

Installation instructions

for contractors

VIESSMANN

Vitodens 200-W

Type WB2C, 45 and 60 kW

Wall mounted gas condensing boiler

Natural gas and LPG version



VITODENS 200-W



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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Installation sequence

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Product information

Vitodens 200-W, WB2C

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.

For installations in a multi-boiler system, generally the boiler coding card needs to be replaced (see page 16).

Preparing for installation

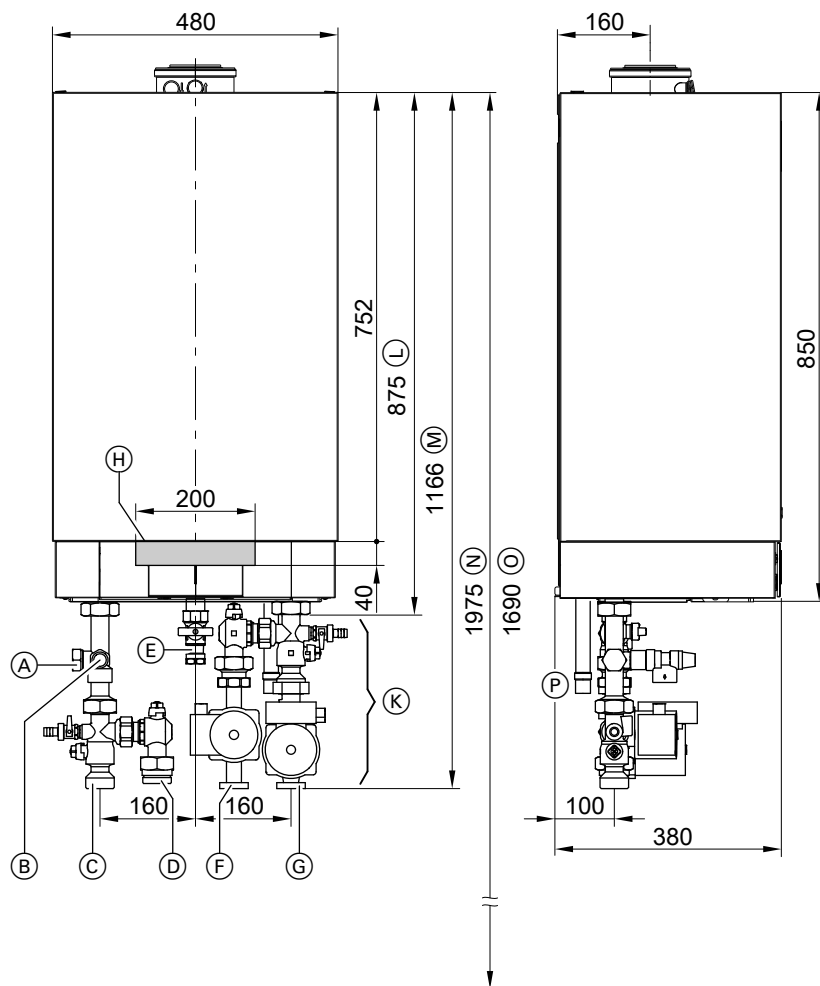
Preparing the boiler installation



Please note

To prevent equipment damage,

install all pipework free of load and torque stresses.



5457 570 GB

- (A) Expansion vessel G 1
- (B) Safety valve
- (C) Heating flow G 1½

- (D) Cylinder flow G 1½
- (E) Gas connection R ¾
- (F) Cylinder return G 1½

Preparing for installation (cont.)

- Ⓔ Heating return G 1½
- Ⓕ Cable entry area at the back
- Ⓖ Accessories (connection sets)
- Ⓖ Without connection sets (accessories)
- Ⓜ 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].

