

Operating instructions for the system user

VIESSMANN

Heating system
with control unit for constant temperature or weather-compensated
operation



VITODENS 100-W



Safety instructions

For your safety



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

Safety instructions explained



Danger

This symbol warns against the risk of injury.



Please note

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

Note

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

Target group

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



Please note

Supervise children in the proximity of the appliance.

- Never permit children to play with the appliance.
- Cleaning and maintenance must not be carried out by unsupervised children.



Danger

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

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



Danger

The appliance generates heat. Hot surfaces can cause burns.

- Never open the appliance.
- Never touch the hot surfaces of uninsulated pipes, fittings or flue pipes.

If you smell gas



Danger

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

- Do not smoke. Prevent naked flames and sparks. Do not switch lights or electrical appliances on or off.
- Close the gas shut-off valve.
- Open windows and doors.
- Evacuate any people from the danger zone.
- Notify your gas or electricity supplier and your local heating contractor from outside the building.
- Shut off the electricity supply to the building from a safe place (outside the building).

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.

In case of fire



Danger

If there is a fire, there is a risk of burns and explosion.

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

What to do if the heating system develops faults



Danger

Fault messages indicate faults in the heating system. If faults are not rectified, they can have life threatening consequences. Do not acknowledge fault messages several times in quick succession. Inform your heating contractor so the cause can be analysed and the fault rectified.

Installation room conditions



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/pipe-work 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).

Safety instructions

For your safety (cont.)

Extractors

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



Danger

The simultaneous operation of the boiler and appliances that extract air to the outside can result in life threatening poisoning due to reverse flow of the flue gas.

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

Auxiliary components, spare and wearing parts



Please note

Components not tested with the heating system may damage it or affect its functions.

Have installation or replacement work only carried out by qualified contractors.

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Commissioning

The commissioning and adjusting of the control unit to local conditions and to building characteristics, plus the instruction of the user in operating 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 (where applicable) will also provide you with information on additional activities concerning your combustion equipment (such as regular testing, cleaning, etc.).

GB Gas council no.

Rated heating output range kW	Gas condensing boiler	Gas condensing combi boiler
6.5 - 19	41-819-26	—
6.5 - 26	41-819-27	41-819-20
8.8 - 30	41-819-28	41-819-21
8.8 - 35	41-819-29	41-819-22

Terminology

To provide you with a better understanding of the functions of your Viessmann control unit some terminology is explained.

The terms are marked as follows:



Further information can be found in chapter "Terminology" in the Appendix.

Your system is preset at the factory

Your heating system is preset at the factory and is therefore ready for operation.

Your heating contractor can make further adjustments for you during commissioning.

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

Your system is preset at the factory (cont.)

Power failure

All settings are saved if there is a power failure.

Energy saving tips

Central heating

■ **Room temperature:**

Never overheat your rooms. Every degree of room temperature reduction saves up to 6 % on your heating bills. Set your room temperature no higher than 20 °C.

■ **Operating modes:**

If you do not require central heating, select one of the following operating modes:

- If you do not wish to heat rooms in summer but require domestic hot water, set rotary selector "🔥🔌" (see page 15) and turn rotary selector "🔥🔌" to "0".
- If you require neither central heating nor DHW for a prolonged period, set rotary selectors "🔥🔌" and "🔥🔌" to "0".

■ **Ventilation:**

To ventilate, open windows fully briefly, and meanwhile close the thermostatic valves (if there is no mechanical ventilation system installed).

■ **Roller shutters:**

Close roller shutters (where installed) at dusk.

■ **Thermostatic valves:**

Ensure that thermostatic valves are properly set.

■ **Radiators:**

Never cover radiators or thermostatic valves.

DHW heating

■ **DHW temperature:**

Never set the DHW cylinder temperature excessively high (see page 15).

■ **Hot water consumption:**

Consider showering instead of running a bath. A shower generally uses less energy than a full bath.

