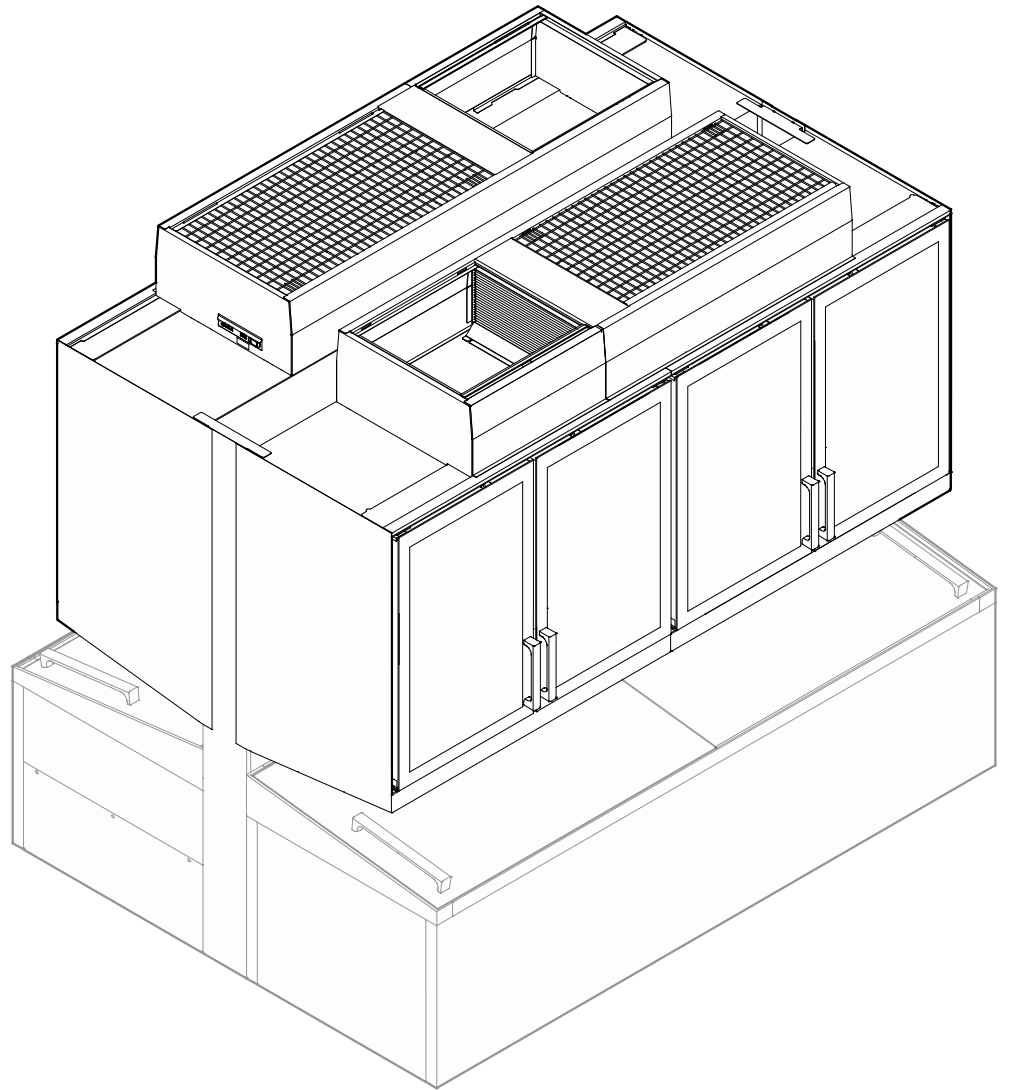


Assembly instructions

EN

SFT 1223

SFT 1023



7084 823-03

LIEBHERR

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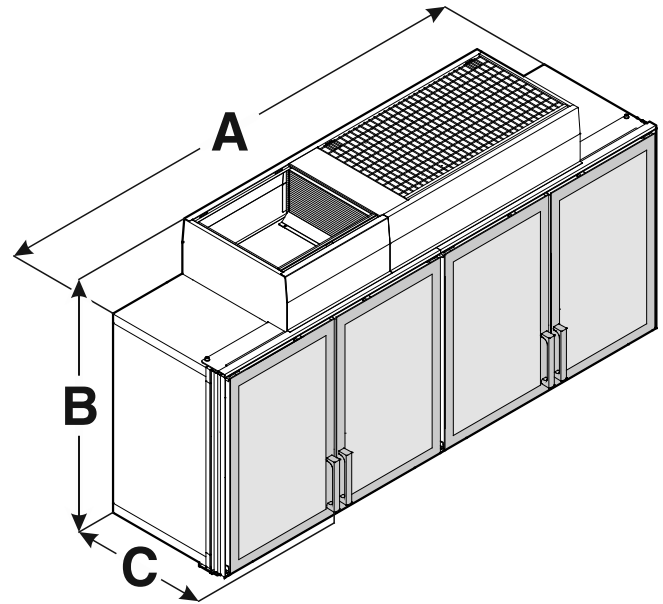
Safety instructions and warnings

- If there is obvious transport damage on the appliance after it has been unpacked, contact the supplier. Do not switch on the appliance.
- Do not allow naked flames or ignition sources to enter the appliance. When transporting and cleaning the appliance, ensure that the refrigerant circuit is not damaged. In the event of damage, make sure that there are no ignition sources nearby and keep the room well ventilated.
- Do not place any objects on the appliance.
- The appliance must always be secured with 4 bolts.
- The minimum appliance height must be no less than 2245 mm as shown in the table on page 3.

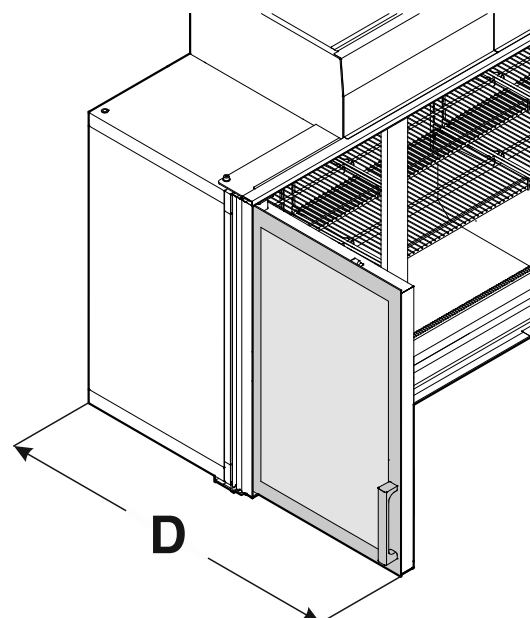
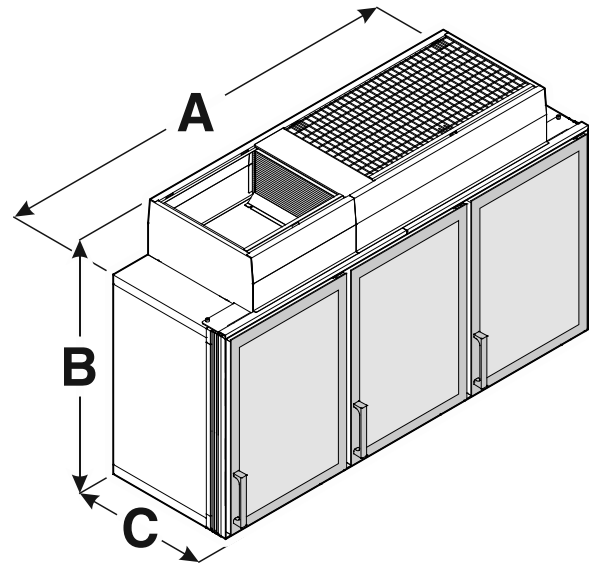
Appliance dimensions

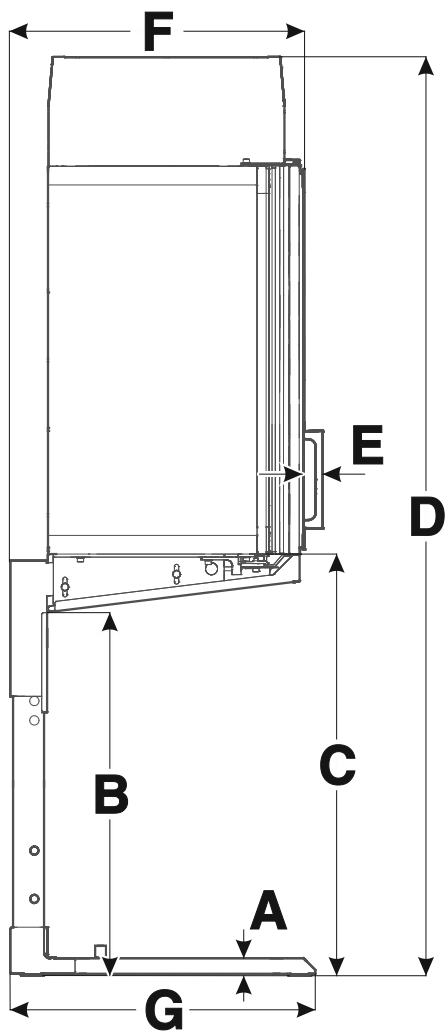
	A [mm]	B [mm]	C [mm]	D [mm]
SFT 1223	2500	1283	709	1224
SFT 1023	2100	1283	709	1224

SFT 1223



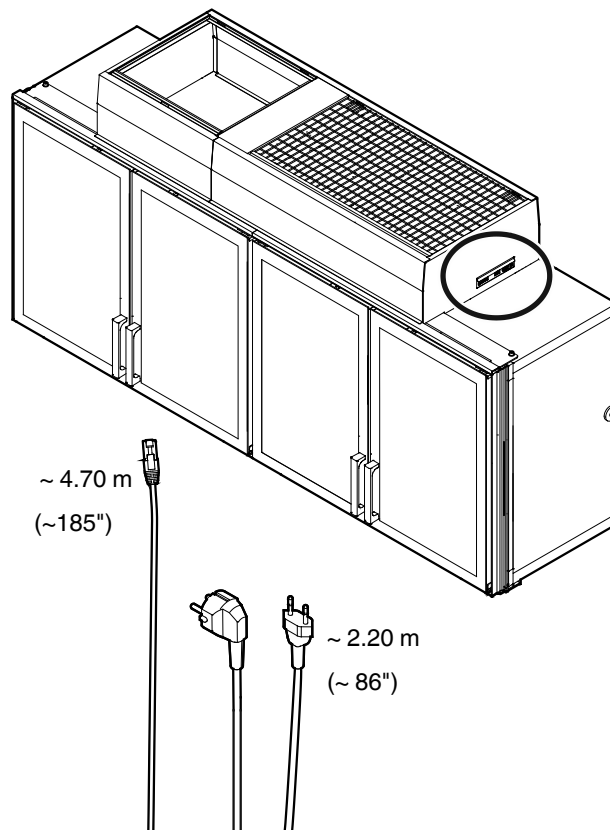
SFT 1023





Cable lengths

Free cable lengths from strain relief device outlet.



	[mm]
A	45
B	812-1062
C	963-1213
D	2245-2495
E	47
F	760
G	787

Requirements for assembly

The assembly must comply with the applicable regulations, standards, directives and laws where they apply to the subject of the contract.

Work on the electrical system (electrical connection, cable duct or sockets) may only be carried out by a qualified electrician.

Note

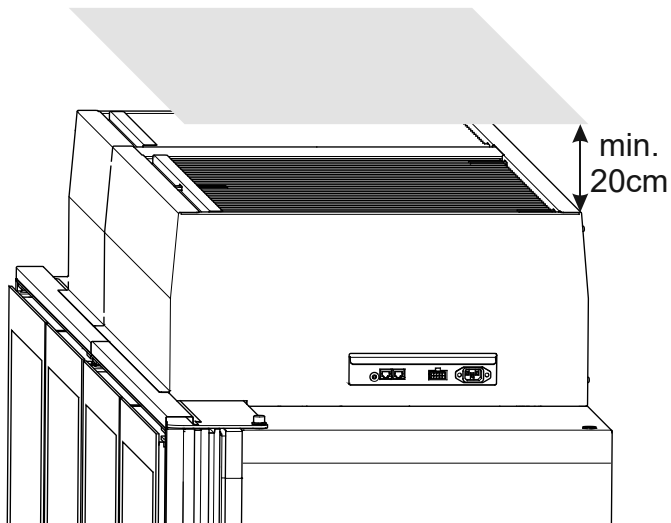
To avoid the assembly work being delayed or even stopped, installation of the appliances should be carefully planned in advance. It must be ensured that all the requirements are satisfied.

Requirements for the place of installation

Ensure that the place of installation for assembling the appliances is suitable and properly prepared.

- Any existing old appliances must be removed and disposed of in an environmentally friendly manner.
- The place of installation must be free of dirt and moisture.
- The evenness of the floor surface must comply with the usual limit values for evenness deviations set out in DIN 18202.
- The ambient temperature must correspond to the climate rating. The climate rating applicable to your appliance is shown in the operating instructions.

Minimum distance to ceiling

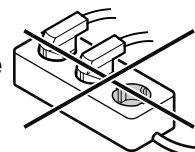


Requirements for the electrical connection

- We recommend that separate circuits are installed for the lighting and chest refrigeration units. The sockets must be clearly distinguishable.
- Two sockets must be prepared for each appliance for these two circuits. The sockets must be permanently fixed and clearly labelled.
- Each appliance must be protected by its own fuse.
- A separate fuse must be provided for the lighting.