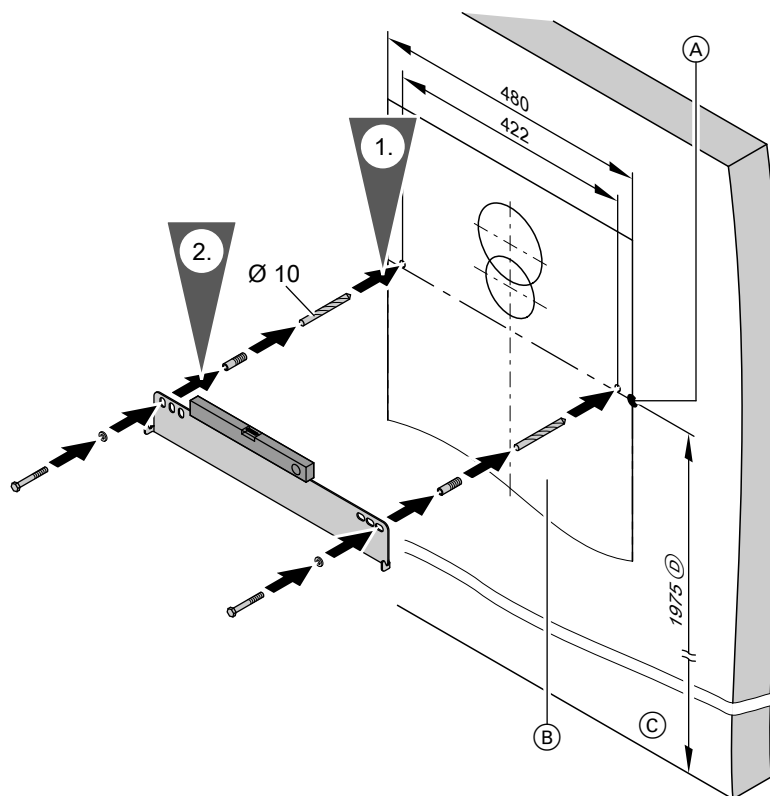
1. Prepare the water connections. Flush the heating system thoroughly.
2. Prepare the gas connection according to TRGI or TRF [or local regulations].
3. Prepare the electrical connections.
 - Power supply cable: NYM-J 3 x 1.5 mm², fuse max. 16 A, 230 V~.
 - Accessory cables: NYM with the required number of conductors for the external connections.
 - Allow all cables in area "Ⓕ" 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 100 kg loads.

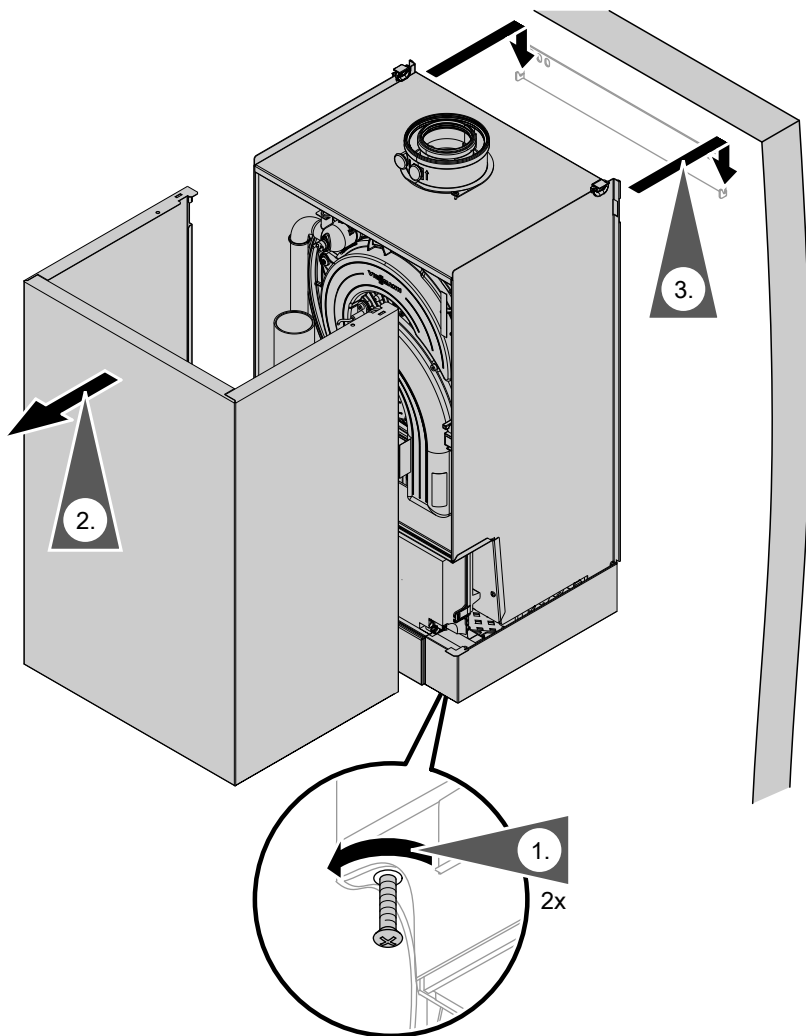


- (A) Reference point: boiler top edge
- (B) Installation template (included with the boiler)

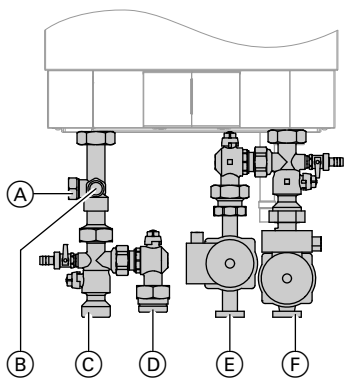
- (C) Top edge finished floor
- (D) Recommendation

Installing the boiler and making all connections (cont.)