Tips for greater comfort

DHW heating

■ **Comfort function:**

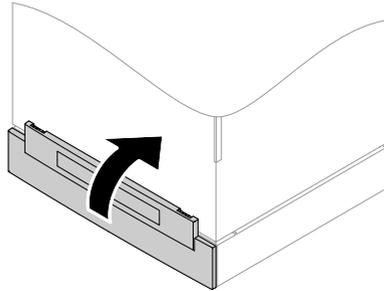
If the comfort function is switched on, the instantaneous water heater is kept up to temperature (standby). Hot water is therefore quickly available. Start comfort function, see page 16.

Operation

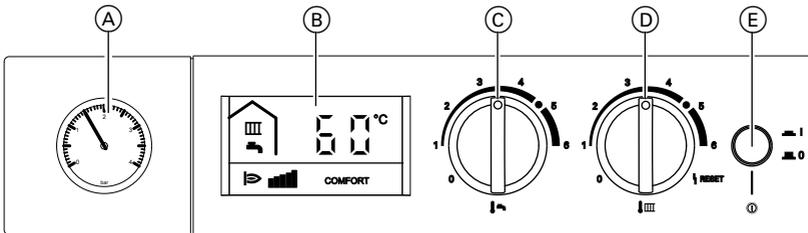
Summary of controls and indicators

Opening the control unit

The controls and display elements are behind the cover flap at the front.



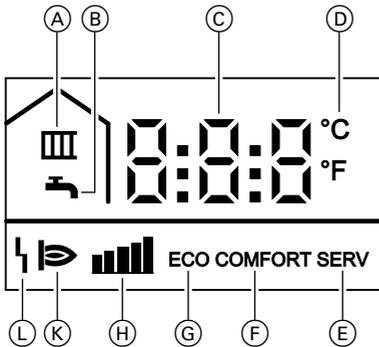
Controls and display elements



- (A) Pressure gauge
- (B) Display
- (C)  rotary selector "DHW temperature"
- (D)  rotary selector "Heating water temperature" and "Reset"
- (E) ON/OFF switch

Summary of controls and indicators (cont.)

Indicators on display



- (A) Heating mode
- (B) DHW heating
- (C) Display value or fault code
- (D) Temperature in °C or °F (in conjunction with the display value)
- (E) Service setting active (only for contractors)
- (F) Comfort function switched on
- (G) Comfort function switched off
- (H) Current burner output
- (K) Burner in operation
- (L) Fault

Operating mode of the heating system

Operation without room temperature control unit



Further information can be found in chapter "Terminology" in the Appendix.

Set the required heating water temperature at rotary selector "🔥📊" (see page 15).

Operation with room temperature control unit



Further information can be found in chapter "Terminology" in the Appendix.

Please make any adjustments to the connected room temperature control unit using the relevant operating instructions.

Operating mode of the heating system (cont.)

Note

The heating water temperature must be set sufficiently high using rotary selector "🔥🔥🔥" for the required room temperature to be reached.

Weather-compensated operation

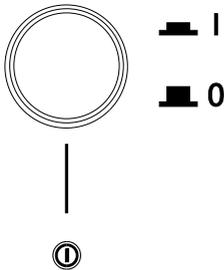
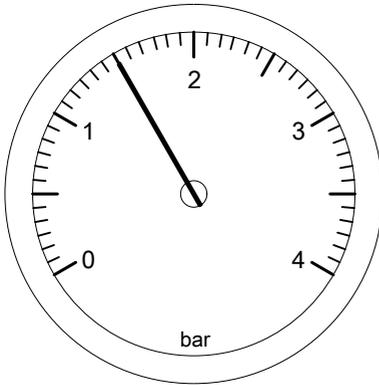


Further information can be found in chapter "Terminology" in the Appendix.

In weather-compensated operation, the boiler water temperature is regulated according to the outside temperature. Rotary selector "🔥🔥🔥" enables you to increase or reduce the room temperature.

Starting the heating system

We recommend you contact your local heating contractor if you are planning to start up a heating system that has not been used for a long period.



1. Check the pressure of your heating system on the pressure gauge.
Minimum system pressure 0.8 bar
Notify your heating contractor if the system pressure is too low.
2. **In open flue operation:**
Combustion air is drawn from the installation room.
Check whether the vents in the installation room are open and unobstructed.
3. Open the gas shut-off valve.
4. Turn ON the ON/OFF switch.
Your heating system and room temperature control unit (if connected) are now ready for operation.

