

SIEMENS



Fridge-freezer

KF... 86N...

siemens-home.bsh-group.com/welcome

en Installation instructions and instructions for use

Register
your
product
online

en Table of contents

	Safety instructions	3
	About these instructions.....	3
	Risk of explosion.....	3
	Risk of electric shock.....	3
	Risk of cold burns.....	3
	Risk of injury.....	3
	Fire hazard/Danger due to refrigerants.....	3
	Fire hazard.....	3
	Avoiding placing children and vulnerable people at risk.....	4
	Damage to property.....	4
	Weight.....	4
	Intended use	4
	Green living	4
	Packaging.....	4
	Old appliances.....	4
	Installation and connection	5
	Scope of supply.....	5
	Technical specifications.....	5
	Installing the appliance.....	5
	Tips for saving energy.....	10
	Before using the appliance for the first time.....	10
	Electrical connection.....	10
	Getting to know your appliance	11
	Appliance.....	11
	Controls.....	12
	Features.....	13
	Operating the appliance	15
	Switching on the appliance.....	15
	Switching off and disconnecting the appliance.....	15
	Switching button lock on or off.....	15
	Setting the temperature unit.....	15
	Setting the temperature.....	16
	Setting humidity.....	16
	Super cooling.....	16
	Super freezing.....	16
	Energy saving mode.....	16
	Freshness mode.....	17
	Holiday mode.....	17
	Setting the light.....	17
	Alarm	18
	Door alarm.....	18
	Temperature alarm.....	18
	Home Connect	18
	Setting up Home Connect.....	18
	Installing updates for the Home Connect software.....	20
	Information on data protection.....	20
	Declaration of Conformity.....	20
	Refrigerator compartment	21
	Note when storing food.....	21
	Note the chill zones in the refrigerator compartment.....	21
	Cool-fresh compartment	21
	Cool-fresh container.....	21
	Storage recommendations.....	21
	Storage times at 32 °F (0 °C).....	22
	Freezer compartment	22
	Maximum freezing capacity.....	22
	Purchasing frozen food.....	22
	Note when loading products.....	22
	Freezing fresh food.....	22
	Defrosting frozen food.....	23
	Defrosting	23
	Cleaning	23
	Cleaning the appliance interior.....	23
	Cleaning the equipment.....	23
	Odours	25
	Lighting	25
	Noises	25
	Normal noises.....	25
	Preventing noises.....	25
	What to do in the event of a fault	26
	Customer Service	27
	Appliance self-test.....	27
	Obtaining advice and ordering repairs if a fault occurs.....	27
	Guarantee.....	27

Safety instructions

This appliance complies with the relevant safety regulations for electrical appliances and is fitted with noise suppression.

The refrigeration circuit has been checked for leaks.

About these instructions

- Read and follow the instructions for installation and use. They contain important information on how to install, use and maintain the appliance.
- The manufacturer is not liable if you disregard the notifications and warnings in the operating and installation instructions.
- Retain all documents for subsequent use or for the next owner.

Risk of explosion

- Never use electric appliances inside the appliance (e.g. heaters or electric ice makers).
- Do not store products which contain flammable propellant (e.g. spray cans) or explosive substances in the appliance.
- Keep high-percentage alcohol tightly sealed and store in an upright position.
- Do not use additional means to accelerate the defrosting process other than those recommended by the manufacturer.

Risk of electric shock

Improper installations and repairs may put the user at considerable risk.

- When installing the appliance, ensure that the mains cable is not trapped or damaged.
- If the mains cable is damaged: immediately disconnect the appliance from the electricity supply.
- Do not use multi-outlet power strips, extension leads or adapters.
- Have the appliance repaired by the manufacturer, Customer Service or a similarly qualified person only.
- Use original parts supplied by the manufacturer only.

The manufacturer guarantees that these parts satisfy the safety requirements.

Risk of cold burns

- Never put frozen food straight from the freezer compartment into your mouth.
- Avoid prolonged contact between your skin and frozen food, ice or the tubes in the freezer compartment.

Risk of injury

Containers which contain carbonated beverages may burst.

Do not store containers which contain carbonated beverages in the freezer compartment.



Fire hazard/Danger due to refrigerants

The tubes of the refrigeration circuit convey a small quantity of an environmentally friendly but flammable refrigerant (R600a). It does not damage the ozone layer and does not contribute to the greenhouse effect. If refrigerant escapes, it may injure your eyes or ignite.

- Do not damage the tubes.

If the tubes are damaged:

- Keep naked flames and ignition sources away from the appliance.
- Ventilate the room.
- Switch off the appliance and pull out the mains plug.
- Please contact Customer Service.



Fire hazard

Portable multi-outlet power strips or power supplies may overheat, causing a fire. Never leave portable multi-outlet power strips or portable power supplies behind the appliance.

Avoiding placing children and vulnerable people at risk

At risk here are:

- Children,
- People with limited physical, mental or sensory abilities,
- People who have inadequate knowledge concerning safe operation of the appliance.

Measures:

- Ensure that children and vulnerable people have understood the hazards.
- A person responsible for safety must supervise or instruct children and vulnerable people who are using the appliance.
- Only children aged 8 years and above may use the appliance.
- Supervise children who are cleaning and maintaining the appliance.
- Never allow children to play with the appliance.

Risk of suffocation

- If the appliance features a lock: keep the key out of the reach of children.
- Keep children away from the packaging and its parts.

Damage to property

To prevent damage to property:

- Do not stand or support yourself on the base, runners or doors.
- Keep plastic parts and door seals free of oil and grease.
- Pull on the mains plug – not the power cord.

Weight

The appliance is very heavy. The appliance should always be transported and set up by at least 2 persons.

→ "Installation and connection" on page 5

Intended use

Use this appliance

- Only for the cooling and freezing of food and for making ice.
- Only in the home and in the home environment.
- Only according to this user manual.

This appliance is intended for use up to a maximum height of 2000 metres above sea level.

Green living


Packaging

All materials are environmentally safe and recyclable:

- Dispose of packaging in an environmentally friendly manner.
- Please ask your dealer or inquire at your local authority about current means of disposal.

Old appliances

Valuable raw materials can be reclaimed by recycling old appliances.

 **Warning – Children may become locked in the appliance and suffocate!**

- Leave shelves and containers in the appliance to prevent children from climbing in.
- Keep children away from the redundant appliance.

Caution!

Refrigerant and harmful gases may escape.

Do not damage the tubes of the refrigerant circuit or the insulation.

1. Pull out the mains plug.
2. Cut through the power cable.
3. Have the appliance disposed of properly.

Disposal of your old appliance (as per e-waste Rules)

1. When this crossed out wheeled bin symbol is depicted on the product and its operator's manual, it means the product is covered by the e-waste Management and Handling Rules 2016, and are meant to be recycled, dismantled, refurbished or disposed off by properly qualified personnel and technology.



Dos

- The product is required to be handed over only to the authorized recycler for disposal:
www.bosch-home.com/in/about-bosch/responsibility.html
See also:
Contact No: 180042535287 (toll-free)
E-mail: recycle@ewasteindia.com
Online website: www.ewasteindia.com
- Keep the product in isolated area, after it becomes non-functional/un-repairable so as to prevent its accidental breakage.

Don't

- The product should not be opened by the user himself/herself, but only by authorized service personnel.
 - The product is not meant for re-sale to any unauthorized agencies/scrap dealer/kabariwalah.
 - The product is not meant for mixing into household waste stream.
 - Do not keep any replaced spare part(s) from the product in exposed area.
2. Any disposal through unauthorized agencies/person will attract action under Environment (Protection) Act 1986.

Note: This product doesn't use any hazardous - substances as specified in the E-waste (Management) Rules 2016.

Installation and connection

Scope of supply

After unpacking all parts, check for any damage in transit.

