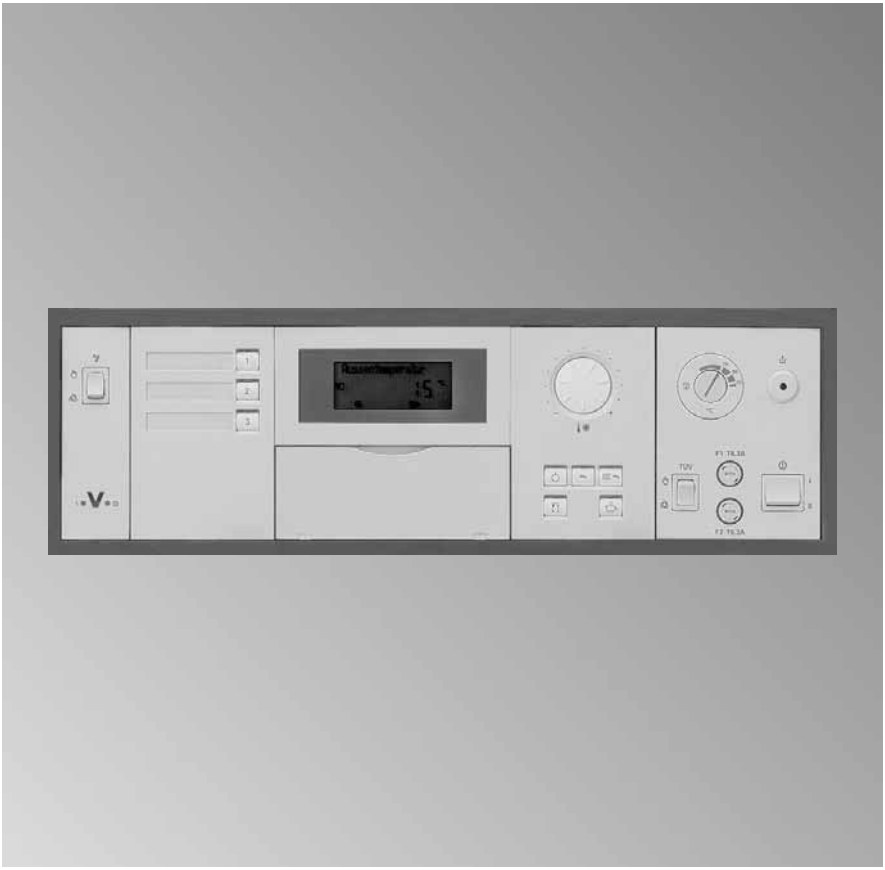
Operating instructions

for system users

Heating system with
weather-compensated, digital boiler and heating circuit control unit

VITOTRONIC 300



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Please keep safe

For your safety

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

Safety instructions explained

Danger
This symbol warns against the risk of injury.

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

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

Target group

These operating instructions are designed for heating system users.

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

If you notice a smell of gas

Danger
Escaping gas can lead to explosions which may lead to serious injury.
- Do not smoke! Prevent naked flames and sparks. Never switch electrical lights or equipment.
- Open windows and doors.
- Close the gas shut-off valve.
- Remove all people from the danger zone.
- Observe the safety regulations of your local gas supplier found on the gas meter.
- Notify your heating contractor from outside the building.

If you smell flue gas

Danger
Flue gas can lead to life-threatening poisoning.
- Shut down your heating system.
- Ventilate the boiler room.
- Close all doors leading to the living space.

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For your safety (cont.)

In case of fire

Danger
With fire there is a risk of burning and explosion.
- Shut down your heating system.
- Close the shut-off valves of the main 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 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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Initial start-up

The initial start-up and matching of the control unit to local conditions and the structural characteristics of the building must be carried out by your heating contractor.

As the user of new combustion equipment, you are obliged to notify the installation to your local flue gas inspector (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 heating system is preset at the factory

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

- Between **06:00 and 22:00 h**, central heating operates with standard room temperature.
- Between **05:30 and 22.00 h**, DHW is heated (if a DHW cylinder is installed, DHW will be reheated to the set temperature), and the DHW circulation pump is ON (if connected to the control unit).
- Between **22:00 and 06:00 h**, central heating operates with reduced room temperature (set to 3 °C, frost protection).
- Between **22:00 and 05:30 h**, DHW cylinder will not be reheated.
- Weekday and time (CET), summer/winter time changeover is automatic.

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

Note
All data is saved in case of power failure.

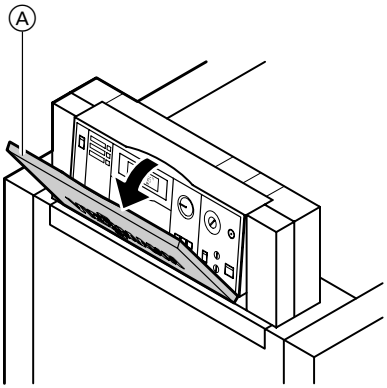
Summary of controls and indicators

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

You may also make such changes on the remote control units, if your system is equipped with such units.

