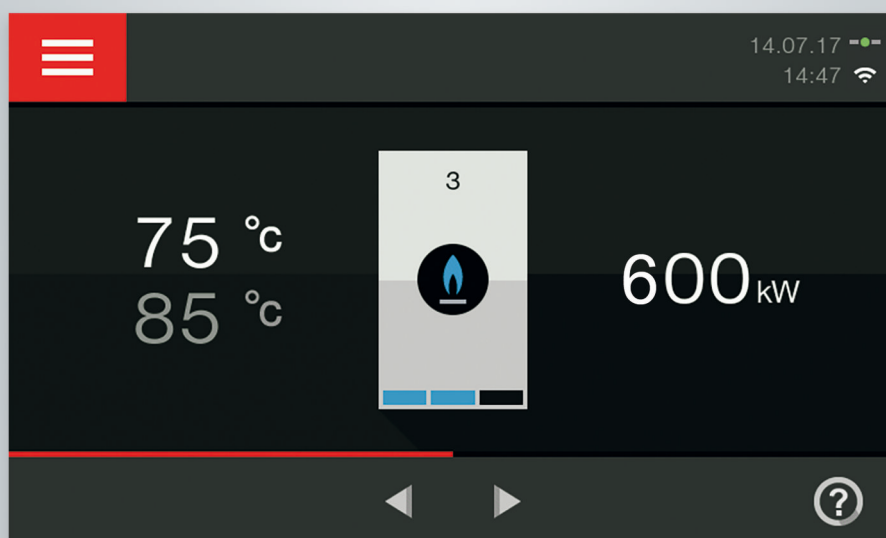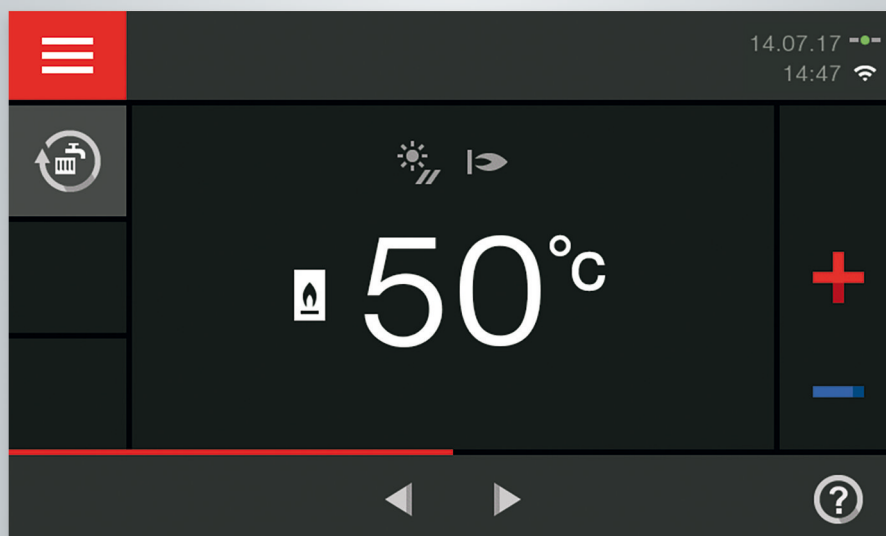# Operating instructions

for the system user

Control unit for operation with constant boiler water temperature in a single boiler system
or
Control unit for operation with constant boiler water temperature in a multi boiler system with higher ranking third party control unit
- Vitotronic 100, type CC1E
- Vitotronic 100, type CC1I

VIE**S**MANN

VITOTRONIC 100

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 intended for heating system users.
This appliance can also be operated by children 8 years and older, as well as by individuals with reduced physical, sensory or mental faculties or those lacking in experience and knowledge, provided such individuals are being supervised or have been instructed in the safe use of this appliance and any risks arising from it.

! **Please note**
Supervise children in the proximity of the appliance.
- Never permit children to play with the appliance.
- Cleaning and maintenance must not be carried out by unsupervised children.

Appliance connection

- The appliance may only be connected and commissioned by authorised contractors.
- Only operate the appliance with suitable fuels.
- Observe the specified electrical connection requirements.
- Modifications to the existing installation may only be carried out by authorised contractors.

⚠ **Danger**
Incorrectly executed work on the heating system can lead to life threatening accidents.
- Work on gas installations must only be carried out by a registered gas fitter.
- Work on electrical equipment must only be carried out by a qualified electrician.

Work on the appliance

- All settings and work on the appliance must be carried out as specified in these operating instructions. Further work on the appliance may only be carried out by authorised contractors.
- Never open the appliance.
- Never remove casings.
- Never change or remove attachments or fitted accessories.
- Never open or retighten pipe connections.

⚠ **Danger**
Hot surfaces can cause burns.
- Never open the appliance.
- Never touch the hot surfaces of uninsulated pipes, fittings or flue pipes.

Damage to the appliance

⚠ **Danger**
Damaged equipment poses a safety hazard.
Check the appliance for external damage. Never start up a damaged appliance.

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For your safety (cont.)

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 lights or electrical appliances on or off.
- Close the gas shut-off valve.
- Open windows and doors.
- Evacuate any people from the danger zone.
- Notify your gas and power supply utility and your local heating contractor from outside the building.
- Have the power supply to the building shut off from a safe place (outside the building).

If you smell flue gas

⚠ **Danger**
Flue gas can lead to life threatening poisoning.
- Shut down the heating system.
- Ventilate the installation site.
- Close all doors in the living space.

In case of fire

⚠ **Danger**
Fire presents a risk of burns and explosion.
- Shut down the heating system.
- Close the shut-off valves in the fuel supply lines.
- Use a tested fire extinguisher, class ABC.

In case of water leaking from the appliance

⚠ **Danger**
Water leaking from the appliance poses an electrocution hazard.
- Switch off the heating system at the external isolation point (e.g. fuse box, domestic power distribution unit).
- Notify your local heating contractor.

What to do if the heating system develops a fault

⚠ **Danger**
Fault messages point to faults in the heating system. If faults are not rectified, they can have life threatening consequences.
Never acknowledge fault messages several times in quick succession. Inform your heating contractor so the cause can be analysed and the fault rectified.

For your safety (cont.)

Installation room requirements

⚠ **Danger**
Sealed vents result in a lack of combustion air. This leads to incomplete combustion and the formation of life threatening carbon monoxide.
Never cover or close existing vents.
Never make any subsequent modifications to the building characteristics that could affect safe operation (e.g. cable/pipework routing, cladding or partitions).

⚠ **Danger**
Easily flammable liquids and materials (e.g. naphtha, solvents, cleaning agents, paints or paper) can cause deflagration and fire.
Never store or use such materials in the installation room or in direct proximity to the heating system.

❗ **Please note**
Incorrect ambient conditions can lead to heating system damage and can put safe operation at risk.
■ Ensure ambient temperatures are above 0 °C and below 35 °C.
■ Prevent air contamination by halogenated hydrocarbons (e.g. as contained in paints, solvents or cleaning fluids) and excessive dust (e.g. through grinding/polishing work).
■ Avoid continuously high humidity levels (e.g. through continuous drying of washing).

Extractors

The operation of appliances that extract air to the outside (cooker hoods, extractors, air conditioning units, etc.) can create negative pressure. If the boiler is operated at the same time, this can lead to a reverse flow of the flue gas.

⚠ **Danger**
The simultaneous operation of the boiler and appliances that extract air to the outside can result in life threatening poisoning due to reverse flow of the flue gas.
Take suitable steps to ensure an adequate supply of combustion air. If necessary, contact your heating contractor.

Auxiliary components, spare and wearing parts

❗ **Please note**
Components not tested with the heating system may damage the system or affect its function.
Have all installation or replacement work carried out exclusively by qualified contractors.

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Index (cont.)

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Liability

No liability is accepted for loss of profit, unattained savings, or other direct or indirect consequential losses resulting from the use of the LAN internet interface (integrated within the Vitotronic control unit) or related internet services. No liability is accepted for losses resulting from inappropriate use.
Liability is limited to typical damage arising if a fundamental contractual obligation is violated through slight negligence, the fulfilment of which is essential for proper execution of the contract.
The limitation of liability shall not apply if the damage was caused deliberately or through gross negligence, or if mandatory liability applies due to product liability legislation.

The Viessmann General Terms and Conditions apply, which are included in each current Viessmann pricelist. The privacy policy and terms of use for Vitoguide apply to the use of Vitoguide. Viessmann accepts no liability for push notifications and email services, which are provided by network operators. The terms and conditions of the respective network operators therefore apply.

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Symbols

Symbol	Meaning
	Reference to other document containing further information
1.	Step in a diagram: The numbers correspond to the order in which the steps are carried out.
!	Warning of material losses and environmental pollution
⚡	Live electrical area
👁	Pay particular attention.
👂	▪ Component must audibly click into place. or ▪ Acoustic signal
✦	▪ Fit new component. or ▪ In conjunction with a tool: Clean the surface.
🗑	Dispose of component correctly.
🗑✕	Dispose of component at a suitable collection point. Do **not** dispose of component in domestic waste.

