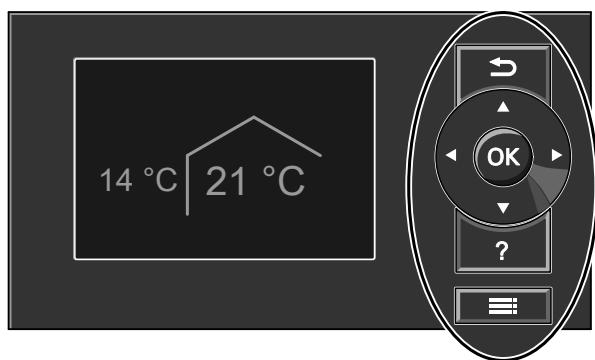


Fig. 2

- This takes you to the previous step in the menu or cancels a setting that has been started.
- Cursor keys
Scroll through the menu or adjust values.

Two **control levels** are available:

- The standard menu: See page 10
- The extended menu: See page 11

- OK** Confirms your selection or saves the setting.
- ?** Calls up "**Help**" (see following chapter) or additional information on the selected menu.
- ≡** Calls up the extended menu.

Note

The **screensaver** is activated if you have not made any adjustments on the programming unit for a few minutes (see page 11).

"Help" menu

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

Call up the short guide as follows:

- If the screensaver is active (see page 11):
Press **?**.
- From anywhere in the menu:
Keep pressing until the standard menu is shown (see page 10).
Press **?**.

Symbols

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

Indicators:

- ❄ Frost protection is active
- ☀ Central heating to 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:

🔌, 🌞, 🏠:

For explanation of the symbols, see page 13

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
- Operating program

Call up the standard menu as follows:

- If the screensaver is active (see page 11):
Press **OK**.
- If you are in the extended menu (see page 11):
Keep pressing ➡ until the standard menu appears.

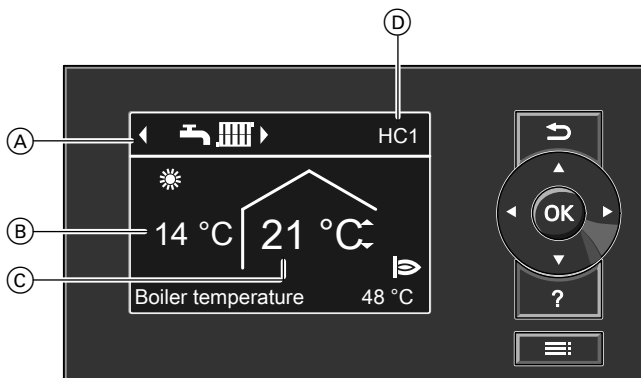


Fig. 3

- 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 26)
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 11).
- The settings for any other connected heating circuits can **only** be adjusted in the extended menu.
- Your heating contractor can block the operation of the standard menu. In such cases, you will not be able to make adjustments in either the standard menu or in the extended menu.

Setting the standard room temperature for the preferred heating circuit

Press the following keys:

- ▲/▼ for the required value
- OK**

Standard menu (cont.)

Setting the operating program for the preferred heating circuit

Press the following keys:

- ◀▶ 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 38.

Note

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

Call up the extended menu as follows:

- If the screensaver is active (see page 11):
Press **OK** and then ≡.
- From anywhere in the menu:
Press ≡.

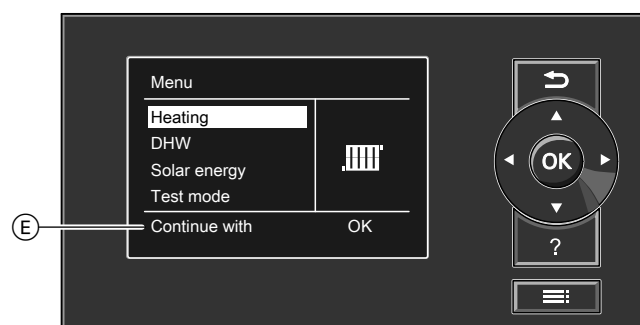


Fig. 4

E 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.

