Operating instructions

for the system user

Heating system
With control unit for constant temperature operation

VITODENS 100-W



5592 552 GB 4/2007

Please keep safe.

For your safety

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

Safety instructions explained

Danger
This symbol warns against the risk of injury.

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

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

Target group

These operating instructions are for the heating system user.

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

If you smell gas

Danger
Escaping gas can lead to explosions which may result in serious injury.
- Never smoke. Prevent naked flames and sparks. Never switch electrical lights or equipment ON or OFF.
- Close the gas shut-off valve.
- Open windows and doors.
- Remove all people from the danger zone.
- Notify your gas or electricity supplier and your local heating contractor from outside the building.
- Shut off the electricity supply to the building from a safe place (outside the building).

If you smell flue gas

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

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For your safety (cont.)

In case of fire

Danger
Fire creates the risk of burning and explosions.
- Shut down the heating system.
- Close the shut-off valves of the fuel lines.
- Use a tested fire extinguisher, class ABC.

Boiler room requirements

Please note
Incorrect ambient conditions can lead to damage to the heating system and put the safe operation at risk.
- Ensure ambient temperatures above 0 ºC and below 35 ºC.
- Prevent air contamination by halogenated hydrocarbons (e.g. as contained in paints, solvents or cleaning fluids) and excessive dust (e.g. through grinding/polishing work).
- Avoid continuously high humidity levels (e.g. through frequent drying of washing).
- Never close existing ventilation apertures.

Ancillary components, spare and wearing parts

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

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Commissioning

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

Your system is preset at the factory

Your combi boiler is ready to provide both central heating and hot water after installation. Your system boiler will provide both heating and hot water providing a cylinder is installed.

Your heating system is therefore ready for use.

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

Note
All data is saved in case of power failure.

Certification details

The Vitodens 100-W is certified to comply with the requirements of the relevant European Directives (90/396/EEC, 73/23 EEC and 92/42/EEC) for use in Great Britain and Ireland with gas category I2H (G20 with a governed gas supply at 20 mbar (8 in.wg) inlet pressure).

The appliance classification is either C13x or C33x depending upon whether a horizontal or vertical flue terminal is used.

General description

The Vitodens 100-W is a fully automatic, wall mounted, fan assisted balanced flue gas combination or system boiler for use with natural gas (G20) at 20 mbar (8 in.wg) supply in sealed systems only.

The unit provides central heating at outputs between 8.0 kW to 24.0 kW/30.0 kW. If required, the central heating output can be range-rated to suit the system requirements.

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General description (cont.)

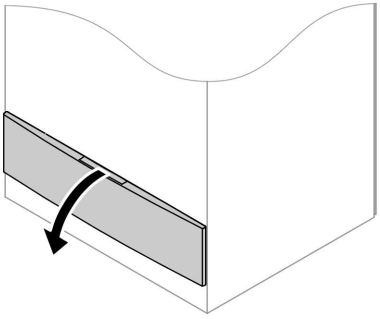
The heat output is automatically controlled according to demand (in both domestic hot water and central heating mode). Note that hot water is always given priority.

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Summary of controls and indicators

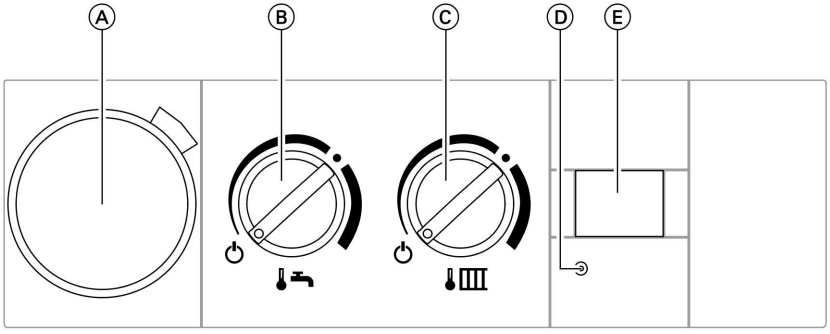
Opening the control unit

The controls and display elements are behind the hinged front cover.