Terminology

To provide you with a better understanding of the functions of your Vitotronic control unit, some terminology is explained. This information can be found in chapter "Terminology" in the Appendix.

Intended use

The device is intended to control only Viessmann medium sized and industrial/commercial boilers with oil or gas burners, in line with the intended use of those appliances. Observe the relevant installation, service and operating instructions.

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

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

Introductory information

Product information

The Vitotronic 100, type CC1E and type CC1I control units are designed for the control of single boiler systems with a constant boiler water temperature.
The Vitotronic control unit is factory-configured as a **"Single boiler constant control"**.

During operation with a constant boiler water temperature, the boiler provides heating water at a constant temperature, independent of the outside temperature. In single boiler systems, central heating and DHW heating are provided at a constant flow temperature. The flow temperature corresponds to the set boiler water temperature.
Alternatively, your contractor can configure the Vitotronic control unit as a **"Boiler in the Cascade"**.

The Vitotronic control unit is then used to control the boiler water temperature of a boiler in a multi boiler system.

Note
These instructions describe the Vitotronic 100, type CC1E and CC1I for the following applications:
- *In a single boiler system*
- *In a multi boiler system with a higher ranking third party control unit (e.g. cascade control unit)*

For multi boiler systems with Viessmann Vitotronic 300 cascade control units, you will find all the information about operation in the "Vitotronic 300" operating instructions.

Commissioning

The commissioning and matching of the control unit to local conditions and building characteristics, as well as instructing the user in the operation of the system, must be carried out by your heating contractor.

As the user of new combustion equipment, you may be obliged to notify your local flue gas inspector of the installation [check local regulations]. Your local flue gas inspector will also inform you [where appropriate] about work he may be required to carry out on your combustion equipment (e.g. regular checks, cleaning).

Your system is preset

Your heating system is preset at the factory and is therefore ready for operation following commissioning by your contractor:

Central heating
- The rooms are heated in accordance with the settings on your room temperature controller or your higher ranking control unit.

DHW heating
- Only in conjunction with single boiler systems: The DHW is heated to 50 °C.

Frost protection
- Your boiler and DHW cylinder (if installed) are protected against frost.

Wintertime/summertime changeover
- This changeover is automatic.

Date and time
- The date and time were set by your heating contractor.

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

Power failure
All settings are saved if there is a power failure.

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Operating principles

The control unit is equipped with a **touchscreen**. To input settings and check information, tap the on-screen buttons.

Home screen: Displays and settings

The home screen provides you with the most frequently used settings and checks.

Call up the home screen as follows:
- Standby display active:
  Tap anywhere on the screen.
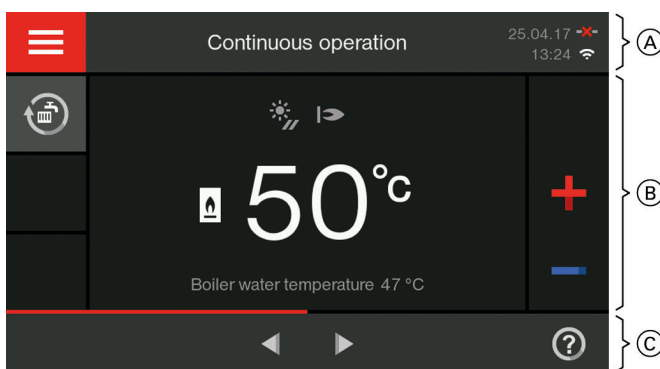- From the main menu:
  Tap 🏠.

Home screen displays

Fig. 1

Ⓐ Menu line
Ⓑ Function area
Ⓒ Navigation area

Buttons and icons in menu bar Ⓐ

≡ Call up the **"Main menu"**

System data:
- Date
- Time

Interfaces:
- ▬•▬ LAN connection activated for contractor
- ▬✕▬ No LAN connection
- 📶 WiFi connection activated for contractor
- 📶✕ No WiFi connection

Buttons and icons in function area Ⓑ

Buttons:
- ✛/━ Increase or decrease the **"Set boiler water temperature"**
- 🔄 Adjust the operating program

Meaning of temperatures displayed:
50 °C Selected set boiler water temperature
47 °C Current boiler water temperature
Note
Alternating with the boiler water temperature, the following can be displayed on this line:
- *Days remaining until next service: Display is shown from 28 days beforehand.*

Icons:
- ☀ In conjunction with a solar thermal system: Solar circuit pump is running
- I➔ Burner (gas or oil) in operation
- 🔲 Operation with gas
- 🔲 Operation with oil

Buttons in navigation area Ⓒ

🏠 Call up the home screen
↩ One step back in the menu
or
Cancellation of started setting
✔ Confirm an entry or selection

▶▶

## Home screen: Displays and settings (cont.)

⑦   Call up a help text
◀/▶ Scroll through the menu
      or
      Switch to other display areas, e.g. to the
      "Energy cockpit"

Note
These icons are not always displayed, but appear sub-
ject to the system version and the operating condition.
Explanation of all buttons and icons: See page 40.

Home screen settings

You can make the following settings in the home
screen default display **only**:
- **"Set boiler water temperature"** with ➕/➖
  Further information: See page 21
- ⊚ **"Operating program"**
  Further information: See page 15

Note
You can lock the controls for the home screen: See
chapter "Locking the controls".
If you do so, you will not be able to make adjustments
on either the home screen or the main menu. **"Panel**
locked" *is displayed.*

Overview of the "Main menu"

In the **"Main menu"**, you can call up and adjust all of
the remaining settings for the control unit's range of
functions.

Call up the **"Main menu"** as follows:
- Standby display active:
  Tap anywhere on the screen and then tap ☰.
- From the home screen:
  Tap ☰.
- From anywhere in the menu:
  Tap ⌂ and then ☰.

Menus available in the "Main menu"

In the **"Main menu"**, you can call up and adjust all fur-
ther settings for the control unit's range of functions:
- ▪▐ **"Test mode"**
  For the flue gas inspector **only**.
  Further information: See page 31
- ✿ **"Settings"**
  E.g. the 📺 display brightness.
  Further information: See page 23
- 🚰 **"DHW"**
  For DHW heating settings, e.g. for the ❗ **"DHW**
  temperature".
  Further information: See page 22

- ⓘ **"Information"**
  To check operating data, for e.g. temperatures.
  Further information: See page 27
- 🔧 **"Service"**
  For contractors **only**.

Using ◀/▶ you can scroll through the menu.

Note
The menus available depend on your heating system
equipment.
Menu overview with all menus: See page 41

Information in the "Energy cockpit"

The **"Energy cockpit"** provides you with clear infor-
mation on the energy state of the components in your
heating system.

Note
The **"Energy cockpit"** *is only shown if it was set up*
during commissioning. If necessary, notify your con-
tractor.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ◀/▶ for **"Energy cockpit"**

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Information in the "Energy cockpit" (cont.)

Note
*When you call up the **"Energy cockpit"** for the first time, you will be notified that the values shown **cannot** be used for settling bills with the power supply utility.*
- *The **"Energy cockpit"** is opened once you confirm this notification with **OK**. This notification will not appear again.*
- *If you tap Cancel, the **"Energy cockpit"** will not be opened. The notification will be shown again next time.*

Default display in the "Energy cockpit"

The various components present in the system are shown as graphics. For information on the energy status of these system components, tap the relevant system component. See also the following chapters.

Note
The graphics depicting the boiler and the DHW cylinder vary according to the products used in the system.
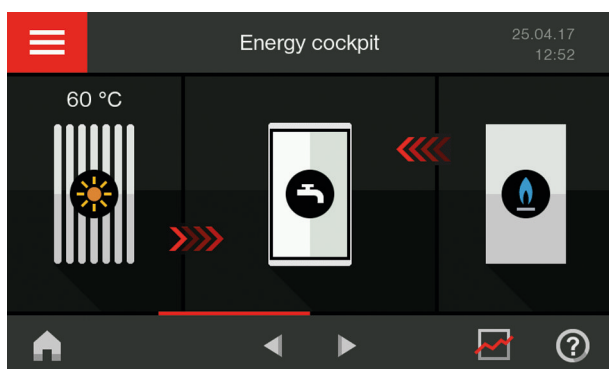
Fig. 2

You can check the following information in the **"Energy cockpit"**:

60 °C Current solar thermal system temperature
☀   Solar thermal system energy yield:
    See page 13
☑   Heating system energy statement in conjunction with the solar thermal system:
    See page 14
🚰   DHW cylinder temperatures:
    See page 14
🔥/💧 Energy consumption (gas or oil) and operating data:
    See page 14
⫷⫷⫷ Heating of DHW cylinder by heat generator is active (red and moving)
⫸⫸⫸ Heating of DHW cylinder by solar thermal system is active (red and moving)

Energy yield from the solar thermal system

You can call up the energy yield from the solar thermal system for the last 7 days, including the current day. The energy yield is shown in kilowatt hours **"kWh"**.