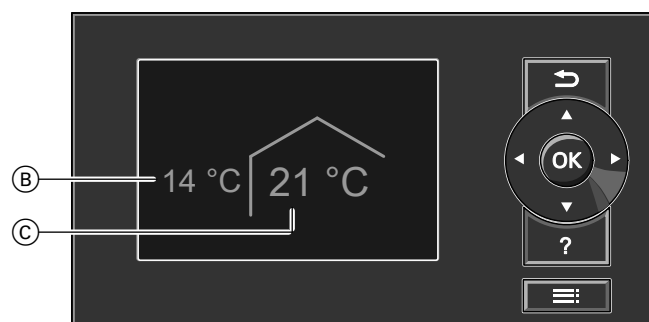


Fig. 5




- B Current outside temperature
- C Set room temperature

- 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.



Operating program

Operating programs for central heating, DHW, frost protection

Symbol	Operating program	Function
Central heating and DHW heating		
	"Heating and DHW"	<ul style="list-style-type: none"> 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"	<ul style="list-style-type: none"> DHW is heated in accordance with the DHW temperature and time program specified (see chapter "DHW heating"). No central heating Frost protection is active.
Frost protection		
	"Standby mode"	<ul style="list-style-type: none"> No central heating No DHW heating Frost protection for the boiler and the DHW cylinder is active.

Special operating programs

Display in the standard menu

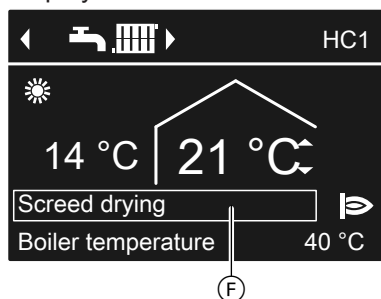


Fig. 7

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 suitable for the building material (temperature:time profile). Your settings for central heating have no effect for the duration of the screed drying.

■ "External hook-up"

Your heat pump control unit is regulated by a higher control unit.

■ "External program"

The operating program was changed by a communication interface (e.g. Vitocom 100).

■ "Holiday program" (see page 21)

Note

In the extended menu, you can call up the set operating program under **"Information"** (see page 38).

Time program

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

Time program (cont.)

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






- Central heating (see page 18)
- DHW heating (see page 23)
- DHW circulation pump (see page 24)



In the time program, divide the day into sections. These are called **time phases**. It is for you to decide what happens in these time phases. For example, they could specify when your rooms will 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.
- For each time phase you select 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 call up the time programs under **"Information"** (see page 38).

Setting a time program using central heating as an example

Extended menu:

1. 
2. **"Heating"**
3.  for the required heating circuit if necessary
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 h
- Time phase :
16:30 to 23:00 h

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

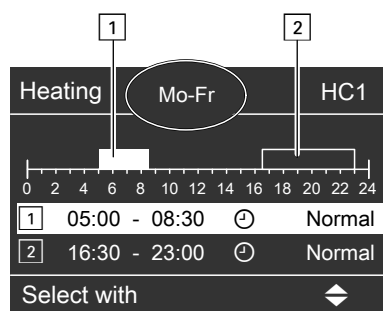


Fig. 8

Setting the time program efficiently

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 h.

The display shows the selected time phase as

"- - : - -".

Heating	Mo-Fr	HC1
2	- - : - - - - -	⏰ Normal
3	- - : - - - - -	⏰ Normal
Adopt with		OK

Fig. 11

Starting the heating system



Fig. 12

- Ⓐ Fault indicator (red)
- Ⓑ ON indicator (green)
- Ⓒ Reset button

- Ⓓ ON/OFF switch
- Ⓔ Pressure gauge (pressure display)

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 ventilation apertures of 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. Switch the ON/OFF switch ON.

