Installation instructions

for contractors

Vitodens 200-W
Type WB2B, 45 and 60 kW
Wall mounted gas fired condensing boiler
Natural gas and LPG version

VITODENS 200-W

5592 989 GB 11/2007

Dispose after installation.

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.

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Product information

Vitodens 200-W, WB2B

Set up for operation with natural gas E and LL.
For conversion to LPG P (without conversion kit), see the service instructions.

Conversion for other target countries
The Vitodens 200-W should generally only be delivered to those countries specified on the type plate. For deliveries to alternative countries, an approved contractor, on his own initiative, must arrange individual approval in accordance with the law of the land.

Multi-boiler system
In connection with the installation of a multi-boiler system observe the installation instructions of the multi-boiler system accessories.

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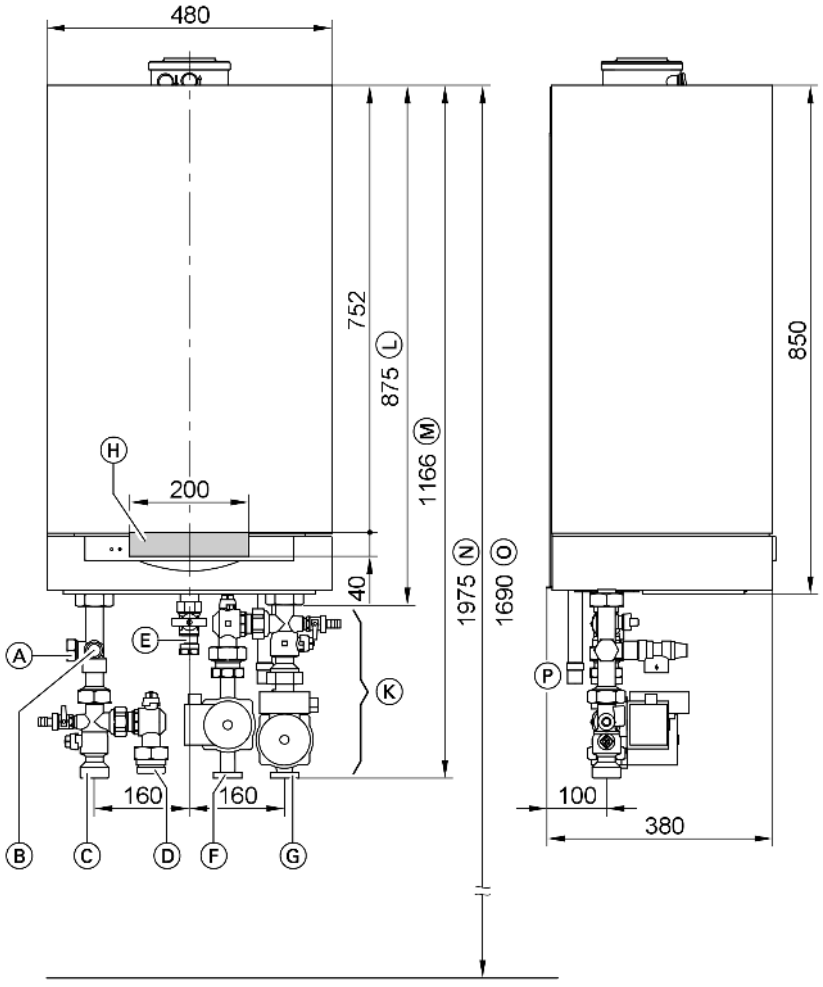
Preparing the boiler installation



Ⓐ Expansion vessel G 1"
Ⓑ Safety valve
Ⓒ Heating flow G 1½"
Ⓓ Cylinder flow G 1½"
Ⓔ Gas connection R ¾"
Ⓕ Cylinder return G 1½"
Ⓖ Heating return G 1½"
Ⓗ Cable entry area at the back
Ⓚ Accessories (connection sets)
Ⓛ Without connection sets (accessories)

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Preparing for installation (cont.)

Ⓜ With connection sets (accessories)
Ⓝ Recommended dimension (single boiler system)
Ⓞ Recommended dimension (multi-boiler system)
Ⓟ Condensate drain

Note
This boiler (protection IP X4 D) is approved for installation in wet rooms inside protection area 1 according to DIN VDE 0100 [Germany], if hosed water can be prevented.
Observe the requirements of DIN VDE 0100 [or local regulations].

