

Installation manual

Daikin Altherma – Domestic hot water tank kit

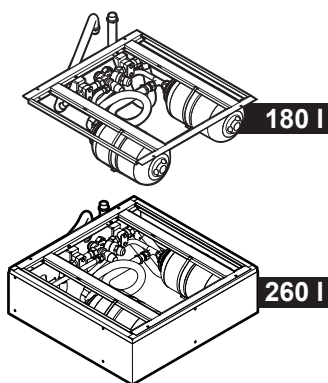


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1 About the documentation

1.1 About this document



INFORMATION

Make sure that the user has the printed documentation and ask him/her to keep it for future reference.

Target audience

Authorised installers

Documentation set

This document is part of a documentation set. The complete set consists of:

- **General safety precautions:**
 - Safety instructions that you must read before installing
 - Format: Paper (in the box of the indoor unit)
- **Indoor unit installation manual:**
 - Installation instructions
 - Format: Paper (in the box of the indoor unit)
- **Outdoor unit installation manual:**
 - Installation instructions
 - Format: Paper (in the box of the outdoor unit)
- **Domestic hot water tank kit installation manual**
 - Installation instructions
 - Format: Paper (in the box of the domestic hot water tank kit)
- **Installer reference guide:**
 - Preparation of the installation, good practices, reference data,...
 - Format: Digital files on <http://www.daikineurope.com/support-and-manuals/product-information/>
- **Addendum book for optional equipment:**
 - Additional info about how to install optional equipment
 - Format: Paper (in the box of the indoor unit) + Digital files on <http://www.daikineurope.com/support-and-manuals/product-information/>

Latest revisions of the supplied documentation may be available on the regional Daikin website or via your dealer.

The original documentation is written in English. All other languages are translations.

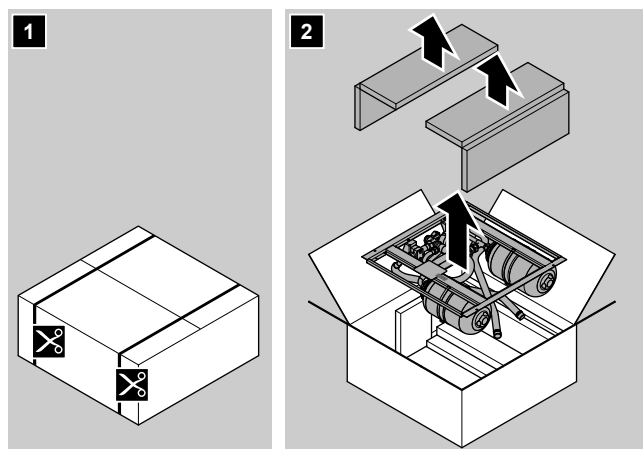
Technical engineering data

- A **subset** of the latest technical data is available on the regional Daikin website (publicly accessible).
- The **full set** of latest technical data is available on the Daikin extranet (authentication required).

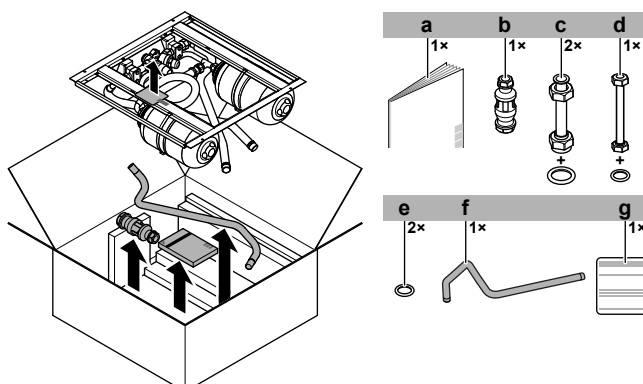
2 About the box

2.1 Domestic hot water tank kit

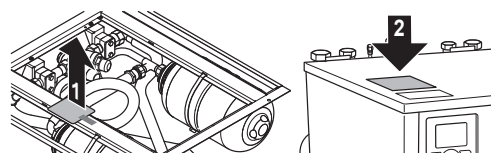
2.1.1 To unpack the domestic hot water tank kit



2.1.2 To remove the accessories from the domestic hot water tank kit



- a Installation manual
- b Tundish
- c Water piping extension pieces for space heating IN and OUT + sealings (38×27×2 mm) (EKVSU260A only)
- d Water piping extension piece for domestic hot water OUT + sealing (24×17×2 mm) (EKVSU260A only)
- e Sealings for the flexible hoses of the domestic hot water tank kit (24×17×2 mm)
- f Discharge pipe
- g Identification label of the domestic hot water tank kit. Fix it near the identification label of the indoor unit.



