

Connection set, DHW circulation pump

for Vitodens and Vitoladens

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.

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.

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.

Application information

- Vitodens 222-F, type FS2A, FS2B
- Vitodens 333-F, type FS3A, FS3B
- Vitodens 333-F, type FR3A, FR3B
- Vitoladens 333-F, type VP3T, VP3U

Making the electrical connections of the circulation pump

Vitodens 222-F, type FS2A and Vitodens 333-F, type FS3A and Vitodens 333-F, type VP3T

Connect the DHW circulation pump to the external extension H1 or H2.



Installation instructions, external extension

Vitodens 222-F, type FS2B, Vitodens 333-F, type FS3B and Vitodens 333-F, type VP3U

Connect the DHW circulation pump to extension AM1 or EA1.



Installation instructions, extension

Vitodens 333-F, type FR3A and type FR3B

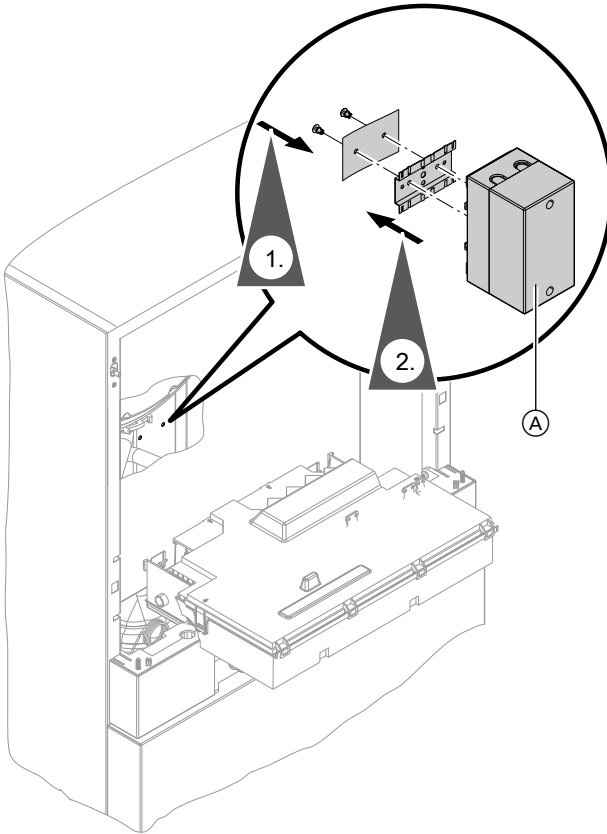
Connect the DHW circulation pump to the internal extension inside the boiler control unit.



Boiler installation instructions

Making the electrical connections of the... (cont.)

