

# Operating instructions for the system user

**VIESSMANN**

Wall mounted gas boiler with black/white screen



## **VITODENS 100-W/111-W**



### 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.

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

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

### Target group

These operating instructions are designed for heating system users. This appliance can also be operated by children aged 8 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 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 user maintenance must never be carried out by unsupervised children.

### Safety instructions for working on the system

#### Connecting the appliance

- The appliance may be connected and commissioned only 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 specialists.

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

**For your safety** (cont.)**Working on the appliance**

- All settings and work on the appliance must be performed as specified in these operating instructions. Further work on the appliance may be carried out only by authorised contractors.
- Do not open the appliance.
- Do not remove casings.
- Do not modify or remove attachments or fitted accessories.
- Do not open or tighten pipe connections.

**Danger**

Hot surfaces can cause burns.

- Do not open the appliance.
- Never touch the hot surfaces of uninsulated pipes, fittings or flue pipes.

**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 your contractor.

**Safety instructions for operating the system****Damage to the appliance****Danger**

Damaged equipment poses a safety hazard.

Check the appliance for external damage. Never start up a damaged appliance.

**If you smell gas****Danger**

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

- No smoking! 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).

**For your safety** (cont.)

**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.

**If there is a 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.

**If water escapes from the appliance**



**Danger**

If water escapes from the appliance there is a risk of electric shock.

- Shut down the heating system at the external isolator (e.g. fuse box, domestic distribution board).
- Please notify your contractor.

**If the heating system develops a fault**



**Danger**

Fault messages indicate faults in the heating system. If faults are not rectified, they can have life threatening consequences.

Do not acknowledge fault messages several times in quick succession. Notify contractor so the cause can be analysed and the fault rectified.

**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. Do not 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/petrol, solvents, cleaning agents, paints or paper) can cause deflagration and fire. Never store or use such materials in the boiler 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.

- Maintain the permissible ambient temperatures as detailed in these operating instructions.
- 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).

**For your safety** (cont.)**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 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 a reverse flow of flue gas.

Take suitable steps to ensure an adequate supply of combustion air. If necessary, contact your contractor.

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### Liability

No liability is accepted for loss of profit, unattained savings, or other direct or indirect consequential losses resulting from use of the WiFi interface integrated into the system or the corresponding 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 relevant data protection regulations and terms of use apply to the use of Viessmann apps. 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.

## Symbols

| Symbol                                                                              | Meaning                                                                                                                                      |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
|    | Reference to other document containing further information                                                                                   |
|    | Step in a diagram:<br>The numbers correspond to the order in which the steps are carried out.                                                |
|    | Warning of personal injury                                                                                                                   |
|    | Warning of material losses and environmental pollution                                                                                       |
|    | Live electrical area                                                                                                                         |
|    | Pay particular attention.                                                                                                                    |
|   | <ul style="list-style-type: none"> <li>▪ Component must audibly click into place.</li> <li>or</li> <li>▪ Acoustic signal</li> </ul>          |
|  | <ul style="list-style-type: none"> <li>▪ Fit new component.</li> <li>or</li> <li>▪ In conjunction with a tool: Clean the surface.</li> </ul> |
|  | Dispose of component correctly.                                                                                                              |
|  | Dispose of component at a suitable collection point. Do <b>not</b> dispose of component in domestic waste.                                   |

## Terminology

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

### Intended use

The appliance is intended solely for installation and operation in sealed unvented heating systems that comply with EN 12828, with due attention paid to CECS 215-2017 and the associated installation, service and operating instructions. It is only designed for heating up heating water that is of potable water quality.

Intended use presupposes that a fixed installation in conjunction with permissible, system-specific components has been carried out.

The appliance is intended exclusively for domestic or semi-domestic use; even users who have not had any instruction are able to operate the appliance safely.

Commercial or industrial usage for a purpose other than heating the building or DHW shall be deemed inappropriate.

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 use (e.g. if the flue gas and ventilation air paths are sealed).

### Product information

The control unit is a boiler and heating circuit control unit for the following operating modes:

- Weather-compensated operation
- Constant operation with time program
- Room temperature-dependent operation:
  - Constant operation as option with room temperature controller
  - OpenTherm controller
- Individual room control with/without modulation

Your heating contractor will configure the operating mode during commissioning in accordance with your heating system.

These instructions describe all 4 operating modes.

The setting options for room temperature-dependent operation with an OpenTherm controller via the system are limited:



OpenTherm controller operating instructions

### Weather-compensated operation

In weather-compensated operation, the flow temperature level is controlled according to the outside temperature. The lower the outside temperature, the higher the flow temperature. This means that more heat is provided for central heating on cold days than on warmer days.

In weather-compensated operation, 1 heating circuit without mixer and 1 heating circuit with mixer can be operated with the control unit.

### Constant operation with time program

In constant operation, the heat generator provides heating water with a constant flow temperature regardless of the outside temperature. Heating times are controlled by a time program.

In constant operation, 1 heating circuit without mixer and 1 heating circuit with mixer can be operated with the control unit.

### Room temperature-dependent operation

In room temperature-dependent operation, the central heating is switched on or off subject to the room temperature. The flow temperature remains constant. In room temperature-dependent operation, 1 heating circuit without mixer can be operated with the control unit.

#### Constant operation as option with room temperature controller

In constant mode with a room temperature controller, the controller measures the room temperature and compares it with the selected required room temperature. If the temperatures are different, the room temperature is regulated to the required value.

## Product information (cont.)

### Note

*The heating water temperature must be set high enough in order to achieve the required room temperature.*



Operating instructions for room temperature controller

### OpenTherm controller

In room temperature-dependent operation, the central heating is switched on or off subject to the room temperature. The flow temperature remains constant.

## Individual room control with/without modulation

In individual room control mode with/without modulation, specific rooms can be heated differently. The ViCare climate sensors capture the room temperature and compare it with the required room temperature that has been set. If the temperatures are different, the room temperature is regulated to the required value.

Once an internet connection has been successfully established, operation is possible with the ViCare app.



ViCare thermostat operating instructions  
or  
[www.vicare.info](http://www.vicare.info)

## Operation

The control unit is integrated into the heat generator and controls all functions of your system. The control unit is operated via a black/white screen.

A communication module is integrated in the control unit. This allows the system to be remotely controlled via the internet using the ViCare app (except when operating via OpenTherm controller).

## Permissible ambient temperatures in the installation room



### Please note

The appliance may develop faults if it is operated outside the specified temperature ranges. Ensure that the specified temperature range is maintained in the installation room.

To prevent malfunctions, ensure that the room is free from the risk of frost, dry and heated.