If you have any complaints, contact the dealer from whom you purchased the appliance or our Customer Service.

→ "Customer Service" on page 27

The delivery consists of the following parts:

- Free-standing appliance
- Interior fittings (depending on model)
- User manual
- Customer service booklet
- Warranty enclosure
- Information on the energy consumption and noises

Technical specifications

Refrigerant, cubic capacity and further technical specifications can be found on the rating plate.

→ "Getting to know your appliance" on page 11

Installing the appliance**Installation location**

The more refrigerant an appliance contains, the larger the room in which the appliance is situated must be. In rooms which are too small, leaking refrigerant can form a flammable gas-air mixture.

At least 1 m³ of room space is required per 8 g of refrigerant. The amount of refrigerant in your appliance is indicated on the rating plate inside the appliance.

→ "Getting to know your appliance" on page 11

The weight of the appliance may be up to 180 kg depending on the model. The base must be sufficiently stable, and should not give. If necessary, reinforce the floor.

Permitted room temperature

The permitted room temperature depends on the climate class of the appliance.

Information on the climate class can be found on the rating plate.

→ "Getting to know your appliance" on page 11

Climate class	Permitted room temperature
SN	50 °F ... 90 °F (+10 °C ... 32 °C)
N	61 °F ... 90 °F (+16 °C ... 32 °C)
ST	61 °F ... 100 °F (+16 °C ... 38 °C)
T	61 °F ... 110 °F (+16 °C ... 43 °C)

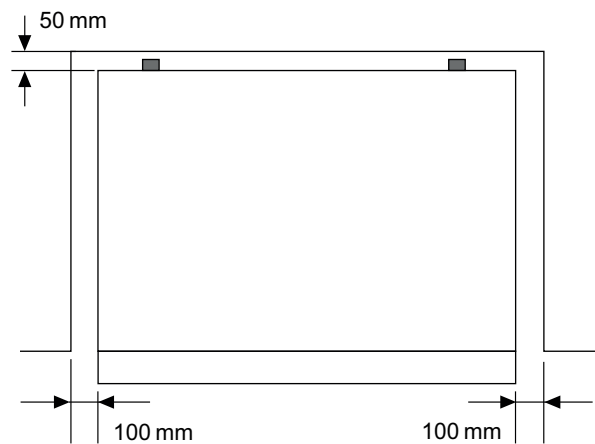
The appliance is fully functional within the permitted room temperature.

If an appliance with climate class SN is operated at colder room temperatures, the appliance will not be damaged up to a room temperature of +5 °C.

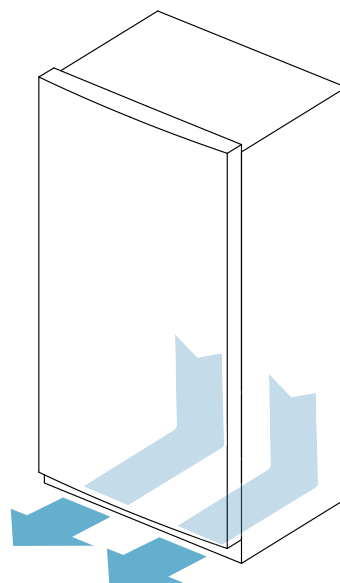
Minimum clearances

Leave a distance of 300 mm above the appliance.

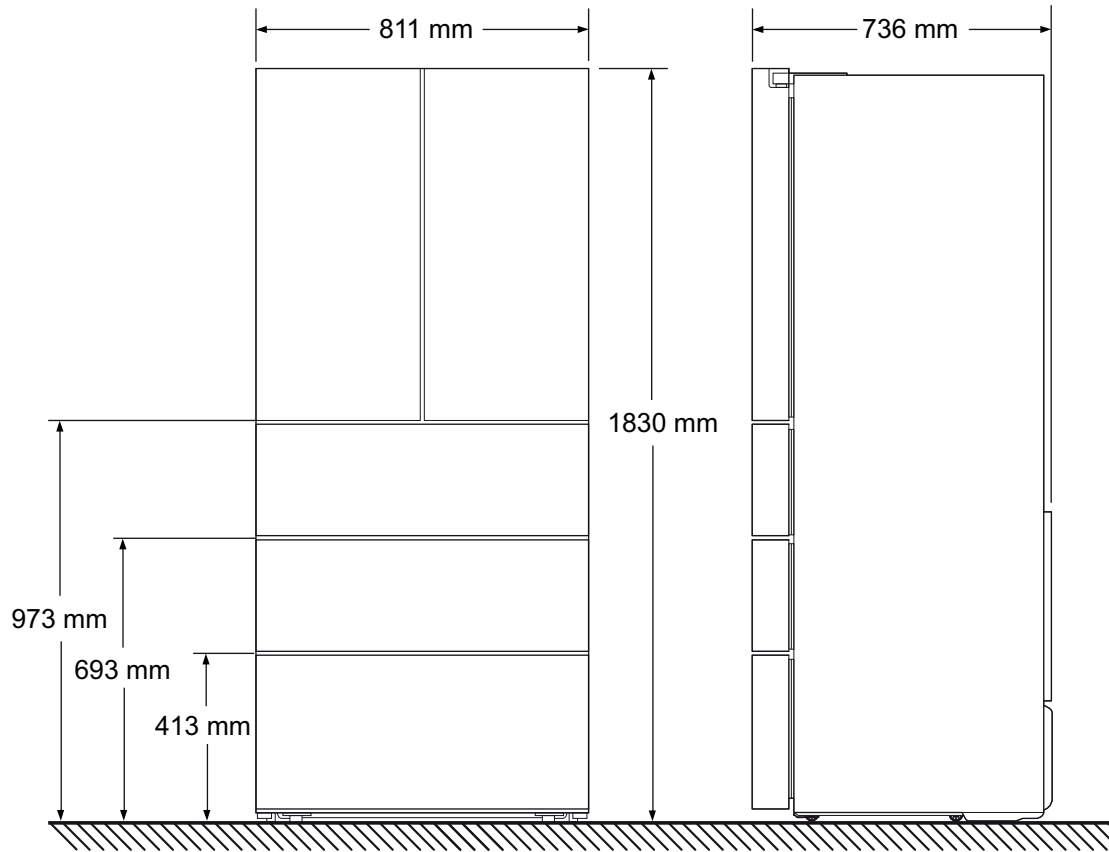
Observe minimum clearances as follows:

**Ventilation**

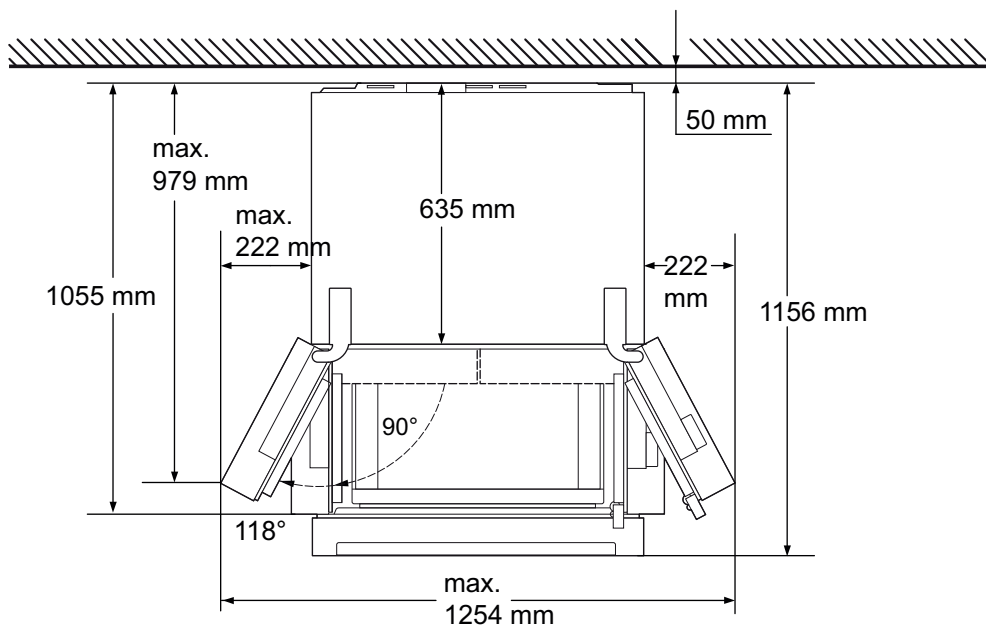
Never cover or block ventilation openings.