NOTICE
Do not connect the appliance using an extension cable or extension socket.



Requirements for a remote data transmission connection

- A connection from the appliance blocks to the gateway location must be established on site using suitable sockets and cables (CAT5 or higher) with a bus topology.

Bus connection

Up to 120 appliances with CAN and 247 with MOD bus can be networked and integrated into the in-house system using one or more coupling modules.

Note

The alarm priority with CAN connectivity is limited as standard to a maximum of 2 when the appliance is delivered. This means that the forwarding of the alarm is restricted when the shop is closed. The setting can be changed if necessary by the gateway manufacturer. The list of alarm scenarios is included in the service documentation.

Addressing

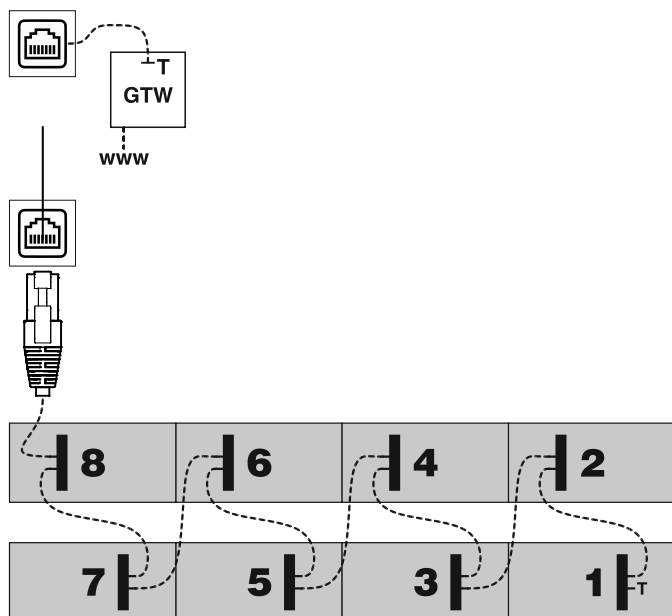
Free addresses from the in-house system must be used to address the bus with one- to three-figure numbers (1-999) being allocated for this purpose.

The addresses are entered individually on each appliance, see "Assigning addresses to the appliances", page 24.

Each address may only be used once within the bus.

Depending on the system environment, we recommend that you use the appropriate coupling modules:

Digital I/O Pin-Belegung 10pol Alarmkontakt: 1NO 2COM 6NC Eingang_ 4/5 Licht Ein 9/10 DI 2 optional CAN Bus Liebherr ST Pin-Belegung RJ-45: 2/7/8 BUS_L 3/6 GND 1/4/5 BUS_H



T.....Termination enabled

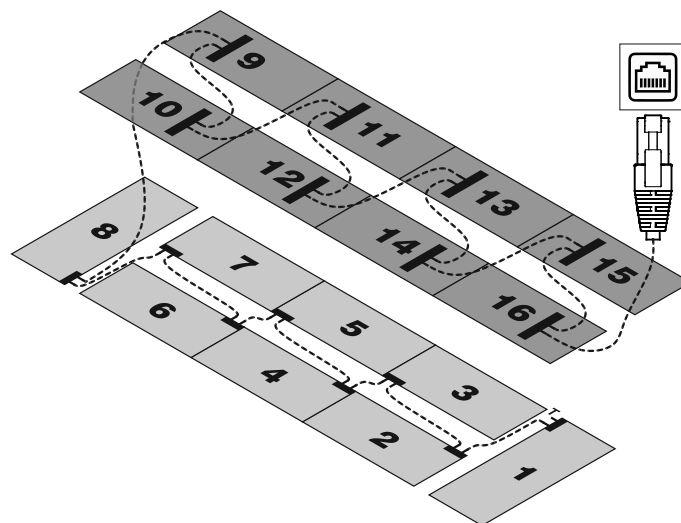
- If a repeater is used, the termination must be enabled.

Operation (LSC version only)

Digital I/O Pin-Belegung 10pol Alarmkontakt: 1NO 2COM 6NC Eingang_ 4/5 Licht ein 9/10 DI 2 optional MODBUS RTU LSC Pin-Belegung RJ-45: 2/7/8 Data - 3/6 GND 1/4/5 Data + home.liebherr.com/lsc

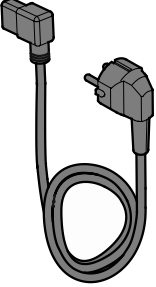
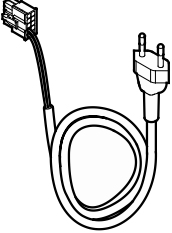
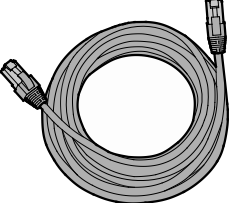
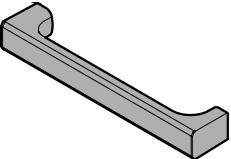
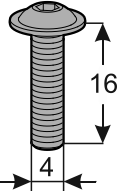
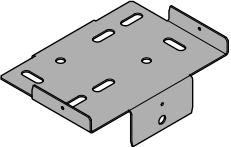

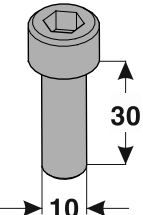
- The adjustment range of the address in menu A has been extended to 1-247.
- An additional baud rate/parity setting menu point "bd" has been included:
- Menu bd step 1: The set baud rate is displayed in [Bit/s * 10] and can be adjusted using the cursor keys. The two leading and the two following numbers in the baud rate flash alternately:
 09|60 = 9600 baud,
 19|20 = 19200 baud,
 38|40 = 38400 baud,
 56|00 = 56000 baud.
- The parity is set after confirmation by pressing the SET key. Meaning:
 E1 = Even parity + 1 stop bit,
 n2 = No parity + 2 stop bits,
 o1 = Odd
 n1 = No parity + 1 stop bit
- The setting is saved by pressing the SET key. A short acknowledgement tone means that nothing has been changed. A long acknowledgement tone indicates that the interface parameters have been changed.

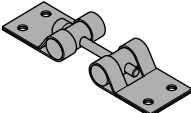
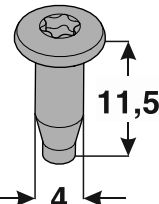

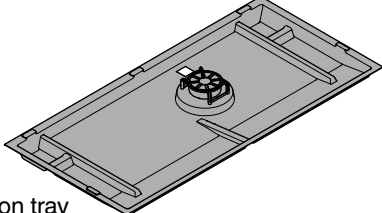
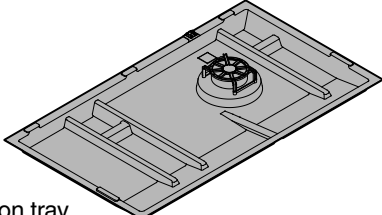
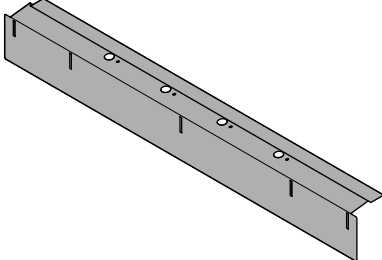
Example of networking on 2 levels:



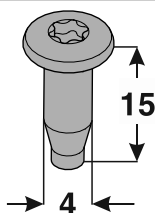
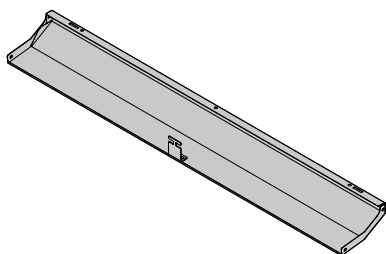
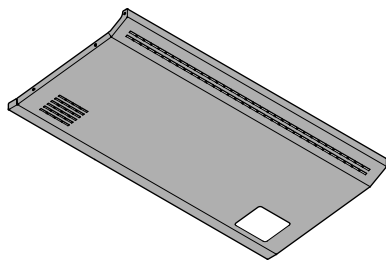
Scope of delivery

Standard (per appliance)

Quantity	Description
1	Appliance
1	Power connection cable (2.50 m) 
1	Light cable for manual control (2.50 m) 
1	Network cable (5 m) 
4	Handle 
8	Screw 
1	Connecting plate 
2	Washer 
2	Screw 

Quantity	Description
1	Tensioning strap 
4	Screw 
2	Drain tube 
	Defrost water collection tray SFT 1223 
1	Defrost water collection tray SFT 1023 
2	(1) Cover  or (2) no Cover

Quantity	Description
2	(1) Cover or
	(2) Cover
12	Screw
1	Service type plate
1	Operating instructions



Transport and unpacking

The appliance is supplied fully assembled standing on a pallet.

Check the appliance for transport damage before and while unpacking it. Report any damage (loose parts, dents, scratches, visible fluid leaks, etc.) without delay.

Remove the packaging and check that the delivery is complete.

Ensure that the appliance is not damaged while it is being transported and unpacked.

⚠ WARNING
Danger of suffocation due to packing material and plastic film!
Do not allow children to play with packaging material.
Dispose of the packaging material in compliance with current regulations.

Moving the appliances to the place of installation



Wear safety shoes!

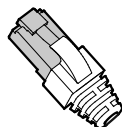
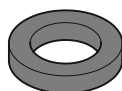


Wear gloves!

Move the appliances to the place of installation on the pallets using suitable equipment.

Accessories (depending on configuration)

Quantity	Description
*	Release key
*	Terminating resistor (T = Termination)



*) depending on configuration

Note

Facing elements for device side wall, steel frame and so forth are not included in the scope of delivery and must be ordered individually as separately available accessories.

Notice

Ensure that the appliances are not damaged while they are being transported and unpacked.

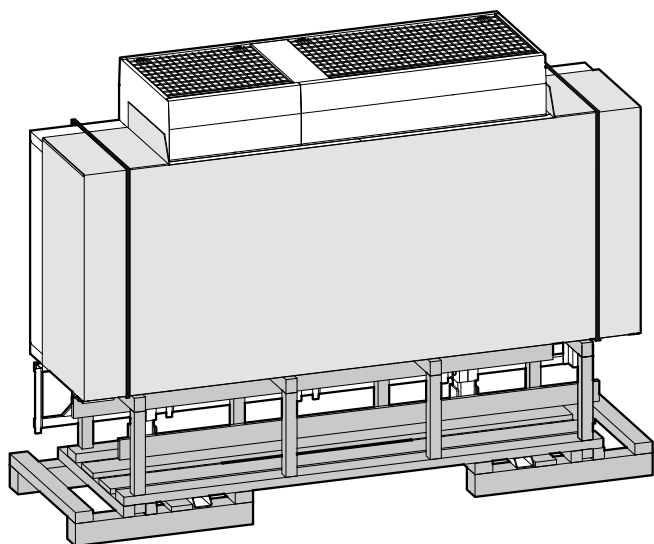
Position the appliances in a line in the required configuration. If the appliances are to be installed in a block, arrange them in parallel.

Lifting the appliances off the pallet

At least two people are required for this.

Lift the appliances off the pallets using suitable equipment and carefully lower them into position.

	Weight [kg]
SFT 1223	430
SFT 1023	345



Possible configurations

Note

The “Requirements for the place of installation”, page 4 and the “Requirements for the electrical connection”, page 4, must be complied with for all configurations.

If the appliances are networked, the “Requirements for a remote data transmission connection”, page 5, must also be complied with.

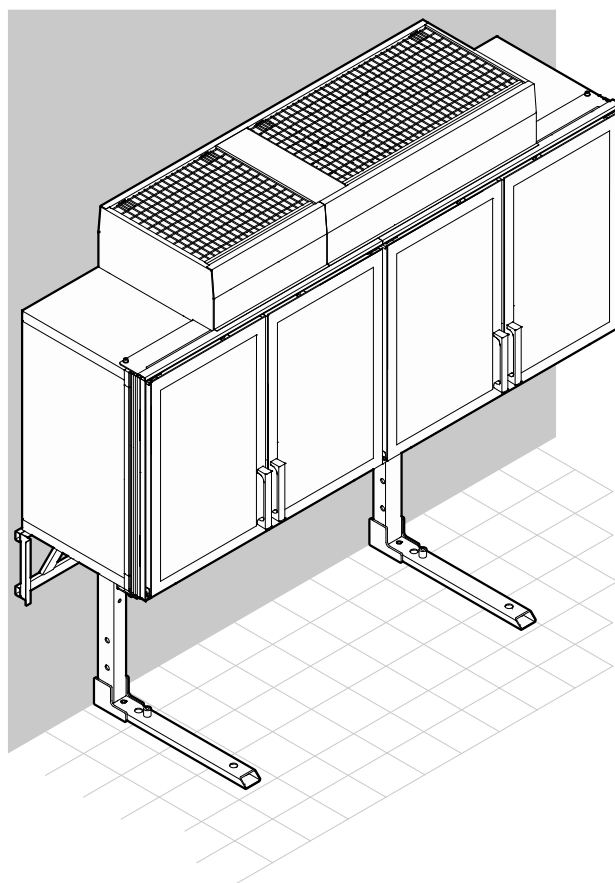
Installing an individual appliance

Every model can be installed individually.

1. “Fitting the cables”, page 11
2. “Outline height adjustment”, page 13
3. Positioning the appliance

Note

A maximum support thickness of 1 mm may be used under the adjustable feet.