## Software licences

This product contains third party software, including open source software. You are authorised to use this third party software subject to compliance with the relevant licensing terms.

Licences for the integrated communication module:  
See page 27.

## Commissioning

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

As the operator of new combustion equipment, you may be obliged to notify the local flue gas inspector of the installation without delay [check local regulations]. Your local flue gas inspector (where applicable) will also provide you with information on additional activities concerning your combustion equipment (such as regular testing, 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 in weather-compensated operation

- Between **06:00 and 22:00**, rooms are heated to 20 °C (standard temperature level "n2").
- Between **22:00 and 06:00**, rooms are heated to 3 °C (reduced temperature level "n1", frost protection).

#### Central heating in constant operation

- Between **06:00 and 22:00**, the set flow temperature is 60 °C (standard temperature level "n2").
- Between **22:00 and 06:00**, the set flow temperature is 20 °C (reduced temperature level "n1", frost protection).

#### Central heating in room temperature-dependent operation

- The rooms are heated in accordance with the settings on your room temperature controller or Open-Therm controller.

#### DHW heating

- Between **05:00 and 22:00**, DHW is heated to 50 °C (standard temperature level "n2"). Any installed DHW circulation pump is switched on.
- Between **22:00 and 05:00**, the DHW cylinder is not reheated. Any installed DHW circulation pump is switched off.

#### Note

*Any DHW heating started before 22:00 remains on until the set DHW temperature has been reached.*

#### Frost protection

- Your heat generator and DHW cylinder (if installed) are protected against frost.  
The frost protection function is only possible when an outside temperature sensor is connected. Frost protection function is active at outside temperatures below 5 °C. The burner is switched on and the boiler water temperature is held at 20 °C.

#### 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 retained if there is a power failure.*

## Energy saving tips

### Saving energy when using central heating

- Do not overheat your home. Every degree of room temperature reduction saves up to 6 % on your heating bills.  
Weather-compensated operation and room temperature-dependent operation:  
Never set your standard room temperature (standard temperature level "n2") higher than 20 °C.
- Heat your home to the reduced temperature at night or during regular absences:
  - Weather-compensated operation:  
Reduced room temperature.
  - Continuous operation and room temperature-dependent operation:  
Reduced flow temperature.
 In constant operation, adjust the time program for central heating: See page 18.  
 In room temperature-dependent operation, time programs for central heating can only be adjusted at the room temperature controller or OpenTherm controller.



Operating instructions for the room temperature controller or OpenTherm controller

### Saving energy on DHW heating

At night or during regular absences, heat the DHW to a lower temperature. To do so, adjust the time program for DHW heating: See page 19.  
 For additional energy saving functions, please contact your contractor.

## Tips for greater comfort

### More comfort in your home

- Set your individual preferred temperature: See page 20.
- Adjust the time program for your heating circuits so that your individual preferred temperature is automatically reached if you are present: See page 18.  
 In room temperature-dependent operation, time programs for central heating can only be adjusted at the room temperature controller or OpenTherm controller. See the operating instructions for the controller.
- Only for weather-compensated operation:  
 Adjust the heating curves so that your home is heated with your individual preferred temperature all year round: See page 20.

### Sufficient DHW heating for your needs

Adjust the time program for DHW heating so that there is always sufficient hot water in accordance with your habitual routines: See page 19.  
 Example: You need more DHW in the morning than in the daytime.

### Operating principles

All your system settings can be made via the programming unit, remote control units or other room temperature control devices and the ViCare app.

#### Touchscreen operation

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

#### Operation via remote control units or room temperature control devices



Separate operating instructions

#### Operation via ViCare app

The ViCare app allows you to operate your system via a mobile device, e.g. smartphone.

Available functions depend on the system equipment e.g. with/without ViCare components for individual room control.

Check the following system requirements for operation via the app:

- Viessmann system that can be connected via Vito-connect or an integrated communications module.
- WiFi connection from router for control with internet access
- Smartphone or tablet with operating system:
  - iOS
  - Android

Further information on using the ViCare app: See [www.vicare.info](http://www.vicare.info).

### Status display with Lightguide

Depending on the heat generator, a white spot (Lightguide) is shown on the display.

Meaning of the display:

- Lightguide pulsates slowly:  
Display is in standby mode.
- Lightguide flashes quickly:  
There is a fault in the system.

#### Note

You can switch off the Lightguide. See page 24.

### Displays

#### Standby

The display backlighting is switched off after approx. 2 minutes.

You can deactivate standby mode: See page 24.

#### Home screen

After switching on or activating the control unit the home screen is shown.  
In the delivered condition,  heating circuit 1 is shown as the home screen.

Call up the home screen:

- Standby is active:  
Tap any button.
- From anywhere in the menu:  
Tap  until the home screen is shown.

#### Default displays

On the home screen, you can call up the various default displays to see the status of the most important functions.

Default screen displays:

-  In weather-compensated mode: Set room temperature for heating circuit 1  
In constant operation: Flow temperature for heating circuit 1
-  In weather-compensated mode: Set room temperature for heating circuit 2

## Displays (cont.)

In constant operation: Flow temperature for heating circuit 2

-  DHW temperature
-  System pressure
-  DHW ECO function (with combi boilers)
-  Current fault message (if a fault is present)

### To call up the default displays:

1. Tap  repeatedly until the home screen is shown.
2. Tap  to switch between the default displays.

## Buttons and symbols



Fig. 1

- (A) Function area
- (B) Navigation area

### Buttons and symbols in function area (A)

#### Note

- What buttons and symbols are available depends on the operating mode: Weather-compensated operation, constant operation, room temperature-dependent operation
- These symbols are not always displayed, but appear subject to the system version and the operating status.

#### Symbols

-  Heating circuit 1
-  Heating circuit 2
-  DHW temperature
-  System pressure
-  DHW ECO function
-  Service menu active
-  Fault display active
-  Burner status active
-  WiFi connection
-  Reduced temperature level active

-  Emissions test mode
-  Burner reset

### Buttons and symbols in navigation area (B)

-  Calls up the main menu.
- Or
-  Takes you back to the home screen.
-  Scrolls through the menu or adjusts values.
- "OK" You confirm the operation.

## Overview of main menu

In the main menu, you can check and adjust all of the settings for the appliance's range of functions.

Available menus:

- "P.1" Temperature level
- "P.2" Information
- "P.3" Heating curve
- "P.4" Time program for central heating and DHW heating
- "P.5" Display brightness
- "P.6" Display standby mode
- "P.7" Internet access and information
- "P.8" Low power radio access and information
- "P.9" Lightguide
- "P.10" Date
- "P.11" Time

## Overview of main menu (cont.)

### Calling up the main menu

Tap the following buttons:

1.  to call up the main menu.