Installation dimensions



Door opening angle



Aligning the appliance

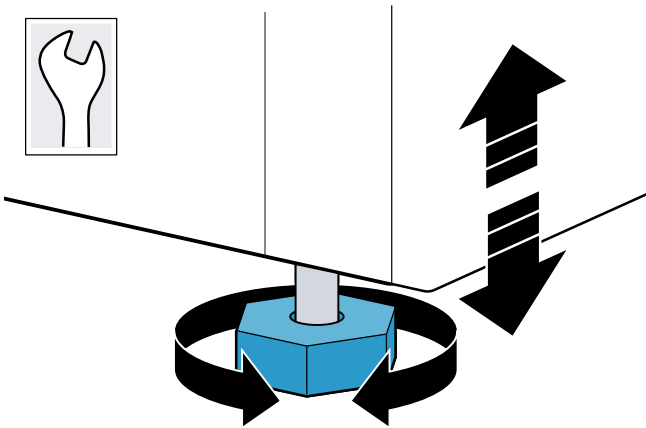
Caution!

- To avoid damage to the floor, always move the appliance with the height-adjustable feet screwed upwards.
- The two front height-adjustable feet must always be in contact with the floor to avoid the appliance from rolling or tipping when the door is opened.

Rollers are located under the appliance for easy movement and alignment:

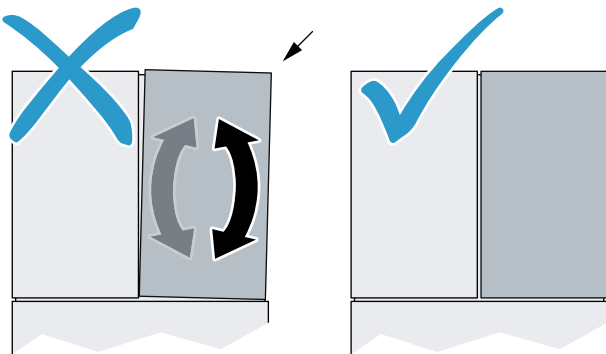
1. Place the appliance vertically on a firm, level floor.
2. Using a wrench, screw down both of the front height-adjustable feet so that they touch the floor.
3. Compensate for floor unevenness with the front height-adjustable feet.

Note: To align, use a spirit level.



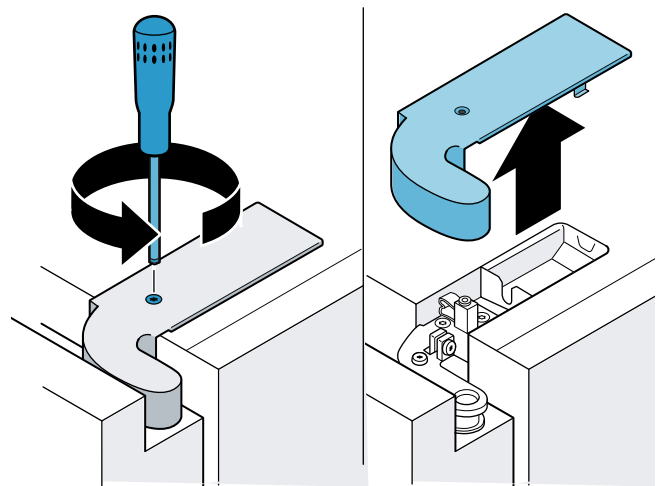
Align refrigerator compartment doors

Align the vertical gap of the doors:



Note: Remove the contents of the doors, if present.

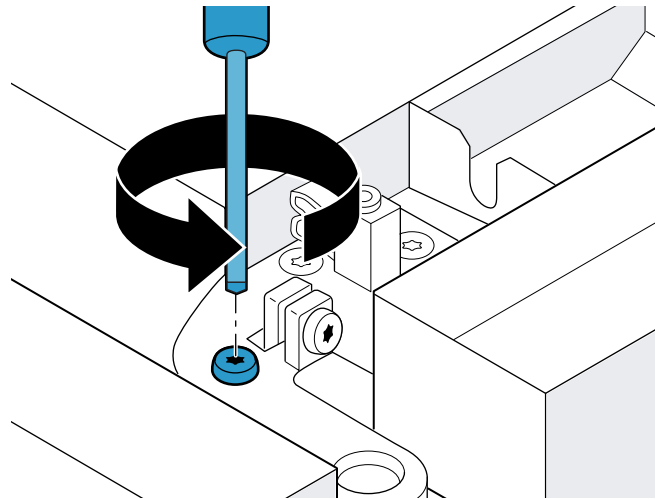
1. Remove the screw T20 and cap on the door hinge.



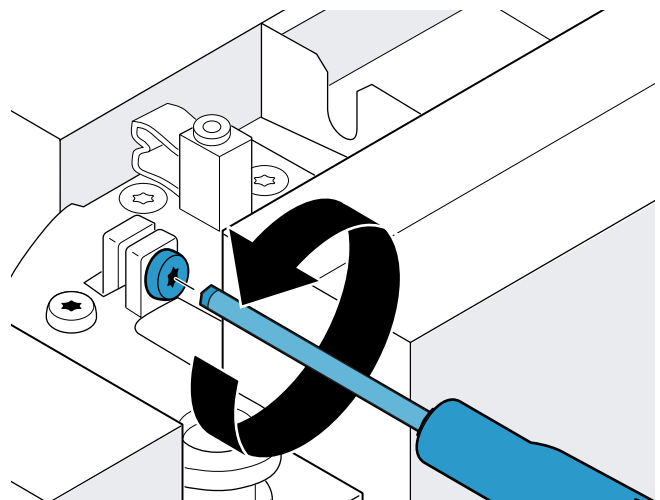
2. Loosen the safety screw.

Caution!

Do not remove the safety screw.

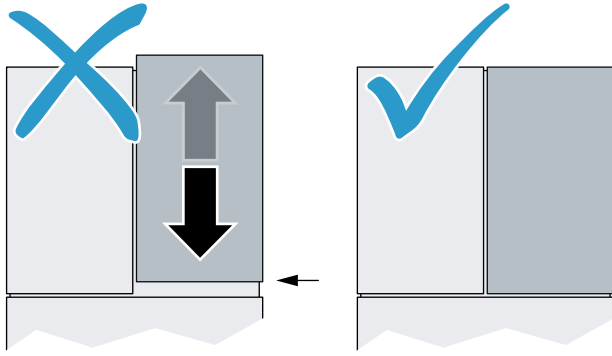


3. With the door closed, turn the adjustment screw until the desired position is reached.
 - To move the upper end of the door outwards, turn clockwise.
 - To move the upper end of the door inwards, turn anticlockwise.



4. To check the position, close the door and correct if necessary.
5. Tighten the safety screw again.
6. Fit the cap and screw in the screw T20 again.