Separate operating instructions

Opening the control unit

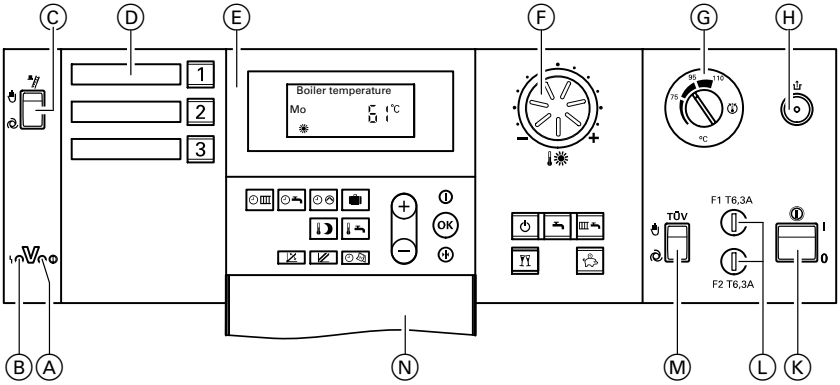


The programming unit is located behind the hinged cover.
To open, pull the hinged cover from top edge down to the front.

Ⓐ Hinged cover

Summary of controls and indicators (cont.)

Functions



Ⓐ ON/OFF indicator (green) (page 11 and 12)
Ⓑ Fault indicator (red) (page 39)
Ⓒ Emissions test switch (only for service)
Ⓓ Heating circuit selection keys (page 10)
Ⓔ Control panel
- Central heating time program (page 18)
- DHW heating time program (page 26)
- Circulation pump time program (page 27)
- Holiday program (page 20)
- DHW temperature (page 25)
- Reduced room temperature (page 17)
- Heating curve slope (page 33)
- Heating curve level (page 33)
- Time/date (page 32)
- Standby mode
- DHW only
- Heating and DHW
- Economy mode (page 22)
- Party mode (page 23)
- ⊕/⊖ Adjusting values
- OK Confirmation
- ⓘ Information (page 32 and 37)
- Standard setting (page 36)

Ⓕ Rotary selector "🌡☀" for "Standard room temperature" (page 17))
Ⓖ Control thermostat
Ⓗ Excess temperature reset
Ⓚ ON/OFF switch (page 11 and 12)
Ⓛ Fuses
Ⓜ Test switch (only for service)
Ⓝ Open flap

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Summary of controls and indicators (cont.)

Symbols in the display

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

- if frost is possible
- for central heating with standard room temperature
- for central heating with reduced room temperature
- ,
- ,
- Heating circuit pump running
- Mixer "open"
- Mixer "close"
- DHW heating enabled
- Cylinder primary pump running, DHW is being heated
- DHW heating via solar heating system
- Burner "ON"
- Time adjustment and display
- Emissions test function "ON"
- Radio clock reception (only with radio clock module, accessory)

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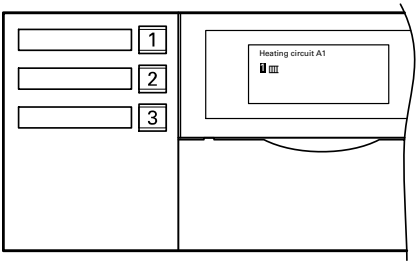
Summary of controls and indicators (cont.)

Heating circuit selection – before any adjustment and scanning

Your building may be heated by several interdependent heating circuits (e.g. underfloor heating circuits or radiator circuits).
These are selected at the control unit using keys 1, 2 or 3. Your heating contractor will label the keys individually.

Heating system with only one heating circuit
Key 1 or 2 and one of the keys , or are illuminated, and you can begin your adjustments.

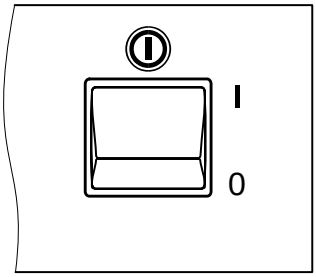
Heating system with two or three heating circuits
Choose the required heating circuit before **every** adjustment and scanning.



Press 1 or 2 or 3.
The following keys will be illuminated:
- Key 1, 2 or 3
- Key , or
- Key or (if active)

Note
If you make no adjustments, the key illumination will extinguish after a short time.

Heating system start-up



1. Check the pressure of your heating system on the pressure gauge. The system pressure is too low if the indicator points to the area below the red field. In that case, top up with water or notify your local heating contractor.

2. Open the shut-off valves in the oil supply lines (at the oil tank and filter) or open the gas shut-off valve.

3. Switch ON the mains power supply, e.g. at a separate fuse or a mains electrical isolator.

4. Switch mains ON/OFF switch "⏻" ON (see page 8). Standby mode is signalled by the green lamp (ON indicator); a short while later the boiler temperature will be displayed.
   Your heating system and, if installed, your remote control unit are now ready to operate.

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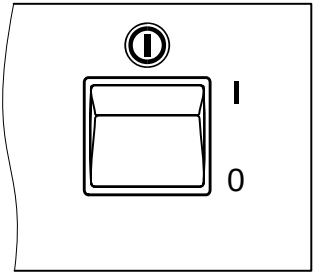
Heating system shutdown

If you want to shut down your heating system temporarily, e.g. during a summer holiday, set the heating circuit to **"Standby mode"** ⏻ (see page 14).

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

Switch your heating system OFF if you do not intend using it.
Before and after you shut down your heating system for longer periods, it would be advisable to contact your local heating contractor.
Where necessary, your contractor can take certain steps, e.g. protecting the system against frost.



1. Switch ON/OFF switch "⏻" OFF (see page 8).
   The green lamp (ON indicator) extinguishes.

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

3. Switch the mains power supply OFF, e.g. at a separate fuse or a mains electrical isolator.
   As the system is now voltage free, the heating system has **no** frost protection.

