# Operating instructions



for the system user

Heating system with Vitotronic 100 control unit, type HC1B For constant temperature mode

# VITODENS VITOPEND





### Safety instructions

### 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.

# $\wedge$

#### 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



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



#### 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. Only have installation or replacement work 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).

### Your system is preset at the factory

The control unit is preset at the factory to "Sum" for central heating and DHW heating.

Your heating system is therefore ready for operation:

#### **Central heating**

- The rooms are heated in accordance with the settings on your control unit and room temperature control unit.
- Your heating contractor can make further settings for you during commissioning.

You can change any settings individually at any time to suit your requirements (see chapter "Central heating").

#### **DHW** heating

- The DHW is heated up to 50 °C.
- Your heating contractor can make further settings for you during commissioning.
   You can change any settings individually at any time to suit your requirements (see chapter "DHW heat-

#### **Frost protection**

ing").

• Your boiler and DHW cylinder are protected against frost.

#### **Power failure**

All data is saved if there is a power failure.

### Terminology

To provide you with a better understanding of the functions of your control unit, the appendix contains the chapter "Terminology" (see page 23).

### Tips on saving energy

Use the adjustment options on the control unit and the room temperature control unit:

- Do not overheat your rooms; you can save up to 6 % on your heating costs for every degree you reduce your room temperature.
   Set your room temperature no higher than 20 °C (see page 11).
- Do not set your DHW temperature too high (see page 12).
- Select the operating program that meets your current requirements:
  - In the summer, when you don't want to heat any rooms but do need DHW, select operating program
     "
     <u>"
     </u>" (see page 12).
  - If you do not want to heat any rooms and require no hot water for a prolonged period of time, select operating program "o" (see page 9).

Further recommendations:

- Correct ventilation/airing.
   Fully open windows for a short time and close the thermostatic valves while airing.
- Close roller shutters (if installed) at dusk.
- Set thermostatic valves correctly.
- Never cover radiators or thermostatic valves.
- Controlled DHW consumption: A shower generally uses less energy than a full bath.

### Controls

You can change the settings for your heating system centrally at the programming unit.

If you have a room temperature control unit installed in your rooms, you can also change the settings on the room temperature control unit.



Room temperature control unit operating instruc-



### Fig. 1

- Takes you one step back in the menu
   ∴
   Cursor keys
- Scroll through the menu or adjust values OK Confirms your selection or setting

### How to use the controls

### Standard display



Press : This takes you to the menu for settings and scanning.

Enables you to call up the menu for settings and

# Symbols

These symbols are not always displayed, but appear subject to the system version and the operating condition. Flashing displays indicate that modifications can be made.

### Menu

- Central heating
- DHW heating
- Information
- Emissions test mode
- Additional settings

#### Operating program

No function

scanning

?

- Frost protection monitoring (standby mode)
- DHW heating
- ► Central heating and DHW heating
- **COMF** Comfort mode for DHW heating
- ECO Without comfort mode for DHW heating

### Messages

- Service message
- ${\displaystyle \textcircled{\sc a}}$  The service interval has expired
- ▲ Fault message
- 🕁 Fault message for burner

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### Note

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

### About the controls

### Symbols (cont.)

Displays

- Į Temperature
- Frost protection monitoring \*
- Central heating 潫

- Heating circuit pump running
   Cylinder loading pump running
   In conjunction with a solar thermal system: Solar circuit pump is running
- Burner running Ð
- Standard factory setting 忄

### Starting the heating system



### Fig. 3

- (A) Fault indicator (red)
- B ON indicator (green)
- ⓒ Reset button
- 1. Check the heating system pressure at the pressure gauge. The system pressure is too low if the indicator points to the area below 1.0 bar. In this case, top up with water or notify your local heating contractor.
- 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. Open the gas shut-off valve.

### Note

Ask your heating contractor to explain the positioning and handling of these components.

### Shutting down the heating system

#### With frost protection monitoring

Select operating program "o" for frost protection monitoring (standby mode).

Press the following keys:

- 1. : for settings; "III" flashes.
- 2. OK to confirm; "OT III flashes.
- 3. OK to confirm; "-\_\_\_\_ flashes.

- D ON/OFF switch
- (E) Pressure gauge (pressure display)
- **4.** Switch ON the power supply, e.g. at a separate MCB/fuse or a mains isolator.
- 5. Turn ON/OFF switch "<sup>O</sup>" on. After a short while, the standard display appears and the green ON indicator illuminates. Your heating system and room temperature control unit are now ready for operation.

