

Installation instructions

for contractors

VIESSMANN

Vitodens 300

Type **WB3A**, 49 and 66 kW

Wall mounted gas fired condensing boiler

Natural gas and LPG version



VITODENS 300



Safety instructions



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 instructions are exclusively designed for qualified personnel.

- 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.

Regulations

Observe the following when working on this system

- all legal instructions regarding the prevention of accidents,
- all legal instructions regarding environmental protection,
- the Code of Practice of relevant trade associations,
- all current safety regulations as defined by DIN, EN, DVGW, TRGI, TRF, VDE and all locally applicable standards.

Working on the system

- Isolate the system from the power supply and check that it is no longer 'live', e.g. by removing a separate fuse or by means of a mains isolator.
- Safeguard the system against unauthorised reconnection.
- When using gas as fuel, also close the main gas shut-off valve and safeguard against unauthorised reopening.

Index

Preparing for installation

Product information	4
Preparing for installation	5
■ Preparing the boiler installation	5

Installation sequence

Installing the boiler and making all connections	7
■ Wall mounting bracket installation	7
■ Hanging the boiler into the wall mounting bracket	8
Heating water (primary) connection	9
Flue connection	9
Condensate connection	9
Gas connection	10
Opening the control unit enclosure	11
Electrical connections	12
■ Routing connecting cables	14
Closing the control unit enclosure and inserting the programming unit	15
Front panel installation	16
Commissioning and adjustment	16

Product information

Vitodens 300, WB3A

Set up for operation with natural gas E or LPG P.

The natural gas E version can be converted to natural gas LL using a conversion kit.

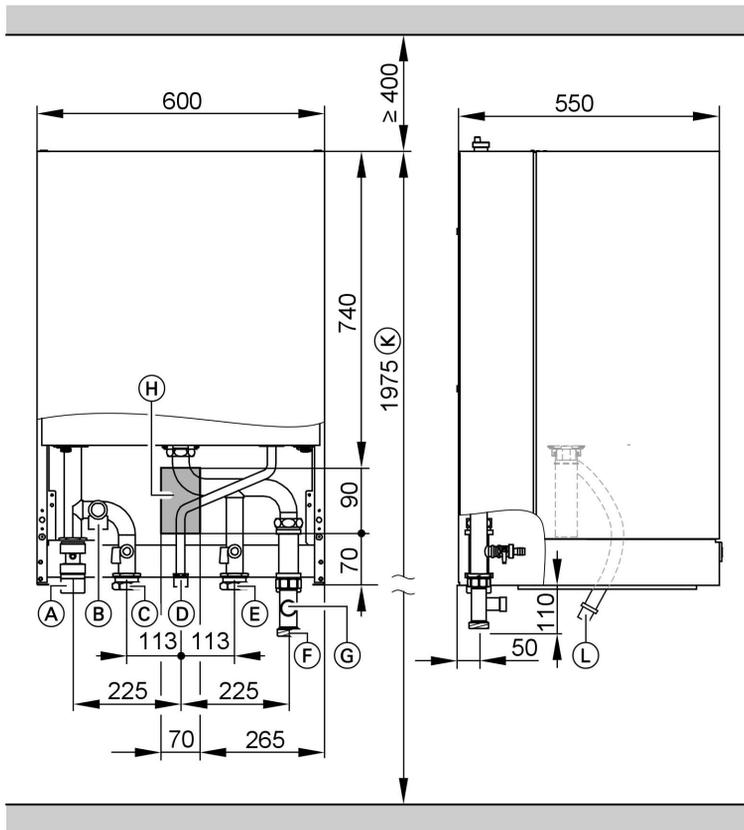
The LPG P version can be converted to natural gas E or LL using a conversion kit.

Conversion for other target countries

The Vitodens 300 should generally only be delivered to those countries specified on the type plate. For deliveries to alternative countries, an approved contractor must arrange, on his own initiative, for an individual approval in accordance with the law of the land.