   Note
   All control settings remain intact.

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Starting DHW and heating circuit

You want to heat your rooms and have DHW available.

Press the following keys:

1. 1, 2 or 3, the selected key will be illuminated.

2. for"**Heating and DHW**".
- Central heating will be implemented with standard or reduced room temperature (frost protection) according to the set time program.
  Standard setting:
  from 06:00 to 22:00 h standard room temperature, otherwise reduced room temperature.
- DHW heating (if a DHW cylinder is installed) is active, and the DHW circulation pump (if installed) is ON according to the set time program.
  Standard setting:
  from 05:30 to 22:00 h, DHW is reheated to the selected set temperature, and the DHW circulation pump is switched ON. Observe the information on page 26.
- Frost protection for the boiler and the DHW cylinder is active.

Please note
If key is illuminated, the following appears:
- *Symbol "☼" is displayed when central heating with standard room temperature is active (see page 9).*
- *Symbol "☽" is displayed when central heating with reduced room temperature above 3 °C is active (see page 9).*

Switching OFF DHW and heating circuit

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

Press the following keys:

1. [1], [2] or [3], the selected key will be illuminated.

2. [⏻] for "**Standby mode**".
   - Central heating is inactive for that heating circuit.
   - No DHW heating.
   - Frost protection for the boiler and the DHW cylinder is active.

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

Starting DHW only

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

Press the following keys:

1. [1], [2] or [3], the selected key will be illuminated.

2. [🛁] for "**DHW only**".
   - Central heating is inactive for that heating circuit.
   - DHW heating (if a DHW cylinder is installed) is active, and the DHW circulation pump (if installed) is ON according to the set time program.

     Standard setting:
     from 05:30 to 22:00 h, DHW is reheated to the selected set temperature, and the DHW circulation pump is switched ON.
   - Frost protection for the boiler and the DHW cylinder is active.

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

Switching OFF DHW only

You want to heat your rooms but **not** have DHW available.
Please observe the information on page 26.

Press the following keys:

1. 1, 2 or 3, the selected key will be illuminated.

2. for"**Heating and DHW**".

3. Delete time phases for DHW heating (see page 29).
or
Set the DHW set temperature to 10 °C (see page 25).

- Central heating will be implemented with standard or reduced room temperature (frost protection) according to the set time program.
  Standard setting:
  from 06:00 to 22:00 h standard room temperature, otherwise reduced room temperature.
- No DHW heating.
- Frost protection for the boiler and DHW cylinder is active.

Note
The cylinder primary pump is briefly started every 24 hours to prevent it from seizing up.

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Setting a permanent room temperature

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

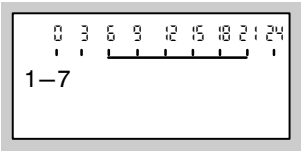
1. "Heating and DHW" must be selected for respective heating circuit 1, 2 or 3.

Check:
Press 1, 2 or 3; must be illuminated, otherwise press .

2. For the respective heating circuit 1, 2 or 3, select the "Standard room temperature" (for day) with rotary selector "" and "Reduced room temperature" (for night) with key (see page 17).

3. The timing of when your heating circuit operates with standard or reduced room temperature depends on the settings of the time program (four possible time phases) for the respective day.
- If no time phases are selected, central heating will be active for the whole day at reduced room temperature.
- If one or more time phases are selected, central heating will be active for **those** times with standard room temperature.

Check:
- Press 1, 2 or 3.
- Press and hold down / simultaneously, a time slot graphic shows the set time phases.



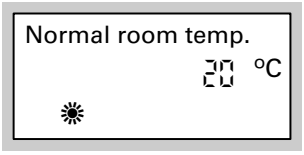
For changing the time program, see page 18.

Setting a permanent room temperature (cont.)

Setting a standard room temperature

1. Press [1], [2] or [3], the selected key will be illuminated.

2. Set the required temperature for the **"Standard room temperature"** with rotary selector "🌡☀".



Setting a reduced room temperature

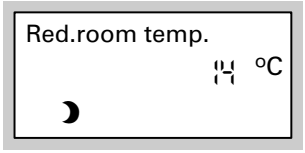
Press the following keys:

1. [1], [2] or [3], the selected key will be illuminated.

2. [☽] for **"Reduced room temperature"**; the current set temperature will flash.

3. ⊕/⊖ for the required temperature.

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



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Setting a permanent room temperature (cont.)

Setting a time program (switching times)

For central heating, up to four changes between standard and reduced room temperature can be programmed (four time phases).
At the factory, time phase 1 is set for all weekdays from 06:00 to 22:00 h, i.e. during that time, all rooms are heated to the standard room temperature.

You can select **identical** time programs for all weekdays or **individual** programs for each weekday.

When setting time programs, please note that your heating system requires some time to heat the rooms to the required temperature.

For time program setting steps, see page 19.
For a sequence of steps to delete a time phase, see page 20.

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Setting a permanent room temperature (cont.)

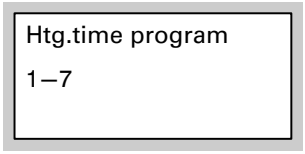
Press the following keys:

1. [1], [2] or [3], the selected key will be illuminated.

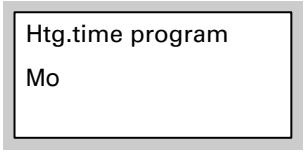
2. [⏲] for **"Heating time program"**.