- **5. OK** to confirm; frost protection is activated.
- No central heating.
- No DHW heating.
- Frost protection for the boiler and the DHW cylinder is active.
- Note

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

#### Ending operating program "O"

Select another operating program.

### Shutting down the heating system (cont.)

Press the following keys:

- 1. : for settings; "m" flashes.
- 2. OK to confirm; "⊕**→**∭" flashes.
- **3. OK** to confirm; "o" flashes.

- until "◄™" flashes: The rooms are heated and DHW is provided. or until "◄" flashes: DHW is heated but central heating is not active.
- **5. OK** to confirm; the selected operating program is activated.

### Without frost protection monitoring (shutdown)

- 1. Turn ON/OFF switch "<sup>(1)</sup> off.
- 2. Close the gas shut-off valve.

#### Note

Ask your heating contractor to explain the positioning and handling of these components.

- **3.** Isolate the heating system from its main power supply, e.g. at the separate MCB/fuse or at a mains isolator.
- **4.** If outside temperatures of below 3 °C are expected, please take appropriate measures to protect the heating system from frost. If necessary, contact your heating contractor.

# Required settings for central heating

If you want central heating, check the following points:

- Have you set the required room temperature?
   Room temperature control unit operating instructions
- Have you set the heating flow temperature at a sufficiently high level?
   For setting, see the next chapter.

### Setting the heating flow temperature

Set the heating flow temperature sufficiently high so the required room temperature can be achieved. Factory setting: 74 °C

Press the following keys:

- 1. E for settings; "IIII" flashes.
- 2. OK to confirm; "Otmu" flashes.

 Have you selected the correct operating program? For setting see page 11 and

Room temperature control unit operating instructions

- Have you set the required time program?
   Room temperature control unit operating instructions
- **3.** ► for boiler water temperature; "**J**" flashes.
- **4. OK** to confirm; the selected temperature value flashes.
- **5.** /**•** for the required boiler water temperature.
- **6. OK** to confirm; the new temperature value is saved.

## Setting the operating program (central heating)

Factory setting: " " " " " " " " " " " " for central heating and DHW heating (winter mode)	2. OK	to confirm; "ტ <b>–ъ</b> ,∭" flashes.
Press the following keys:	3. OK	to confirm.
1 =: for settings: "m" flashes	4. ⊳/⊲	until "ད̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣̣
	5. OK	to confirm; the rooms and DHW are heated.

### Stopping the central heating

You do not want to heat any rooms but you want to heat the DHW.

Press the following keys:

- 1. : for settings; "III" flashes.
- 2. OK to confirm; "Otmu" flashes.

- **5. OK** to confirm; the central heating is deactivated and DHW is heated (summer mode).

You do not want to heat any rooms or DHW.

Press the following keys:

- **1. ≡:** for settings; "**Ⅲ**" flashes.
- 2. OK to confirm; "Otim" flashes.

- **5. OK** to confirm; the central heating and DHW heating are deactivated, frost protection monitoring is activated (standby mode).

### DHW heating

### **Required settings (DHW heating)**

If you want DHW heating, check the following points:

- Have you set the required DHW temperature? For setting, see the next chapter.
- Have you selected the correct operating program? For setting, see page 12.

### Setting the DHW temperature

Factory setting: 50 °C

Press the following keys:

**1. ≡:** for settings; "**Ⅲ**" flashes.

- **3. OK** to confirm; temperature value flashes.
- **4.** / for required DHW temperature.

mode, no central heating).

DHW heating (winter mode).

**5. OK** to confirm; the new temperature value is saved.

until "
"
"
flashes for DHW heating (summer

until "-m" flashes for central heating and

**5. OK** to confirm; the selected operating program is

**2.** ▶ for "**-**".

### Setting the operating program (DHW heating)

Factory setting: "
"
"
"
"
for central heating and DHW heating (winter mode).

Press the following keys:

- **1. ≡**: for settings; "**Ⅲ**" flashes.
- 2. OK to confirm; "OTIM" flashes.

### **Stopping DHW heating**

You do not want DHW, but do want to heat the **8. OK** to confirm; temperature value flashes. rooms. 9. 🔻 to 10 °C. Press the following keys: **10. OK** to confirm; the new temperature value is 1. for settings; "m" flashes. saved. 2. OK to confirm; "O-TIM" flashes. You do not want to have DHW or heat your rooms. 3. OK to confirm; "-" flashes. Press the following keys: until "-m" flashes. 4. ▶ 1. for settings; "m" flashes. 5. OK to confirm; the rooms and DHW are heated 2. OK to confirm; "O-million" flashes. (winter mode). 3. OK to confirm; "-" flashes. 6. for settings; "m" flashes. 4. ∢ until "o" flashes. for "**---**". 7. ▶

4. ⊾/∢

or

activated.

