Operating instructions for the system user



Heating system with Vitotronic 200 control unit for weather-compensated mode

# VITODENS VITOPEND VITOLADENS





4/2007

Please keep safe.

#### 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 for the heating system user.



#### Danger

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

- Work on gas appliances must only be carried out by a qualified gas fitter.
- Work on electrical equipment must only be carried out by a qualified electrician.

# If you smell gas



#### Danger

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

- Never smoke. Prevent naked flames and sparks. Never switch electrical lights or equipment ON or OFF.
- Close the gas shut-off valve.
- Open windows and doors.
- Remove all 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.
- Vent the boiler room.
- Close all doors in the living space.

# For your safety (cont.)

#### In case of fire



#### Danger

Fire creates the risk of burning and explosions.

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

#### **Boiler room requirements**

#### Please note

- Incorrect ambient conditions can lead to damage to the heating system and put the safe operation at risk.
  - Ensure ambient temperatures 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 frequent drying of washing).
  - Never close existing ventilation apertures.

#### Ancillary components, spare and wearing parts

- Please note Components which are not
- tested with the heating system may lead to damage to the heating system, or may affect their various functions. Installation or replacement must only be carried out by qualified personnel.

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#### Introductory information

#### Commissioning

The commissioning and matching up of the control unit to local conditions and the structural characteristics of the building must be carried out by your heating contractor. During commissioning, or after prolonged time out of use, it may be necessary to set the time and date. 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 perform on your combustion equipment (e.g. regular checks, cleaning).

#### Your system is preset at the factory

The control unit is preset at the factory for standard operation. Your heating system is therefore ready for use:

- Between 6:00 and 22:00 h the system provides central heating with standard room temperature.
- DHW will be heated between 5:30 and 22:00 h. DHW will be heated to the set temperature subject to a DHW cylinder being installed. The DHW circulation pump is switched ON (if connected to the control unit).
- Between 22:00 and 06:00 h the system provides central heating with the reduced room temperature (set to 3 °C, frost protection).
- Between 22:00 and 05:30 h the DHW cylinder temperature will not be boosted. The DHW circulation pump is switched OFF (if connected to the control unit).
- The system automatically changes over between summer and winter time.

You may change the factory settings in accordance with personal requirements.

#### Note

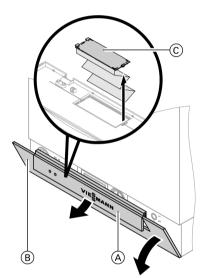
All data is saved in case of power failure.

# Summary of controls and indicators

You can change all settings for your heating system, centrally, at the programming unit. You may also make such adjustments for the respective heating circuit at the remote control unit, if your system is equipped with such a unit.

Remote control operating instructions

# Opening the control unit



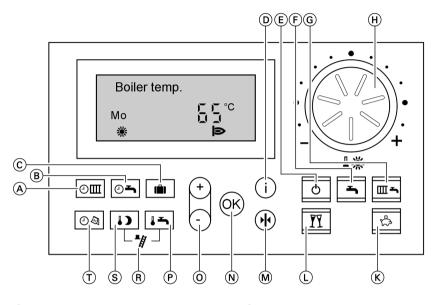
Lift cover (A) and pivot control unit flap (B) down. All boiler controls are located behind the control unit flap. On the inside of control unit flap (B), an abridged version of these operating instructions can be found behind a further flap (C). The abridged operating instructions can be removed with the flap.

- A Cover
- B Control unit flap (open to make adjustments)
- © Flap with abridged operating instructions

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# Summary of controls and indicators (cont.)

# Functions



- A Time program, heating circuit
- (B) Time program, DHW and circulation time program
- © Holiday program (page 21)
- D Help (page 33)
- (E) Standby mode (page 14)
- F DHW only (page 15)
- (G) Heating and DHW (page 13)
- (H) Standard room temperature (page 18)
- K Economy mode (page 23)

- L Party mode (page 23)
- M Standard setting
- N Confirmation
- O Setting values
- P DHW temperature (page 25)
- (R) Emissions test function (only for heating engineers)
- S Reduced room temperature (page 19)
- Time/date (page 31)

# Summary of controls and indicators (cont.)

# Further controls and indicators



A Pressure gauge

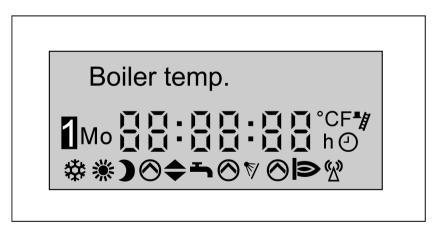
- B Fault indicator (red)
- © ON indicator (green)

D Reset button
 (E) ON/OFF switch

# Symbols in the display

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

Flashing displays indicate that modifications can be made.