Align the horizontal gap between the doors:

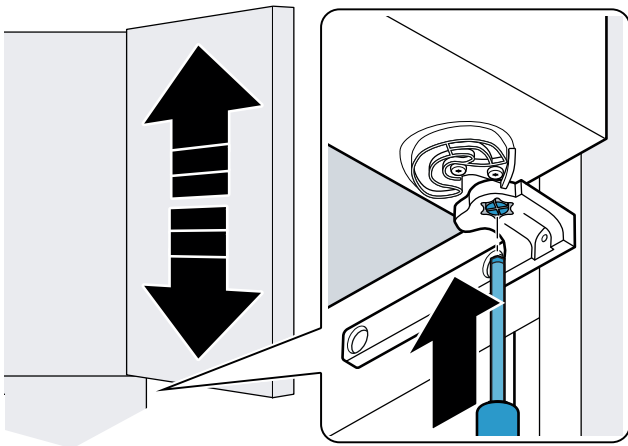


Caution!

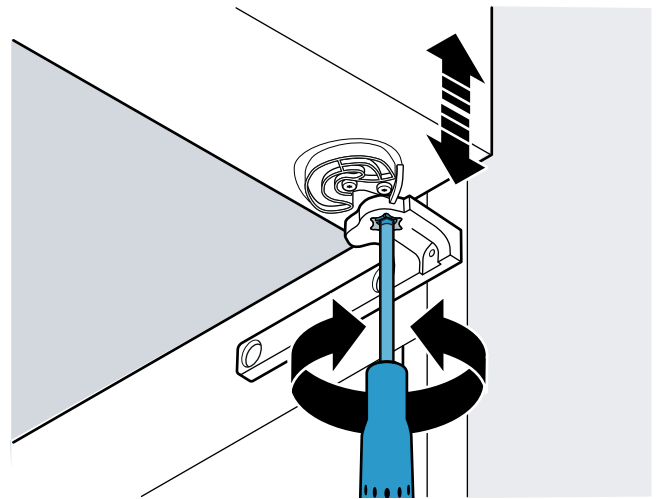
To avoid damage to the appliance, move the right-hand door down if the door pillar at the top collides with the housing.

Note: Remove the contents of the doors, if present.

1. Open the door and drawer.
2. Lift the door and insert a screwdriver into the door hinge from below.



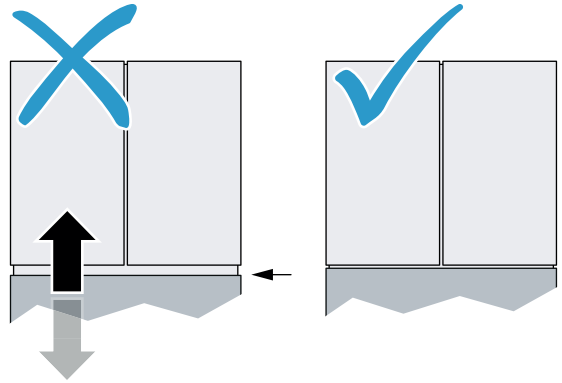
3. Push up the adjustable part and turn through 60° until the desired position is reached.
 - The door height can be set at 2 levels, adjusted by 1/16" (1.5 mm) in each case. The higher level is followed by the lower. The adjustable part engages as soon as a position is reached.
 - To move the door up, turn clockwise.
 - To move the door down, turn anticlockwise.



4. To check the position, close the door and drawer and correct if necessary.

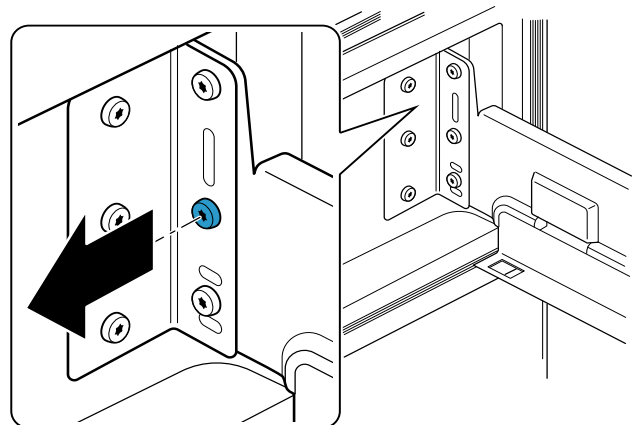
Aligning the drawers

You can align the drawer vertically:



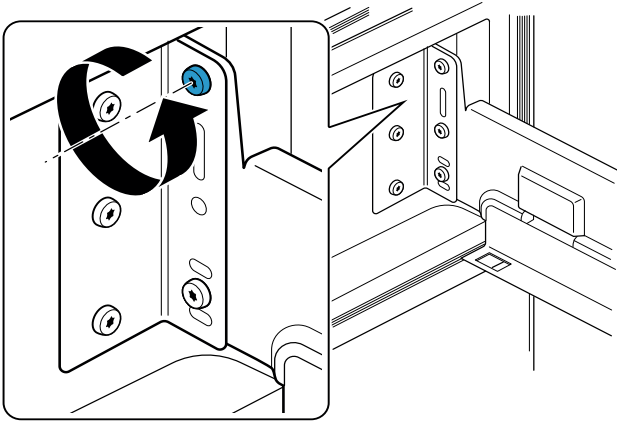
1. Open the drawer as far as it will go and remove the container.
2. Remove the middle screw on both sides.

Note: If you want to reset to the drawer to the factory settings, retain the screws.

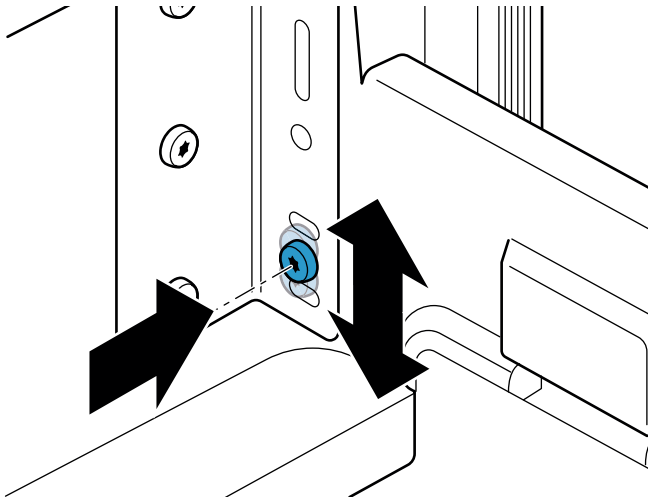


3. Loosen the upper screw on both sides.

Note: Do not remove the screws.

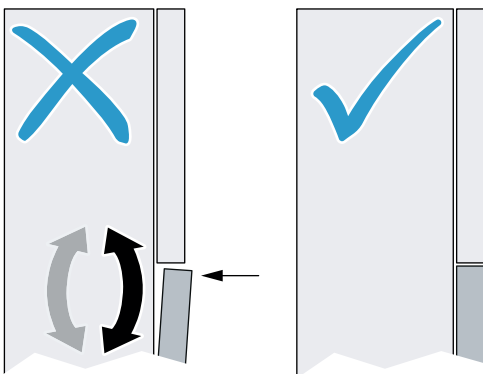


4. Lift the drawer and remove the lower screw on both sides.
 5. Move the drawer upwards or downwards into the required position and screw the lower screw into one of the available holes.
- Note:** The drawer can be adjusted by 1/16" (2 mm) up and down.



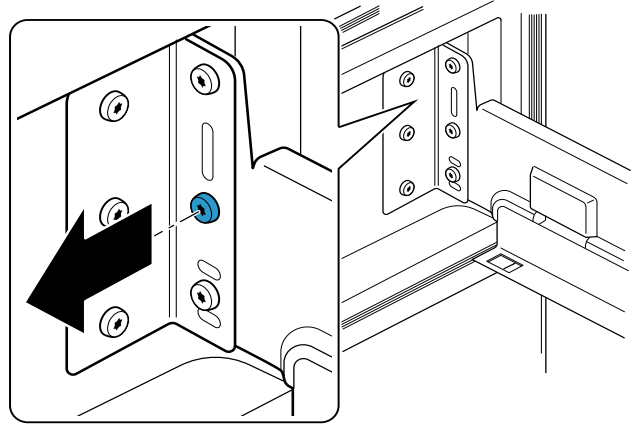
6. Retighten all screws.
7. To check the position, close the drawer and correct if necessary.