Preparing for installation

Preparing the boiler installation



- (A) Heating flow G 1½"
- (B) Safety valve
- (C) Cylinder flow G 1½"
- (D) Gas connection
- (E) Cylinder return G 1½"

- (F) Heating return G 1½"
- (G) Expansion vessel G 1"
- (H) Cable entry
- (K) Recommended dimension
- (L) Condensate drain

Preparing for installation (cont.)

Note

This boiler (protection level: IP X4 D) is approved for installation in wet rooms inside protection area 1 according to DIN VDE 0100, providing the occurrence of hosed water can be excluded. Observe the requirements of DIN VDE 0100.

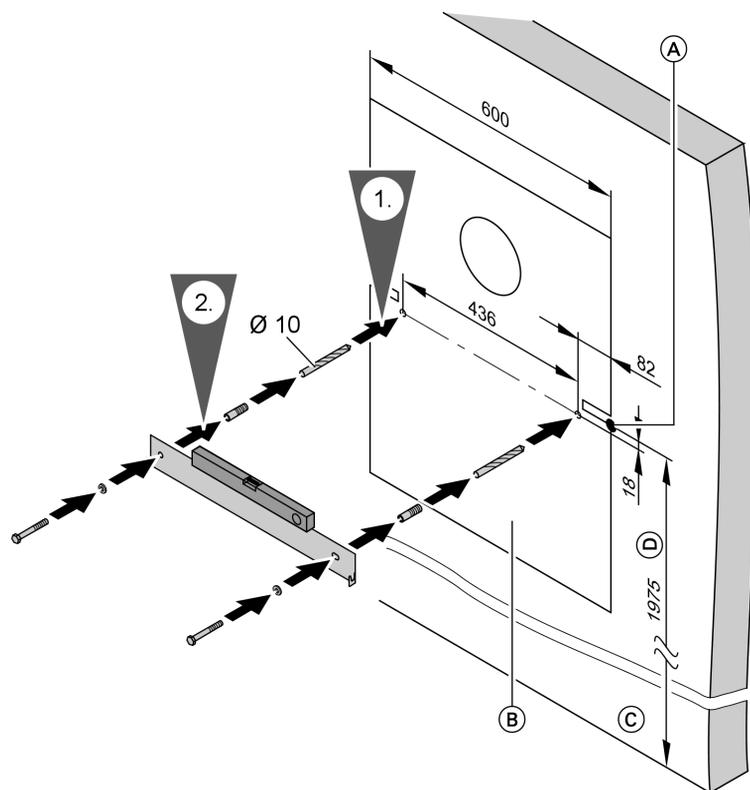
1. Prepare the water connections.
Flush the heating system thoroughly.
2. Prepare the gas connection according to TRGI or TRF [or local regulations].
3. Prepare the electrical connections.
 - Power supply cable: NYM-J 3 x 1.5 mm², fuse max. 16 A, 230 V~.
 - Accessory cables: NYM with the required number of conductors for the external connections.
 - Allow all cables in area "H" to protrude 1200 mm from the wall.

