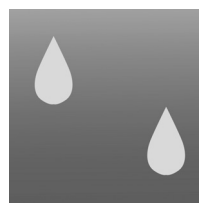


# Installation Instructions

For Corgi Registered Heating Engineers



Vitodens 200-W  
Type WB2B, 4.8 to 35.0 kW  
Wall mounted gas fired condensing boiler  
Natural Gas and LPG version



## VITODENS 200-W



5350 485 GB 08/2007

Please keep these instructions in a safe place

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*For maintenance and spares information see Service instructions 5692 672*

## Product information

### Vitodens 200-W

Type WB2B, 4.8 to 35.0 kW

Set up for operation with natural gas.

| Boiler Type                      | GC number |
|----------------------------------|-----------|
| Vitodens 200-W WB2B System, 19kW | 41-819-14 |
| Vitodens 200-W WB2B System, 26kW | 41-819-15 |
| Vitodens 200-W WB2B Combi, 26kW  | 47-819-09 |
| Vitodens 200-W WB2B System, 30kW | 41-819-16 |
| Vitodens 200-W WB2B Combi, 30kW  | 47-819-10 |
| Vitodens 200-W WB2B System, 35kW | 41-819-17 |
| Vitodens 200-W WB2B Combi, 35kW  | 47-819-11 |

### Appliance description

The Vitodens 200-W is a fully automatic, wall hung, fan assisted balanced flue condensing boiler for use with natural gas (G20) and LPG. For gas type conversions see page 63.

The Vitodens 200-W is fully modulating and provides central heating outputs between 4.8kW and 35.0kW and instantaneous hot water outputs between 4.8kW and 35.0kW.

The appliance always gives priority to domestic water supply.

### Certification details

The Vitodens 200-W is certified to comply with the requirements of EN 483 and EN 625 for use in GB and IE (Great Britain and Ireland) using gas category 2H (G20 with a governed gas supply at 20 mbar (8 in. wg) inlet pressure).

The appliance is designed for use with sealed primary water systems (only) and incorporates a circulation pump, diverter valve assembly, flow switch (combination boiler only), DHW plate-type heat exchanger (combination boiler only), safety valve and CH expansion vessel. A separate DHW expansion vessel is not required. Internal frost protection and an electronic control unit is fitted as standard equipment and the boiler may be used with any suitable room thermostat, cylinder thermostat and / or time clock in addition to the optional controls available from Viessmann.

Asbestos, mercury or CFCs have not and will not be used in this product.

The appliance classification is either C<sub>13</sub> or C<sub>33</sub> depending upon whether a horizontal or vertical flue terminal is used.

## Safety instructions



Please follow these safety instructions closely to prevent the risk of accidents and material damage.

### Safety instructions explained



#### Danger

This symbol warns against the risk of injury.



#### Please note

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

### Note

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

### Target

These instructions are exclusively designed for qualified personnel.

- Work on gas equipment must only be carried out by a CORGI registered heating engineer.
- Electrical work must comply with Part P of the building regulations.
- The system must be commissioned by a CORGI registered heating engineer.

### If you notice a smell of gas



#### Danger

Escaping gas can cause explosions which may lead to serious injury.

- Do not smoke. Prevent naked flames and sparks.
- Do not operate electrical switches or equipment.
- Ventilate the area by opening the windows and doors.
- Close the gas supply control valve.
- Remove all personnel from the danger zone.
- Observe the safety regulations of your gas supplier, found on the gas meter.
- Notify your CORGI registered heating engineer or TRANSCO on 0800 111 999.

### If you smell flue gas



#### Danger

Flue gas may lead to life-threatening poisoning.

- Shut down the boiler and system
- Ventilate the area.
- Close all doors in unaffected areas.
- Do not operate electrical switches or equipment.

## Safety instructions (cont.)

### Working on the system

- Close the main gas shut-off valve and safeguard against unauthorised reconnection.
- Isolate the system from the electricity power supply, check that it is no longer 'live' and safeguard the electricity supply against unauthorised reconnection.



#### Please note

Electronic modules can be damaged by electro-static-discharges. Touch earthed objects, such as heating or water pipes, to discharge static loads ensuring any appropriate electrical safety steps have been taken in advance.

### Repair work



#### Please note

Repairing components which fulfil a safety function can compromise the safe operation of your heating system. Replace faulty components only with original Viessmann spare parts.

### Ancillary components



#### Please note

Parts which have not been tested together with the heating system can compromise its function. Installing non-authorized components and non-approved modifications/conversions can compromise safety and may invalidate the appliance warranty. For replacements, use only original spare parts from Viessmann or those which are approved by Viessmann.

## Technical Specification

### General Specifications and Performance Data.

| Vitodens 200-W WB2B   |       |                 |             |             |
|---|-------|-----------------|-------------|-------------|
| Appliance   |       | Combi 26 kW     | Combi 30 kW | Combi 35 kW |
| Mode  | Unit  |                 |             |             |
| Rated Central heating Output  |       |                 |             |             |
| Tf/Tr 50/30 °C (condensing)   | KW    | 6.5 to 26.0     | 8.8 to 30.0 | 8.8 to 35.0 |
| Tf/Tr 80/60 °C (non condensing)   | KW    | 5.9 to 24.1     | 7.9 to 27.8 | 7.9 to 32.2 |
| Rated Central Heating Input (net)   | KW    | 6.2 to 24.7     | 8.3 to 28.5 | 8.3 to 33.0 |
| Rated Central Heating Input (gross)   | KW    | 6.9 to 27.4     | 9.2 to 31.1 | 9.2 to 36.6 |
| Domestic Hot Water Output range   | KW    | 5.9 to 26.0     | 7.9 to 30.0 | 7.9 to 35.0 |
| Domestic Hot Water Input (net)  | KW    | 6.1 to 27.1     | 8.2 to 31.3 | 8.2 to 36.5 |
| Maximum gas rate (CH mode)  | m3/h  | 2.61            | 3.01        | 3.49        |
| Maximum gas rate (DHW mode)   | m3/h  | 2.87            | 3.31        | 3.86        |
| Seasonal efficiency (SEDBUK)  | %     | 90.0            | 90.0        | 90.0        |
| SEDBUK rating   |       | A               |             |             |
| No <sub>x</sub> classification  |       | Class 5         |             |             |
| DHW performance @ 35°C temp rise  | l/min | 10.7            | 12.3        | 14.3        |
| DHW temperature range   | °C    | 10 to 57        |             |             |
| Maximum mains water inlet pressure  | bar   | 10              |             |             |
| Minimum mains water inlet pressure for max DHW flow rate                      | bar   | 1               |             |             |
| Minimum mains water inlet pressure for operation                              | bar   | 0.5             |             |             |
| Minimum DHW flow rate for operation   | l/min | 3               |             |             |
| Minimum CH system pressure - cold   | bar   | 1               |             |             |
| Maximum CH system pressure - hot  | bar   | 2.5             |             |             |
| CH flow temperature   | °C    | 30 to 80        |             |             |
| Integral expansion vessel capacity  | ltr   | 10              |             |             |
| Integral expansion vessel pre-charge pressure                                 | bar   | 0.75            |             |             |
| Max CH system water content using fitted expansion vessel @ 0.75 bar and 80°C | ltr   | 125             |             |             |
| Total water capacity  | ltr   | 7.8             | 8.2         | 8.2         |
| Lift weight   | kg    | 46              | 48          | 48          |
| Total weight (incl packaging)   | kg    | 51              | 53          | 53          |
| Electricity supply  |       | 230v, 50Hz      |             |             |
| Internal fuse   | A     | 6.3             |             |             |
| Maximum power consumption   | W     | 95              | 115         | 115         |
| Water protection rating   |       | IP x4D          |             |             |
| Inner flue duct diameter  | mm    | 60              |             |             |
| Outer flue duct diameter  | mm    | 100             |             |             |
| Gas council number  |       | 47-819-09       | 47-819-10   | 47-819-11   |
| Product ID  |       | CE-0085 BR 0432 |             |             |

## Technical Specification

### General Specifications and Performance Data.

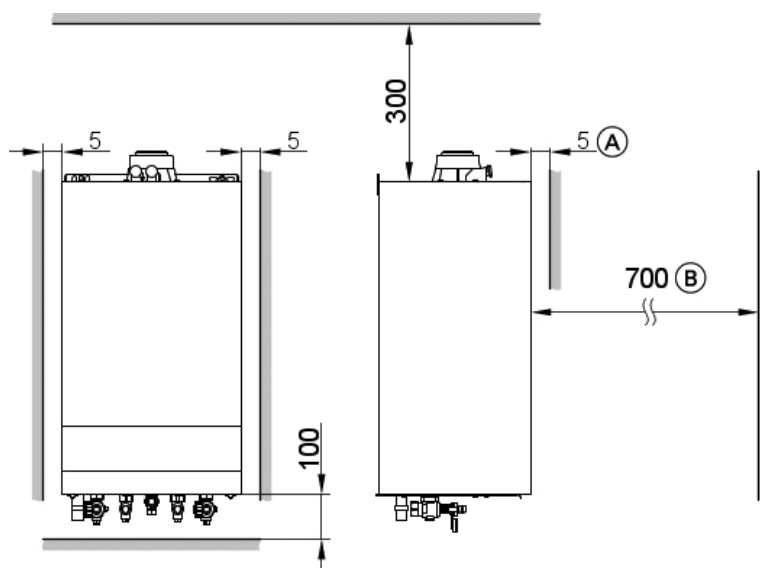
| Vitodens 200-W WB2B   |                   |                 |              |              |              |
|---|-------------------|-----------------|--------------|--------------|--------------|
| Appliance   |                   | System 19 kW    | System 26 kW | System 30 kW | System 35 kW |
| Mode  | Unit              |                 |              |              |              |
| Rated Central Heating Output  |                   |                 |              |              |              |
| Tf/Tr 50/30 °C (condensing)   | KW                | 4.8 to 19.0     | 6.5 to 26.0  | 8.8 to 30.0  | 8.8 to 35.0  |
| Tf/Tr 80/60 °C (non condensing)   | KW                | 4.3 to 17.5     | 5.9 to 24.1  | 7.9 to 27.8  | 7.9 to 32.2  |
| Rated Central Heating Input (net)   | KW                | 4.5 to 17.9     | 6.2 to 24.7  | 8.3 to 28.5  | 8.3 to 33.0  |
| Rated Central Heating Input (gross)   | kW                | 5.0 to 19.9     | 6.9 to 27.4  | 9.2 to 31.1  | 9.2 to 36.6  |
| Maximum gas rate  | m <sup>3</sup> /h | 1.89            | 2.61         | 3.01         | 3.49         |
| Seasonal efficiency (SEDBUK)  | %                 | 90.1            | 90.1         | 90.1         | 90.1         |
| SEDBUK rating   |                   | A               |              |              |              |
| No <sub>x</sub> classification  |                   | Class 5         |              |              |              |
| Minimum CH system pressure - cold   | bar               | 1               |              |              |              |
| Maximum CH system pressure - hot  | bar               | 2.5             |              |              |              |
| CH flow temperature   | °C                | 30 to 80        |              |              |              |
| Integral expansion vessel capacity  | ltr               | 10              |              |              |              |
| Integral expansion vessel pre-charge pressure                                 | bar               | 0.75            |              |              |              |
| Max CH system water content using fitted expansion vessel @ 0.75 bar and 80°C | ltr               | 125             |              |              |              |
| Total water capacity  | ltr               | 7.2             | 7.8          | 8.2          | 8.2          |
| Lift weight   | kg                | 43              | 45           | 47           | 47           |
| Total weight (incl packaging)   | kg                | 48              | 50           | 52           | 52           |
| Electricity supply  |                   | 230v, 50Hz      |              |              |              |
| Internal fuse   | A                 | 6.3             |              |              |              |
| Maximum power consumption   | W                 | 85              | 95           | 115          | 115          |
| Water protection rating   |                   | IP x4D          |              |              |              |
| Inner flue duct diameter  | mm                | 60              |              |              |              |
| Outer flue duct diameter  | mm                | 100             |              |              |              |
| Gas council number  |                   | 41-819-14       | 41-819-15    | 41-819-16    | 41-819-17    |
| Product ID  |                   | CE-0085 BR 0432 |              |              |              |





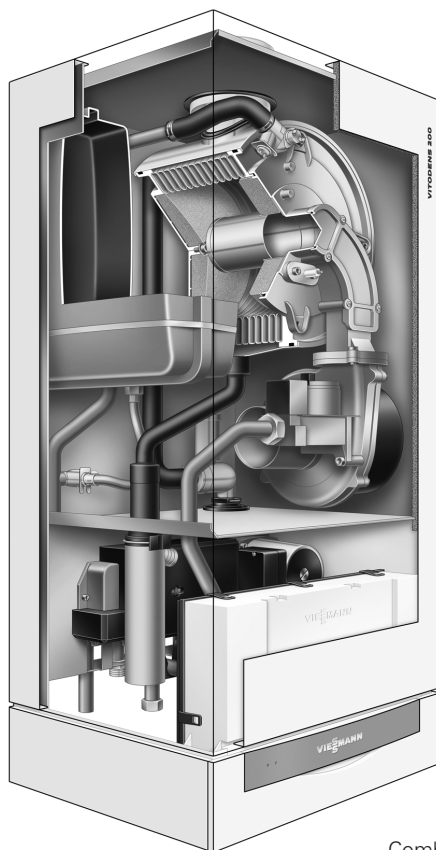
## Installation clearances

The following minimum clearances (mm) must be maintained for installing and maintaining the appliance.



- (A) Behind a cupboard door.
- (B) Space required for servicing.

### Sectional diagram



Combination boiler illustrated

## Installation requirements

### Statutory requirements

The appliance is suitable only for installation in GB and IE and should be installed in accordance with the rules in force. In GB, a corgi Registered Installer must carry out the installation. It must be carried out in accordance with the relevant requirements of the:

### Gas safety (installation and use) regulations (current issue)

It is in your own interest and safety to ensure that the law is complied with.

In addition to the above regulations, this appliance must be installed in accordance with the current IEE Wiring Regulations for electrical installation (BS 7671), local Building Regulations, the Building Standards (Scotland) (Consolidation) Regulations, bye laws of the local water undertaking and Health and Safety Document No. 635 'The Electricity at Work regulations 1989'.

In Ireland (IE), the installation must be carried out by a Competent Person and installed in accordance with the current edition of I.S.813 "Domestic Gas Installations", the current Building Regulations and reference should be made to the current ETCI rules for electrical installation.