4. “Final height adjustment”, page 16
5. “Installing the handle”, page 19
6. “Installing the defrost water collection tray”, page 20
7. “Connecting appliances”, page 24
8. “Commissioning the appliances”, page 25

Installing appliances in a row

1. "Affixing shaped foam tape", page 10
2. "Fitting the cables", page 11
3. "Outline height adjustment", page 13
4. Positioning the appliance

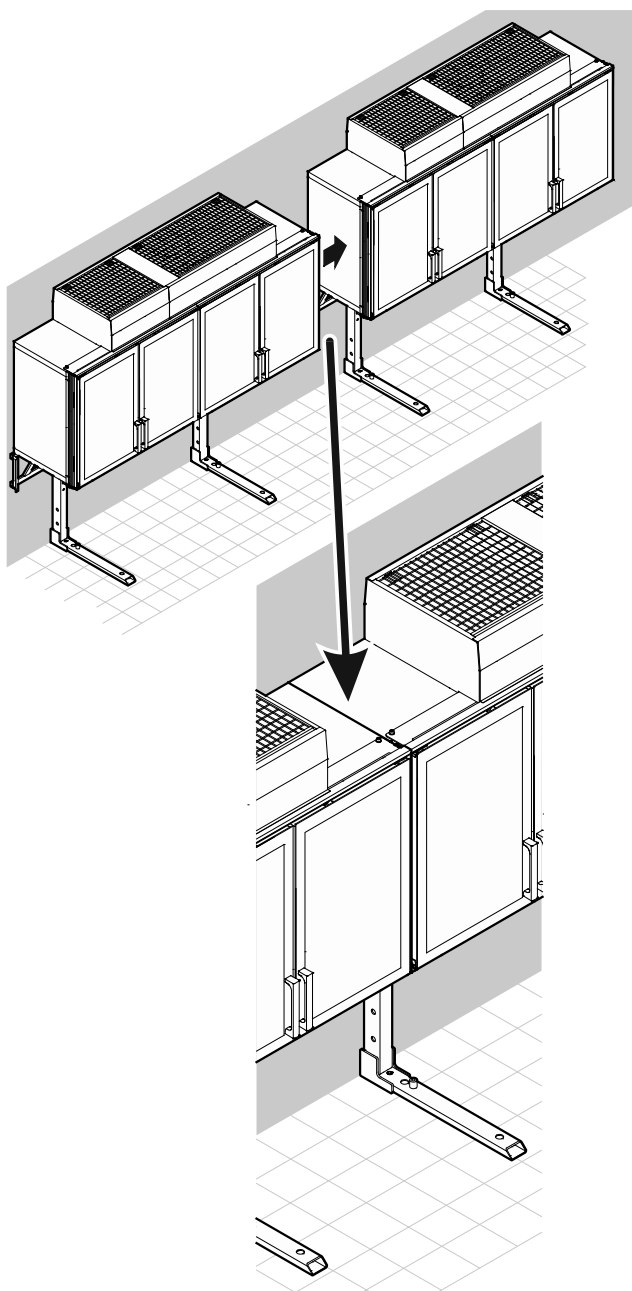
Notice

When pushing the appliances, it is vital that you ensure that no cables are jammed or damaged.

Note

A maximum support thickness of 1 mm may be used under the adjustable feet.

5. "Final height adjustment", page 16
6. "Installing the connecting plates", page 17
7. "Installing the handle", page 19
8. "Installing the defrost water collection tray", page 20
9. "Connecting appliances", page 24
10. "Assigning addresses to the appliances", page 24
11. "Commissioning the appliances", page 25



Installing the appliances in a block or in island form

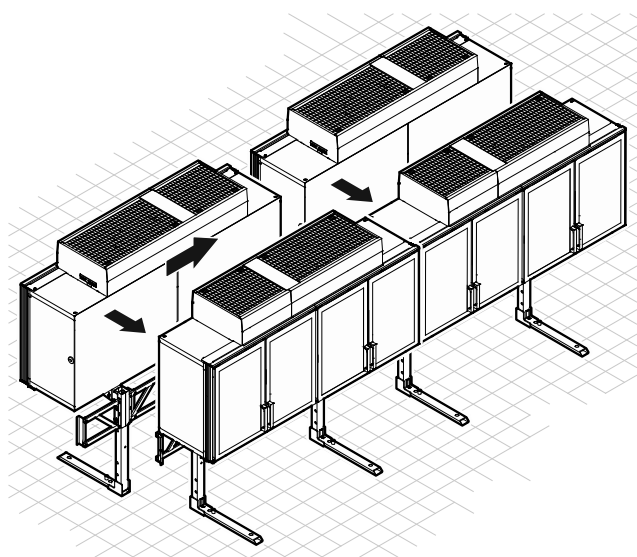
1. "Affixing shaped foam tape", page 10
2. "Fitting the cables", page 11
3. "Outline height adjustment", page 13
4. Positioning the appliance

Notice

When pushing the appliances, it is vital that you ensure that no cables are jammed or damaged.

Note

A maximum support thickness of 1 mm may be used under the adjustable feet.



5. "Final height adjustment", page 16
6. "Installing the connecting plates", page 17
7. "Installing the handle", page 19
8. "Installing the defrost water collection tray", page 20
9. "Connecting appliances", page 24
10. "Assigning addresses to the appliances", page 24
11. "Commissioning the appliances", page 25

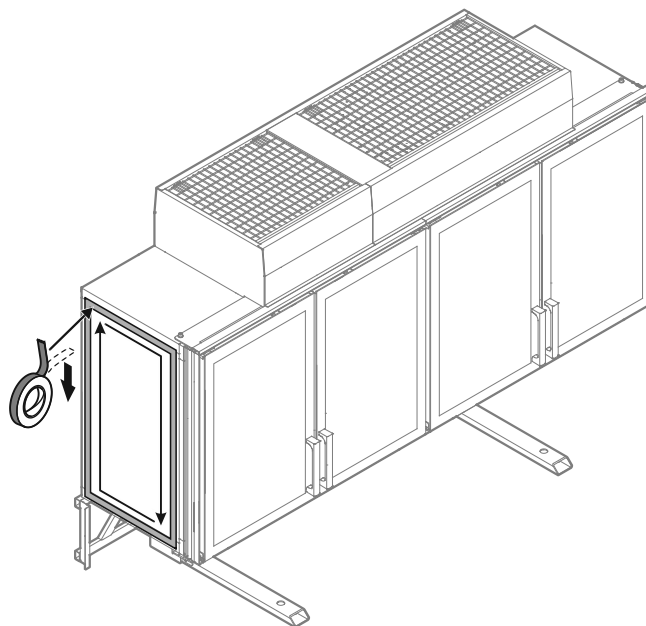
Installation and connection

Affixing shaped foam tape

Affix the shaped foam tape to the top and front sides of the appliances to keep the contact areas of appliances in rows or blocks free of dirt. This allows the appliances to be placed next to each other without gaps in between and also compensates for minor unevenness.

Note

Do not affix shaped foam tape to the outer side panels of the first and last appliance in the row.

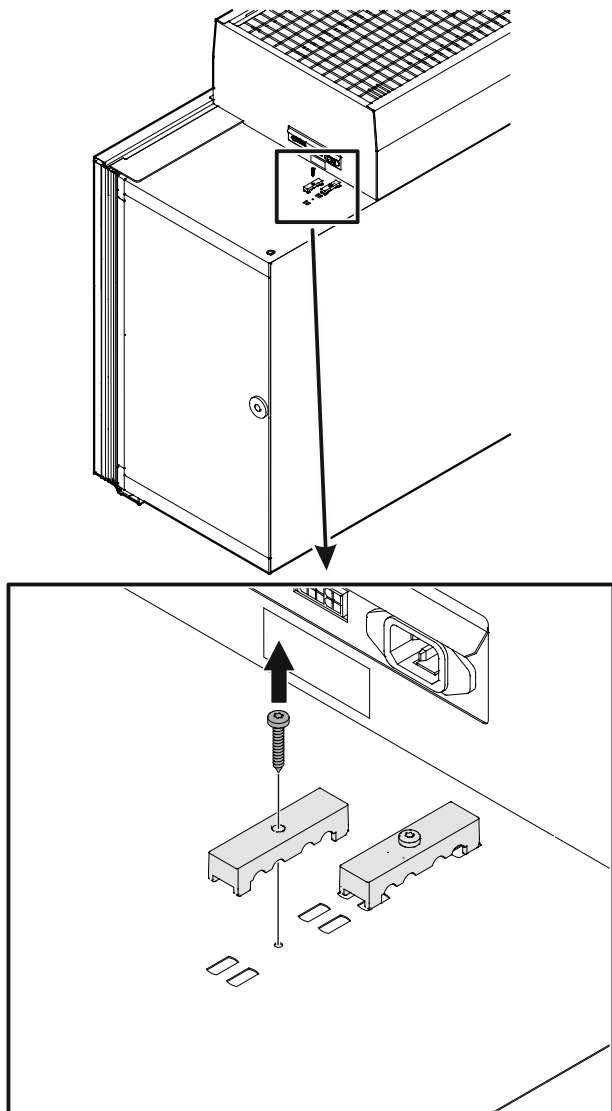


Fitting the cables

Notice

The cables must be routed so that each appliance, including those in rows or blocks, can be pulled out individually without any problems for repair or service purposes. Cables must not be jammed or damaged by this. Use any available cable suspension points.

1. Undo the screw and remove it together with the strain relief device.



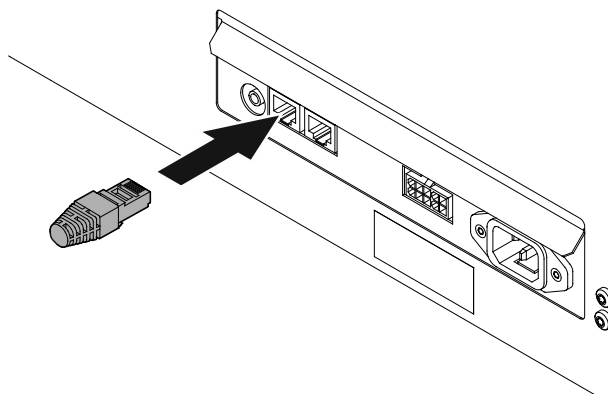
2. Connect the network cable.

Note

The ports (input/output) may be freely selected. The plugs must engage with an audible click.

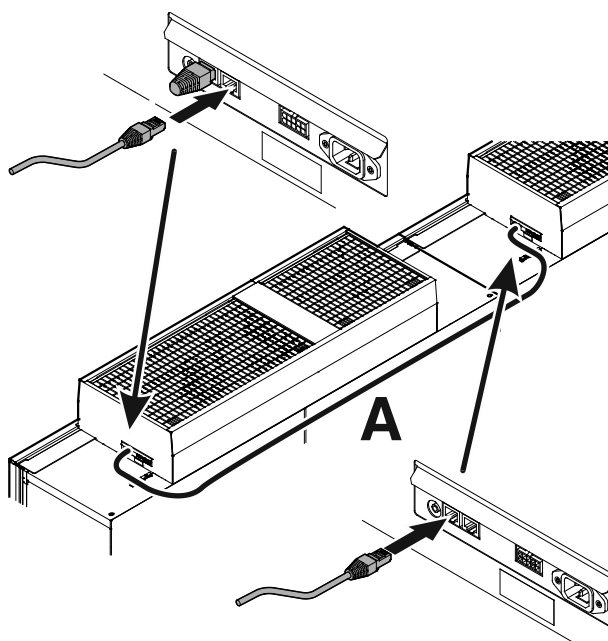
First appliance

- Connect the terminating resistor.

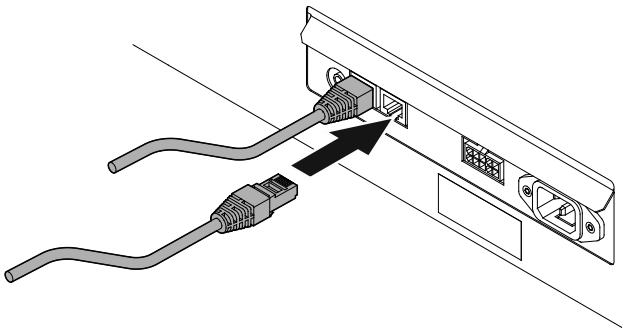
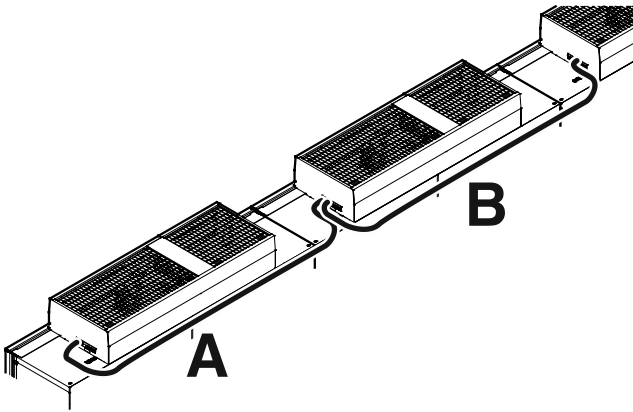


Additional appliances

- Connect one plug of the network cable (A).
- Connect the other plug of the network cable (A) to the next appliance.



- To connect additional appliances, connect the plug of another network cable (B) to the second appliance and then connect it to the next appliance. Continue until all the appliances are connected.