3 Preparation

3.1 Preparing installation site

3.1.1 Installation site requirements of the domestic hot water tank kit



INFORMATION

The domestic hot water tank kit is mounted into the indoor unit. The use of tank kit EKVSU260A extends the height of the indoor unit by 190 mm.

3.2 Preparing water piping

Respect the following water circuit requirements:

- **Domestic hot water tank kit – Clean pipes.** Before installing the domestic hot water tank kit, all piping and fittings must be flushed free of flux and debris. Failure to do this may cause irreparable damage to the tank kit control valves. Flush the system by opening the hot water tap.
- **Domestic hot water tank kit – Drainage.** For the discharge piping connected to the pressure relief valve of the domestic hot water tank kit, respect the following requirements:

Item	Requirement
Pressure relief valve diameter	15 mm
Discharge pipe diameter (to pressure relief valve)	15 mm
Discharge piping diameter (from tundish)	22 mm
Discharge piping material (from tundish)	Metal
Vertical length below tundish, before first elbow or bend	≥300 mm
Continuous fall after first elbow or bend	≥1:200
Maximum resistance ^(a)	≤9 m
Resistance created by each elbow or bend	0.8 m

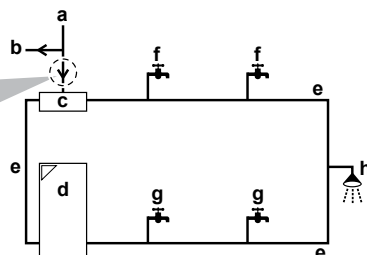
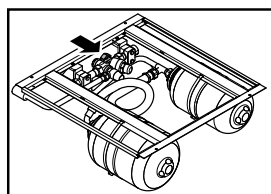
(a) The maximum allowed resistance (i.e. equivalent length) is expressed as a length of straight pipe (i.e. no elbows or bends).



INFORMATION

All piping **MUST** be installed according to section G3 of the Building Regulations.

- **Domestic hot water tank kit – Pressure balancing.** To prevent large pressure differences at the taps and damage to the shower valve due to high-pressure cold water (5 bar), provide a dedicated 2-bar feed to both cold water and hot water taps. To do this, also connect the cold water supply for the cold water taps to the pressure reducing valve of the domestic hot water tank kit.



- a Cold water supply into house at 5 bar
- b To 5-bar taps
- c Pressure reducing valve (part of the domestic hot water tank kit)
- d Indoor unit
- e Dedicated 2-bar feed
- f Cold water taps
- g Hot water taps

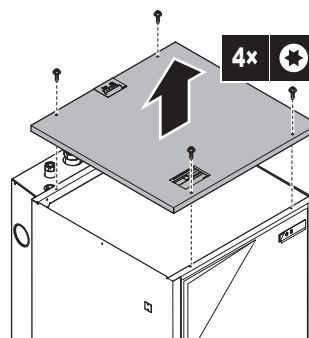
- **Domestic hot water tank kit – Secondary return.** Where the secondary return circuits are used, an additional expansion vessel may be required.

4 Installation

4.1 Opening the units

4.1.1 To open the indoor unit

- 1 Loosen and remove the 4 screws that fix the top panel.
- 2 Remove the top panel from the unit.



4.2 Connecting the water piping

4.2.1 To connect the water piping



NOTICE

Do NOT use excessive force when connecting the piping. Deformation of the piping can cause malfunctioning of the unit.



INFORMATION

If you have to inspect the inside of the domestic hot water tank, you can access it via the booster heater boss.