Hanging the boiler into the wall mounting bracket



Heating water side connection



- (A) Expansion vessel
- (B) Safety valve
- (C) Heating flow
- (D) Cylinder flow
- (E) Cylinder return
- (F) Heating return

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

Note

Connection situation shown with the connection sets that are available as accessories.

Provide the required connections when using on-site fittings.

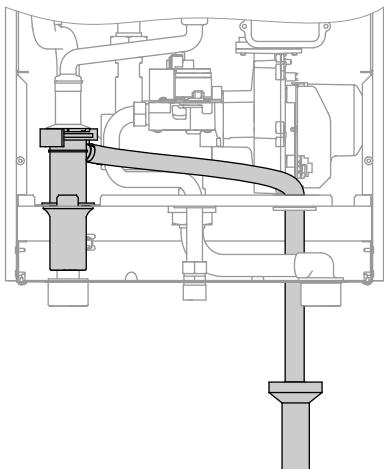
Flue gas connection

Connect the balanced flue.



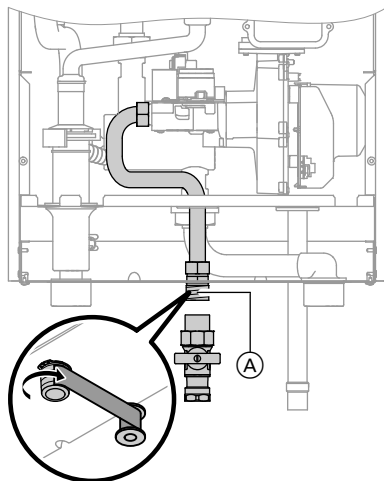
Flue gas system installation instructions.

Condensate connection



Connect the condensate drain with a constant 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 (A) at the gas connection.

Gas connection (cont.)

2. Carry out a tightness test.

Note

For the tightness test, use only suitable and approved leak detecting agents (EN 14291) and devices. Leak detecting agents with unsuitable constituents (e.g. nitrites, sulphides) can lead to material damage.

Remove residues of the leak detecting agent after testing.

3. Vent the gas line.



Conversion to other gas types:
Service instructions



Please note

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

Max. test pressure 150 mbar.

Where higher pressure is required for tightness tests, separate the boiler and the gas valves from the gas supply pipe (undo the fitting).

