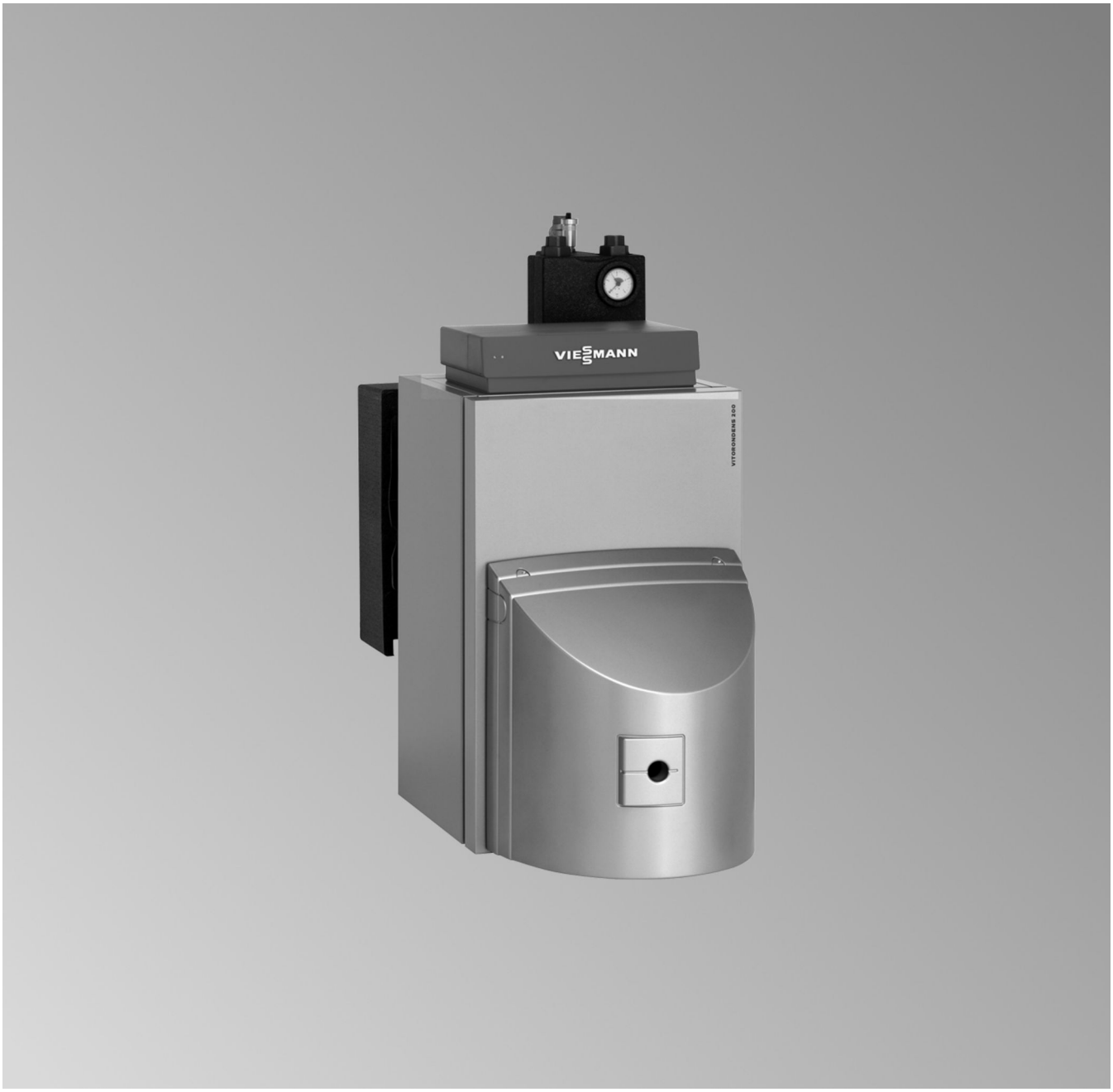
Installation instructions

for contractors

Vitorondens 200-T
Type BR2A, 20.2 to 53.7 kW
Oil Unit condensing boiler

VITORONDENS 200-T



5624 305 GB 5/2013

Dispose after installation.

Safety instructions

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

Safety instructions explained

! **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 intended for qualified contractors.
- Work on gas installations must only be carried out by a registered gas fitter.
- Work on electrical equipment must only be carried out by a qualified electrician.

Regulations

Observe the following when working on this system:
- Statutory regulations regarding the prevention of accidents
- Statutory regulations 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 local standards].
  - (A) ÖNORM, EN, ÖVGW-TR Gas, ÖVGW-TRF and ÖVE
  - (CH) SEV, SUVA, SVGW, SVTI, SWKI, VKF and EKAS guideline 1942: LPG, part 2

Working on the system

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

Index

5624 305 GB

Intended use

The appliance is only intended to be installed and operated in sealed unvented heating systems that comply with EN 12828, with due attention paid to the associated installation, service and operating instructions. It is only designed for the heating of water that is of potable water quality.

Intended usage presupposes that a fixed installation in conjunction with permissible, system-specific components has been carried out.

Commercial or industrial usage for a purpose other than heating the building or DHW does not comply with regulations.

Any usage beyond this must be approved by the manufacturer for the individual case.

Incorrect usage or operation of the appliance (e.g. the appliance being opened by the system user) is prohibited and results in an exclusion of liability. Incorrect usage also occurs if the components in the heating system are modified from their intended function (e.g. if the flue gas and ventilation air paths are sealed).

Siting

Clearance dimensions

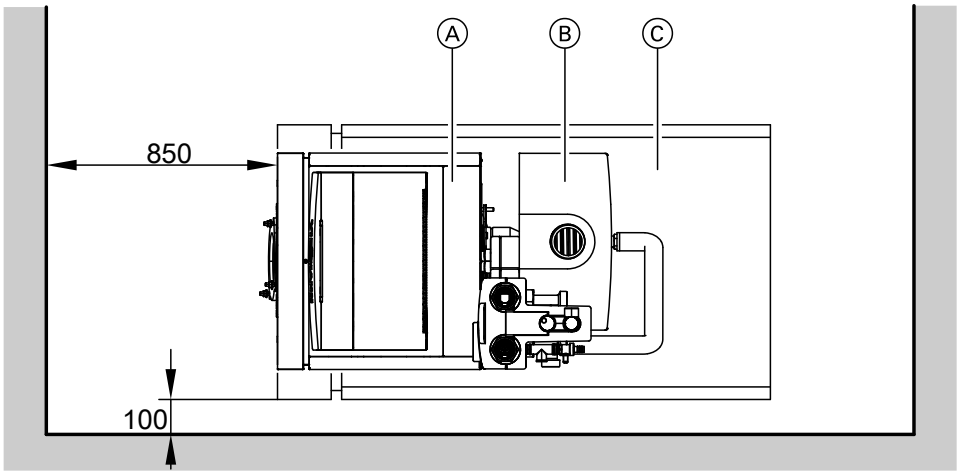


Fig.1

Ⓐ Boiler
Ⓑ Heat exchanger
Ⓒ DHW cylinder

Siting (cont.)