The installation of the domestic hot water tank kit is part of a larger installation flow. The total installation of the water piping consists of:

- 1 Connecting the recirculation piping.
- 2 Connecting the water piping:
 - Directly to the indoor unit: connecting the water piping to the space heating inlet, the space heating outlet, and the domestic hot water outlet.
 - **Via the domestic hot water tank kit: connecting the water piping to the unit's domestic cold water inlet, and connecting the kit itself to the drain.**
- 3 Connecting the pressure relief valve to the drain.
- 4 Filling the water circuit.
- 5 Filling the domestic hot water tank.
- 6 Insulating the water piping.



INFORMATION

For more information, see the installation manual of the indoor unit and the installer reference guide.

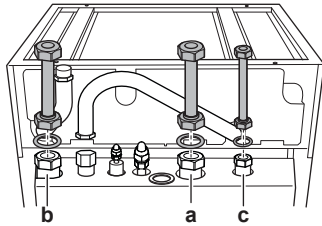
4 Installation

Directly to the indoor unit



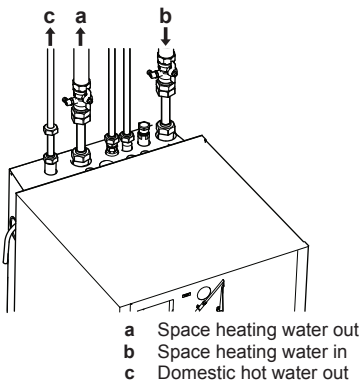
INFORMATION

EKVSU260A only: to facilitate maintenance and service, the space heating and domestic hot water outlets (a and c), as well as the space heating inlet (b), can be extended by way of the extension pieces that are delivered with the domestic hot water tank kit. Make sure to use the sealings for the extension pieces (delivered as accessory).



To facilitate service and maintenance, 2 shut-off valves are provided. Mount these valves on the space heating water inlet and space heating water outlet. Mind their position. The orientation of the integrated drain and fill valves is important for servicing.

- 1 Install the shut-off valves on the space heating water pipes.



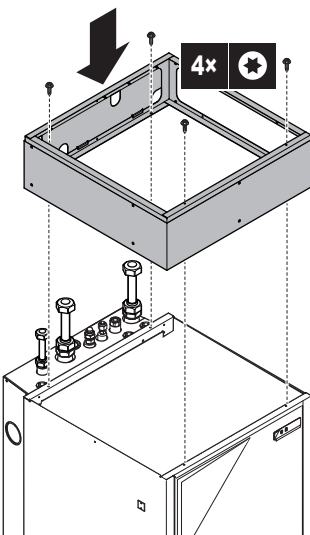
NOTICE

It is recommended to install shut-off valves to domestic cold water in and domestic hot water out connections. These shut-off valves are field supplied.

- 2 Screw the indoor unit nuts on the shut-off valves.
- 3 Connect the domestic hot water out pipe to the indoor unit.

Via the domestic hot water tank kit

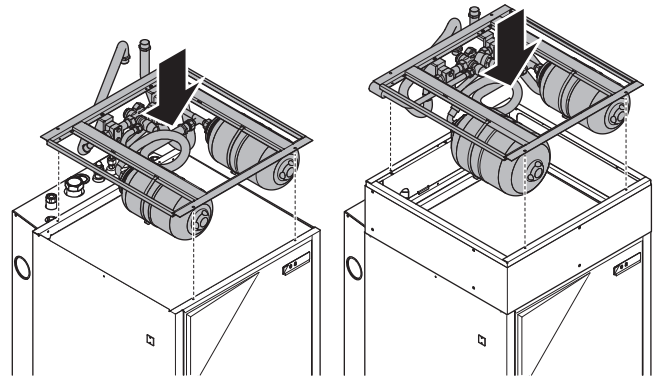
- 4 Mount the indoor unit height extension that is part of the kit (EKVSU260A only).



- 5 Mount the domestic hot water tank kit.