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Risk of frost Central heating with standard room temperature

- Central heating with reduced room temperature
- Orculation pump running

 $\blacktriangleright$ 

# Summary of controls and indicators (cont.)

- Mixer "OPEN"
- Mixer "CLOSE"
- DHW heating enabled
- M DHW heating via solar heating system
- Burner "On"
- Radio clock reception (only with radio clock module, accessory)
- e For time setting and time scan
- Emissions test function
- In case of two heating circuits: Selected heating circuit

# Heating system with two heating circuits

When two heating circuits have been connected to your heating system, select that heating circuit to which the setting should apply before making adjustments at the control unit.

# Note

**"Select htg.circuit"** will be displayed should you begin making adjustments prior to selecting the relevant heating circuit.

Press the following keys:

- **1.**  $\oplus$  **"1IIII"** flashes on the display.
- 2. K for selecting heating circuit A1 (heating circuit without mixer) or
- 3. ⊕ for heating circuit M2 (heating circuit with mixer)
   "2Ⅲ" flashes on the display.

**4.** (M) for selecting heating circuit M2 (heating circuit with mixer).

# Note

After approx. 4 s or if you press again, the following will be displayed:



The figure in front of the day indicates which heating circuit has been selected.

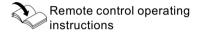
 $\blacktriangleright$ 

# Summary of controls and indicators (cont.)

5. Continue with the required adjustment (e.g. activate rotary selector "\$\#" or press the appropriate key for the relevant function).

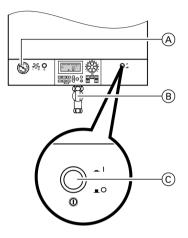
#### Note

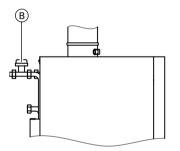
If **"Remote control"** flashes in the display, make the relevant adjustment at the remote control.



#### Start-up/shutdown

# Starting the heating system





Position of the gas shut-off valve at the Vitodens 333-F

- Check the heating system pressure at pressure gauge (A): The system pressure is too low if the indicator points to the area below 1.0 bar. In that case, top up with water or notify your local heating contractor.
- 2. For open flue operation: Check whether the ventilation apertures in the installation room are open and unobstructed.

#### Note

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

 3. For Vitodens and Vitopend: Open gas shut-off valve (B).
 For Vitoladens: Open the shut-off valves in the oil

supply lines (at the oil tank and filter).

- 4. Switch ON the power supply, e.g. at a separate MCB/fuse or a main isolator.
- 5. Switch system ON/OFF switch "<sup>(1)</sup> "<sup>(1)</sup> ON.

The green indicator (ON indicator) illuminates. The boiler water temperature is displayed after a short time. Your heating system and, if installed, your remote control unit are now ready for use.

# Shutting down the heating system

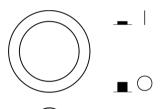
If, temporarily, you have no need for your heating system, e.g. during a summer holiday, switch all heating circuits to **"Standby mode"** (see page 14).

# Note

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

If you do not want to use your heating system, you can shut it down. We recommend you contact your local heating contractor before and after you shut down your heating system for longer periods.

Your contractor can then take any necessary actions, subject to requirements, e.g. for frost protection of the system or to preserve the heating surfaces.



- Switch the main ON/OFF switch
   "O" OFF; the green indicator (ON
   indicator) will extinguish.
- 2. Close the shut-off valves in the oil supply lines (at the oil tank and filter) or the gas shut-off valve.
- 3. Isolate the system from its main power supply, e.g. at a separate MCB/fuse or a main isolator. As the system is now voltage free, the heating system has **no** frost protection.

*Note* All control settings are retained.

# Starting a heating circuit and DHW heating

You want to heat your rooms and have DHW available.

Press m for "Htg.+ DHW".

# If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with +/
   , to which the adjustment should apply.
- Confirm twice with <sup>®</sup>.

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#### Start-up/shutdown

# Starting a heating circuit and DHW heating (cont.)

#### Press minimum for "Htg.+ DHW" again.

- Central heating will be provided with standard or reduced room temperature (frost protection) according to the set time program. Standard setting: from 06:00 to 22:00 h with the standard room temperature, otherwise with the reduced room temperature.
- DHW heating (if a DHW cylinder or instantaneous water heater is installed) and DHW circulation pump running (if connected to the control unit) according to the selected time program. Standard setting: from 05:30 to 22:00 h, DHW is heated to the selected set temperature and the DHW circulation pump is switched ON.
- Frost protection for the boiler and the DHW cylinder is enabled.

#### Note

Key **m** illuminates:

- Symbol "\* appears during central heating with standard room temperature.
- Symbol ")" appears during central heating with a reduced room temperature above 3 °C.

# Shutting down a heating circuit and stopping DHW heating

You do not want to heat your rooms or have DHW available.

Press 👌 for "Standby mode".

Shutting down a heating circuit and stopping DHW . . . (cont.)