Note
*This information can **only** be retrieved in conjunction with the solar control module, type SM1. When connected to a Vitosolic solar control unit, you can call up the solar energy yield on this device.*

Tap the following on-screen buttons:

1. If required, 🏠 for the home screen

2. ◀/▶ for the **"Energy cockpit"**

3. Tap the solar collector ☀
    The energy yields for the last 7 days, including the current day, are shown as a bar for comparison.

4. Tap a day, e.g. **"Mo"**
    The energy yield for the selected day is shown in **"kWh"**.

Information in the "Energy cockpit" (cont.)

"Energy statement" in conjunction with solar thermal system

You can call up the energy status for the last 7 days, including the current day. The amount of heat generated from solar power and the energy consumption of the boiler (gas or oil) are shown in kilowatt hours **"kWh"**.

Note
*This information can **only** be retrieved in conjunction with the solar control module, type SM1.*

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ◄/► for the **"Energy cockpit"**

3. ⌧ in the navigation area
   The **"Energy statement"** is displayed as a graphic.
   - ♦ Blue: Amount of gas consumed
     or
   - ♦ Dark yellow: Amount of oil consumed
   - ☀ Light yellow: Amount of heat generated by the solar thermal system

---

DHW cylinder temperatures

You can call up the current DHW temperatures in the DHW cylinder (**"Heat-up condition"**).

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ◄/► for the **"Energy cockpit"**

3. Tap the DHW cylinder ⌁

Energy consumption and operating data

You can call up the following information about your boiler:
- **"Current output"** (heating output)
- **"Hours run"** (operating time)
- **"Fuel"**
- **"Fuel consumption"** (energy consumption)

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ◄/► for the **"Energy cockpit"**

3. ♦ in conjunction with a gas boiler
   or
   ♦ in conjunction with an oil boiler
   The operating data is shown, e.g. the **"Hours run"**

   Note
   To reset the hours run: See chapter "Calling up information".

4. **Energy consumption:**
   › for **"Fuel consumption"**

5. Tap the required period:
   - ⊞ **"The past 7 days"**, including current day
   - ⊞ **"The past 5 weeks"**, including current week
   - ⊞ **"For the past 12 months"**, including current month
   - ⊞ **"For the past 2 years"**, including current year
   Consumption above or below these levels is shown graphically within the selected time period for comparison purposes:
   - ▥ Dark areas: Proportion of energy consumption for central heating
   - ⌁ Light areas: Proportion of energy consumption for DHW heating

6. Tap e.g. a day or a week on the graph. The energy consumption for this period is shown as a numerical value in kilowatt hours **"kWh"**. 10 kWh corresponds to approximately one litre of fuel oil or one cubic metre of gas.

Information on the energy consumption figures shown
The calculation of the energy consumption takes into account the installed system components and the user behaviour (e.g. operating time and utilisation level). Depending on system-specific conditions, differences may arise between the displayed (calculated) and actual consumption figures.
*They therefore **cannot** be used as a binding basis for billing with the power supply utility.*

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Information in the "Energy cockpit" (cont.)

Energy consumption correction factor

You can enter a correction factor to adjust the displayed (calculated) values for energy consumption/fuel consumption to the actual values (as measured by the meter in your home). The calculated value is multiplied by the correction factor. However, due to seasonal climate conditions and other factors, discrepancies may still arise.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ◄/► for the **"Energy cockpit"**

3. ⌀ in conjunction with a gas boiler
    or
    ⬤ in conjunction with an oil boiler

4. ❯ for **"Fuel consumption"**

5. ⌀-- **"Input adjustment factor"**

6. ∧ /∨ for the required correction factor

7. ✔ to confirm

Central heating and DHW heating energy consumption distribution

Specify the ratio in which your total energy consumption (100 %) is to be split for central heating and DHW heating. You can estimate the values or establish them through repeated meter readings (gas meter or oil consumption) over the year.
The values set here are only used in the graphs for energy consumption (**"Fuel consumption"**).

Factory setting:
- DHW heating: 30 %
- Central heating: 70 %

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ◄/► for the **"Energy cockpit"**

3. ⌀ in conjunction with a gas boiler
    or
    ⬤ in conjunction with an oil boiler

4. ❯ for **"Fuel consumption"**

5. ⌀ **"Proportion DHW - heating"**

6. ∧ /∨ for the required value, either for **"DHW"** or **"Heating"**. The other value is adjusted automatically so that the total of both values is 100 %.

7. ✔ to confirm

Operating program information

Using the operating program, you set whether you want rooms heated, or DHW heating only, for example.

Operating programs for central heating, DHW, frost protection

Symbol	Operating program	Function
Central heating and DHW heating		
⊚‖‖	**"Heating and DHW"**	▪ The rooms are heated in accordance with the settings of the room temperature controller or higher ranking control unit (see chapter "Central heating"). ▪ DHW is heated in accordance with the settings for the DHW temperature (see chapter "DHW heating").
⊚	Only for systems without DHW cylinder: **"Heating"**	The rooms are heated in accordance with the settings of the room temperature controller or higher ranking control unit (see chapter "Central heating").

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►►

Operating program information (cont.)

Symbol	Operating program	Function
DHW heating (available in conjunction with DHW cylinder only)		
⟳	**"Only DHW"**	▪ DHW is heated in accordance with the settings for the DHW temperature (see chapter "DHW heating"). ▪ No central heating ▪ Frost protection for the boiler and the DHW cylinder is assured.
Frost protection		
⏻	**"Standby mode"**	▪ No central heating ▪ No DHW heating ▪ Frost protection for the boiler and the DHW cylinder is assured.

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Operating principles

The control unit is equipped with a **touchscreen**. To input settings and check information, tap the on-screen buttons.

Home screen: Displays and settings

The home screen provides you with the most frequently used settings and checks.

Call up the home screen as follows:
- Standby display active:
  Tap anywhere on the screen.
- From the main menu:
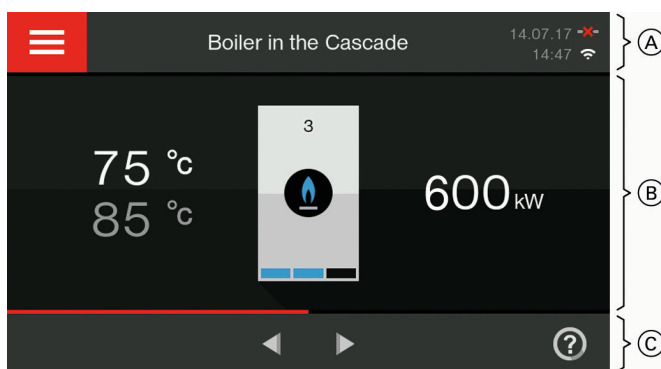 Tap 🏠.

Home screen displays

Fig. 3

Ⓐ Menu line
Ⓑ Function area
Ⓒ Navigation area

Buttons and icons in menu bar Ⓐ

☰ Call up the **"Main menu"**

System data:
- Date
- Time

Interfaces:
-•- LAN connection activated for contractor
-✗- No LAN connection
📶 WiFi connection activated for contractor
📶✗ No WiFi connection

Buttons and icons in function area Ⓑ

🔥 Gas condensing boiler in the multi boiler system
    Colour of the flame 🔥:
    Blue   Burner in operation
    Grey   Burner off
    Red   Boiler in a fault state
💧 Oil condensing boiler in multi boiler system
    Colour of droplet 💧:
    Yellow Burner in operation
    Grey   Burner off
    Red   Boiler in a fault state
1, 2, ... Boiler number
⊘   Boiler locked out

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Home screen: Displays and settings (cont.)

Meaning of values displayed:

75 °C — Current boiler water temperature
85 °C — Specified set boiler water temperature
600 kW — Current heating output of the boiler

Note
The current burner output is shown by bars at the bottom of the boiler that are the same colour as the fuel:

■ *1 bar corresponds to ⅓ of the maximum boiler output*
■ *2 bars correspond to ⅔ of the maximum boiler output*
■ *3 bars correspond to the maximum boiler output*

Buttons in navigation area Ⓒ

⌂ — Call up the home screen
↩ — One step back in the menu
or
Cancellation of started setting

✓ — Confirm an entry or selection
⊙ — Call up a help text
◀/▶ — Scroll through the menu
or
Switch to other display areas, e.g. to the **"Energy cockpit"**

Note
These icons are not always displayed, but appear subject to the system version and the operating condition. Explanation of all buttons and icons: See page 40.

Note
You can lock the controls for the home screen: See chapter "Locking the controls".
*If you do so, you will not be able to make adjustments on either the home screen or the main menu. **"Panel locked"** is displayed.*

Overview of the "Main menu"

In the **"Main menu"**, you can call up and adjust all of the remaining settings for the control unit's range of functions.