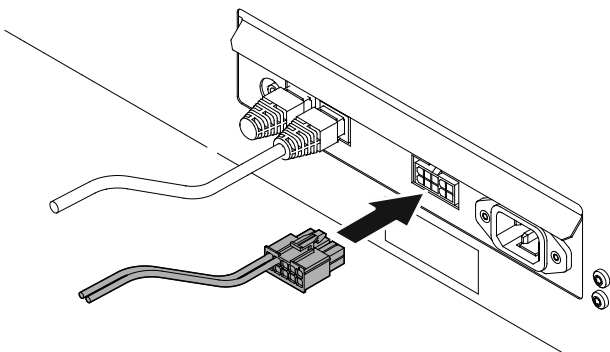
Note

The empty port on the last appliance in a configuration is used for connection to the coupling module and then to the in-house LAN.
Both bus ports must therefore be occupied on every appliance.

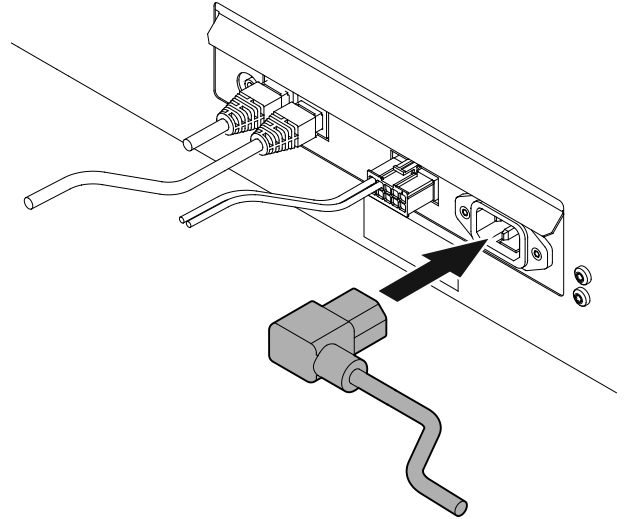
- 3. Connect the light cable plug.**
See also "External alarm (floating alarm output)", page 13.

Note

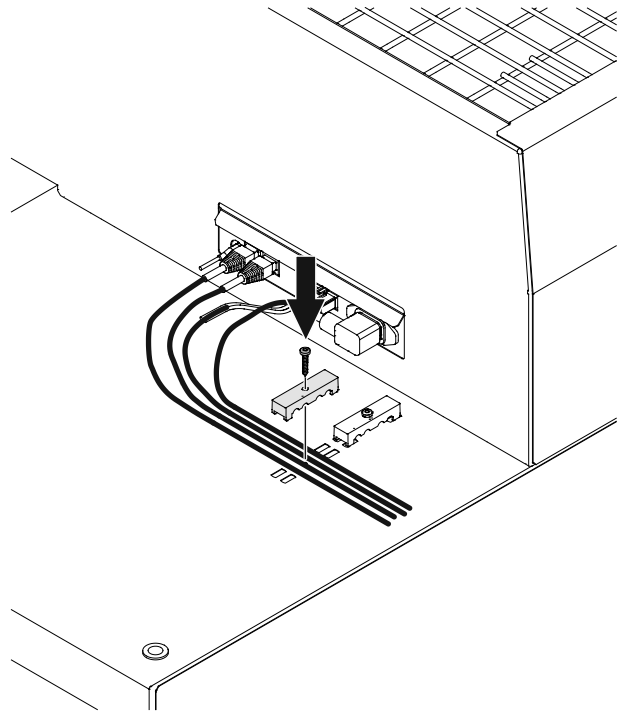
This plug does not need to be connected if the lighting is controlled via the network.



- 4. Connect the power connection cable plug.**



- 5. Fit the strain relief device, placing the cables in it. Insert screw.**



External alarm (floating alarm output)

It is possible to connect the appliance to an external alarm device.
Crimp contacts can be added to the light cable for this purpose.

Note

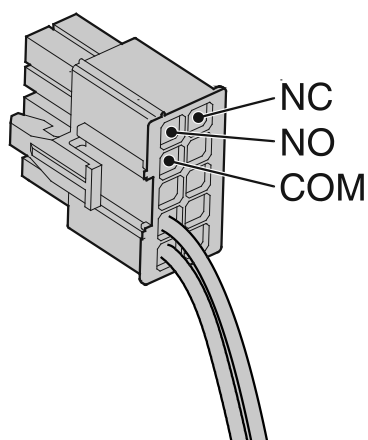
If there is no light cable (e.g. if the lighting is controlled via the network), a plug with crimp contacts is available separately.

The contacts (NC, NO and COM) can be used to connect the appliance to an optical or acoustic alarm device.

The connector is designed for a maximum of 230 V AC/10 A or 24 V DC/5 A from a SELV (safety extra-low voltage) source (minimum current 150 mA).

Notice

When supplying mains voltage to the floating alarm contact, the technical safety requirements of standard EN 60335 will not be satisfied.



1	NO	6	NC
2	COM	7	free
3	free	8	free
4	Light IN (bn)	9	DIGITAL IN 230 V AC
5	Light IN (bu)	10	DIGITAL IN (neutral)

NC operating light

Connection for a control lamp to indicate that the appliance is in normal mode.

COM external power supply unit

Maximum 230 V AC/10 A or 24 V DC/5 A
Minimum current 150 mA

NO alarm output

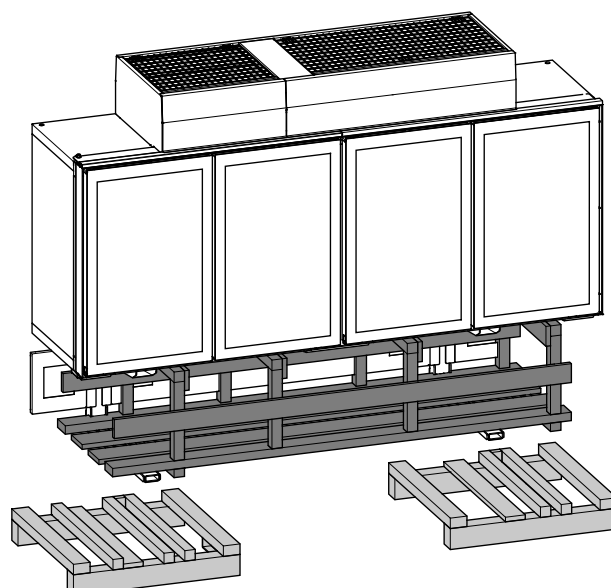
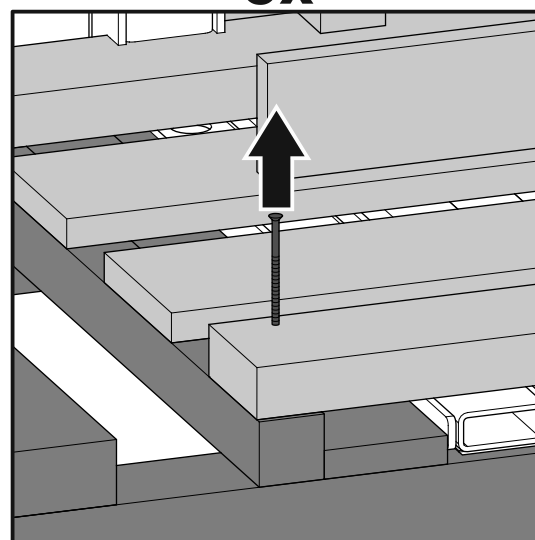
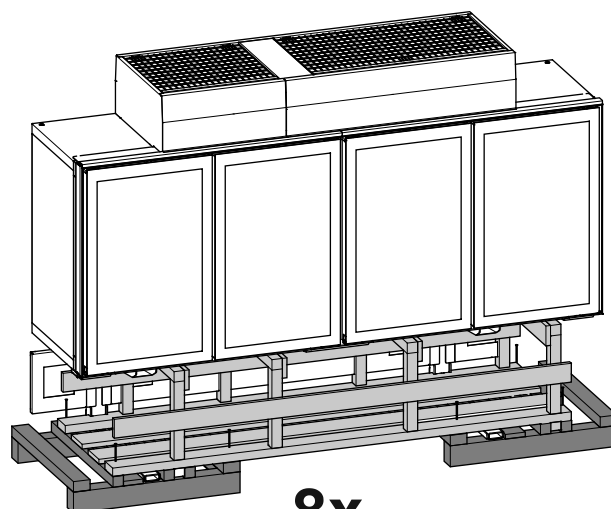
Connection for a visual warning light or an acoustic alarm signal.

Outline height adjustment

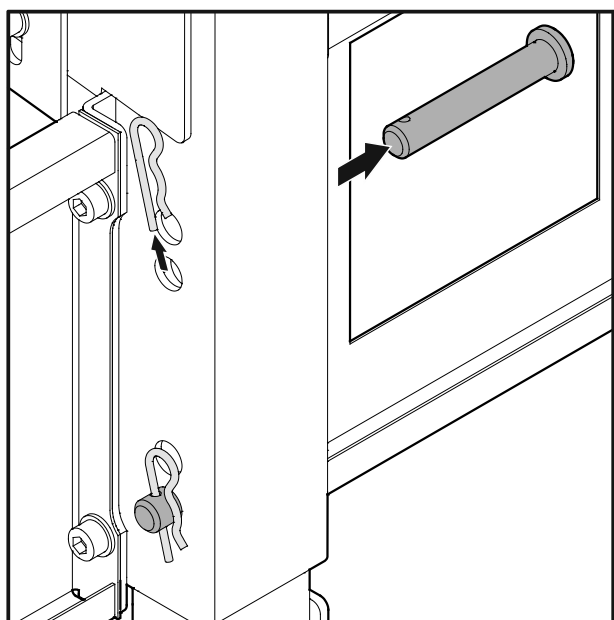
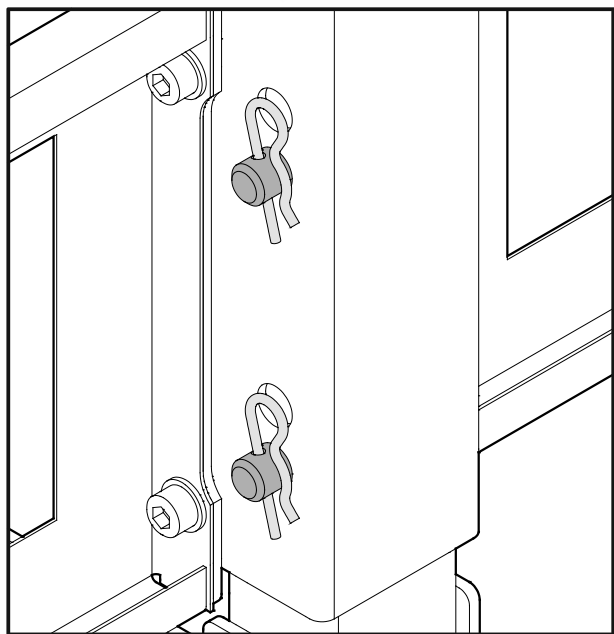
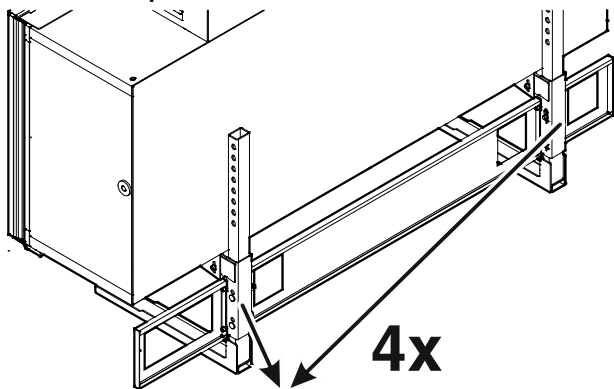
1. Remove screws

Important

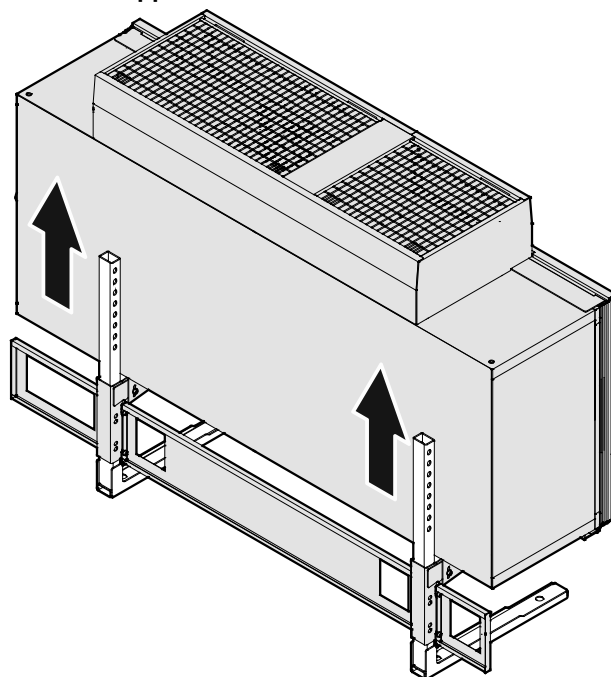
Before removing the screws, ensure that the appliance is secured by suitable lifting gear above the centre pallet.