It should also be in accordance with the relevant recommendations in the current editions of the following British Standards and Codes of Practice: BS 5449, BS 5546, BS 5440:1, BS 5440:2, BS 6798, BS 7593, BS 6891, IGE/UP/7 and IS 813 for IE

### Boiler position

The following limitations must be observed when siting the boiler:

- The boiler is not suitable for external installation. The position selected for installation should be within the building, unless otherwise protected by a suitable enclosure and must allow adequate space for installation, servicing and operation of the appliance and for air circulation around it.

All CORGI Registered installers are required to notify building control when they have installed or exchanged a gas appliance in a residential dwelling, this can be done via CORGI.

CORGI will then issue either a Building Compliance Certificate (for England and Wales) or a Declaration of Safety (Scotland, Northern Ireland, Isle of Man or appliances out of the scope of Building Regulations) to the homeowner, which will confirm that the work has been carried out by a competent CORGI Registered Installer. This document will be used to form part of the Home Information Pack (HIP).



### Please note

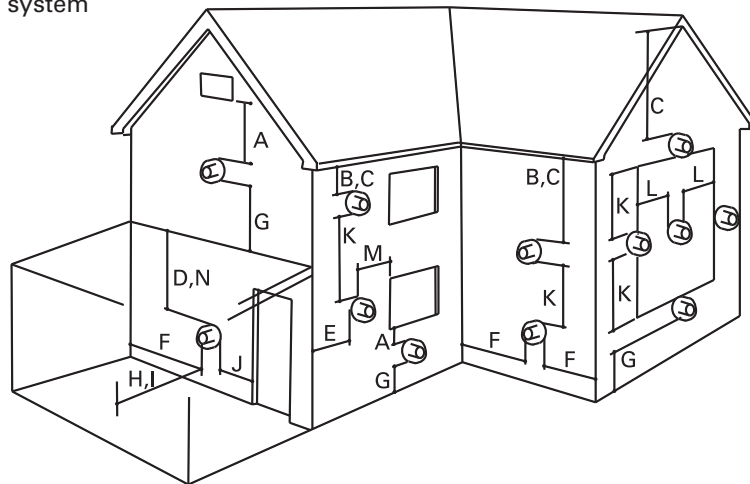
Manufacturers instructions must not be taken in any way as overriding statutory obligations.

- The position must allow for a suitable flue system and terminal position. The boiler must be installed on a flat vertical wall capable of supporting the weight of the appliance and any ancillary equipment when full.
- Due consideration should be given to the routing of the condensate drain from the chosen position.
- If the boiler is to be fitted in a timber framed building it should be fitted in accordance with IGE/UP/7. If in doubt advice must be sought from the Institute of Gas Engineers.

## Flue terminal position

- If the appliance is to be installed in a room containing a bath or shower, any electrical switch or control utilising mains electricity must be so situated that it cannot be touched by a person using the bath or shower. Attention is drawn to the requirements of BS 7671 (the current I.E.E Wiring Regulations) and in Scotland the electrical provisions of the Building Regulations applicable in Scotland.
- A compartment used to enclose the appliance must be designed and constructed specifically for this purpose. An existing cupboard or compartment may be used provided it is modified accordingly. BS 7698:2000 gives details of the essential features of cupboard / compartment design, including airing cupboards.
- Where installation will be in an unusual location, special procedures may be necessary. BS 6798 gives detailed guidance on this aspect.

Flue termination position  
Horizontal flue system

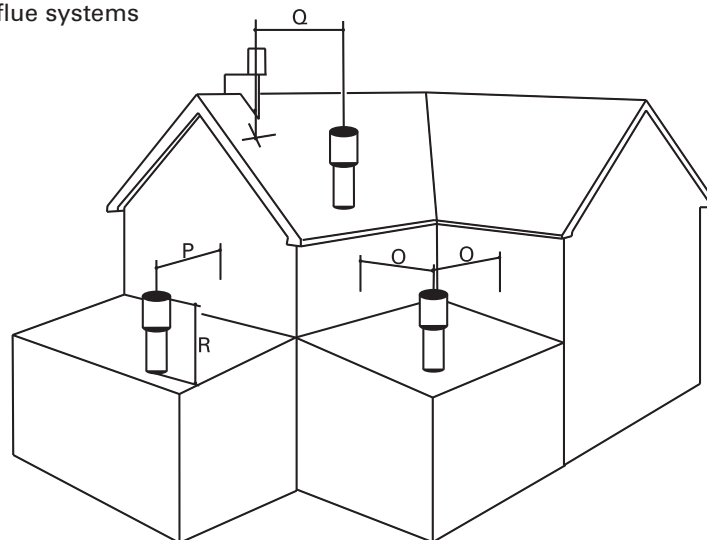


| Position   | Minimum Spacing |
|--|-----------------|
| A Directly below an openable window, air vent or any other ventilation opening | 300mm           |
| B Below a gutter, drain or soil pipe   | 75mm            |

### Flue terminal position (cont.)

| Position  | Minimum Spacing |
|---|-----------------|
| C Below eaves                                       | 200mm           |
| D Below a balcony                                   | 200mm           |
| E From vertical drain or soil pipes                 | 150mm           |
| F From internal and external corners                | 300mm           |
| G Above adjacent ground or balcony level/roof       | 300mm           |
| H From a surface facing the terminal                | 600mm           |
| I Facing terminals                                  | 1200mm          |
| J From opening door/window in carport into dwelling | 1200mm          |
| K Vertically from a terminal on same wall           | 1500mm          |
| L Horizontally from a terminal on same wall         | 300mm           |
| M Adjacent to opening                               | 300mm           |
| N Below carport/roof                                | 200mm           |

### Vertical flue systems



### Flue terminal position (cont.)

| Position                       | Minimum Spacing |
|--------------------------------|-----------------|
| O From adjacent wall           | 300mm           |
| P From adjacent opening window | 1000mm          |
| Q From another terminal        | 600mm           |
| R Minimum height               | 300mm           |

#### Flue Terminal Location

Detailed recommendations for flue installation are given in BS 5440:1. The following notes are for general guidance.

- The boiler must be installed so that the terminal is exposed to external air.
- It is important that the position of the terminal allows free passage of air across it at all times.
- It is essential to ensure that products of combustion discharging from the terminal cannot re-enter the building or any other adjacent building, through ventilators, windows, doors, other sources of natural air infiltration or forced ventilation / air conditioning.
- The minimum acceptable dimensions from the terminal to obstructions and ventilation openings are specified above (BS 5440 Part 1).
- If the terminal discharges into a pathway or passageway check that combustion products will not cause nuisance and that the terminal will not obstruct the passageway.
- Where the lowest part of the terminal is fitted less than 2m above ground, above a balcony or above a flat roof to which people have access, the terminal must be protected by a purpose designed guard. (Available as an optional extra).
- Where the terminal is fitted within 850mm of a plastic or painted gutter, or 450mm of painted eaves, an aluminium shield at least 750mm long must be fitted to the underside of the painted surface.
- The air inlet / flue outlet duct must not be closer than 25mm to combustible material.
- Due to the high efficiency of the boiler the terminal may emit a plume of vapour. This is normal but positions where this would cause a nuisance should be avoided.

## Flue system

### Flue gas temperature protection

The flue pipes are approved for flue gas temperatures up to 120 °C. The interior design of Viessmann condensing boilers ensures that the maximum permissible flue gas temperature will not be exceeded.

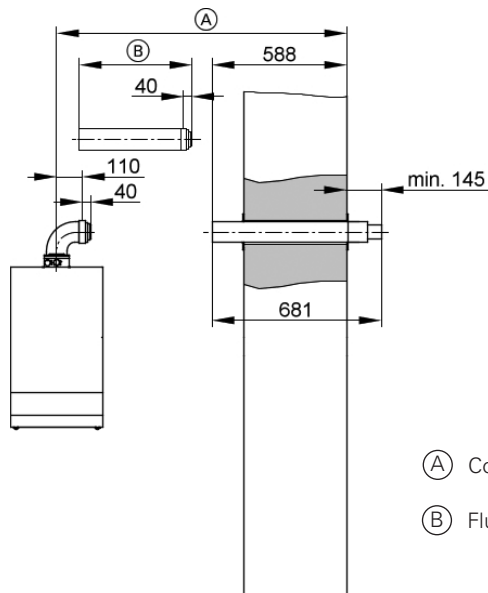
### Concentric Horizontal Flue System

Standard horizontal flue kit: The appliance can be supplied complete with a standard concentric horizontal balanced flue kit and factory fitted flue terminal assembly, suitable for flue lengths of up to 620mm from the centre of the flue outlet, which equates to wall thicknesses of up to 480mm for rear flues and 463mm for side flues including minimum clearances.

Extension flue ducts can be used to increase the straight flue length up to 6m and include one 87° elbow.

### Installation notes

- Keep the flue gas path as short as possible and with the smallest possible number of bends.
- Check the seating of the gaskets in all couplings.
- Only use the special gaskets supplied.
- Only use the components supplied with the PP flue gas system.
- Slide the pipes into each other whilst turning them slightly.
- An extra 87° elbow can be used but this reduces the maximum permissible length by 1m . An extra 45° elbow can be used but this reduces the maximum permissible length by 0.5m .





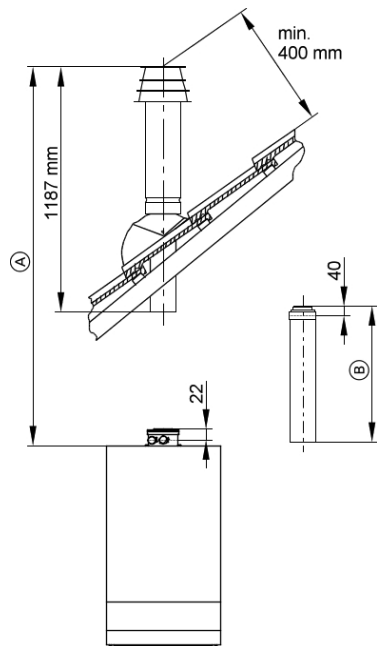
## Flue system (cont.)

### Concentric Vertical Flue System

The vertical flue kit option with extensions may be used for up to 10m total flue length.

An extra 87° elbow can be used but this reduces the maximum permissible length by 1m. An extra 45° elbow can be used but this reduces the maximum permissible length by 0.5m.

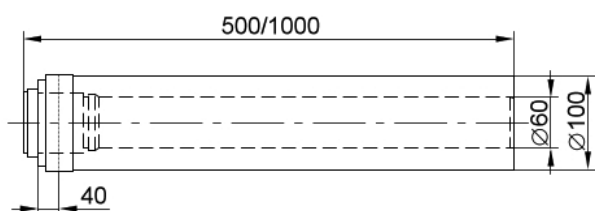
Before commencing the installation refer to diagram below to determine which optional extension kits are required, if any.



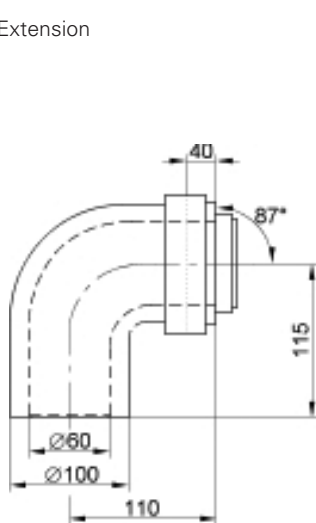
- Ⓐ Combined length of flue pipe max. 10m.      Ⓑ Flue pipe (can be shortened as necessary)

## Flue system (cont.)

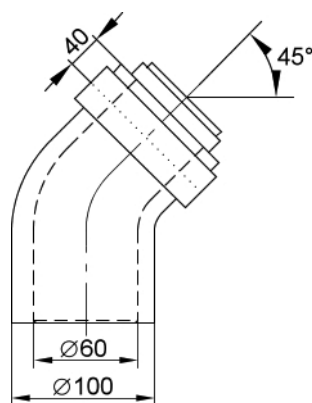
### Elbows and extensions



Extension



Elbow 87°

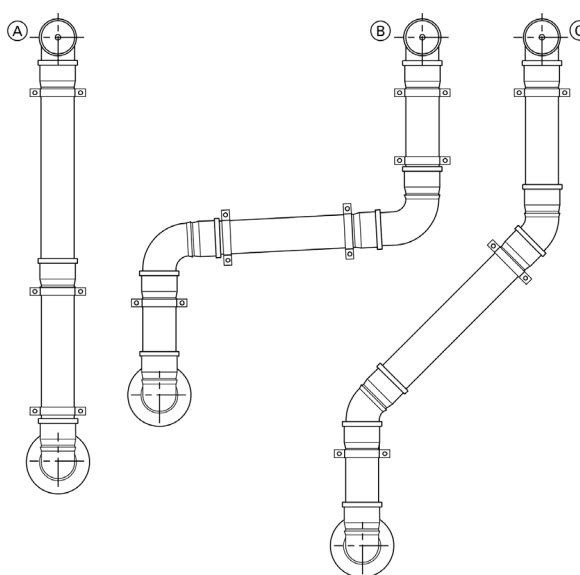


Elbow 45°

## Plume kit installation instructions

The plume kit enables the relocation of the flue outlet of a standard horizontal flue system to another position and is available as an optional extra, please contact your supplier for further information.

### Routing options



(A) Plume kit standard delivery 2m max length

(B) Plume kit standard delivery additional options:

- 2 x 87° bends
- 1 pipe 1m long

(C) Plume kit standard delivery additional options:

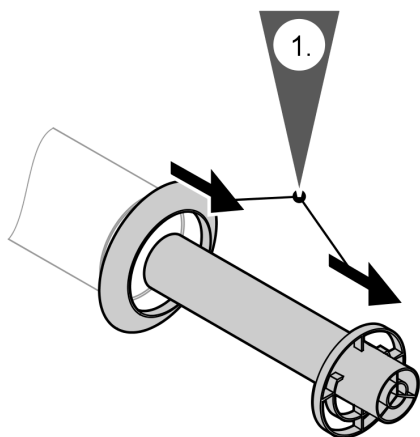
- 2 x 45° bends
- 1 pipe 1m long

Ensure the max. length of the entire balanced flue system is not exceeded.

The max. length is reduced by 1m when using a further 87° bend or 2 x 45° bends.