Call up the **"Main menu"** as follows:
■ Standby display active:
Tap anywhere on the screen and then tap ☰.
■ From the home screen:
Tap ☰.
■ From anywhere in the menu:
Tap ⌂ and then ☰.

Menus available in the "Main menu"

In the **"Main menu"**, you can call up and adjust all further settings for the control unit's range of functions:

🔖 **"Block/enable boiler"**
Further information: See page 23
▪┇ **"Test mode"**
For the flue gas inspector **only**.
Further information: See page 31
⚙ **"Settings"**
E.g. the 🔅 display brightness.
Further information: See page 23

ⓘ **"Information"**
To check operating data, for e.g. temperatures.
Further information: See page 27
🔧 **"Service"**
For contractors **only**.

Using ◀/▶ you can scroll through the menu.
You can find the menu overview on page 46.

Information in the "Energy cockpit"

The **"Energy cockpit"** provides you with clear information on the energy state of the components in your heating system.

Note
*The **"Energy cockpit"** is only shown if it was set up during commissioning. If necessary, notify your contractor.*

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ◀/▶ for **"Energy cockpit"**

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Information in the "Energy cockpit" (cont.)

Note
*When you call up the **"Energy cockpit"** for the first time, you will be notified that the values shown **cannot** be used for settling bills with the power supply utility.*
- *The **"Energy cockpit"** is opened once you confirm this notification with **OK**. This notification will not appear again.*
- *If you tap Cancel, the **"Energy cockpit"** will not be opened. The notification will be shown again next time.*

Default display in the "Energy cockpit"

In the **"Energy cockpit"** you can call up the following information on the energy state of the boiler:
- Energy consumption (gas or oil) and operating data: See following chapter "Energy consumption and operating data"

Energy consumption and operating data

You can call up the following information about your boiler:
- **"Current output"** (heating output)
- **"Hours run"** (operating time)
- **"Fuel"**
- **"Fuel consumption"** (energy consumption)

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ◀/▶ for the **"Energy cockpit"**

3. ♨ in conjunction with a gas boiler
    or
    ♦ in conjunction with an oil boiler
    The operating data is shown, e.g. the **"Hours run"**

    Note
    To reset the hours run: See chapter "Calling up information".

4. **Energy consumption:**
    ❯ for **"Fuel consumption"**

5. Tap the required period:
    - **"The past 7 days"**, including current day
    - **"The past 5 weeks"**, including current week
    - **"For the past 12 months"**, including current month
    - **"For the past 2 years"**, including current year
    Consumption above or below these levels is shown graphically within the selected time period for comparison purposes:
    - Dark areas: Proportion of energy consumption for central heating
    - Light areas: Proportion of energy consumption for DHW heating

6. Tap e.g. a day or a week on the graph. The energy consumption for this period is shown as a numerical value in kilowatt hours **"kWh"**. 10 kWh corresponds to approximately one litre of fuel oil or one cubic metre of gas.

*Information on the energy consumption figures shown*
The calculation of the energy consumption takes into account the installed system components and the user behaviour (e.g. operating time and utilisation level). Depending on system-specific conditions, differences may arise between the displayed (calculated) and actual consumption figures.
*They therefore **cannot** be used as a binding basis for billing with the power supply utility.*

Information in the "Energy cockpit" (cont.)

Energy consumption correction factor

You can enter a correction factor to adjust the displayed (calculated) values for energy consumption/fuel consumption to the actual values (as measured by the meter in your home). The calculated value is multiplied by the correction factor. However, due to seasonal climate conditions and other factors, discrepancies may still arise.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ◄/► for the **"Energy cockpit"**

3. ♨ in conjunction with a gas boiler
   or
   ● in conjunction with an oil boiler

4. ❯ for **"Fuel consumption"**

5. ⇕-- **"Input adjustment factor"**

6. ∧ /∨ for the required correction factor

7. ✔ to confirm

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Settings for the room temperature

Setting the room temperature

Set the required room temperature at the room temperature controller or higher ranking control unit.

Operating instructions for room temperature controller or higher ranking control unit

Setting the boiler water temperature (flow temperature)

Set a temperature that allows your rooms to become sufficiently warm.
Factory setting: 75 °C
Setting range: 20 to 81 °C

Note
Your contractor can change the setting range. For this, consult your contractor.

Tap the following on-screen buttons:

1. If required, 🏠 for the home screen

2. ➕/➖ for **"Set boiler water temperature"**

3. ➕/➖ for the required value

4. ✔ to confirm

Setting "Operating program" for central heating

Enable the **"Operating program"** for central heating.

The setting is required only where one of the following operating programs is set:
🔄 **"Only DHW heating"**
⏻ **"Standby mode"**

Tap the following on-screen buttons:

1. If required, 🏠 for the home screen

2. 🔄 or ⏻ for **"Operating program"**
    The set **"Operating program"** is highlighted.

3. 🔘 Select **"Heating and DHW"** or 🔘 **"Heating"** to set central heating.

4. ✔ to confirm

For information on the operating programs, see page 15.

Stopping central heating

Disable the central heating **"Operating program"**.
This setting is only necessary if the **"Operating program"** 🔘 **"Heating and DHW"** or 🔘 **"Heating"** is set.

Tap the following on-screen buttons:

1. If required, 🏠 for the home screen

2. 🔘 for **"Operating program"**
    The set **"Operating program"** is highlighted.

3. 🔄 **"Only DHW"**
    or
    ⏻ **"Standby mode"** (frost protection for the boiler and DHW cylinder is enabled)

4. ✔ to confirm

Single boiler constant control: DHW heating

Setting DHW temperature

Set the **"Set DHW temperature"** for the DHW cylinder.
Factory setting: 50 °C
Setting range: 10 to 60 °C

Note
Your contractor can change the setting range. For this, consult your contractor.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the **"Main menu"**

3. 🚰 **"DHW"** for DHW heating settings

4. 🌡 **"DHW set temperature"**

5. ✚/━ for the required value

6. ✔ to confirm

Setting "Operating program" for DHW heating

Enable the **"Operating program"** for DHW heating. The setting is required only where the ⊙ **"Standby mode"** **"Operating program"** is set.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ⊙ for **"Operating program"**

3. ⟳ **"Only DHW"**
    or
    🔥 **"Heating and DHW"**

4. ✔ to confirm

For information on the operating programs, see page 15.

Switching off DHW heating

Deactivate DHW heating.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the main menu

3. 🚰 **"DHW"** for DHW heating settings

4. 🌡 **"DHW set temperature"**

5. ━ for 10 °C

6. ✔ to confirm

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Locking out or enabling the boiler

This setting can only be made at the Vitotronic 100 of a boiler in a multi boiler system.

Allows you to lock out a boiler, e.g. for maintenance work or to remove it from the boiler sequence. Boiler frost protection is active.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the **"Main menu"**

3. ⊘ **"Block/enable boiler"**

4. ⊘ **"Block"**
   or
   ↻ **"Enable"**

5. ✔ to confirm

Setting the "Language"

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the **"Main menu"**

3. ⚙ **"Settings"**

4. 🔤 **"Language"**

5. Flag for the required **"Language"**

6. ✔ to confirm

Setting the display brightness

2 settings are available to you:
- Brightness for operation
- Brightness for the standby screen

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the **"Main menu"**

3. ⚙ **"Settings"**

4. 🔆 **"Display brightness"**

5. 🔆 **"Brightness, operation"**
   or
   🔆 **"Brightness, standby"**

6. ⋀ / ⋁ for the required value

7. ✔ to confirm

Setting the "Time" and "Date"

Your control unit has a power reserve of approx. 1 month. If your heating system has been shut down for a prolonged period, you may need to reset the **"Time"** and **"Date"**.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the **"Main menu"**

3. ⚙ **"Settings"**

4. 📅 **"Date and time"**

5. 📅 **"Date"**
   or
   🕐 **"Time"**

6. Select your preferred format, e.g. **"DD-MM-YY"**, **"24-hour display"**

7. ⋀ / ⋁ for the required value

8. ✔ to confirm

Further adjustments

Signal tone for operation

In the delivered condition, a signal tone is produced every time a button is tapped. You can turn this signal tone off and turn it back on if required.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the **"Main menu"**

3. ⚙ **"Settings"**

4. 🔔 **"Buzzer"**

5. | **"ON"**
    or
    ○ **"OFF"**

6. ✔ to confirm

Enabling the internet interface (LAN)

Your heating system can be remotely monitored by your heating contractor. To enable this, activate the LAN internet interface.