Note
*If you want to terminate the time program **prematurely**, press [⏲] again and confirm with (OK).*

3. ⊕/⊖ until **"1–7"** is displayed, if you want to set up the same time phases for all days



or **"Mo"**, **"Tu"** etc., is displayed if you want to set different time phases for the displayed weekday.



Note
*If different time phases are set for the individual days of the week, and you want to set up identical time phases for all weekdays again, press (OK) when the display shows **"1–7"**. **All** time phases are returned to their original condition.*

4. (OK) to confirm: **"Htg.timer 1"** is displayed.

Note
Press ⊕ if you want to skip a time phase.

5. (OK) to confirm; **"Htg.cycle 1 On"** is displayed.

6. ⊕/⊖ for the start of the heating phase.

7. (OK) to confirm; **"Htg.cycle 1 Off"** is displayed.

8. ⊕/⊖ for the end of the heating phase.

9. (OK) to confirm; **"Htg.cycle 2 On"** is displayed.

10. Proceed for setting up the start and end of heating phases 2 to 4 as described under points 6 to 9.

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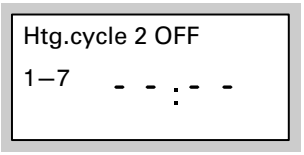
Setting a permanent room temperature (cont.)

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

1. [1], [2] or [3], the selected key will be illuminated.
2. [⏲] for **"Heating time program"**.
3. ⓞ until the required **"Htg.cycle OFF"** is displayed.
4. ⊖ until **"– – : – –"** is displayed for the end time.



5. ⓞ to confirm, until the boiler temperature is displayed.

Changing the room temperature for a few days only

For when you are away, the following energy saving options are available:

- You can switch OFF central heating completely (see "Switching OFF heating circuit" on page 14)
  or
- You can set central heating to minimum energy consumption (e.g. to prevent your houseplants from freezing).
  For this, select "Holiday program" [🧳].
  – When "Heating and DHW" [🔥🚿] is selected, all heating circuits are heated during the holiday program with the set reduced room temperature (see page 17), but there will be **no** DHW heating.
  – With the selection "DHW only" [🚿] during the holiday program, all heating circuits operate **only** to provide frost protection for the boilers and the DHW cylinder.

Setting a holiday program

The holiday program starts at 00:00 h following your day of departure and ends at 00:00 h on the return day, i.e. the permanently set time program is active on the day of departure and on the return day.

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

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

Press the following keys:

1. [📷] for **"Holiday program"**.

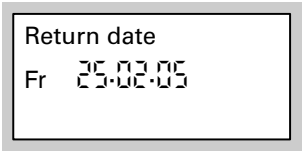
Note
Press [📷] again if you want to ***prematurely exit*** *the setting of the holiday program.*

2. (OK) for **"Departure date"** (the current date is displayed).

3. (+) for the date of the required departure day.

4. (OK) to confirm; **"Return date"** (a date after the departure day) is displayed.

5. (+) for the date of the required departure day.



6. (OK) to confirm.

7. The room temperature during the holiday program is the selected reduced room temperature (see page 17).
Should you want to change this temperature:
- Press [↓].
- Set the required value with (+) or (−).
- Press (OK) to confirm; the temperature no longer flashes and is now saved.

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

Ending a holiday program
- The holiday program ends automatically with the return date.
- Press [📷] again, if you want to prematurely terminate the holiday program, and confirm "Delete? Yes" with (OK).

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Changing the room temperature for a few hours only

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

- To save energy, you can reduce the standard room temperature with "Economy mode" [⌂] (see below).
- You want to heat spontaneously at standard room temperature and provide DHW. For this, select "Party mode" [🍴] (see page 23).

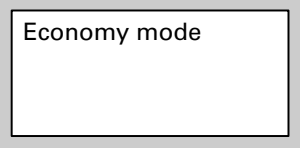
Setting economy mode

In economy mode, the standard room temperature will be reduced automatically.

Press the following keys:

1. [1], [2] or [3], the selected key will be illuminated.

2. [⌂] for **"Economy mode"**.



Ending economy mode

- Economy mode ends automatically with the next change to central heating with reduced room temperature.
- If you want to prematurely terminate economy mode, press keys [1], [2] or [3] and [⌂] again; the key illumination extinguishes.

Changing room temperature for a few hours only (cont.)

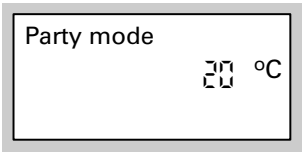
Setting party mode

- Central heating will be activated at any temperature you select (party temperature)
- DHW will be reheated to the set temperature
- The DHW circulation pump is switched ON

Press the following keys:

1. [1], [2] or [3], the selected key will be illuminated.

2. [♖] for **"Party mode"**; the party temperature flashes.



3. ⊕/⊖ for the required temperature, if you want to change the room temperature.

4. [OK] to confirm; the temperature no longer flashes and is now saved.

Ending party mode

- Party mode ends automatically with the next change to central heating with standard room temperature, after 8 hours at the latest.
- If you want to prematurely terminate party mode, press keys [1], [2] or [3] and [♖] again; the key illumination extinguishes.

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Setting up constant DHW

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

Observe the following points if you want to activate DHW heating.