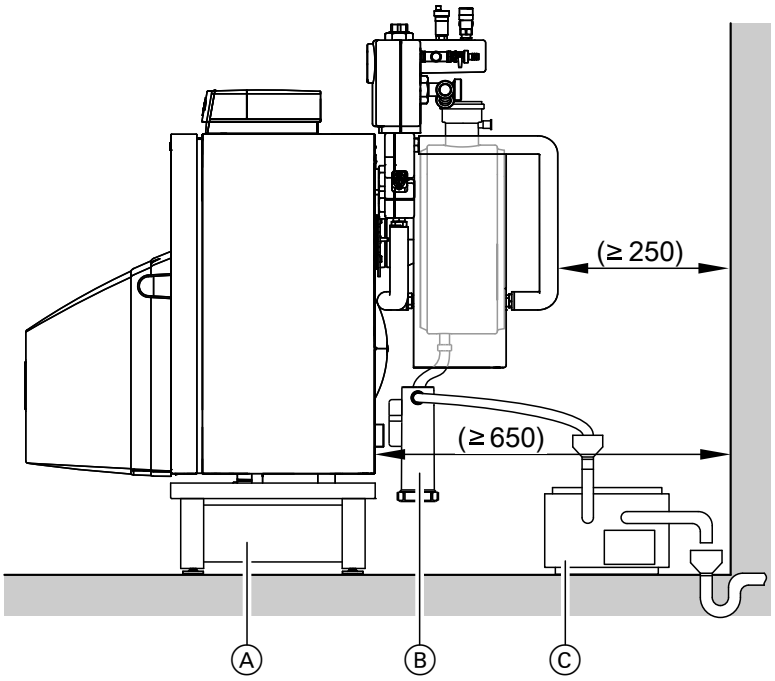


Fig.2

Ⓐ Plinth (accessory)
Ⓑ Siphon
Ⓒ Neutralising system (accessory)

Overview of connections

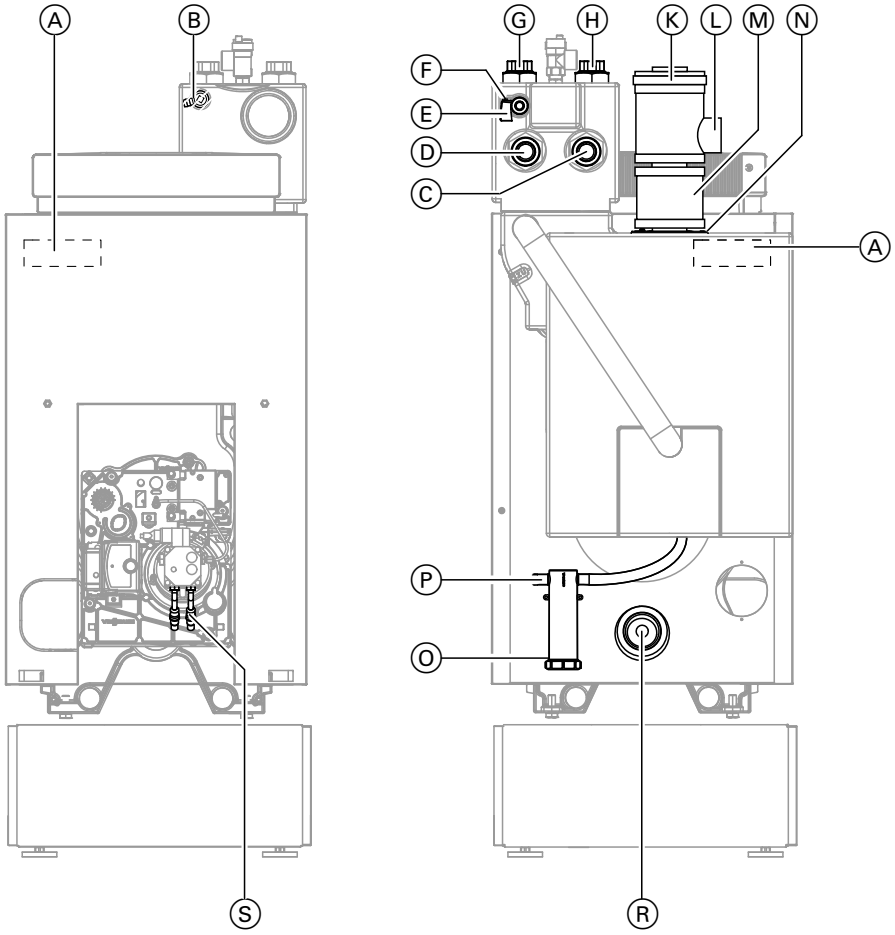


Fig.3

Ⓐ Wiring area
Ⓑ Air vent valve
Ⓒ Cylinder flow and heating flow G 1½
Ⓓ Cylinder return and heating return G 1½
Ⓔ Boiler fill valve
Ⓕ Connection for the diaphragm expansion vessel (tee Rp ½)
Ⓖ Heating return
- Flat gasket connection: G 1½
- Connection with the threaded inserts supplied: Rp 1

Ⓗ Heating flow
- Flat gasket connection: G 1½
- Connection with the threaded inserts supplied: Rp 1

Ⓚ Boiler flue connection (accessory)
Ⓛ Ventilation air connector for balanced flue operation
Ⓜ Silencer (accessory)
Ⓝ Flue gas connection
Ⓞ Siphon
Ⓟ Condensate drain
Ⓡ Drain outlet
Ⓢ Oil line connection

Siting and levelling the boiler

Installation without DHW cylinder

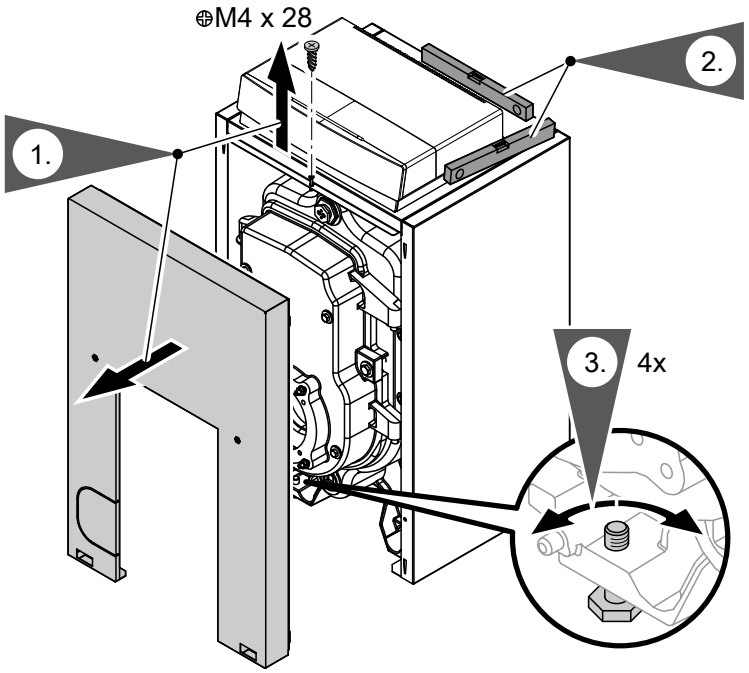


Fig.4

Installing the boiler with a slight incline towards the back.

Installation on a plinth

Installation instructions on the plinth pack

Siting and levelling the boiler (cont.)

