

Installation instructions for heating engineers

VIESSMANN

Vitodens 300

Type **WB3A**, 49 and 66 kW

Gas fired wall mounted condensing boiler
natural gas and LPG version

VITODENS 300



5862 570 GB

5/2004

Dispose after installation

Safety instructions



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

Safety instructions explained



Important information

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

Note

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

Safety regulations

Installation, initial start-up, inspection, maintenance and repairs must be carried out by a competent person (heating engineer/installation contractor).

Observe all current safety regulations as defined by DIN, EN, DVGW, TRGI, TRF, VDE or all locally applicable standards.

See also the safety instructions in the Vitotec Technical Guide folder.

Before working on the equipment/heating system, isolate the mains electrical supply (e.g. by removing a separate mains fuse or by means of a mains electrical isolator) and safeguard against unauthorised reconnection.

Close the main gas shut-off valve and safeguard against unauthorised reopening.

Electrical assemblies provided on site must be type-approved.

Work on gas equipment

This must only be carried out by an approved gas fitter.

Observe all commissioning work specified for gas installations to TRGI or TRF and all local regulations.

Please observe all commissioning work specified for gas systems.

Index

Preparing for installation

Product information	4
Preparations for boiler installation	4

Installation

Installing the boiler and making all connections	6
■ Wall mounting bracket installation	6
■ Hanging the boiler into the wall mounting bracket	7
Heating water (primary) connection	8
Flue gas connection	8
Condensate connection	8
Gas connection	9
Opening the control unit housing	10
Electrical connections	11
■ Routing connecting cables	13
Closing control unit housing and inserting user interface	14
Front panel installation	15
Commissioning and adjustments	15

Product information

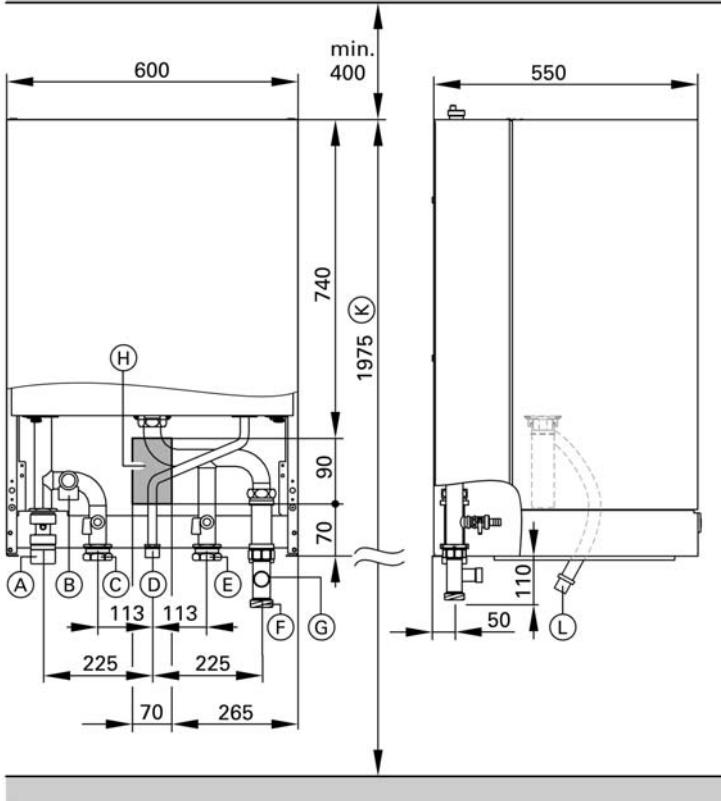
Vitodens 300, Type WB3A

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.

Preparations for boiler installation



Ⓐ Heating flow G1½"

Ⓑ Safety valve

Preparations for boiler installation (cont.)

- Ⓒ DHW cylinder flow G1½"
- Ⓓ Gas connection
- Ⓔ DHW cylinder return G1½"
- Ⓕ Heating return G1½"

- Ⓖ Expansion vessel
- Ⓗ Cable arrangement area
- Ⓚ Recommended dimension
- Ⓛ Condensate drain

1. Prepare the water connections.
Thoroughly flush the heating system.
2. Prepare the gas connection
according to TRGI or TRF or all
local regulations.