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 mm^2, fuse max. 16 A, 230 V~.
- Accessory cables: NYM with the required number of conductors for the external connections.
- Allow all cables in area "Ⓗ" to protrude 1200 mm from the wall.

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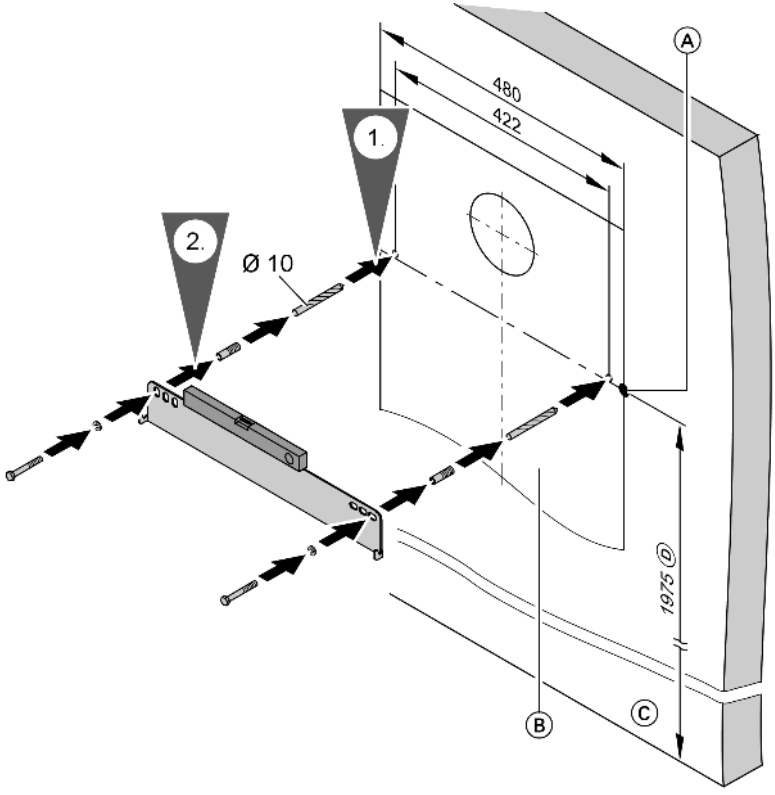
Installing the boiler and making all connections