Installation on a DHW cylinder

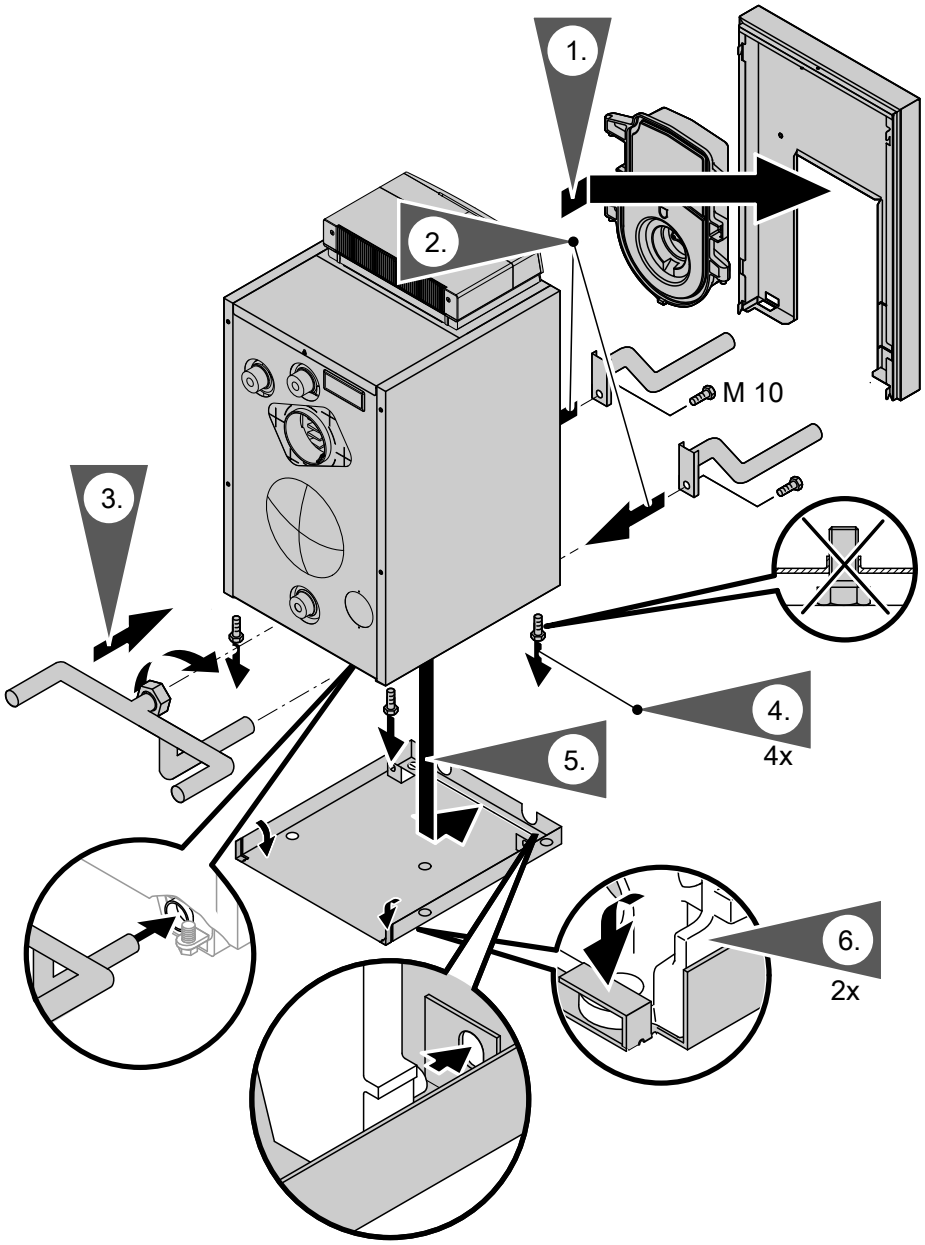


Fig.5

5624 305 GB

Siting and levelling the boiler (cont.)

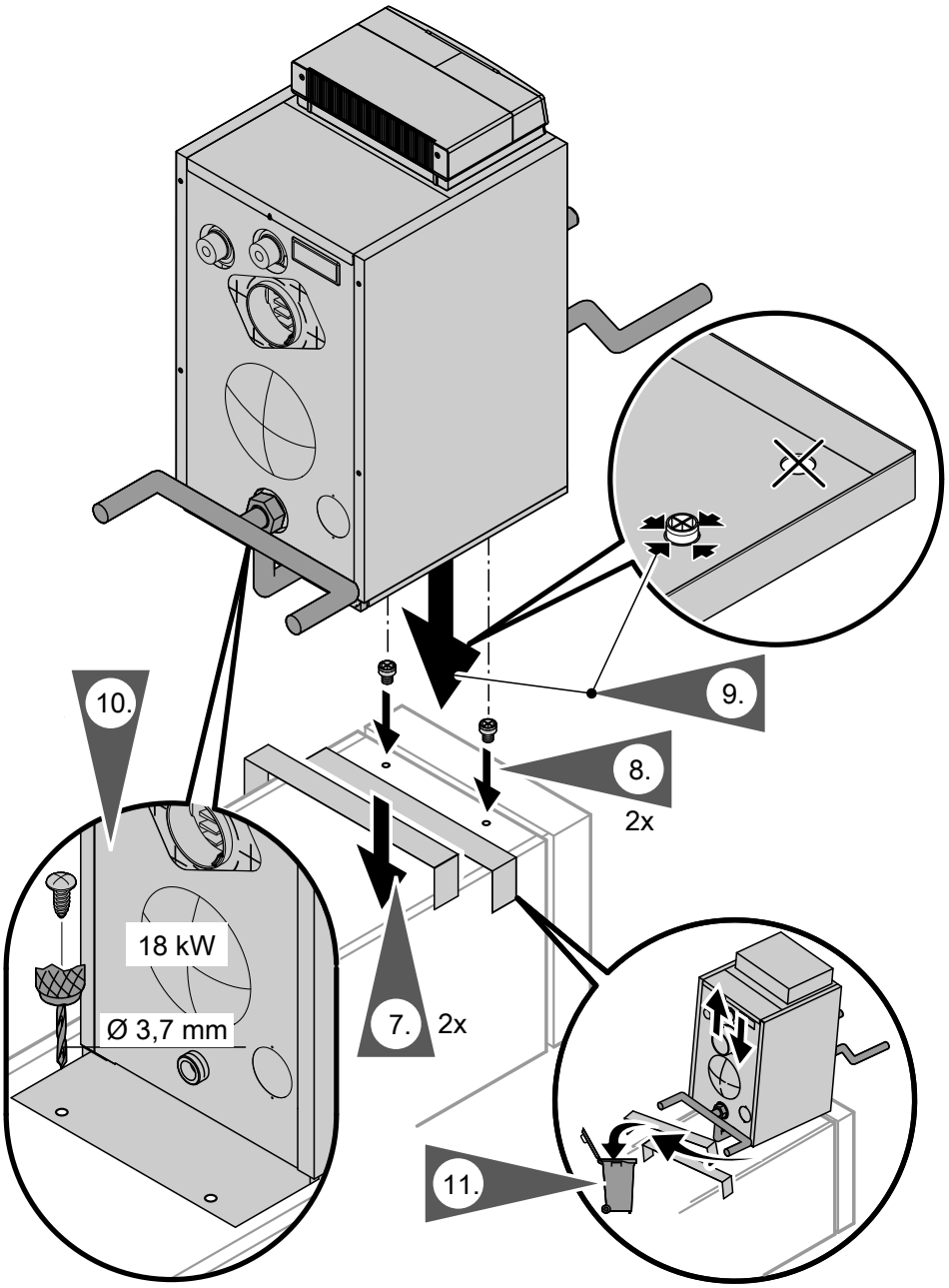


Fig.6

Converting the boiler door hinges

In the delivered condition, the boiler door opens to the left. Reposition the hinges if required.

Converting the boiler door hinges (cont.)