Installing the boiler and making all connections

Wall mounting bracket installation

Note

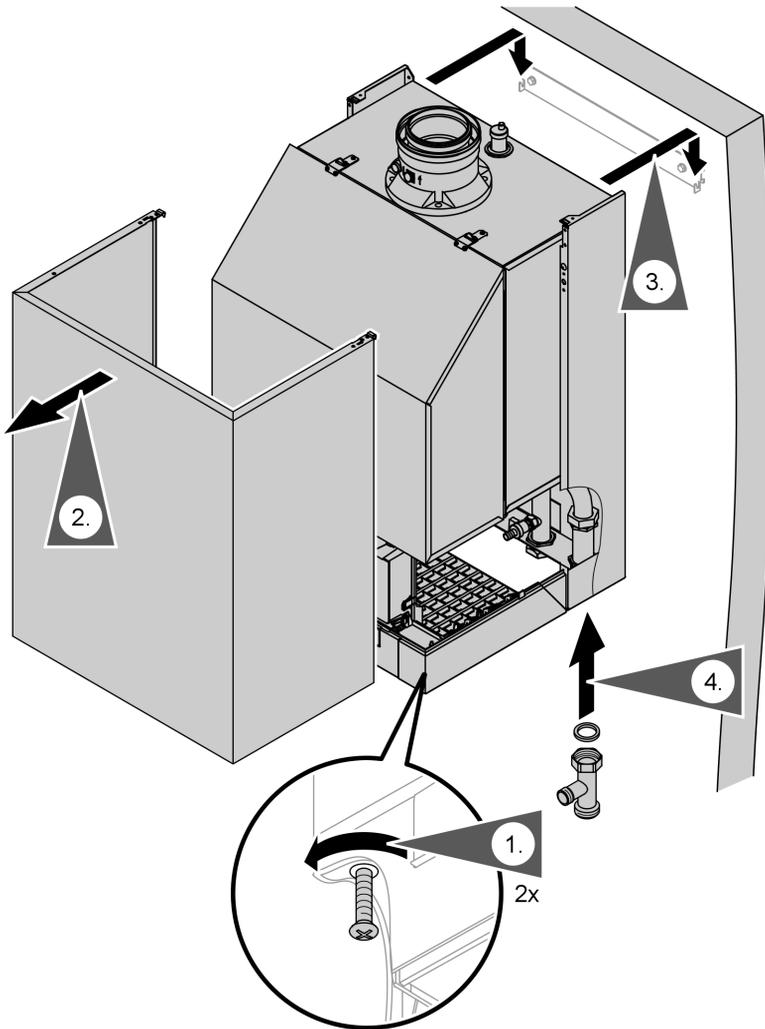
The enclosed screws and rawl plugs are only suitable for concrete. For other construction materials, use fixings that are suitable for 110 kg loads.



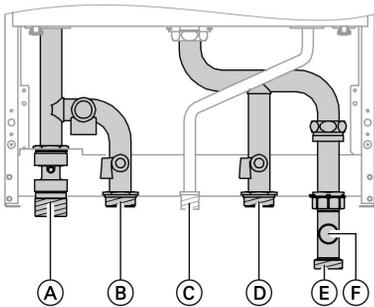
- (A) Reference point: boiler top edge
- (B) Installation template (included with the boiler)
- (C) Top edge finished floor
- (D) Recommendation

Installing the boiler and making all connections (cont.)

Hanging the boiler into the wall mounting bracket



Heating water (primary) connection



Connect the boiler to the on-site pipe-work.

- (A) Heating flow
- (B) DHW flow
- (C) Gas connection
- (D) DHW return
- (E) Heating return
- (F) Expansion vessel

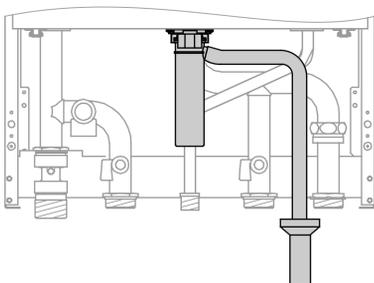
Flue connection

Connect the balanced flue pipe.



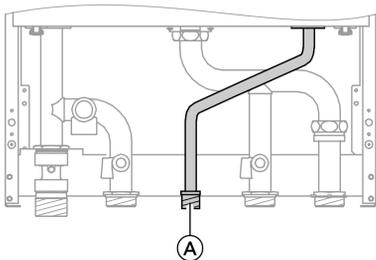
Flue gas system installation instructions.

Condensate connection



Connect the condensate drain with a slope and a pipe vent to the public sewer.

Gas connection



Ⓐ Gas connection

Notes regarding the operation with LPG.

We recommend the installation of an external safety solenoid valve when installing the boiler in rooms below ground level.

1. Carry out a gas soundness test.



Please note

Excessive test pressure may damage the boiler and the gas valve.

Max. test pressure 150 mbar. Where higher pressure is required for leak tests, separate the boiler and the gas valves from the gas supply pipe (undo the fitting).