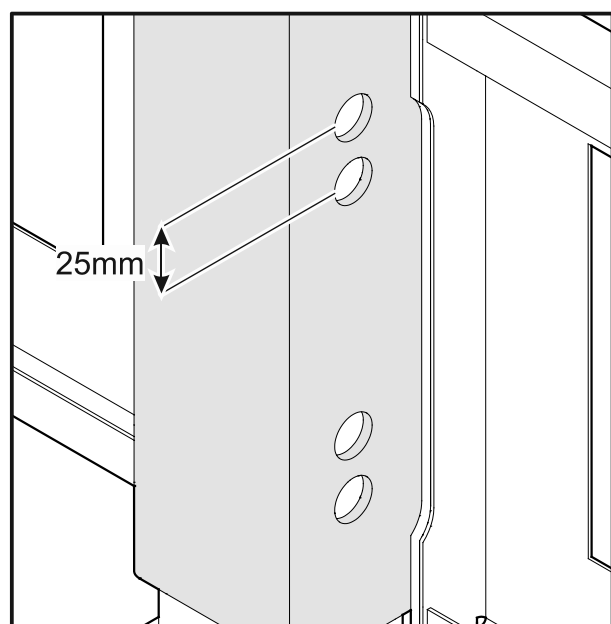
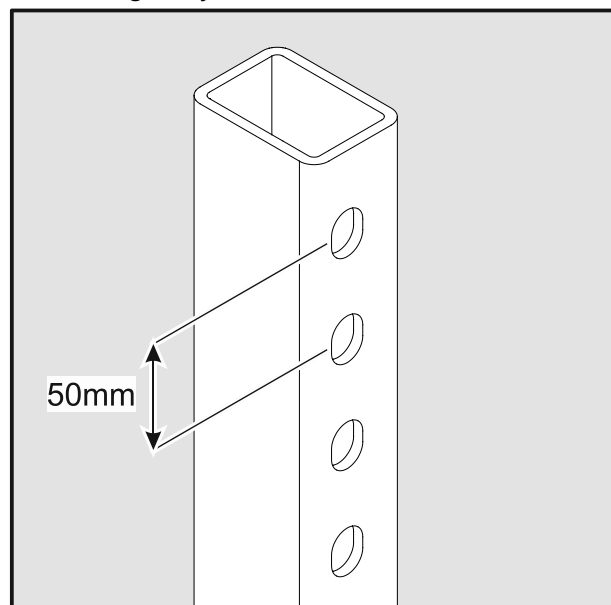
2. Remove the pins



3. Raise the appliance



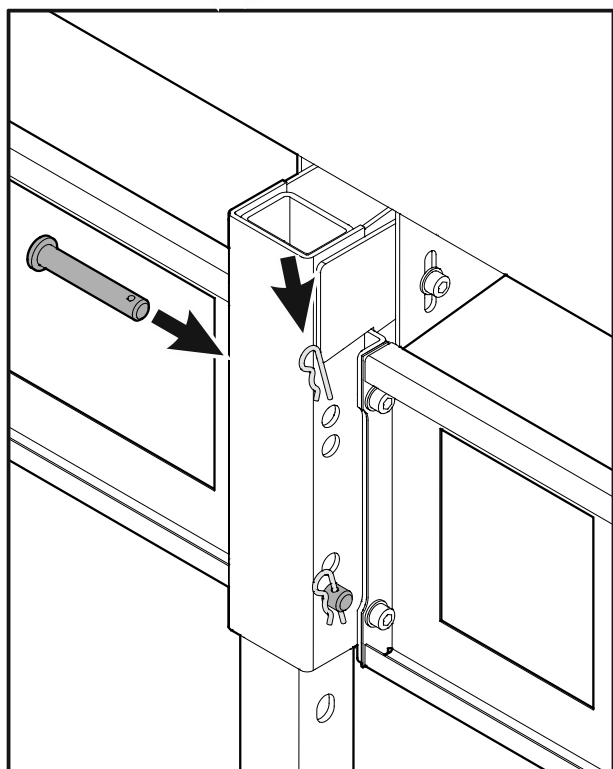
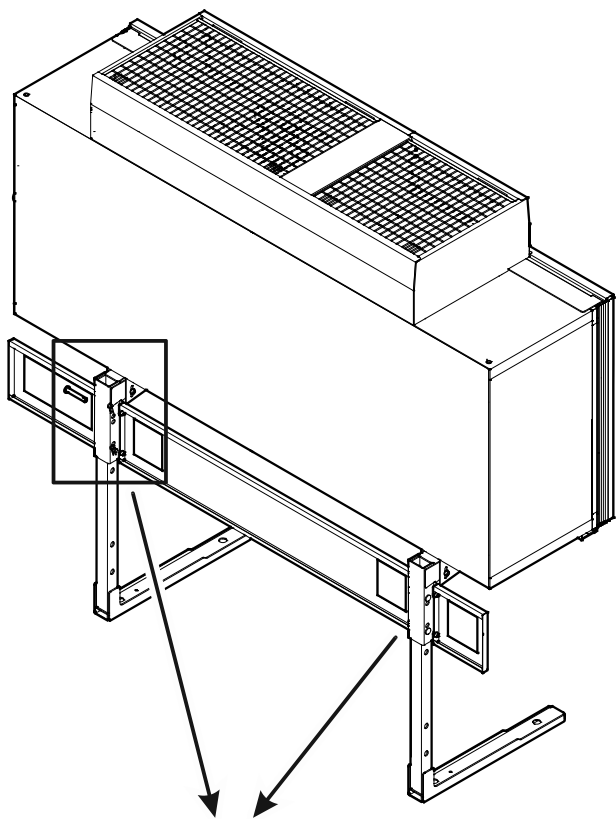
4. 25 mm height adjustment



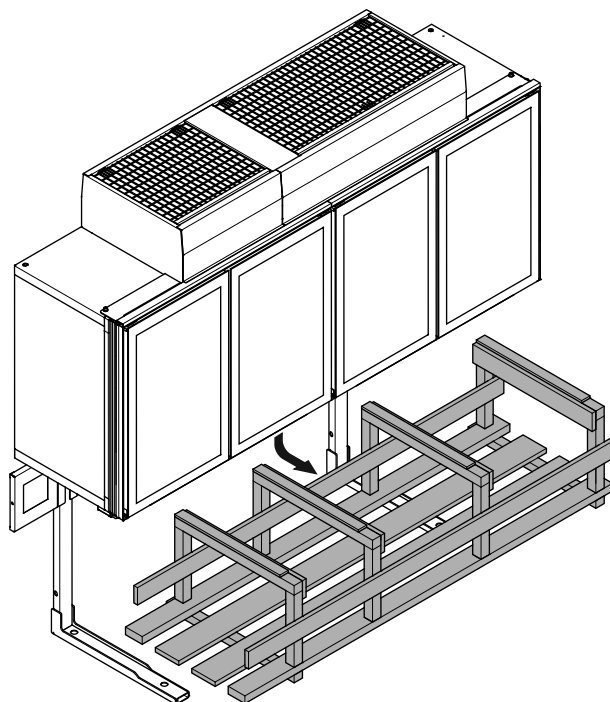
5. Insert the pins

Important!

The appliance must always be secured with 4 pins.



6. Remove the centre pallet after the pins have been secured

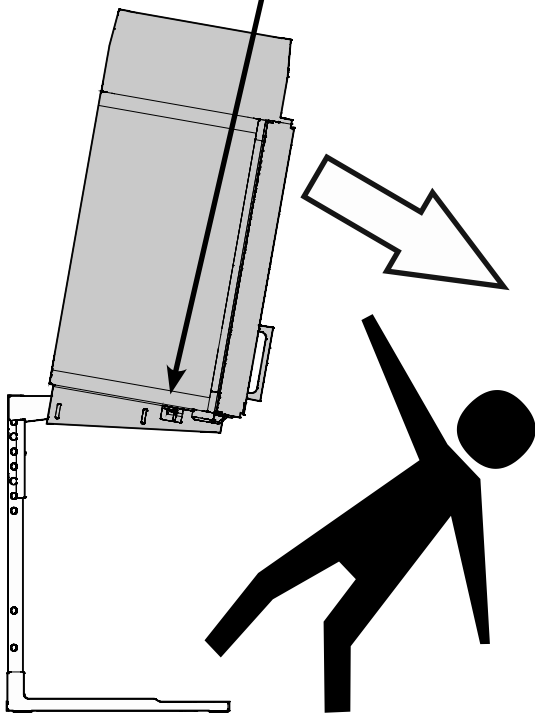
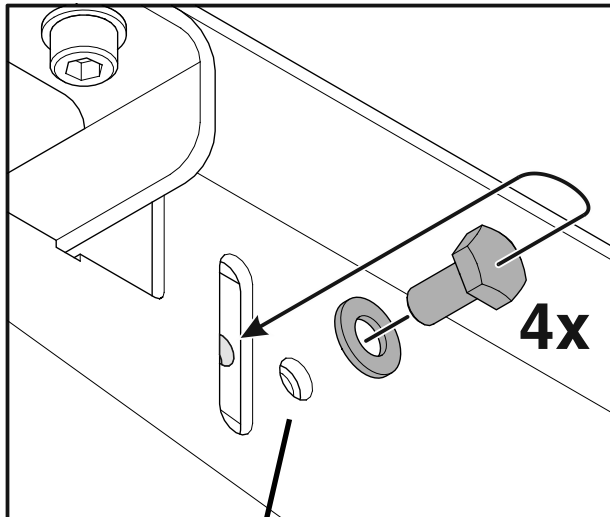


Final height adjustment

Important

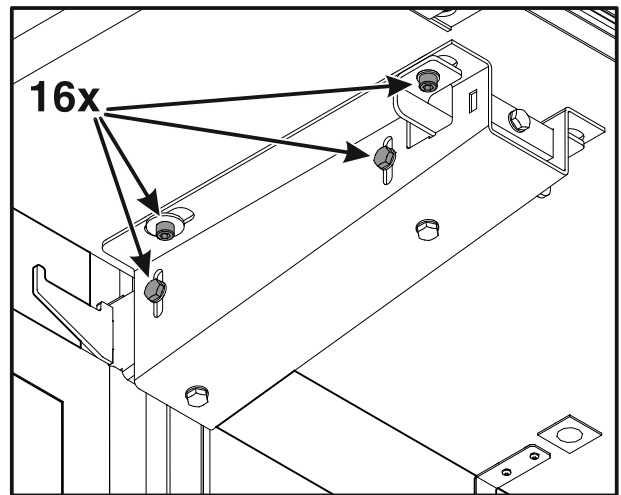
On delivery, the appliance is in a "neutral state". To allow the height to be adjusted, the screws must be inserted into the long slot.

Never remove all the screws at the same time.
Danger of tipping!

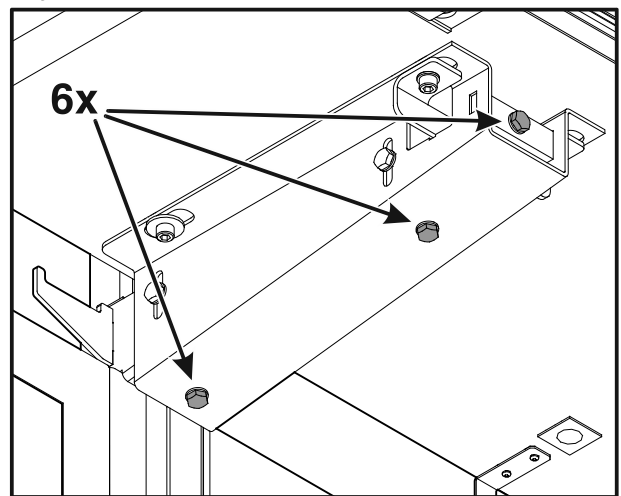


1. Screw types

A) Retaining screws



B) Adjustment screws

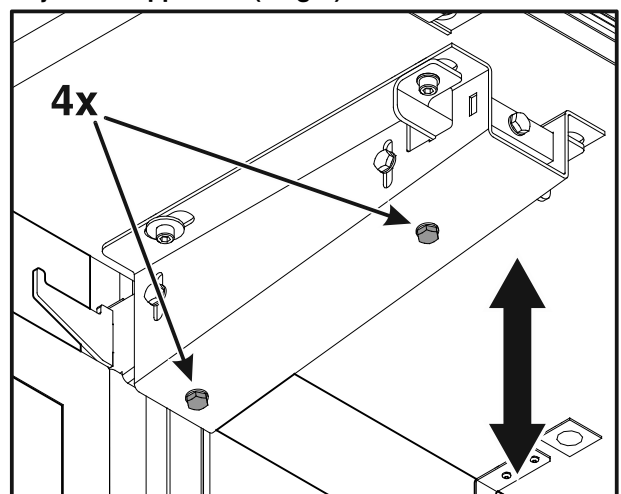


2. Undo the retaining screws

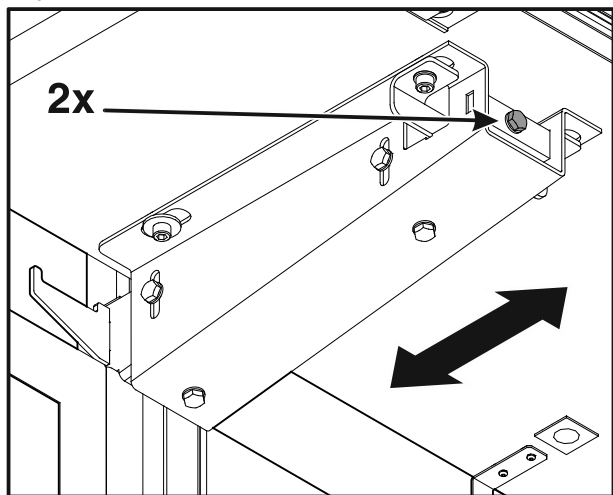
Important!

Never remove the screws.
Danger of tipping.