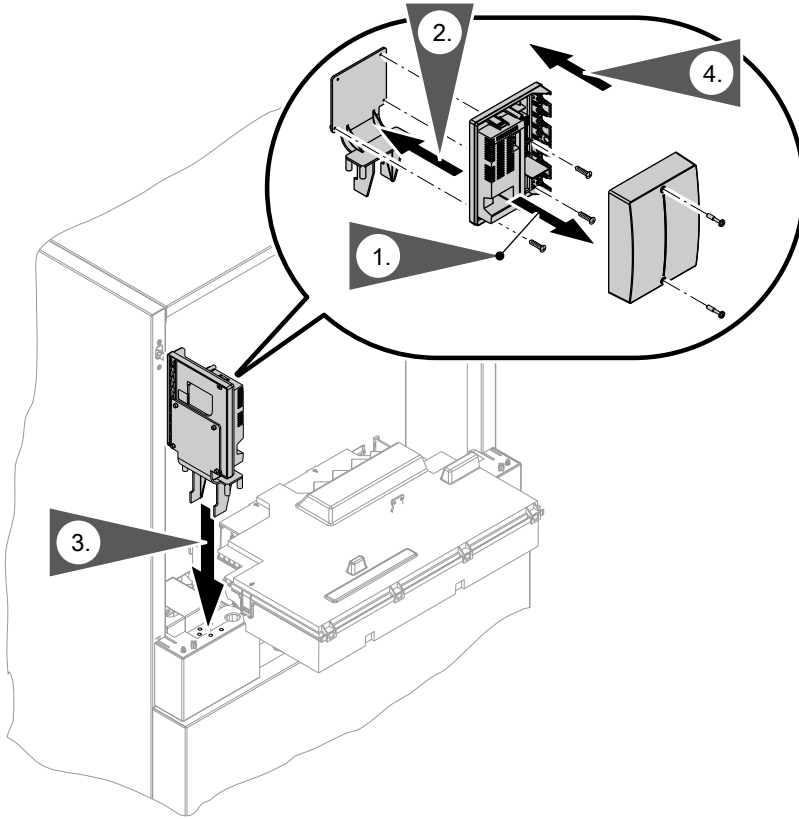
Fitting external extension H2



The external extension H2 (A) can be fitted inside the boiler.

Making the electrical connections of the... (cont.)

Fitting extension AM1 or EA1



Secure extension AM1 or EA1 to the retainer supplied.

Fitting the connection set

Fit plastic sleeve (A) in the following boilers:

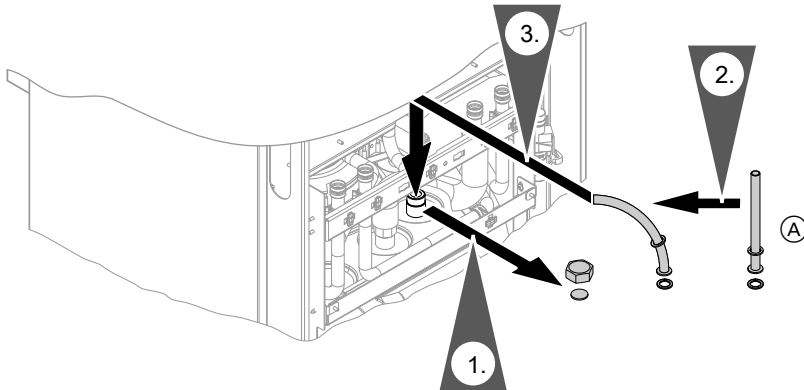
- Vitodens 222-F, type FS2A
- Vitodens 333-F, type FR3A
- Vitoladens 333-F, type VP3T



Please note

Do not fit plastic sleeve (A) in the following boilers:

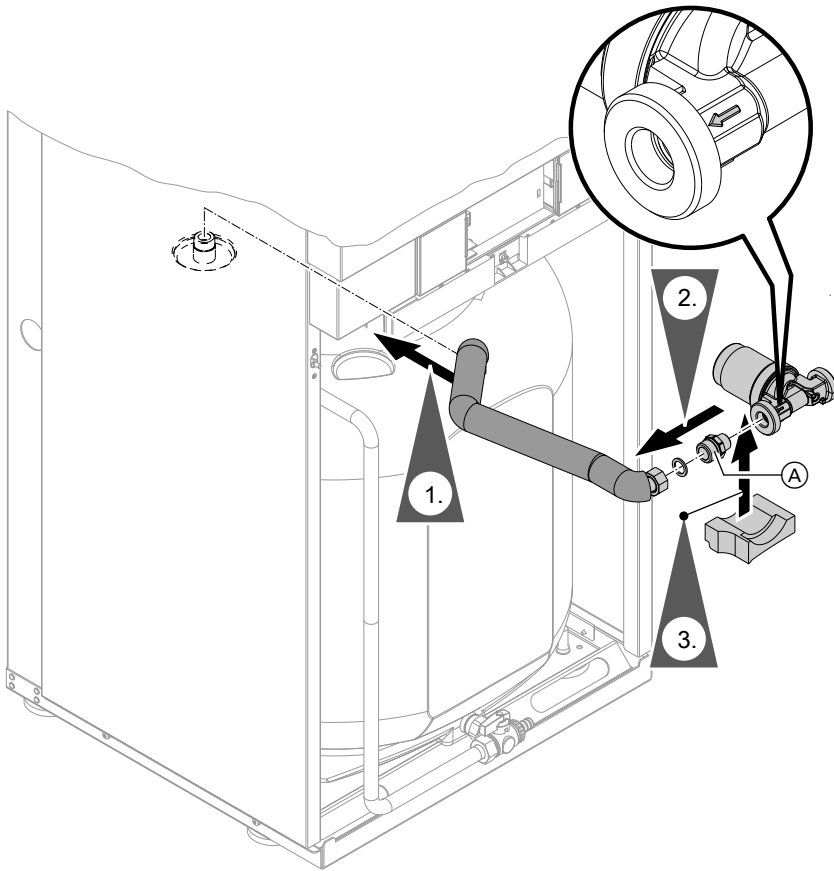
- Vitodens 222-F, type FS2B
- Vitodens 333-F, type FS3A
- Vitodens 333-F, type FR3B
- Vitoladens 333-F, type VP3U