The control unit is equipped with a network module. Information on connecting and activating the network module can be found in a separate manual at **www.vitotronic.info**
The access code required for commissioning can be found on the label affixed to the control unit, close to the programming unit. Stick the access code in these operating instructions so that you can find it again when you need it.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the **"Main menu"**

3. ⚙ **"Settings"**

4. ⏻ **"LAN ON/OFF"**

5. | **"ON"**

6. ✔ to confirm

7. ✔ to confirm the note.
    The LAN connection is established automatically using dynamic connection data (**"DHCP"**).

Menu ⚙ "LAN settings"
If you activate the LAN internet interface, you will have access to a further menu. In this menu ⚙ "LAN settings" you can switch to a static IP address ("STATIC").

Deactivating the LAN connection

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the **"Main menu"**

3. ⚙ **"Settings"**

4. ⏻ **"LAN ON/OFF"**

5. ○ **"OFF"**

6. ✔ to confirm

7. ✔ to confirm the note.

Settings for the LAN connection

You can choose between a static and a dynamic IP address. With a dynamic IP address **"DHCP"**, the internet connection is established automatically. With a static IP address **"STATIC"**, you have to enter the connection data yourself.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the **"Main menu"**

3. ⚙ **"Settings"**

4. ⚙ **"LAN settings"**

5. Select **"DHCP"** for dynamic connection data
    or
    "STATIC" for individual connection data

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Enabling the internet interface (LAN) (cont.)

6. ✔ to confirm

7. **If you have selected "DHCP":**
   ✔ to confirm the notification.

8. **If you have selected "STATIC":**
   ❯ for the required entry field
   Using the virtual keyboard, enter your connection data.

9. ✔ to confirm

Deactivating the display screen for cleaning

If you wish to clean the display screen, you can deactivate it for 30 seconds. This prevents you making settings unintentionally.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the **"Main menu"**

3. ⚙ **"Settings"**

4. ▦ **"Clean screen"**
   A counter begins and the display turns black. After 30 seconds, the main menu appears.

Locking the controls

You have 2 options for locking the controls. This prevents you making settings unintentionally.

- **"Lock everything"**
  In this case, you will not be able to make adjustments on either the default display of the home screen or the main menu.
  In the main menu, only emissions test mode can be activated.
- **"Only default display operational"**
  Settings can only be made on the default display of the home screen.
  In the main menu, only emissions test mode can be activated.

Note
Your contractor can change the password. If the password has been changed, please consult your contractor.

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the **"Main menu"**

3. ⚙ **"Settings"**

4. 🔒 **"Lock panel"**

5. 🔒 **"Lock everything"**
   or
   🔒 **"Only home screen operable"**

6. Using the virtual keyboard, enter the password "viservice" or the new password.

7. ✔ to confirm

Unlocking the controls

Tap the following on-screen buttons:

1. Swipe the screen with your finger.
   or
   Tap any button.

2. ✔ to confirm the note.

3. Using the virtual keyboard, enter the password "viservice" or the new password.

4. ✔ to confirm

Restoring "Factory settings"

This setting can only be made at the constant temperature control unit of a single boiler system.

Settings and values that are reset:
- Set boiler water temperature
- Operating program
- DHW set temperature

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

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▶▶

Further adjustments

Restoring "Factory settings" (cont.)

2. ≡ for the **"Main menu"**

3. ⚙ **"Settings"**

4. 🖩 **"Factory settings"**

Note
The following settings are retained:
- *Contractor contact details: See page 26*
- *Signal tone operation: See page 24*
- *Display brightness: See page 23*
- *LAN module connection data: See page 24*
- *Operating data (meters): These have to be reset separately; see page 27*

5. ✔ to confirm
or
✖ to cancel the operation.

Entering the contractor's contact details

Enter your contractor's contact details.

Tap the following on-screen buttons:

1. If required, 🏠 for the home screen

2. ≡ for the **"Main menu"**

3. ⓘ for **"Information"**

4. 👤 for **"Service contact details"**

5. Relevant entry field

6. Using the virtual keyboard, enter your contractor's contact details.

7. ✔ to confirm

Calling up help messages

You can call up help messages relating to the displays and functions.

Tap the following on-screen buttons:

1. ⑦ to call up the help messages.

2. ↩ to return to the previous screen.

Calling up information

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

Single boiler constant control

The information is split into groups:
- ⓘ **"General"**
- 🔥 **"Burner"** (gas or oil)
- ⓦ **"Heating"**
- 🚰 **"DHW"**
- ☀ **"Solar energy"**
- 🛠 **"Service contact details"**
- ▯ **"LAN"**
- 🗎 **"Reset data"**

Note
Detailed options for checking the individual groups can be found in chapter "Menu overview".

Control of a multi boiler system

The information is split into groups:
- ⓘ **"General"**
- 🔥 **"Burner"** (gas or oil)
- 🛠 **"Service contact details"**
- ▯ **"LAN"**
- 🗎 **"Reset data"**

Tap the following on-screen buttons:

1. If required, 🏠 for the home screen

2. ☰ for the **"Main menu"**

3. ⓘ **"Information"**

Checking the solar thermal system energy yield

This check can only be made at the constant temperature control unit of a single boiler system.

Note
*This information can **only** be retrieved in conjunction with the solar control module, type SM1. When connected to a Vitosolic solar control unit, you can call up the solar energy yield on the Vitosolic.*

Tap the following on-screen buttons:

1. If required, 🏠 for the home screen

2. ☰ for the **"Main menu"**

3. ⓘ **"Information"**

4. ☀ **"Solar energy"**

5. Only for the energy yield of the solar thermal system:
   › **"Solar energy bar chart"**

   Note
   *You can also call up the energy yield of the solar thermal system in the **"Energy cockpit"**.*

Resetting operating data (meters)

You can reset the operating data (meters) to zero, depending on the connected components.

Single boiler constant control

You can reset the following operating data to zero:
- **"Burner hours run"**
- **"Burner starts"**
- **"Solar circuit pump"**

- **"Solar energy"**
- **"SM1 output 22"** (hours run)
- **"All data"**

Calling up information (cont.)

Control of a multi boiler system

You can reset the following operating data to zero:
- **"Burner hours run"**
- **"Burner starts"**
- **"All data"**

Tap the following on-screen buttons:

1. If required, 🏠 for the home screen

2. ☰ for the **"Main menu"**

3. ⓘ **"Information"**

4. 🗐 **"Reset data"**

5. ❯ at the required data point
   or
   "All data"

6. ✔ to confirm
   or
   ✘ to cancel the procedure.

Calling up service messages

Your contractor can set service intervals (limits) (e.g. for burner hours run). As soon as the limits are exceeded, a service message is generated.
If your system is due for a service, this is indicated on the display with the 🔧 icon and **"Service"**.

If you have entered the contact details for your contractor (see page 26), these are also displayed.

Tap ✔.
⚠ flashes in the navigation area.

Calling up a service message

Tap the following on-screen buttons:

1. ⚠ in the navigation area.
   The service message appears in a list.

   If several messages are present at once, the following menus may appear after you tap ⚠:
   - **"Fault list"** for faults in the heating system
   - **"Burner fault"** for faults on burner control unit or boiler burner
   - **"Service messages"** for pending service work

2. **"Service messages"**
   The service messages appear in a list.

3. With ⓷ you can call up notes about the service message.

4. Notify your heating contractor.

   Note
   If your system is remotely monitored by your heating contractor, service messages are forwarded automatically.

5. (✓) to acknowledge all service messages.

6. ✔ to confirm.

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

Note
*"Service messages" from a Vitotronic 100 in a multi boiler system are **not** transferred to the higher ranking control unit (third party control unit). "Service messages" have to be acknowledged at the relevant Vitotronic 100.*

Scanning fault messages

If your system has developed faults, this is shown on the display by the ⚠ icon and **"Fault"**.
If you have entered the contact details for your contractor (see page 26), these are also displayed.

Tap ✔.
⚠ flashes in the navigation area.

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Scanning fault messages (cont.)

Note
- *If you have connected an alarm to alert you to fault messages (e.g. a buzzer), this is deactivated when the fault message is acknowledged.*
- *If troubleshooting cannot be carried out until a later date, the fault message will be displayed again the following day at 07:00 h. The alarm equipment is switched on again.*

Calling up a fault message

Tap the following on-screen buttons:

1. ⚠ in the navigation area.
   The fault message appears in a list.

   If several messages are present at once, the following menus may appear after you tap ⚠:
   - **"Fault list"** for faults in the heating system
   - **"Burner faults"** for faults on burner control unit or boiler burner: See following chapter "Burner faults"
   - **"Service messages"** for pending service work

2. **"Fault list"**
   The fault messages appear in a list.

3. With ⑦ you can call up notes about the heating system characteristics.
   Tips on measures you can take yourself **before** notifying your contractor are displayed.

4. Make a note of the fault code and the cause of the fault. For example: **"30: Boiler water temperature sensor"**.
   This enables the contractor to be better prepared and may save you unnecessary travelling costs.

5. ⊘ to acknowledge all fault messages.

6. Notify your heating contractor.

   Note
   If your system is remotely monitored by your heating contractor, fault messages are forwarded automatically.