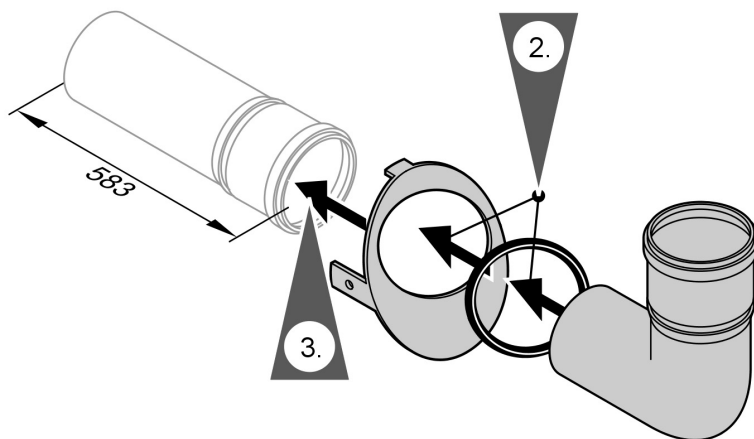
Deduct 3m from the max. possible standard concentric horizontal flue length and add the standard plume kit max length to give max. length of entire flue system.  
ie. 6m - 3m + 2m = 5m max.

## Fitting the plume kit



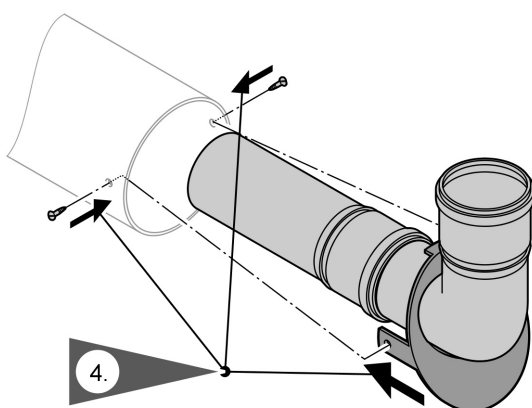
1. Unhook the external wall terminal of the flue at the external pipe and extract the flue with the end piece and the wall bezel.

2. Push the gasket and flue bend into the connector.
3. Push the flue bend with the connector into the replacement pipe of the external wall terminal (transparent, 583mm long).

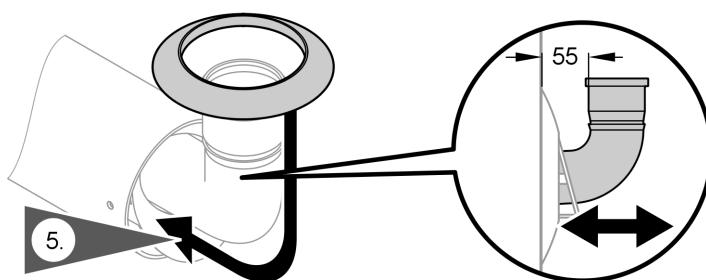


### Fitting the plume kit (cont.)

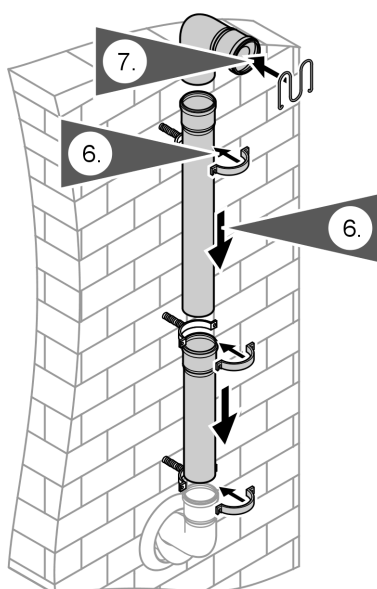
4. Push the replacement pipe with the connector and flue bend into the inner flue duct and secure with the screws supplied.



5. Refit the wall bezel.



### Fitting the plume kit (cont.)



6. Fit the flue pipes and bends in accordance with the selected installation method and secure with the fixing clamps supplied.
7. Insert the rodent protection grill into the uppermost bend.

### Ventilation Requirements

Detailed recommendations for air supply are given in BS 5440:2. Please see additional notes below.

- It is not necessary to have a purpose provided air vent in the room or internal space in which the appliance is installed.
- If the boiler is to be installed in a cupboard or compartment, no permanent air vents are required for cooling purposes in the cupboard or compartment, however, it is essential to ensure that the minimum clearances stated (page 10) are maintained.

## Hydraulic connections

### Heating System (typical system designs)

- The Vitodens 200-W is designed for connection to sealed central heating water systems only.
- A sealed system must only be filled by a competent person.

### Combination boiler

#### *Note*

The boiler incorporates an internal bypass to ensure adequate water flow. Certain thermostatic radiator valve manufacturers may require that a bypass valve is fitted in addition to the integral by pass.

Specifications as to the individual requirements should be sought prior to installation.

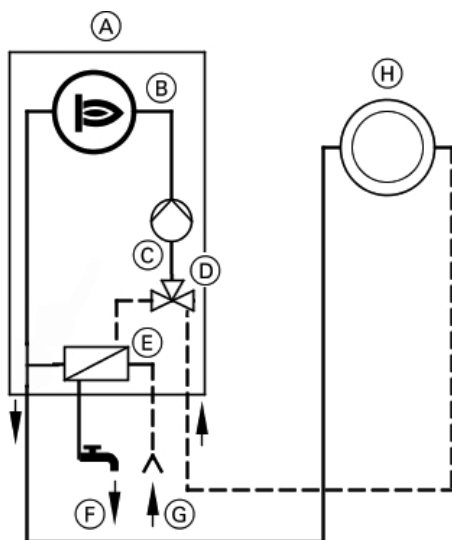
### Filling Loop

This boiler is not fitted or supplied with a filling loop. Any filling loop being fitted should comply with the water supply (water fittings) regulations 1999 Section G24.1 and G24.2. A filling loop should be fitted at some point to allow the CH system to be filled.

## Hydraulic connections

Hydraulic circuits

Combination boiler

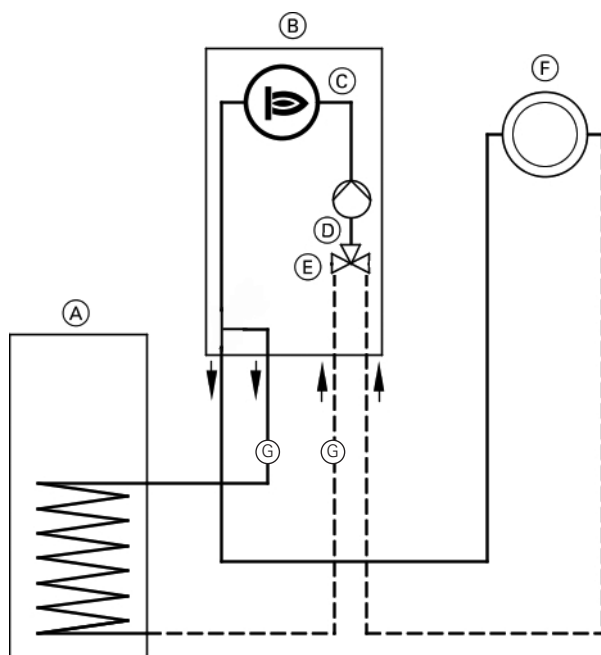


- |                               |                               |
|-------------------------------|-------------------------------|
| (A) Boiler                    | (E) Plate-type heat exchanger |
| (B) Heat exchanger            | (F) DHW outlet                |
| (C) Circulation pump          | (G) Cold water inlet          |
| (D) Three port diverter valve | (H) Heating circuit           |



## Hydraulic connections

System boiler using separate connections for DHW Cylinder & heating circuits  
(4 pipes)



- |                    |                             |
|--------------------|-----------------------------|
| Ⓐ DHW cylinder     | Ⓔ Three port diverter valve |
| Ⓑ Boiler           | Ⓕ Heating circuit           |
| Ⓒ Heat exchanger   | Ⓖ DHW Circuit               |
| Ⓓ Circulation pump |                             |

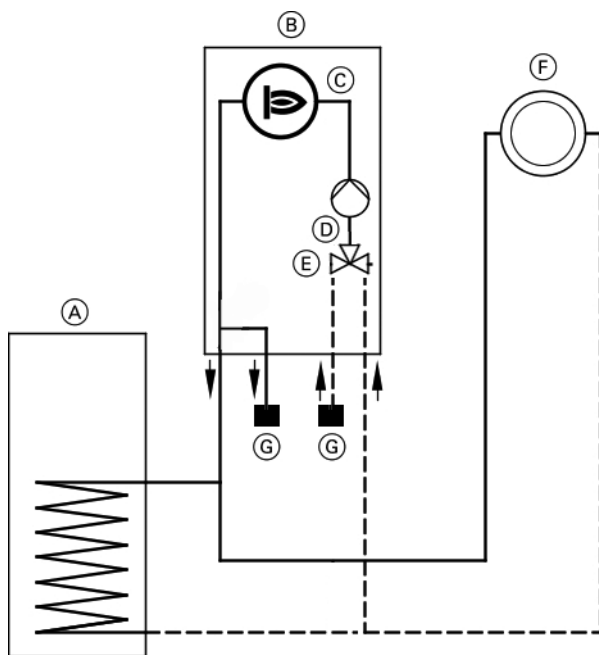
### Note

- The flow and return pipes to the cylinder can be connected either way round, however the optimum method would be to connect the flow pipe to the bottom connection of the cylinder
- This hydraulic circuit must be chosen if the controls are upgraded to allow for weather compensation.

## Hydraulic connections

Weather compensated control instructions are supplied with the replacement controller and outside sensor kit.

**System boiler** when connected to Y or S plan systems (2 pipes).



- (A) DHW cylinder
- (B) Boiler
- (C) Heat exchanger
- (D) Circulation pump
- (E) Three port diverter valve
- (F) Heating circuit
- (G) DHW circuit capped off

## Gas and electric supply

### Gas supply

- The Gas Supply should be checked at the installation planning stage in order to establish the availability of an adequate supply of gas.
- A gas meter can only be connected by the gas supplier or their contractor.
- An existing meter and / or pipework should be of sufficient size to carry the maximum boiler input plus the demand of any other installed appliance. (BS 6891: 1988).
- The governor at the meter must give a constant outlet pressure of 21 mbar +/- 1mbar when the appliance is running.
- The gas supply line should be purged. **WARNING:** Before purging open all doors and windows, also extinguish any cigarettes, pipes and any other naked lights.
- The complete installation must be tested for gas soundness.

### Electricity supply

- Wiring external to the appliance must be in accordance with BS 7671 (the current I.E.E Wiring Regulations) for electrical installation.
- The mains cable must be at least 0.75 mm<sup>2</sup> (24/0.2 mm) PVC insulated to BS 6500 table 16.
- **WARNING: THIS APPLIANCE MUST BE EARTHED.** (Failure to provide a satisfactory earth connection would be a safety hazard and may also result in appliance malfunction).
- The method of connection to the mains supply must facilitate complete electrical isolation of the appliance. Either a 3A fused three pin plug and unswitched shuttered socket outlet, both complying with BS 1363, or a 3A fused double pole switch having a 3mm contact separation in both poles and serving only the boiler (and its external controls) may be used.

## Electrical connections

### Electrical Connections

Both combination and system boilers require a permanent live 240V supply.

Combination boiler: Room temperature control is achieved by connecting a switched live 240V supply to the boiler.

System boiler: For Y & S Plan systems a switched live 240V supply is required to be connected to the boiler. A Viessmann cylinder sensor is a thermistor and is connected directly to the boiler. Room temperature control is achieved by connecting a 240V switched live supply to the boiler.

### External controls

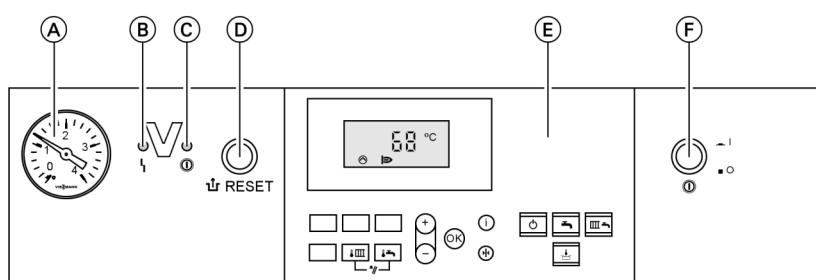
To ensure optimum performance, Viessmann offer a range of external controls (i.e. weather compensation Vitotronic 200). However the appliance may be used with any certified 240V room thermostat.

### Internal controls

The Vitodens 200-W is supplied fitted with an internal Vitotronic HC2 7 Day controller for CH and DHW on both the combination and system boiler models.


## Constant temperature control unit

### Control and display elements



- |                          |                    |
|--------------------------|--------------------|
| (A) Pressure gauge       | (E) User interface |
| (B) Fault display (red)  | (F) ON/OFF switch  |
| (C) ON indicator (green) |                    |
| (D) Reset button         |                    |

### Heating mode

The selected set boiler water temperature will be maintained when a demand is created by the room thermostat and the heating programme is set to DHW and central heating . The boiler water temperature will be maintained at the default frost protection temperature when there is no demand.

The boiler water temperature will be limited:

- To 74°C by the control thermostat inside the burner control unit.
- To 82°C by the electronic temperature limiter inside the burner control unit.
- To 100°C by the temperature limiter in the safety chain (interlocks the burner control unit).

## Constant temperature control unit (cont.)

### DHW heating with gas fired combi boilers

If the flow switch detects that hot water is being drawn (>3 l/min) then the burner, circulation pump and 3-way valve are switched on or changed over.

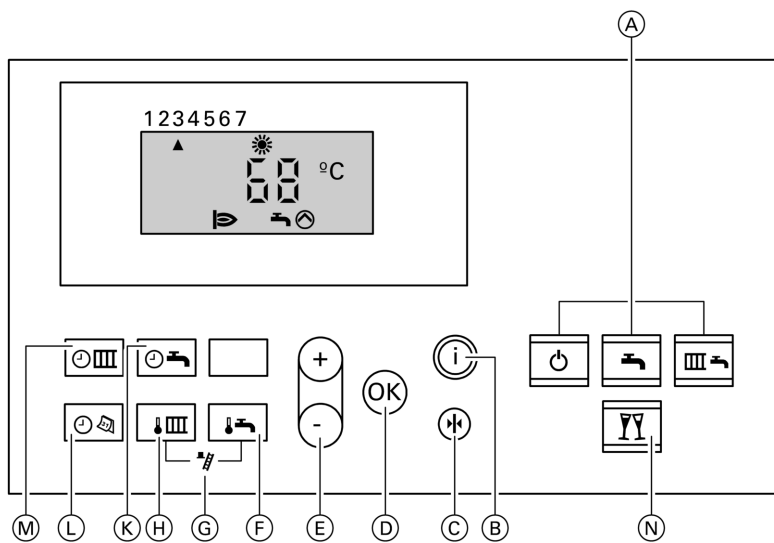
The burner modulates according to the DHW outlet temperature (max. 57°C) and is limited by the temperature limiter (82°C) on the primary side.