2.   for the required menu

3. "OK" to confirm

## Operating programs for central heating and DHW heating

### Note

The operating programs for central heating and DHW heating can be set separately or all together for the entire system.

| Operating program                                                                                                                                                                                                                 | Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Room heating</b>                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Heating circuit 1  and/or heating circuit 2  is active.         | <p>The rooms of the selected heating circuit are heated in accordance with the specified room temperature or flow temperature and the time program: See chapter "Central heating".</p> <p><b>Note</b><br/>In room temperature-dependent operation, a time program for central heating can only be set at the room temperature controller or OpenTherm controller: See the operating instructions for the room temperature controller or OpenTherm controller.</p>                                                                                                                              |
| Heating circuit 1  and/or heating circuit 2  is not active. | <ul style="list-style-type: none"> <li>▪ No room heating</li> <li>▪ Frost protection for the heat generator is active.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>DHW heating</b>                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DHW  is active.                                                                                                                                | DHW is heated in accordance with the specified DHW temperature and time program: See chapter "DHW heating".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DHW  is not active.                                                                                                                            | <ul style="list-style-type: none"> <li>▪ No DHW heating</li> <li>▪ Frost protection for the DHW cylinder is active.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>System</b>                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| The entire system is switched on.                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>▪ The rooms are heated in accordance with the specified room temperature or flow temperature and the time program: See chapter "Central heating".</li> </ul> <p><b>Note</b><br/>In room temperature-dependent operation, a time program for central heating can only be set at the room temperature controller: See the operating instructions for the room temperature controller.</p> <ul style="list-style-type: none"> <li>▪ DHW is heated in accordance with the specified DHW temperature and time program: See chapter "DHW heating".</li> </ul> |
| The entire system is switched off.                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>▪ No room heating</li> <li>▪ No DHW heating</li> <li>▪ Frost protection for the heat generator and the DHW cylinder is active.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                               |

## Time programs and time phases

### Note

In room temperature-controlled operation, you set the time programs via the room temperature controller or OpenTherm controller.

In the time programs you determine what your heating system should do at what time. To do so, divide the day into sections. These are called **time phases**. Different temperature levels are active within and outside these time phases.



Operating instructions for the room temperature controller or OpenTherm controller

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

| Function     | Temperature level                                                                                                                                                                                                                                                           |                                                      |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
|              | Within the time phase                                                                                                                                                                                                                                                       | Outside the time phase                               |
| Room heating | Weather-compensated operation:<br>Your rooms are heated with standard room temperature or comfort room temperature.                                                                                                                                                         | Your rooms are heated with reduced room temperature. |
|              | Constant operation:<br>Your rooms are heated with standard flow temperature or comfort flow temperature.                                                                                                                                                                    | Your rooms are heated with reduced flow temperature. |
|              | Room temperature-dependent operation:<br>A time program for central heating can only be set at the room temperature controller.<br> Operating instructions for room temperature controller |                                                      |
| DHW heating  | DHW heating is switched on.<br>The water in the DHW cylinder is heated to the set DHW temperature.                                                                                                                                                                          | DHW heating is switched off.                         |

## Procedure for setting a time program

The following explains how to input the settings for a time program. The specifics of the individual time programs can be found in the relevant chapters. In the time programs you determine what your heating system should do at what time. To do so, divide the day into sections. These are called **time phases**. Different temperature levels are active within and outside these time phases.

### Note

In operating modes "constant operation with room temperature controller" and "OpenTherm controller", it is **not** possible to adjust a time program for central heating and DHW heating.

## Procedure for setting a time program (cont.)

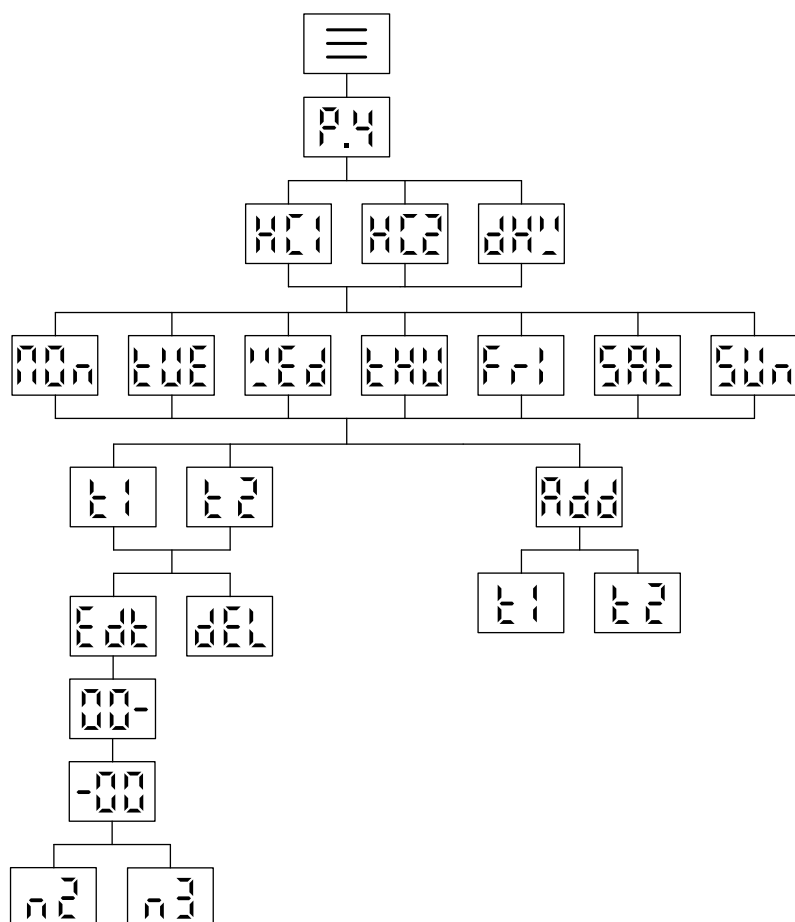


Fig. 2

## Adjusting a time program for central heating P.4

The time program for central heating is adjusted under P.4.

The time phase for central heating is factory-set to 06:00 to 22:00.

Tap the following buttons:

1. for 4 s to enter the main menu.

2. P.4 should be selected.

3. "OK" to confirm

4. H01 or H02 should be selected.

5. "OK" to confirm

6. for the required period

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

7. "OK" to confirm

8. confirm with "OK" to add time phases t1 and/or t2.  
or

and confirm with "OK" to edit the time of the respective time phase.