7. ✔ to confirm.

   ⚠ **Danger**
   If faults are not rectified, they can have life threatening consequences.
   Do not acknowledge fault messages several times in quick succession. Notify your contractor if a fault recurs. Your contractor will be able to analyse the cause and rectify the fault.

Burner faults

In the event of a burner fault, the ⚠ icon and **"Burner fault"** are displayed.

In conjunction with the Vitotronic 100, type CC1E (see Fig. 4 on page 32)

1. Press the burner reset button.

   📖 See separate boiler or burner instructions.

2. Press ⊘ in the navigation area to acknowledge all fault messages.

3. If the burner fault occurs again, notify your contractor.

In conjunction with the Vitotronic 100, type CC1I (see Fig. 5 on page 32)

Tap the following on-screen buttons:

1. ✔ to acknowledge the fault message

2. ✔ to reset the burner.
   or
   ✘ to cancel the procedure.

3. Notify your heating contractor.

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Scanning fault messages (cont.)

⚠️ **Danger**
If faults are not rectified, they can have life threatening consequences.
Do not acknowledge fault messages several times in quick succession. Notify your contractor if a fault recurs. Your contractor will be able to analyse the cause and rectify the fault.

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Emissions test mode

Emissions test mode should **only** be activated by your flue gas inspector during the annual inspection. Emissions test mode is enabled for flue gas measurement with temporarily increased boiler water temperature.

The following functions are activated:
- The burner is switched on. **"Test in progress"** appears on the display
- The pumps are started.
- The burner is switched off when the maximum temperature set at the control unit is reached.

Note
Ensure that enough heat is being transferred during emissions test mode.

Activating emissions test mode

Tap the following on-screen buttons:

1. If required, ⌂ for the home screen

2. ☰ for the **"Main menu"**

3. **"Test mode"**

4. ✔ to confirm

Ending emissions test mode

You have 2 options for ending emissions test mode:
- Tap ✖.
  or
- Emissions test mode ends automatically after 60 minutes.

Control unit controls

Vitotronic 100, type CC1E

Example: Single boiler constant control
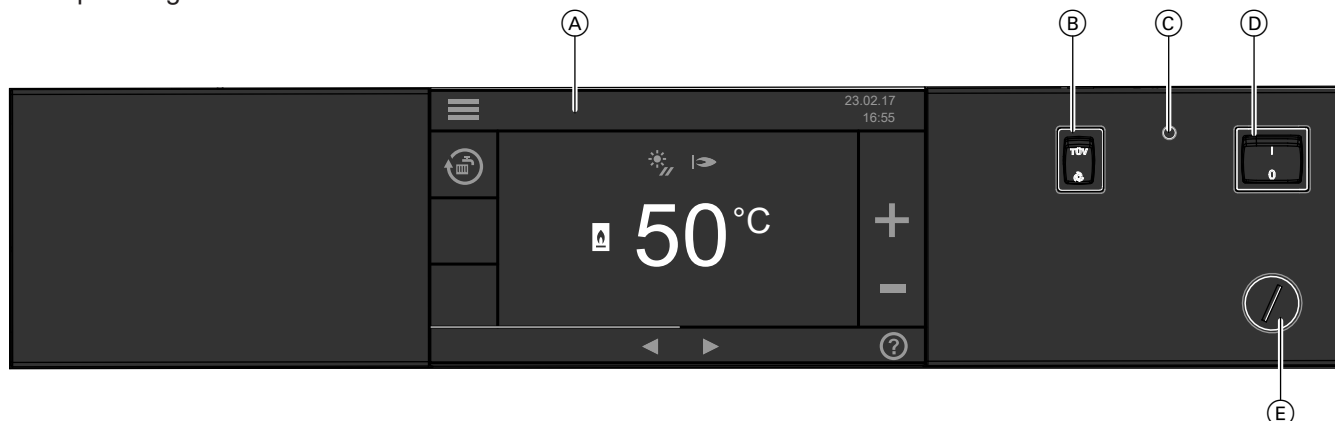
Fig. 4

Ⓐ Display
Ⓑ For contractors only:
    TÜV-button to test the high limit safety cut-out
Ⓒ For contractors only:
    Reset button for high limit safety cut-out

Ⓓ ON/OFF switch
Ⓔ For contractors only:
    Temperature controller

Vitotronic 100, type CC1I

Example: Single boiler constant control

Fig. 5

Ⓐ Display
Ⓑ ON/OFF switch

Shutting down the heating system

With frost protection monitoring (single boiler constant control only)

Select operating program ⏻ **"Standby mode"**.
- No central heating
- No DHW heating
- Frost protection for boiler and DHW cylinder
See also chapter "Switching off the central heating" on page 21.

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

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Shutting down the heating system (cont.)

Without frost protection monitoring (shutdown)

1. Turn off the ON/OFF switch at **every** control unit.

2. Gas boiler: Close the gas shut-off valve.
   Oil boiler: Close the shut-off valves in the oil lines (at the oil tank and filter).

3. Isolate the heating system from its main power supply, e.g. at the separate MCB/fuse or at a mains isolator.

   ! **Please note**
   If outside temperatures of below 3 °C are expected, take appropriate measures to protect the heating system from frost.
   If necessary, contact your contractor.

Information on prolonged shutdown
- *As the circulation pumps no longer run for a longer period of time, these may seize.*
- *After an extended shutdown, it may be necessary to reset the date and time (see page 23).*

Starting up the heating system

Ask your contractor about the following:
- Necessary commissioning steps
- Required system pressure level (minimum system pressure)
- Position of the following components:
  - Pressure gauge
  - Vents
- Water quality requirements
- Gas boilers: Gas shut-off valve
  Oil boilers: Shut-off valves in the oil lines (at the oil tank and filter)

1. Check the pressure of your heating system on the pressure gauge. If the pressure in the heating system is too low (< 1.0 bar/< 0.1MPa), top it up with water or notify your contractor.

2. Check that the vents in the installation room are open and unrestricted.

3. Gas boilers: Open the gas shut-off valve.
   Oil boilers: Open the shut-off valves in the oil lines (at the oil tank and filter).

4. Switch ON the power supply, e.g. at a separate MCB/fuse or a mains isolator.

5. Turn on the ON/OFF switch.
   The home screen is shown after a short time. Your heating system and, if installed, remote controls are ready for use.

Note
If your heating system has been shut down for a prolonged period, you may need to reset the "Time" and "Date": See chapter "Setting the time and date".

What to do if...

Rooms are too cold

Cause	Remedy
The heating system is switched off.	▪ Turn on the ON/OFF switch (see page 32). ▪ Switch ON the mains isolator if installed (outside the boiler room). ▪ Set the MCB in the power distribution board (main domestic MCB).
Control unit incorrectly adjusted.	Check the settings and correct if required: ▪ Operating program (see page 15) ▪ Boiler water temperature (see page 21) ▪ Only for boilers in a multi boiler system: Boiler disabled (see page 23)
Only for constant temperature control of a single boiler system: The DHW cylinder is being heated.	Wait until the DHW cylinder has been heated up. Reduce the DHW draw-off rate or temporarily reduce the DHW temperature as required.
No fuel.	With oil or LPG: Check the fuel reserves and re-order if required. For operation with natural gas: Open the gas shut-off valve. If necessary, check with your gas supply utility.
⚠ **"Fault"** is displayed.	Check what type of fault it is. Acknowledge the fault (see page 28). If necessary, notify your contractor.

⚠ **"Burner fault"** is displayed.	▪ Vitotronic 100, type CC1E:
	  Press the burner reset button.
	  📖 See separate boiler or burner instructions.
	
	▪ Vitotronic 100, type CC1I:
	  Follow the instructions on the display (see page 29).
	Contact your contractor if the burner still fails to start.
	
	⚠ **Danger**
	If faults are not rectified, they can have life threatening consequences.
	Do not acknowledge fault messages several times in quick succession. Notify your contractor if a fault recurs. Your contractor will be able to analyse the cause and rectify the fault.

Rooms are too hot

Cause	Remedy
Control unit incorrectly adjusted.	Check the settings and correct if required: ▪ Operating program (see page 15) ▪ Boiler water temperature (see page 21)
⚠ **"Fault"** is displayed.	Check what type of fault it is. Acknowledge the fault (see page 28). If necessary, notify your contractor.
Only for constant temperature control of a single boiler system: The DHW cylinder is being heated.	Wait until the DHW cylinder has been heated up.

