

# Installation instructions

## for contractors

**VIESSMANN**

## Sub-mounting kit with thermostatic mixer

Heating circuit distributor for Vitopend 100-W, type WH1B  
and Vitodens 100-W, type WB1B

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### 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.

When using gas as fuel, also close the main gas shut-off valve and safeguard against unauthorised reopening.

Repairing components which fulfil a safety function can compromise the safe operation of your heating system. For replacements, use only original spare parts supplied or approved by Viessmann.

#### Note

*Details identified by the word "Note" contain additional information.*

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

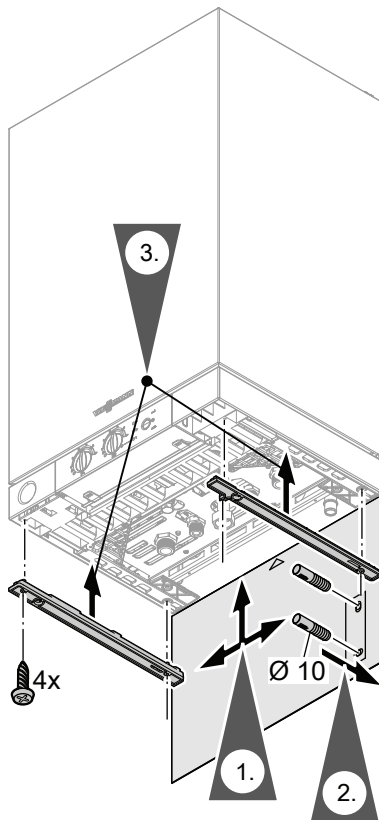
Before working on the equipment/heating system, isolate the power supply (e.g. by removing a separate mains fuse or by means of a mains isolator) and safeguard against unauthorised reconnection.

### Installation conditions

#### Note

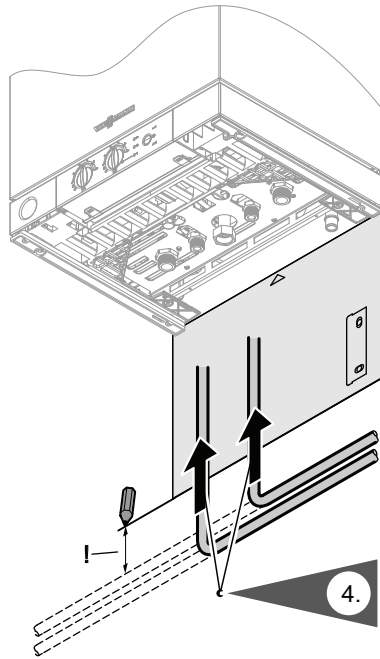
*A DHW cylinder cannot be connected below the boiler when a sub-mounting kit is used.*

## Fitting the sub-mounting kit



1. Align the drilling template with the bottom edge of the boiler.
2. Drill  $\text{Ø } 10$  mm holes and insert rawl plugs.
3. Attach the fixing rails underneath the boiler.

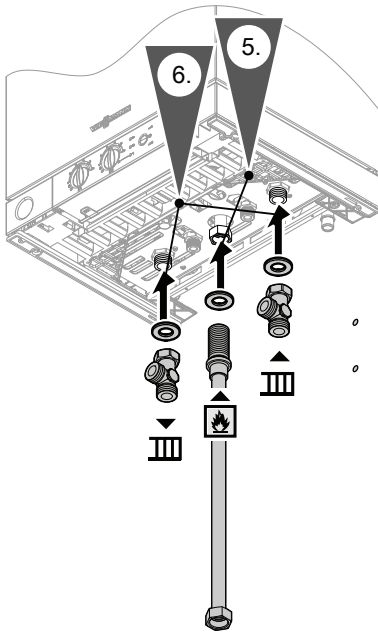
## Fitting the sub-mounting kit (cont.)



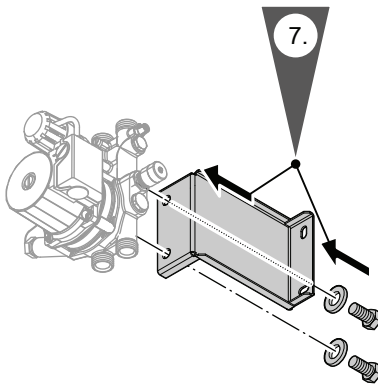
4. Only if a DHW cylinder is installed adjacent to the boiler:  
Route the connection lines to the DHW cylinder below the sub-mounting kit. Using the drilling template supplied, prepare the layout of the connection lines.