Shutting down the heating system

With frost protection monitoring

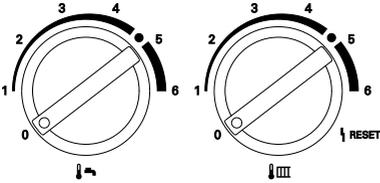


Further information can be found in chapter "Terminology" in the Appendix.

If you do not wish to use your boiler for several days you can switch the appliance off.

Start-up/shutdown

Shutting down the heating system (cont.)



Turn both rotary selectors to "0".
Frost protection monitoring is now active
for the boiler and the DHW cylinder.

Note

*Frost protection for the entire heating
system - see operating instructions for
the room temperature control unit.*

Without frost protection (shutdown)

Shut down your heating system completely if it will not be needed for longer periods (several months).

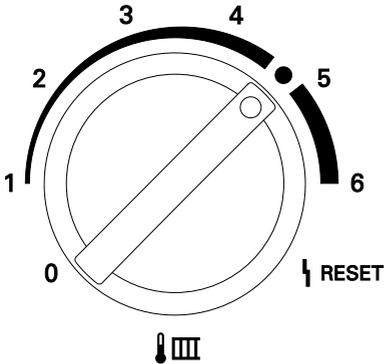
We recommend you contact your local heating contractor if you are planning to take your heating system out of use for long periods. Your heating contractor can then take suitable steps such as frost protection for the system or heating surface preservation as required.

1. Close the gas shut-off valve and safeguard against unauthorised reopening.
2. Turn off the ON/OFF switch.
The power to the system is now at zero volt.

Note that the system is no longer frost-protected.

Heating

i Further information can be found in chapter "Terminology" in the Appendix.



Switching on:

Set rotary selector "🌡️ IIII" to the required heating water temperature.

Note

If a room temperature control unit is connected, use this unit to set the required room temperature.

If central heating is active, the display shows "IIII".

Switching off:

Move rotary selector "IIII 🌡️" to "0".

Domestic hot water

i Further information can be found in chapter "Terminology" in the Appendix.

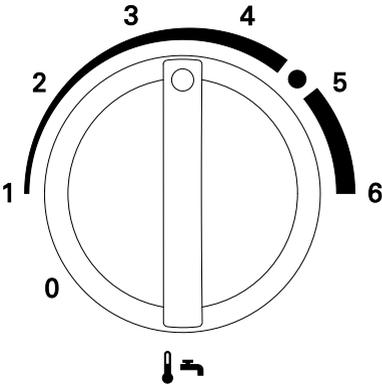
Select the DHW temperature in accordance with your personal requirements (e.g. for showering).

Note

If the boiler does not have a DHW cylinder connected or an integral instantaneous water heater, turn rotary selector "🌡️ 🔌" to "0".

Settings

Domestic hot water (cont.)



Switching on:

Move rotary selector "🌡️" to the required DHW temperature.

If DHW heating is active, the display shows "🌡️".

Switching off:

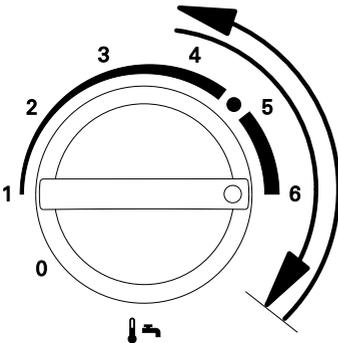
Turn rotary selector "🌡️" to "0".

Switching the comfort function on and off



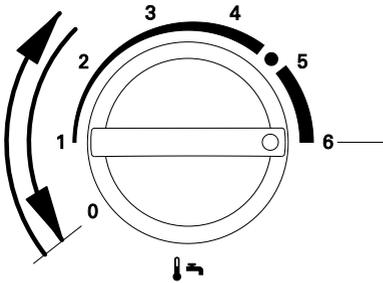
Further information can be found in chapter "Terminology" in the Appendix.