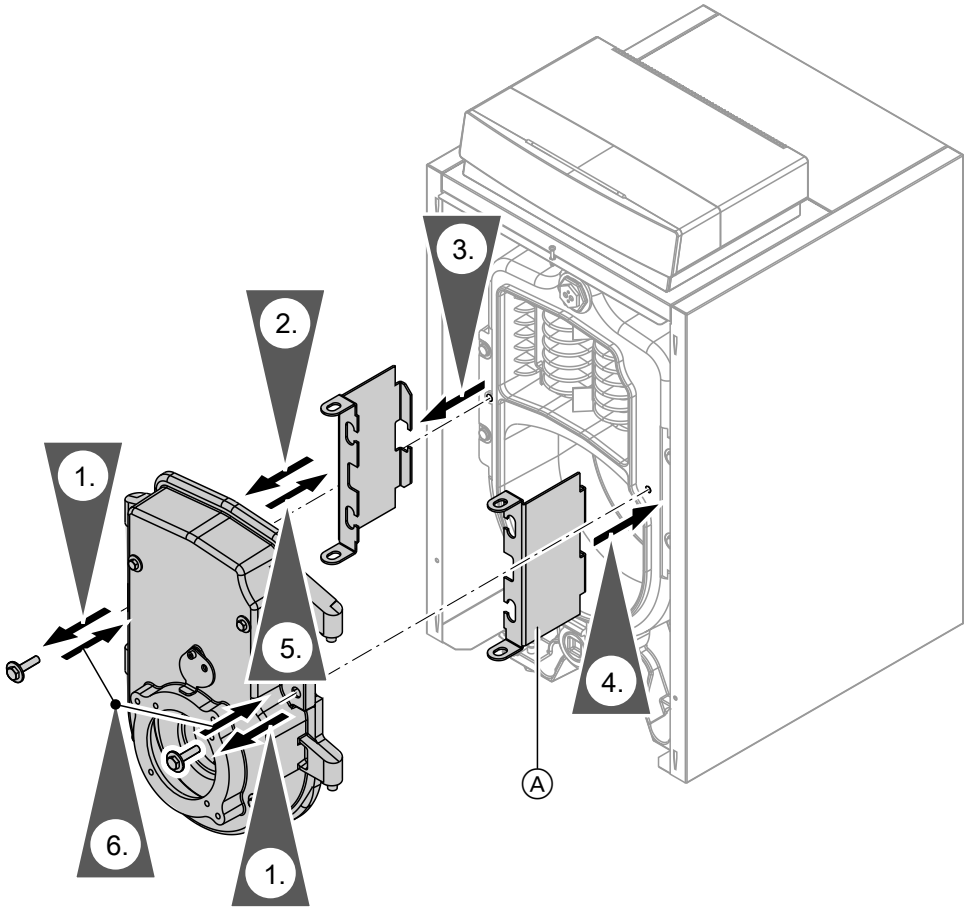


Fig.7

Ⓐ Hinge bracket

Fitting the heat exchanger to the boiler

Preparations for installation

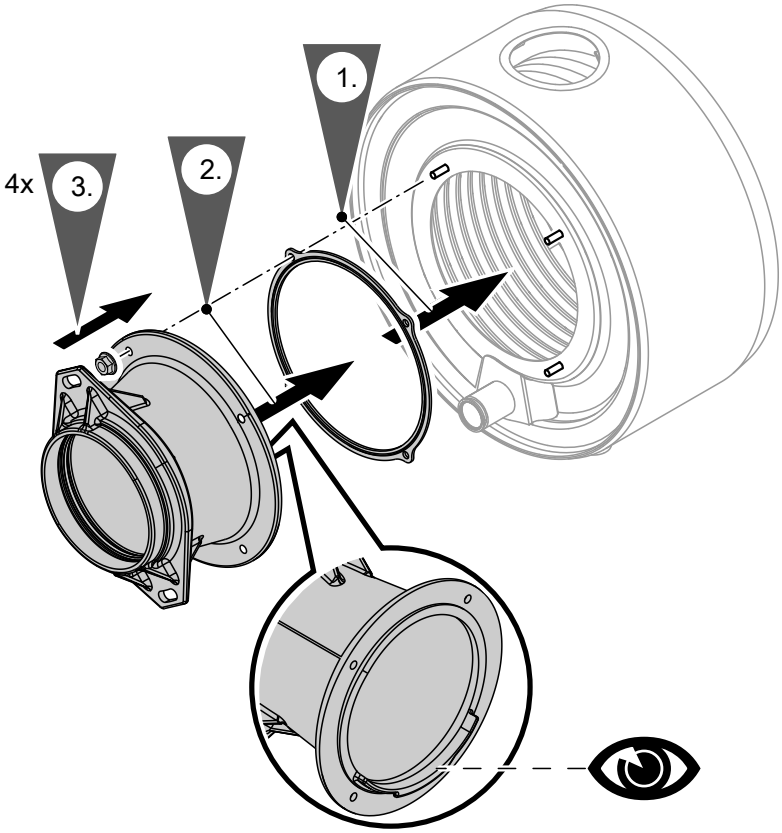


Fig.8

Fitting the heat exchanger to the boiler (cont.)

KV/KR distributor

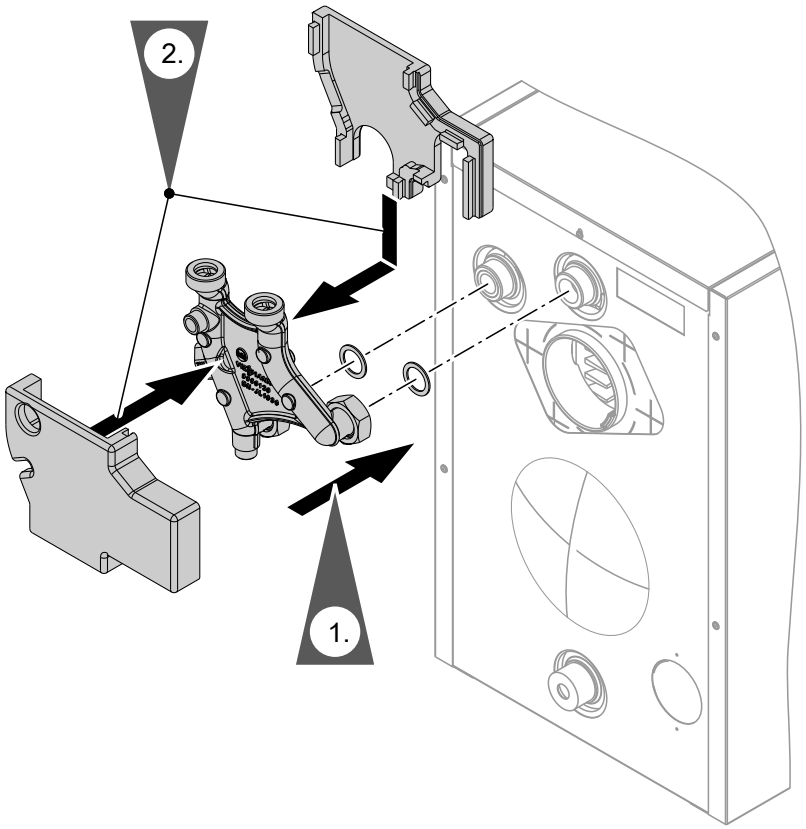


Fig.9

Note
Fit the return injector nozzle into the boiler return.

Fitting the heat exchanger to the boiler (cont.)

