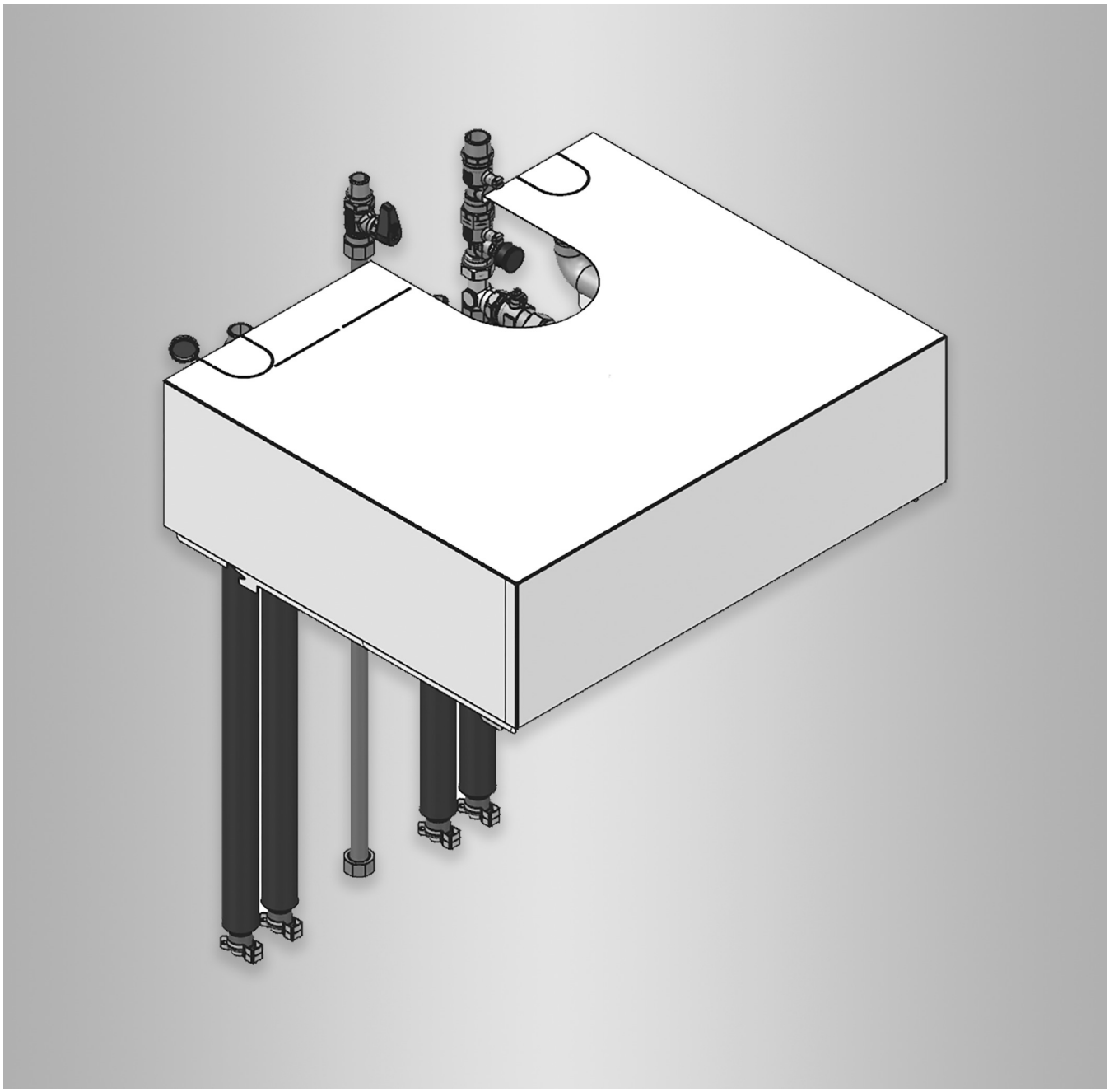
Installation and service instructions

for contractors

Assembly kit

With connection set for surface mounting

Assembly kit



5863774 GB 6/2021

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

Regulations to be observed

- National installation regulations
- Statutory regulations for the prevention of accidents
- Statutory regulations for environmental protection
- Codes of practice of the relevant trade associations
- Relevant country-specific safety regulations

Working on the system

- Where gas is used as the fuel, close the main gas shut-off valve and safeguard it against unintentional reopening.
- 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.
- Wear suitable personal protective equipment when carrying out any work.

Danger
Hot surfaces and fluids can lead to burns or scalding.
- Before maintenance and service work, switch off the appliance and let it cool down.
- Never touch hot surfaces on the boiler, burner, flue system or pipework.

Please note
Electronic assemblies can be damaged by electrostatic discharge.
Prior to commencing work, touch earthed objects such as heating or water pipes to discharge static loads.

Repair work

Please note
Repairing components that fulfil a safety function can compromise the safe operation of the system.
Replace faulty components only with genuine Viessmann spare parts.

Spare parts lists

Information about spare parts can be found at **www.viessmann.com/etapp** or in the Viessmann spare part app.

Download on the App Store

GET IT ON Google Play

Installation information

After installation of the assembly kit, the Vitodens **no longer** meets the requirements of protection rating IP X4 in accordance with EN 60529.
In combination with the assembly kit, the new protection rating of the Vitodens is IP X1 in accordance with EN 60529.