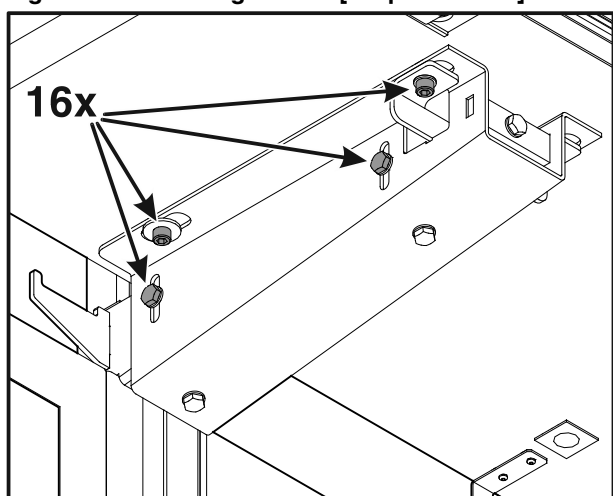
3. Adjust the appliance (height)



4. Adjust the appliance (depth)

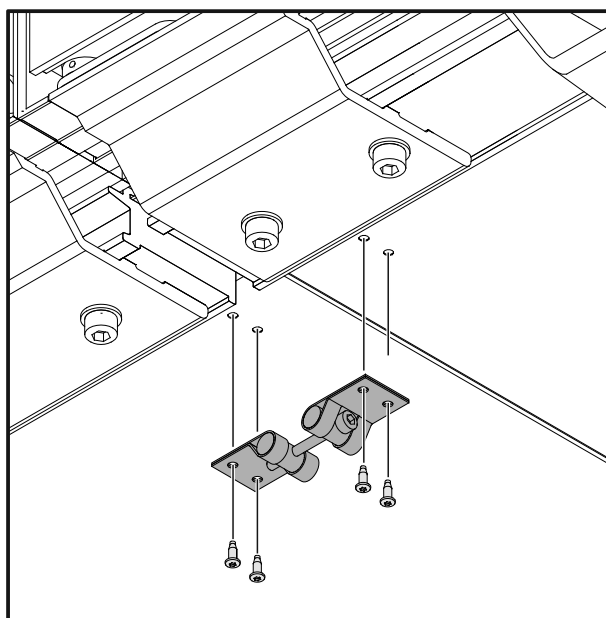
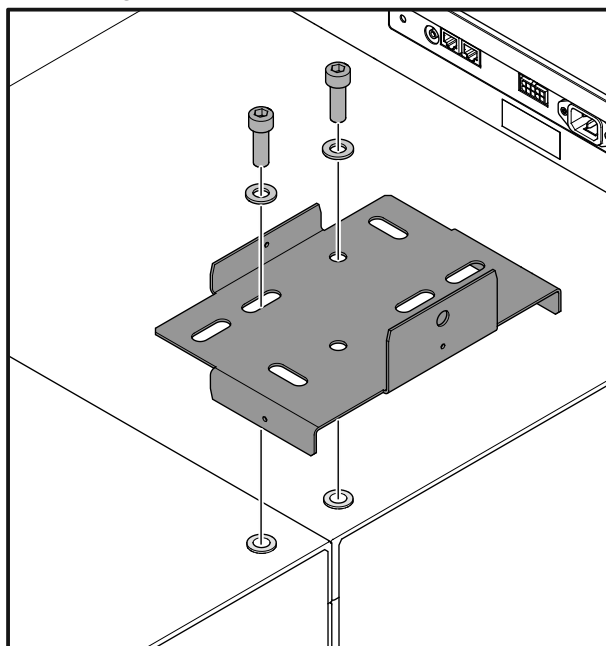


5. Tighten the retaining screws [torque 4-5 Nm]

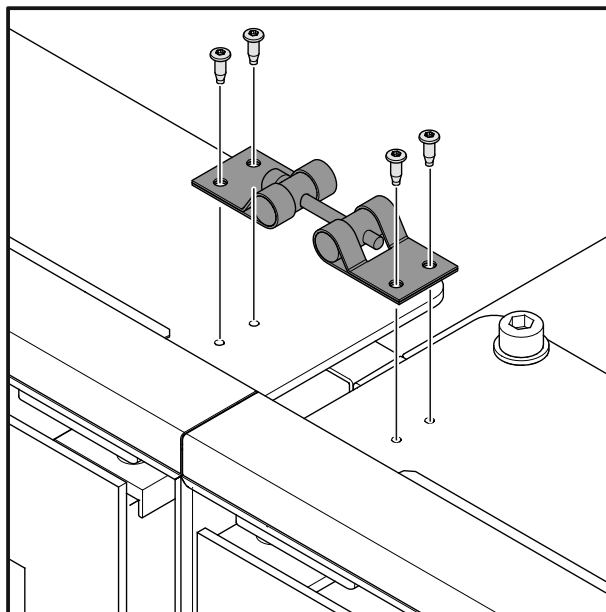


Installing the connecting plates

A) Row configuration [torque 4-5 Nm]

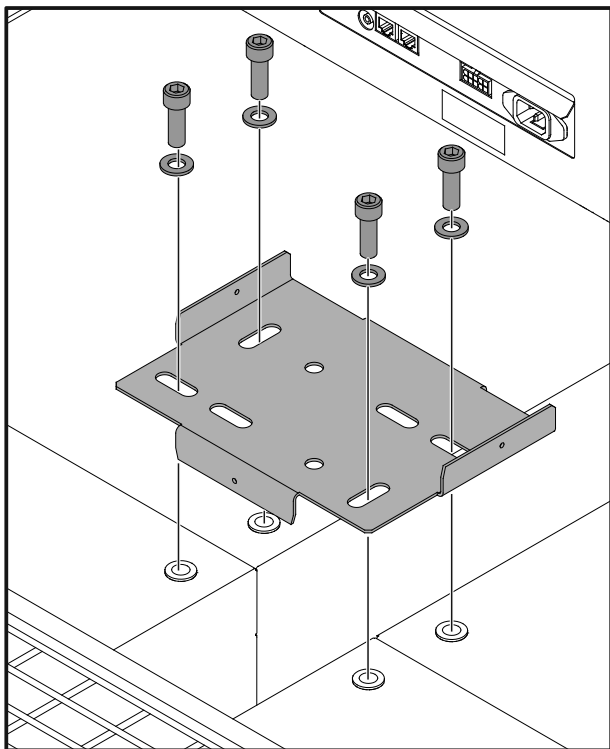


or

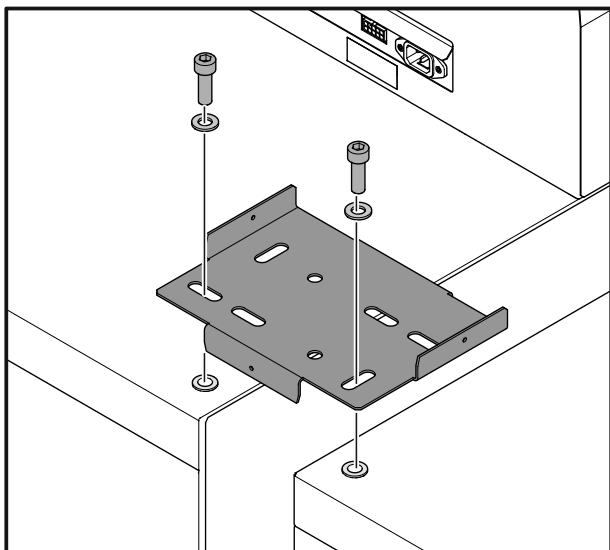


B) Block configuration [torque 4-5 Nm]