180 l

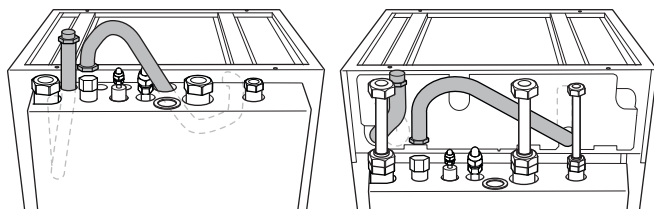
260 l



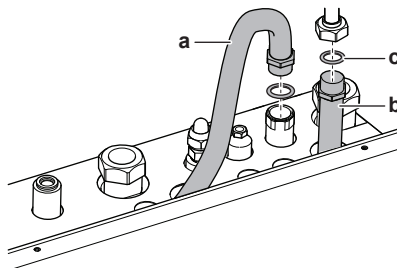
- 6 Route the flexible hoses of the domestic hot water tank kit according to the illustration below.

180 l

260 l



- 7 Connect one flexible hose (a) of the domestic hot water tank kit to the domestic cold water inlet of the indoor unit. Connect the other flexible hose (b) to the cold water supply.

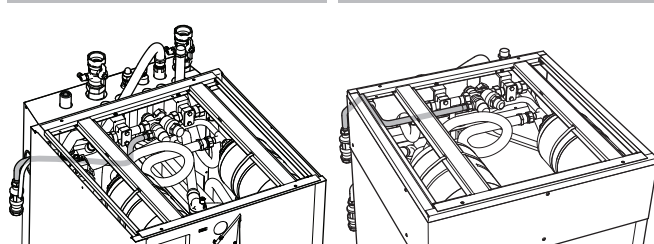


- a To indoor unit domestic cold water inlet
- b To cold water supply
- c Sealings for the flexible hoses of the domestic hot water tank kit (24×17×2 mm)(delivered as accessory)

- 8 Connect the discharge pipe to the tank kit's pressure relief valve, then connect the tundish to the discharge pipe (both discharge pipe and tundish are delivered with the tank kit).

180 l

260 l



WARNING

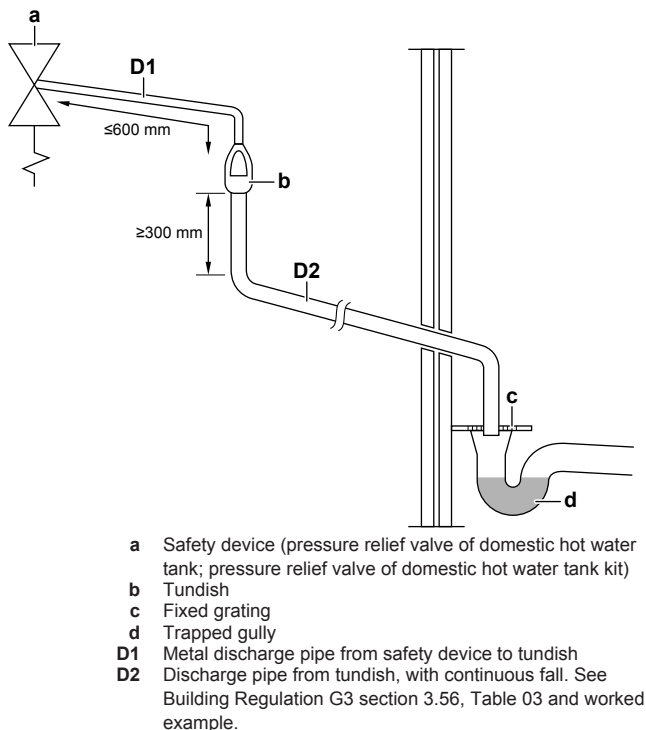
Install the tundish away from any electrical device.
Possible consequence: Electric shock or fire.



NOTICE

To ensure a free water flow through the discharge pipe, manually operate the pressure relief valve by turning its knob left.