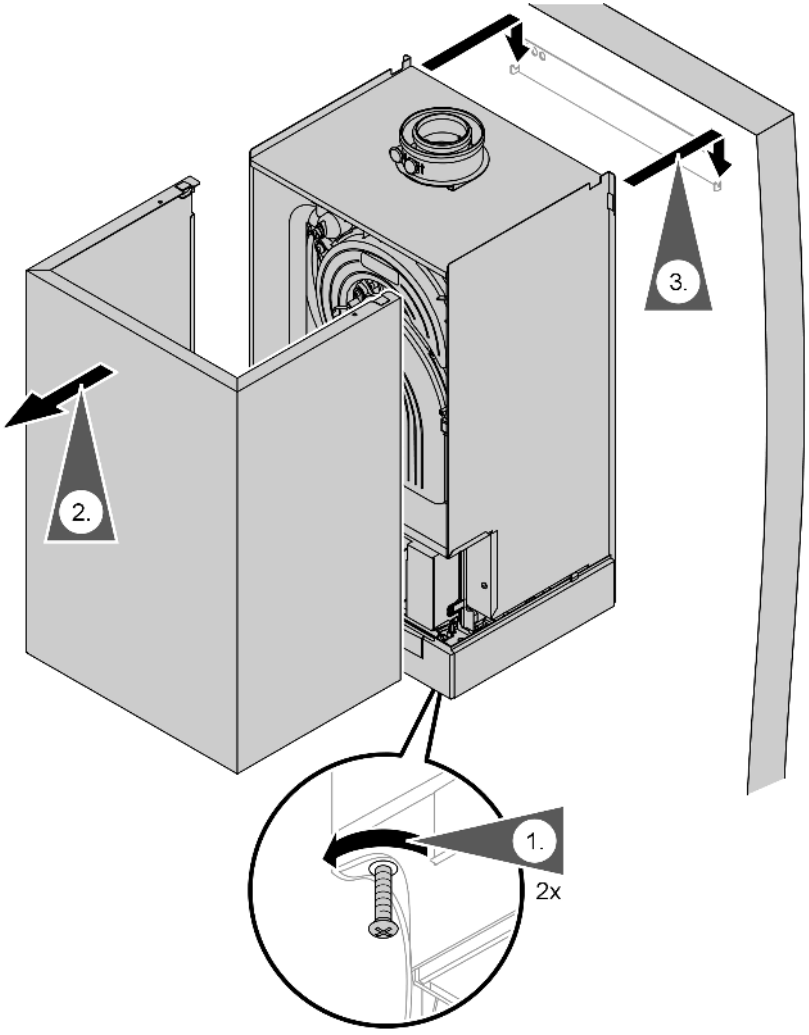
Wall mounting bracket installation

Note
The enclosed screws and rawl plugs are only suitable for concrete. For other construction materials, use fixings that are suitable for 100 kg loads.

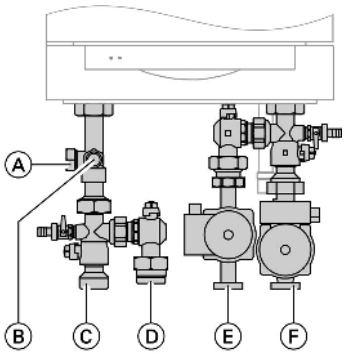


Ⓐ Reference point: boiler top edge
Ⓑ Installation template (included with the boiler)
Ⓒ Top edge finished floor
Ⓓ Recommendation

Hanging the boiler into the wall mounting bracket



Heating water side connection



Connect the boiler to the on-site pipework.

Note
Connection situation shown with the connection sets that are available as accessories.
Provide the required connections when using on-site fittings.

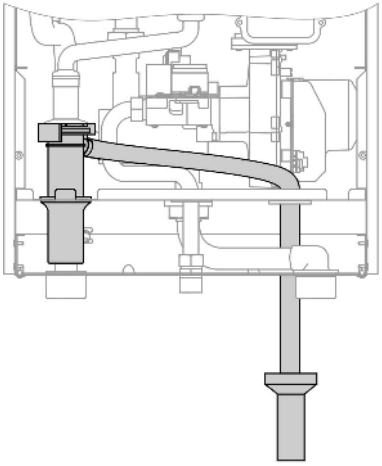
Ⓐ Expansion vessel
Ⓑ Safety valve
Ⓒ Heating flow
Ⓓ DHW flow
Ⓔ DHW return
Ⓕ Heating return

Flue gas connection

Connect the balanced flue.

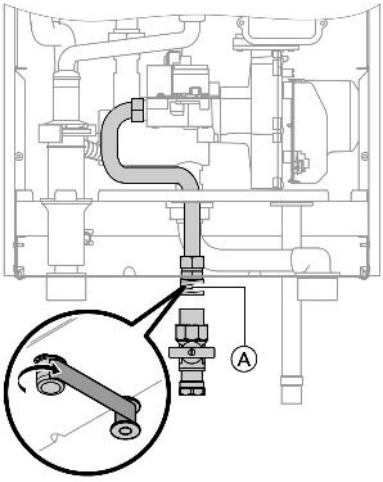
Flue gas system installation instructions.

Condensate connection



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

Gas connection



Notes regarding operation with LPG

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

1. Seal in gas shut-off valve Ⓐ at the gas connection.

Gas connection (cont.)