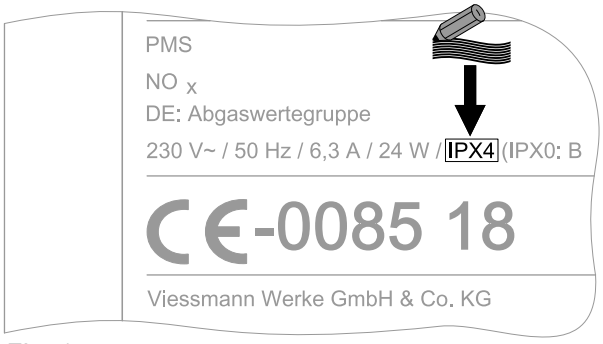


Fig. 1

Cross out protection rating IP X4 on the type plate of the Vitodens.

Mounting the connection set

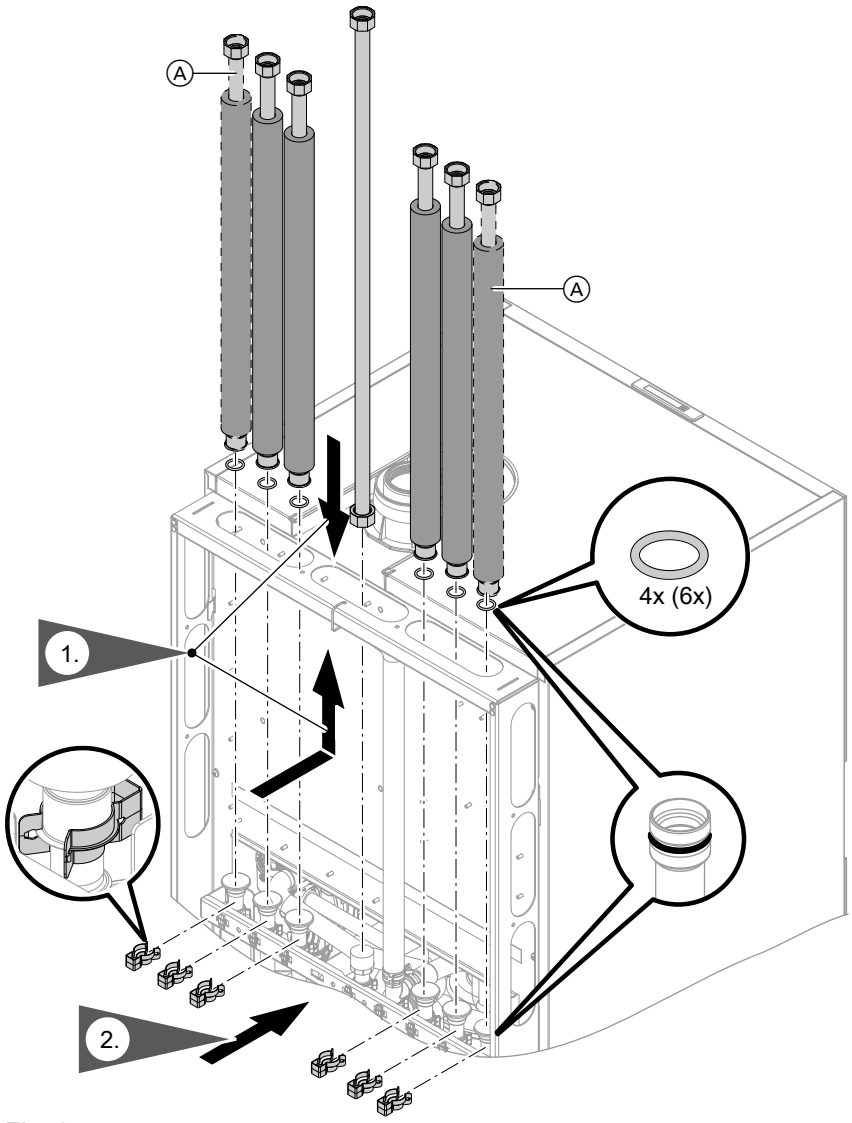


Fig. 2

Note on step 1
The pipes can be inserted from above or from behind.

Note
Ⓐ: Only for boilers with solar connection

Mounting the connection set (cont.)