If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with +/
   , to which the adjustment should apply.
- Confirm twice with <sup>®</sup>.
- Press o again for "Standby mode".

# Note

The circulation pump is briefly started every 24 hours to prevent it from seizing up.

# Standby mode:

- Central heating is disabled for the selected heating circuit.
- No DHW heating.
- Frost protection for the boiler and the DHW cylinder is enabled.

# Starting DHW heating only

You do not want to heat your rooms but have DHW available.

Press key in for "DHW only".

If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with +/
   , to which the adjustment should apply.
- Confirm twice with <sup>OK</sup>.

Press key 🛋 again for "DHW only".

- Central heating is disabled for the selected heating circuit.
- DHW heating (if a DHW cylinder or instantaneous water heater is installed) and DHW circulation pump (if connected to the control unit) ON according to the set time program. Standard setting: from 05:30 to 22:00 h, DHW is heated to the selected set temperature and the DHW circulation pump is switched ON.

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Start-up/shutdown

# Starting DHW heating only (cont.)

Frost protection for the boiler and the DHW cylinder is enabled.

# Note

If is illuminated and DHW heating is enabled in accordance with the selected time program, then symbol "in " will be displayed.

# **Stopping DHW heating**

You want to heat your rooms but not make DHW available.

Set the DHW temperature to 10 °C (see page 25).

#### Setting a permanent room temperature

Observe the following points if your heating circuit should provide central heating.

■ "Htg.+ DHW" ■ must be illuminated, otherwise press ■.

If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with (+)/
   , to which the central heating should apply.
- Confirm twice with  $\odot$ .
- If m does not illuminate, press
   m again.
- You can select the standard room temperature "↓ \*\*" (for day) and the reduced room temperature (for night) with ↓ \*\* (see page 18).
- The timing of when your heating circuit operates to provide central heating with standard or reduced room temperature depends on the settings of the time program (see page 19).
  - If no time phases are selected, central heating will be enabled for the whole day at reduced room temperature.
  - If one or more time phases are selected, central heating will be enabled for **those** times with standard room temperature.

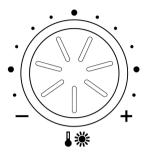
You can scan the time programs (see page 34).

For changing the time program, see page 19.

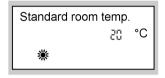
Adjusting the room temperature

# Setting a permanent room temperature (cont.)

# Selecting a standard room temperature



Select the required temperature for the "Normal room temp." with rotary selector "**!**#".



If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with +/
   , to which the adjustment should apply.
- Confirm twice with <sup>(K)</sup>.
- Set the required temperature for "Normal room temp." with rotary selector "\".".

#### Setting a permanent room temperature (cont.)

#### Selecting a reduced room temperature

Press the following keys:

1. (1) for "Red.room temp.", the current temperature will flash.

If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with (+)/(-), to which the adjustment should apply.
- Confirm twice with  $\odot$ .
- again for the "Red. room temp."; the current temperature selection will flash.

- **2.**  $(\oplus)/(\bigcirc)$  for the required temperature.
- 3. OK to confirm; the temperature no longer flashes and is saved.

Red. room temp.	
	°C
)	

**4.** OK to exit the setting menu.

#### Note

When setting the reduced room temperature to 3 °C, "Frost protection" will be displayed.

# Selecting a time program (switching times)

For central heating, up to four changes per day can be made between standard and reduced room temperature (four time phases). At the factory, time phase 1 is set for every day from 06.00 to 22:00 h, i.e. during that time, all rooms are heated to the standard room temperature. You can set the time programs **the same** for every day or for each day of the week **individually**. When setting time programs, bear in mind that your heating system requires some time to heat the rooms to the required temperature. For a sequence of steps to delete a time phase, see page 21. Steps for selecting a time program: Adjusting the room temperature

# Setting a permanent room temperature (cont.)

Press the following keys:

**1.** If or "Htg.time program".

If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with (+)/(-), to which the adjustment should apply.
- Confirm twice with <sup>(K)</sup>.
- Image again for "Heating time program".

#### Note

If you want to terminate the time programming **early**, press om again and confirm with **R**.

2. ⊕/ → until "1-7" is displayed, if you want to set up identical time phases for every day

Central heating time prog
1-7

or

3. ⊕/ (⊃) until "Mo", "Tu" etc. is displayed, if you want to set up different time phases for the day displayed.

Central heating time prog. Mo

#### Note

If different time phases are set for individual days and you want to return to identical time phases for every day, press () when "1-7" is displayed. **All** time phases are returned into their original condition.

4. (i) to confirm; "Htg. timer 1" will then be displayed.

#### Note

Press 🔍 if you want to skip a time phase.

- to confirm; "Htg.cycle 1 On" will then be displayed.
- **6.**  $(\oplus)/(\bigcirc)$  for the heating phase starting point.
- to confirm; "Htg.cycle 1 Off" will then be displayed.
- **8.**  $(\oplus)/(\bigcirc)$  for the heating phase end point.