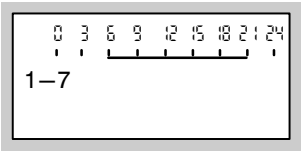
1. "Heating and DHW" or "DHW only" must be selected for respective heating circuit 1, 2 or 3.

Check:
Press 1, 2 or 3; or must be illuminated; otherwise press or .

Note
You can select the DHW temperature (see page 25).

2. The timing of when DHW heating with the selected temperature is enabled for your heating circuit, and when the DHW circulation pump (if installed) runs, depends on the settings of both time programs or (each with four time phases) for the respective day.

Check:
- Press 1, 2 or 3,
- Press and hold down /ⓘ or /ⓘ simultaneously; a time slot graphic shows the set time phases.



For changing the time program, see page 26.

Setting up constant DHW (cont.)

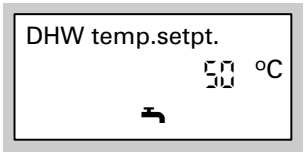
Setting the DHW temperature

Press the following keys:

1. [🚿] for **"Set DHW temperature"**; the current set temperature will flash.

2. ⊕/⊖ for the required temperature.

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



Setting up constant DHW (cont.)

Setting a time program (switching times)

Heating system without DHW circulation pump

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

DHW heating can be activated/deactivated up to four times per day (four time phases).
At the factory, **automatic mode** is set up in the time program, i.e. DHW heating is activated parallel to the central heating time program for **the first available** heating circuit.
However, it begins 30 minutes earlier (from 05:30 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 weekday or **individual** ones for each weekday.
When setting time programs, please note that your heating system requires some time to heat the DHW cylinder to the required temperature.

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Setting up constant DHW (cont.)

Heating system with DHW circulation pump

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

The DHW circulation pump pumps hot water through a circuit between the DHW cylinder and the taps to deliver DHW to the taps as quickly as possible.

DHW heating and the DHW circulation pump can be activated/deactivated up to four times per day (four time phases).
At the factory, **automatic mode** is set up in the time program, i.e. DHW heating is activated parallel to the central heating time program for **the first available** heating circuit.
However, it begins 30 minutes earlier (from 05:30 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 weekday or **individual** ones for each weekday.
When setting time programs, please note that your heating system requires some time to heat the DHW cylinder to the required temperature. Also, activating the DHW circulation pump is only sensible for those times when DHW is actually drawn.

The following explains the setting up of a time program using DHW heating as an example. Set up a time program for DHW circulation pump in the same way.

For time program setting steps, see page 28.
For a sequence of steps to delete a time phase, see page 29.

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Setting up constant DHW (cont.)

Selecting automatic mode (if required)

Press the following keys:

1. 1, 2 or 3, the selected key will be illuminated.

2. ⏲ for **"DHW time program"**.

3. ⊕/⊖ for **"Automatic?"**, if "Automatic?" is not yet displayed.

4. OK to confirm.

Setting up an individual time program

Press the following keys:

1. 1, 2 or 3, the selected key will be illuminated.

2. ⏲ for **"DHW time program"**.

Note
*If you want to terminate the time program **prematurely**, press ⏲ again and confirm with OK.*

3. ⊕/⊖ for **"Individual?"**, if "Individual?" is not yet displayed.

4. OK to confirm.

5. ⊕/⊖ until **"1–7"** is displayed, if you want to set up the same time phases for all days

DHW time program
1—7

or
"Mo", **"Tu"** etc., is displayed if you want to set different time phases for the displayed weekday.

DHW time program
Mo

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Setting up constant DHW (cont.)

Note
If different time phases are set for the individual days of the week, and you want to set up identical time phases for all weekdays again, press ⓞⓚ when the display shows ***"1–7"****.* ***All*** *time phases are returned to their original condition.*

6. ⓞⓚ to confirm; **"DHW time phase 1"** is displayed.

Note
Press ⊕ if you want to skip a time phase.

7. ⓞⓚ to confirm; **"DHW phase 1 On"** is displayed.

8. ⊕/⊖ for the starting point of the DHW heating phase.

9. ⓞⓚ to confirm; **"DHW phase 1 Off"** is displayed.

10. ⊕/⊖ for the end of the DHW phase.

11. ⓞⓚ to confirm; **"DHW phase 2 On"** is displayed.

12. Proceed for setting the start and end of DHW heating phases 2 to 4 as described under points 8 to 11.

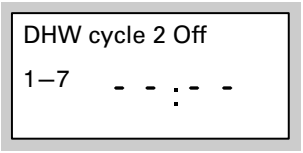
Press the following keys if you want to delete a time phase:

1. [1], [2] or [3], the selected key will be illuminated.

2. [⊙] for **"DHW time program"**.

3. ⓞⓚ until the required **"DHW phase OFF"** is displayed.

4. ⊖ until **"– – : – –"** is displayed for the end time.



5. ⓞⓚ to confirm, until the boiler temperature is displayed.

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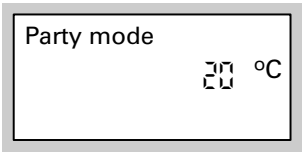
Setting up DHW for a few hours only

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

Press the following keys:

1. [1], [2] or [3], the selected key will be illuminated.

2. [Y] for **"Party mode";** the party temperature flashes.



3. ⊕/⊖ for the required temperature, if you want to change the room temperature.

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

Ending party mode

- Party mode ends automatically with the next change to central heating with standard room temperature, after 8 hours at the latest.
- If you want to prematurely terminate party mode, press keys [1], [2] or [3] and [Y] again; the key illumination extinguishes.