Opening the control unit casing

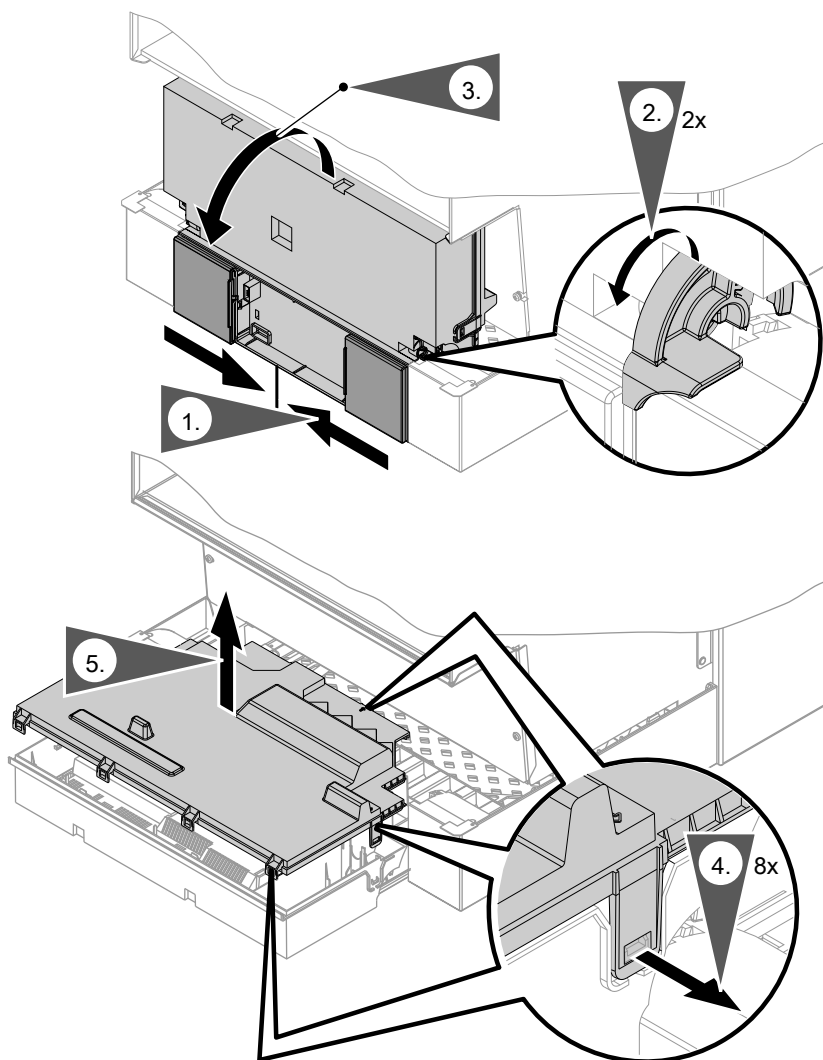


Please note

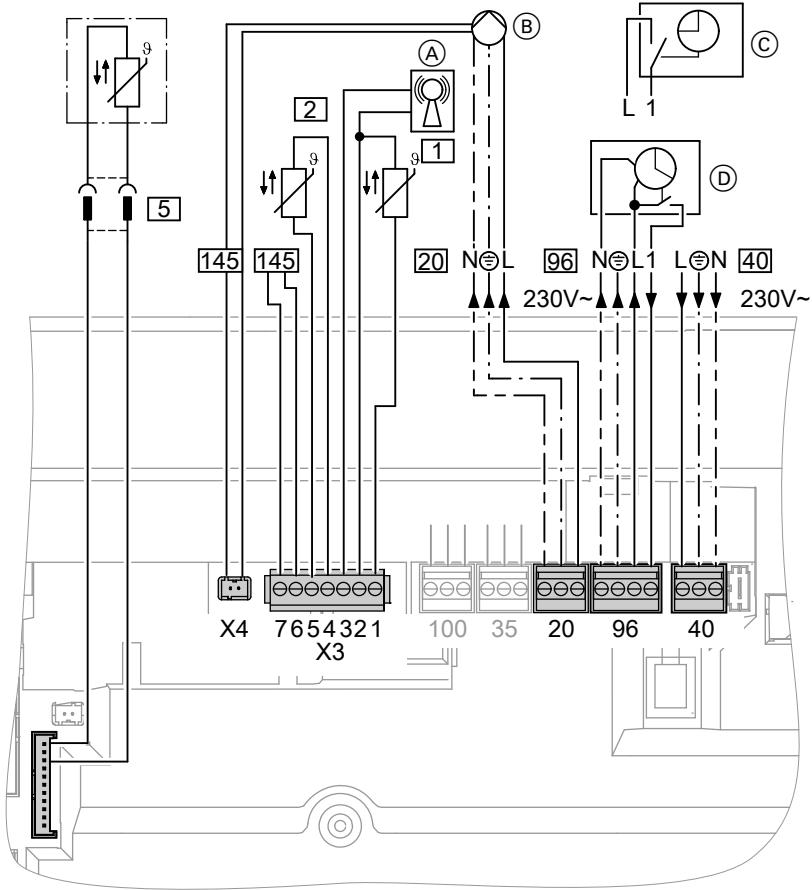
Electronic modules can be damaged by electrostatic discharges.

Before beginning work, touch earthed objects, such as heating or water pipes, to discharge static loads.

Opening the control unit casing (cont.)



Electrical connections



- (A) Radio clock receiver
- (B) Heating circuit pump or boiler circuit pump
Only with variable speed heating circuit pump:
Insert plug 145 into X4.
- (C) Vitotrol 100 UTDB (only for constant temperature control units).
When making this connection, remove jumper between "1" and "L".
- (D) Vitotrol 100 UTA (only for constant temperature control units)
or
Vitotrol 100 UTDB-RF wireless receiver.
When making this connection, remove jumper between "1" and "L".


Electrical connections (cont.)



Information regarding the connection of accessories

For the connection, observe the separate installation instructions provided with the accessory components.