9. and confirm with "OK" to modify the time of the time phase.  
or

and confirm with "OK" to delete the time phase.

10. to select the start time.

11. "OK" to confirm

12. to select the end time.

13. "OK" to confirm

## Adjusting a time program for central heating P.4 (cont.)

14.  and confirm with **"OK"** to set the "Standard" temperature level.  
**or**

 and confirm with **"OK"** to set the "Comfort" temperature level.

15.  repeatedly to exit the menu.

### Note

*Outside the time program with temperature level  or , the reduced temperature level  is active. The reduced temperature level  is shown as  on the home screen.*

## Adjusting a time program for DHW heating P.4

The time phase for DHW heating is factory-set to 05:00 to 22:00.

Adjust the time program to suit your needs.

Tap the following buttons:

1.  for 4 s to enter the main menu.

2.  P.4 should be selected.

3. **"OK"** to confirm

4.   should be selected.

5. **"OK"** to confirm

6.  for a time period

 Monday

 Tuesday

 Wednesday

 Thursday

 Friday

 Saturday

 Sunday

7. **"OK"** to confirm

8.  Confirm with **"OK"** to add time phase .  
**or**

 Confirm with **"OK"** to edit the time of the time phase.

9.  and confirm with **"OK"** to modify the time of the time phase.  
**or**

 and confirm with **"OK"** to delete the time phase.

10.  to select the start time

11. **"OK"** to confirm

12.  to select the end time

13. **"OK"** to confirm

14.  repeatedly to exit the menu.

## Factory settings for the temperature levels

### Weather-compensated operation

- Standard room temperature: 20 °C
- Reduced room temperature: 3 °C
- Comfort room temperature: 20 °C

### Constant operation and room temperature-dependent operation

- Standard flow temperature: 60 °C
- Reduced flow temperature: 20 °C
- Only for constant operation  
Comfort flow temperature: 70 °C

### Constant operation and room temperature-dependent operation with room temperature controller

Only change the set values for the flow temperature if the heat supply for central heating is insufficient.

### Room temperature-dependent operation with OpenTherm controller

In this operating mode, it is not possible to adjust temperatures via the control unit.

See the OpenTherm controller operating instructions.

## Switching on the central heating

Tap the following buttons:

1.  repeatedly to switch between the default displays until  appears.

2.  until the set temperature appears.

3. "OK" to confirm.

4.  to exit the menu.

## Adjusting the temperature level for central heating P.1

Adjust the temperature level for central heating to suit your needs.

### Note

With room temperature-dependent operation, you adjust the set room temperature on your room temperature controller.

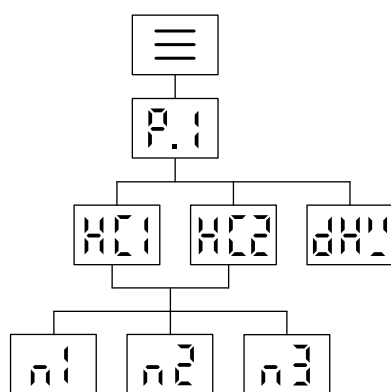


Fig. 3

Tap the following buttons:

1.  for 4 s to enter the main menu.

2.   P.1 should be selected.

3. "OK" to confirm

4.   H1 or H2 or H3 should be selected.

5. "OK" to confirm

6.  /  Select the temperature level:  
n1 Reduced level  
n2 Standard level  
n3 Comfort level

7. "OK" to confirm

8.   to select the set value.

9. "OK" to confirm

10.  repeatedly to exit the menu.

### Note

The set value for the current temperature level and the set flow temperature can be set directly via the home screen for the respective heating circuit with  .

## Adjusting the heating curve P.3

The heating curve can only be adjusted in weather-compensated operation.

By setting the heating curve, you influence the flow temperature provided by the heat generator.

So that your rooms are heated optimally at any outside temperature, you can adjust the heating curve slope and level.

## Adjusting the heating curve P.3 (cont.)

Factory setting:

- Slope: 1
- Level: 3

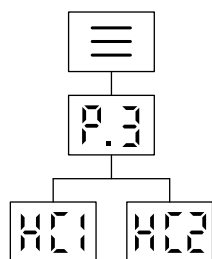


Fig. 4

Tap the following buttons:

1. for 4 s to enter the main menu.

2. / P.3 should be selected.

3. "OK" to confirm

4. / H01 or H02 should be selected.

5. "OK" to confirm

6. / to set the value for the slope.

7. "OK" to confirm

8. / to set the value for the level.

9. "OK" to confirm

10. repeatedly to exit the menu.

## Adjusting the room temperature for longer periods at home

If you are continuously at home for one or more days but do not want to change the time program, select the "holiday at home" function, e.g. for public holidays or when the children are on school holidays.

The "holiday at home" function has the following effects:

- The room temperature during the periods between the set time phases is raised to the set value of the first time phase of the day: From reduced room temperature to standard room temperature or comfort room temperature
- If no time phase is active before 00:00, your rooms are heated to the reduced room temperature until the next time phase becomes active.

- DHW heating is active.
- The "holiday at home" function starts and ends according to the set times for the start date and end date.
- As long as the "holiday at home" function is switched on, the default display shows "E 3".

## Switching the holiday at home function on/off

You can switch the "holiday at home" function on and off via the ViCare app.

While the function is switched on, "E 3" is shown on the display.

## Saving energy during long absences

To save energy during long periods of absence, select the "holiday program".

The holiday program has the following effects:

- **Room heating:**
  - For heating circuits in the heating operating program: The rooms are heated to the set reduced room temperature.
  - For heating circuits in standby mode: No room heating: Frost protection for the heat generator and the DHW cylinder is active.
- **DHW heating:** No DHW heating: Frost protection for the DHW cylinder is active.

### Saving energy during long absences (cont.)

- The holiday program starts at 00:00 on the first day of your holiday and ends at 23:59 on the final day.
- As long as the "holiday program" function is switched on, the default display shows "E 3".

### Switching the holiday program on/off

The "holiday program" function is switched on and off via the ViCare app.

While the function is switched on, the display shows "E 3".

### Turning off central heating

You do not want to heat your rooms but you want to have DHW available (summer mode).

#### Note

*If heating circuit 2  was configured on the heat generator and you want to switch it off, move through the default display until  is illuminated.*

Tap the following buttons:

1.  repeatedly to switch between the default displays until  appears.

2.  until  appears.

3. "OK" to confirm.

4.  to exit the menu.

#### Note

- To prevent the circulation pump from seizing, it briefly starts every 24 hours.
- Boiler frost protection is enabled.