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Setting up DHW once only

The following functions enable you to heat DHW once, without permanently altering your control settings. For this, select "Party mode" [🍴].
Preconditions:
- Not in "Standby mode" [⏻], and not in "Holiday program" [💼]
- The DHW temperature must be below the set value (see page 25)

Press the following keys:

1. [1], [2] or [3], the selected key will be illuminated.
2. [🍴] for **"Party mode"**.
3. [OK] to confirm; DHW heating begins.
4. After approx. 10 s, press [🍴] again; the key illumination extinguishes.

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Setting date and time

Date and time are factory-set and may be changed manually.

Press the following keys:

1. [⏱] for "**Time**".

2. ⊕/⊖ for the required time.

3. (OK) to confirm.
"Date" is displayed.

4. ⊕/⊖ for the required date.

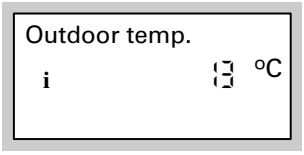
5. (OK) to confirm.

Language selection

Press the following keys:

1. [1], [2] or [3], the selected key will be illuminated.

2. (i) for **"Outside temp."**.



3. ⊖ for the required language.

4. (OK) to confirm.

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Modifying the boiler heating characteristics

You can alter the heating characteristics if the room temperature does not meet your requirements for some time.
You alter the heating characteristics by changing the slope and level of the heating curve. For more information regarding the heating curve, see page 35.

Please observe the modified heating characteristics over several days (if possible await a major change in the weather), before making further adjustments.
Make short-term adjustments of the room temperature using rotary selector "🌡☀" or key [🌡] (see page 17).

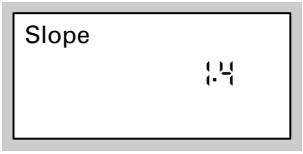
Changing slope and level

For assistance, use the table on page 34.

Press the following keys:

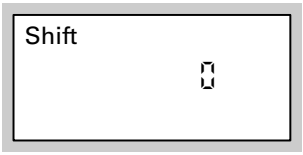
1. [1], [2] or [3], the selected key will be illuminated.

2. [📐] for **"Slope"**



or

[📐] for **"Shift"**.

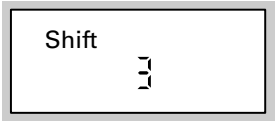
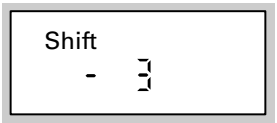


3. ⊕/⊖ for the required value.

4. (OK) to confirm.

Note
Setting the slope or level of the heating curve too high or too low will not result in damage to your heating system.

Changing the boiler heating characteristics (cont.)

Heating characteristics	Remedy	Example
The living space is **too cold** during the **heating season**	Adjust heating curve **slope** to **next higher** value (e.g. 1.5)	
The living space is **too hot** during the **heating season**	Adjust heating curve **slope** to **next lower** value (e.g. 1.3)	
The living space is **too cold** during **transitional periods (spring/autumn)** and during the **heating season**	Adjust the heating curve **level** to a **higher** value (e.g. +3 K)	
The living space is **too hot** during the **transitional periods (spring/autumn)** and during the **heating season**	Adjust the heating curve **level** to a **lower** value (e.g. –3 K)	
The living space is **too cold** during the **transitional periods (spring/autumn)**, but warm enough during the heating season	Adjust the heating curve **slope** to the **next lower** value, and the **level** to a **higher** value (e.g. +3 K)	 
The living space is **too hot** during the **transitional periods (spring/autumn)**, but warm enough during the heating season	Adjust the heating curve **slope** to the **next higher** value, and the **level** to a **lower** value (e.g. –3 K)	 

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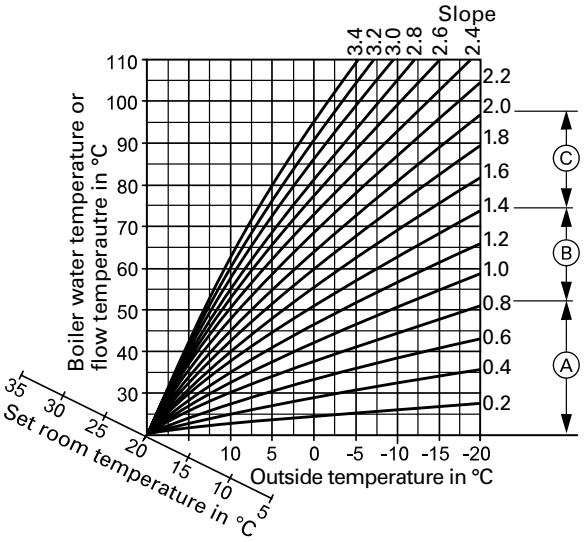
Changing the boiler heating characteristics (cont.)

For technically-minded system users

Heating curves illustrate the relationship between the outside temperature and the boiler water or the flow temperature. To put it simply: The lower the outside temperature, the higher the boiler water or flow temperature.
The illustrated heating curves apply subject to the following settings:

- Heating curve level = 0
  Different level settings shift the curves parallel in a vertical direction.
- Standard room temperature = approx. 20 °C.

In the factory, the following settings are made: slope = 1.4, level = 0.