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# Setting a permanent room temperature (cont.)

- 9. (i) to confirm; "Htg.cycle 2 On" will then be displayed.
- **10.** Proceed for adjusting the start and end of heating phases 2 to 4 as described under steps 6 to 8.

Press the following keys if you want to delete a time phase:

1. Improvement for "Htg.time program".

If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with (+)/(-), to which the adjustment should apply.
- Confirm twice with <sup>®</sup>.
- again for "Heating time program".

- 2. (K) until the required "Htg.cycle Off" is displayed.
- **3.** until "--:-" is displayed for the end time.

Heating phase 2 OFF
1-7 :

 (i) to confirm; until the boiler water temperature is displayed.

# Changing the room temperature for a few days only

The following energy saving options are available for times, when you are not at home:

■ You can completely shut down central heating by pressing () (standby mode).

or

You can set the central heating to minimum energy consumption (e.g. to prevent houseplants from suffering through cold). For this, select the "Holiday program" .

During the holiday program, all heating circuits are heated with the selected "Red.room temp." (see page 19), but there will be **no** DHW heating.

# Selecting the holiday program

The selected time program will be enabled at the departure and return days.

Adjusting the room temperature

# Changing the room temperature for a few days . . . (cont.)

#### Note

The control unit is set up so that the holiday program applies to **all** heating circuits. If you want to make changes, contact your local heating contractor.

Press the following keys:

1. m for "Holiday program".

#### Note

After 4 s **"Departure date"** will be displayed. Press **i** again if you want to ter-

minate setting a holiday program early.

or

- 2. (K) for "Departure date" (the current date is displayed).
- **3.** (+) for the date of the required departure day.

Departure date Sa ເວົ້ານີ້ວ່ານີ້ວ່

- 4. 📧 to confirm; "Return date" (a date following that of the departure day) will be displayed.
- 5. (+) for the date of the required return date.

Return date We 23-02-05

- 6. 🛞 to confirm
- The room temperature during the holiday program is the selected reduced room temperature (see page 19).
   If you want to change this tempera
  - ture: ■ Press 😱.

If **"Select htg.circuit"** is displayed and **"1 Ⅲ**" flashes:

- Select that heating circuit with ⊕/, to which the adjustment should apply.
- Confirm twice with 08.
- Press 🚺 again.
- Select the required value with (+)/(-).
- Press <sup>®</sup> to confirm; the temperature no longer flashes and is now saved.

#### Note

This change generally applies to the reduced room temperature and must be modified again, if required, after the holiday program ends.

Ending holiday program

- The holiday program terminates automatically on the day of return.
- Press again, if you want to terminate the holiday program early and confirm "Delete? Yes" with OK.

# Changing the room temperature for a few hours only

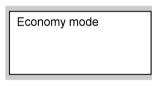
The following functions enable you to change your room temperature for several hours, without permanently altering your control settings.

- You want to leave your home and, according to the time program, central heating with standard room temperature is currently selected. To save energy, you can reduce the standard room temperature with "Energy saving mode" (see page 23).
- You want to heat spontaneously with the standard room temperature and provide DHW (e.g. when guests unexpectedly stay longer in the evening). For this, select "Party mode" [II] (see page 23).

# Selecting economy mode

In economy mode, the standard room temperature will be reduced automatically. Economy mode ends automatically with the next change to central heating with "Red.room temp.".

1. 🖧 press for "Energy saving mode"



If "Select htg.circuit" is displayed and "1 IIII" flashes:

- Select that heating circuit with (+)/(-), to which the adjustment should apply.
- Confirm twice with <sup>(0K)</sup>.
- 🖾 again for "Energy saving mode".

2. Ending economy mode If you want to terminate economy

mode early, press 🖾 again; the key illumination is extinguished.

If "Select htg.circuit" is displayed and "1 IIII" flashes:

- Select that heating circuit with (+)/(-), to which the adjustment should apply.
- Confirm twice with  $\infty$ .
- Press 🖾 again.

# Selecting party mode

- Central heating will be enabled at any temperature you select (party temperature).
- <sup>⊕</sup> The DHW will be boosted to the set temperature.
- The DHW circulation pump is switched ON (if installed).

Adjusting the room temperature

# Changing the room temperature for a few hours . . . (cont.)

Press the following keys:

1. 
for "Party mode"; the value of the party temperature flashes.

If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with (+)/(-), to which the adjustment should apply.
- Confirm twice with <sup>®</sup>.

Party mode	
	°C

- 3. K to confirm; the temperature no longer flashes and is saved.
- **4. •** K to exit the setting menu.
- 5. Ending party mode
  - Party mode ends automatically with the next changeover to central heating with standard room temperature, but no later than after 8 hours.
  - If you want to terminate party mode early, press n again; the key illumination extinguishes.