### Stopping DHW heating (cont.)

**5. OK** to confirm; DHW heating and central heating are stopped, frost protection monitoring is activated (standby mode).

### **Comfort function (if available)**

With the comfort function you can preheat the water volume in the plate heat exchanger to the selected DHW temperature. This makes DHW available immediately.

Press the following keys:

- **1.** for settings; "m" flashes.
- **2.** ▶ for "<u>¬</u>".
- 3. OK to confirm, "COMF ECO" flashes.
- 4. OK to confirm; "ECO" flashes.
- 5. for "COMF".
- **6. OK** to confirm; the comfort function is activated.

#### Ending the comfort function

Press the following keys:

- **1. ≡**: for settings; "**Ⅲ**" flashes.
- **2.** ▶ for "<u>¬</u>".
- 3. OK to confirm, "COMF ECO" flashes.
- 4. OK to confirm; "COMF" flashes.
- 5. ▶ for "ECO".
- **6. OK** to confirm; the comfort function is terminated.

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

Factory setting: °C

Press the following keys:

**1. ≡**: for settings; "**Ⅲ**" flashes.

- **3. OK** to confirm; "**\**" flashes.
- 4. ▲/▼ for required temperature unit ("°C" or "°F").
- **5. OK** to confirm; the new temperature unit is saved.

**2.** ► for "o".

### **Restoring factory settings**

You can simultaneously reset all changed values to the factory settings.

Press the following keys:



- 2. ▶ for "o".
- 3. OK to confirm; "+" flashes.
- **4. OK** to confirm; the factory setting is reinstated.

Factory settings:

- Operating program: "
   "
   "
- Boiler water temperature: 74 °C
- DHW temperature: 50 °C

### Calling up information and resetting values

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

Press the following keys:

- **1. ≡**: for settings; "**Ⅲ**" flashes.
- **2.** ► for "**i**".
- 3. OK to confirm.
- **4.** / for the required information.
- **5. OK** to confirm; if you want to reset the value to "0" (see following table), "\+" flashes.

6. OK to confirm; the value is reset.

#### Example:

On the display, you can see the number "3" which shows the boiler water temperature. The current boiler water temperature is 65  $^{\circ}$ C.



#### Note

The scan mode terminates automatically after 30 minutes or if you press  $rac{1}{2}$ .

### The information appears in the following sequence:

Display		Juij	Meaning	Notes	
1000000000000000000000000000000000000			I ON subscriber no	_	
1	15	°C	Outside temperature	Displayed only if an outside temperature sensor is connected.	
2	95	°C	Flue gas temperature	-	
3	65	°C	Boiler water temperature	-	
4	45	°C	Temperature of heating water buf- fer cylinder or low loss header	Displayed only if a heating water buffer cylinder or low loss header is connected.	
5	50	°C	DHW temperature	Displayed only if a DHW cylinder is connected.	
51	50	°C	DHW temperature, top	Displayed only if two cylinder temperature sen-	
52	50	°C	DHW temperature, bottom	sors are connected.	
5c	95	°C	Collector temperature	Displayed only if a Viessmann solar control module is installed.	
5□	45	°C	DHW temperature with solar oper- ation	Displayed only if a solar thermal system is connected.	
53	50	°C	Temperature sensor 7	Displayed only if the Viessmann solar control module is available and a third temperature sensor has been connected.	
54	50	°C	Temperature sensor 10	Displayed only if the Viessmann solar control module is available and a fourth temperature sensor has been connected.	
6	70	°C	Collector temperature	Displayed only if a solar thermal system is con- nected	
1	263572	h	Burner hours run	Number of hours run (only approximate values). The hours run can be reset to "0" with "\4".	
3	030529		Burner starts	The number of burner starts can be reset to "0" with " <b>ਮ</b> ".	
5	001417	h	Solar circuit pump hours run	Displayed only if a Viessmann solar control module is installed. The hours run can be reset to "0" with "\+".	
6	001425		Pump starts, solar circuit pump	Displayed only if a Viessmann solar control module is installed. The pump starts can be reset to "0" with "\+".	