A) Block centre

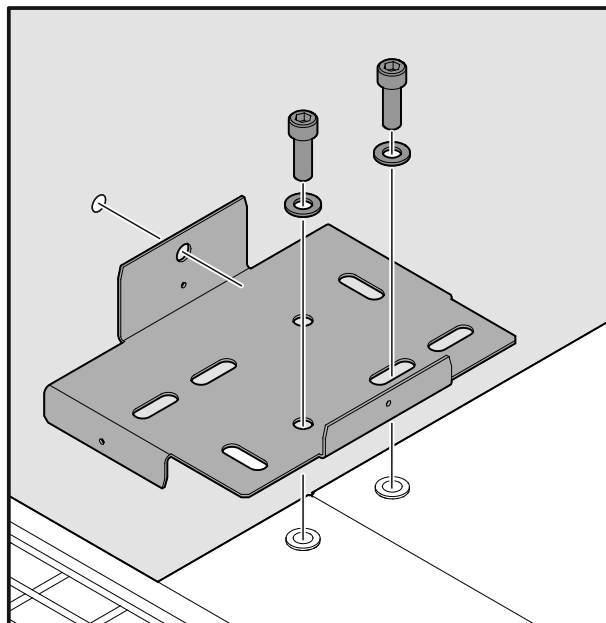


B) Block end

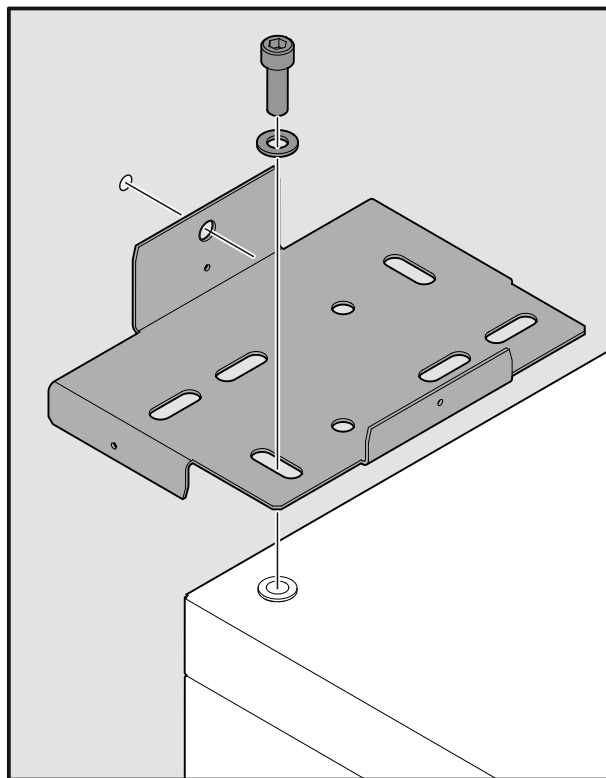


C) Row configuration wall mounting

A) Row centre

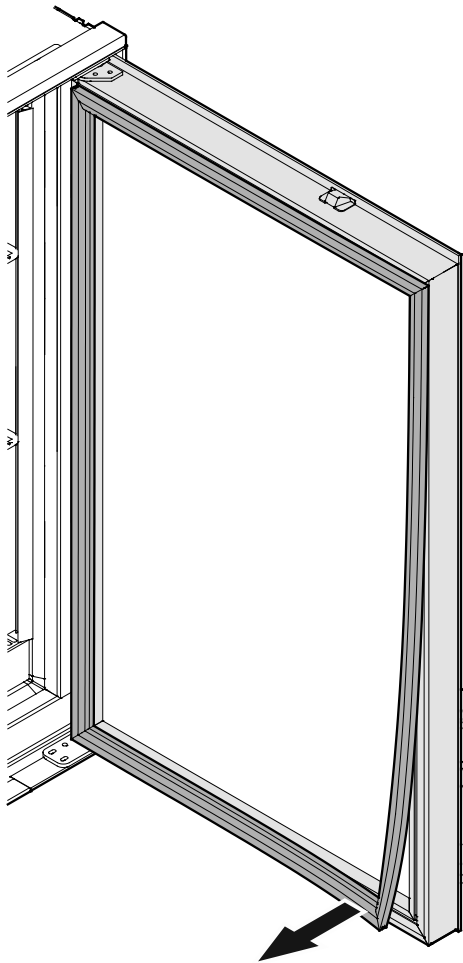


A) Row end

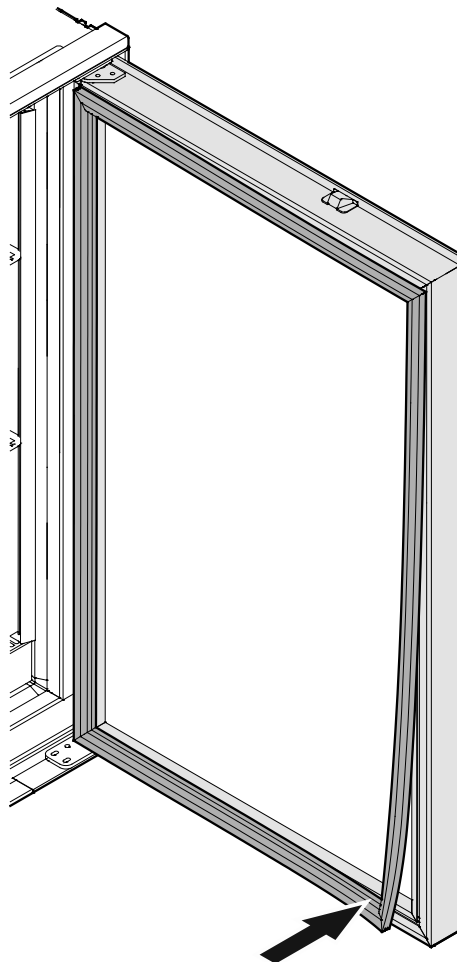


Installing the handle

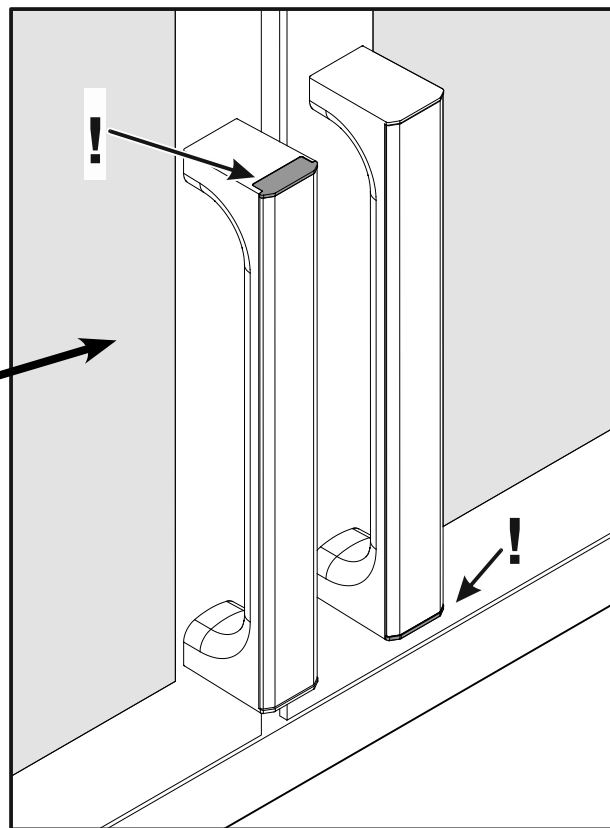
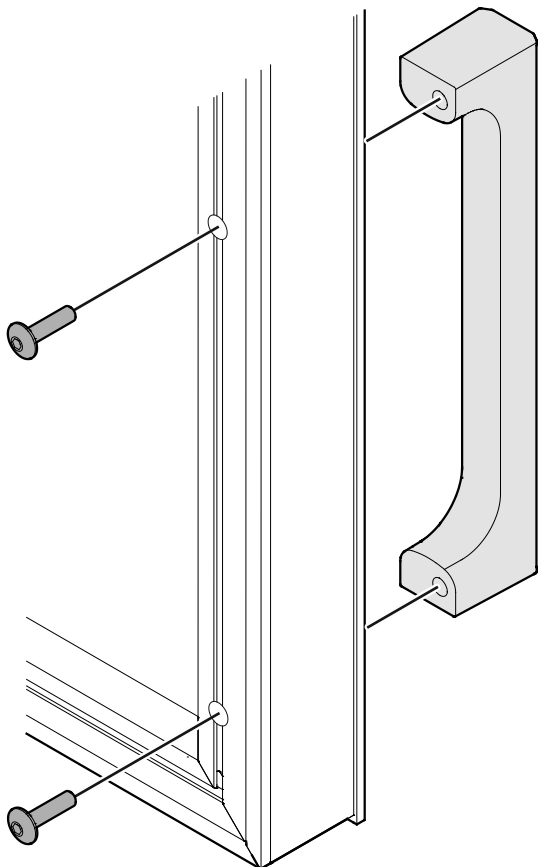
1. Remove the seal



3. Fit the seal

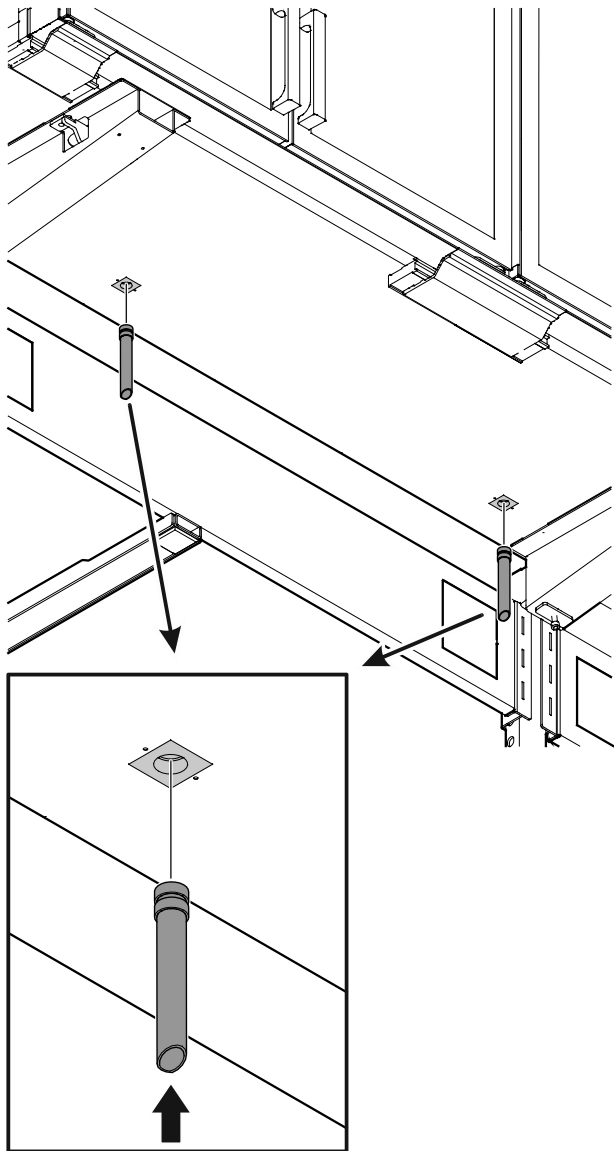


2. Fit the handle [torque 2 Nm]

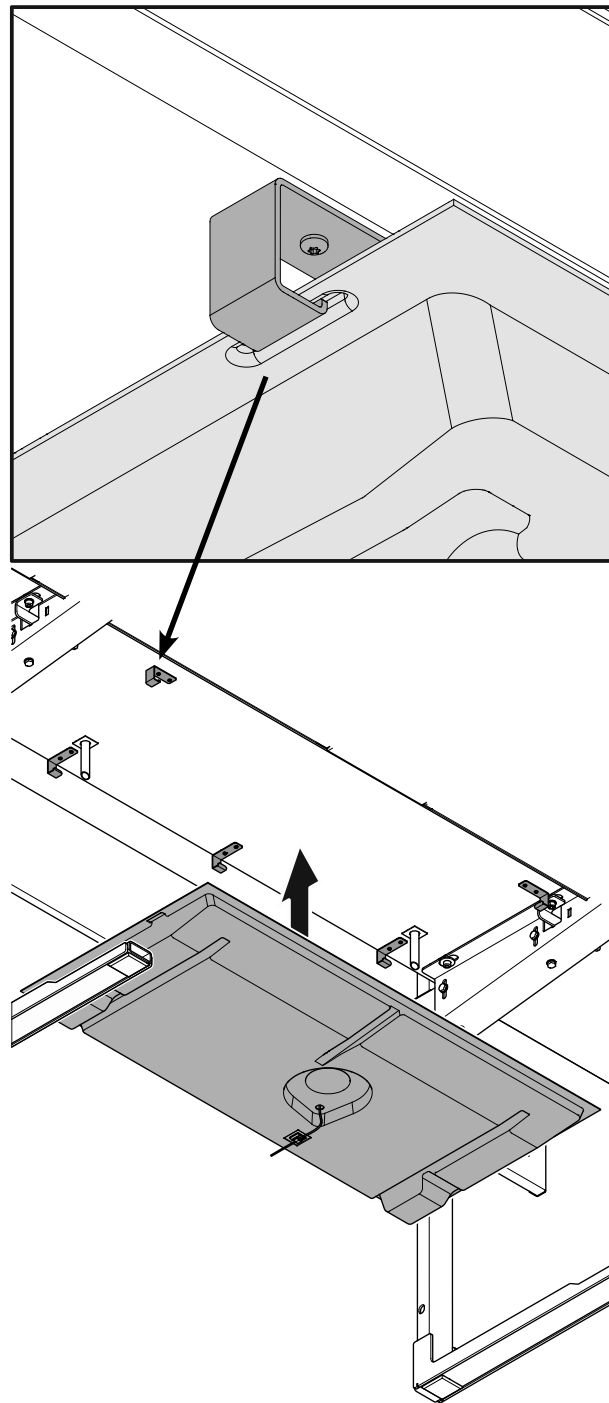


Installing the defrost water collection tray

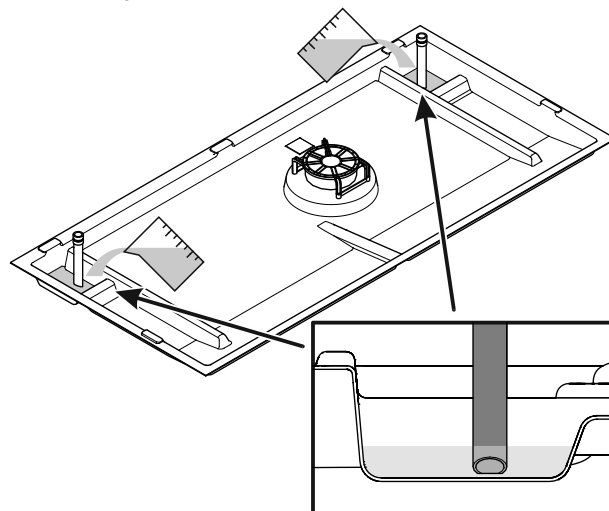
1. Install the drain tube



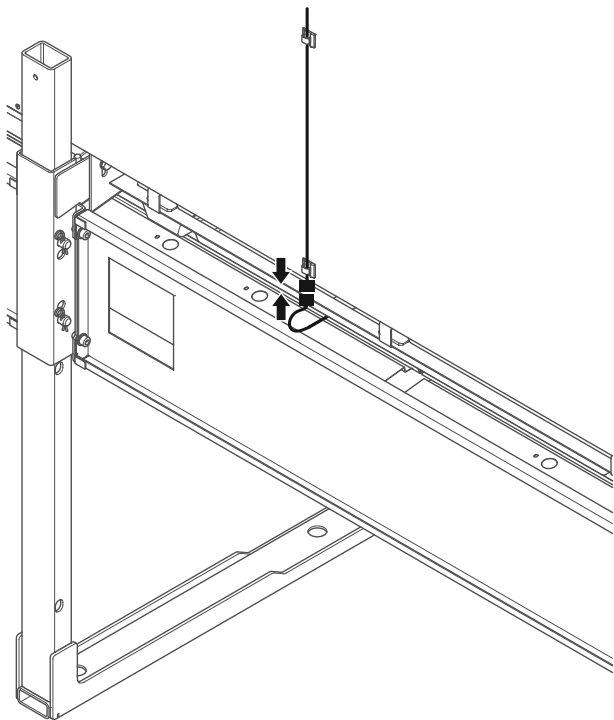
2. Install the defrost water collection tray



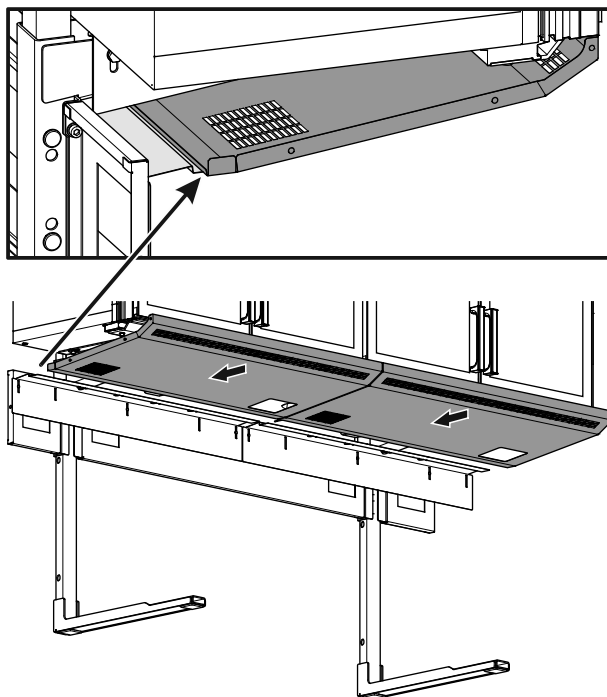
3. Add around 125 ml of water so that the tube outlet is covered by the drain tube



4. Connect the cable

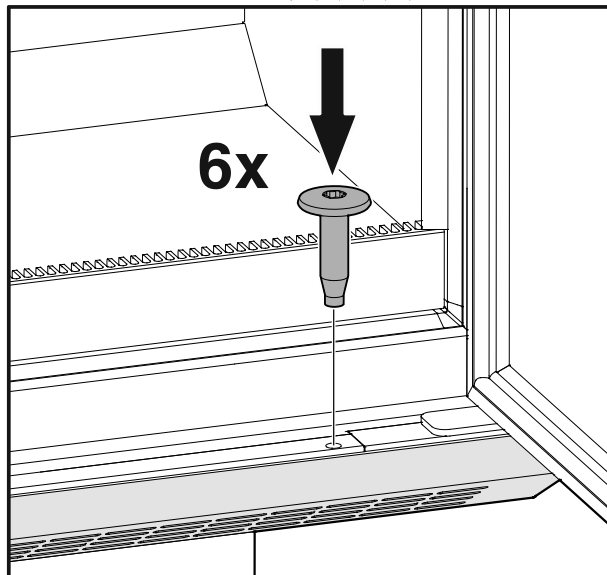
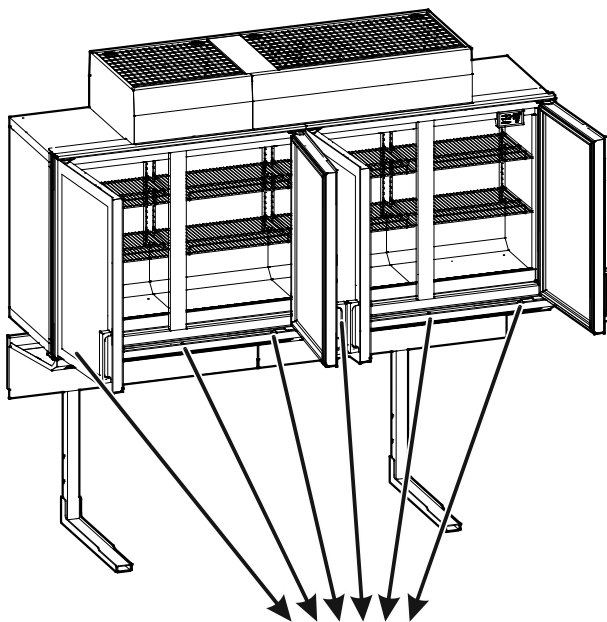
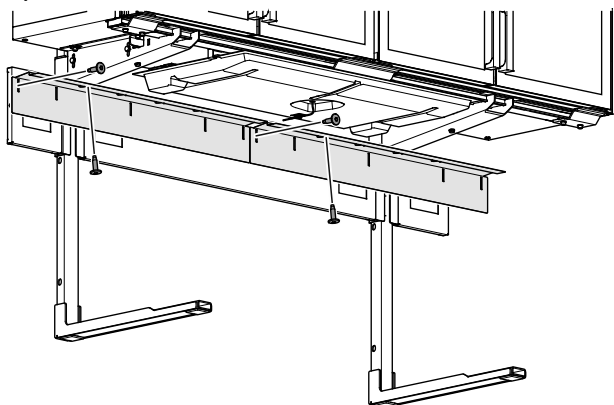