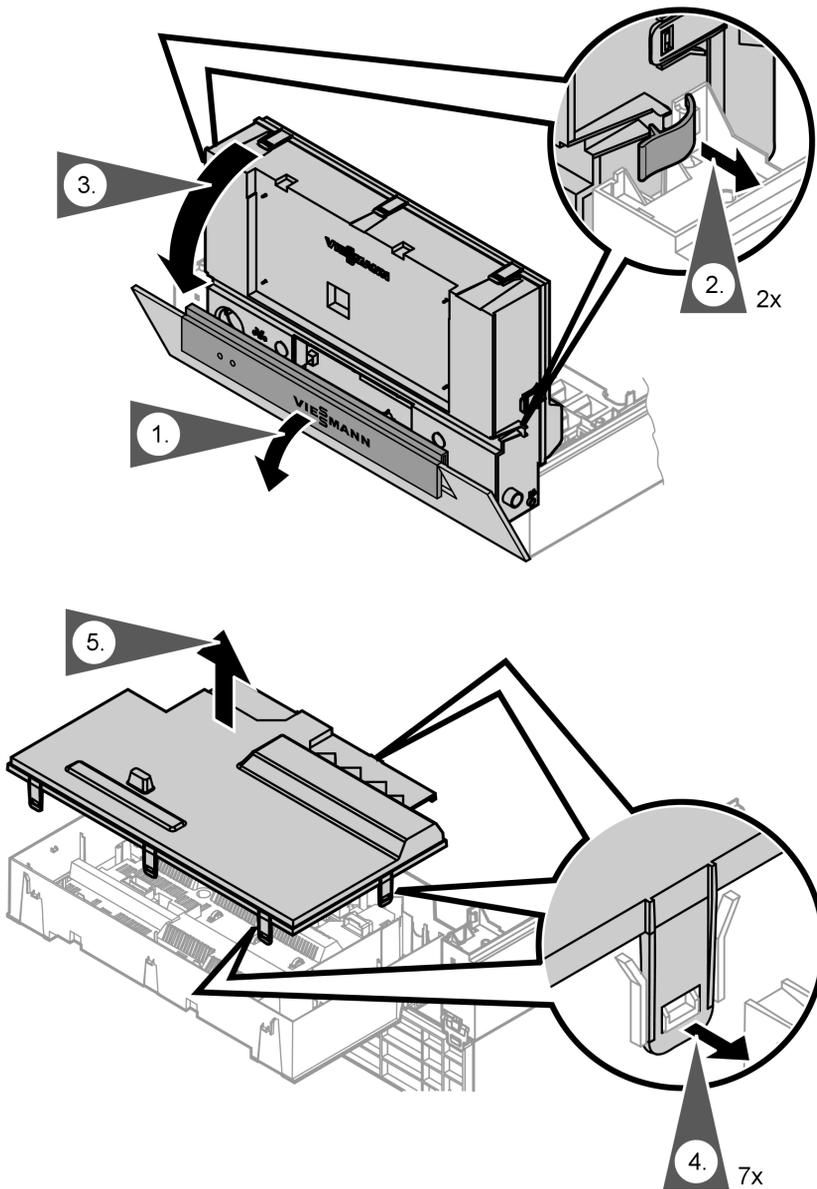
2. Vent the gas supply pipe.



Conversion to other gas types:

Conversion kit installation instructions

Opening the control unit enclosure



Electrical connections (cont.)

- Ⓒ Vitotrol 100 UTD (only for constant temperature control units)
Remove jumper when making this connection.
- Ⓓ Vitotrol 100 UTA (only for constant temperature control units)
Remove jumper when making this connection.

230 V~ plugs

- 20 Circulation pump
- 40 Power supply



Danger

Incorrect core terminations can cause severe injuries and damage to the equipment.

Take care not to interchange wires "L1" and "N".