If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with ⊕/, to which the adjustment should apply.
- Confirm twice with 🔍.
- Press 🔳 again.

# Selecting constant DHW heating

Observe the following points if you want to enable DHW heating:

 Set "Htg.+ DHW" <sup>■</sup>→ or "DHW only" <sup>→</sup> for the selected heating circuit.

Check:

otherwise press or f.

If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with (+)/(-), to which the adjustment should apply.
- Confirm twice with <sup>®</sup>.
- <u>m</u> or <u>n</u> must be illuminated, otherwise press <u>m</u> or <u>n</u>.

#### Note

You can adjust the DHW temperature. See "Selecting the DHW temperature".

# DHW temperature setting

Press the following keys:

- 1. for "DHW temp.setpt."; the current temperature will flash.
- **2.** (+)/(-) for the required temperature.

 The timing of when DHW heating is enabled and when the DHW circulation pump runs depends on the settings of the time program (see page 26). You can scan the time programs (see page 34).

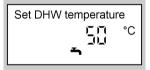
#### Note

This function is not available with the Vitodens 200-W and Vitopend 200-W with integral instantaneous water heater.

For changing the time program, see page 26.

**3.** (0K)

to confirm; the temperature no longer flashes and is saved.



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# Selecting constant DHW heating (cont.)

# Selecting a time program (switching times)

#### Note

The control unit is set up so that the setting for DHW heating applies to **all** heating circuits. If you want to make changes to the DHW heating settings for the heating circuits, contact your local heating contractor.

#### Heating system without DHW circulation pump

DHW heating can be enabled/disabled up to four times per day (four time phases).

Automatic mode is set in the time program at the factory. That means DHW heating is enabled in parallel to the central heating time program of the **first available** heating circuit, but starts 30 min earlier (from 5:30 to 22:00 h). Should you not wish to operate in automatic mode, you can also set up **individual time programs**. You can select **identical** time programs for every day or **individual** programs for each day.

When setting time programs, bear in mind that your heating system requires some time to heat the DHW cylinder to the required temperature. For time programming steps, see page 27.

For a sequence of steps to delete a time phase, see page 28.

#### Heating system with DHW circulation pump

The DHW circulation pump transports hot water through a circuit between the DHW cylinder and the draw-off points to deliver DHW to the taps as quickly as possible.

DHW heating and the DHW circulation pump can be enabled/disabled up to four times per day (four time phases). **Automatic mode** is set in the time program at the factory. That means DHW heating and the DHW circulation pump are activated in parallel to the central heating time program of the **first available** heating circuit, but they start 30 min earlier (from 5:30 to 22:00 h). Should you not wish to operate in automatic mode, you can also set up **individual time programs**. You can select **identical** time programs for every day or **individual** programs for each day.

When setting time programs, bear in mind that your heating system requires some time to heat the DHW cylinder to the required temperature. Also, enabling the DHW circulation pump is only sensible for those times when DHW is actually drawn.

For time programming steps, see page 27.

For a sequence of steps to delete a time phase, see page 28.

Selectin	ng constant DHW heating	(co	nt.)				
Selecting automatic mode (if required)							
Press the	following keys:	3.	(OK)	to confirm.			
1. 🖭	for "DHW time program".	4.	(+)/(-)	for <b>"Automatic?"</b> , if "Auto- matic?" is not yet dis-			
<b>2</b> . $\oplus/ \bigcirc$	to select "DHW time pro-			played.			
	gram", or "Recirc. pump time program".	5.	0K)	to confirm.			
Setting u	p an individual time program						
as an exa	The following explains the setting up of a time program using DHW heating as an example. For the DHW circulation pump time program, proceed as described above, after you have selected " <b>Recirc. pump time program</b> ".						
Press the	following keys:	6	. ⊕/⊝	until <b>"1-7"</b> is displayed, if			
1. 💁	for "DHW time program".			you want to set up the same time phases for every day			
Note							
•	want to terminate the time amming <b>early</b> , press © <del>~</del>			DHW time prog.			
	and confirm with ®.			1-7			
<b>2</b> . (+)/(-)	) to select "DHW time pro-						
	gram", or "Recirc. pump			or			

- **3. (K)** to confirm.
- **4.** ⊕/⊖ for **"Individual?"**, if "Individual?" is not yet displayed.

time program".

- **5. (K)** to confirm.
- 5592 545 GB

# Selecting constant DHW heating (cont.)

7. ⊕/ ⊖ until **"Mo"**, **"Tu"** etc. is displayed, if you want to set different time phases for the displayed day.

DHW time prog. Mo

#### Note

If different time phases are set for individual days and you want to return to identical time phases for every day, press (k) when **"1-7"** is displayed.

All time phases are returned to their delivered condition.

8. (i) to confirm; "DHW timer 1" will then be displayed.

#### Note

Press  $\oplus$  if you want to skip a time phase.