Note

Step 2: Bend the plastic sleeve (A) carefully; do not kink it.

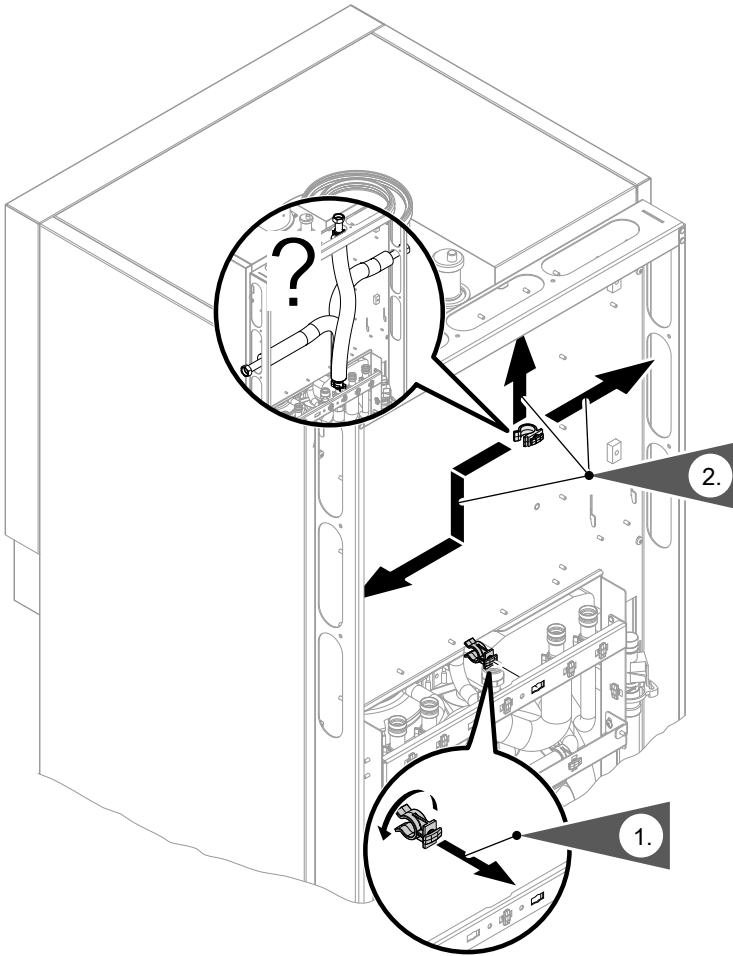
Fitting the connection set (cont.)