- 9 Connect the 2 tundishes (1 from the pressure relief valve of the domestic hot water tank, and 1 from the pressure relief valve of the domestic hot water tank kit) to an appropriate drain according to the applicable legislation. The following example shows discharge below fixed grating (Building Regulation G3 section 3.61 gives alternative points of discharge):



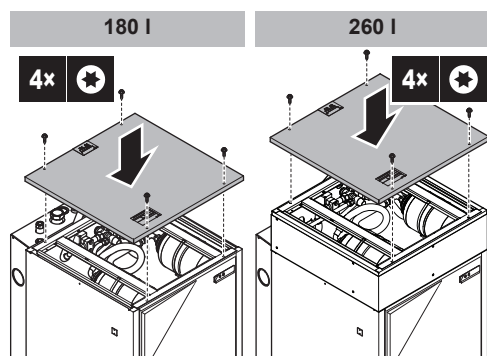
NOTICE

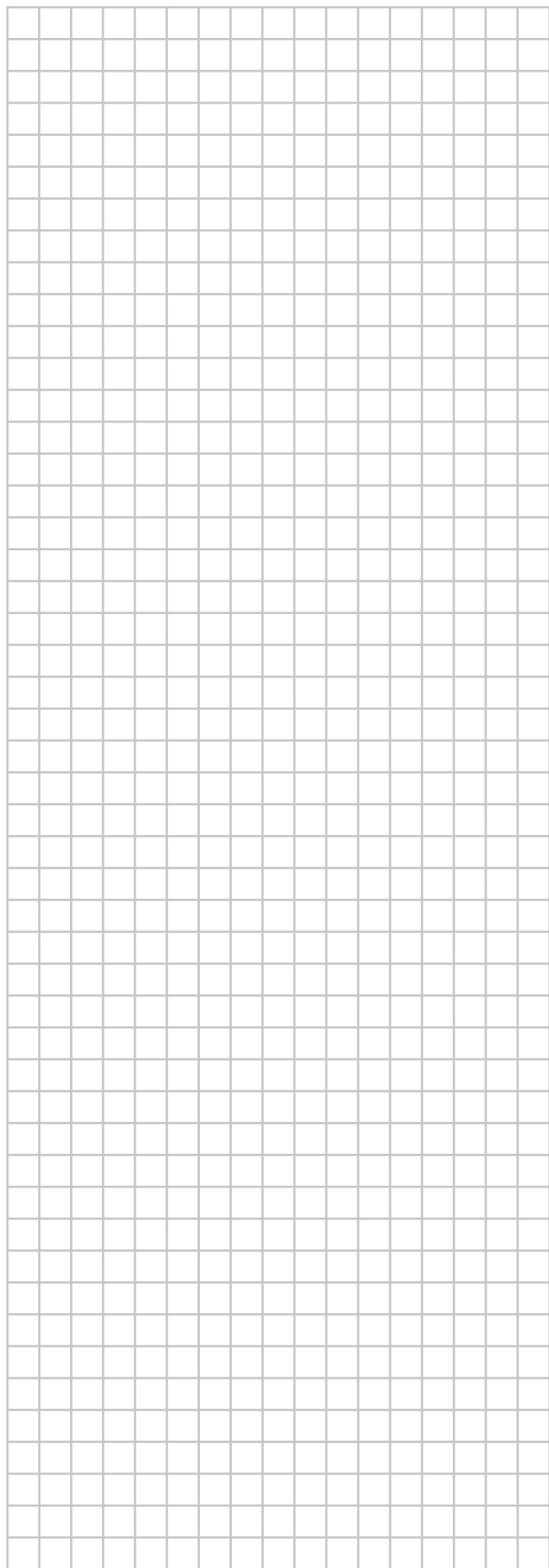
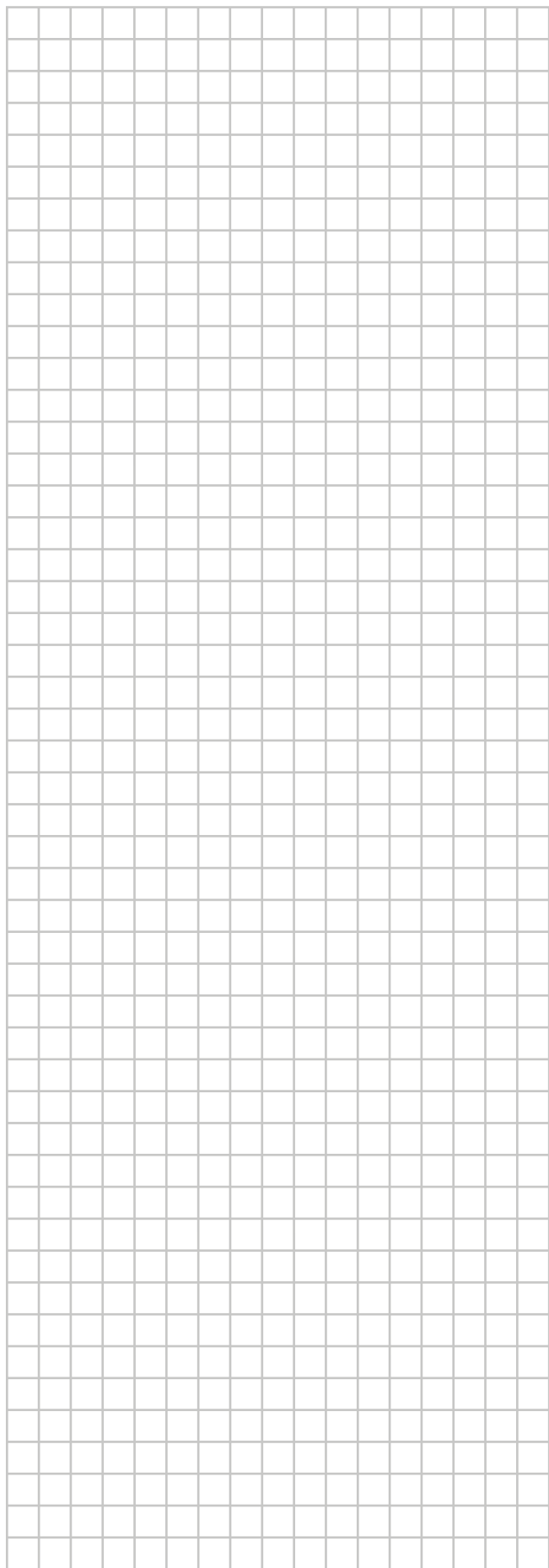
Install air purge valves at all local high points.