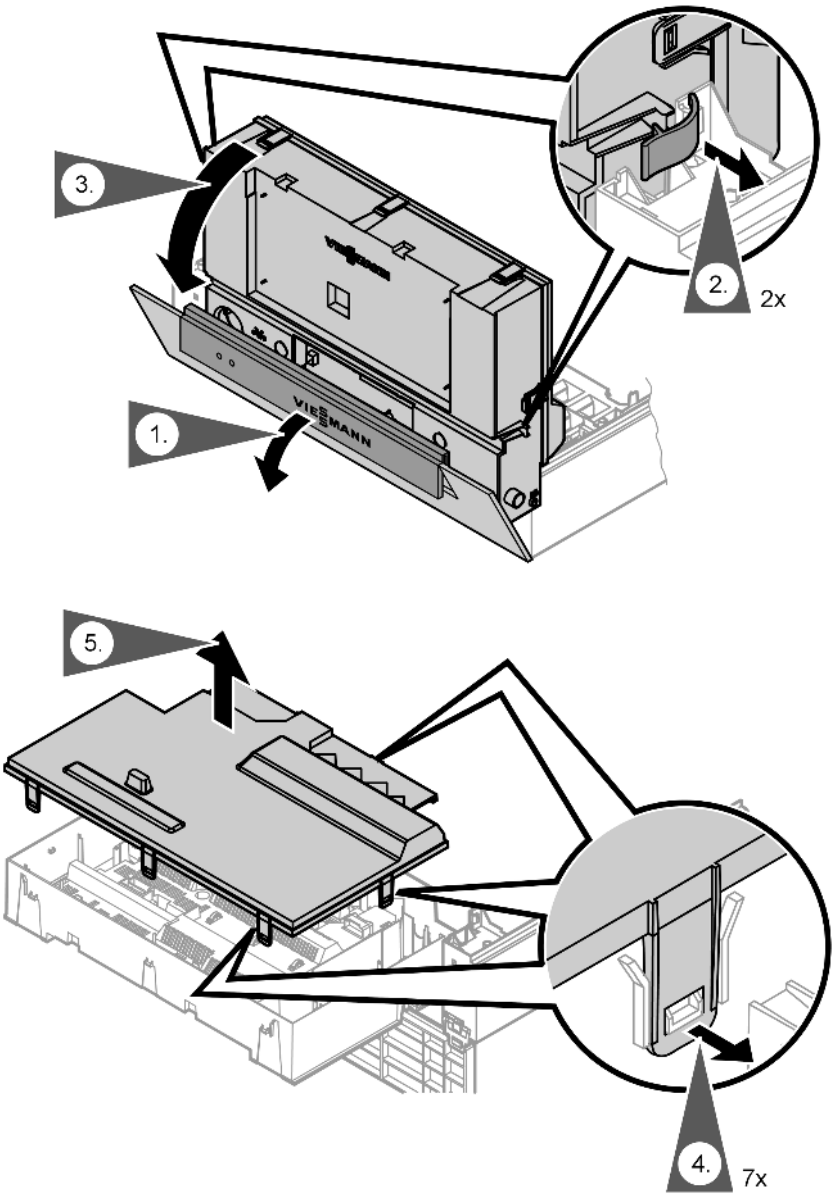
2. Carry out a leak/soundness test.

! **Please note**
Excessive test pressure may damage the boiler and the gas valve.
Max. test pressure 150 mbar. Where higher pressure is required for soundness tests, separate the boiler and the gas valves from the gas supply pipe (undo the fitting).