### Calling up information and resetting values (cont.)

Display			Meaning	Notes	
7	000506	h	Hours run, output 22	Displayed only if the Viessmann solar control module is available and a second circulation pump has been connected. The hours run can be reset to "0" with "\+".	
8	000506		Pump starts, output 22	Displayed only if the Viessmann solar control module is available and a second circulation pump has been connected. The pump starts can be reset to "0" with "\+".	
9	002850		Solar yield in kWh	Displayed only if a Viessmann solar control module is installed. The solar energy can be reset to "0" with "\+".	
1	4		Reception quality Vitocom 100, type GSM	<ul> <li>Displayed only if Vitocom 100, type GSM is connected.</li> <li>0 - no reception</li> <li>5 - very good reception</li> </ul>	

### Calling up a service message

Your heating contractor can set a service interval. For example, burner service after 2500 hours run or service after 12 months.

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

Example:

Service display with the service interval of 2500 hours run by the burner:

Notify your local heating contractor and acknowledge the service message by pressing **OK**.

#### Note

If the service can only be carried out at a later point in time, the service message will reappear after 7 days.

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### Calling up an acknowledged service message

Press **OK** for approx. 4 seconds.



Service display with the service interval of 12 months:



### Calling up fault messages

If any faults have occurred in your heating system, the symbol " $\Delta$ " flashes on the display and the fault code is shown. In addition, the red fault indicator flashes (see page 9).

### Calling up fault messages (cont.)

### Example:

Fault code shown: "50"

 $\mathbb{A}$ )[[ 1 Fig. 7



Danger

If faults are not rectified, they can have life threatening consequences. Do not acknowledge fault messages several times in quick succession. If a fault occurs repeatedly, notify your heating contractor so the cause can be analysed and the fault rectified.

- 1. Notify your heating contractor of the fault code. This enables the heating contractor to be better prepared for the service call and may save additional travelling costs.
- Acknowledge the fault message with OK. Symbol "<u>∧</u>" no longer flashes.

### 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 the following day.

#### Calling up an acknowledged fault message

Press OK for approx. 4 seconds.

#### Note

If there are several fault messages, you can call these up in sequence by pressing  $\mathbf{v}/\mathbf{A}$ .

### Special considerations for multi boiler systems

In systems with several boilers (multi boiler systems), each boiler is equipped with its own control unit. These control units are regulated by a higher control unit. Make the required settings (e.g. room temperature) at the higher control unit.

Operating instructions of the higher control unit

### **Boiler number**

In multi boiler systems, each boiler control unit indicates the boiler number on the standard display.

### Example:

Boiler number "3"





Boiler number "3" has been blocked by the higher control unit.



### **Operating program**

- "o" for frost protection monitoring (standby mode): By selecting operating program "o", you individually shut down the relevant boiler. Boiler frost protection monitoring is active.
- "→" for DHW heating (summer mode):
- You cannot set operating program "-".

### Room temperature/boiler water temperature

You cannot select either room temperature or boiler water temperature.

### Activating emissions test mode

### Activating emissions test mode

Emissions test mode should only be activated by your flue gas inspector during the annual inspection.

Press the following keys:

- **1. .** for settings; "**.** flashes.
- **2.** ► for "**#**".
- 3. OK to confirm; "ON" flashes.
   "FL" appears on boilers with flow rate capturing. Ensure adequate flow rate (e.g. open radiator valves).
- 4. OK to start the burner for measurement; "ON" will be displayed constantly.
  If "FL" and "⊘...." flash (for boilers with flow rate capturing), the flow rate is too low. Raise the flow rate by drawing off heat.
  When the flow rate is adequate, "ON" will flash.
- 5. OK to start the burner for measurement."ON" is constantly displayed.After 4 s the standard display is shown.

#### Stopping emissions test mode

Press the following keys:

1. : for settings; "IIII" flashes.

- **2.** ▶ for "∦".
- **3. OK** to confirm; **"OFF"** flashes.
- 4. OK to confirm.
- Note

*Emissions test mode ends automatically after 30 minutes.* 

### What to do if...

### Rooms are too cold

Cause	Remedy
The heating system is switched off.	<ul> <li>Turn ON/OFF switch "<sup>(1)</sup> on (see page 9).</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>
Control unit or room temperature control unit incorrectly adjusted.	<ul> <li>Check settings and correct if required:</li> <li>""\"" must be set (see page 11)</li> <li>Room temperature or boiler water temperature (see page 11)</li> <li>Time program</li> <li>Room temperature control unit operating instructions</li> </ul>
Only when operating with DHW heating: DHW priority is enabled ("⊘⊷" is displayed).	Wait until the DHW cylinder has been heated up ("⊘►" symbol disappears). In the case of operation with an instantaneous water heater, stop DHW draw-off.
No fuel.	With 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.
Symbol "ʉ" is shown on the display.	Press " <b>R</b> " (see page 9). Acknowledge the fault message with <b>OK</b> (see page 16). Notify your heating contractor of the fault code if the fault recurs.
Symbol " <u>A</u> " is shown on the display.	Notify your heating contractor of the fault code shown. Acknowledge the fault message with <b>OK</b> (see page 16).