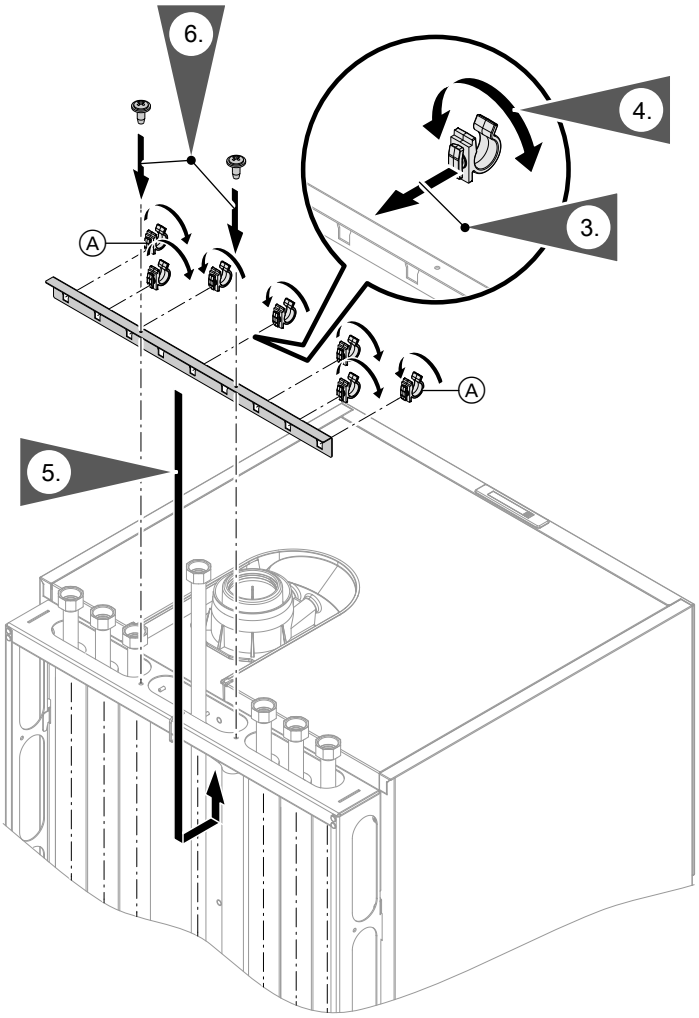


Fig. 3

Note
Ⓐ: Only for boilers with solar connection

Removing the front panels

Vitodens installation and service instructions

Fitting the assembly kit

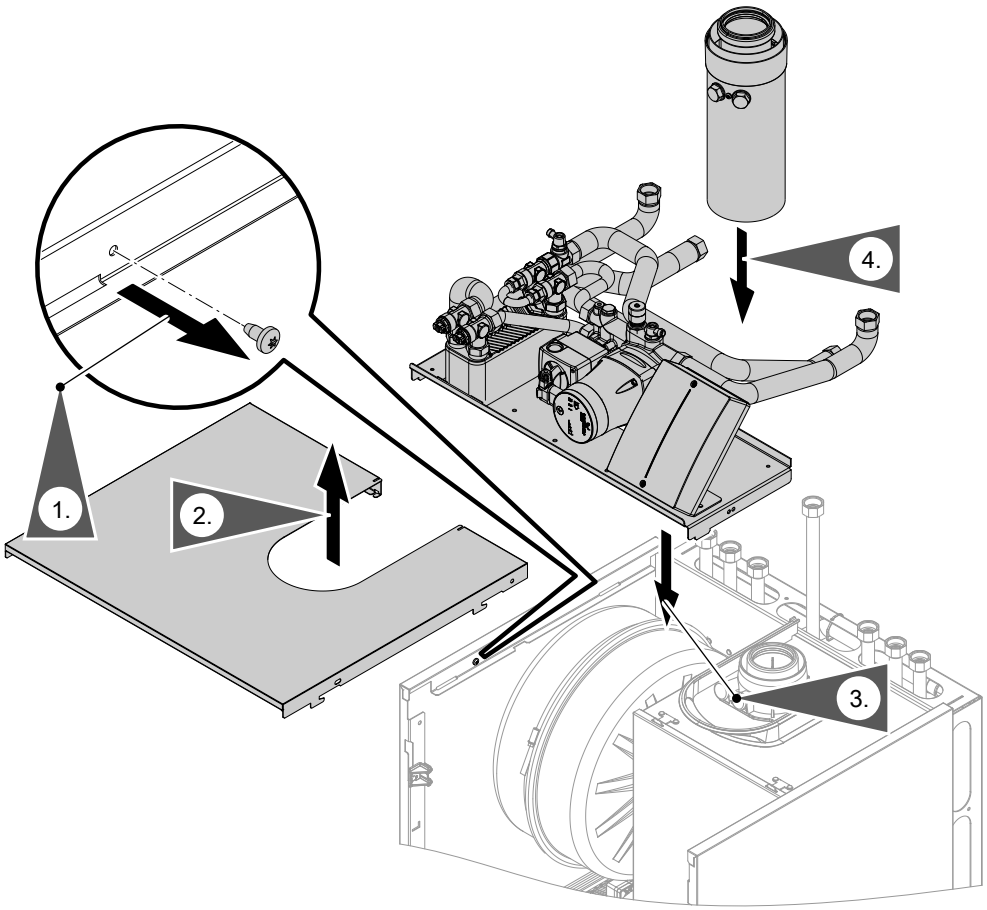


Fig. 4

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Fitting the assembly kit (cont.)