- Install an isolator in the power supply line which simultaneously separates all non-earthed conductors from the mains with at least 3 mm contact separation.
- Max. fuse rating 16 A.
- 96 ■ Power supply accessories (230 V/50 Hz). Where the boiler is installed in a wet area, the connection of accessories to the power supply must not be carried out at the control unit. The power supply connection for accessories can be made immediately at the control unit, if the boiler is installed outside wet areas. This connection is directly controlled with the system ON/OFF switch (max. 3 A).
- Vitotrol 100 UTA
- Vitotrol 100 UTD

Low voltage plugs

- 1 Outside temperature sensor (only for weather-compensated control units).
Installation:
 - North or north-western wall, 2 to 2.5 m above ground level; in multi-storey buildings, in the upper half of the second floor
 - Not above windows, doors or ventilation outlets
 - Not immediately below balconies or gutters
 - Never render over
 - 2-core cable, max. 35 m length with a cross-section of 1.5 mm²
- 2 Flow temperature sensor for low loss header (accessories)
- 5 Cylinder temperature sensor (part of the DHW cylinder connection set).
Connection to cables with plugs outside of the control unit.
- 145 KM BUS user (accessories)
 - Vitotrol 200 or 300 remote control
 - Vitocom 100
 - Extension kit for a heating circuit with mixer
 - Vitosolic
 - External extension H1 or H2

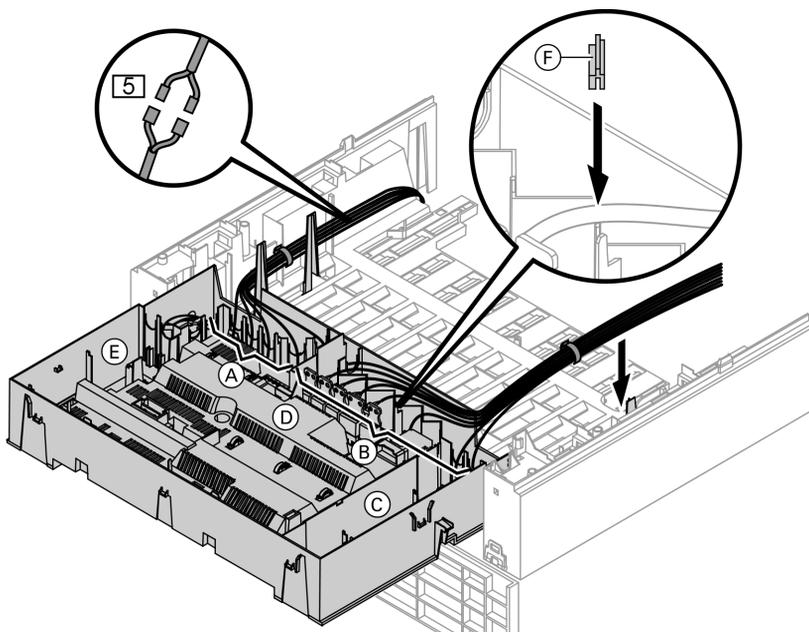
Electrical connections (cont.)

Routing connecting cables



Please note

Connecting cables will be damaged if they contact hot parts. When routing and securing connecting cables on site, ensure that the maximum permissible temperatures for these cables are not exceeded.