### DHW heating with gas fired system boilers - utilising Viessmann DHW sensor

The burner, the circulation pump and the 3-way valve are started or changed over if the cylinder temperature falls 2.5 K below the set cylinder temperature.

In the delivered condition, the set boiler water temperature is 20K higher than the set DHW temperature (adjustable via coding address "60"). The burner will be switched OFF and the circulation pump run-on time will begin, if the actual cylinder temperature exceeds the set cylinder by 2.5K.

## Constant temperature control unit



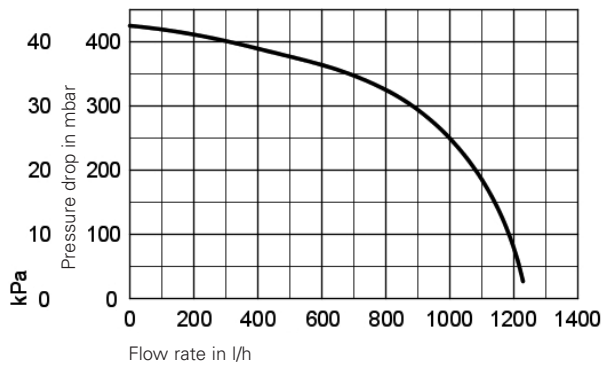
- |  |                                    |
|--|------------------------------------|
| (A) Heating programmes ON/OFF                          | (H) CH temperature                 |
| (B) Info function                                      | (K) DHW time programme             |
| (C) Factory default setting                            | (L) Clock/date setting             |
| (D) Reset  | (M) Central heating time programme |
| (E) Value adjustment                                   | (N) Party function (CH override)   |
| (F) DHW temperature                                    |                                    |
| (G) Service function<br>(only for qualified personnel) |                                    |

Please read the user manual for how to use the constant temperature control unit (Vitotronic 100).

## Hydraulic components in the boiler

### Pump

The following figure shows the pump head that is available in excess of the hydraulic resistance of the appliance.



### Expansion vessel

The table shows the maximum system volume that the integral expansion vessel can sustain under different charge pressure conditions. If the system volume exceeds that shown, an additional expansion vessel must be fitted and connected to the heating system primary return pipe as close as possible to the appliance. If an extra vessel is required, ensure that the total capacity of both vessels is adequate.

Further details are available in the current issues of BS 5449 and BS 6798.

#### Note

If the pressure gauge rises by 1.5 bar when the appliance is at maximum temperature with all radiators in circulation an extra expansion vessel is required.

|   |         |      |       |      |      |
|---|---------|------|-------|------|------|
| Vessel charge and initial system pressure   | bar     | 0.5  | 0.75  | 1.0  | 1.5  |
|   | psi     | 7,3  | 10,9  | 14,5 | 21,8 |
| Total water content of system using 10 litre capacity expansion vessel supplied with appliance  | litres  | 136  | 125   | 103  | 71   |
|   | gallons | 30   | 27    | 22   | 15   |
| For systems having larger capacity, multiply the total system capacity in litres by the factor to obtain the total minimum expansion vessel capacity required |         | 0,08 | 0,097 | 0,11 | 0,16 |



## Installation of boiler

### Unpacking the appliance

The appliance is supplied in 2 separate packages plus any optional flue packages. Check the availability and contents of each package before commencing the installation.

#### Boiler package

##### Combi boiler

- Boiler (assembled) with control fitted
- 5 shut-off valves + CH and Gas pipe tails
- Wall mounting fixture
- 2 wall plugs and 2 screws
- Installation template
- Installation instructions
- Service instructions
- User instructions
- Warranty registration

##### System boiler

- Boiler (assembled) with control fitted
- 3 shut-off valves + CH and Gas pipe tails
- 2 connection elbows
- Wall mounting fixture
- 2 wall plugs and 2 screws
- Installation template
- Installation instructions
- Service instructions
- User instructions
- Warranty registration

### Safety lifting advice

When handling or lifting the boiler body always use safe techniques - keep your back straight, bend your knees, don't twist - move your feet, avoid bending forwards and sideways and keep the load as close to your body as possible. Always ensure that the lift weight is within your own individual capability, if in doubt seek advice.

Where possible transport the boiler using a sack truck or other suitable trolley.

Always grip the boiler firmly, and before lifting feel where the weight is concentrated to, establish the centre of gravity, repositioning yourself as necessary before carrying out the lift.

## Preparing the connections

### Note

For dimensions for on-site preparations of the gas and water connections see "Overall Appliance Dimensions" on page 9

1. Prepare the hydraulic connections.
2. Clean and flush the heating system to BS 7593. Use only the following approved additives.
  - Sentinel or Fernox
  - Anti-scaling
  - Anti-bacterial
  - Anti-freeze
    - Glycol (30% max)
  - Anti-corrosion
  - Cleaner
3. Prepare gas connection to BS 6891
4. Prepare the electrical connections
  - Mains cable: H05V2V2-F 3 G 0.75 mm<sup>2</sup>, 230 V~, 50 Hz.
    - A 1.5m power cable is part of the standard delivery.
  - Accessory cables: H05V2V2-F 3 G 0.75 mm<sup>2</sup> for connection of room temperature control and DHW cylinder control (system boiler).

The use of non approved additives will invalidate the warranty on this product.

Do not use non approved additives or any chemicals from the following list.

- Boiler noise silencer
- Leak sealer
- Fuel, Oil, Grease, Washing powder /liquid
- Pipe jointing compound (like boss white or boss green, Sentinel)
- Anti-blockage

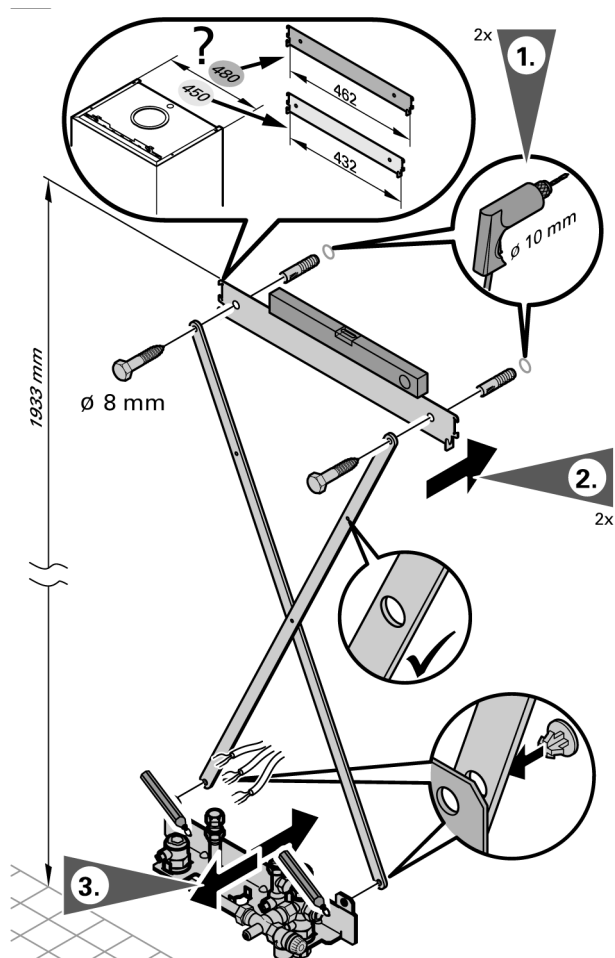
### Note

Additive combinations are permitted only if approved additive suppliers recommend it and always according to suppliers' dosage recommendation.

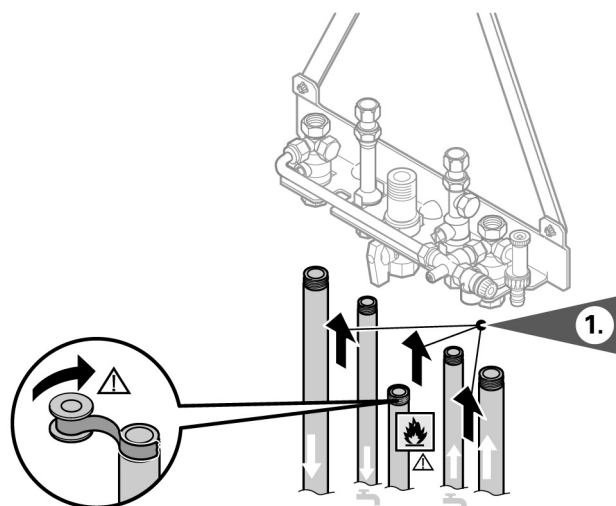
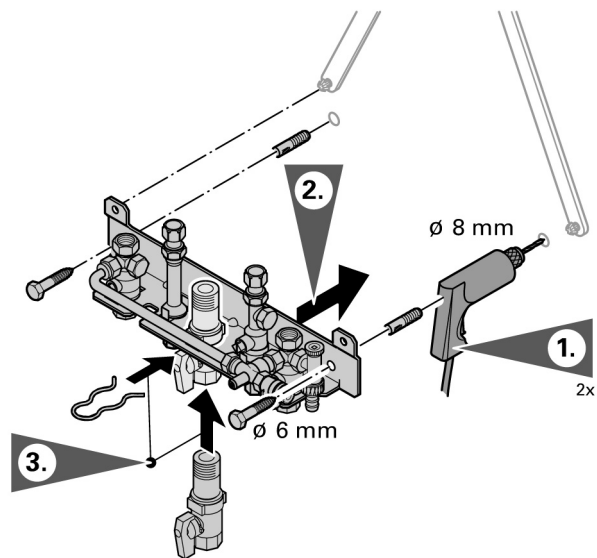
## Wall mounting bracket installation

### Important

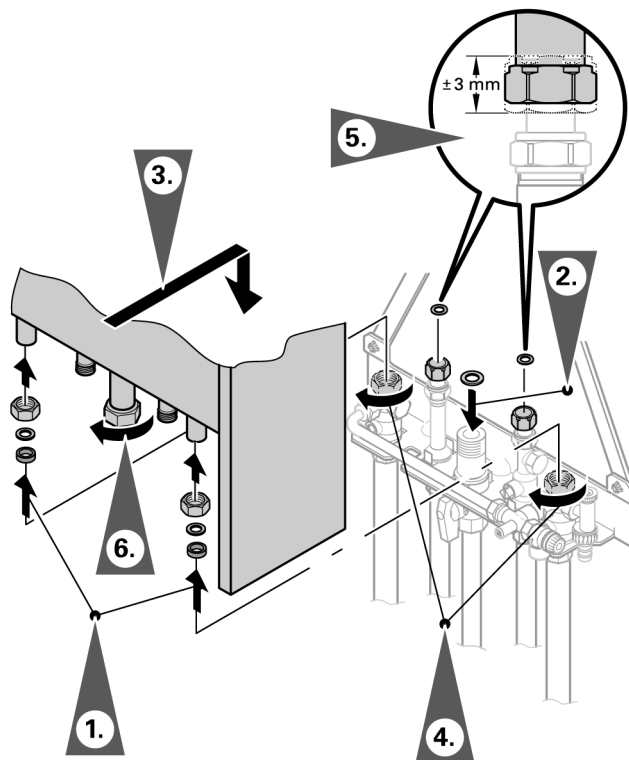
Before installing the appliance, check that the chosen position is suitable, adequate installation clearances are available and that the requirements for flue terminal position are satisfied.



### Wall mounting bracket installation (cont.)



## Wall mounting bracket installation (cont.)



### Safety lifting advice

When handling or lifting the boiler body always use safe techniques - keep your back straight, bend your knees, don't twist - move your feet, avoid bending forwards and sideways and keep the load as close to your body as possible. Always ensure that the lift weight is within your own individual capability, if in doubt seek advice.

Where possible transport the boiler using a sack truck or other suitable trolley.

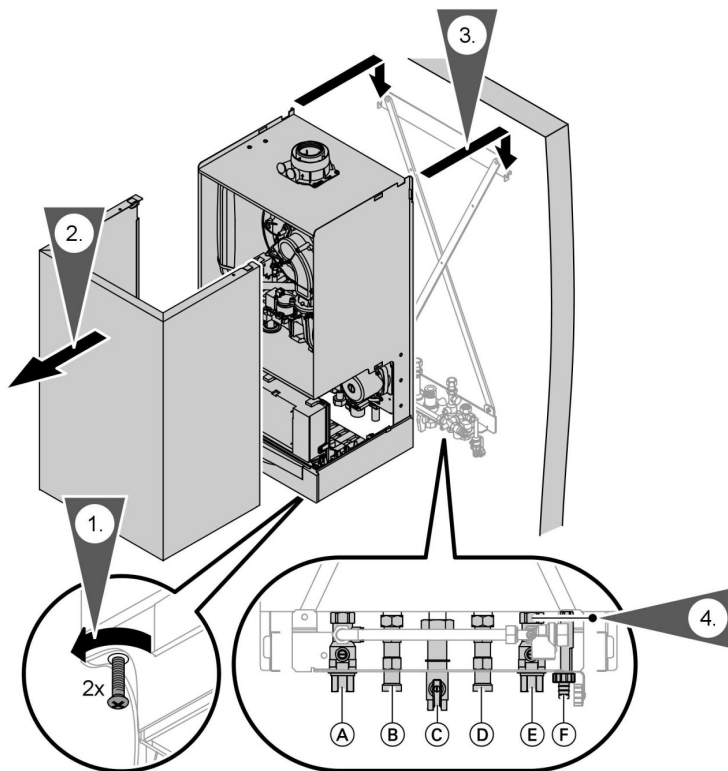
Always grip the boiler firmly, and before lifting feel where the weight is concentrated to, establish the centre of gravity, repositioning yourself as necessary before carrying out the lift.