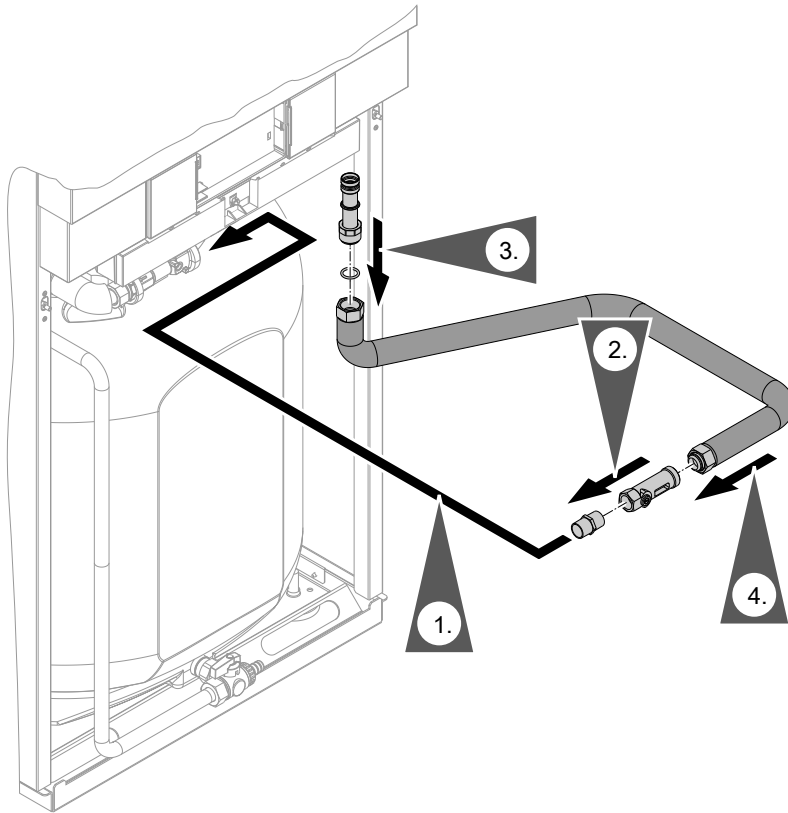
Note

Here, install the **shorter** of the two twin nipples (A).

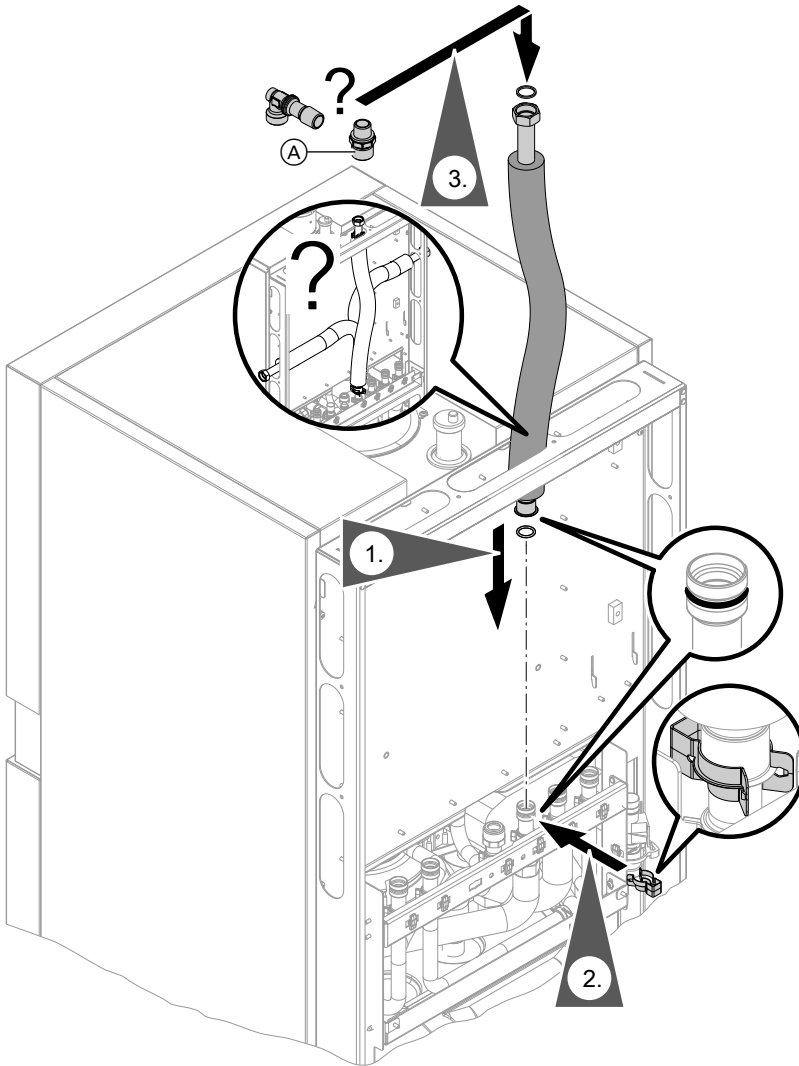
Fitting the connection set (cont.)