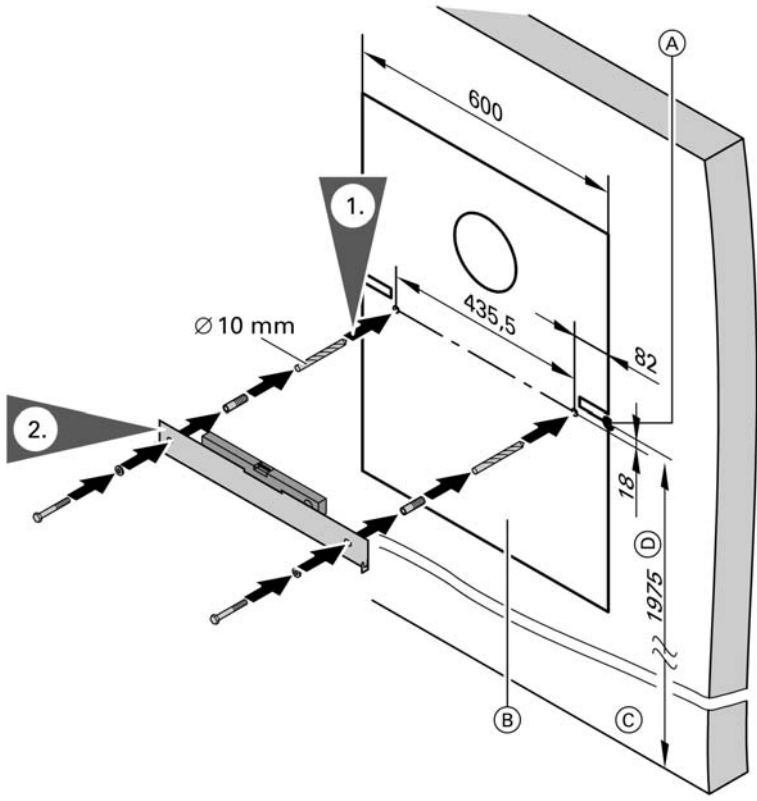
3. Prepare the electrical connections.
 - Mains cable: NYM-J 3 x 1.5 mm²,
fuse max. 16 A, 230 V~, 50 Hz.
 - Accessory cables: NYM with the
required number of conductors
for the external connections.
 - All cables in area Ⓗ should pro-
trude 1200 mm from the wall.

Installing the boiler and making all connections

Wall mounting bracket installation

Note

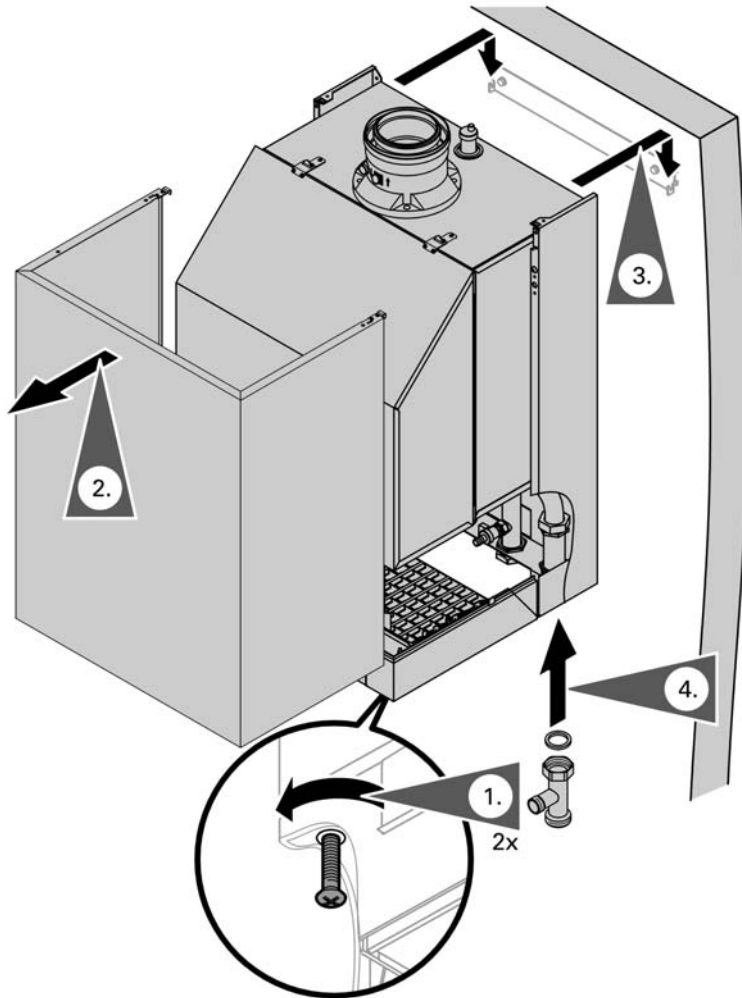
The enclosed screws and rawl plugs are only suitable for concrete. For other construction materials, use fixings which are suitable for 110 kg loads.