Single boiler constant control: No DHW

Cause	Remedy
The heating system is off.	▪ Turn on the ON/OFF switch (see page 32). ▪ Switch ON the mains isolator if installed (outside the boiler room). ▪ Set the MCB in the power distribution board (main domestic MCB).
Control unit incorrectly adjusted.	DHW heating must be set. Check the settings and correct if required: ▪ Operating program (see page 15) ▪ DHW temperature (see page 22)
No fuel.	With oil or LPG: Check the fuel reserves and re-order if required. For operation with natural gas: Open the gas shut-off valve. If necessary, check with your gas supply utility.
⚠ **"Fault"** is displayed.	Check what type of fault it is. Acknowledge the fault (see page 28). If necessary, notify your contractor.
⚠ **"Burner fault"** is displayed.	▪ Vitotronic 100, type CC1E: Press the burner reset button. 📖 See separate boiler or burner instructions. ▪ Vitotronic 100, type CC1I: Follow the instructions on the display (see page 29). Contact your contractor if the burner still fails to start. ⚠ **Danger** If faults are not rectified, they can have life threatening consequences. Do not acknowledge fault messages several times in quick succession. Notify your contractor if a fault recurs. Your contractor will be able to analyse the cause and rectify the fault.

Single boiler constant control: DHW too hot

Cause	Remedy
The control unit is set incorrectly.	Check the DHW temperature and correct it if required (see page 22).
The second set DHW temperature has been activated.	No action required. The "increased DHW hygiene" function has been activated by your heating contractor. This function improves the microbiological quality of the water in the DHW cylinder.
DHW is being heated by the solar thermal system.	Check the settings at the solar control unit and correct them if required. 📖 Separate operating instructions

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What to do if...

⚠ and "Fault" are displayed

Cause	Remedy
Heating system fault	Proceed as described on page 28.

⚠ and "Burner fault" are displayed

Cause	Remedy
Fault on burner control unit or boiler burner.	▪ Vitotronic 100, type CC1E: Press the burner reset button. 📖 See separate boiler or burner instructions. ▪ Vitotronic 100, type CC1I: Follow the instructions on the display (see page 29). Contact your contractor if the burner still fails to start. ⚠ **Danger** If faults are not rectified, they can have life threatening consequences. Do not acknowledge fault messages several times in quick succession. Notify your contractor if a fault recurs. Your contractor will be able to analyse the cause and rectify the fault.

🔧 and "Service" are displayed

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

Cleaning

The control unit can be cleaned with a commercially available domestic cleaning agent (non-scouring). You can clean the display screen with a microfibre cloth.

Note
You can temporarily deactivate the display screen for cleaning: See chapter "Deactivating the display screen for cleaning"

Inspection and maintenance

The inspection and maintenance of a heating system is prescribed by the Energy Saving Ordinance [EnEV - Germany] and the DIN 4755, DVGW-TRGI 2008 and DIN 1988-8 standards.

Regular maintenance ensures trouble-free, energy efficient, environmentally responsible and safe heating. Your heating system must be serviced by an authorised contractor at least every 2 years. For this, it is best 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. We recommend having the boiler cleaned annually.

DHW cylinder (if installed)

Standards DIN 1988-8 and EN 806 specify that maintenance and cleaning should be carried out no later than 2 years after commissioning and as required thereafter.
Only a qualified heating contractor should clean the inside of a DHW cylinder and the DHW connections.
If any water treatment equipment (e.g. a sluice or injection system) is installed in the cold water supply of the DHW cylinder, ensure this is refilled in good time.
In this connection, observe the manufacturer's instructions.

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

Safety valve (DHW cylinder)

The function of the safety valve must be checked every six months by the user or a contractor through venting (see valve manufacturer's instructions). The valve seat may become contaminated.
Water may drip from the safety valve during a heat-up process. The outlet is open to the atmosphere.

! **Please note**
Overpressure can cause damage.
Do not close the safety valve.

Potable water filter (if installed)

To maintain high hygienic standards, proceed as follows:
- Replace filter element on non-back flushing filters every six months (visual inspection every two months).
- On back flushing filters, back flush every two months.

Maintenance

Damaged cables / lines

If there is damage to the connecting cables or lines of the appliance or externally installed accessories, these must be replaced with special cables or lines. Only use Viessmann cables / lines as replacement. For this, notify your qualified contractor.

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Ordering fuel oil

If you have any questions, ask your contractor.

Fuel oil additives

Fuel oil additives are supplements that can be used, providing they have the following properties:
- They improve the stability of the fuel during storage
- They improve the thermal stability of the fuel
- They reduce odour development during filling

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

Combustion improvers

Combustion improvers are additives for optimising fuel oil combustion.
Viessmann pressure-jet oil burners do not require combustion improvers, as these burners operate with clean and efficient combustion.

! **Please note**
Combustion improvers can create residues and impair safe operation.
The use of combustion improvers that leave residues is not permissible.

Biofuels

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

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

Appendix

Buttons and icons

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

Buttons and icons in the menu bar

Buttons in the menu bar

≡ Main menu call-up
" Heating circuit ..." Heating circuit selection

Icons in the menu bar

LAN internet interface
-•- Connection active
-✗- No connection

-?- Unknown error on connection
-↻- Software update is being performed
➔- Establishing a connection

WiFi service interface
📶✗ No connection
📶 Connection active

Buttons in the navigation area

⌂ Home screen call-up
↩ One step back in the menu
or
Abort a setting
⑦ Help text call-up
⚠ Fault message or service message call-up
(✓) Fault message or service message acknowledgement
◀/▶ Energy cockpit or favourites call-up from home screen
or
Menu scrolling

✎ Settings adjustment
✓ Entry or selection confirmation
⊗ Entry reset
🗑 Entry or selection deletion
✗ Setting or selection cancellation
🗗 Copy setting
☑ Energy statement call-up
⚒ For contractors only:
Service menu call-up

Buttons and icons in the function area

General buttons in the function area

∧/∨ Scroll up or down
or
Increase or decrease value
</> Scroll left or right
+/− Increase or decrease value
| Function on
○ Function off
☑/◉ Entry selection
☐/○ Entry deselection

Buttons and icons in the energy cockpit

☀ Solar energy yield call-up
🚰 DHW cylinder heat-up condition call-up
⟫⟫⟫ The DHW cylinder is heated by the solar thermal system.
⟪⟪⟪ The DHW cylinder is heated by the boiler.

◊ Gas boiler operating data call-up
◊ Oil boiler operating data call-up
Fuel consumption call-up:
📊 Last 7 days
📊 Last 5 weeks
📊 Last 12 months
📊 Last 2 years
📊 Energy proportions setup for central heating and DHW heating
↕-- Energy consumption correction factor setup

Central heating and DHW heating buttons and icons

☀ Central heating at standard room temperature (preferred temperature)
☽ Central heating with reduced room temperature
❄ Frost protection enabled
☀, In conjunction with a solar thermal system:
Solar circuit pump running
|➔ Burner (gas or oil) in operation
▣ Operation with gas
▣ Operation with oil
▥ Central heating settings menu open

Buttons and icons (cont.)

▥ Proportion of energy consumption for central heating

🚰 DHW heating settings menu open
or
Proportion of energy consumption for DHW heating

🌡 Standard room temperature adjustment

🌡 Reduced room temperature adjustment

🌡 DHW temperature adjustment

⏱ Set an operating program:
  ⊙/🛏 Central heating and DHW heating
  ⊙/🚰 Only DHW heating
  ⊙/▥ Only central heating
  ⊙/⏻ Standby mode

Advanced menu buttons and icons

⚙ Further settings menu open

🔤 Language selection

💡 Screen brightness adjustment:
  💡 Brightness adjustment for operation
  💡 Brightness adjustment for standby screen

🔒 Lock the controls:
  🔒 Lock everything
  🔒 Only default display operational

📅 Date and time setting:
  📅 Date setting
  🕐 Time setting

⏱ Key tone on/off

⚡ Factory settings restore

▯ LAN internet interface activate/deactivate

🖐 Temporary deactivation of display screen for cleaning

📊 For the flue gas inspector only:
Test mode activation

🔧 For contractors only:
Service menu call-up

Service menu buttons and icons

For contractors only.

Settings and scans

📋 Text view as brief scan

📋 Code view as brief scan

↰ Settings switch

↻ Refresh

🔋 Information on the set value

System components/system hydraulics

▯ DHW cylinder

◎ Heating circuit without mixer

◉ Heating circuit with mixer

Single boiler constant control: Menu overview

Note
Depending on the features of your heating system, not all of the displays and checks listed may be available. Further details can be called up for any information marked with ❯.

Overview of the home screen

🏠

Home screen			
	Main menu		
		See the following chapter	
	Selecting operating program		
		Standby mode	
		Only DHW	
		Heating and DHW	
	Set boiler water temperature		

Single boiler constant control: Menu overview (cont.)

Energy cockpit		
42	Default display in the Energy cockpit	
		Solar thermal system energy yield
		Energy statement in conjunction with solar thermal system
	DHW cylinder temperature	
	Energy consumption and operating data	

Overview of the "Main menu"

≡

Test mode

Settings		
	Language	
	Display brightness	
		Brightness, operation
		Brightness, standby
	Date and time	
		Date
		Time
	Buzzer	
	Factory settings	
	LAN on/off	
	LAN settings	
	Clean screen	
	Lock out controls	
		Lock everything
		Only home screen operable

DHW	
	DHW set temperature

Single boiler constant control: Menu overview (cont.)