You can adjust the angle of the drawer:

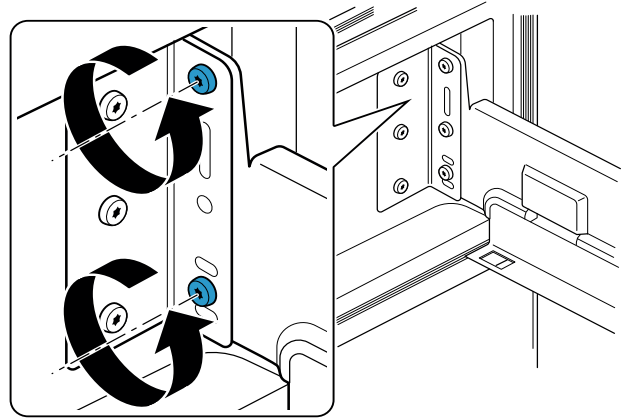


1. Open the drawer as far as it will go and remove the container.
2. Remove the middle screw on both sides.

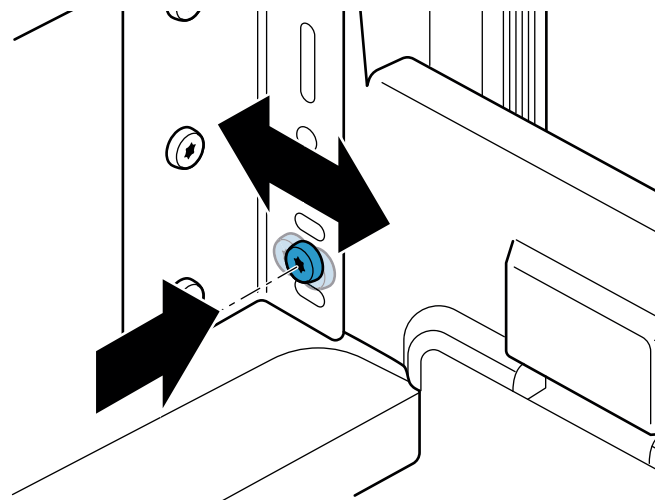
Note: If you want to reset to the drawer to the factory settings, retain the screws.



3. Loosen the upper and lower screw on both sides.
- Note:** Do not remove the screws.



4. Move the drawer left or right into the desired position on the lower screw and tighten the screw.



5. Retighten all screws.
6. To check the position, close the drawer and correct if necessary.

Tips for saving energy

If you follow the instructions below, your appliance will use less power.

Note: The arrangement of the features does not affect the energy consumption of the appliance.

Installing the appliance	
Keep the appliance out of direct sunlight.	The appliance needs to cool less frequently at low ambient temperatures and therefore consumes less power.
Install the appliance as far away as possible from heating elements, cookers and other heat sources: 3 cm to electric or gas cookers 30 cm to oil or solid-fuel cookers	
Select an installation location with a room temperature of approx. 20 °C (68 °F).	
Do not cover or block the ventilation openings.	The air on the back wall of the appliance does not warm up so intensely. The appliance consumes less power if the warm air can escape.
Ventilate the room daily.	
Using the appliance	
Open the appliance door only briefly.	The air in the appliance does not warm up so intensely. The appliance needs to cool less frequently and therefore consumes less power.
Transport purchased food in a cool bag and place in the appliance quickly.	
Allow warm food and drink to cool down before placing in the appliance.	
Thaw frozen food in the refrigerator compartment to utilise the low temperature of the food.	The air can then circulate and the humidity will remain constant. The appliance needs to cool less frequently and therefore consumes less power.
Always leave a space between the food and the back wall.	
Pack food airtight.	
Vacuum the rear of the appliance once a year.	
Do not cover or block the ventilation openings.	The air on the back wall of the appliance does not warm up so intensely. The appliance consumes less power if the warm air can escape.
Switching off the lighting	Set the brightness level OF . → "Setting the light" on page 17

Before using the appliance for the first time

1. Remove information material, adhesive tape and protective film.
2. Remove the mains cable from the appliance.
3. Clean the appliance.
→ "Cleaning" on page 23
4. Install the fittings.
→ "Features" on page 13

Electrical connection

Caution!

Do not connect the appliance to electronic energy saver plugs.

Note: You can connect the appliance to mains-controlled and sine-controlled inverters. Mains-controlled inverters are used for photovoltaic systems which are directly connected to the national grid. Sine-controlled inverters must be used for isolated applications. Isolated applications, e.g. on ships or in mountain lodges, which are not directly connected to the national grid.

1. After installing the appliance, wait at least 1 hour before connecting it to avoid damaging the compressor.

2. Insert the mains cable plug in the appliance.
3. Connect the appliance to a correctly installed socket.
The socket must comply with the following data:
Socket with 220 V ... 240 V
Protective conductor 50 Hz
Fuse 10 A ... 16 A
Outside Europe: Check whether the indicated current type of the appliance corresponds with the values of your power supply. The appliance specifications are specified on the rating plate.
→ "Getting to know your appliance" on page 11
4. Connect the appliance to a socket near the appliance.
The socket must also be freely accessible after installation of the appliance.

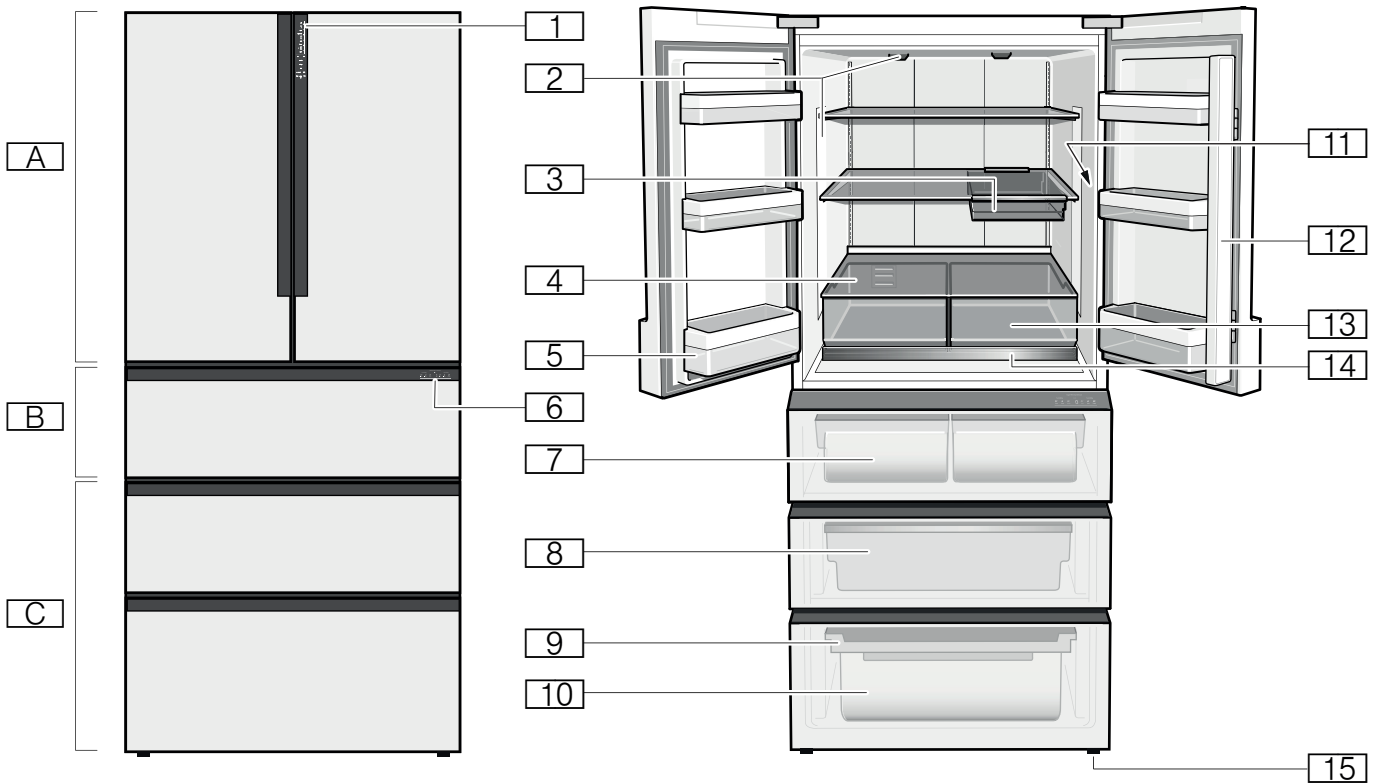
Warning

Risk of electric shock!