## Switching on DHW heating

You want to have DHW available.

Tap the following buttons:

1.  repeatedly to switch between the default displays until  appears.
2.  for 4 s until  appears.

3. "OK" to confirm.

4.  to exit the menu.

## Adjusting the temperature for DHW heating

Factory settings: 50 °C

Adjust the DHW temperature to suit your needs.

### Note

*For reasons of good hygiene, you should not set the DHW temperature lower than 50 °C.*

Tap the following buttons:

1.  for 4 s to enter the main menu.

2.  should be selected

3. "OK" to confirm

4.  /   should be selected.

5. "OK" to confirm

6.  /  Set a value.

7. "OK" to confirm

8.  repeatedly to exit the menu.

## Setting the Eco function for DHW heating

### Note

*This function is only possible in conjunction with an instantaneous water heater (combi boiler).*

The ECO function does **not** provide you with instant hot water; the water is not heated until it is drawn off. You can set the Eco function via default display .

Tap the following buttons:

1.  repeatedly to switch between the default displays until  appears.

2.  /  

3. "OK" to confirm  
If  is illuminated on the far left, you have successfully switched on the Eco function.

## Switching off DHW heating

You do not want to have DHW available.

Tap the following buttons:

1.  repeatedly to switch between the default displays until  appears.
2.  for 4 s until  appears.

3. "OK" to confirm.

4.  to exit the menu.

## Further settings

### Adjusting the display brightness P.5

Set the right brightness for your display.

Tap the following buttons:

1.  for 4 s to enter the main menu.
2.  /  P.5 should be selected.
3. "OK" to confirm
4.  /  Set a value.
5. "OK" to confirm
6.  repeatedly to exit the menu.

### Setting standby for the display P.6

Activate or deactivate standby.

Tap the following buttons:

1.  for 4 s to enter the main menu.
2.  /  P.6 should be selected.
3. "OK" to confirm
4.  /   or  should be selected.  
 The display is always on.  
 The display enters standby mode after 2 minutes.
5. "OK" to confirm
6.  repeatedly to exit the menu.

### Switching the "Lightguide" on and off P.9

Depending on the heat generator, a white spot (Lightguide) is shown on the display during operation. In the delivered condition, the Lightguide is switched on. You can switch off the Lightguide.

Tap the following buttons:

1.  for 4 s to enter the main menu.
2.  /  P.9 should be selected.
3. "OK" to confirm
4.  /   or  should be selected.  
Confirm your selection with "OK".
5.  repeatedly to exit the menu.

Meaning of the display:

- Lightguide pulsates slowly:  
Display is in standby mode.
- Lightguide flashes quickly:  
There is a fault in the system.

#### Note

*Faults are shown by flashing lights even if the Lightguide is switched off.*

### Setting the date P.10

The date is preset by the heating contractor. Change the date if necessary.

Tap the following buttons:

1.  for 4 s to enter the main menu.
2.  /  P.10 should be selected.
3. "OK" to confirm
4.  /  to select the day.
5. "OK" to confirm
6.  /  to select the month.
7. "OK" to confirm
8.  /  to select the year.
9. "OK" to confirm

## Setting the date P. 1 (cont.)

10.  repeatedly to exit the menu.

## Setting the time P. 1

The time is preset by the heating contractor. Change the time if necessary.

Tap the following buttons:

1.  for 4 s to enter the main menu.
2.  P. 1. 1 should be selected.
3. "OK" to confirm
4.  to select the hour.
5. "OK" to confirm
6.  to select the minutes.
7. "OK" to confirm
8.  repeatedly to exit the menu.

## Switching internet access on or off

You can control your system remotely via the internet using an app. To do this, establish an internet connection via WiFi (2.4 gigahertz): See the following chapter. The required credentials for internet access to the control unit via app can be found on the adjacent label:



## Establishing a WiFi connection

You will need the ViCare app on your mobile device to establish an internet connection with the heat generator.

Tap the following buttons:

1. "OK" for 4 s. The display will show a rotating bar until the WiFi symbol is illuminated on the far left.
2. Start the ViCare app and follow the instructions in the app.

- |                                                                                                              |                                                           |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
|  flashes.                 | The connection to the local network is being established. |
|  is dimly illuminated.    | The connection to the local network has been established. |
|  is brightly illuminated. | The connection to the server has been established.        |

### Fault while establishing the connection

**"E10"** Connection to the home network cannot be established.

#### Note

If "E10" appears on the display, check the connection to the router and whether the network password is correct.

**"E12"** Connection to the server cannot be established.

#### Note

If "E12" appears on the display, re-establish the connection at a later time.

## Switching the WiFi connection on or off

Switch the WiFi connection on and off as required.

## Further settings

### Switching internet access on or off (cont.)

Tap the following buttons:

1.  repeatedly to access the main menu.
2.  + "OK" Press and hold for 4 s to switch the WiFi connection on or off.  
In the display you will see:
  -  to indicate the WiFi connection is switched on
  - or
  -  to indicate the WiFi connection is switched off
3.  repeatedly to exit the menu.

### Switching the wireless connection for the remote control on or off

With weather-compensated operation, you can connect your remote control to the control unit for wireless data transfer via low power radio.

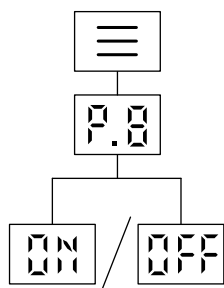


Fig. 5

Tap the following buttons:

1.  for 4 s to enter the main menu.
2.  /  P.8 should be selected.
3. "OK" to confirm
4.  /  Switch low power radio on with  or off with .
5. "OK" to confirm
6.  repeatedly to exit the menu.

#### Note

Menu point P.8 is not shown if a low power radio component is already connected to the appliance.

## Checking operating data P.2

Depending on the system equipment level and the settings made, you can check current system data, e.g. temperatures.