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

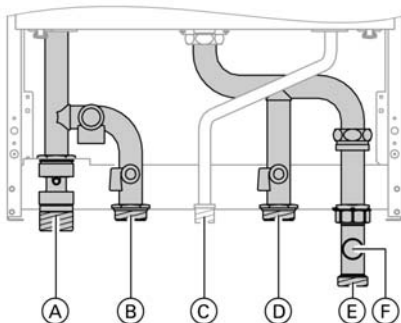
Installing the boiler and making all connections (cont.)

Hanging the boiler into the wall mounting bracket



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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

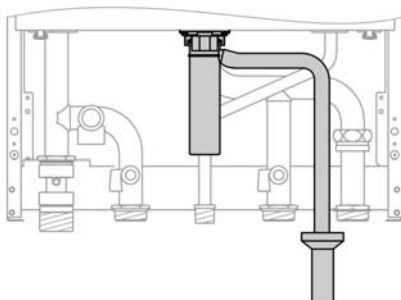
Flue gas connection

Connect the balanced flue pipe.



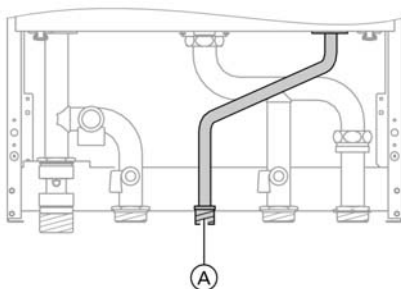
Flue gas system installation instructions

Condensate connection



Connect the condensate drain with a pipe air vent valve sloping to the public sewer.

Gas connection



Ⓐ Gas connection



Conversion to other gas types:
Conversion kit installation instructions

Information regarding 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 leak test.