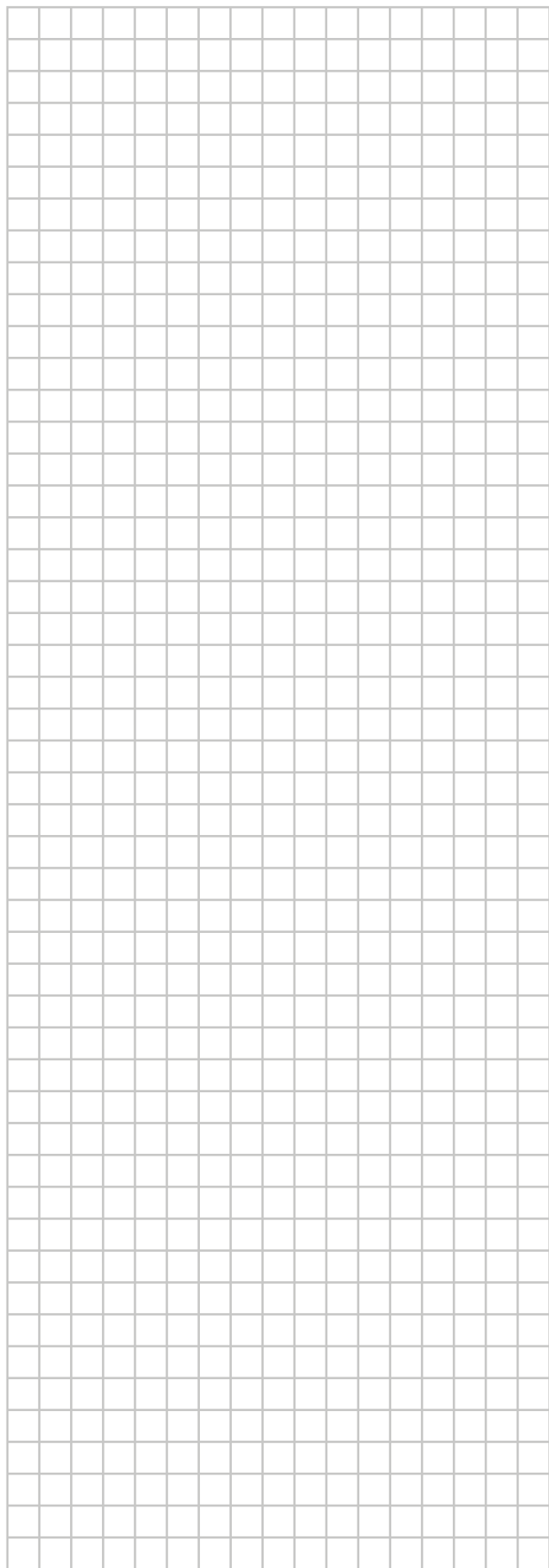
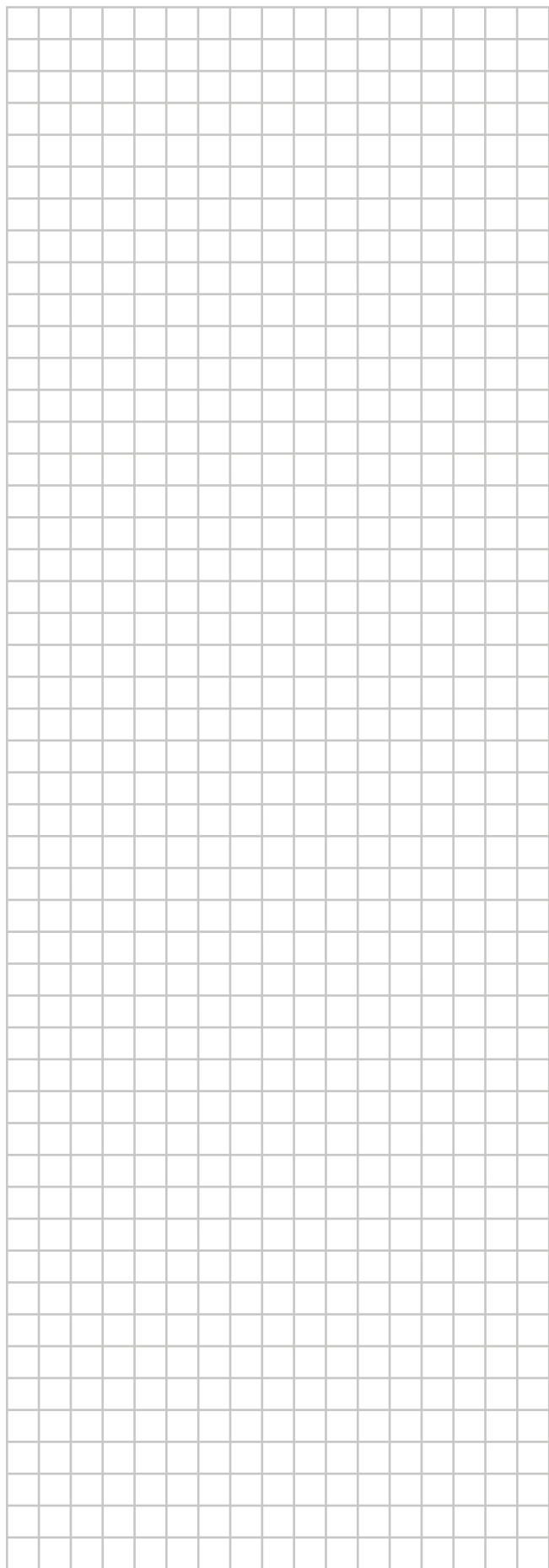
4.3 Finishing the domestic hot water tank kit installation

4.3.1 To close the indoor unit

- 1 Reinstall the top plate.









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Zandvoordestraat 300, B-8400 Oostende, Belgium

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