Information

	Information general		
		Boiler temperature	
		Act. boiler output	
		Sensor 17A	
		Sensor 17B	
		Sensor 9	
		Flue gas temperature	
		Central fault message	
		Output 20	
		Output 29	
		Output 52	
		Feed pump	
		LON subscriber no.	
		Inputs, extension EA1	
			Digital input 1
			Digital input 2
			Digital input 3
		External hook-up 0 .. 10 V, extension EA1	
		Pump output signal PM1	
		Flow rate set val. pmp PM1	
		Pump power supply PM1	
		Floating contact PM1	
		Temperature sensor 1 PM1	
		Temperature sensor 2 PM1	
		Temperature sensor 3 PM1	
		Temperature sensor 4 PM1	
		Fault mess input PM1	
		Time	
		Date	
		Serial number boiler	
		Serial number control unit	

Single boiler constant control: Menu overview (cont.)

Information			
	Information burner		
		Burner	
		Burner hours run	
		Burner starts	
		Burner state	
			Burner stage 1
			Burner stage 2
		Actual burner output	
		Burner output stage 1	
		Burner output stage 2	
		Boiler temperature	
		Set boiler water temperature	
		Flue gas temperature	
		Fuel type	
		Gas type	
		Altitude	
		Maximum boiler water temperature	
		Ionisation current	
		Gas pressure	
		Temperature limiter	
		Burner locked out	
		Internal fault code, burner control unit	
	Information DHW		
		DHW temperature	
		DHW temperature	
			Top
			Bottom
	Heating		
		Operating program	
			Heating and DHW
			Only DHW
			Standby mode
			Screed function
			External hook-up
		Operating status	

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Single boiler constant control: Menu overview (cont.)

Information			
	Information solar energy		
		Only in conjunction with solar control module, type SM1: Solar energy bar chart ❯	
		Collector temperature	
		Solar DHW	
		Solar circuit pump	
		Solar energy	
		Speed, solar circuit pump	
		Heating suppression, DHW	
		Only in conjunction with solar control module, type SM1: SM1 output 22	
		Only in conjunction with solar control module, type SM1: SM1 output 22	
		Only in conjunction with solar control module, type SM1: SM1 outp.22 starts	
		Only in conjunction with solar control module, type SM1: Sensor 7	
		Only in conjunction with solar control module, type SM1: Sensor 10	
		Only in conjunction with solar control module, type SM1: Heating suppression, heating	
	Service contact details		
		Name	
		Telephone	
		Mobile	
		Email	
	Information LAN		
		Manufacturer's details	
		ID	
		MAC address	
		LAN activated	
		DHCP activated	
		DHCP server	
		Ipv4 address	
		Ipv4 subnet mask	
		Standard gateway	
		Primary DNS server	
		Secondary DNS server	
		LAN status	
		LAN error	
		LAN extended error	

Appendix

Information

	Information, reset data	
		Burner hours run ❯
		Burner starts ❯
		Solar circuit pump ❯
		Solar energy ❯
		SM1 output 22 ❯
		All data ❯

Service

Control of a multi boiler system: Menu overview

Note
Depending on the features of your heating system, not all of the displays and checks listed may be available. Further details can be called up for any information marked with ❯.

Overview of the home screen

🏠
Home screen

	Main menu	
		See the following chapter

Energy cockpit

	Default display in the energy cockpit	
		Energy consumption and operating data

Overview of the main menu

☰
Block/enable boiler

Test mode

Control of a multi boiler system: Menu overview (cont.)

Settings			
	Language		
	Brightness		
		Brightness, operation	
		Brightness, standby	
	Date and time		
		Date	
		Time	
	Buzzer		
	Factory settings		
	LAN ON/OFF		
	LAN settings		
	Clean screen		
	Lock out controls		
		Lock everything	
		Only home screen operable	

Control of a multi boiler system: Menu overview (cont.)

Information			
	Information general		
		Boiler temperature	
		Act. boiler output	
		Sensor 17A	
		Sensor 17B	
		Flue gas temperature	
		Central fault message	
		Output 20	
		Output 29	
		Output 52	
		Feed pump	
		LON subscriber no.	
		External hook-up 0 .. 10 V, extension EA1	
		Pump output signal PM1	
		Flow rate set value pump PM1	
		Pump power supply PM1	
		Floating contact PM1	
		Temperature sensor 1 PM1	
		Temperature sensor 2 PM1	
		Temperature sensor 3 PM1	
		Temperature sensor 4 PM1	
		Fault mess input PM1	
		Time	
		Date	
		Serial number boiler	
		Serial number control unit	

Control of a multi boiler system: Menu overview (cont.)

Information

	Information burner		
		Burner	
		Burner hours run	
		Burner starts	
		Burner status	
			Burner stage 1
			Burner stage 2
		Actual burner output	
		Burner output stage 1	
		Burner output stage 2	
		Boiler temperature	
		Set boiler water temperature	
		Flue gas temperature	
		Fuel type	
		Gas type	
		Altitude	
		Maximum boiler water temperature	
		Ionisation current	
		Gas pressure	
		Temperature limiter	
		Burner locked out	
		Internal fault code, burner control unit	
	Service contact details		
		Name	
		Telephone	
		Mobile	
		Email	
	Information LAN		
		Manufacturer's details	
		ID	
		MAC address	
		LAN activated	
		DHCP activated	
		DHCP server	
		Ipv4 address	
		Ipv4 subnet mask	
		Standard gateway	
		Primary DNS server	
		Secondary DNS server	
		LAN status	
		LAN error	
		LAN extended error	

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▶▶

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Control of a multi boiler system: Menu overview (cont.)

Information

Information, reset data	
	Burner hours run ❯
	Burner starts ❯
	All data ❯

Service

Terminology

Operating program

Only for constant temperature control of a single boiler system.

You define the following with the operating program:
- Central heating and DHW heating
  or
- DHW heating only, no central heating
  or
- Only frost protection for the boiler and the DHW cylinder is active.
  No central heating, no DHW heating

Note
An operating program for central heating without DHW heating is only available for systems without a DHW cylinder. When central heating is needed, hot water is generally also required (winter mode).

Heating circuit

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

A heating system may comprise several heating circuits. For example, one heating circuit for the rooms occupied by you and one heating circuit for the rooms of a separate apartment.

Open flue operation

The combustion air is drawn from the room where the boiler is installed.

Room sealed operation

The combustion air is drawn from outside the building.

Safety valve

Safety equipment that must be installed in the cold water pipe by your contractor. The safety valve opens automatically to prevent excess pressure in the DHW cylinder.

The heating circuits are also equipped with safety valves.

Solar circuit pump

In conjunction with solar thermal systems.

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Terminology (cont.)

The solar circuit pump delivers the cooled heat transfer medium from the indirect coil of the DHW cylinder to the solar collectors.

Set temperature

See "Set temperature".

Summer mode

Operating program **"Only DHW"**.

In warmer months, you can switch off heating mode. The boiler remains operational for DHW heating. Central heating is switched off.

Cylinder primary pump

Circulation pump for heating the DHW in the DHW cylinder.

Drinking water filter

A device that removes solids from the water. The drinking water filter is installed in the cold water pipe upstream of the DHW cylinder or the instantaneous water heater.

Set temperature

Specific temperature that should be reached, e.g. set DHW temperature for example.

Information on disposal

Disposal of packaging

You heating contractor will dispose of the packaging of your Viessmann product.

DE: Packaging waste is channelled for recycling to a certified disposal contractor in line with statutory regulations.
AT: Packaging waste is channelled for recycling to a certified disposal contractor in line with statutory regulations. Use the ARA statutory disposal system (Altstoff Recycling Austria AG, licence number 5766).

Final decommissioning and disposal of the heating system

Viessmann products can be recycled. Components and fluids from your heating systems are not part of ordinary domestic waste.
Please contact your heating contractor in connection with the correct disposal of your old system.

DE: Operating fluids (e.g. heat transfer medium) can be disposed of at municipal collection points.
AT: Operating fluids (e.g. heat transfer medium) can be disposed of at municipal collection points (ASZ).

Keyword index

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Keyword index (cont.)

Certification

RoHS
compliant
2002 / 95 / EC

Your contact

Contact your local contractor if you have any questions about your system or wish to arrange maintenance or repair work. You can find local contractors on the internet at www.viessmann.de.

Viessmann Climate Solutions SE
35108 Allendorf / Germany
Telephone: +49 6452 70-0
Fax: +49 6452 70-2780
www.viessmann.com

Viessmann Limited
Hortonwood 30, Telford
Shropshire, TF1 7YP, GB
Telephone: +44 1952 675000
Fax: +44 1952 675040
E-mail: info-uk@viessmann.com