After a short time, the standard menu is displayed (see page 10). 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 operating program **"Standby mode"**.

- No central heating
- No DHW heating
- Frost protection for the boiler and the DHW cylinder is active.

Shutting down the heating system (cont.)

For the preferred heating circuit

Standard menu

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

For all heating circuits

Extended menu

1. ≡
2. "Heating"
3. ►/◄ for the required heating circuit if necessary
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. Switch OFF the system 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 a 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 26).

Central heating

Room temperature



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

Setting the standard room temperature for central heating

Factory setting: 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. ▲/▼ for the required heating circuit if necessary
4. **"Set room temperature"**
5. Set the required value.

Setting the reduced room temperature for central heating

Factory setting: 3 °C

Extended menu

- 1.
2. **"Heating"**
3. ▲/▼ for the required heating circuit if necessary
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 18)
- In the holiday program (see page 21)

Operating program



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

Setting the operating program for central 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. ▲/▼ for the required heating circuit if necessary
4. **"Heating program"**
5. e.g. **"Heating and DHW"**

For information on the operating programs, see page 13.

Time program






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

Time program (cont.)

Setting the time program for central heating

Factory setting: **One** time phase from 6:00 to 22:00 h for every day of the week

Extended menu:

1. 
2. **"Heating"**
3.   for the required heating circuit if necessary
4. **"Heating time program"**
5. Set the required time phases.
Procedure for setting a time program, see page 13.

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 the heating curve

Factory setting:

- **"Slope"**: 1.4
- **"Level"** of the heating curve: 0

Extended menu:

1. 
2. **"Heating"**
3.   for the required heating circuit if necessary
4. **"Heating curve"**
5. **"Slope"** or **"Level"**
6. Set the required value.

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.

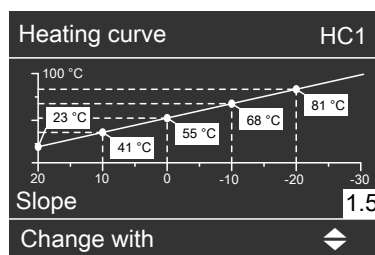




Fig. 13

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

Stopping the central heating




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.   for the required heating circuit if necessary
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.  for the required heating circuit if necessary
4. "Party mode"
5. Set the required room temperature for "Party mode".

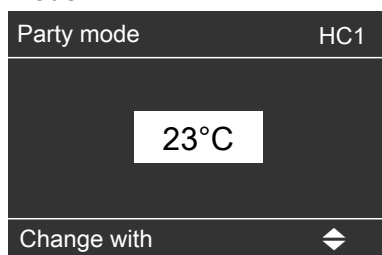


Fig. 14

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 set temperature **first**, before central heating begins.
- The DHW circulation pump is switched on (if installed).

Display in the standard menu

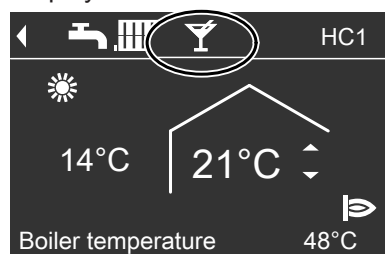


Fig. 15

Cancelling "Party mode"

- Automatically after 8 hours

Note

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

Or

- 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 central heating

Extended menu

1. 
2. "Heating"
3.  for the required heating circuit if necessary
4. "Economy mode"

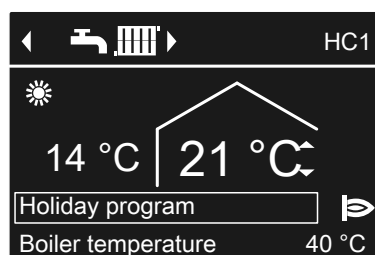


Fig. 16

Energy saving function "Economy mode" (cont.)

Note

The display of the set room temperature does not change.