Control and display elements

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

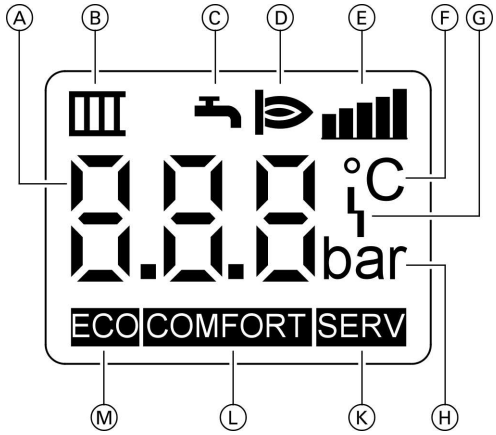


Ⓐ Time switch (accessories)
Ⓑ Rotary selector "DHW temperature " (combi boiler only)
Ⓒ Rotary selector "Heating water temperature"
Ⓓ Fault display/reset button
Ⓔ Display

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Summary of controls and indicators (cont.)

Indicators on display



Ⓐ Display value / fault code
Ⓑ Heating mode
Ⓒ DHW heating
Ⓓ Burner in operation
Ⓔ Current burner output
Ⓕ Temperature in °C (in conjunction with the display value)
Ⓖ Fault
Ⓗ System pressure (in conjunction with display value)
Ⓚ Service setting active (only for contractors)
Ⓛ Comfort function enabled
Ⓜ Comfort function disabled

Changing room temperature

In addition to the boiler control unit, a separate room temperature controller must be installed in one of the living rooms to comply with part L of the Building Regulations if the heating system is to be regulated in accordance with the required room temperature.

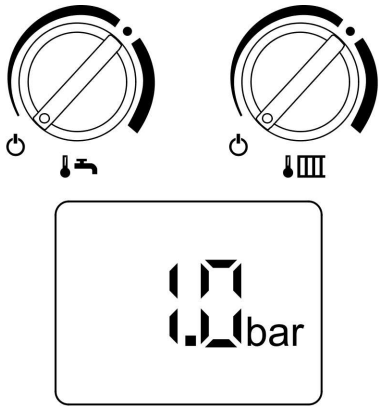
Please make any adjustments using the relevant operating instructions. Please also note:

All radiator thermostat valves must be fully open in the room in which the control unit is installed.

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Starting the heating system

The initial start-up and matching up of the control unit to local conditions and the structural characteristics of the building must be carried out by your heating contractor.
We recommend you contact your local heating contractor if you are planning to start up the heating system that has not been used for a long period.



1. Switch ON the mains power.
   Your heating system and the Vitotrol 100 room temperature controller (if installed) are now ready for operation.

2. Check the pressure of the heating system by moving the rotary selectors "🌡🚰" and "🌡🏢" to "⏻". The system pressure appears on the display.
   Minimum system pressure 1.0 bar.
   If the pressure of the system is too low, please notify your heating contractor.

Operating modes

Your Vitodens can be operated in the following modes:"Heating" or "DHW" .

Heating mode

If a Vitotrol 100 room temperature controller, or a similar programmable room thermostat, is connected, it is used to set the required room temperature.
Please refer to the separate operating instructions.

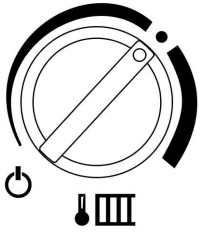
If the setting on the room temperature control unit is inadequate for achieving the required room temperature (e. g. during an extremely cold winter), the heating water temperature can also be modified using the rotary selector "".