## Fitting the sub-mounting kit (cont.)

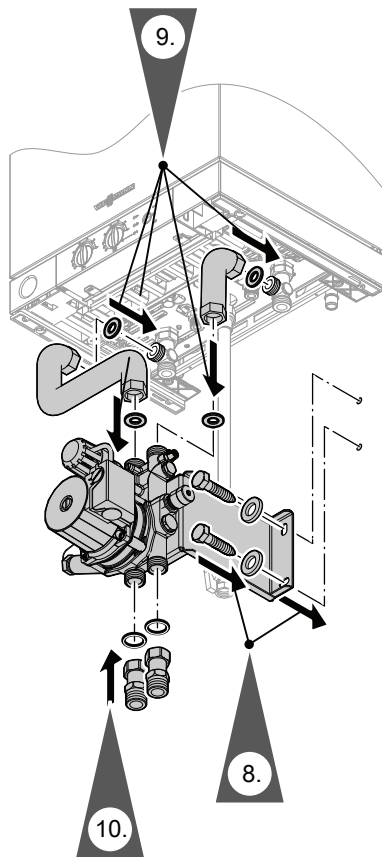


5. Secure the gas connection extension with gasket to the boiler.
6. Fit the R  $\frac{3}{4}$  tees with gaskets to the heating water flow and return.



7. Secure the mounting bracket to the mixer casing with the screws and washers supplied.

## Fitting the sub-mounting kit (cont.)



8. Secure the mixer casing to the wall with the screws and washers supplied.
9. Secure the corrugated pipes with gaskets to the heating water flow and return and the mixer casing.

**Note**

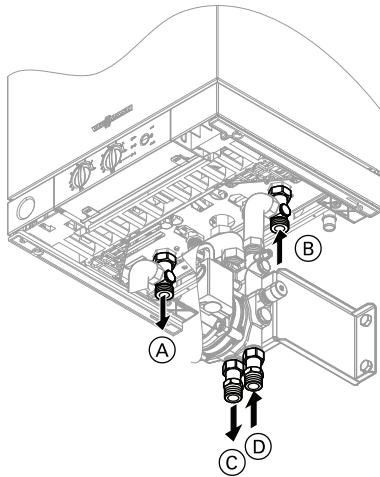
*For mounting balancing valves, see separate installation instructions.*

10. Secure G  $\frac{3}{4}$  - R  $\frac{3}{4}$  adaptors to the heating water flow and return at the mixer casing.

**Note**

*For mounting ball valves, see separate installation instructions.*

## Connecting the heating circuits



- Ⓐ Heating water flow, heating circuit without mixer G  $\frac{3}{4}$
- Ⓑ Heating water return, heating circuit without mixer G  $\frac{3}{4}$

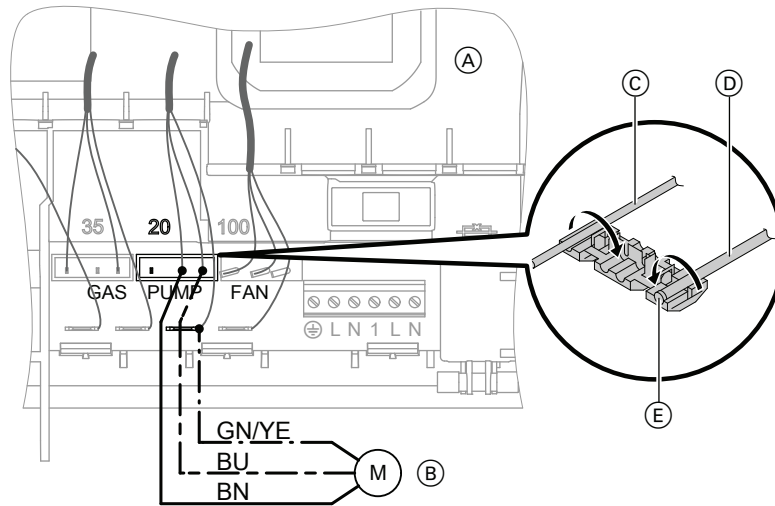
- Ⓒ Heating water flow, heating circuit with thermostatic mixer R  $\frac{3}{4}$
- Ⓓ Heating water return, heating circuit with thermostatic mixer R  $\frac{3}{4}$

1. Connect the regulated heating circuit to adaptors Ⓒ and Ⓓ at the mixer casing.
2. Connect the unregulated heating circuit to tees Ⓐ and Ⓑ at the boiler.

### **Information regarding the underfloor heating circuit**

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

## Connecting the circulation pump to the boiler control unit



- (A) Boiler control unit
- (B) Circulation pump in the sub-mounting kit
- (C) Internal circulation pump cable
- (D) Cable for circulation pump in the sub-mounting kit
- (E) End-stop

Connect the power cable supplied to the "PUMP" connection on the boiler control unit and the circulation pump.

Connect the BN and BU wires to the corresponding wires on the boiler control unit using the insulation displacement connectors supplied.

Insert wires from the circulation pump sub-mounting kit with end-stop (E) on each side.

Plug the GN/YE wire together with the GN/YE wire from the boiler control unit using a blade terminal.

Colour coding to DIN IEC 60757

BN Brown

BU Blue

GN/YE Green/yellow

## 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.

### Adjusting the flow temperature of the regulated heating circuit

Adjust the heating circuit at the rotary selector of the thermostatic mixer according to the following table.