If the length of the mains cable is insufficient, do NOT use multi-outlet power strips or extension leads. Instead, please contact Customer Service for alternative solutions.

Getting to know your appliance

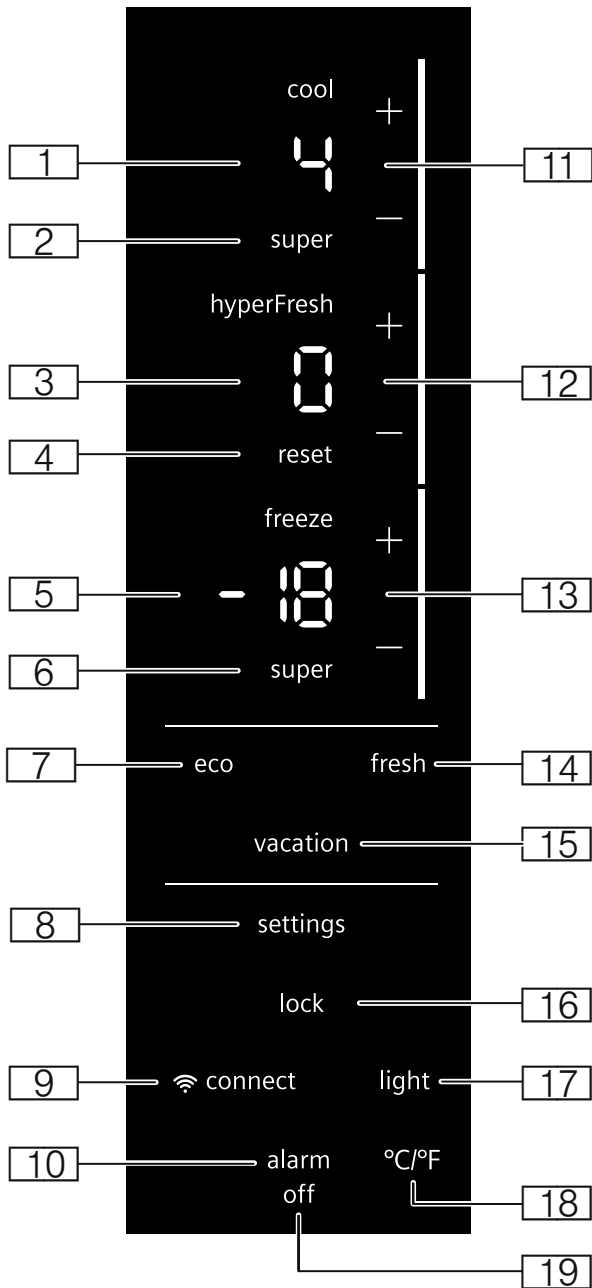
Appliance



- A** Refrigerator compartment
- B** Cool-fresh compartment
- C** Freezer compartment

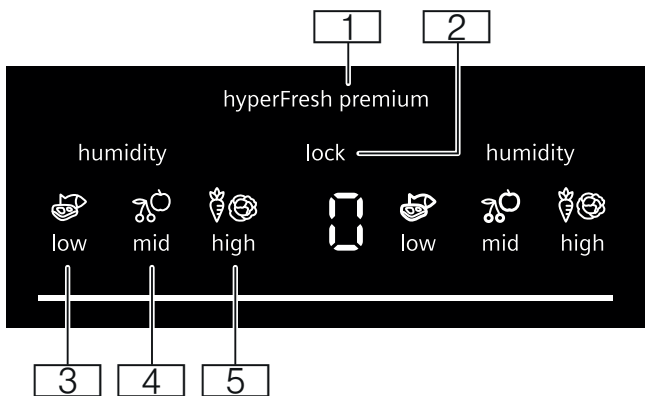
- 1** Controls
- 2** Lighting
- 3** Snack container
- 4** Fixed shelf
- 5** Shelf for large bottles
- 6** Controls for cool-fresh compartment
- 7** Cool-fresh container
- 8** Frozen food container
- 9** Freezer container (flat)
- 10** Frozen food container (large)
- 11** Rating plate
- 12** Door pillar with condensation protection
- 13** Vegetable container
- 14** Extendable shelf
- 15** Height-adjustable feet

Controls



- 1** Refrigerator compartment temperature display
Indicates the set temperature in °C/°F.
- 2** Button **super** refrigerator compartment
Switches Super cooling on or off.
- 3** Cool-fresh compartment temperature display
Indicates the set temperature in °C/°F.
- 4** **reset** button
Sets the temperature in the cool-fresh compartment back to the factory settings.
- 5** Freezer compartment temperature display
Indicates the set temperature in °C/°F.
- 6** Button **super** freezer compartment
Switches Super freezing on or off.
- 7** **eco** button
Switches energy-saving mode on or off.
- 8** **settings** button
Opens the menu.
- 9** **connect** button
Opens the Home Connect menu.
- 10** **alarm** button
Opens the alarm menu.
- 11** Button +/- refrigerator compartment
Sets the temperature of the refrigerator compartment.
- 12** +/- button cool-fresh compartment
Sets the temperature of the cool-fresh compartment.
- 13** Button +/- freezer compartment
Sets the temperature of the freezer compartment.
- 14** **fresh** button
Switches freshness mode on or off.
- 15** Button **vacation**
Switches holiday mode on or off.
- 16** **lock** button
Switches the button lock on or off.
- 17** **light** button
Opens the lighting menu.
- 18** **°C/°F** button
Opens the temperature unit menu.
- 19** **alarm off** button
Switches off the alarm.

Controls for cool-fresh compartment



- 1** **hyperFresh premium** display
Lights up if 0 °C (32 °F) is set in the cool-fresh compartment.
- 2** **lock** button
Switches the button lock of the cool-fresh compartment on or off.
- 3** **low** button
Switches low humidity on.
- 4** **mid** button
Switches medium humidity on.
- 5** **high** button
Switches high humidity on.

Features

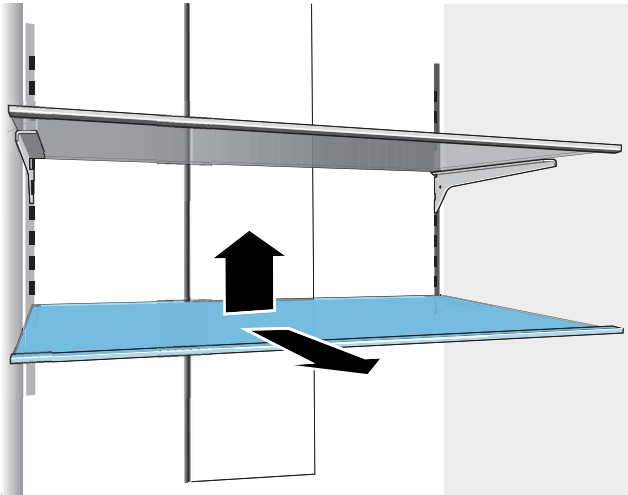
Shelf

You can remove and adjust the shelf:

1. Lift shelf and remove.
2. When re-inserting, position hooks on back of shelf at same height to make it level.

Note: Insert shelf carefully to avoid scratching appliance.