## Installing the boiler and making all connections

Remove front panel and mount boiler

**Note**

The front panel must be removed before mounting the boiler.

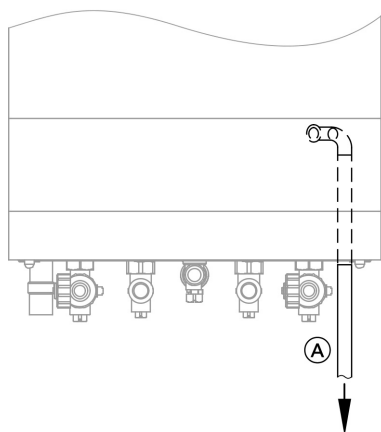


- |   |  |
|---|--|
| (A) Heating flow  | (D) Cold water (combination boiler)<br>Cylinder return (system boiler) |
| (B) DHW (combination boiler)<br>Cylinder flow (system boiler) | (E) Heating return   |
| (C) Gas connection  | (F) Fill & drain valve   |

**Note**

For operation without DHW cylinder or for Y/S plan systems, cap off connections B and D and do not fit a Viessmann cylinder sensor.

## Safety discharge connection



Ⓐ Ø15mm copper

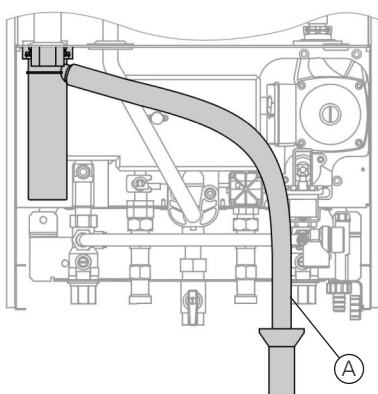
Connect a suitable discharge pipe to the pressure relief valve outlet. The pipe must discharge to a safe place and be a minimum of 15 mm copper and slope continually downwards.

The pipe from the pressure relief valve must not discharge above an entrance, window or any type of public access area.

The pipe must be routed to a position so that any discharge of water, possibly boiling, or steam, cannot create any danger to persons, damage to property or external electric components and wiring. The point of discharge must be clearly visible.

To ease future servicing it is advisable to use a compression fitting to extend the discharge pipe.

## Condensate connection



Connect the condensate drain and discharge correctly as detailed overleaf.

Ⓐ Ø 22mm plastic condensate pipe

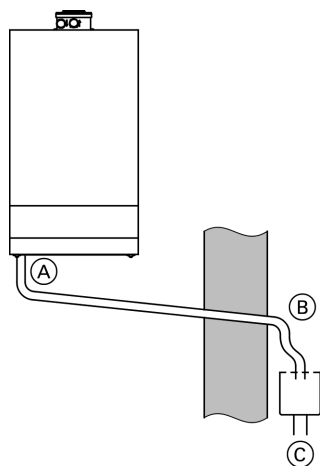
### Routing

The condensate pipe can terminate into any one of the following areas.  
It is always best practice to terminate the condensate pipe via an internal waste system.

- The pipe run should take the shortest practical route with a downward slope of at least 2.5 ° (4.5 mm/m)
- The external pipework should be insulated to prevent freezing
- The pipework should terminate as close as possible to the ground or drain, whilst still allowing the condensate to discharge safely
- The condensate pipe must be of non corrosive material, preferably plastic  
Note: ferrous materials or copper must not be used



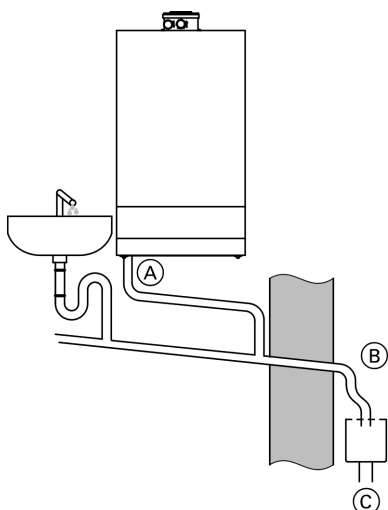
## Condensate connection (cont.)



Terminating into an external waste system

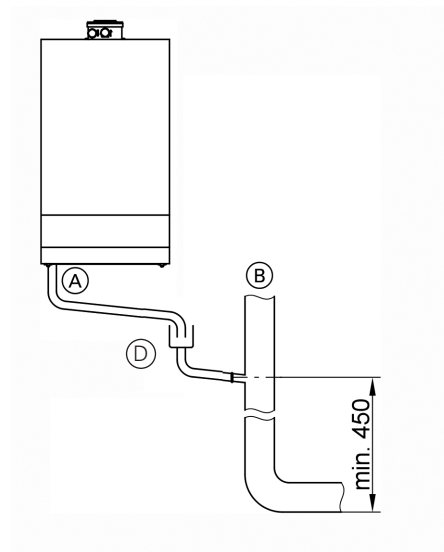
- (A) Ø22mm plastic condensate pipe
- (B) External length of pipe 3m max.
- (C) Open end direct into gully, below ground but above water level

### Condensate connection (cont.)



Terminating into an external purpose made soakway

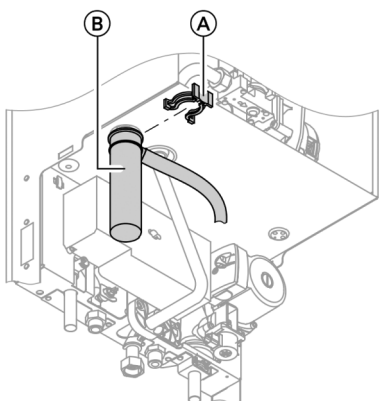
- (A) Ø22mm plastic condensate pipe
- (B) External length of pipe 3m max.
- (C) Open end direct into gully, below ground but above water level



Terminating into the rainwater system

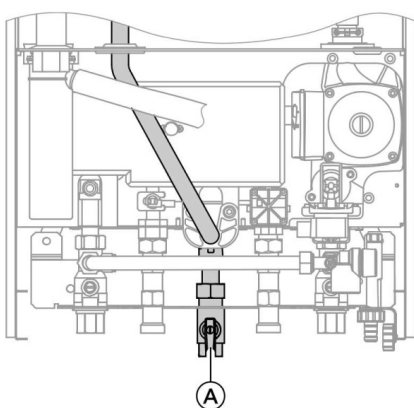
- (A) Ø22mm plastic condensate pipe
- (B) Internal soil and vent stack
- (D) An air break may be required

## Filling the siphon with water



1. Remove retaining clip (A) and siphon (B)
2. Fill siphon (B) with water
3. Fit siphon (B) and secure with retaining clip (A)

## Gas connection

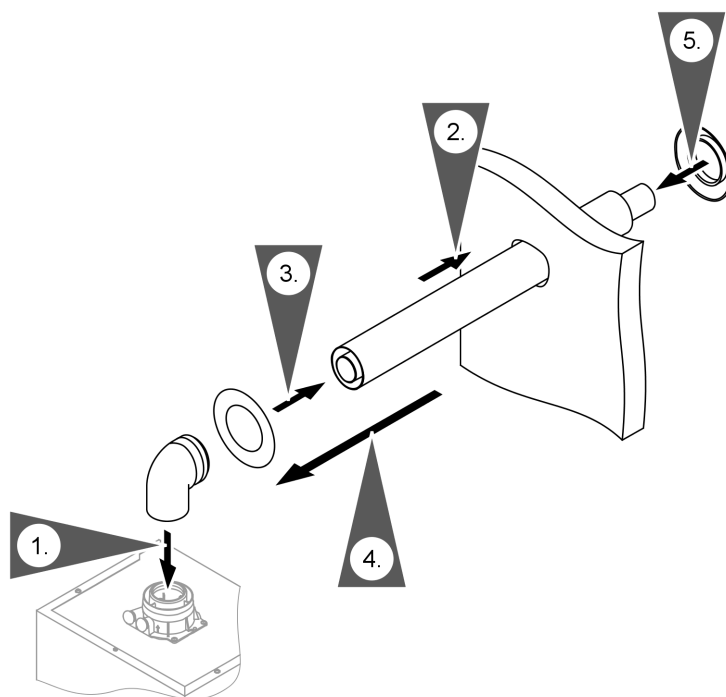


Connect the gas supply to the gas inlet connection on the gas cock (A). Upon completion, tighten the union connection.

Carry out a gas soundness test on the whole installation including the meter and purge the supply in accordance with BS 6891:1988.

## Flue outlet

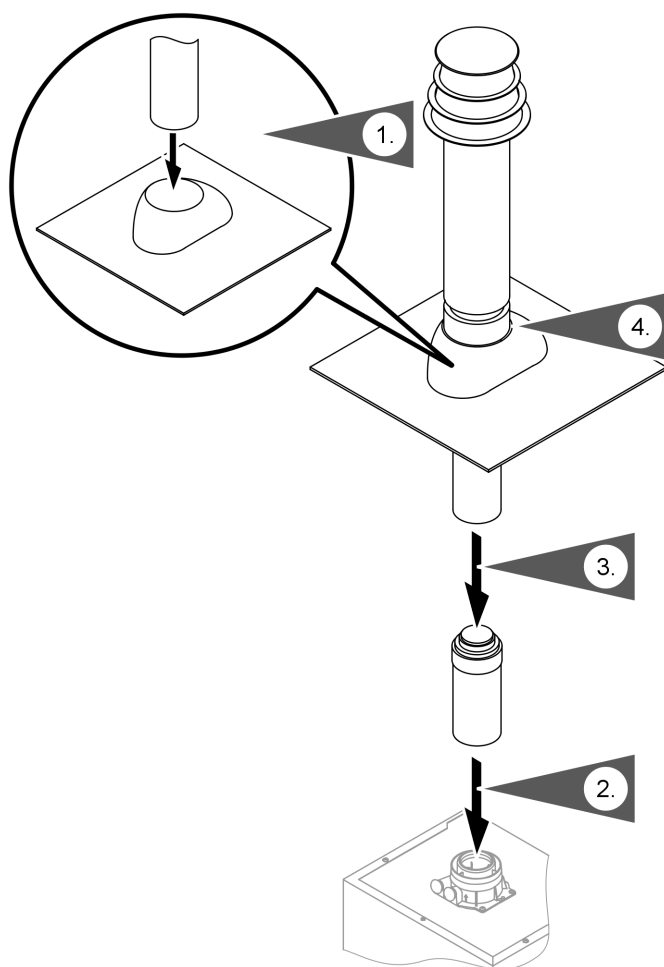
### External wall terminal C13



1. Insert pipe bend into the boiler flue outlet.
2. Insert external flue terminal through the wall.
3. Secure the wall bezel internally.
4. Connect external flue terminal to pipe bend. Install flue and supply pipes accordingly, with a minimum of 3° slope (ca. 50 mm/m) towards the boiler.
5. Secure the wall bezel externally.

## Flue outlet (cont.)

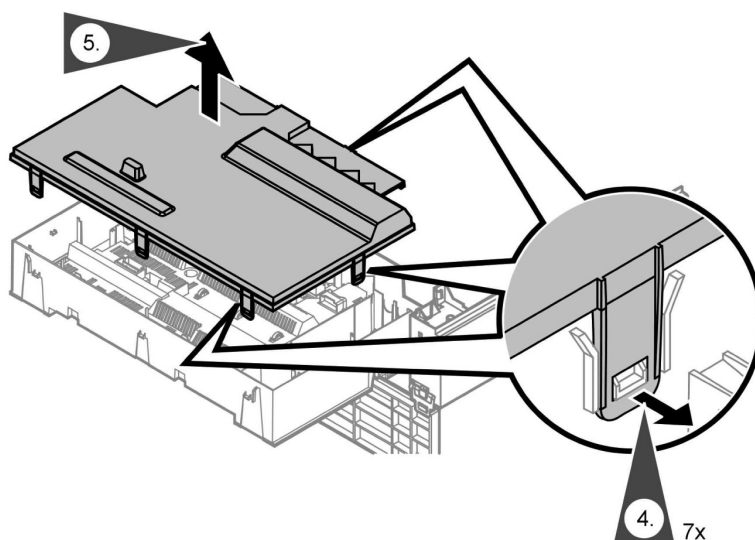
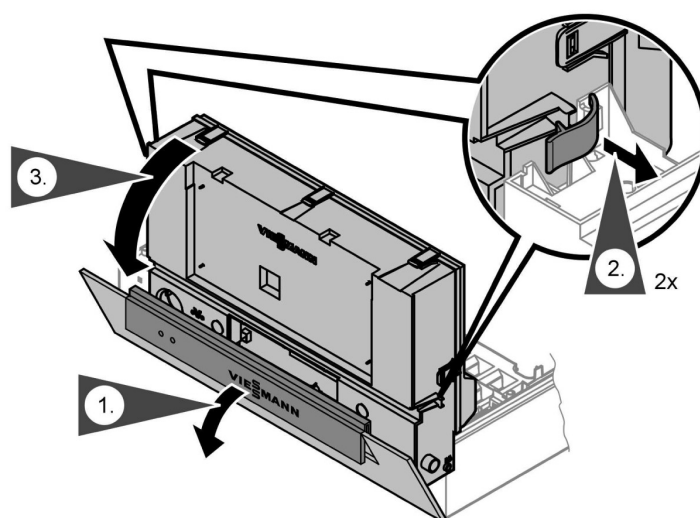
### Vertical roof terminal C33



1. Install the universal roof tile.
2. Install flue and supply pipes accordingly.
3. Push roof terminal through roof and insert into flue/supply pipe.
4. Seal roof terminal.

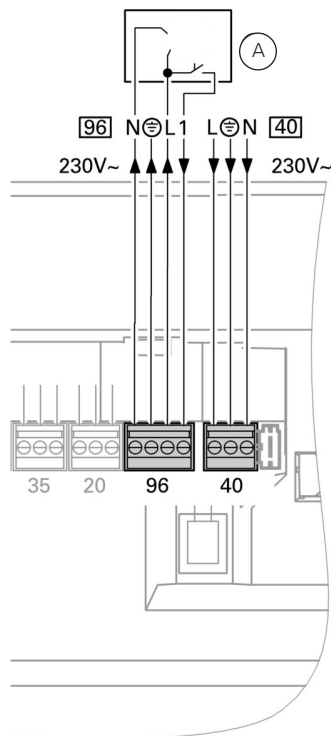
## Electrical connections

Opening the control unit casing



## Electrical connections

### Combination boiler



**40** Mains power connection 230 V ~ 50 Hz (green plug).  
Do not interchange the supply conductors L and the neutral conductor N.  
A two pole shut off switch with a contact separation of at least 3mm must be fitted in the mains supply to the boiler with a maximum fuse value of 3A.  
A 1.5m power cable is part of the standard delivery.