9. If to confirm; "DHW cycle 1 On" will then be displayed.

- **10.**  $(\textcircled{+})/\bigcirc$  for DHW phase starting point.
- 11. (K) to confirm; "DHW cycle 1 Off" will be displayed.
- **12.** (+)/(-) for DHW phase end point.
- 13. (\*) to confirm; "DHW cycle 2 On" will then be displayed.
- **14.** Proceed for setting the start and end of DHW phases 2 to 4 as described under steps 9 to 11.

Press the following keys if you want to delete a time phase:

- 1. On "DHW time program".
- 2. (K) until the required "DHW cycle Off" is displayed.
- **3.** () until "--:-" is displayed for the end time.

DHW phase 2 OFF 1-7 \_\_\_\_\_ **4.** (**i**) to confirm; until the boiler water temperature is displayed.

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# Selecting DHW heating for a few hours only

The following functions enable you to heat DHW for several hours, without permanently altering your control settings. For this, select "**Party mode**" [I]. During party mode, the DHW circulation pump is active and central heating operates with the party temperature. Set the party temperature to 4 °C, if you require no central heating (e.g. in summer) (see page 23).

Press the following keys:

1. In for "Party mode"; the value of the party temperature flashes.

If **"Select htg.circuit"** is displayed and **"1 IIII"** flashes:

- Select that heating circuit with +/-, to which the adjustment should apply.
- Confirm twice with  $\odot$ .

Party mode		°C
------------	--	----

- 3. K to confirm; the temperature no longer flashes and is saved.
- **4.** OK to exit the setting menu.
- 5. Ending party mode
  - Party mode ends automatically with the next changeover to central heating with standard room temperature, but no later than after 8 hours.
  - If you want to terminate party mode early, press gain; the key illumination extinguishes.

If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with ⊕/, to which the adjustment should apply.
- Confirm twice with 0%.
- Press 🔳 again.

# Selecting DHW heating only once

The following function enables you to heat DHW once, without permanently altering your settings. For this, select "**Party mode**" $\mathbb{R}$ .

- Precondition:
- <sup>v</sup> ∎ Not in "Standby mode" and not in the "Holiday program" m
- The DHW temperature must be below the set value (see page 25)

Selecting DHW heating

# Selecting DHW heating only once (cont.)

Press the following keys:

**1.** In for "**Party mode**"; the value of the party temperature flashes.

If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with (+)/(-), to which the adjustment should apply.
- Confirm twice with ⓒ
- <u>m</u> again for "**Party mode**"; the party temperature flashes.

Party mode	
	°C

- 2. 🛞 to confirm; DHW heating begins.
- 3. After approx. 10 s, press 🔳 again; the key illumination extinguishes.

#### Time and date

Date and time are factory-set and may be changed manually. During commissioning, or after prolonged time out of use, it may be necessary to set the time and date.

#### Note

Summer/winter time will be automatically changed over.

Press the following keys:

- 1. 💵 for "Time".
- **2.** (+)/(-) for the required time.



- **3.** (**i**) to confirm; **"Date"** will then be displayed.
- **4.**  $\oplus/\bigcirc$  for the required date.

Date	
Sa	

5. 🛞 to confirm.

# Language

Press the following keys:

1. (i) "Outdoor temp." will be displayed.

Outside	temperature	
i		°C

**2.**  $\bigcirc$  for the required language.

German	
i	
	_

**3. (K)** to confirm.

Further adjustments

# Adjusting the display contrast

Open the programming unit flap. Press N and simultaneously adjust the contrast with or  $\bigcirc$ .

# **Standard settings**

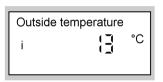
All modified values are reset to their factory settings by pressing  $\circledast$ .

# **Scanning information**

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

Press the following keys:

1. (i) for example, "Outdoor temp." may be displayed.



If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with ⊕/, to which the adjustment should apply.
- Confirm twice with <sup>®</sup>.
- Press (i) again.

Order in which temperatures and operating conditions may be scanned:

- Subscriber no. in connection with other control units
- Holiday program if one has been entered
  - Departure date
- Return date Outside temperature
- Boiler water temperature
- Flow temperature for heating circuit with mixer
- Normal room temp. set value
- Room temperature actual value only if a remote control unit is connected.

- **2.** (+)/(-) for further scanning of the list.
- **3.** (i) to end scanning.

- Ext. Set room temp. only if external hook-up has taken place.
- DHW temperature DHW temperature
- Solar DHW temp. DHW temperature in solar mode
- Collector temperature only if a solar heating system is connected.
- Common flow temp. common flow temperature for systems with low loss header
- Burner\*1 burner hours run
- Burner st. 1 burner stage 1 hours run (Vitoladens)
- Burner stage 2 Burner stage 2 hours run (Vitoladens)

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<sup>\*1</sup>To reset to "0": Press № and confirm with <sup>®</sup>.