Cancelling "Economy mode"

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

Energy saving function "Holiday program"


Setting the "Holiday program" for central heating

Note

The holiday program affects **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.

Extended menu:

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


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

Fig. 17

The holiday program has the following effect:

- **Central heating:**
 - For heating circuits in the operating program "Heating and DHW":
The rooms are heated with the selected reduced room temperature (see page 18).
 - For heating circuits in the operating program "Only DHW":
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 active.

Display in the standard menu

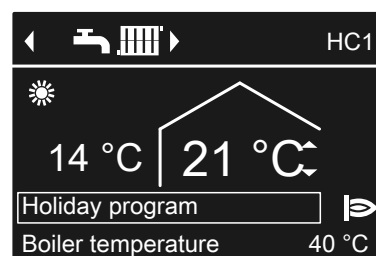



Fig. 18

Display in the extended menu

In the extended menu, you can call up the set holiday program under "Information" (see page 38).

Cancelling or deleting the "Holiday program"

Extended menu

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

DHW temperature

Factory setting: 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.  for the required heating circuit if necessary
4. "Heating program"
5. "Heating and DHW"
or
"Only DHW"

For information on the operating programs, see page 13

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 18), the DHW 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 you will have hot water available right at the beginning of operation with standard room temperature.

Extended menu:

1. 
2. "DHW"

3. "DHW time prog"

4. Set the required time phases.

Procedure for setting a time program, see page 13.

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.

Time program (cont.)

DHW heating once, outside the time program

Note
The operating program **"Heating and DHW"** or **"Only DHW"** 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.







- 3. **"DHW circ time prog"**
- 4. Set the required time phases.
Procedure for setting a time program, see page 13.

Extended menu:

- 1. 
- 2. **"DHW"**

Note
Between time phases the DHW circulation pump remains off.

Stopping DHW heating

You do not want to heat DHW or provide central heating	You do not want to heat DHW, but do want to provide central heating
For the preferred heating circuit Standard menu 1.  for the operating program "Standby mode" (frost protection is active) 2. OK	—
For all heating circuits Extended menu 1.  2. "Heating" 3.  for the required heating circuit if necessary 4. "Heating program" 5. "Standby mode" (frost protection active)	Extended menu 1.  2. "Heating" 3.  for the required heating circuit if necessary 4. "Heating program" 5. "Heating and DHW" 6.  until the menu is displayed 7. "DHW" 8. "Set DHW temperature" 9. Set 10 °C.

Setting the display contrast

Extended menu

- 1. 
- 2. "Settings"

- 3. "Contrast"
- 4. Set the required contrast.

Setting the display brightness

If you would like the texts in the menu to be more clearly legible, change the brightness for "Control". 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.

Extended menu

- 1. 
- 2. "Settings"
- 3. "Name for heating circ."
- 4. "Heating circuit 1", "Heating circuit 2" or "Heating circuit 3"
- 5. "Change?"
- 6. You can select the required character with ▲/▼.
- 7. ►/◀ takes you 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

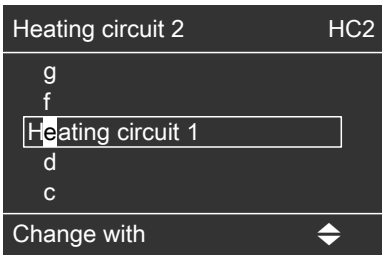


Fig. 19

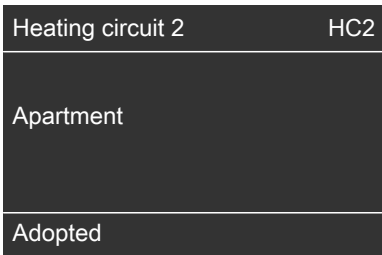


Fig. 20

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

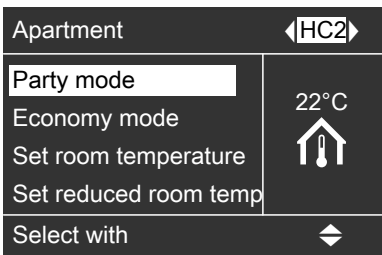



Fig. 21

Further adjustments

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.