**96** Mains connection room temperature control (black plug).

**A** Room Thermostat 240V connected into plug 96.

Time the heating and DHW via the integral Vitotronic HC2 controller.

#### **Note**

A Vitotrol 100 UTA/D can be connected to plug 96, however the integral Vitotronic HC2 7 day controller would require the central heating to be set to permanently on, please refer to user guide.

If the Vitotronic HC2 controller is upgraded to allow for weather compensation, the instructions for this option are supplied with the replacement controller and outside sensor kit.

## Electrical connections (cont.)

### Separate hydraulic connections for DHW cylinder and heating circuits (4 pipes).

- The Viessmann low voltage DHW cylinder sensor must be used.
- The low voltage DHW cylinder sensor must be attached to the cylinder by secure means to ensure good contact is made with the cylinder itself, not the insulation, or fitted into a purpose made pocket.
- The low voltage DHW cylinder sensor connects to plugs in the cable harness pictured on page 56.
- Connect permanent mains supply and room thermostat (as combination boiler previous page).

### **Note**

If the Vitotronic HC2 controller is upgraded to allow for weather compensation the instructions for this option are supplied with the replacement controller and outside sensor kit.

- The DHW will always take priority over the central heating when timed demand is selected.
- Time the heating and DHW via the integral Vitotronic HC2 controller.

### **Note**

Where an unvented hot water cylinder is used the safety thermostat connected to the cylinder that controls the 2-port safety valve (requirement for G3 of the building regulations) can be operated by an independent remote timer or via an internal H1 or H2, or external H1 Viessmann accessory.

Along with other functions the H1, H2, internal /H1 external accessories when connected provide the option of a timed 240V output. Follow the installation instructions supplied with the accessory.

Plug 28 on the H1 extension must be used to connect the 2 port safety valve via the cylinder high limit thermostat. The Vitotronic internal boiler control must be set to external cylinder loading pump to activate the timed 240V supply.

This is done via coding address 53 in coding 2.

### **Note**

A Vitotrol 100 UTA/D can be connected to plug 96, however the integral Vitotronic HC2 7 day controller would require the central heating to be set to permanently on, please refer to user guide.



## Coding





### Calling up code 2

#### Note

- On weather-compensated control units, codes are displayed as plain text.
- Codes that are irrelevant due to the system equipment level or the setting of other codes will not be displayed.

Switch on the boiler using button (F) page 29 and button (A) page 31.

Press the following keys:

1.  +  simultaneously for approx. 2 s.
2. (OK) to confirm
3. (+) / (-) for coding address 53; the address flashes
4. (OK) to confirm; the value flashes
5. (+) / (-) for the selected value 3, this will change the code to function relay external cylinder loading pump
6. (OK) to confirm; the display briefly shows "accepted" (for weather-compensated control units); the address flashes again.
7. (+) / (-) for the selection of further addresses
8.  +  simultaneously for approx. 1 s; code 2 is terminated.

### Y & S Plan system (2 pipes) (Hydraulic cylinder Flow and Return connections capped off at the boiler)

- Connect the required permanent live supply to plug 40 as combination boiler.
- An external independent twin channel remote timer is used.
- The Vitotronic HC2 integral timer must be set to constant operation.
- The switched live supply from Y & S plan electrical configurations (that controls the pump and boiler) is connected to plug 96 terminal 1.
- The Viessmann low voltage DHW sensor must not be fitted, this means the 3 port valve integral to the boiler will remain open correctly.
- Vitotrol 100 UTA/D external controls are not compatible.
- Control heating & DHW via external independent timer.

### Heating only system (2 pipes)

- Connect the required permanent live supply to plug 40 as previous page.
- Connect room thermostat to plug 96 as combination boiler.
- The Viessmann low voltage DHW sensor must not be fitted, this means the 3 port valve integral to the boiler will remain open correctly.
- Time heating via integral Vitotronic HC2 control.
- A Vitotrol 100 UTA/D can be connected to plug 96, however the integral Vitotronic HC2 7 day controller would require the central heating to be set to permanently on, please refer to user guide.

## Electrical connections (cont.)

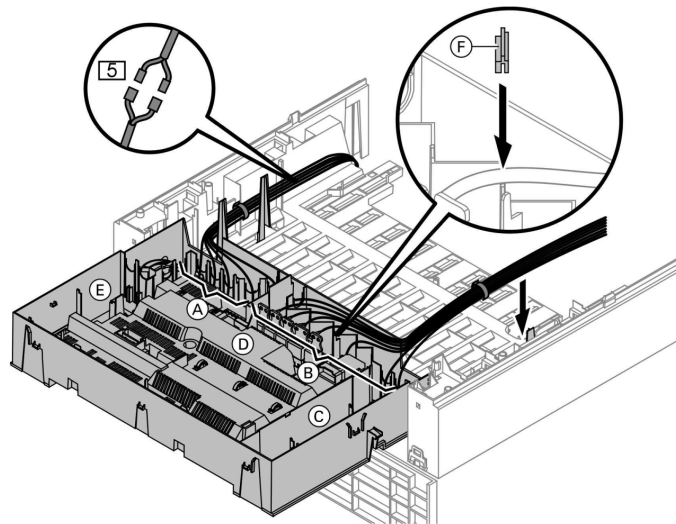
### Routing the connecting cables



**Note**

If connecting cables touch hot components they will be damaged.

When routing and securing connecting cables on site, ensure that the maximum permissible cable temperatures are not exceeded.

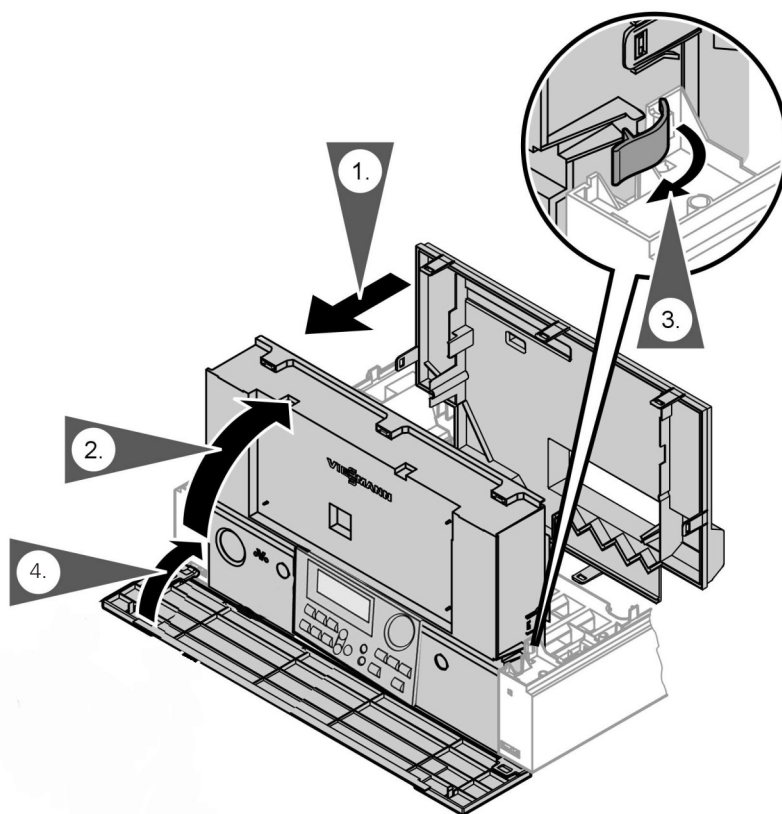


- (A) Low voltage connections
- (B) 230 V mains connections
- (C) Internal extension H1, H2
- (D) Main PCB
- (E) Communications module

- (F) Cable grommet for power supply
- 5 Plugs for connecting the DHW cylinder temperature sensor to the cable harness.

Remove the existing cable grommet when using larger cross-sections (up to Ø 14mm). Secure the cable with cable grommet (F) (black) integrated into the casing base.

## Closing the control unit casing

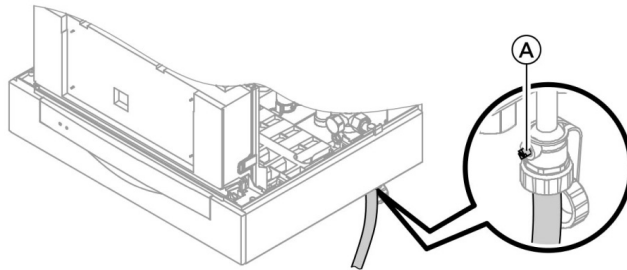


## Further details regarding the individual steps

### Filling the heating system

**!** **Note**  
 Unsuitable fill water increases the level of deposits and corrosion and may lead to boiler damage.

- Thoroughly clean and flush the entire heating system prior to filling with water to BS7593
- Only use fill water of potable quality.
- Soften fill water harder than 3.0 mol/m<sup>3</sup>, e.g. using a small softening system for heating water (see Viessmann Vitoset price list).
- An antifreeze additive suitable for heating systems can be mixed with the fill water. The antifreeze manufacturer must verify its suitability.



1. Check the inlet pressure of the expansion vessel.
2. Close the gas shut-off valve.
3. Fill and vent the system through your external temporary filling loop ensuring that most of the air has been removed from all drain and vent points on the system. (Minimum system pressure >0.8 bar).
4. If the control unit was already switched ON before filling began: Switch ON the control unit and activate the filling programme via code "2F:2". See page 54 for coding 2
5. Close boiler drain valve (A).
6. Close the shut-off valves on the heating water side.

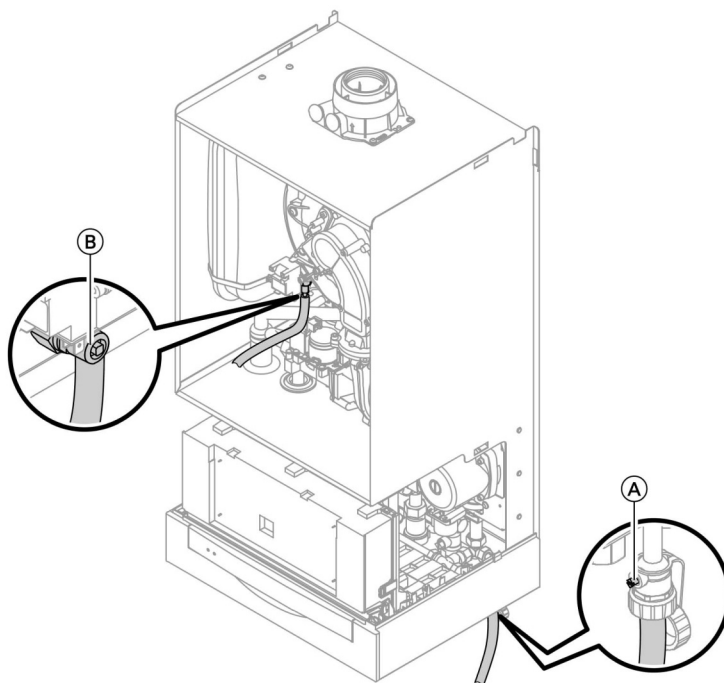
### Filling program

In the delivered condition, the diverter valve is set to its central position, enabling the system to be filled completely. After switching ON the control unit, the diverter valve is no longer in its central position.

The diverter valve can be moved via code 2F:2 into the central position. In this position, the control unit can be switched OFF and the system can be filled completely.

### Further details regarding individual steps (cont.)

#### Venting the boiler



1. Close the shut-off valves on the heating water side.
2. Connect the drain hose between top valve (B) and a drain outlet.
3. Open valves (A) and (B) and vent at main pressure until no sound of escaping air can be heard.
4. Close valves (A) and (B) and open the heating water shut-off valves.

#### Venting the heating system

1. Close the gas shut-off valve and switch ON the control unit.

## Venting

### Venting program

During the venting program, the circulation pump will be alternately switched ON and OFF for 30 s respectively over a period of 20 min. For a certain period, the diverter valve is alternately set towards heating and DHW heating, The burner is switched OFF during the venting programme.

The venting program is activated via code "2F:1" page 49. The program is automatically disabled after 20 min and coding address "2F" is set to "0".

### Filling with the control unit switched ON

If the system is to be filled with the control unit switched ON, the diverter valve will be moved to its central position via code "2F:2" and the pump will be started.

The burner shuts down if this function is enabled via coding address "2F". The program is automatically disabled after 20 min and coding address "2F" is set to "0".

### Checking diaphragm expansion vessel and system pressure

**Note**

Carry out this test on a cold system.

1. Drain the system, or close the cap valve on the expansion vessel and reduce the pressure, until the pressure gauge indicates "0".
2. If the inlet pressure of the expansion vessel is lower than the pre-charge pressure of 6.75 bar, top up until the inlet pressure is raised to 6.75 bar.
3. Top up your heating system with water and vent until the filling pressure of a cooled system is 0.1 to 0.2 bar higher than the inlet pressure of the diaphragm expansion vessel.  
Permiss. operating pressure: 2.5 bar

### Checking the gas type

The boiler is equipped with an electronic combustion control unit which adjusts the burner for optimum combustion in accordance with the prevailing gas quality.

- The boiler can be operated with natural gas in the Wobbe index range 10.0 to 16.1 kWh/m<sup>3</sup> (36.0 to 58.0 MJ/m<sup>3</sup>) without conversion.
  - Adjust the burner for operation with LPG (see "Gas type conversion" overleaf).
1. Determine the gas type and Wobbe index (Wo) by asking your local mains gas or LPG supplier.
  2. Convert the burner for operation with LPG (see overleaf).
  3. Record the gas type in the benchmark commissioning check list on page 71.