ÞÞ

#### Scanning options

# Scanning information (cont.)

- Burner starts\*1
- Consumption \*1(Vitoladens)
- Solar energy display in kWh (only if a solar heating system is connected)
- Time
- Date
- Burner On/Off
- Burner st. 1 On/Off (Vitoladens)
- Burner st. 2 On/Off (Vitoladens)
- Int. pump On/Off
- Int. output On/Off for internal connection extension
- Heating pump On/Off for external heating circuit pump for heating circuit A1

- Cylinder pump On/Off
- C pump On/Off DHW circulation pump
- Central fault m. On/Off central fault message
- Mixer
   Mixer open fully open
   Mixer intermediate position
   Mixer closed fully closed
- Solar circuit pump On/Off
- Solar circuit pump ...h solar circuit pump hours run
- Language

# Scanning time programs

# Central heating time program

Press the following keys:

 I: Image: Organization of the set of the

If **"Select htg.circuit"** is displayed and **"1** IIII" flashes:

- Select that heating circuit with +/
   , to which the adjustment should apply.
- Confirm twice with <sup>®</sup>.
- Again, press and hold down <a>[©!!!]</a> + (i) simultaneously; a time slot graphic shows the selected time phases.

For changing the time program, see page 19.

Scanning time programs (cont.)

# DHW time program

Press the following keys:

 press and hold down simultaneously for DHW time program; the set time phases will then be displayed on a time slot graphic.

0 U I	3	5	9	5	ş	85154
1-7						
	_	_				

For changing the time program, see page 26.

# Scanning fault display

If your heating system has developed a fault, it will be displayed and indicated by the flashing red fault indicator (see page 9).

You can read off the fault code on the display by scanning; then notify your local heating contractor accordingly. This allows your heating contractor to better prepare for the service call and may save additional travelling costs. Fault display examples:

#### **Control unit fault**



# Fault on a burner component

Fault	
ъ	

Press the following keys:

1.  $\mathbf{t}$  in case of a fault on a burner component.

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ÞÞ

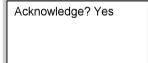
# Scanning fault display (cont.)

2. (i) for troubleshooting. Example:

Boiler sensor		
ነ	:	38

In this case, notify your local heating contractor of fault message "38".

**3.** OK to "Acknowledge".



- 4. ⊕/⊖ for "Yes" or "No ". With "Acknowledge ? Yes" you confirm that you have noted the fault.
- 5. 🛞 to confirm.

# Note

If the fault has not been rectified, the fault message will be redisplayed at 07:00 h the following day. The red fault indicator flashes until the fault has been rectified.

### Rooms are too cold

Cause	Remedy
The heating system is switched OFF ON indicator "①" (green) OFF	<ul> <li>Switch system ON/OFF switch "<sup>(1)</sup> ON (see page 9)</li> <li>Switch ON the main isolator, if installed (outside the boiler room)</li> <li>Reset circuit breaker inside the power distribution board (main domestic MCB).</li> </ul>
Control unit or remote control incor- rectly adjusted	Check settings and correct, if required: ■ Room temperature (see page 18) ■ Time (see page 31) ■ Time program (see page 19)
Only when operating with DHW heat- ing: DHW priority (ᡨ⊘ is displayed)	Wait until the DHW cylinder has been heated up or when no more DHW is drawn off when operating an instanta- neous water heater (⊘ is extinguished from the display)
In connection with the Vitotronic 200-H or extension kit for heating circuits with mixer: The ON/OFF switch on the mixer motor is switched OFF	Switch ON/OFF switch on the mixer motor ON, I = ON
No fuel	With oil/LPG: Check the fuel stock and re-order, if re- quired. With natural gas: Open the gas shut-off valve and check with your gas supplier, if required. Press burner fault reset " <b>1</b> r".
"Fault" and "	Press burner fault reset "北" – if that fails, notify your heating contractor.
Control unit fault: "Fault" is displayed and the red fault indicator flashes	Scan the type of fault (see page 35) and notify your local heating contractor

### Rooms are too cold (cont.)

Cause	Remedy
Mixer motor faulty	Unhook motor lever (A) and manually set mixer lever (B). Notify your local heating contractor.
	B

### Rooms are too hot

Cause	Remedy
Control unit or remote control incor- rectly adjusted	Check settings and correct, if required: Room temperature (see page 18) Time (see page 31) Time program (see page 19)
Control unit or outside temperature sensor faulty: "Fault" is displayed and the red fault indicator flashes	Scan the type of fault (see page 35) and notify your local heating contractor