230 V~ plugs

 Circulation pump


 Power supply [terminals]




Danger

Incorrect core termination 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. We additionally recommend installing an AC/DC-sensitive RCD (RCD class B ) for DC (fault) currents that can occur with energy-efficient equipment.
- Max. fuse rating 16 A.

-  ■ 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 UTDB
- Vitotrol 100 UTDB-RF

Low voltage plugs

-  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 mm²

-  Flow temperature sensor for low loss header (accessories)

Electrical connections (cont.)

- 5

Cylinder temperature sensor (part of the DHW cylinder connection set).

Connection to cables with plugs outside of the control unit.
 - 145

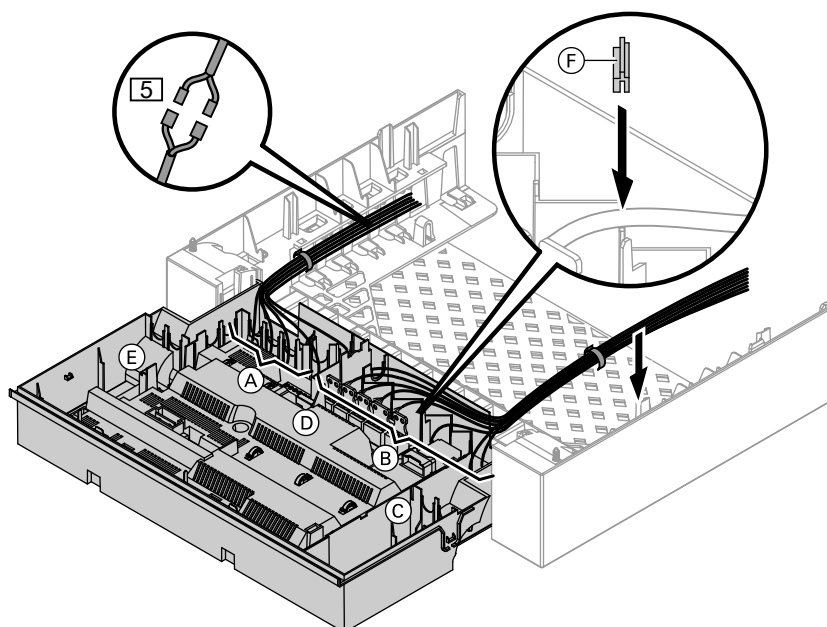
KM BUS subscriber (accessory)
- Vitotrol 200A or 300A remote control
 - Vitocom 100
 - Extension kit for one heating circuit with mixer
 - Solar control module, type SM1
 - Vitosolic
 - Extension AM1
 - Extension EA1

Routing the connecting cables



Please note

If connecting cables touch hot components they will be damaged. When routing and securing connecting cables on site, ensure that the maximum permissible temperatures for these cables are not exceeded.



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

- (D) Main PCB
- (E) Communication module
- (F) Cable grommet for power cable



Electrical connections (cont.)

- 5 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 cable grommet (F) (black) integrated into the casing base.