Connections on the DHW side and gas connection

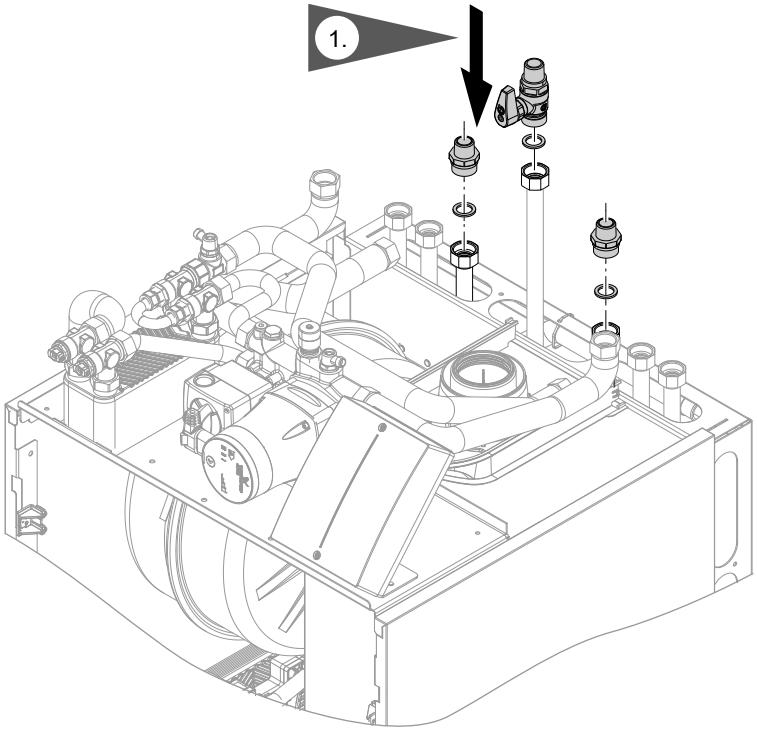

Fig. 5

Note on torque
30 Nm for all fittings. Counterhold with a suitable tool when tightening.

Fitting the assembly kit (cont.)

Connections on the heating water side

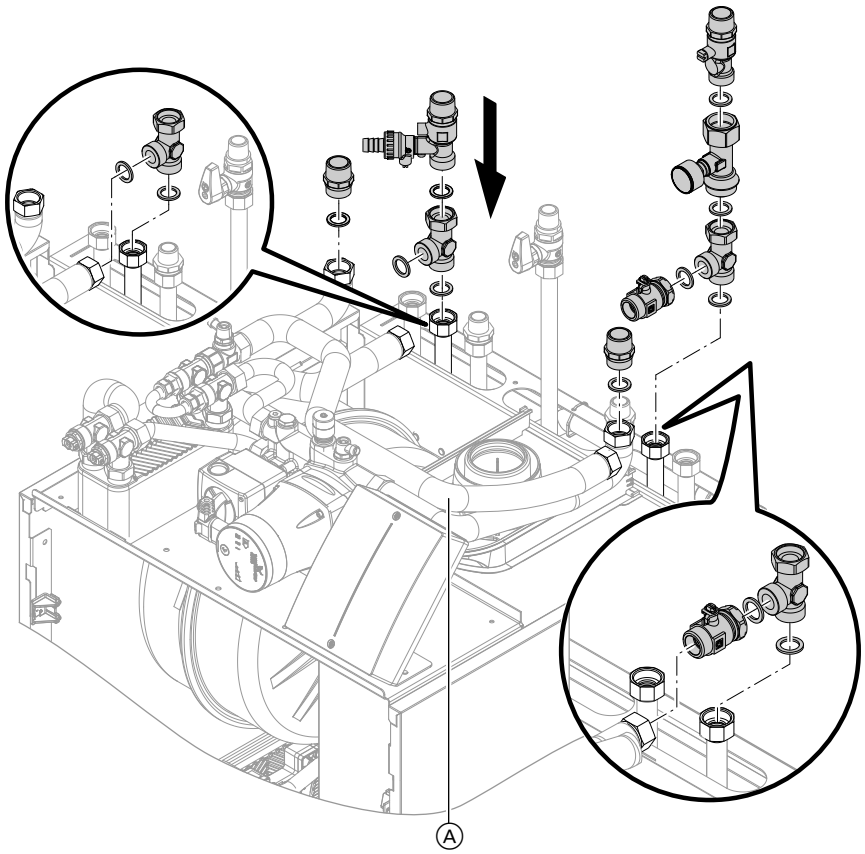

Fig. 6

Note on torque
30 Nm for all fittings. Counterhold with a suitable tool when tightening.

If the line regulating valve (accessories) is to be installed: Install the line regulating valve with connection pipes instead of connection pipe Ⓐ.

Line regulating valve installation instructions

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Fitting the assembly kit (cont.)

Connections on the solar side (only for boilers with solar connection)