Heat exchanger with flue gas connection

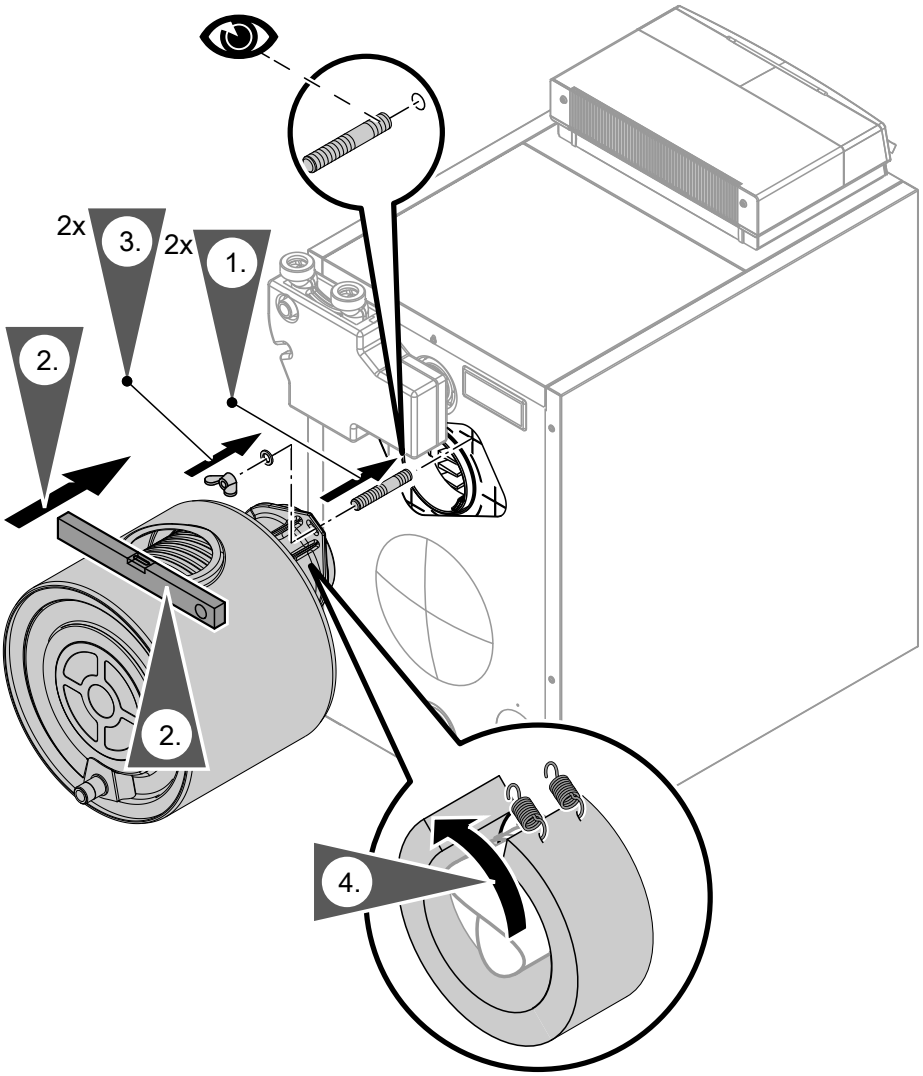


Fig.10

Fitting the heat exchanger to the boiler (cont.)

Thermal insulation

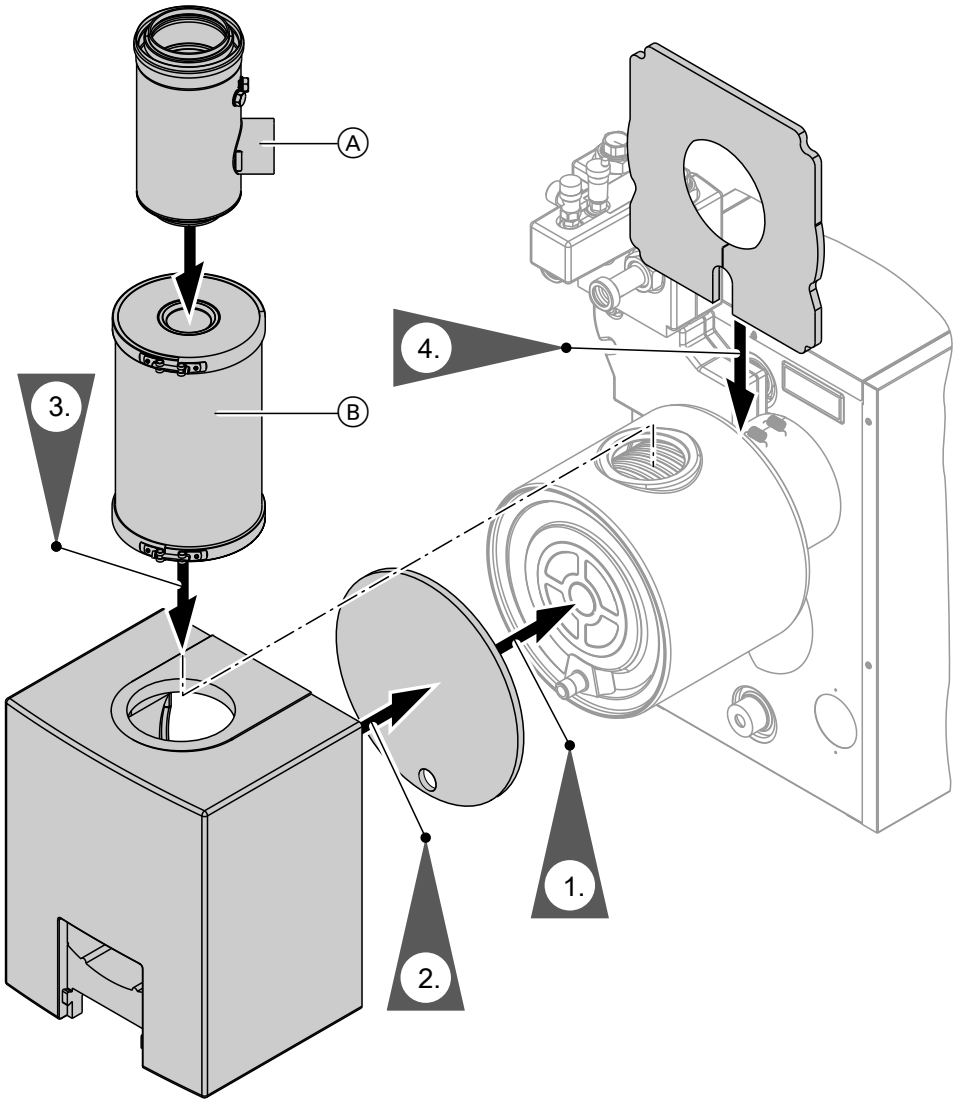


Fig.11

Ⓐ Boiler flue connection (accessory)
Only in balanced flue operation with coaxial balanced flue
Ⓑ Silencer (accessory)

Fitting the heat exchanger to the boiler (cont.)

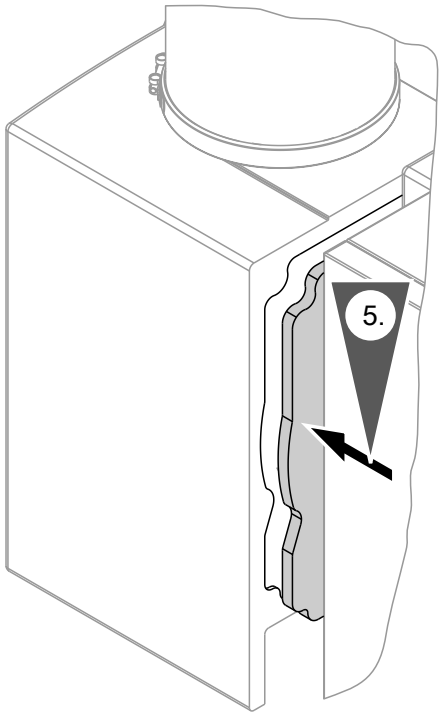


Fig.12

Press the thermal insulation mat into the heat exchanger thermal insulation casing.

Fitting the heat exchanger to the boiler (cont.)