DHW heating - combi boiler

In the event of a demand for hot water, the appliance will detect water flow and initiate the ignition sequence. The fan (and pump) will start and the boiler will light.
If the hot water demand is near to the maximum design flow rate the boiler will run continuously at full output until the tap is closed or the flow rate is reduced, the heat input will be reduced to maintain a steady pre-set temperature at the tap.

Hot water is available almost instantaneously from the boiler, but the final outlet temperature and the delay in reaching full temperature will depend on the flow rate and the distance from the boiler to the tap.
When the tap is closed the boiler will return to heating mode, if there is a demand for heating, otherwise the boiler will shut down until the next demand for heating or hot water.

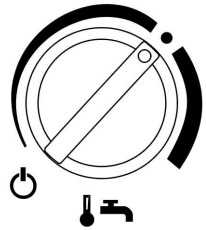
Heating



Switching ON:
Turn rotary selector "" to the required heating water temperature.
If central heating is active the indicator "" appears on the display.
Switching OFF:
Turn rotary selector "" to "".

Hot water (combi boiler only)

Vitodens 100-W with integral instantaneous water heater.
Select the hot water temperature in accordance with your personal requirements (e.g. for showering).



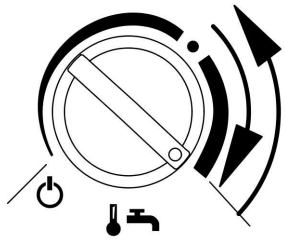
Switching ON:
Turn rotary selector "🌡🚰" to the required hot water temperature.

If DHW heating is active the indicator "🚰" appears on the display.

Switching OFF:
Turn rotary selector "🌡🚰" to "⏻".

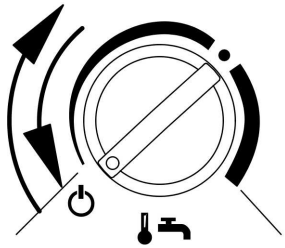
Switch comfort function ON and OFF

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 possible (for less than 3 s) and turn anticlockwise again.
"COMFORT" appears on the display.



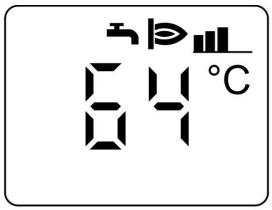
Switching OFF the comfort function

Briefly turn rotary selector "🌡🚰" anticlockwise as far as possible (for less than 3 s) and turn clockwise again.
"ECO" appears on the display.

Hot water (system boiler only)

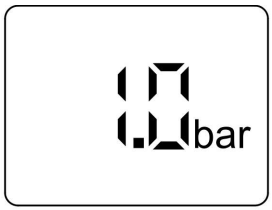
For operation with a separate DHW cylinder, set DHW temperature at DHW cylinder thermostat.

Heating water temperature and system pressure



Checking the heating water temperature

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



Checking the system pressure

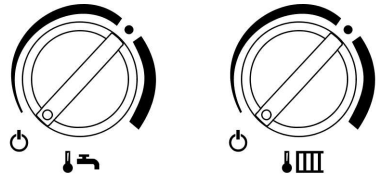
1. Turn both rotary selectors "🌡" and "🌡" anticlockwise as far as possible "⏻" (turn selector "🌡" only for system boiler).
   The current system pressure (e.g. 1.0 bar) then appears on the display.
2. Return both rotary selectors to their original positions.

Note
If the system pressure drops below 0.6 bar, it flashes on the display. If this occurs, please notify your heating contractor.

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Switching the Vitodens OFF with frost protection

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



Turn both rotary selectors to "⏻".
Frost protection is now active for the boiler.

Shutting down the heating system

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

1. Close the main gas shut-off valve and safeguard against unauthorised reopening.
2. Switch OFF the power.
   The power to the system is now switched off.
   Note that the system is no longer frost protected.