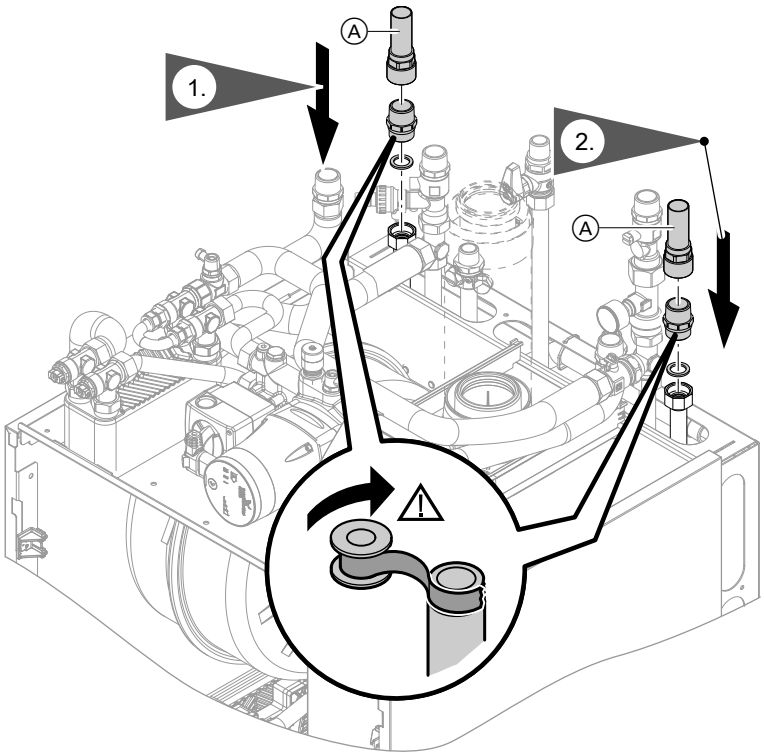

Fig. 7

Ⓐ Connection either R ¾ or Ø 22 mm smooth pipe

Note on torque
30 Nm for all fittings. Counterhold with a suitable tool when tightening.

Connecting the heating circuits

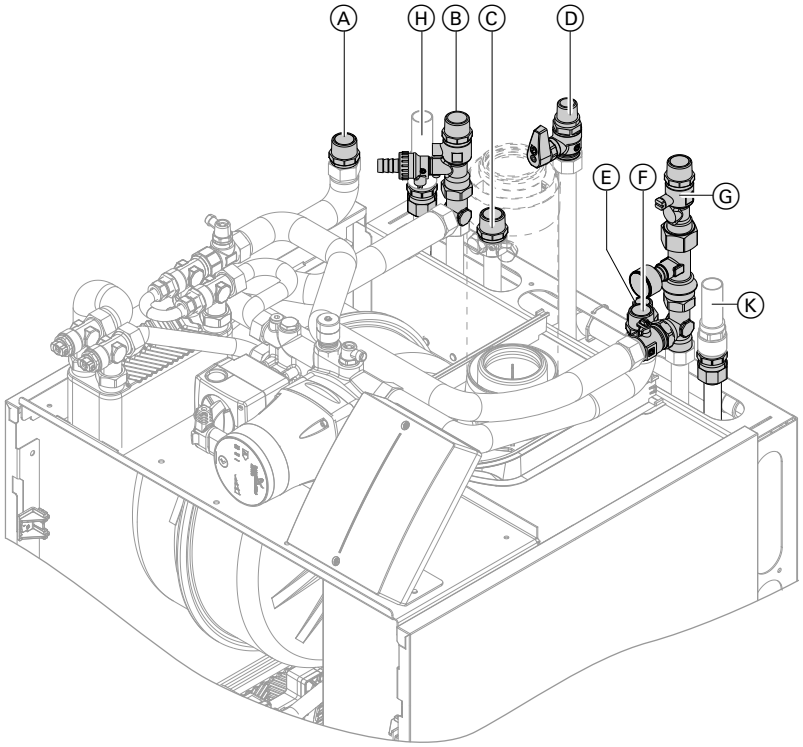

Fig. 8

Ⓐ Heating water flow, heating circuit with mixer R ¾
Ⓑ Heating water flow, heating circuit without mixer R ¾
Ⓒ DHW R ½
Ⓓ Gas connection R ½

Only for boilers with solar connection:
Ⓗ Solar return R ¾ or Ø 22 mm smooth pipe
Ⓚ Solar flow R ¾ or Ø 22 mm smooth pipe

Note on torque
Connections with thread R ½ = 25 Nm
Connections with thread R ¾ = 30 Nm
Counterhold with a suitable tool when tightening.

Ⓔ Cold water R ½
Ⓕ Heating water return, heating circuit with mixer R ¾
Ⓖ Heating water return, heating circuit without mixer R ¾

Information regarding the heating circuit with mixer
Install a drain & fill valve on site in the heating circuit with mixer.
The expansion vessel integrated into the boiler can also be used for the heating circuit with mixer.
Check whether the size of the integral expansion vessel is adequate for the connected heating circuits.

Maximum temperature limiter in the underfloor heating circuit

Fit the maximum temperature limiter to the on-site heating flow line at least 1 m downstream of the circulation pump.

Separate installation instructions

Connecting heating circuits with permeable pipework

Seal off the volume balancing line between both heating circuits when connecting heating systems with permeable pipework (DIN 4726).

Note
Install a separate expansion vessel in the regulated heating circuit if the volume balancing line has been closed.

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Connecting the heating circuits (cont.)

Removing the volume balancing line

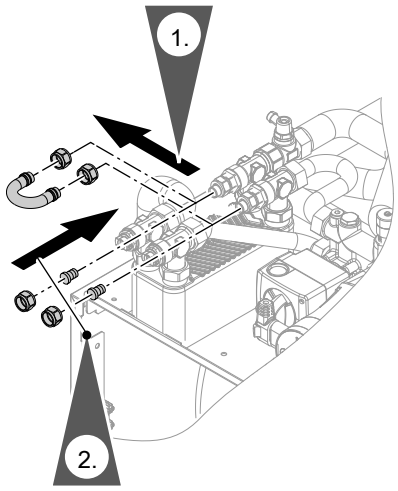

Fig. 9

1. Undo the union nuts and remove the balancing line and locking rings.
2. Seal the connections with the plugs and union nuts supplied.
   Lubricate the O-rings with the valve grease supplied.