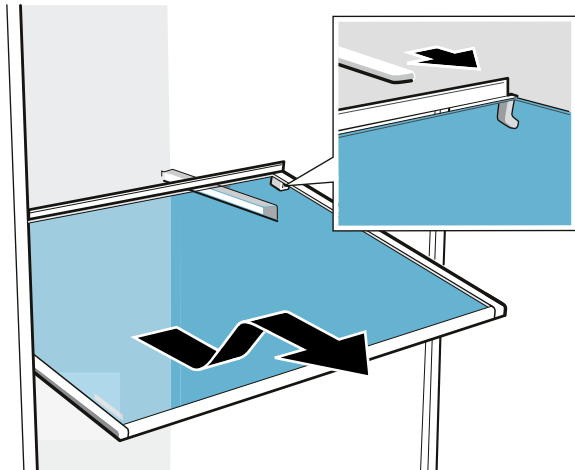
Note: Space the shelves evenly in the refrigerator compartment.



Fixed shelf

You can take out the fixed shelf:

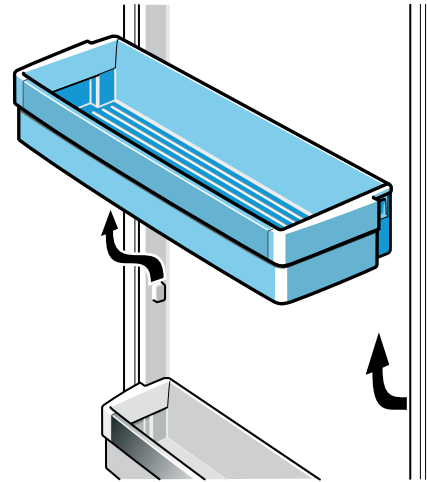
- Lift at the back, pull forwards and remove.



Storage compartment

You can remove the storage compartment:

- Lift up storage compartment and remove.

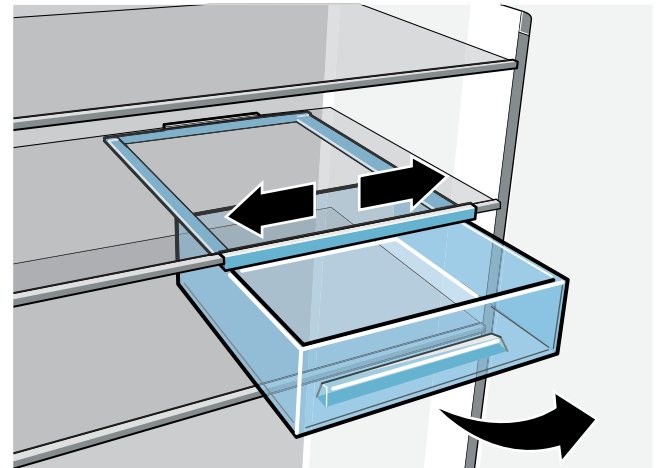


Snack container

You can remove the container:

- Pull out the container all the way, lift at the front and remove.

Note: The container can be moved sideways.

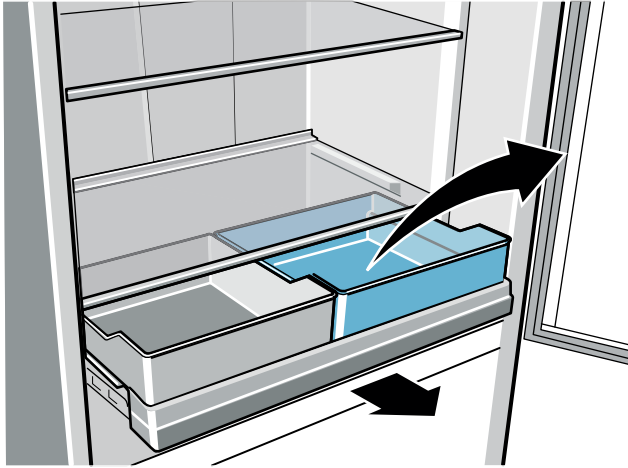


Vegetable container

You can take out the containers:

1. Pull out the shelf all the way.
2. Lift the container at the front and remove.

Note: Place the container on the shelf with the rail guide facing out.

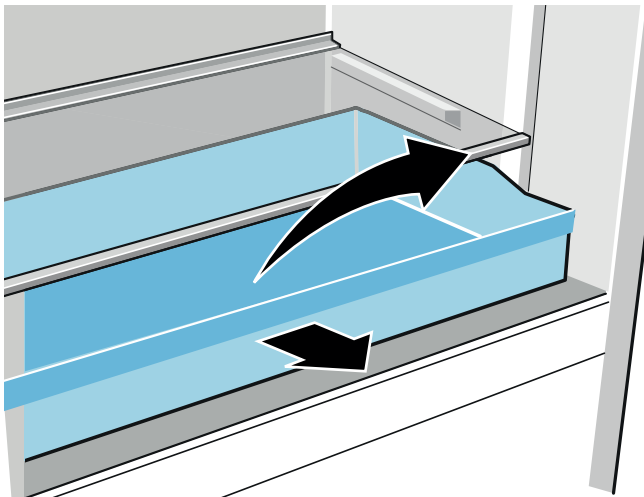


Extendable shelf

You can remove the shelf:

- Pull out the shelf all the way, lift at the front and remove.

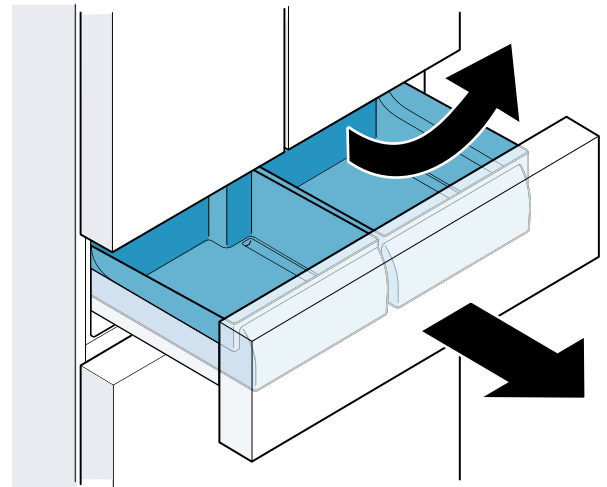
Note: Place the shelf in the telescopic rails at the back and tilt forwards.



Cool-fresh container

You can remove the container:

1. Pull the drawer all the way out.
2. Lift the container at the front and remove.

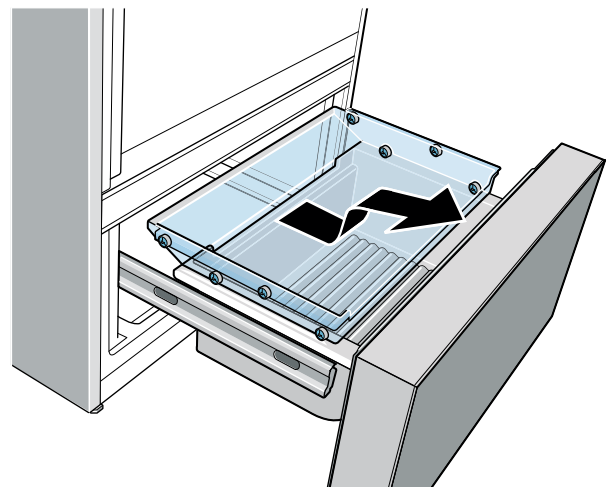


Note: When inserting, the container rail guide and the drawer must match.