If the comfort function is switched on, the instantaneous water heater is kept up to temperature (standby). Hot water is therefore quickly available.



Switching on the comfort function

Briefly turn rotary selector "🌡️" clockwise as far as it will go (for less than 2 s) and then turn it anticlockwise again. "COMFORT" appears on the display.

Switching the comfort function on and off (cont.)**Switching off the comfort function**

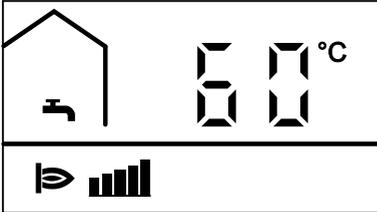
Briefly turn rotary selector "👤🌡️" anti-clockwise as far as it will go (for less than 2 s) and then turn it clockwise again. "ECO" appears on the display.

Displays

Heating water temperature



Further information can be found in chapter "Terminology" in the Appendix.



The boiler water temperature appears on the display at all times during operation.

Rooms are too cold

Cause	Remedy
The heating system is off.	<ul style="list-style-type: none"> ■ Turn ON the ON/OFF switch "⊙" (see figure on page 10). ■ Switch ON the mains isolator if installed (outside the boiler room). ■ Set the MCB in the power distribution board (main domestic MCB).
Control unit or room temperature control unit incorrectly adjusted.	<ul style="list-style-type: none"> ■ "⏴" must be set (see page 15) ■ Check and correct the heating water temperature at rotary selector "↓" (see page 15). ■ For room temperature control unit: Check and correct the room temperature required (see operating instructions for the room temperature control unit).
Only when operating with DHW heating: DHW priority is enabled ("⏴" 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>In the case of LPG: Check the fuel reserves and re-order if required.</p> <p>In the case of natural gas: Open the gas shut-off valve. If necessary, check with your gas supply utility.</p>
"1" is shown on the display.	Notify your heating contractor of the fault code shown.
"1" flashes on the display. The burner does not start.	Reset burner fault (see page 22).
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.

What to do if...

Rooms are too hot

Cause	Remedy
Control unit or room temperature control unit incorrectly set.	<p>Check and correct the room temperature or boiler water temperature (see page 15)</p> <p> Room temperature control unit operating instructions</p>
"1" is displayed.	Inform your heating contractor of the fault code.

There is no hot water

Cause	Remedy
The heating system is off.	<ul style="list-style-type: none"> ■ Turn ON the ON/OFF switch "ⓐ" (see page 10). ■ 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 set.	<p>Check settings and correct if required:</p> <ul style="list-style-type: none"> ■ "ⓑ" has to be set (see page 15). ■ Check and correct the DHW temperature at rotary selector "Ⓒ" (see page 15).
No fuel.	<p>In the case of LPG: Check the fuel reserves and re-order if required.</p> <p>In the case of natural gas: Open the gas shut-off valve. If necessary, check with your gas supply utility.</p>
"1" is shown on the display.	Notify your heating contractor of the fault code shown.
"1" flashes on the display. The burner does not start.	Reset burner fault (see page 22).

The DHW is too hot

Cause	Remedy
The control unit is incorrectly set.	Check and correct the DHW temperature (see page 15).

"1" flashes on the display

Cause	Remedy
The burner does not start.	Reset burner fault (see page 22).

"1" is displayed

Cause	Remedy
Heating system fault	Inform your heating contractor of the fault code.

Fault code "58" is displayed

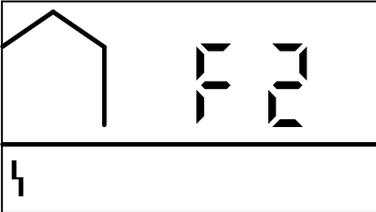
Cause	Remedy
No DHW cylinder is connected and rotary selector "🔌" is not set to "0".	Turn rotary selector "🔌" to "0".

What to do if...

Fault indicator on display

Any fault in the heating system will be shown on the display.