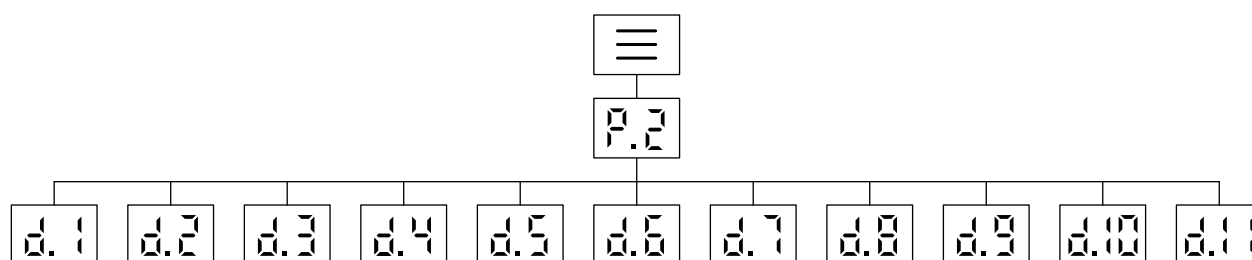


Fig. 6

Tap the following buttons:

1. for 4 s to enter the main menu.
2. / P.2 should be selected.
3. "OK" to confirm
5. "OK" to confirm
6. repeatedly to exit the menu.
4. / d.1... d.11 should be selected.
  - d.1 Outside temperature
  - d.2 Heat generator flow temperature
  - d.3 Primary circuit pump speed in %
  - d.4 Flue gas temperature
  - d.5 Burner hours run
  - d.6 Burner output
  - d.7 3-way valve position
    - Heating
    - Middle position (if installed)
    - DHW
  - d.8 Serial number of heat generator  
As only 3 digits can be displayed at one time, tap on / to see more digits.
  - d.9 Heating circuit 1 flow temperature
  - d.10 Heating circuit 2 flow temperature
  - d.11 DHW temperature

## Checking licences for the integrated communication module

Switch on the WiFi to call up online legal information, such as open source licences:

On the home screen, press **OK** for approx. 4 s.

### Calling up the license information for third party components

Requirement: Access point must be switched on.

Tap the following buttons:

1. Call up the WiFi settings on your mobile device.
2. Connect your mobile device to the WiFi "Viessmann-<xxx>".  
A password prompt will be displayed.
3. Enter the WPA2 network key as the password for the "Viessmann-<xxx>" WiFi.
4. With your connected mobile device, open **http://192.168.0.1** in your internet browser.

#### Note

The WPA2 network key can be found on the label: See chapter "Switching internet access on or off".

### Checking licences for the integrated... (cont.)

5. Follow the link **"Third party Components Licences"**.

## Third Party Software

### 1 Overview

This product contains third party software, including open source software. You are entitled to use this third party software in compliance with the respective license conditions as provided in this document. A list of used third party software components and of license texts can be accessed by connecting your boiler, like it is mentioned in the manual.

### 2 Acknowledgements

Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>). This product includes cryptographic software written by Eric Young ([eay@cryptsoft.com](mailto:eay@cryptsoft.com)) and software written by Tim Hudson ([tjh@cryptsoft.com](mailto:tjh@cryptsoft.com)).

### 3 Disclaimer

The open source software contained in this product is distributed WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. The single licenses may contain more details on a limitation of warranty or liability.

### 5 Contact Information

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Fax +49 64 52 70-27 80  
Phone +49 64 52 70-0  
[open-source-software-support@viessmann.com](mailto:open-source-software-support@viessmann.com)  
[www.viessmann.de](http://www.viessmann.de)

### 4 How to Obtain Source Code

The software included in this product may contain copyrighted software that is licensed under a license requiring us to provide the source code of that software, such as the GPL or LGPL. To obtain the complete corresponding source code for such copyrighted software please contact us via the contact information provided in section 5 below indicating the built number you will find in the licensing information section, which can be accessed as outlined in this document. This offer is not limited in time and valid to anyone in receipt of this information.

## Checking WiFi information P.1

You can check the current status of your WiFi connection, such as the signal strength.

Tap the following buttons:

1.  for 4 s to enter the main menu.

2.  /  P.1 should be selected.

## Checking WiFi information P.1 (cont.)

### 3. "OK" to confirm

One of the following statuses is displayed:

- WiFi off
- Signal strength very weak
- Signal strength weak
- Signal strength good
- Signal strength very good
- Connection is established.
- No data transfer
- Communication error
- Offline
- Access point mode; the heat generator can be connected to ViCare, for example.

### 4. "OK" to confirm

### 5. repeatedly to exit the menu.

## Checking fault messages E.r

If your heating system has a fault, and the fault code will be displayed.



### Danger

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

If a fault is active and is shown on the display, you can confirm with **OK** and return to the home screen. To call up this fault later, follow the steps below.

### Note

- If you have connected a message facility 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. The message facility is switched on again.

Tap the following buttons:

### 1. for 4 s to enter the main menu.

### 2. / E.r should be selected.

### 3. "OK" to confirm

### 4. / to select fault message E.1 to E.5.

### 5. "OK" to confirm

### 6. / to call up further details about the fault code.

### Note

Up to 5 fault messages can be displayed.

### 7. repeatedly to exit the menu.

If flashes and E.1 appears on the display, the burner is locked out. To reset the burner, see next chapter "Burner fault".

## Burner fault

The display shows E.1 and flashes. A fault has caused the burner to lock out. You can reset it.

### Note

The burner fault display can be closed for the time being by pressing for 4 s. You can open the fault later by pressing / simultaneously.

Tap the following buttons:

### 1. / to see the fault number.

### 2. Make a note of the fault number. This enables the contractor to be better prepared and may save you unnecessary travelling costs.

### Checking fault messages E r (cont.)

3. Press  and  for approx. 4 s.  
A rotating bar will appear on the display. This indicates that the resetting process has been started. If the fault no longer exists, the home screen will appear.  
**Notify your heating contractor if the fault recurs.**

## Switching emissions test mode on and off

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

If possible, have the emissions test carried out during the heating season.

**Tap the following buttons:**

 and  for 4 s.

**Note**

*Emissions test mode ends automatically after 30 minutes.*

A rotating bar is shown on the display. The process has been started. A check runs in the background to determine whether there is sufficient heat transfer. As soon as emissions test mode is active, the heat generator flow temperature appears on the display.

**Note**

*If "- - -" flashes on the display 3 times and then the home screen is shown, emissions test mode is not possible due to a low flow rate or low heat draw-off.*

Press  to manually end emissions test mode.

### Switching the system off

#### With frost protection monitoring

If you do not wish to use your heat generator for several days you can switch it off.  
Set the operating mode to **OFF**.  
Frost protection monitoring is active for the heat generator and the DHW cylinder.

#### **Note**

*For frost protection for the entire heating system, see the operating instructions for the room temperature controller.*

#### Without frost protection monitoring

Shut down your heating system completely if it will not be needed for long periods of time (several months). We recommend you contact your local heating contractor if you are planning to take your heating system out of use for long periods. Your heating contractor can then take suitable steps such as frost protection for the system or heating surface preservation as required.