Replacing the boiler coding card for installation in a multi-boiler system

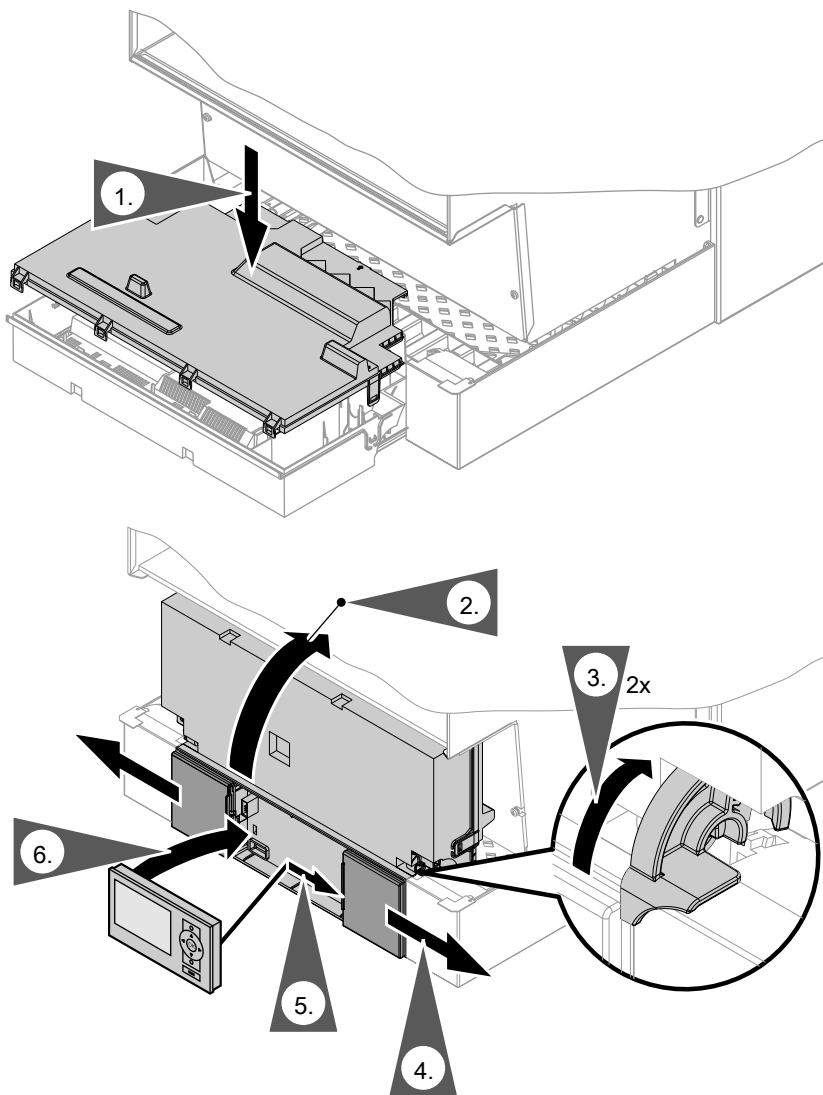
If this boiler is installed in a multi-boiler system, always replace the fitted boiler coding card with the equivalent card for multi-boiler systems.

The boiler coding card for multi-boiler systems is secured at the cover panel behind the control unit.



Corresponding installation instructions are supplied with the boiler coding card.

Closing the control unit casing and inserting the programming unit



Closing the control unit casing and inserting... (cont.)

Insert programming unit (packed separately) into the control unit support.

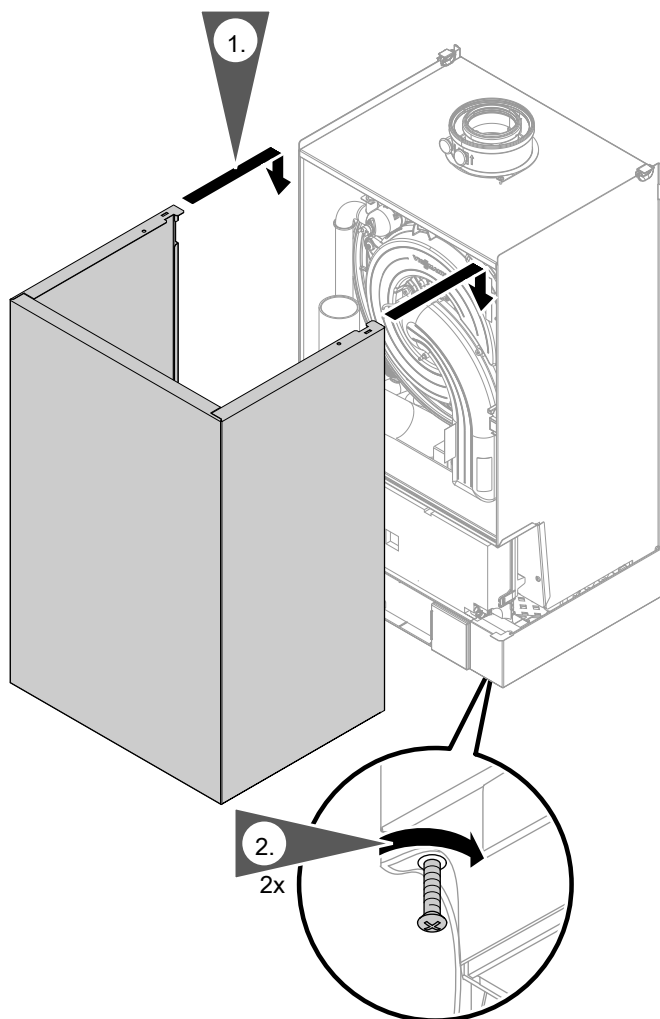
Note

The programming unit can also be used in a wall mounting base (accessory) near the boiler.



Wall mounting base installation instructions

Fitting the front panel



Note

Ensure the locking screws are screwed in before operating.

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

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