3. **"Time / Date"**
4. Set the time and date.

Extended menu

1. 
2. **"Settings"**

Language selection

Extended menu

1. 
2. **"Settings"**

3. **"Language"**
4. Select the required language.

Setting the temperature unit (°C/°F)

Factory setting: °C

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

Extended menu

1. 
2. **"Settings"**

Restoring factory settings

You can reset the factory settings of all modified values for each heating circuit separately.

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

Extended menu

1. 
2. **"Settings"**

Restoring factory settings (cont.)

System setting	Settings and values that are reset
"Heating circuit 1", "Heating circuit 2" or "Heating circuit 3"	<ul style="list-style-type: none"> ▪ Set room temperature: 20 °C ▪ 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 ("Party mode", "Economy mode", "Holiday program") are deleted. <p>Note <i>If heating circuits have been named (see chapter "Naming heating circuits") the assigned name is retained.</i></p>

Scanning

Calling up information

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

The extended menu splits the information 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 calling up data on individual groups can be found in chapter "Options for calling up data".

Extended menu

1. 
2. "Information"
3. Select the group.
4. Select the required information.

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.

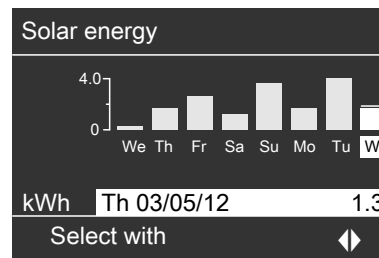


Fig. 22

Note

Further options for calling up data, e.g. for the solar circuit pump hours run, can be found in 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"

Calling up a service message

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

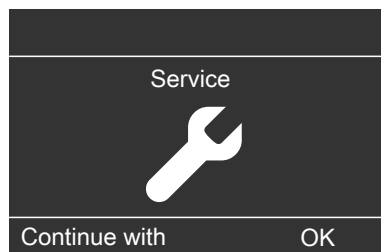


Fig. 23

Calling up a service message (cont.)

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

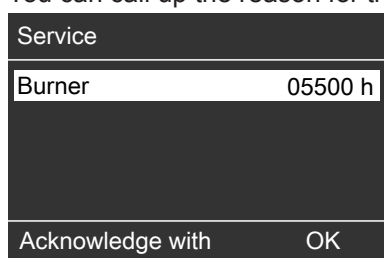


Fig. 24

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.
Contact your local heating contractor.
The service message is transferred to the menu.
Display in the standard menu

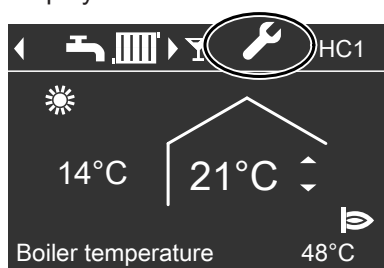


Fig. 25

Display in the extended menu

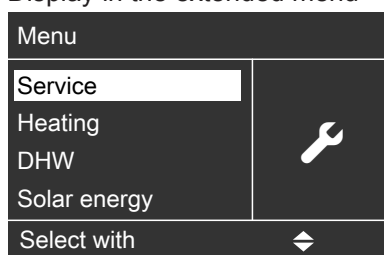


Fig. 26

Note

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

Calling up an acknowledged service message

Extended menu

- 1.
2. **"Service"**

Calling up 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").

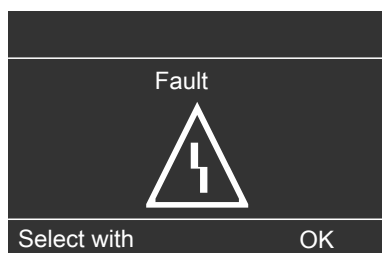


Fig. 27



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.