Electrical connections

Connecting the mixer control to the heat generator control unit

Connection to the heat generator control unit:

Heat generator installation and service instructions

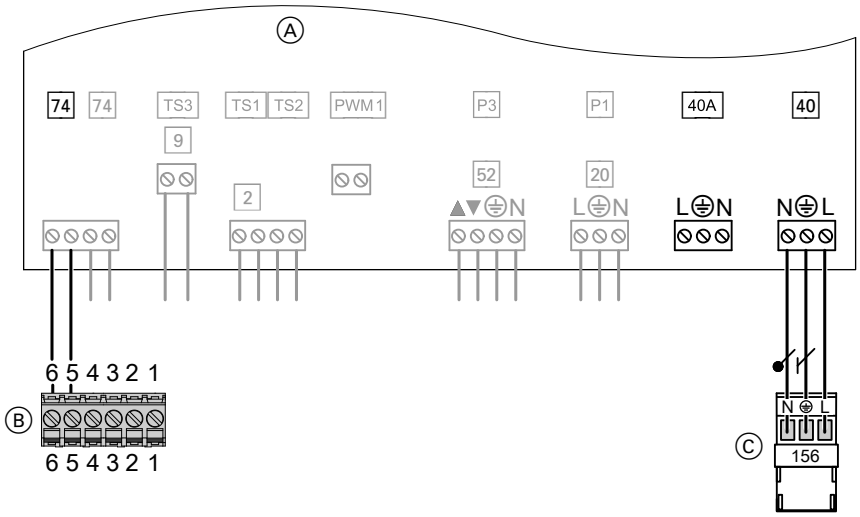

Fig. 10

Ⓐ Mixer extension kit
- 40 Power supply
- 74 PlusBus

Ⓑ External plug on the heat generator

Ⓒ Wiring chamber for heat generator control unit
- 156 Plug for power supply to accessories in the heat generator control unit

Electrical connections (cont.)

1. Create the power supply connection.
Route the power cable through the grommet to the heat generator control unit and connect to plug 156.
If power is supplied to a further accessory, use plug 40A provided

Heat generator installation and service instructions

Danger
Incorrect core assignment can result in serious injury and damage to the appliance.
Take care not to interchange wires "L1" and "N".

2. Create the PlusBus connection.
Disconnect one plug from the supplied cable. Connect the wires to terminals 5 and 6 of the external plug on the heat generator.

Note
PlusBus cores are interchangeable.

Heat generator installation and service instructions

Rotary switch S1

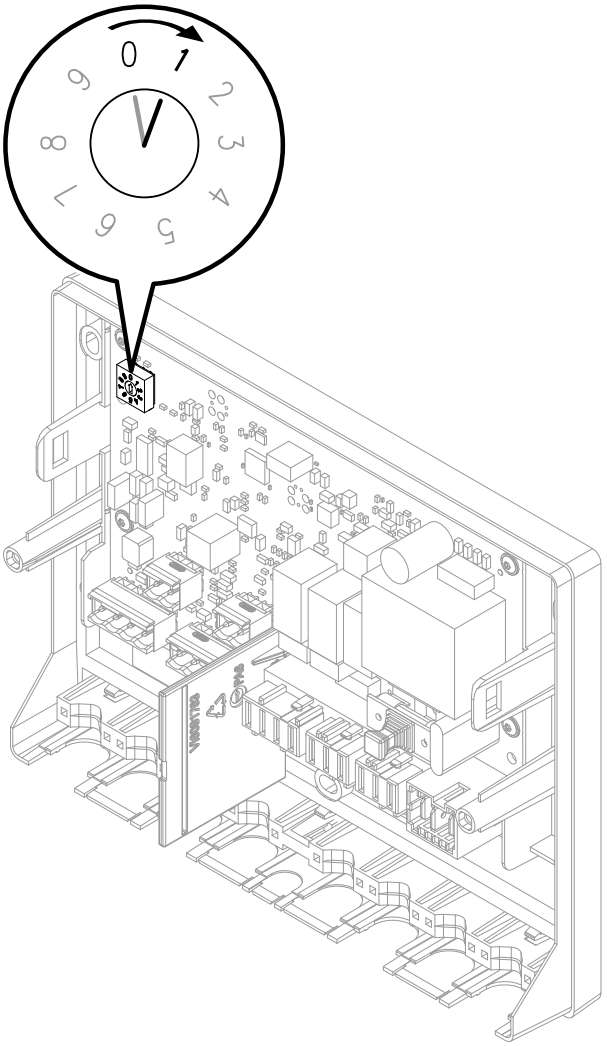

Fig. 11

If several mixer extension kits are being connected, set rotary switch S1.

Set the rotary switch on each extension kit to a consecutive number:
- Heating circuit with mixer M2: Rotary switch to 1
- Heating circuit with mixer M3: Rotary switch to 2
- Heating circuit with mixer M4: Rotary switch to 3
- With EM-P1 extension connected: Rotary switch to 4
  Note
  Always set the EM-P1 extension subscriber number to a consecutive number after the EM-M1 or EM-MX extensions.