3. Vent the gas supply pipe.


Conversion to other gas types: Service instructions

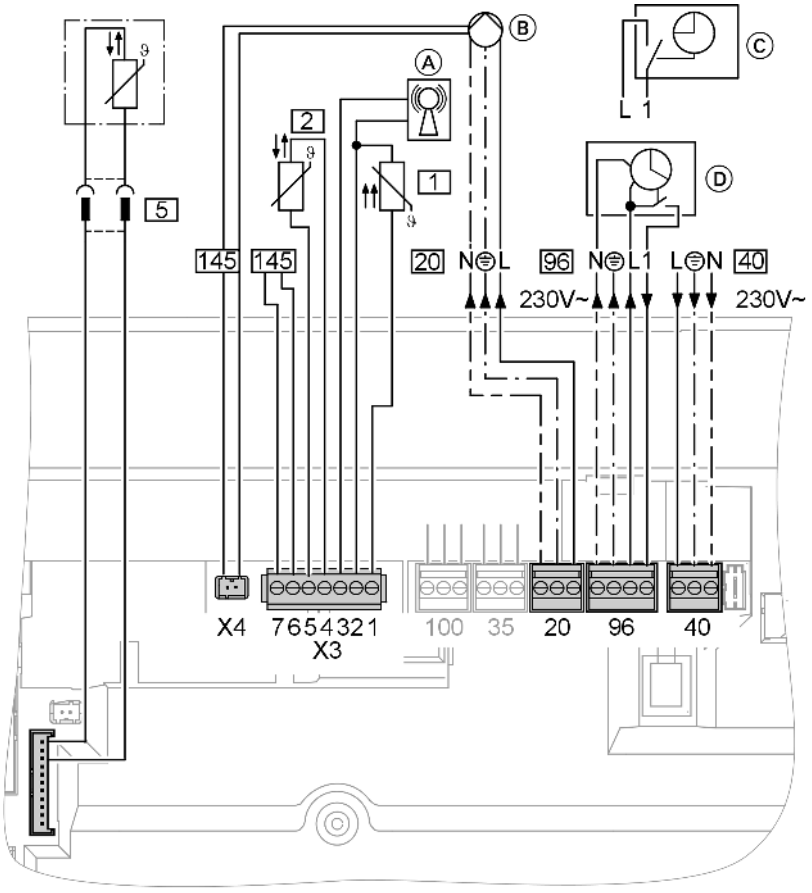
Opening the control unit casing



Electrical connections

Information regarding the connection of accessories
For details of accessories, also observe their separate installation instructions provided.

Please note
Electronic modules can be damaged by electrostatic discharges. Touch earthed objects, such as heating or water pipes, to discharge static loads.



Ⓐ Radio clock receiver

Electrical connections (cont.)

Ⓑ Heating circuit pump or boiler circuit pump
Only with variable speed heating circuit pump:
Insert plug [145] into X4.

Ⓒ 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 that simultaneously isolates 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 lead, max. 35 m length with a cross-section of 1.5 mm^2

[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 subscriber (accessories)
- Vitotrol 200 or 300 remote control
- Vitocom 100
- Extension kit for a heating circuit with mixer
- Vitosolic
- External extension H1 or H2

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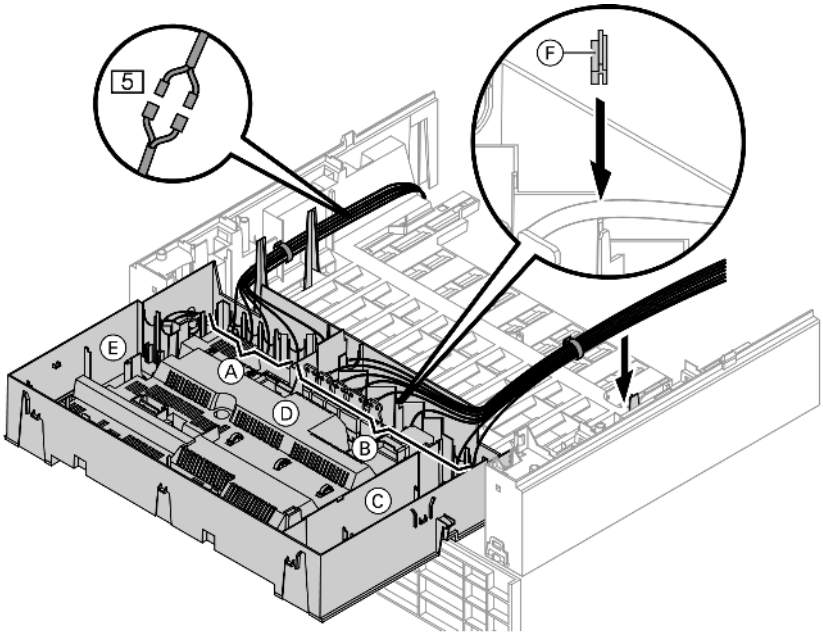
Routing the connecting cables

! **Please note**
If connecting cables touch hot components they will be damaged.
When routing and securing power 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
5 Plugs for connecting the cylinder temperature sensor to the cable harness