Calling up fault messages (cont.)

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

Fault	
Outside sensor	18
Fault	A2
Acknowledge 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 this 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 transferred to the menu.
Display in the standard menu

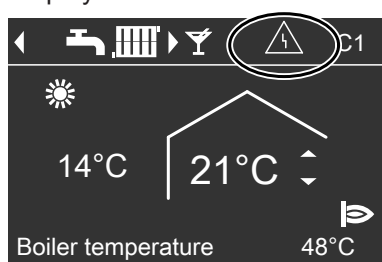


Fig. 29

Display in the extended menu


Menu	
Fault	
Heating	
DHW	
Solar energy	
Continue with OK	

Fig. 30

Note

- If you have connected signalling equipment to indicate fault messages (e.g. a buzzer), this is deactivated when the fault message is acknowledged.
- If the fault cannot be fixed until later, the fault message will reappear at 7:00 h the following day. The signalling equipment will be switched on again.

Calling up an acknowledged fault message

Extended menu

- 1.
2. **"Fault"**

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 are locked out 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 radiator 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"> Turn on the ON/OFF switch (see diagrams from page 16). Switch on the mains isolator if installed (outside the boiler room). Reset the MCB in the power distribution board (main domestic MCB).
<ul style="list-style-type: none"> Control unit incorrectly adjusted. The remote control (if installed) is set incorrectly.  Separate operating instructions	<p>Central heating must be enabled.</p> <p>Check settings and correct if required:</p> <ul style="list-style-type: none"> Operating program (see page 18) Room temperature (see page 18) Time (see page 26) Central heating time program (see page 18) Heating curve (see page 19)
The DHW cylinder is 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>Note <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 R (see page 16). Acknowledge the fault (see page 30).</p> <p> 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.</p>
"Fault" is displayed. The red fault indicator flashes.	<p>Check what type of fault it is. Acknowledge the fault (see page 30). If necessary, notify your heating contractor.</p>
"Screed drying" is active.	<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>


Rooms are too hot

Cause	Remedy
<ul style="list-style-type: none"> Control unit incorrectly adjusted. The remote control (if installed) is set incorrectly.  Separate operating instructions 	Check settings and correct if required: <ul style="list-style-type: none"> Operating program (see page 18) Room temperature (see page 18) Time (see page 26) Central heating time program (see page 18) Heating curve (see page 19)
"Fault" is displayed. The red fault indicator flashes.	Check what type of fault it is. Acknowledge the fault (see page 30). 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"> Turn on the ON/OFF switch (see diagrams from page 16). Switch on the mains isolator if installed (outside the boiler room). Reset the MCB in the power distribution board (main domestic MCB).
<ul style="list-style-type: none"> Control unit incorrectly adjusted. The remote control (if installed) is set incorrectly.  Separate operating instructions 	DHW heating must be enabled. Check settings and correct if required: <ul style="list-style-type: none"> Operating program (see page 23) DHW temperature (see page 23) Time program DHW heating (see page 23) Time (see page 26)
No fuel.	With oil/LPG: Check the fuel reserves and re-order if required. 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 30). If necessary, notify your heating contractor.

The DHW is too hot

Cause	Remedy
The control unit is incorrectly adjusted.	Check and correct the DHW temperature if required (see page 23)
The DHW is being heated by the solar thermal system.	Check and correct settings, if required, at the solar control unit.  Separate operating instructions

What to do if...

flashes and "Fault" is displayed

Cause	Remedy
Heating system fault	Proceed as described on page 29.

flashes and "Service" is displayed

Cause	Remedy
The time for a service, as specified by your heating contractor, has arrived.	Proceed as described on page 28.