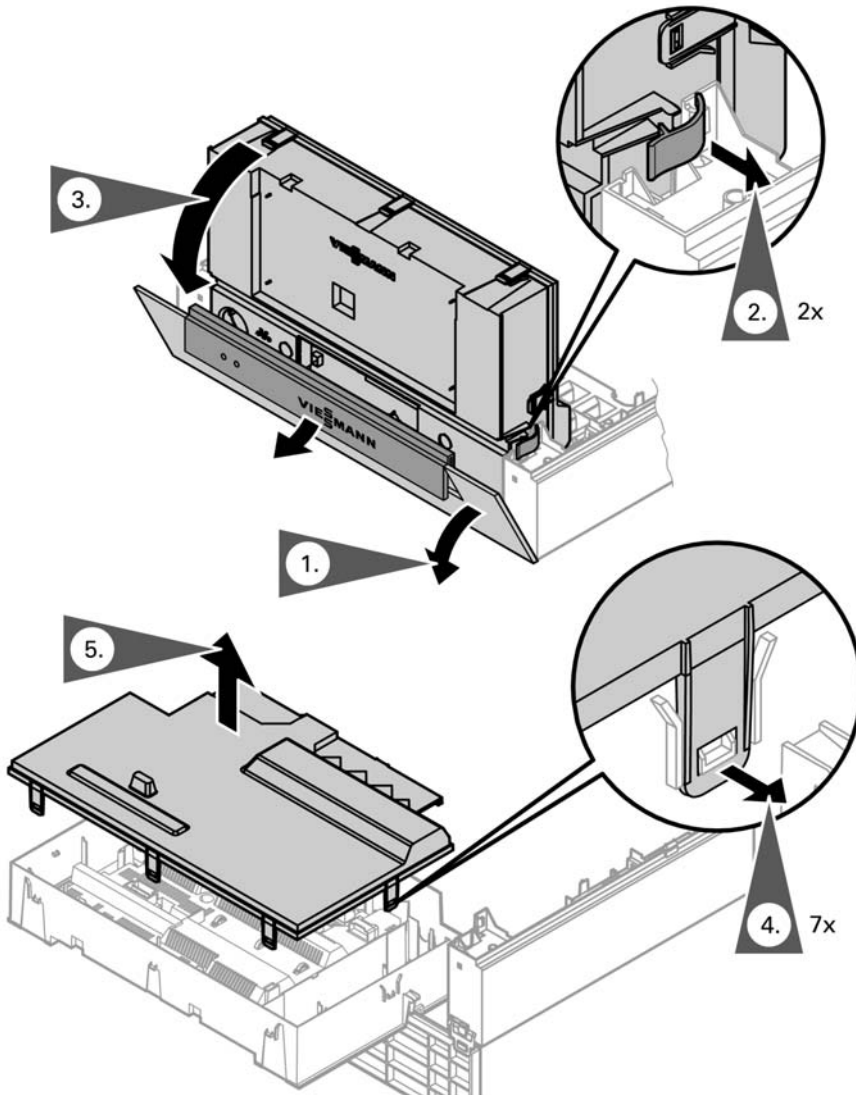


Important information

Excessive test pressure leads to damage to the boiler and gas train.
Max. test pressure 150 mbar. If a higher pressure is required for leak tests, separate the boiler and the gas train from the mains gas supply (undo fittings).

2. Purge the gas supply pipe.

Opening the control unit housing

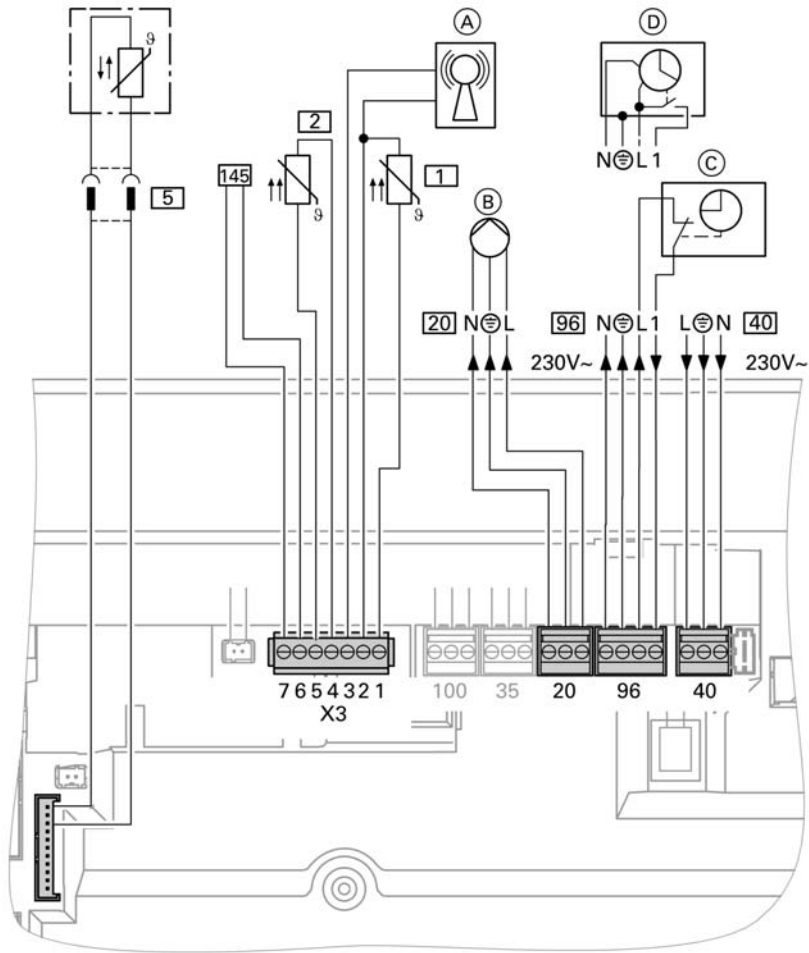


Electrical connections



Notes regarding the connection of accessories

For details of accessories, also observe the separate installation instructions provided.