Connecting the maximum temperature limiter or controller to the mixer control

Separate installation instructions

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Commissioning and adjustment

Filling and commissioning the heating system

Boiler service instructions

Danger
Escaping gas leads to a risk of explosion.
Check all gas connections for tightness.

Position of switch at the mixer

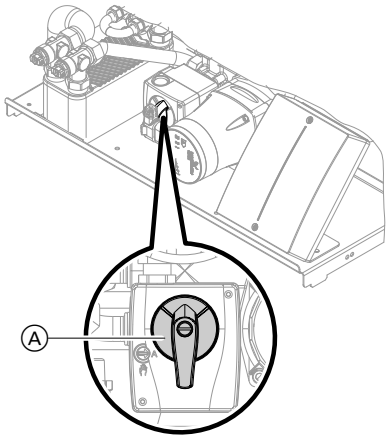

Fig. 12

Rotary selector Ⓐ on the mixer servomotor must be set to automatic (arrow towards "A"). In the event of mixer control faults, turn the rotary selector to ✋ and adjust the mixer manually (emergency mode).

Adjusting the flow rate

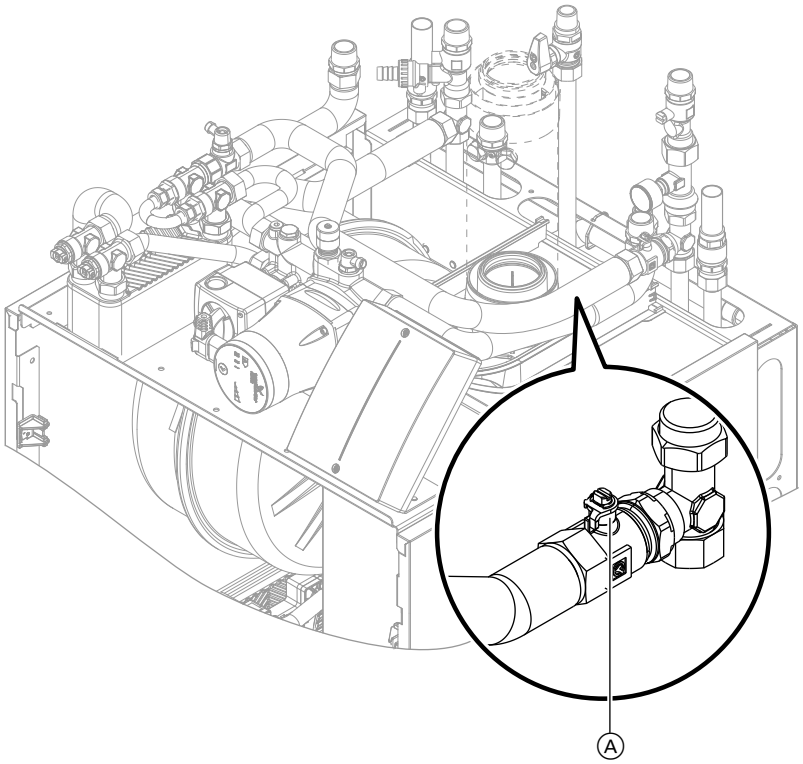

Fig. 13

1. Adjust the flow rate at ball valve Ⓐ or at the line regulating valve (if installed; accessory).
2. Check the set flow rate at the line regulating valve (if installed).

Adjusting the bypass

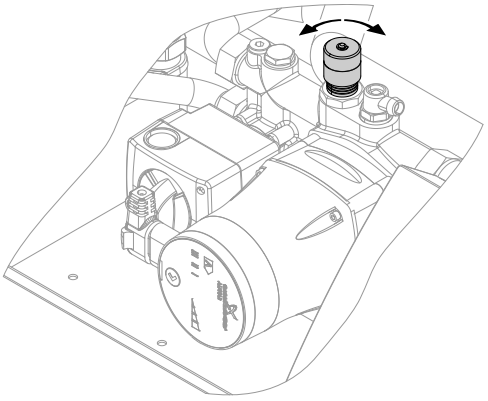

Fig. 14

A bypass is integrated into the heating circuit with mixer. In the delivered condition, the bypass is closed. If required, open the bypass to minimise temperature peaks (turn anti-clockwise).