Rotary selector setting	Flow temperature (approx.) of the regulated heating circuit in °C
*	25
1	30
2	35
3	40
4	45
5	50



## Commissioning and adjustment (cont.)

### Standard values for adjusting the regulated heating circuit

Boiler flow temperature: 65 °C

T <sub>F</sub> /T <sub>R</sub> regulated heating circuit in °C	Pressure drop of regulated heating circuit in		Heating output of regulated heating circuit in kW				Heating output of regulated heating circuit in kW			
			5	10	15	20	5	10	15	20
	bar	kPa	Level to be set for circulation pump in the regulated heating circuit				Required boiler flow rate (for regulated heating circuit) in l/h			
25/22	0.10	10	3	–	–	–	102	–	–	–
	0.15	15	3	–	–	–	102	–	–	–
	0.20	20	3	–	–	–	102	–	–	–
25/20	0.10	10	1	3	–	–	97	195	–	–
	0.15	15	2	3	–	–	97	195	–	–
	0.20	20	2	–	–	–	97	–	–	–
30/23	0.10	10	1	2	3	–	104	209	313	–
	0.15	15	1	3	–	–	104	209	–	–
	0.20	20	2	3	–	–	104	209	–	–
35/30	0.10	10	1	3	–	–	125	251	–	–
	0.15	15	2	3	–	–	125	251	–	–
	0.20	20	2	–	–	–	125	–	–	–
35/28	0.10	10	1	2	3	–	119	237	356	–
	0.15	15	1	3	–	–	119	237	–	–
	0.20	20	2	3	–	–	119	237	–	–
40/33	0.10	10	1	2	3	–	137	274	411	–
	0.15	15	1	3	–	–	137	274	–	–
	0.20	20	2	3	–	–	137	274	–	–
40/30	0.10	10	1	1	3	3	125	251	376	501
	0.15	15	1	2	3	3	125	251	376	501
	0.20	20	1	2	3	–	125	251	376	–
45/35	0.10	10	1	1	3	3	146	292	438	585
	0.15	15	1	2	3	3	146	292	438	585
	0.20	20	1	2	3	–	146	292	438	–
50/30	0.10	10	1	1	1	1	125	251	376	501
	0.15	15	1	1	1	2	125	251	376	501
	0.20	20	1	1	2	2	125	251	376	501

## Commissioning and adjustment (cont.)

### Example

Prescribed conditions:

- Boiler flow temperature: 65 °C
- TF/TR regulated heating circuit: 40/33 °C
- Heating output of regulated heating circuit: 10 kW (required flow rate: 1253 l/h)
- Pressure drop of regulated heating circuit (at required flow rate): 0.15 bar (15 kPa)

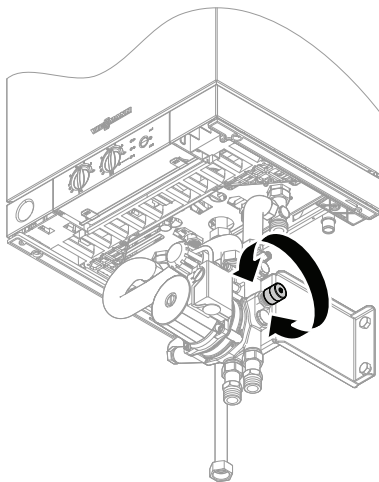
Values calculated from the table:

- Level to be set for the circulation pump in the regulated heating circuit: 3
- Required boiler flow rate for the regulated heating circuit: 274 l/h

### Note

*Balancing valves for both heating circuits are available as accessories.*

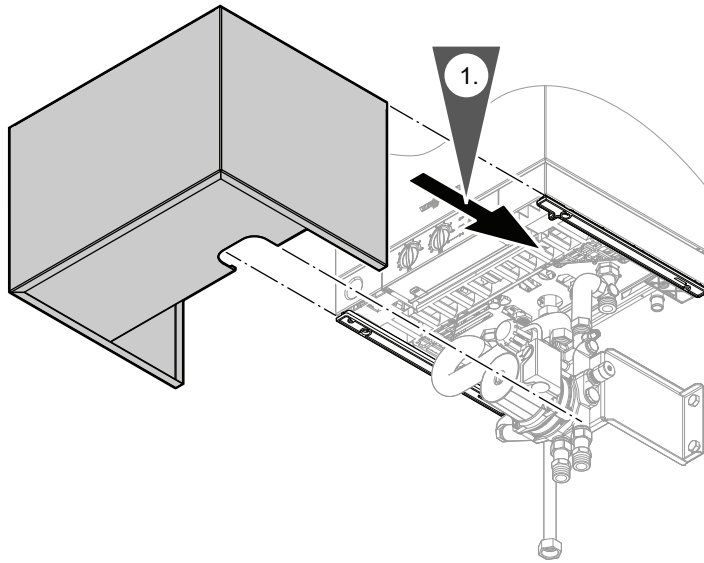
### Adjusting the bypass



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 (by turning it anti-clockwise).

## Commissioning and adjustment (cont.)

### Fitting the casing



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