Ⓐ Underfloor heating
Ⓑ Low temperature heating system
Ⓒ Heating system with a boiler water temperature in excess of 75 °C

Examples

- *Well insulated house in a sheltered position (with radiator heating system): Slope = 1.2*
- *Home in exposed position or with an older heating system (with radiator heating system): Slope = 1.6*

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Adjusting the display contrast

Press key OK and simultaneously set the contrast with keys ⊕ or ⊖.

Reinstating standard settings

It is possible to simultaneously reset all changed values for the heating circuit to the factory settings.

For this, press ⊛.

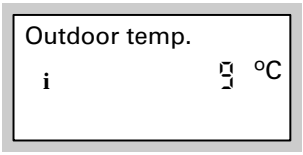
Temperature scanning

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

Press the following keys:

1. 1, 2 or 3, the selected key will be illuminated.

2. ⓘ for **"Outdoor temp."**.



3. ⊕/⊖ for further scanning of the list.

4. ⓘ to end scanning.

Order in which temperatures and operating conditions may be scanned:

- User no., in connection with heating circuit control unit Vitotronic 050
- Holiday program with departure and return date, if programmed
- Outside temperature
- Boiler water temperature
- Flue gas temperature, if a sensor is installed
- Sensor 17A, if a sensor is installed
- Sensor 17B if a sensor is installed
- DHW temperature – domestic hot water temperature
- DHW temperature 1 or 2 – DHW temperature, if 2 cylinder temperature sensors are available
- Flow temperature for heating circuit with mixer
- Standard room temp. (set value)
- Room temperature (actual value), if a Vitotrol remote control is installed
- Solar DHW temp. – DHW temperature in conjunction with a solar heating system
- Collector temp. in conjunction with a solar heating system
- Burner – burner hours run
- Burner stage 1 – hours run, burner stage 1
- Burner stage 2 – hours run, burner stage 2
- Number of burner start-ups
- Consumption – fuel consumption subject to appropriate settings having been made by the heating contractor
- Solar energy – display in kWh, in conjunction with a solar heating system
- Time
- Date
- Burner ON/OFF
- Burner stage 1 ON/OFF
- Burner stage 2 ON/OFF

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Temperature scanning (cont.)

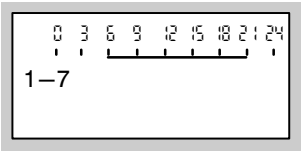
- Output 20 ON/OFF
- Output 29 ON/OFF
- Output 52 OPEN/CLOSE
  0 ≙ Close
  1 to 99 (%)
  100 ≙ Open
- Cylinder primary pump ON/OFF
- DHW circulation pump ON/OFF
- Heating circuit pump ON/OFF
- Mixer open/closed
  0 ≙ Closed
  1 to 99 (%)
  100 ≙ Open
- Solar pump ON/OFF
- Solar pump – hours run
- Language

Time program scanning

Press the following keys:

1. [1], [2] or [3], the selected key will be illuminated.

2. [⏲🔥]/ⓘ for central heating time program
or
[⏲🚿]/ⓘ for DHW time program
or
[⏲♨]/ⓘ for DHW circulation pump time program
press and hold down simultaneously; a time slot graphic shows the set time phases.



3. For changing the time programs, see page 18 and 26.

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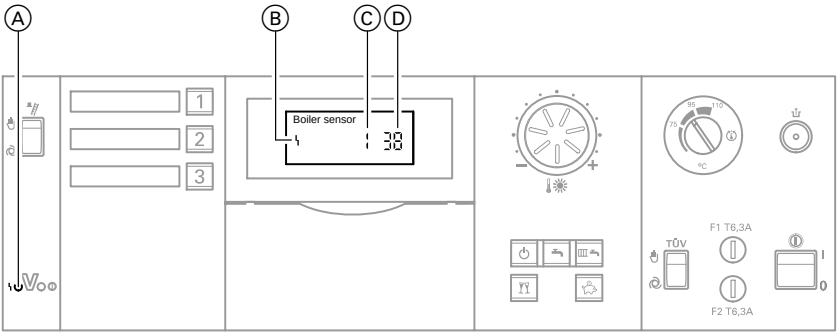
Scanning party or economy mode

Press the keys 1, 2 or 3, the selected key and the key of the active program will be illuminated (see page 10).

Scanning fault display



Ⓐ Fault display
Ⓑ Fault symbol
Ⓒ Fault number
Ⓓ Fault code

If your heating system has developed a fault, it will be displayed and indicated by the flashing red fault indicator.
You can check the fault code on the display and then notify your heating contractor accordingly. This allows the heating contractor to better prepare for the service call and may save additional travelling costs.

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Scanning fault display (cont.)

Press the following keys:

1. ⓘ for troubleshooting.

2. ⊕/⊖ to display further fault codes, if several faults are active.

3. OK to **"Acknowledge"** all fault codes.

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

5. OK to confirm.

To recall fault codes press the following keys:

1. OK for approx. 2 s.

2. ⊕/⊖ to acknowledge the fault codes.

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.