- (A) Radio clock connection
- (B) Heating circuit pump or boiler circuit pump

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Electrical connections (cont.)

- Ⓒ Vitotrol 100 UTD (only for control units operating with a constant temperature)
- Ⓓ Vitotrol 100 UTA (only for control units operating with a constant temperature)

Plug 230 V~

- 40 Power supply
 - Never interchange cores L1 and N.
 - Install an isolator in the mains supply line which simultaneously separates all non-earthed conductors from the mains with at least 3 mm contact separation.
 - Max. fuse rating 16 A.
- 20 Heating circuit pump or boiler circuit pump
- 96 Mains supply - accessories (230 V ~ 50 Hz). Where the boiler is installed in a bathroom or shower room, the mains supply of accessories outside the wet area must not be connected to the control unit. The power supply connection for accessories can be made immediately at the control unit, if the boiler is installed outside damp areas. This connection is directly controlled with the system ON/OFF switch (max. 4 A).
 - Vitotrol 100 UTA
 - Vitotrol 100 UTD

Low voltage plug

- 1 Outside temperature sensor (only for weather-compensated mode)
Installation
 - North or northwestern 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 balcony or gutter
 - Do not render over
 - Two core cable with a maximum length of 35 m and 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 (accessory)
 - Vitotrol 200 or 300 remote control
 - Vitocom 100
 - Extension kit for one heating circuit with mixer
 - Vitosolic
 - External extension H1 or H2

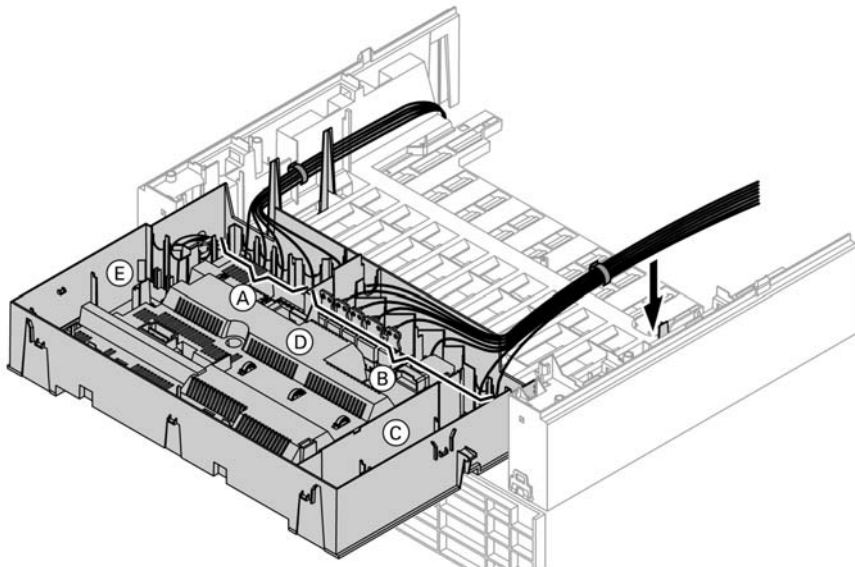
Electrical connections (cont.)