### There is no hot water

Cause	Remedy
The heating system is switched OFF ON indicator "①" (green) OFF	<ul> <li>Switch system ON/OFF switch "①" ON (see page 9)</li> <li>Switch ON the main isolator, if installed (outside the boiler room)</li> <li>Reset circuit breaker inside the power distribution board (main domestic MCB).</li> </ul>
Control unit or remote control incor- rectly adjusted	<ul> <li>Check settings and correct, if required:</li> <li>DHW heating must be switched ON (see page 13 and 15)</li> <li>DHW temperature (see page 25)</li> <li>Time program (see page 26)</li> <li>Time (see page 31)</li> </ul>
No fuel	With oil/LPG: Check the fuel stock and re-order, if re- quired. With natural gas: Open the gas shut-off valve and check with your gas supplier, if required. Press burner fault reset " <b>①</b> ".
Control unit fault: <b>"Fault</b> " is displayed and the red fault indicator flashes	Scan the type of fault (see page 35) and notify your local heating contractor

# The DHW is too hot

Cause	Remedy
	Check and, if required, correct DHW temperature (see page 25)

## "Select htg.circuit" flashes in the display

Cause	Remedy
	Select that heating circuit, to which the adjustment should apply (see page 10)

### "Fault" flashes at the display

Cause	Remedy
	Scan the type of fault (see page 35) and notify your local heating contractor

## The time flashes at the display

Cause	Remedy
Longer heating system off periods	Reset the time and date (see page 31).

# "Service" is displayed

Cause	Remedy
The heating system requires a service	Ask your local heating contractor to service the boiler

### "Remote control" is displayed

Cause	Remedy
A remote control is connected to the heating circuit	Make adjustments or carry out scans at the remote control (see separate op- erating instructions).

## "Ext. control" is displayed

Cause	Remedy
The heating program set at the control	No action required. The heating pro-
unit was changed over by an external	gram changeover was manually se-
device (e.g. connection extension).	lected.

## "Ext. program" is displayed

Cause	Remedy
The heating program set at the control	No action required. The heating pro-
unit was changed over by the Vitocom	gram changeover was manually se-
100 communication interface.	lected.

# "Ext.room t.setpt." is displayed

Cause	Remedy
A set room temperature has been hooked up via the communication in- terface.	No action required. The hook-up was manually selected.

# "Without function" is displayed

Cause	Remedy
No function is allocated to the key you have pressed.	_

#### Vitoladens - ordering fuel oil

#### **Fuel oil quality**

The Vitoladens 300-W and Vitoladens 333-F are approved for operation with low sulphur fuel oil to DIN 51603-EL-1 (max. sulphur content 50 ppm).

Fuel oil additives

Fuel oil additives are materials that can be used providing they offer the following characteristics:

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

#### **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.

# Biofuels

Bio fuels are made from vegetable oil, e.g. sunflower or rape seed oil.

If in doubt refer to your local heating contractor.

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

#### 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.

#### 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.

#### Please note

Bio fuels can lead to damage on Viessmann oil burners. Their use is not permissible.

#### Maintenance

#### Cleaning

All devices may 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 Order [EnEV - Germany] and the DIN 4755, DIN 1988-8 and EN 806 standards.

Regular maintenance ensures a trouble-free, energy-efficient and environmentally responsible heating operation. 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)

The DIN 1988-8 and EN 806 specify that maintenance and cleaning should be carried out no later than two years after commissioning and thereafter as required.

Only a qualified heating contractor should clean the inside of a DHW cylinder and the DHW connections. Refill any water treatment equipment (e.g. a lock or injection system) in good time, if such equipment is installed in the cold water supply of the DHW cylinder. Observe the manufacturer's instructions. Additionally for a Vitocell 100: We recommend that the correct function of the sacrificial anode is checked annually by your heating contractor. The anode function can be checked without interrupting the system operation. The heating contractor will check the earth current with an anode tester.

#### Maintenance

#### Inspection and maintenance (cont.)

### 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. The valve seat may become contaminated (see the valve manufacturer's instructions).

### Potable water filter (if installed)

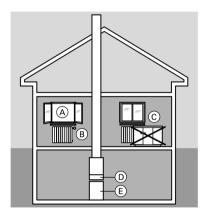
To maintain high hygienic standards, proceed as follows:

- 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.

Energy saving tips

### **Energy saving tips**

With the following steps, you can save additional energy:



- Correct ventilation/airing.
   Briefly open windows A fully and at the same time close the thermostatic valves (B).
- Never overheat rooms; endeavour to achieve a room temperature of 20 °C; every degree of room temperature reduction saves up to 6% of your heating bills.
- Close roller shutters (where installed) at dusk.
- Set thermostatic valves (B) correctly.
- Never cover radiators C or thermostatic valves B.
- Make full use of the setting options offered by control unit D, e.g.
   "Normal room temp." alternating with "Red.room temp.".
- Set the DHW temperature of DHW cylinder (E) at control unit (D).
- Only activate the DHW circulation pump (via switching times at the control unit), when DHW is actually drawn.
- Controlled DHW consumption: A shower generally uses less energy than a full bath.

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# Keyword index

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## Certification



### 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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