Pipework

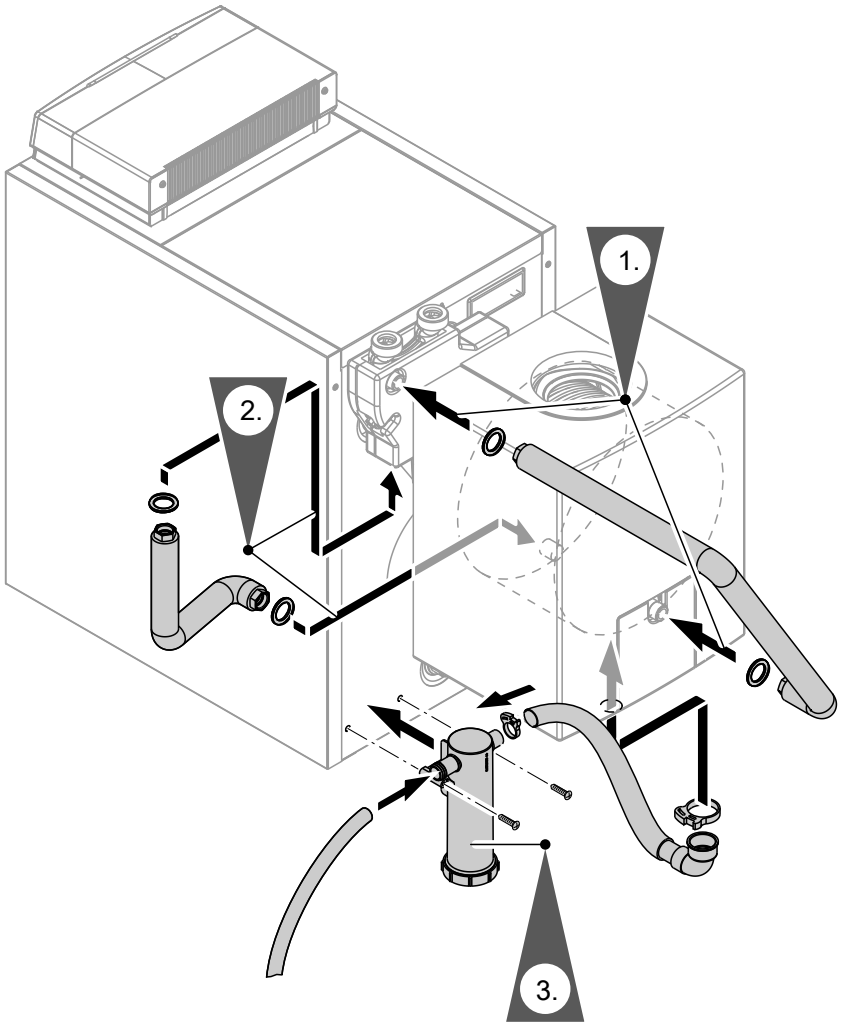


Fig.13

- Manually bend flexible pipe into the required shape.
- Fit all connections on the heating water side with matching flat gaskets.
- Tighten the fittings with a torque of 15 Nm.
- Seal the opening in the heat exchanger thermal insulation with the cover provided.

Note
Never grease or oil the siphon fitting and gaskets.

Condensate connection

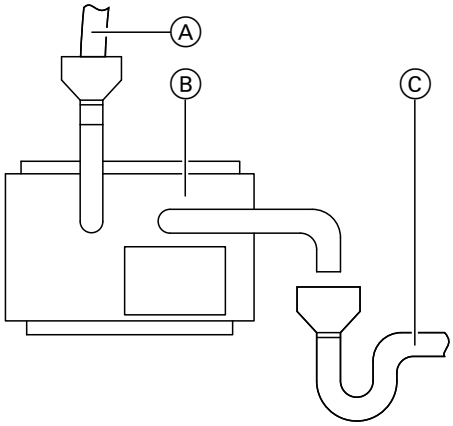


Fig.14

Ⓐ Inlet from the boiler
Ⓑ Neutralising system or active charcoal filter
Ⓒ Drain to the public sewage system

Connect the condensate pipe to the public sewage system by the shortest route, with a constant fall and a pipe vent. Install a neutralising system if required.

Note

- *ATV-DVWK-A 251 permits boiler use without a neutralising system when operating with low sulphur fuel oil DIN 51605-EL-1 (sulphur content ≤ 50 mg/kg).*
- *If no neutralising system is connected, use the active charcoal filter (accessory).*

Connections on the heating water side

Flow and return

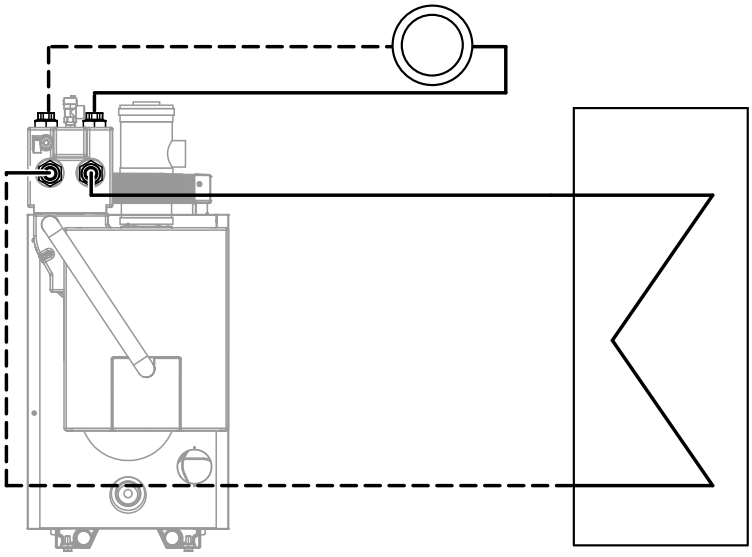


Fig.15

The flow and return pipes with the heat exchanger connection are fitted to the boiler.
Connect all consumers, so that the heat exchanger will receive a heating water flow under all operating conditions.

Note

- *Connect the heating circuits and DHW cylinder to the common flow and return.*
- *Never connect any consumers to the remaining connectors available at the back of the boiler.*

Filling connection

Fill the system via the fill valve at the safety equipment block (accessory) or via the on-site connection in the return.

Making the safety connections

Permiss. operating pressure:	3 bar (0.3 MPa)
Test pressure:	4 bar (0.4 MPa)

Minimum cross-sections
- Safety valve inlet connection
  20.2 to 53.7 kW: DN 15 (R ½)
- Safety valve discharge pipe
  20.2 to 53.7 kW: DN 20 (R ¾)
- Pipe to the expansion vessel
  20.2 kW: DN 12 (R ½)
  24.6 to 53.7 kW: DN 20 (R ¾)

Low water indicator
Tests have verified that the low water indicator specified by EN 12828 is not required.

Note
Equip boilers with a safety valve that is type-tested to TRD 721 [or local regulations] and is marked according to the system version.

Fitting the safety equipment block (accessory) and connecting the heating water side