B) Fit the cover



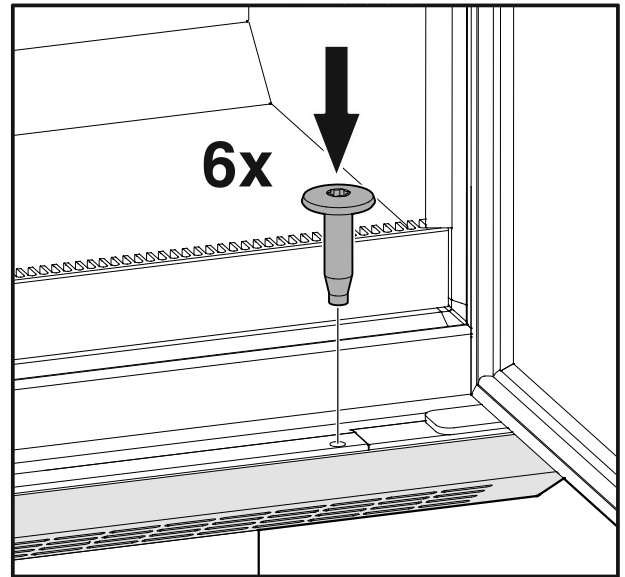
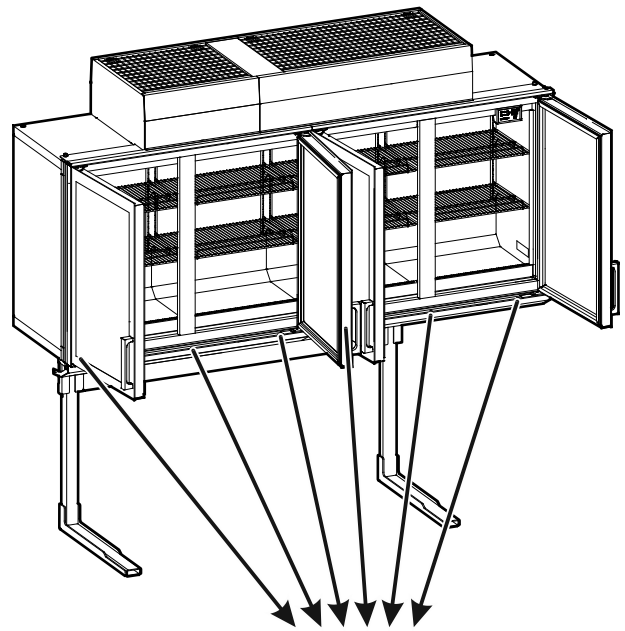
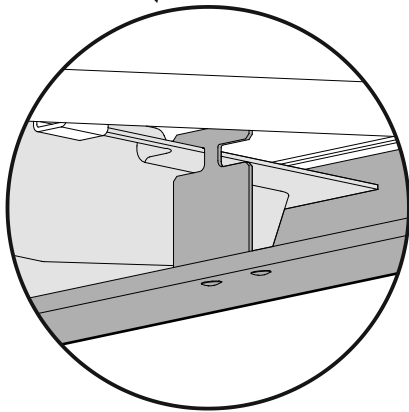
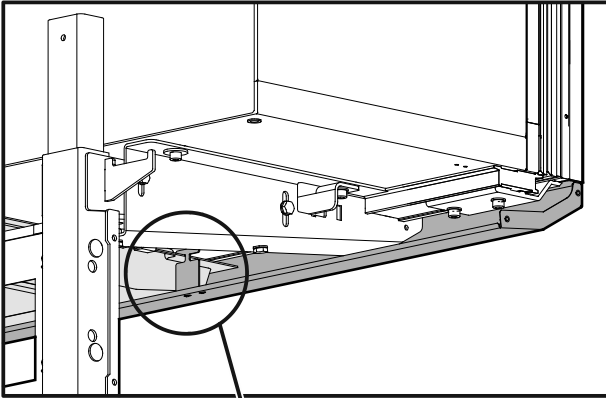
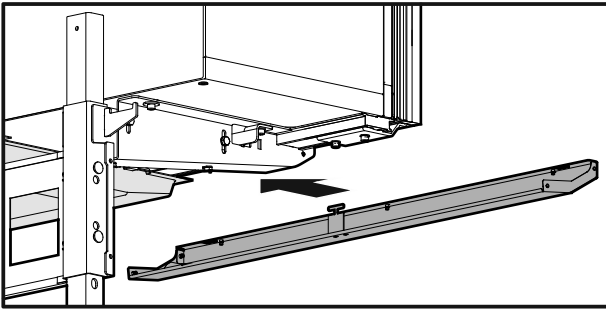
5. Variant 1

A) Fit the cover



6. Variant 2

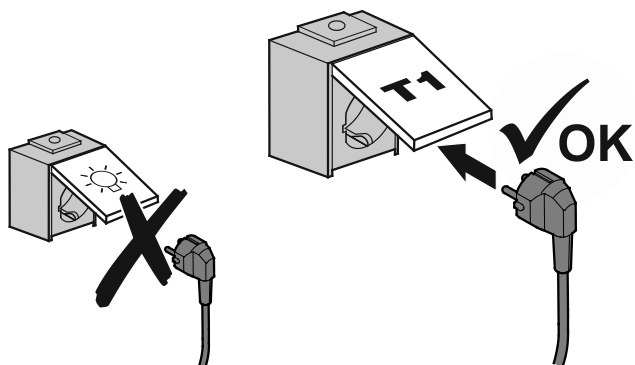
A) Fit the cover



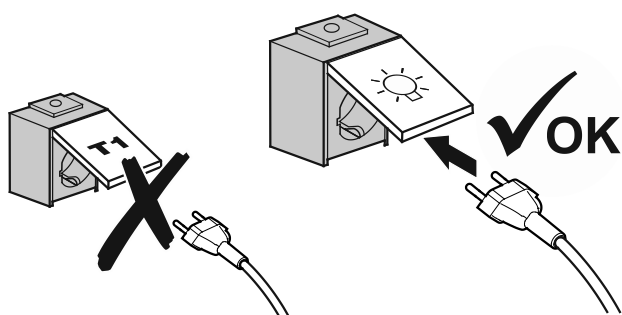
Connecting appliances

If separate circuits are used for lighting and cooling, the relevant sockets must be clearly labelled.

1. Plug the mains plug of the power connection cable into the appropriate socket.



2. Plug the mains plug of the light cable into the appropriate socket.



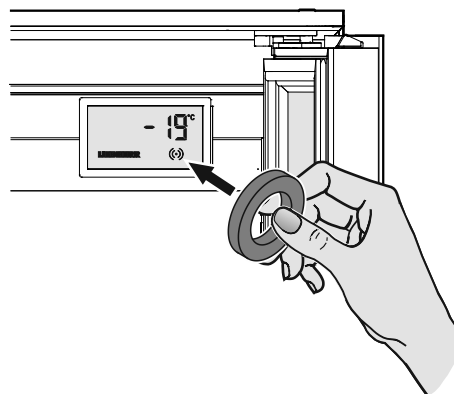
⚠ WARNING

If the mains plug of an appliance is accidentally placed into a lighting socket, when the circuit for the lighting is switched off (e.g. at night), the cooling function will no longer work and the food inside the appliance will be spoiled.

Assigning addresses to the appliances

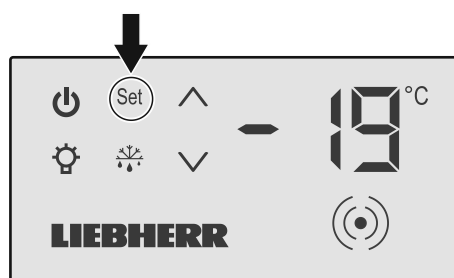
Enter the address (see “Addressing”, page 5) on each appliance individually.

- Touch the activation point on the display with the release key.



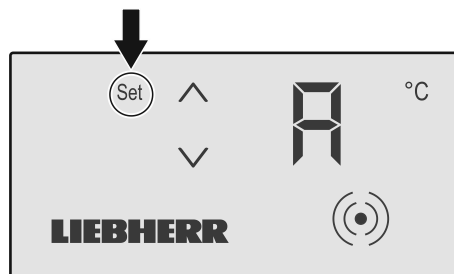
The **control menu** will appear:

- Press Set for approx. 5 seconds.



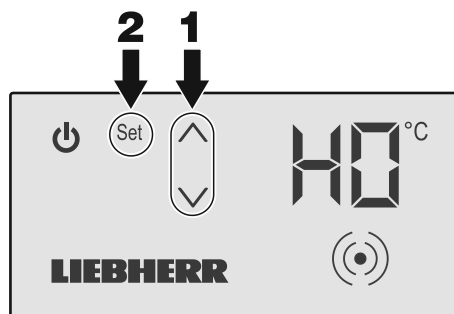
Menu A for entering the address will appear:

- Press Set briefly.



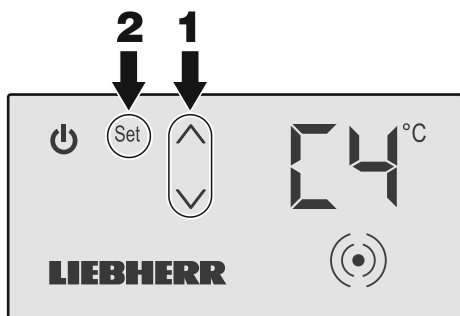
Menu H for entering the hundreds figure will appear; the relevant number will flash:

- Select the required value using $\wedge \vee$.
- Press Set briefly to confirm.



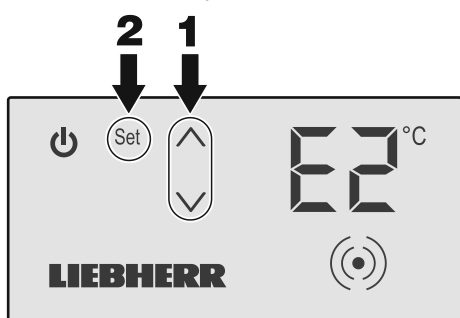
Menu C for entering the tens figure will appear; the relevant number will flash:

- Select the required value using $\wedge \vee$.
- Press Set briefly to confirm.

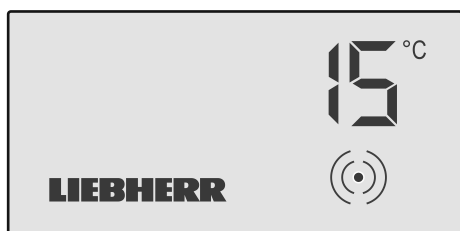


Menu E for entering the units figure will appear; the relevant number will flash:

- Select the required value using $\wedge \vee$.
- Press Set briefly to confirm.



The idle screen will appear:



Note

We recommend that the address of each appliance is noted or documented (e.g. an adhesive label on the rear of the appliance) to speed things up for service work.

Commissioning the appliances

Checks

- Test the lighting connections (if the circuits are separate): Remove the light fuses – all the appliances must be unlit. If this is not the case, the plugs on the appliances which are lit have been inserted in the wrong sockets, see “Connecting appliances”, page 24.
- Check the appliances for correct functioning and correct temperature setting: Test the various appliances to ensure that they function perfectly. If any defects which cannot be rectified are found, please notify our customer service department.
- Check the addresses: Check the settings of the appliances using the test tool.

Note

Remove the dirt caused by the installation, following the information in the section entitled “Cleaning” in the operating instructions.

This completes the installation work.



See the operating instructions of the relevant appliance for further information about operation.

Technical data

	2.50 m	2.1 m
Operating mode	Freezing	Freezing
Description	SFT 1223	SFT 1023
Overall electrical data (including LED lighting)		
Rated voltage	220-240 V	220-240 V
Frequency	50 / 60Hz	50 / 60Hz
Rated current	5 A	5 A
Compressor system inverter (frequency converter)	Yes	Yes
Fuse on each appliance	RCBO 10 to 16 A Characteristic B, C	RCBO 10 to 16 A Characteristic B, C
Length of mains cable	2.50 m	2.50 m
Interface (standard)	CAN bus	CAN bus
Interface (alternative)	MODBUS	MODBUS
Electrical data for LED lighting		
Power consumption	49 W	40 W



Liebherr Hausgeräte Lienz GmbH
Dr.-Hans-Liebherr-Strasse 1
A-9900 Lienz
Österreich
www.liebherr.com