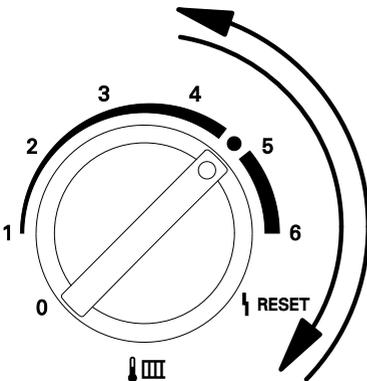
You can check the fault code on the display and then notify your heating contractor accordingly. This allows the heating contractor to better prepare for the service call and may save additional travelling costs.



Resetting a burner fault

Note

The burner is locked out if the "⌋" fault flashes on the display and a fault code is identified by an "F".



Turn rotary selector "⌋" to "⌋ RESET" for less than 2 s, then back into the control range.

Cleaning

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

Inspection and maintenance

The inspection and maintenance of a heating system is prescribed by the Energy Saving Ordinance [EnEV - Germany] and the DIN 4755, DIN 1988-8 and EN 806 standards.

Regular maintenance ensures trouble-free, energy efficient and environmentally responsible heating. For this, we strongly advise you to arrange an inspection and maintenance contract with your local heating contractor.

Boiler

Increasing boiler contamination raises the flue gas temperature and thereby increases energy losses. All boilers should therefore be cleaned annually.

Logbook

Please ensure that you have a Logbook supplied with your appliance. This Logbook should be completed by your installer to verify that the correct installation and commissioning procedure was followed.

Failure to complete the Logbook may result in difficulties should a problem arise with your appliance during the guarantee period. This Logbook forms part of the industry's Benchmark code of practice for the installation, commissioning and servicing of central heating systems.

All Gas Safe Registered Installers carry a ID card and have a registration number. Both should be recorded in your Logbook. You can check your installer is Gas Safe registered by calling GasSafe register on +44 (0)800 408 5500 or visit the website www.gassaferegister.co.uk

Drinking water filter (if installed)



Further information can be found in chapter "Terminology" in the Appendix.

For reasons of good hygiene

- replace filter element on non-backwashing filters every 6 months (visual inspection every 2 months),
- on backwashing filters, backwash every 2 months.

Terminology

Constant temperature operation

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

Operating modes

You can select the following operating modes:

- When "III ↻" is set:
The rooms are heated. DHW is heated (winter mode).
- When ↻ is set:
DHW is provided but there is no central heating (summer mode).
- When III is set:
The rooms are heated but there is no DHW heating.
- When "III ↻" is set to "0":
Frost protection for the boiler and DHW cylinder is active, no central heating, no DHW heating (standby mode).

Heating water temperature

The temperature of the heating water that flows to the radiators (roughly equal to boiler water temperature).

Boiler water temperature

The heating water in the boiler (boiler water) is heated to the temperature set at the control unit. This temperature is referred to as boiler water temperature.

Comfort function

If the comfort function is switched on, the instantaneous water heater is kept up to temperature (standby). Hot water is therefore quickly available.

Open flue operation

Combustion air is drawn from the room where the boiler is installed.

Balanced flue operation

Combustion air is drawn from outside the building.

Room temperature-dependent operation

A room temperature control unit captures the room temperature and compares this with the required room temperature you selected. If the room temperature is lower than the required value, the boiler is switched on; if the room temperature is higher than the required value, the boiler is switched off.

Please make any adjustments to the connected room temperature control unit using the relevant operating instructions.

Note

The heating water temperature must be set sufficiently high using rotary selector "III ↻" for the required room temperature to be reached.

Terminology (cont.)

Safety valve

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

Drinking water filter

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

Flow temperature

The temperature of the heating water that flows to the radiators (in the flow line). Accordingly, the temperature of the heating water that flows from the radiators to the boiler (in the return line) is referred to as return temperature.

Weather-compensated operation

In weather-compensated mode, the flow temperature is controlled according to the outside temperature. This means that no unnecessary heat is generated in order to heat the rooms to the required room temperature you selected.

The outside temperature is captured and transmitted to the control unit by a sensor fitted outside the building.

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Keyword index

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Your contact

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

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5592 584 GB Subject to technical modifications.