"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 was changed by an external device, e.g. EA1 extension.	No measures required

"External program" is displayed

Cause	Remedy
The operating program set at the control unit was changed over by the Vitocom communication interface.	You can change the operating program.

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 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, we strongly advise you to arrange an inspection and maintenance contract with your local heating contractor.

Boiler

Increasing boiler contamination raises the flue gas temperature and thereby increases energy losses. For that reason, all boilers should be 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 safety valve function should be checked every six months by venting, either by the system user or the local heating contractor (see the valve manufacturer's instructions). The valve seat may become contaminated.

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 connecting cables

If connecting cables of the appliance or externally installed accessories are damaged, replace them with special connecting cables. Replace only with Viessmann cables. Notify your heating contractor accordingly.

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 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 oil burners.

With boilers built in or after 2012, up to 10 % added bio-components (FAME) are generally allowed. Fuel oil must comply with DIN 51603-6-EL A Bio 10.

If in doubt refer to your local heating contractor.

Overview of extended menu

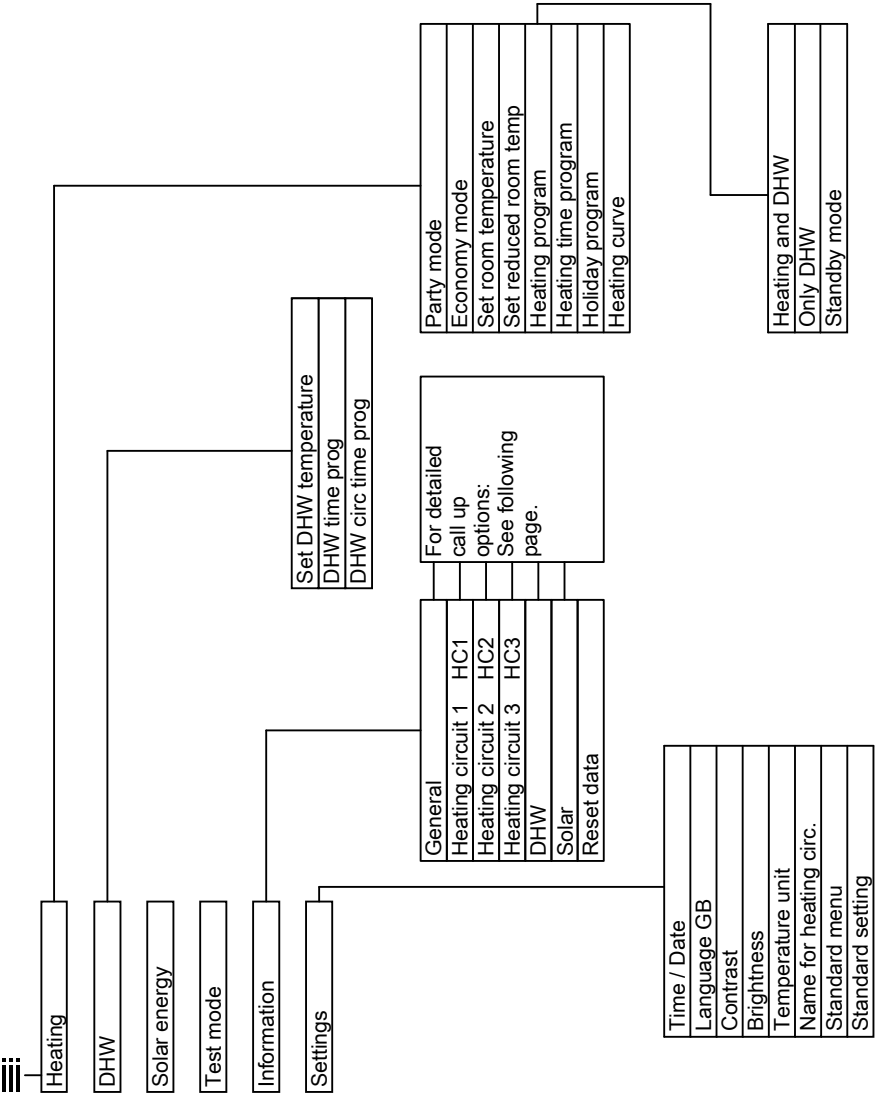


Fig. 32

Calling 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 ►.