Routing connecting cables



Important information

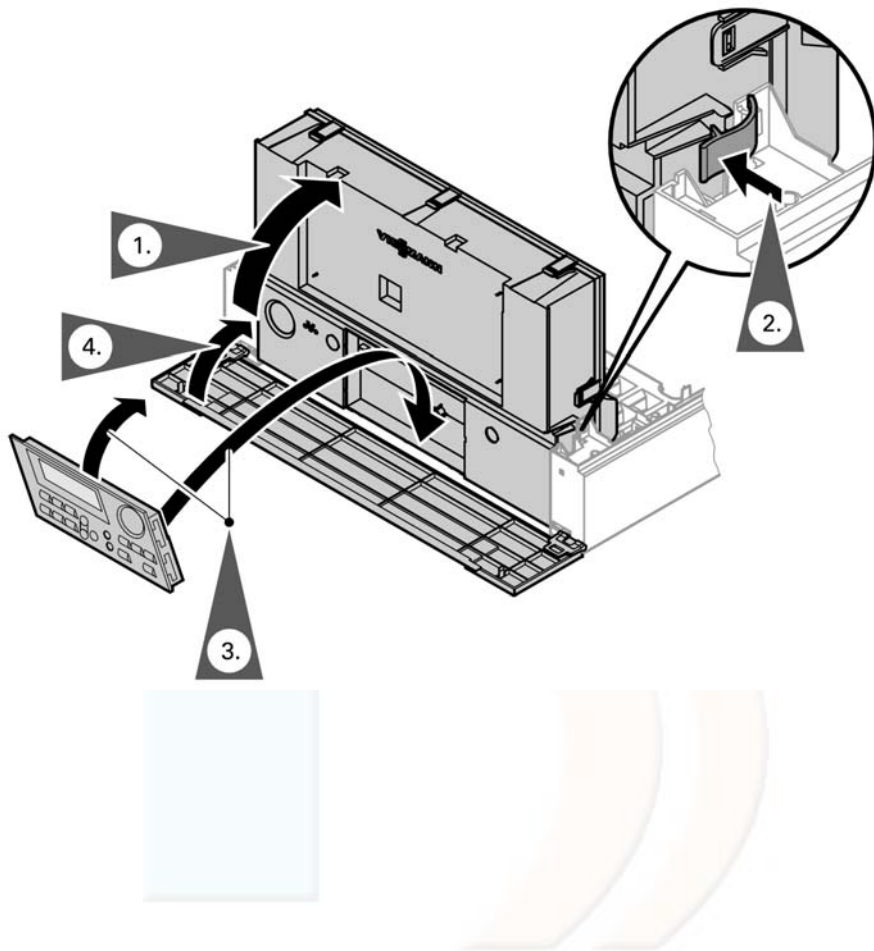
Connecting cables are damaged if they touch hot components. When routing and securing connecting cables on site, ensure that the maximum permissible cable temperatures are not exceeded.



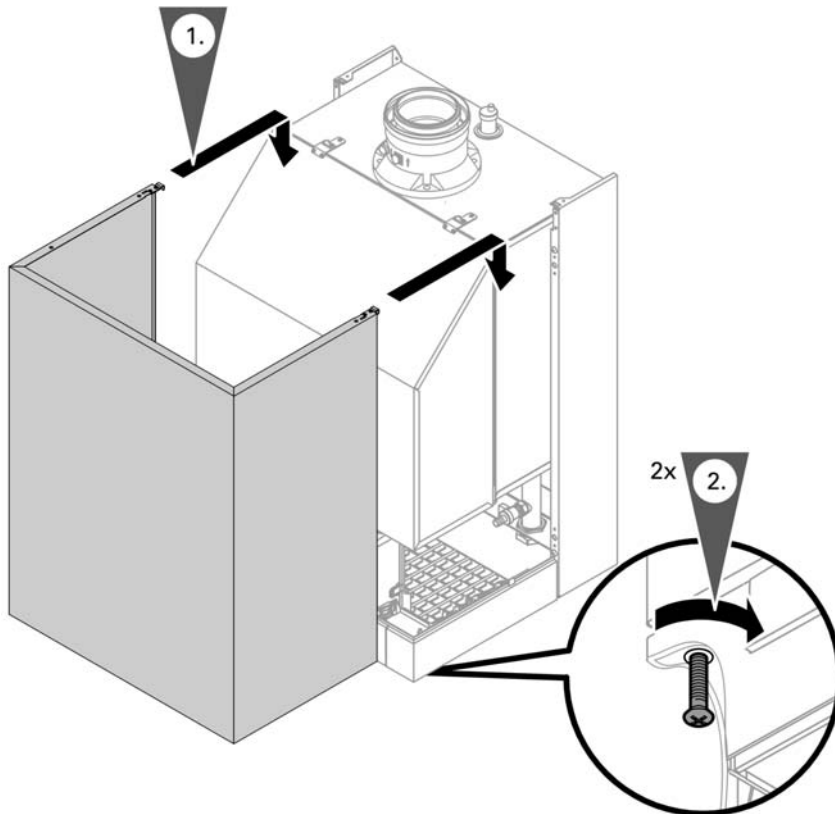
- (A) Low voltage connections
- (B) 230 V connections
- (C) Internal extension

- (D) Main PCB
- (E) Communications module

Closing control unit housing and inserting user interface



Front panel installation



Commissioning and adjustments



For commissioning and adjustment, see service instructions.



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