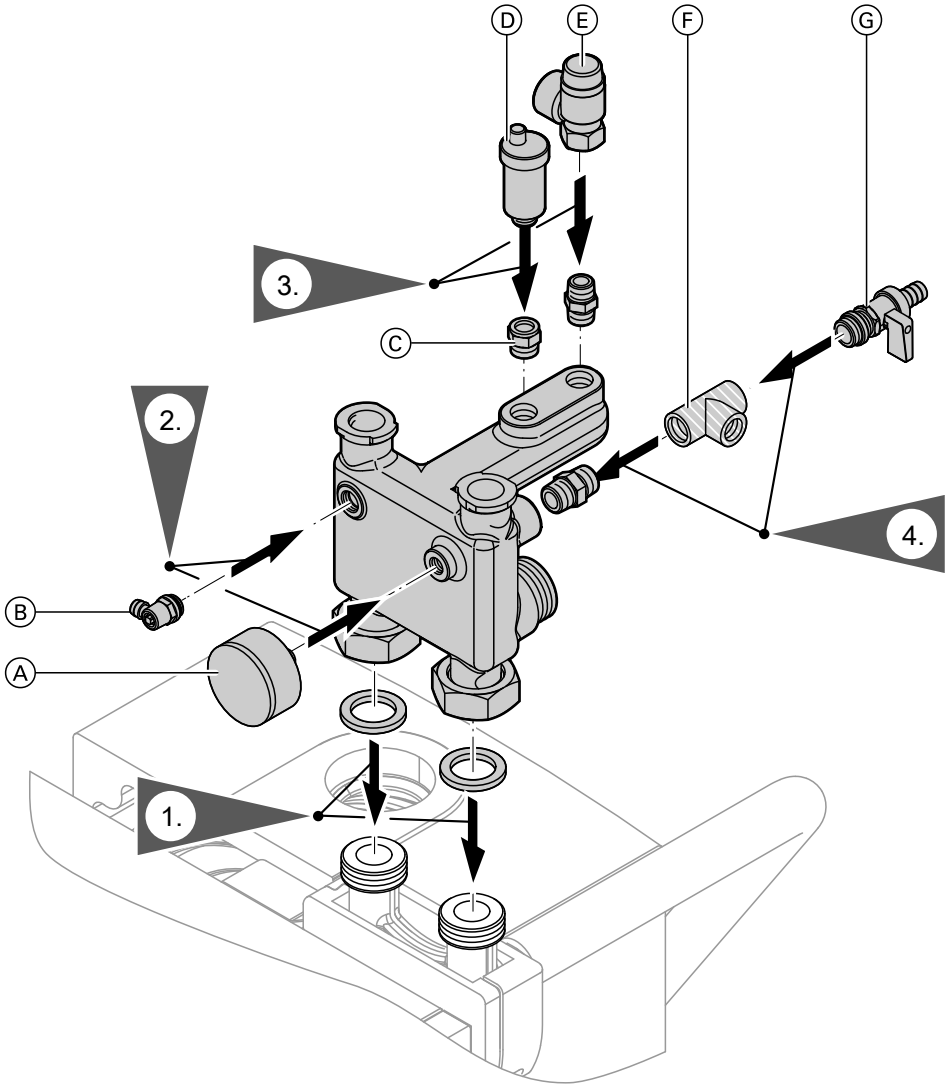


Fig.16

Ⓐ Pressure gauge
Ⓑ Air vent valve
Ⓒ Automatic shut-off valve
Ⓓ Quick-action air vent valve
Ⓔ Safety valve
Ⓕ Tee Rp ½ (if the expansion vessel is to be fitted here)
Ⓖ Boiler fill valve

5624 305 GB

Fitting the safety equipment block (accessory)… (cont.)

Note
Counterhold the safety equipment block when tightening the fittings.

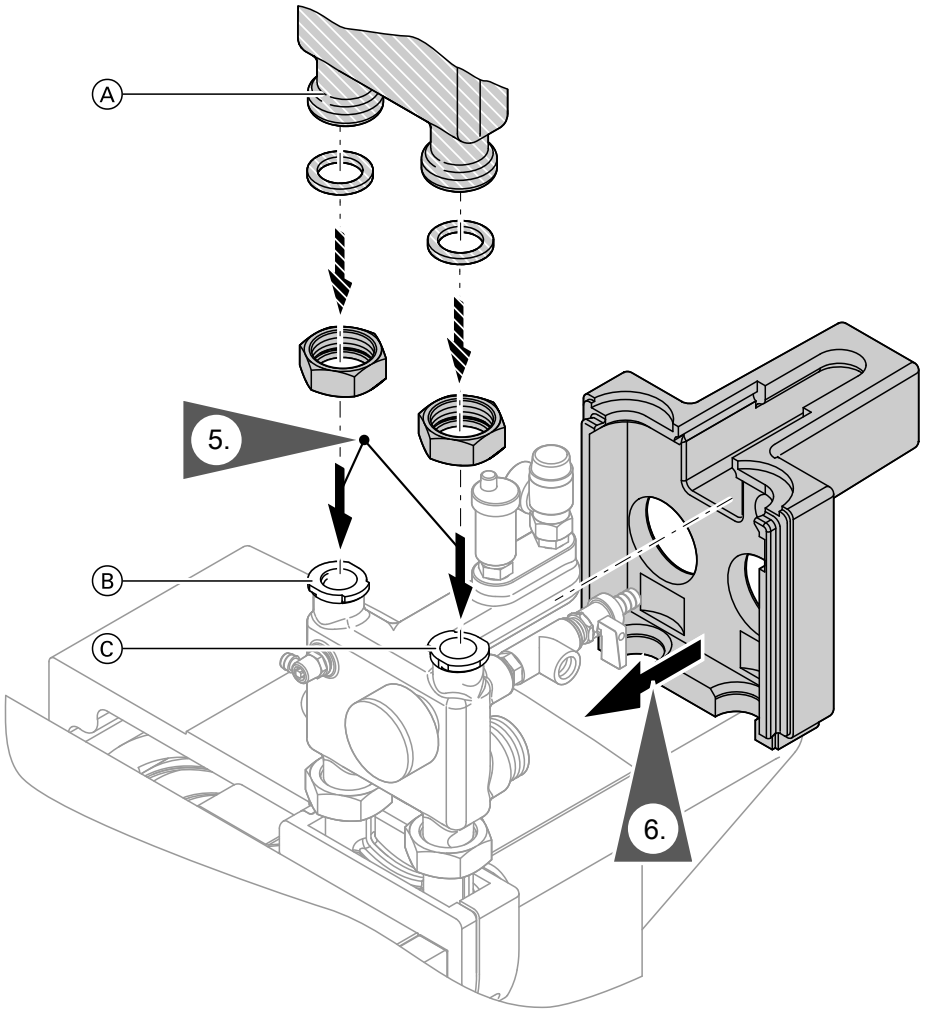


Fig.17

Ⓐ Heating circuit connections with fittings or Divicon heating circuit distributor (accessory)
Ⓑ Heating flow
Ⓒ Heating return

Fitting the safety equipment block (accessory)… (cont.)

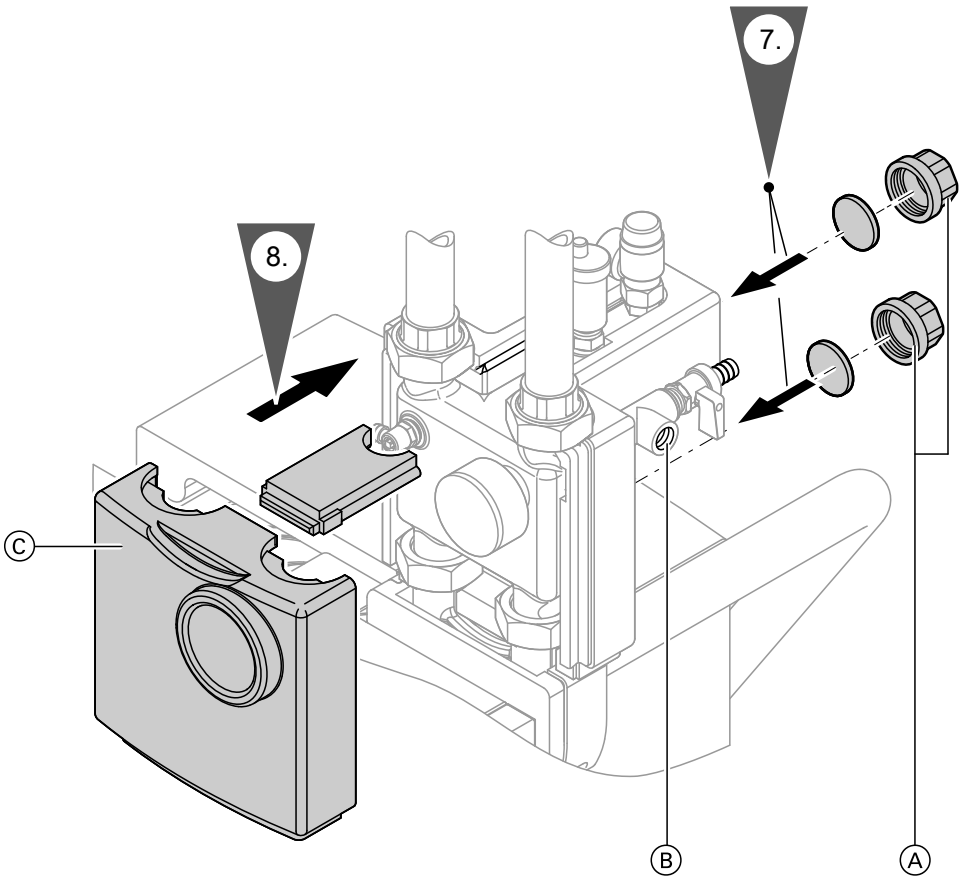


Fig.18

Ⓐ Caps G 1½ (if no DHW cylinder is to be connected)
Ⓑ Expansion vessel connection

Note
Fit front thermal insulation Ⓒ only after the system has been charged and tested for leaks.