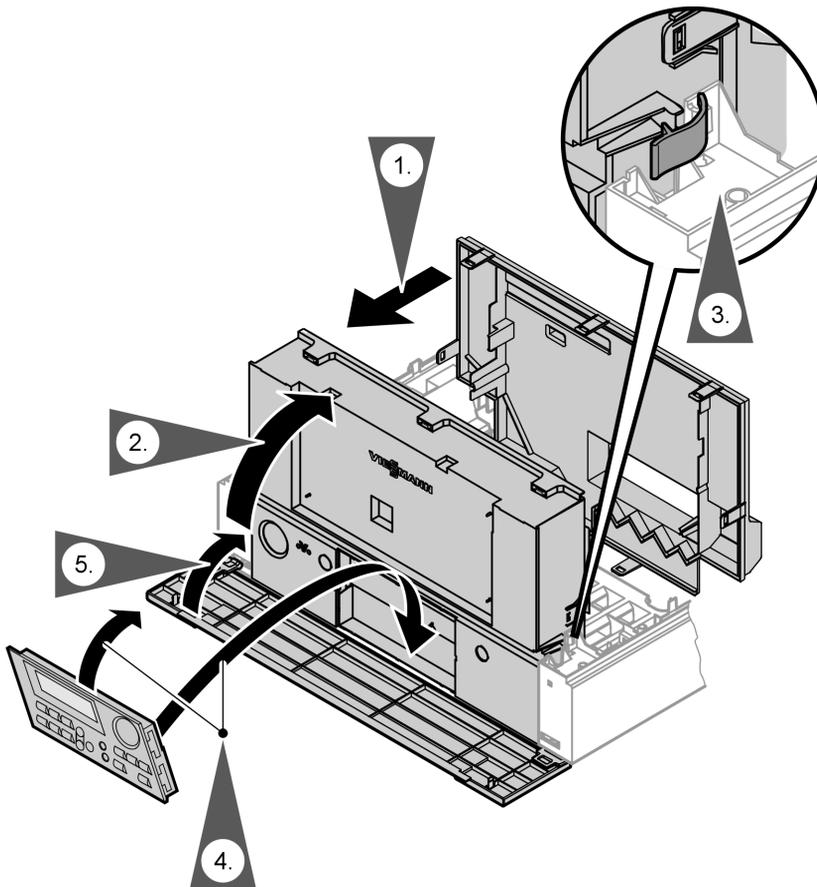


- Ⓐ Low voltage connections
- Ⓑ 230 V connections
- Ⓒ Internal extension
- Ⓓ Main PCB
- Ⓔ Communications module

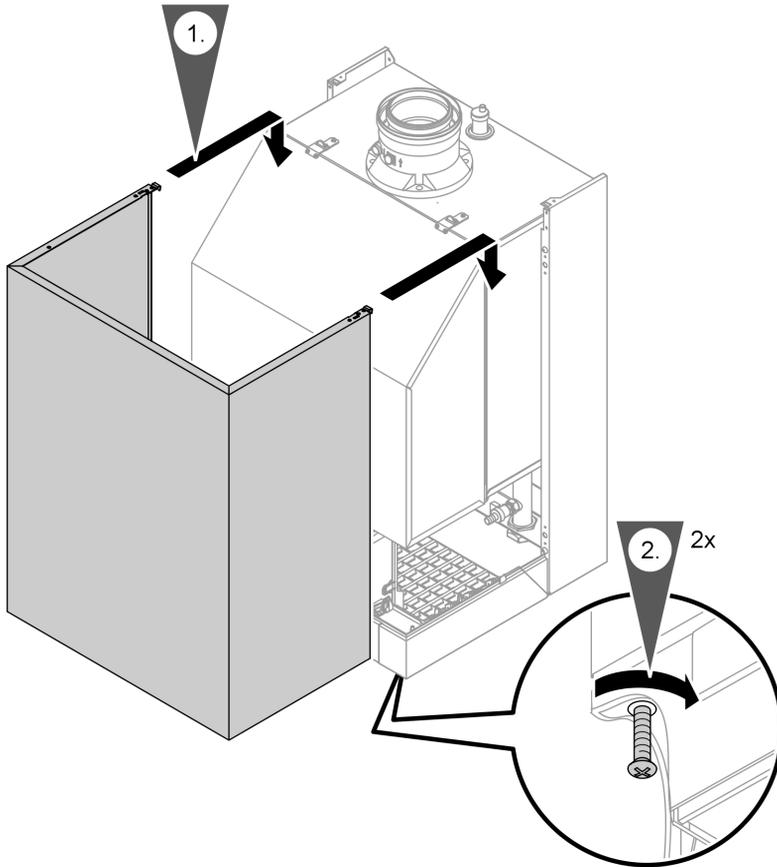
- Ⓕ Cable grommet for power supply cable
- Ⓖ Plugs for connecting the cylinder temperature sensor to the cable harness

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

Closing the control unit enclosure and inserting the programming unit



Front panel installation



Commissioning and adjustment

 For commissioning and adjustment, see service instructions.



Viessmann Werke GmbH&Co KG
D-35107 Allendorf
Telephone: +49 6452 70-0
Fax: +49 6452 70-2780
www.viessmann.com

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

5862 570 GB Subject to technical modifications.



Printed on environmentally friendly,
chlorine-free bleached paper