Calling up 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 consumpt."
"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" ►

Calling up 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
- Only DHW, 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 you want central heating, hot water is generally also required (winter mode).

Operating status

In the operating program **"Heating and DHW"**, the operating status changes from "Standard heating mode" to "Reduced heating mode" and vice versa. The times for the operating status changeover 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, for example, activate this function for screed drying 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 for 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 and only respond very slowly to short term temperature changes.

Therefore, heating to the reduced room temperature at night and enabling **"Economy mode"** during short absences do 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 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 illustrated heating curves apply with the following settings:

- Heating curve level = 0
- Standard room temperature (set value) = 20 °C

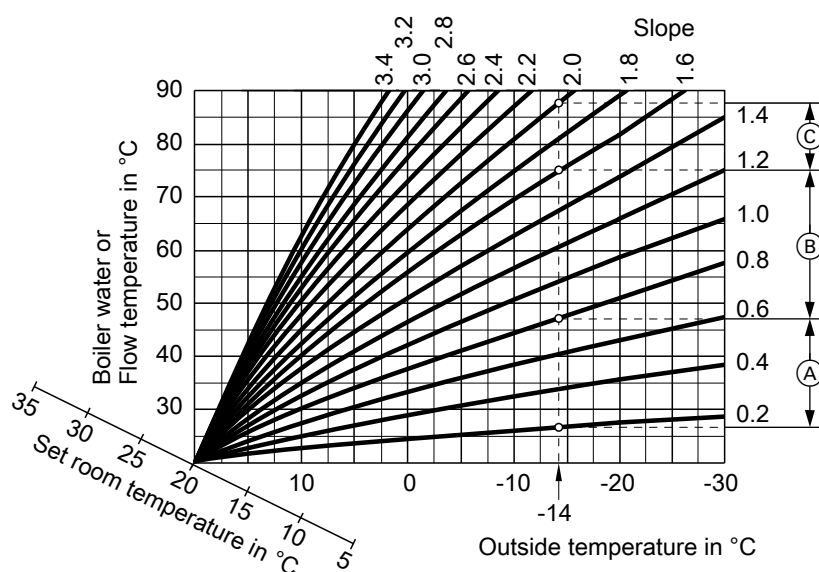


Fig. 33

Example:

For outside temperature **-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

Factory settings: Slope = 1.4 and level = 0.

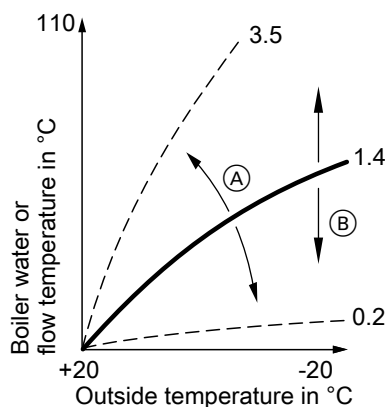


Fig. 34

- (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 between 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 the circulation of 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, brought to the right temperature as required, 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.

Balanced flue operation

The combustion air is drawn from outside the building.

Room temperature

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

Safety valve

A safety device that must be installed by your heating contractor in the cold water pipe. 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

Default temperature that should be reached, e.g. set DHW temperature.

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 DHW in 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"

Time program

In the time programs, you specify what your heating system should do at which time.

Terminology (cont.)**DHW circulation pump**

The DHW circulation pump transports the DHW around a ring pipeline 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 point.

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Fig. 35

Your contact

Contact your local contractor if you have any questions regarding the maintenance and repair of your system. You may, for example, find local contractors on the internet under www.viessmann.com.

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