1. Close the gas shut-off valve. Secure to prevent unauthorised opening.

2. Turn off the ON/OFF switch.  
The power to the system is now at zero volt.

**Note that the system is no longer protected against frost.**

### Switching on the system

Ask your contractor about the following:

- Required system pressure
- Position of ventilation apertures in the installation room, if applicable

1. Open the gas shut-off valve.

2. Check whether the power supply to your system is switched on, e.g. at a separate MCB/fuse or mains isolator.

#### **Note**

*The power supply to the system was switched on by your heating contractor during commissioning. If possible, do not interrupt the power supply, even when the system is in standby mode.*

3. Turn on the ON/OFF switch.

- After a short while, the home screen is shown on the display.

- The Lightguide is illuminated constantly.  
Your system and, if installed, remote control units are ready for operation.

4. Check the system pressure:

-  until the pressure gauge symbol  lights up.
- If the pressure shown is below 1.0 bar:  
Please top up with water or notify your heating contractor.

## Rooms are too cold

| Cause                                                                                               | Remedy                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The heating system is off.                                                                          | <ul style="list-style-type: none"> <li>Turn on the ON/OFF switch.</li> <li>Switch ON the mains isolator if installed (outside the boiler room).</li> <li>Reset the MCB in the power distribution board (main domestic MCB).</li> </ul>                                                                                                                                                                                                                                       |
| Control unit or room temperature controller is not set correctly.                                   | <ul style="list-style-type: none"> <li>Operation with room temperature controller:<br/>Set a higher flow temperature.</li> <li>Weather-compensated operation:<br/>Set a higher room temperature.</li> </ul>                                                                                                                                                                                                                                                                  |
| Only when operating with DHW heating:<br>Priority for DHW heating is active ("🔥" is displayed).     | <p>Wait until the DHW cylinder has been heated up ("🔥" disappears).</p> <p>In the case of operation with an instantaneous water heater, stop DHW draw-off.</p>                                                                                                                                                                                                                                                                                                               |
| No fuel.                                                                                            | <p>With LPG:<br/>Check the fuel reserves and re-order if required.</p> <p>With natural gas:<br/>Open the gas shut-off valve. If necessary, check with your gas supply utility.</p>                                                                                                                                                                                                                                                                                           |
| "▲" is shown on the display.                                                                        | Notify your heating contractor of the fault code shown.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| "▲" and the fault code flash on the display. The burner does not start.                             | <p>Reset the burner.</p> <p>Notify your heating contractor if the fault recurs.</p> <p> <b>Danger</b><br/>If faults are not rectified, they can have life threatening consequences.<br/>Do not reset the burner several times in quick succession. Notify your heating contractor if a fault recurs. Your heating contractor will be able to analyse the cause and rectify the fault.</p> |
| Air in the heating system                                                                           | Bleed radiators.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| The burner is switched off. Blockage in the ventilation air supply or flue system                   | Notify your local heating contractor.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| The "holiday program" function is switched on via the ViCare app.<br>"E 3" is shown on the display. | Use the ViCare app to check whether the "holiday program" function is switched on, change it if necessary, or switch it off.                                                                                                                                                                                                                                                                                                                                                 |

## Rooms are too hot

| Cause                                                                                               | Remedy                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Control unit or room temperature controller is not set correctly.                                   | <p>Check and correct the room temperature or flow temperature.</p> <p> Operating instructions for room temperature controller</p> |
| "▲" is shown on the display.                                                                        | Notify your heating contractor of the fault code.                                                                                                                                                                    |
| The "holiday at home" function is switched on via the ViCare app.<br>"E 3" is shown on the display. | Use the ViCare app to check whether the "holiday at home" function is switched on, change it if necessary, or switch it off.                                                                                         |

## There is no hot water

| Cause                                                                   | Remedy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The heating system is switched off.                                     | <ul style="list-style-type: none"> <li>Turn on the ON/OFF switch.</li> <li>Switch ON the mains isolator if installed (outside the boiler room).</li> <li>Reset the MCB in the power distribution board (main domestic MCB).</li> </ul>                                                                                                                                                                                                                                                           |
| Control unit is not set correctly.                                      | Check and correct the DHW temperature.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| No fuel.                                                                | <p>With LPG:<br/>Check the fuel reserves and re-order if required.</p> <p>With natural gas:<br/>Open the gas shut-off valve. If necessary, check with your gas supply utility.</p>                                                                                                                                                                                                                                                                                                               |
| "▲" is shown on the display.                                            | Notify your heating contractor of the fault code shown.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| "▲" and the fault code flash on the display. The burner does not start. | <p>Reset the burner fault: See page 29.<br/>Notify your heating contractor if the fault recurs.</p> <p> <b>Danger</b><br/>If faults are not rectified, they can have life threatening consequences.<br/>Do not reset the burner fault several times in quick succession. Notify your heating contractor if a fault recurs. Your heating contractor will be able to analyse the cause and rectify the fault.</p> |
| "Filter strainer" dirty<br>(Gas condensing combi boilers only).         | Have the filter strainer checked/replaced by your contractor.                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## The DHW is too hot

| Cause                                  | Remedy                                 |
|----------------------------------------|----------------------------------------|
| The control unit is not set correctly. | Check and correct the DHW temperature. |

## "▲" and the fault code are flashing

| Cause                      | Remedy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The burner does not start. | <p>Reset the burner fault: See page 29.<br/>Notify your heating contractor if the fault recurs.</p> <p> <b>Danger</b><br/>If faults are not rectified, they can have life threatening consequences.<br/>Do not reset the burner fault several times in quick succession. Notify your heating contractor if a fault recurs. Your heating contractor will be able to analyse the cause and rectify the fault.</p> |

## "▲" is shown

| Cause                | Remedy                                            |
|----------------------|---------------------------------------------------|
| Heating system fault | Notify your heating contractor of the fault code. |

## Cleaning

The appliances can be cleaned with a commercially available domestic cleaning agent (non-scouring). Clean the surface of the programming unit with a microfibre cloth.

## Inspection and maintenance

The inspection and maintenance of a heating system is prescribed by the Buildings Energy Act [Germany] and the DIN 4755, DVGW-TRGI 2018 and DIN EN 806-5 standards.

Regular maintenance ensures trouble-free, energy efficient, environmentally responsible and safe heating operation. 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 contractor.

## Appliance

Increased contamination raises the flue gas temperature and thereby increases energy losses. We recommend the appliance is cleaned annually.

## DHW cylinder

Standard EN 806-5 specifies that maintenance and cleaning should be carried out no later than 2 years after commissioning and as required thereafter. Only a qualified contractor should clean the inside of the 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. For this, observe the manufacturer's instructions.