Fitting the casing

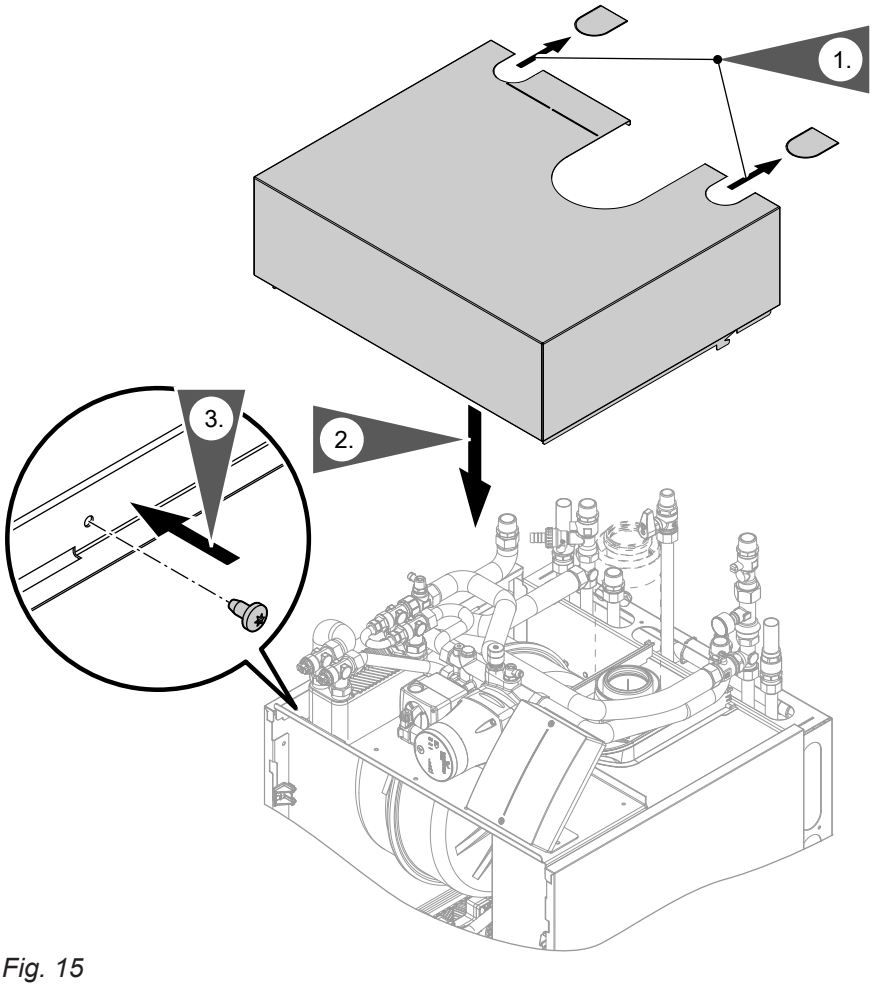

Fig. 15

Fitting the front panels

Vitodens installation and service instructions

Connection and wiring diagram

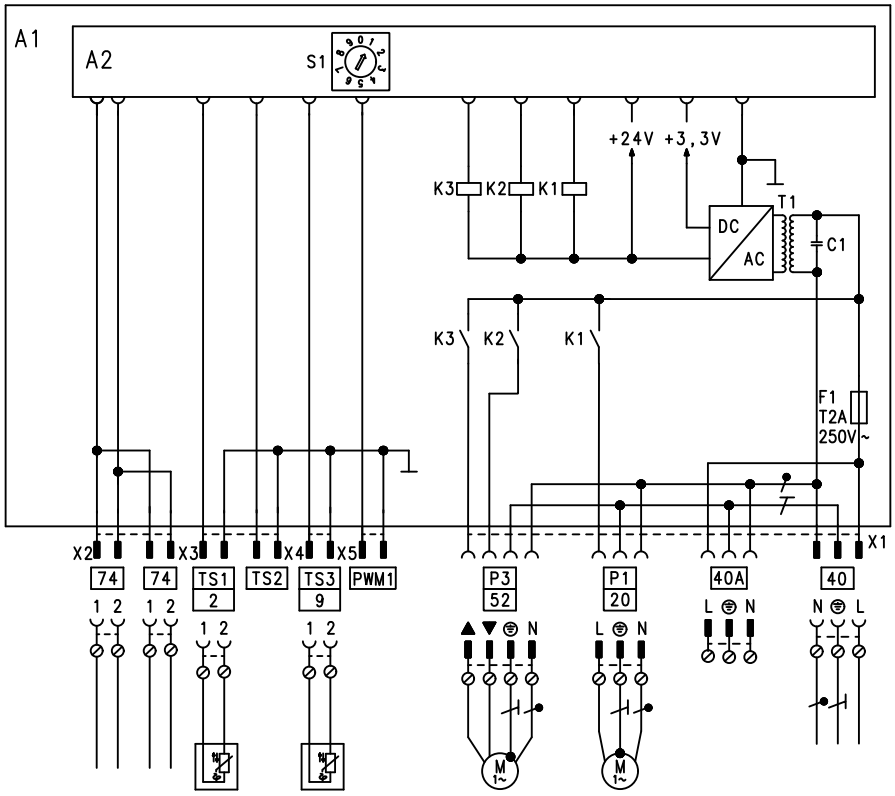

Fig. 16

A1 Mixer extension kit PCB
A2 PCB
F1 Fuse
S1 Rotary switch

230 V~ plugs
P1 [20] Heating circuit pump
P3 [52] Mixer motor
[40] Power supply 230 V/50 Hz
[40]A Power supply for accessories

LV plugs
PWM1 No function
TS1 [2] Flow temperature sensor
TS2 No function
TS3 [9] Temperature sensor, low loss header
[74] PlusBus connection for connecting to the heat generator and another accessory

Declaration of Conformity

We, Viessmann Werke GmbH & Co. KG, D-35107 Allendorf, declare as sole responsible body that the named product complies with the European directives and supplementary national requirements in terms of its design and operational characteristics.

Using the serial number, the full Declaration of Conformity can be found on the following website:
www.viessmann.co.uk/eu-conformity

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