Fitting the connection set (cont.)



Fitting the connection set (cont.)



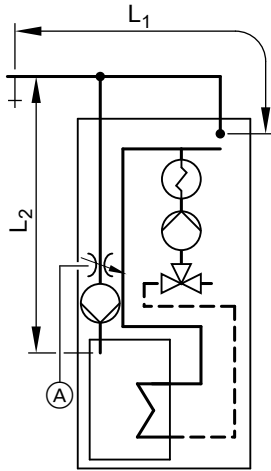
Note

Here, install the longer of the two twin nipples **A**.

Adjusting the circulation volume

According to EN 806, the line volume inside the DHW circulation line should be circulated three times per hour to prevent excessive cooling.

The flow rate is adjusted at flow regulating valve (A).



Calculating the required circulation volume V_p (volume of the total DHW circulation and supply line):

Line volume of copper pipe:

Int. diameter DN	Line volume VL l/m
12	0.13
15	0.20
20	0.31

Example:

- Supply line DN 20, line length L_1
= 20 m
- DHW circulation line DN 12, line length
 $L_2 = 20$ m
- Circulation volume $V_p = 3 \times V/h$

$$V = L_1 \times VL + L_2 \times VL$$

$$V = 20 \text{ m} \times 0.31 \text{ l/m} + 20 \text{ m} \times 0.13 \text{ l/m}$$

$$V = 6.2 \text{ l} + 2.6 \text{ l}$$

$$V = 8.8 \text{ l}$$

$$V_p = 3 \times V/h$$

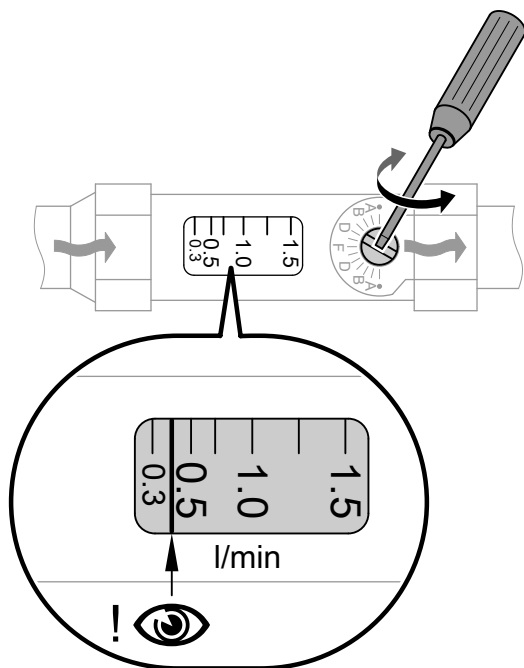
$$V_p = 3 \times 8.8 \text{ l/h}$$

$$V_p = 26.4 \text{ l/h} = 0.44 \text{ l/min}$$

Value to be set at the flow regulating valve: 0.44 l/min.

Adjusting the circulation volume (cont.)

Flow regulating valve



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