### Rooms are too hot

Cause	Remedy
Control unit or room temperature control unit incorrectly adjusted.	<ul> <li>Check settings and correct if required:</li> <li>Room temperature or boiler water temperature (see page 11)</li> <li>Time program</li> <li>Room temperature control unit operating instructions</li> </ul>
Symbol " <u>A</u> " is displayed.	Notify your heating contractor of the fault code. Acknowledge the fault message with <b>OK</b> (see page 16).

### There is no hot water

Cause	Remedy
The heating system is off.	<ul> <li>Turn ON/OFF switch "<sup>(1)</sup>" on (see page 9).</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>
Control unit incorrectly adjusted.	<ul><li>Check settings and correct if required:</li><li>DHW heating must be enabled (see page 12).</li><li>DHW temperature (see page 12).</li></ul>

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There is no hot water (cont.)

Cause	Remedy
No fuel.	With 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.
Symbol " <b>ரு</b> " is displayed.	Press " <b>R</b> " (see page 9). Acknowledge the fault message with <b>OK</b> (see page 16). Notify your heating contractor of the fault code if the fault recurs.
Symbol " <u>A</u> " is displayed.	Notify your heating contractor of the fault code. Acknowledge the fault message with <b>OK</b> (see page 16).

### The DHW is too hot

Cause	Remedy
The control unit is incorrectly adjusted.	Check and correct the DHW temperature if required
	(see page 12).

# " $\underline{\mathbb{A}}$ " flashes on the display

Cause	Remedy
Heating system fault	Notify your heating contractor of the fault code.
	Acknowledge the fault message with <b>OK</b> (see page 16).

### "**ப்**" flashes on the display

Cause	Remedy
Heating system fault	Press " <b>R</b> " (see page 9).
	Acknowledge the fault message with <b>OK</b> (see page 16).
	Notify your heating contractor of the fault code if the
	fault recurs.

### ""/> flashes on the display

Cause	Remedy
The time for a service, as specified by your heating contractor, has arrived.	Notify your heating contractor and acknowledge the service message with <b>OK</b> (see page 16).

# "- - EP - -" flashes on the display

Cause	Remedy
The operating program set at the control unit was switched by an external device.	If required, you can switch operating programs.

### **Repair work**

### Cleaning

All equipment can be cleaned with a commercially available domestic cleaning agent (non-scouring).

### 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. You can clean the front of the programming unit with a microfibre cloth.

#### 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.

### Terminology

#### Constant temperature operation

In constant temperature operation, the heating water is constantly heated to the selected boiler water temperature.

### **Operating program**

The operating program determines whether you heat your rooms and DHW, or only heat DHW, or whether you shut down your heating system and enable frost protection monitoring.

You can select the following operating programs:

= <u>"</u>\_\_\_\_"

The rooms are heated and DHW is provided (winter mode).

= "<u>-</u>"

DHW is provided but there is no central heating (summer mode).

∎ "ტ"

Frost protection for the boiler and DHW cylinder is active, no central heating, no DHW heating (standby mode).

### Note

An operating program for central heating without DHW heating is not available. If rooms are to be heated, hot water is generally also required (winter mode). If you still only want central heating, select operating program "-\_\_\_\_" and set the DHW temperature to 10 °C (see page 12). This means that you will not heat DHW unnecessarily but the DHW cylinder is protected against frost.

### **Heating circuit**

A heating circuit is a sealed unvented circuit between the boiler and radiators, in which the heating water circulates.

#### Heating circuit pump

Circulation pump for the circulation of the heating water in the heating circuit.

#### Actual temperature

Current temperature at the time of the scan; e.g. actual DHW temperature.

#### **Boiler water temperature**

See "Constant temperature operation".

#### Open flue operation

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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.

#### 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.

#### Set temperature

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

#### Summer mode

Operating program "-". During the warmer months of the year, i.e. if the rooms

do not have to be heated, you can deactivate heating mode. The boiler remains operational for DHW heating.

### 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.

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### 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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