## 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.

## 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 Viessmann cables or lines. For this, contact your qualified contractor.

## Terminology

### Operating program

The operating program enables you to define the following, for example:

- How you heat your rooms
- Whether you heat DHW

### Heating curve

Heating curves illustrate the relationship between the outside temperature, the set room temperature and the flow temperature. The lower the outside temperature, the higher the flow temperature.

In order to guarantee sufficient heat with minimum energy consumption at any outside temperature, the conditions of your building and system must be taken into consideration. The heating curve is adjusted by your contractor for this purpose.

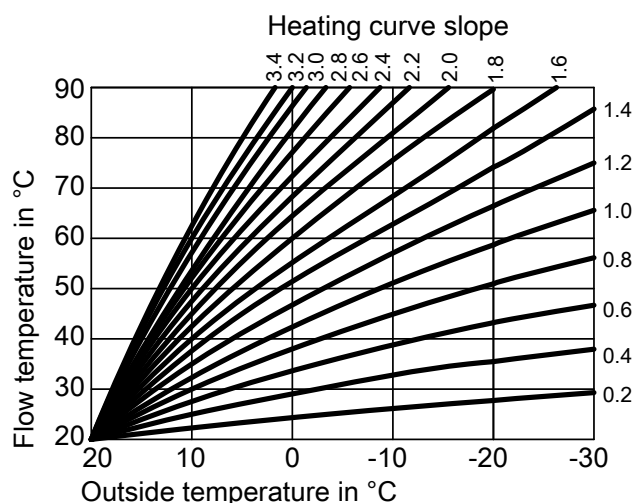


Fig. 7

### Setting the slope and level, taking the heating curve as an example

Factory settings:

- Slope = 1
- Level = 3

The heating curves shown apply with the following settings:

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

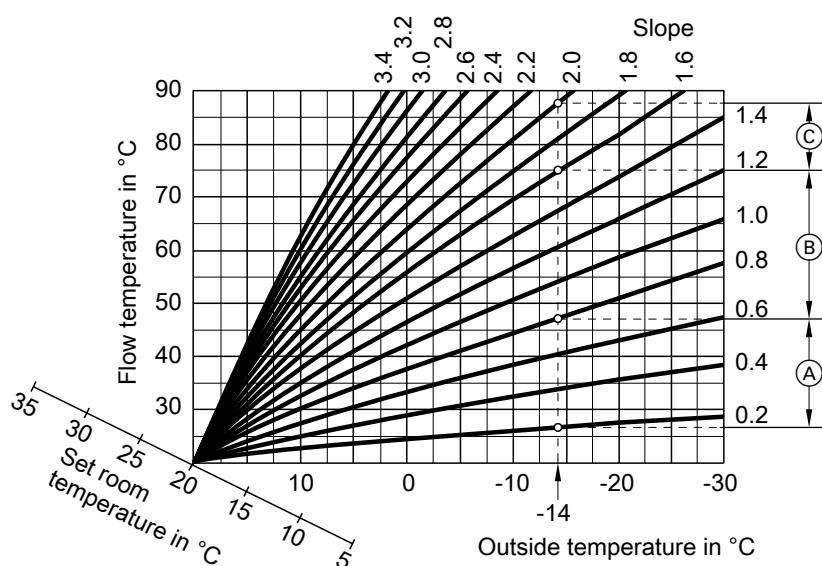
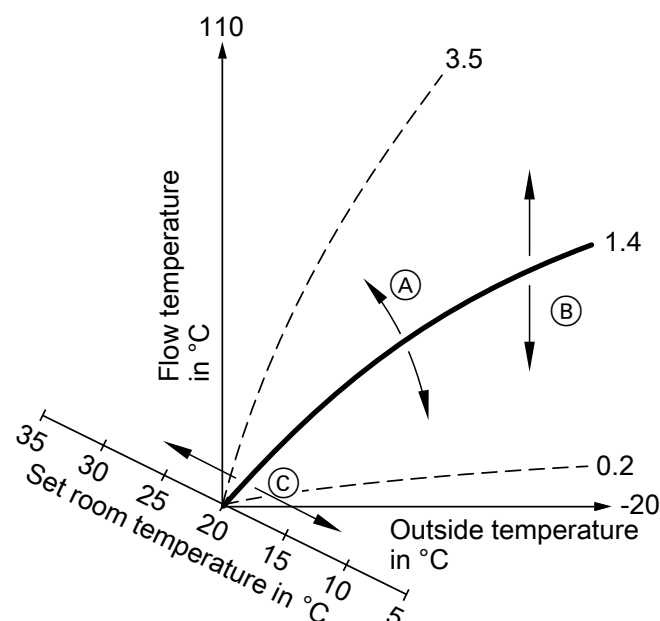


Fig. 8

## Terminology (cont.)

For an outside temperature of  $-14^{\circ}\text{C}$ :

- (A) Underfloor heating system: Slope 0.2 to 0.8
- (B) Low temperature heating system: Slope 0.8 to 1.6
- (C) System with a flow temperature in excess of  $75^{\circ}\text{C}$ , slope 1.6 to 2.0



### Note

Setting the slope or level too high or too low will not cause any damage to your heating system. Both settings affect the level of the flow temperature, which may then be too low or unnecessarily high.

Fig. 9

- (A) If you change the slope:  
The steepness of the heating curves changes.
- (B) If you change the level:  
The heating curves are shifted in parallel in a vertical direction.
- (C) If you change the standard room temperature (set room temperature):  
The heating curves are shifted along the "Set room temperature" axis.

## Heating circuit

A heating circuit is a sealed unvented circuit connecting the heat generator and the radiators, in which the heating water circulates.

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

## Heating circuit pump

Circulation pump for circulating the heating water in the heating circuit

### Terminology (cont.)

#### Room temperature

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

#### 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.

#### Temperature level

You can specify set values for 3 different temperature levels:

- "Standard"
- "Reduced"
- "Comfort"

#### Set temperature

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

#### Drinking water filter

A device that removes solids from the drinking water. The drinking water filter is built into the cold water pipework to the DHW cylinder.

#### Flow temperature

The flow temperature is the temperature at which the heating water enters a system component such as a heating circuit.

#### Time program

In the time programs you determine what your heating system should do at what time.

### Information on disposal

#### Disposal of packaging

Your contractor will dispose of the packaging from your Viessmann product.

**Information on disposal** (cont.)**Final decommissioning and disposal of the heating system**

Viessmann products can be recycled. Components and fluids from your heating system do not belong in ordinary domestic waste.

Please speak to your contractor about the correct disposal of your old system.

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## 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](http://www.viessmann.de).



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