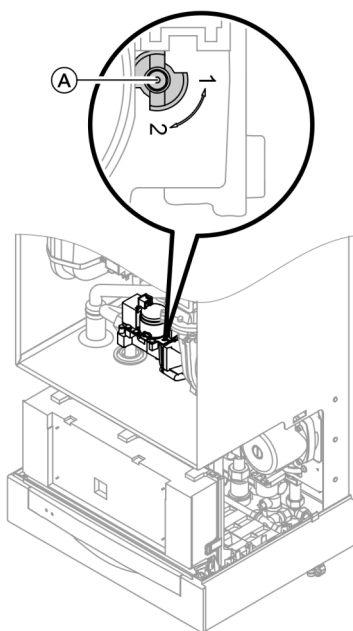
### Wobbe index ranges

| Gas type                                   | Wobbe index range<br>kWh/m <sup>3</sup> | MJ/m <sup>3</sup> |
|--|---|-------------------|
| Delivered condition<br>Natural gas E (G20) | 12.0 to 16.1                            | 43.2 to 58.0      |
| After conversion<br>LPG P                  | 20.3 to 21.3                            | 72.9 to 76.8      |



## Gas supply

Gas type conversion (only for operation with LPG)



1. Set the adjusting screw (A) at the gas train to "2".
2. Switch On the system ON/OFF **ⓘ**
3. Adjust the gas type in coding address "82" (for a detailed description of the individual steps, see Service Instructions).
  - Call up code 2 page 49
  - In coding address "11" select value "9".
  - In coding address "82" select value "1" (operation with LPG)
  - Set code "11" "9"
  - Terminate code 2.
4. Open the gas shut-off valve.

## Gas supply

### Checking the static and supply pressure

When installing, commissioning or servicing a gas appliance that incorporates a pre-mix burner and zero-set governor, because it is not possible to measure an operating pressure the engineer should first check that the gas supply is metered and ascertain whether it is possible to measure the gas rate. If the gas input rate can be measured then the requirements of GSIUR 26(9) can be met, including any specific requirements in manufacturer's instructions.

If gas input rate cannot be measured then, to satisfy the intent of GSIUR 26(9), the engineer shall measure the combustion quality of the appliance in accordance with BS 7967 or the manufacturer's instructions.

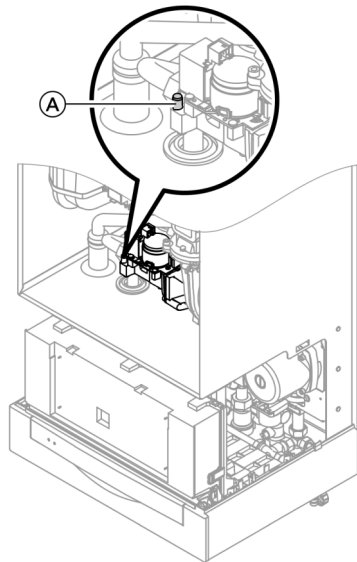
If the engineer does not have the required equipment and no alternative test is specified by the manufacturer then the appliance shall be turned off and disconnected as an un-commissioned appliance until such time that equipment is available to undertake such tests.



#### Danger

CO build-up as a result of an incorrect combustion can have serious health implications.


Carry out a CO test prior to and after work on gas equipment.



### Operation with Nat Gas or LPG

1. Close the gas shut-off valve.
2. Undo the screw inside connector "IN" (A) on the gas train, but do not remove, then connect the pressure gauge.
3. Open the gas shut-off valve.
4. Measure the static pressure and record it in the service report.
5. Start the boiler.

#### Note

During commissioning, the boiler can enter a fault state because of airlocks in the gas pipe. After approx. 5 s, press  (RESET) to restart the boiler.

## Gas supply

6. Check the working pressure.


Set values:

- natural gas 20 mbar
- LPG 37 mbar

### Note

Use suitable test equipment with a resolution of at least 0.1 mbar to measure the supply pressure.

7. Record the actual value in the service report. Take the actions shown in the following table.
8. Shut down the boiler, close the gas shut-off valve, remove the pressure gauge and close test port (A) with the screw.

9.  **Danger**  
Gas escaping from the test port leads to a risk of explosion, Check for soundness.







Open the gas shut-off valve, start the boiler and check for soundness at test port (A).

| Working pressure for natural gas | Working pressure for LPG | Measures  |
|----------------------------------|--------------------------|---|
| below 17.4 mbar                  | below 37 mbar            | Switch off boiler. Notify your mains gas or LPG supplier. |
| 17.4 to 25 mbar                  | 37 to 57.5               | Continue boiler operation.                                |
| in excess of 25 mbar             | in excess of 57.5 mbar   | Switch off boiler. Notify your mains gas or LPG supplier. |

## Setting the maximum CH output

### Note

You can limit the maximum output for heating operation. The limit is set via the modulation range. The max. adjustable heating output is limited by the boiler coding card.

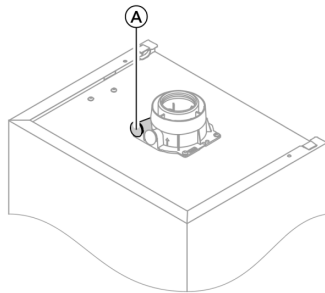
1. Start the boiler
2. Press  and  simultaneously until a value appears and flashes (e.g. "85") and  appears. In the delivered condition, this value represents 100% of rated output. On weather compensated control units, the display additionally shows "Max Heating Output".
3. With / select the required value in % of rated output as maximum output.
4. Confirm the set value with 
5. Record the settings for maximum output on the additional type plate included with the "technical documentation". Affix the type plate next to the original type plate on top of the boiler.

### Note

The output can also be limited for DHW heating. For this, change coding address "6F" in code 2.

## Flue system check

### Checking the balanced flue system for soundness (annular gap check)



For balanced flue systems tested together with the wall mounted gas fired boiler, we recommend that a simple soundness test is carried out during the commissioning. For this, it would be sufficient to check the CO<sub>2</sub> or O<sub>2</sub> concentration in the combustion air at the annular gap of the balanced flue pipe.

The flue pipe is deemed to be sound if the CO<sub>2</sub> concentration in the combustion air is no higher than 0.2% or the O<sub>2</sub> concentration is at least 20.6%. If actual CO<sub>2</sub> values are higher or O<sub>2</sub> values are lower, then pressure test the flue pipe with a static pressure of 200 Pa.

### Check the gas installation for soundness



#### Danger

Escaping gas leads to a risk of explosions.  
Check gas equipment for soundness.

### Flue gas emission test

The Vitodens 200-W is fitted with a Lambda-Pro control. The electronic combustion control unit automatically ensures an optimum combustion. Therefore during commissioning it is not required to check or adjust the air/gas mixing ratio.

During the initial start up and during normal operation the boiler will automatically calibrate itself to the local gas quality. This ensures a high operation safety and constant high boiler efficiency.

If the boiler is not working correctly, check the CO<sub>2</sub> values are in-line with the following ranges (maximum and minimum heat output).

Natural Gas: 7.7 to 9.2%

LPG: 9.3 to 10.9%

For all gas types the O<sub>2</sub> (oxygen) content must be between 4.4% and 6.9%.

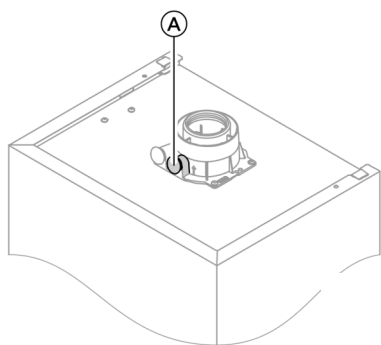
## Combustion

If the actual CO<sub>2</sub> or O<sub>2</sub> values lie outside their respective ranges, proceed with the following steps:

- Check the balanced flue system for soundness, see page 61
- Check the ionisation electrode and connecting lead, see service instructions.
- Check the parameters of the combustion control unit, see service instructions.

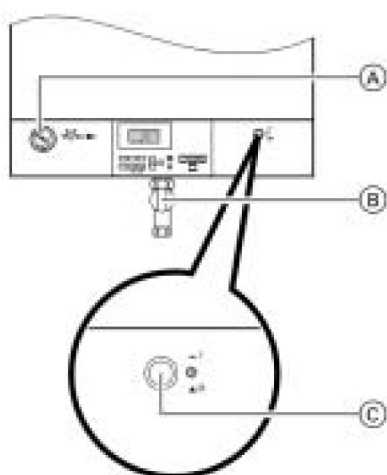
### Note

During commissioning, the combustion control unit carries out an automatic calibration. This may lead to CO emissions in excess of 1000 ppm for a short time.



1. Connect a flue gas analyser at test port (A) (on the boiler flue outlet).
2. Open the gas shut-off valve, start the boiler and create a heat demand.
3. Adjust the lower output of the constant temperature control unit:  
⏻ + OK press simultaneously:  
"1" is shown
4. Check the CO<sub>2</sub> content. Should the actual value deviate from the above ranges by more than 1%, implement steps above.
5. Enter actual values into the service report.
6. Adjust the upper output on the constant temperature control unit:  
⊕ press: "2" is shown
7. Check the CO<sub>2</sub> content. Should the actual value deviate from the above ranges by more than 1%, implement steps above.

## Heating system start-up



Check the heating system pressure on the pressure gauge (A). The system pressure is too low if the needle indicates below 0.8 bar.

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

Switch ON the ON/OFF switch **I** (C); standby mode is then indicated by the green indicator (ON indicator); after a short time the boiler temperature will be displayed. Your heating system and, if installed, your remote control unit are now ready for use.

### **Note**

The circulation pumps are briefly started every 24 hours for a short time to prevent pump damage.

## Starting a heating circuit and DHW heating/loading

Press 

### Central heating and DHW

- Central heating active
- DHW will be loaded (subject to a DHW cylinder or combination boiler being installed)
- Frost protection for the boiler and the DHW cylinder is active

## Starting DHW only

Press 

### Only DHW:

- No Central heating
- DHW will be loaded (subject to a DHW cylinder or combination boiler being installed)
- Frost protection for the boiler and the DHW cylinder is active

## Shutting down a heating circuit and DHW heating/loading

Press 

### Standby mode...

- No Central heating
- NO DHW heating
- Boiler and DHW cylinder frost protection.


### **Note**

The circulation pump will be started for short periods at regular intervals to prevent it from seizing up. These intervals can be modified by your heating contractor.



## Switching the comfort function ON and OFF

Only for use with the combination boiler. The boiler is maintained at a standby temperature when the comfort function is switched ON. Hot water will then be available instantly.

The comfort function can be switched OFF with . To save energy the comfort function can be timed.

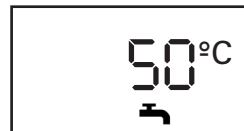
### Note



If the comfort function is switched off the boiler will still provide instantaneous DHW.


## Setting the DHW temperature

Press the following keys:

1.  for "Set DHW temperature"; the current temperature will flash



2.   to set the required temperature.


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

## Room temperature

In addition to the boiler control unit, a separate room temperature controller (e.g. Vitotrol 100) must be installed in one of the living rooms if the heating system is to be maintained at the required room temperature.

Make adjustments using the appropriate room thermostat operating instructions.

Please also note:

- The heating programme selector of the boiler control unit must be set to 
- Set the boiler water temperature high enough
- There should not be a thermostatic radiator valve in the room, where the room thermostat is installed.


## Adjusting the boiler water temperature

If a remote control unit is connected:



Set the room temperature on the remote control unit.


Set the boiler water temperature high enough to be able to achieve the required room temperature.

Press the following keys:

1.  for "Set boiler water temperature"; the current temperature will flash



2.   to set the required temperature.

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




## Scanning information

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

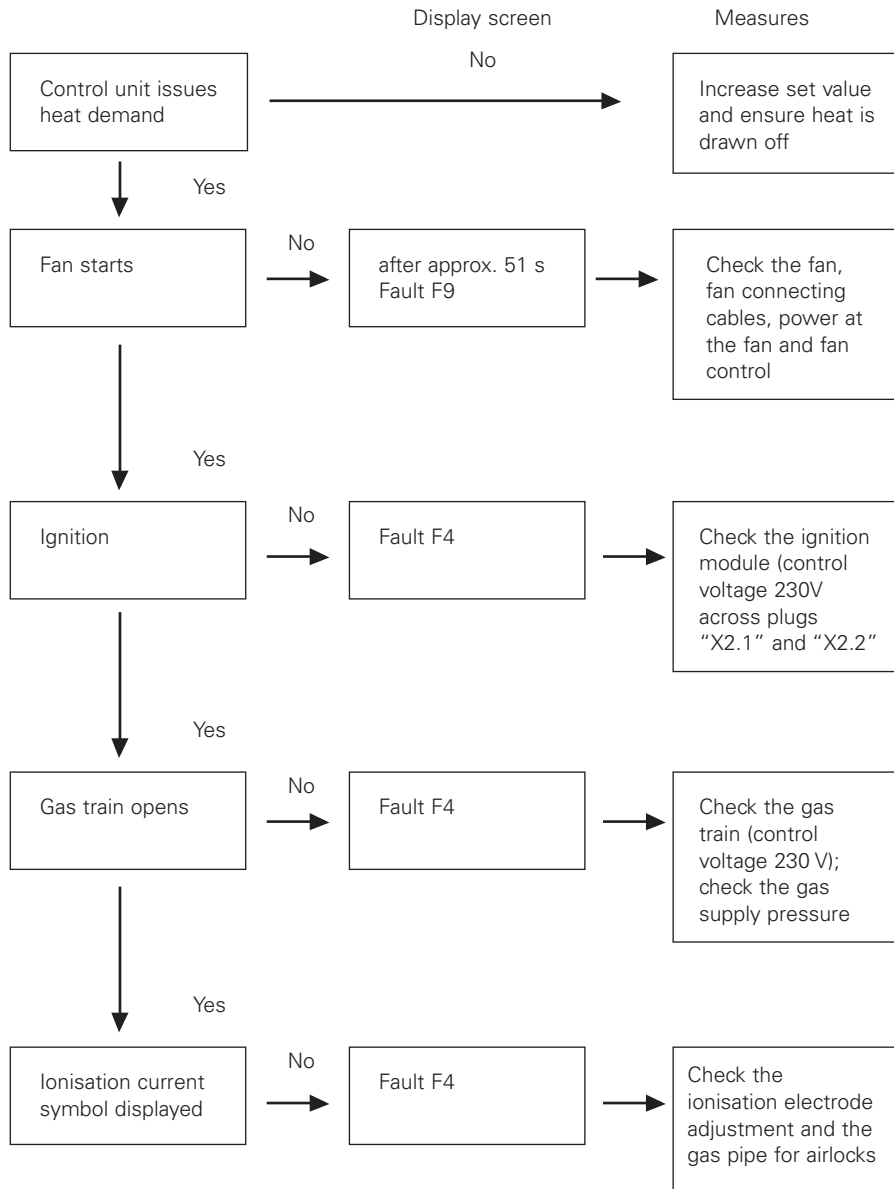
Press the following keys:

1.  For boiler water temperature
2.   for additional scans
3.  to end scanning

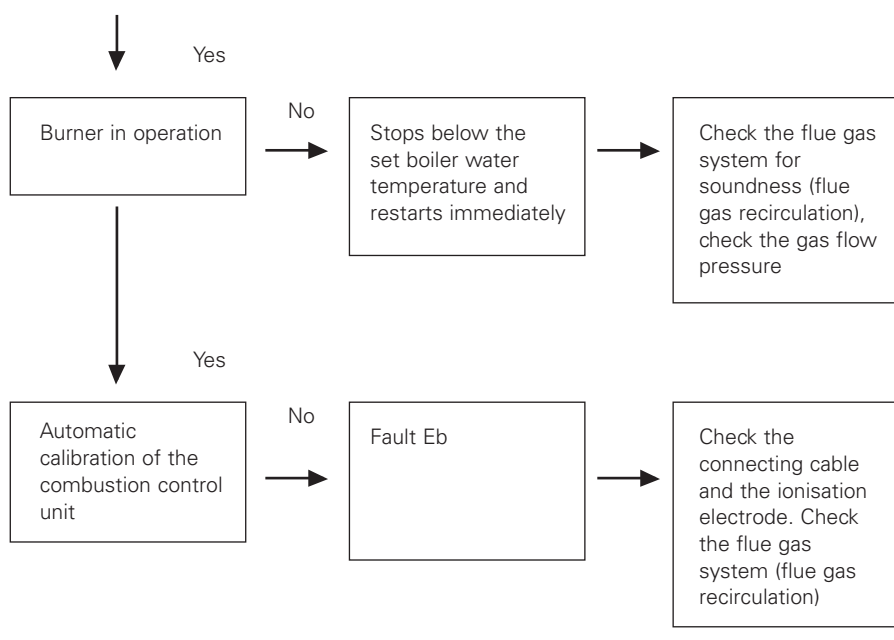


| Display indication | Explanation                         | Notes  |
|--------------------|-------------------------------------|--|
| 1      20°C        | Outside temperature                 | Display only if an outside temperature sensor is connected   |
| 3      65°C        | Boiler water temperature            | -  |
| 5      50°C        | DHW temperature                     | Display only if a DHW cylinder is installed.   |
| 5      45°C        | DHW temperature for solar operation | Display only if a solar heating system is connected.   |
| 6      70°C        | Collector temperature               | Display only if a solar heating system is connected.   |
| ▲ 003572 h         | Burner hours run                    | The hours run can be reset to 0 by pressing  . The hours run displayed are only approximate values. |
| ▲▲▲ 030417         | Burner starts                       | The number of burner starts can be reset to 0 by pressing  .  |
| ▲▲▲▲ 030417        | Fuel consumption                    | The fuel consumption can be reset to 0 by pressing  .   |
| ▲▲▲▲▲ 000850 h     | Hours run - solar circuit pump      | The hours run can be reset to 0 on the Vitosolic solar control unit. The hours run displayed are only approximate values.  |

### Function sequence and possible faults

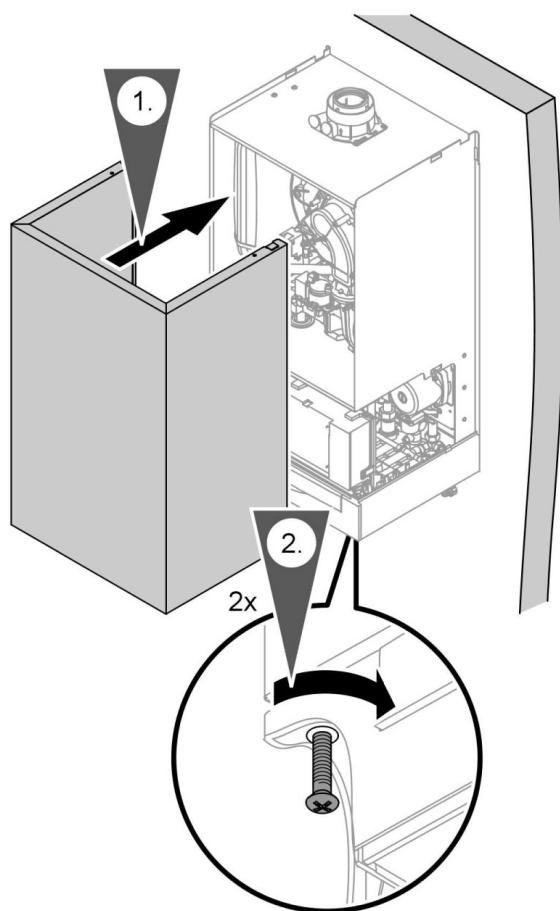


### Function sequence and possible faults (cont.)



For further details regarding faults see the service instructions.

## Fitting the outer case



**Note**

Always insert the locking screws before commencing operation.



BENCHMARK No. | | | | | | | |

## GAS BOILER COMMISSIONING CHECKLIST

BOILER SERIAL No. \_\_\_\_\_ NOTIFICATION No. \_\_\_\_\_

**CONTROLS** To comply with the Building Regulations, each section must have a tick in one or other of the boxes

|   |   |  |
|---|---|--|
| TIME & TEMPERATURE CONTROL TO HEATING   | ROOM T/STAT & PROGRAMMER/TIMER <input type="checkbox"/>     | PROGRAMMABLE ROOMSTAT <input type="checkbox"/> |
| TIME & TEMPERATURE CONTROL TO HOT WATER | CYLINDER T/STAT & PROGRAMMER/TIMER <input type="checkbox"/> | COMBI BOILER <input type="checkbox"/>          |
| HEATING ZONE VALVES                     | FITTED <input type="checkbox"/>                             | NOT REQUIRED <input type="checkbox"/>          |
| HOT WATER ZONE VALVES                   | FITTED <input type="checkbox"/>                             | NOT REQUIRED <input type="checkbox"/>          |
| THERMOSTATIC RADIATOR VALVES            | FITTED <input type="checkbox"/>                             |  |
| AUTOMATIC BYPASS TO SYSTEM              | FITTED <input type="checkbox"/>                             | NOT REQUIRED <input type="checkbox"/>          |

**FOR ALL BOILERS CONFIRM THE FOLLOWING**

THE SYSTEM HAS BEEN FLUSHED IN ACCORDANCE WITH THE BOILER MANUFACTURER'S INSTRUCTIONS?

THE SYSTEM CLEANER USED \_\_\_\_\_

THE INHIBITOR USED \_\_\_\_\_

**FOR THE CENTRAL HEATING MODE, MEASURE & RECORD**

GAS RATE  m<sup>3</sup>/hr  ft<sup>3</sup>/hr

BURNER OPERATING PRESSURE (IF APPLICABLE)  N/A  mbar

CENTRAL HEATING FLOW TEMPERATURE  °C

CENTRAL HEATING RETURN TEMPERATURE  °C

**FOR COMBINATION BOILERS ONLY**

HAS A WATER SCALE REDUCER BEEN FITTED? YES  NO

WHAT TYPE OF SCALE REDUCER HAS BEEN FITTED? \_\_\_\_\_

**FOR THE DOMESTIC HOT WATER MODE, MEASURE & RECORD**

GAS RATE  m<sup>3</sup>/hr  ft<sup>3</sup>/hr

MAXIMUM BURNER OPERATING PRESSURE (IF APPLICABLE)  N/A  mbar

COLD WATER INLET TEMPERATURE  °C

HOT WATER OUTLET TEMPERATURE  °C

WATER FLOW RATE  lts/min

**FOR CONDENSING BOILERS ONLY CONFIRM THE FOLLOWING**

THE CONDENSATE DRAIN HAS BEEN INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS? YES

**FOR ALL INSTALLATIONS CONFIRM THE FOLLOWING**

THE HEATING AND HOT WATER SYSTEM COMPLIES WITH CURRENT BUILDING REGULATIONS

THE APPLIANCE AND ASSOCIATED EQUIPMENT HAS BEEN INSTALLED AND COMMISSIONED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS

IF REQUIRED BY THE MANUFACTURER, HAVE YOU RECORDED A CO/CO<sub>2</sub> RATIO READING? N/A  YES  CO/CO<sub>2</sub> RATIO \_\_\_\_\_

THE OPERATION OF THE APPLIANCE AND SYSTEM CONTROLS HAVE BEEN DEMONSTRATED TO THE CUSTOMER

THE MANUFACTURER'S LITERATURE HAS BEEN LEFT WITH THE CUSTOMER

COMMISSIONING ENG'S NAME PRINT \_\_\_\_\_ CORGI ID No. \_\_\_\_\_

SIGN \_\_\_\_\_ DATE \_\_\_\_\_ 71

## SERVICE INTERVAL RECORD

It is recommended that your heating system is serviced regularly and that you complete the appropriate Service Interval Record Below.

**Service Provider.** Before completing the appropriate Service Interval Record below, please ensure you have carried out the service as described in the boiler manufacturer's instructions. Always use the manufacturer's specified spare part when replacing all controls.

**SERVICE 1** DATE \_\_\_\_\_  
ENGINEER NAME \_\_\_\_\_  
COMPANY NAME \_\_\_\_\_  
TEL No. \_\_\_\_\_  
CORGI ID CARD SERIAL No. \_\_\_\_\_  
COMMENTS \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

**SERVICE 2** DATE \_\_\_\_\_  
ENGINEER NAME \_\_\_\_\_  
COMPANY NAME \_\_\_\_\_  
TEL No. \_\_\_\_\_  
CORGI ID CARD SERIAL No. \_\_\_\_\_  
COMMENTS \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

**SERVICE 3** DATE \_\_\_\_\_  
ENGINEER NAME \_\_\_\_\_  
COMPANY NAME \_\_\_\_\_  
TEL No. \_\_\_\_\_  
CORGI ID CARD SERIAL No. \_\_\_\_\_  
COMMENTS \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

**SERVICE 4** DATE \_\_\_\_\_  
ENGINEER NAME \_\_\_\_\_  
COMPANY NAME \_\_\_\_\_  
TEL No. \_\_\_\_\_  
CORGI ID CARD SERIAL No. \_\_\_\_\_  
COMMENTS \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

**SERVICE 5** DATE \_\_\_\_\_  
ENGINEER NAME \_\_\_\_\_  
COMPANY NAME \_\_\_\_\_  
TEL No. \_\_\_\_\_  
CORGI ID CARD SERIAL No. \_\_\_\_\_  
COMMENTS \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

**SERVICE 6** DATE \_\_\_\_\_  
ENGINEER NAME \_\_\_\_\_  
COMPANY NAME \_\_\_\_\_  
TEL No. \_\_\_\_\_  
CORGI ID CARD SERIAL No. \_\_\_\_\_  
COMMENTS \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

**SERVICE 7** DATE \_\_\_\_\_  
ENGINEER NAME \_\_\_\_\_  
COMPANY NAME \_\_\_\_\_  
TEL No. \_\_\_\_\_  
CORGI ID CARD SERIAL No. \_\_\_\_\_  
COMMENTS \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

**SERVICE 8** DATE \_\_\_\_\_  
ENGINEER NAME \_\_\_\_\_  
COMPANY NAME \_\_\_\_\_  
TEL No. \_\_\_\_\_  
CORGI ID CARD SERIAL No. \_\_\_\_\_  
COMMENTS \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

**SERVICE 9** DATE \_\_\_\_\_  
ENGINEER NAME \_\_\_\_\_  
COMPANY NAME \_\_\_\_\_  
TEL No. \_\_\_\_\_  
CORGI ID CARD SERIAL No. \_\_\_\_\_  
COMMENTS \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

**SERVICE 10** DATE \_\_\_\_\_  
ENGINEER NAME \_\_\_\_\_  
COMPANY NAME \_\_\_\_\_  
TEL No. \_\_\_\_\_  
CORGI ID CARD SERIAL No. \_\_\_\_\_  
COMMENTS \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

Telephone: 01952 675060  
www.viessmann.co.uk

**VISSMANN**  
climate of innovation



## Declaration of conformity

### Declaration of conformity for the Vitodens 200-W

We, Viessmann Werke GmbH&Co KG, D-35107 Allendorf, declare as sole responsible body, that the product Vitodens 200-W complies with the following standards:

|           |               |
|-----------|---------------|
| EN 483    | EN 55 014     |
| EN 625    | EN 60 335     |
| EN 677    | EN 61 000-3-2 |
| EN 13 203 | EN 61 000-3-3 |
| EN 50 165 |               |

This product is designated with CE-0085 in accordance with the following Directives:

|            |           |
|------------|-----------|
| 90/396/EEC | 73/23/EEC |
| 89/336/EEC | 92/42/EEC |

This product meets the requirements of the Efficiency Directive (92/42/EEC) for condensing boilers.

The **product characteristics** determined as system values for the product **Vitodens 200-W** as part of **EC type testing according to the Efficiency Directive** (see specification table) can be utilised to assess the energy consumption of heating and ventilation equipment to DIN V 4701-10 which is specified by the EnEV (Germany).

Allendorf, 1 December 2006

Viessmann Werke GmbH&Co KG



pp. Manfred Sommer

**Manufacturer's certificate according to the 1st BImSchV  
(Germany)**

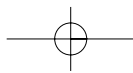
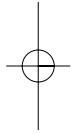
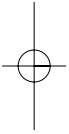
We, Viessmann Werke GmbH&Co KG, D-35107 Allendorf, confirm that the product  
**Vitodens 200-W** complies with the NO<sub>x</sub> limits specified by the BImSchV paragraph 7 (2)  
(Germany).

Allendorf, 1 December 2006

Viessmann Werke GmbH&Co KG



pp. Manfred Sommer



## Applicability

Gas Fired condensing boiler  
Type WB2B  
4.8 to 19.0 kW  
from serial no  
7248 823 7 0001...

6.5 to 26.0 kW  
from serial no  
7248 824 7 0001...

8.8 to 30.0 kW  
from serial no  
7248 826 7 00001...

8.8 to 35.0 kW  
from serial no  
7248 828 7 00001...

Gas Fired condensing combi boiler  
Type WB2B  
6.5 to 26.0 kW  
from serial no  
7248 825 7 00001...

8.8 to 30.0 kW  
from serial no  
7248 827 0001...

8.8 to 35.0 kW  
from serial no  
7248 829 7 00001...

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