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Rooms are too cold

Cause	Remedy
The heating system is switched OFF	■ Switch ON/OFF switch "⏻" ON (see page 11) ■ Switch ON mains electrical isolator, if installed (outside the boiler room) ■ Check the fuse in the power distribution (main domestic fuse)
Control unit incorrectly adjusted	Check and correct settings, if required: ■ Heating circuit must be switched ON (see page 13) ■ Room temperature (see page 17) ■ Time (see page 32) ■ Boiler heating characteristics (see page 34)
Only when operating with DHW cylinder: DHW priority (🚿 in the display)	Wait until the DHW cylinder has been heated up (🚿 extinguishes from the display)
No fuel	With oil/LPG: Check the fuel reserves and re-order, if required With natural gas: Open the gas shut-off valve or enquire with your gas supply company if required
Control unit fault: "Fault" is displayed and the red fault indicator flashes	Check the type of fault (see page 39) and notify your local heating contractor

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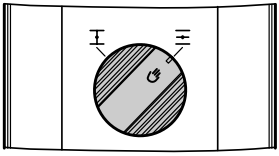
Rooms are too cold (cont.)

Cause	**Remedy**
False burner start: "Fault" is displayed, the red fault indicator at the control unit flashes, and the fault indicator on the burner lights up in red	■ With a pressure jet burner: Press the reset button on the burner hood. ■ With an atmospheric boiler: Press the reset button on the boiler front panel. Contact your local heating contractor if the burner still fails to start.
Vitoair draught stabiliser faulty	Contact your local heating contractor. Reset Vitoair to manual: Press the rotary selector on the motor and turn it to the limit stop beyond position "⚌". 
Mixer motor faulty	Adjusting the mixer manually

Rooms are too hot

Cause	Remedy
Control unit incorrectly adjusted	Check and correct settings, if required: ■ Room temperature (see page 17) ■ Time (see page 32) ■ Boiler heating characteristics (see page 34)
Control unit fault or outside temperature sensor/boiler temperature sensor faulty: "Fault" is displayed and the red fault indicator flashes	Check the type of fault (see page 39) and notify your local heating contractor
Emissions test switch "" shows ""	Set emissions test switch "" to "" (see page 8)

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No DHW is available

Cause	Remedy
The heating system is switched OFF	■ Switch ON/OFF switch "⏻" ON (see page 11) ■ Switch ON mains electrical isolator, if installed (outside the boiler room) ■ Check the fuse in the power distribution (main domestic fuse)
Control unit incorrectly adjusted	Check and correct settings, if required: ■ DHW heating must be switched ON (see page 13 and 14) ■ DHW temperature (see page 25) ■ Time (see page 32)
No fuel	See page 41
Control unit fault: "Fault" is displayed and the red fault indicator flashes	Check the type of fault (see page 39) and notify your local heating contractor
False burner start: "Fault" is displayed, the red fault indicator at the control unit flashes, and the fault indicator on the burner lights up in red	See page 42
Vitoair draught stabiliser faulty	See page 42
Cylinder primary pump is faulty	Contact your local heating contractor

The DHW is too hot

Cause	Remedy
Control unit incorrectly adjusted	Check and correct the DHW temperature, if required (see page 25)
Sensor fault	Contact your local heating contractor
Emissions test switch "🧹" shows "✋"	Set emissions test switch "🧹" to "🔄" (see page 8)

The display flashes "Fault"

Cause	Remedy
Heating system fault	Check the type of fault (see page 39) and notify your local heating contractor

The display shows "Service"

Cause	Remedy
Maintenance time has been reached	Arrange for your local heating contractor to service your heating system

The display shows "Remote control"

Cause	Remedy
A remote control is connected to the heating circuit	Make adjustments or carry out scanning at the remote control (see separate operating instructions)

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The display shows "External control"

Cause	Remedy
The heating program set at the control unit was changed over by an external device	No action required. The heating program changeover was manually selected.

The display shows "Central control"

Cause	Remedy
The settings or the holiday and day programs will be taken from the heating circuit, as "Central control" is set	—

The display shows "Slab curing program"

Cause	Remedy
The screed function has been set up	Wait until this function has terminated

The display shows "Without function"

Cause	Remedy
No function has been allocated to the key you pressed, or the function can only be adjusted on your remote control	—

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Ordering fuel oil

Fuel oil additives
Fuel oil additives are materials that can be used to
- improve fuel stability during storage,
- improve thermal stability of fuel and
- reduce odour 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 which leave residues is not acceptable.

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 which leave residues is not acceptable.

If in doubt ask your local fuel oil supplier.

Bio-fuels
Bio-fuel is made from vegetable oil, e.g. sunflower or rapeseed oil.

! **Please note**
Bio-fuels can lead to damage on Viessmann oil burners. Their use is not permissible.

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Cleaning

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

Inspection and maintenance

Inspection and maintenance of your heating system is prescribed by the Energy Savings Order [Germany] and the standards DIN 4755, DIN 4756, DIN 1988-8 and EN 806 and/or local regulations.
Regular maintenance ensures 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
DIN 1988-8 and EN 806 prescribe that maintenance and cleaning should be carried out no later than two years after commissioning and thereafter as necessary.
Only a recognised 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 equipment) in good time, if such equipment is installed in the cold water supply of the DHW cylinder. Observe the manufacturer's details.

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

Safety valve (DHW cylinder)
Check the safety valve function every six months by venting, or have it checked by your heating contractor. The valve seat may become contaminated (see the valve manufacturer's instructions).

DHW filter (where installed)
To maintain high hygienic standards
- on non-back-flushing filters, replace filter element every 6 months (visual check every 2 months);
- on back-flushing filters, back-flush every 2 months.

Keyword index

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Keyword index (cont.)

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Keyword index (cont.)

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Applicability

For heating systems with boiler, DHW cylinder and Vitotronic 300, type GW2, part no. 7187 099

Certification

Your contact

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

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