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

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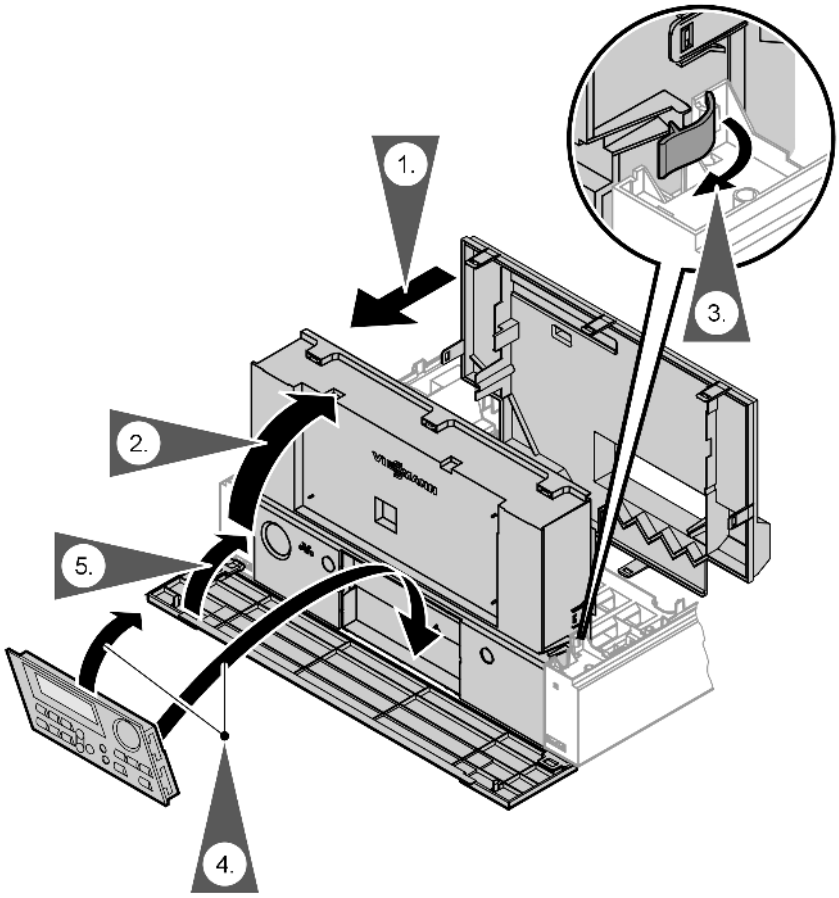
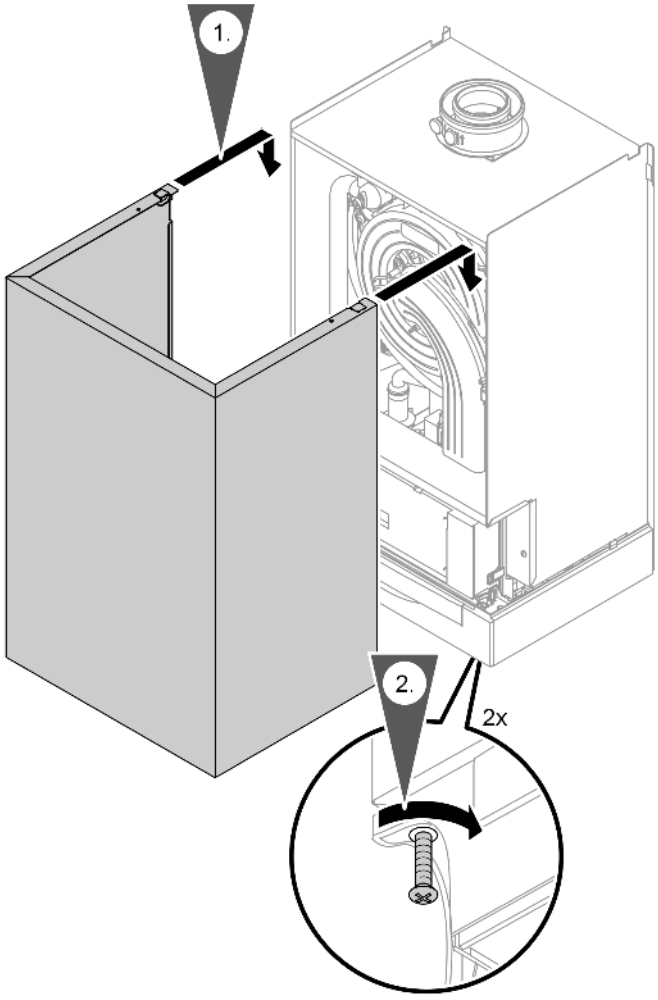
Closing the control unit casing and inserting the programming unit



Fitting the front panel



Note
Always insert the locking screws before commencing operation.

Commissioning and adjustment

For commissioning and adjustment, see service instructions.

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