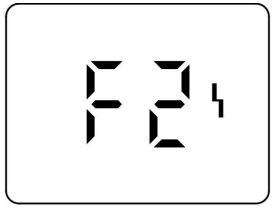
System characteristics

What to do if ...	Cause	Solution
... the heating system does not start	ON/OFF switch switched OFF	Switch ON
	System controls including room thermostats not calling for heat. Rotary selector "🌡" set to "⏻"	Set required heating water temperature (see page 10)
	Fuse has tripped/blown (either at the fuse board or in the controls)	Contact your heating engineer
... the boiler does not switch ON (or switched ON infrequently)	No gas	Contact your gas supplier or heating engineer
	Control fault	Read off the fault codes on the display. Contact your heating engineer and report fault codes.
... the burner does not ignite, the fault symbol "ϟ" is displayed and "Reset" flashes red	False start	Press "Reset" button. If this attempt to start is also unsuccessful contact your heating engineer.
	Low system water pressure	The system pressure will flash on the display. Contact your heating engineer. It is possible to recharge the system via the filling loop. Note: Care must be taken to ensure the fill valve is not left turned on. Viessmann Ltd. will not be liable for incorrect use of the filling loop; if in doubt contact your heating engineer.

System characteristics (cont.)

What to do if ...	Cause	Solution
... the heating system does not start	System controls including room thermostats not calling for heat.	Switch on system controls to create demand.
... the burner does not ignite, display shows fault symbol "ϟ"	Control fault	Read off the fault codes on the display. Contact the heating engineer and report fault codes.
… the burner switches off although the set room temperature has not been reached	Fault in air supply or in the flue	Contact your heating engineer.
	Heating water temperature or room temperature is set too low	Increase heating water temperature by turning rotary selector "🌡" (see page 10) or increase set room temperature (see Vitotrol 100 manual).
... the rooms are cold, even though the burner is working	DHW priority	Stop using hot water
	Fault on Vitotrol 100 or similar programmable room thermostat	Contact your heating engineer.
… the temperature of the hot water is too low	The hot water temperature is set too low or rotary selector "🌡" is set ON "⏻"	Set desired hot water temperature

Fault messages in the display



Any faults in your heating system are indicated on the display by a flashing fault symbol "ϟ".
Read off the fault code on the display and report it to your heating engineer.

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Cleaning

The appliance casing can be cleaned using a damp cloth and a mild detergent. Do not use abrasive cleaners.

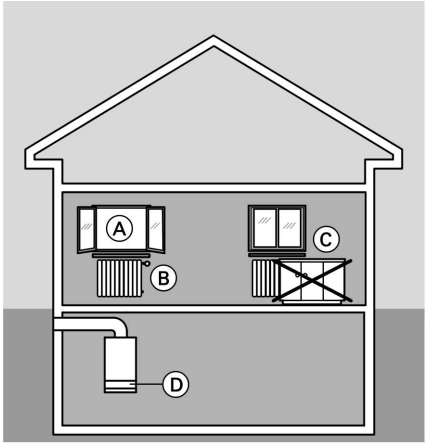
Inspection and maintenance

To ensure continued efficient operation of the appliance, it is recommended that it is checked and serviced at regular intervals. The frequency of servicing will depend upon the particular installation conditions and usage but in general once a year should be adequate. It is the law that any service work must be carried out by a competent CORGI registered engineer.

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Energy saving tips

Along with using a modern heating system, you can save additional energy by your own actions.
The following steps will help you with this:



- Correct ventilation/airing.
  Briefly open windows Ⓐ fully and at the same time close thermostatic valves Ⓑ.
- Never overheat rooms;
  endeavour to achieve a room temperature of 20 °C; every degree of room temperature reduction saves up to 6% of your heating bills.
- Close roller shutters (where installed) at dusk.
- Set thermostatic valves Ⓑ correctly.
- Never cover radiators Ⓒ or thermostatic valves Ⓑ.
- Utilise the setting options offered by control unit Ⓓ.
- Controlled DHW consumption: A shower generally uses less energy than a full bath.

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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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