Service instructions

Making the electrical connections

! **Please note**
Damaged capillary tubes will result in faulty sensor function.
Never kink the capillary tubes.

For opening the control unit and its connections, see the boiler control unit installation instructions

Note
- *Power supply plug 40 is packed together with the parts for mounting the control unit and can be found below the top panel of the boiler thermal insulation.*
- *Contrary to the statement in the control unit installation instructions, the coding card is already fitted at the factory.*

! **Please note**
Cables/leads can be damaged by hot components.
Cables/leads must not come into contact with any hot components once installation work has been completed.

- Bundle and route 230 V cables Ⓐ and LV leads Ⓑ **separately**.
- **Secure** all cables with the cable ties supplied.
- Use cable ties (snap hooks) to secure the burner cable at hole Ⓒ on the **inside** of the side panel; which side panel depends on whether the burner is fitted on the right or left.

20.2 and 24.6 kW

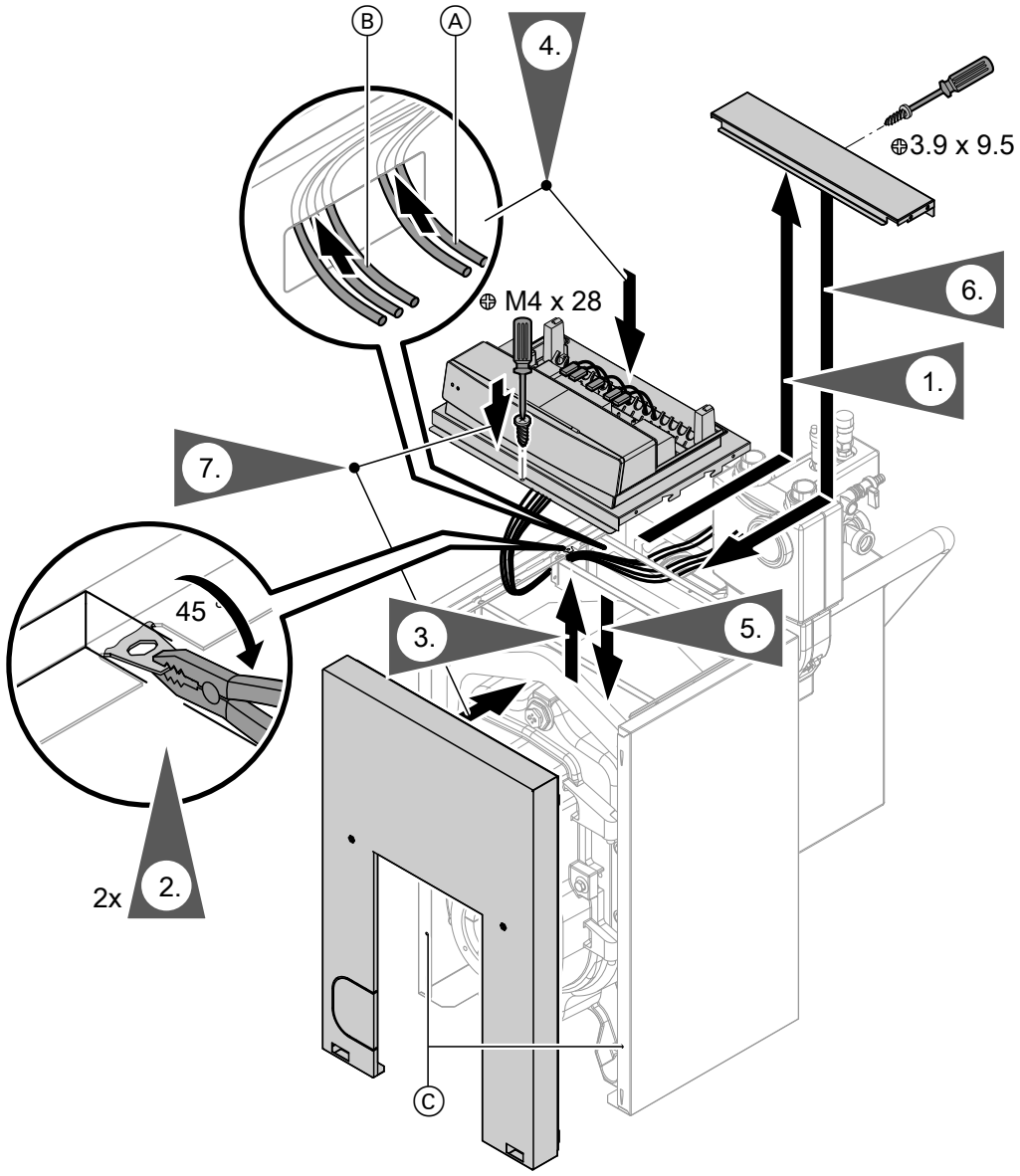


Fig.19

Ⓐ 230 V cables
Ⓑ LV leads
Ⓒ Holes for securing the burner cable

Making the electrical connections (cont.)

28.9 to 53.7 kW

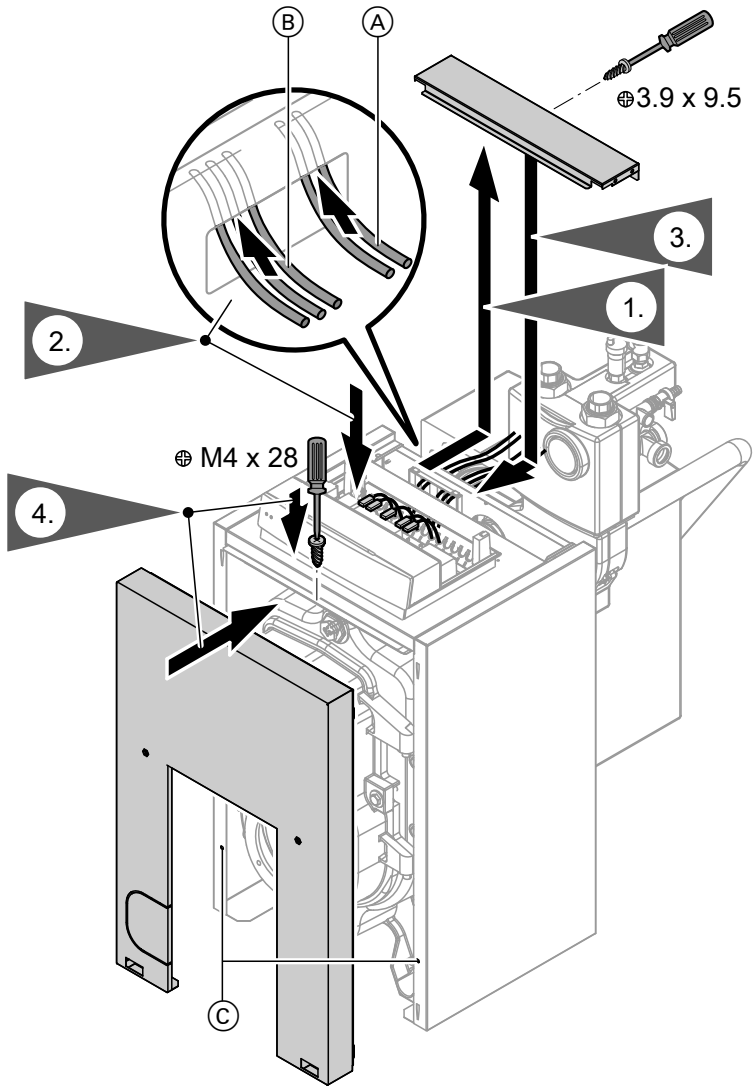


Fig.20

Ⓐ 230 V cables
Ⓑ LV leads
Ⓒ Holes for securing the burner cable

Mounting the burner

Separate burner documentation

Commissioning and adjustment

Service instructions for boiler, burner and boiler control unit

5624 305 GB

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