Frozen food container (flat)

You can take out the frozen food container (flat):

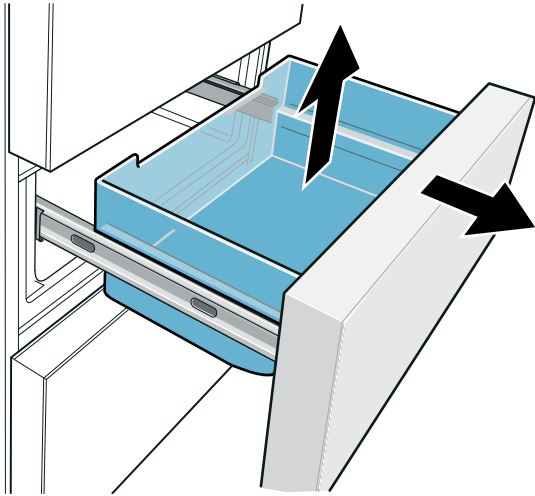
1. Pull the frozen food container all the way out.
2. Pull the frozen food container (flat) out, lift and remove.



Frozen food container

You can take out the frozen food container (large):

1. Pull the freezer compartment drawer all the way out and remove the frozen food container (flat).
2. Lift the frozen food container (large) and remove it.



Ice cube tray

You can make ice cubes:

1. Fill the ice cube tray 3/4 full with water and place in the freezer compartment.

Note: If the ice cube tray is stuck to the freezer compartment, loosen with a blunt implement only (e.g. spoon handle).

2. To loosen the ice cubes, twist the ice cube tray slightly or hold briefly under flowing water.

Operating the appliance

Switching on the appliance

1. Insert mains plug in a socket.
2. Wait until the refrigerator compartment, cool-fresh compartment and freezer compartment displays light up.
The appliance begins to cool.
3. Adjust the required temperatures in the refrigerator compartment, cool-fresh compartment and freezer compartment.
→ "Setting the temperature" on page 16

Operating tips

- After the appliance has been switched on, it may take several hours until the set temperatures have been reached. Do not put in any food until the selected temperature has been reached.
- The fully automatic NoFrost system ensures that the appliance remains free of frost. Defrosting is not required.
- The sides of the housing are heated slightly in certain areas. This prevents condensation in the area of the door seal.

Switching off and disconnecting the appliance

Switching off the appliance

- Pull out the mains plug or switch off the fuse.

Shutting down the appliance

If you do not use the appliance for a prolonged period:

1. Pull out the mains plug or switch off the fuse.
The appliance no longer cools.
2. Clean the appliance.
3. Leave the appliance open.

Switching button lock on or off

The button lock protects the appliance from unintentional operation.

- Press and hold **lock** button for 3 seconds.
The button lock is switched on when the **lock** button lights up. When the button lock is switched off, the temperature displays light up.

Setting the temperature unit

You can choose between the unit °C and °F:

1. Press **settings** button.
2. Press **°C/°F** button.
3. Press **+/-** button freezer compartment repeatedly until the freezer compartment temperature display shows **°C** or **°F**.
4. Press **settings** button.
The setting is saved.

Setting the temperature

Recommended temperature

Refrigerator compartment:	+4 °C (40 °F)
Cool-fresh compartment:	0 °C (32 °F)
Freezer compartment:	-18 °C (0 °F)

Refrigerator compartment

1. Press refrigerator compartment temperature display.
2. Press **+/-** button refrigerator compartment repeatedly until the display indicates the required temperature.

Cool-fresh compartment

1. Press cool-fresh compartment temperature display.
2. Press **+/-** button cool-fresh compartment repeatedly until the display indicates the required temperature.

Reset the temperature in the cool-fresh compartment to the factory settings:

- Press **reset** button.

Freezer compartment

1. Press freezer compartment temperature display.
2. Press **+/-** button freezer compartment repeatedly until the display indicates the required temperature.

Setting humidity

You can set the humidity in the cool-fresh containers separately:

1. Press any button on the cool-fresh compartment controls or open the cool-fresh compartment drawer.
2. Press **low**, **mid** or **high** button to set the desired humidity.
3. Close the cool-fresh compartment drawer. The setting is saved.

Notes

- If the temperature in the cool-fresh compartment is set to below 0 °C (32 °F), the controls are locked and a low humidity is selected automatically
- If the temperature in the cool-fresh compartment is not set equal to 0 °C (32 °F), the **hyperFresh premium** display goes out.

Super cooling

Super cooling cools the refrigerator compartment to make it as cold as possible.

Switch on super cooling mode, e.g.:

- Before placing large quantities of food in the compartment
- For cooling beverages quickly

Note: When super cooling is switched on, increased operating noises may occur.

After approx. 6 hours, the appliance switches to normal operation.

Switching Super cooling on/off:

- Press button **super** refrigerator compartment. When Super cooling is switched on, the button is lit up.

Super freezing

Super freezing cools the freezer compartment as cold as possible.

Switch on super freezing mode, e.g.:

- to freeze food solid as quickly as possible
- 4 ... 6 hours before freezing food weighing 2 kg or more
- to use the max. freezing capacity
→ "*Maximum freezing capacity*" on page 22

Note: When super freezing is switched on, increased operating noises may occur.

After approx. 2 ½ days, the appliance switches to normal operation.

Switching Super freezing on/off:

- Press the **super** button. The button is lit when Super freezing is switched on.

Energy saving mode

You can set the appliance to save energy with energy-saving mode.

The appliance automatically sets the following temperatures:

- Refrigerator compartment: +8 °C (-46 °F)
- Cool-fresh compartment: 0 °C (32 °F)
- Freezer compartment: -16 °C (3 °F)

Switching energy-saving mode on or off:

- Press **eco** button. The temperature is changed and the display shows the new temperature. When energy-saving mode is switched off, the recommended temperature is set.

Freshness mode

Food stays fresh for even longer with freshness mode.

The appliance automatically sets the following temperatures:

- Refrigerator compartment: 2 °C (36 °F)
- Cool-fresh compartment: 0 °C (32 °F)

The temperature in the freezer compartment remains unchanged.

Switching freshness mode on or off:

- Press **fresh** button.
The temperature is changed and the display shows the new temperature. When freshness mode is switched off, the recommended temperature is set.

Holiday mode

If leaving the appliance for a long period of time, you can switch it over to energy-saving holiday mode.

The appliance automatically sets the following temperatures:

- Refrigerator compartment: 14 °C (57 °F)
- Cool-fresh compartment: 4 °C (39 °F)

The temperature in the freezer compartment remains unchanged.

Do not store any food in the refrigerator compartment during this time.

Switch holiday mode on or off:

- Press **vacation** button.
The temperature is changed and the display shows the new temperature. When switched off, the recommended temperature is set.

Setting the light

You can adjust the brightness levels of the interior lighting from **In** and the exterior lighting **E** from **OF** ... **5**:

Note:

OF = lighting off

1 = minimum brightness

5 = maximum brightness

1. Press **settings** button.
2. Press **light** button.
3. Press **+/-** button cool-fresh compartment repeatedly until the cool-fresh compartment temperature display shows **In** or **E**.
4. Press **+/-** button freezer compartment repeatedly until the freezer compartment temperature display shows the required brightness level.
5. Press **settings** button.
The setting is saved.

Setting the time for the exterior lighting

Note:

20SEC = 20 seconds

1nl = 1 minute

5nl = 5 minutes

20nl = 20 minutes

60nl = 1 hour

oo = permanent light*

* Not all models.

1. Press **settings** button.
2. Press **light** button.
3. Press **+/-** button cool-fresh compartment repeatedly until the cool-fresh compartment temperature display shows **du**.
4. Press **+/-** button freezer compartment repeatedly until the freezer compartment temperature display shows the required time.
5. Press **settings** button.
The setting is saved.

Alarm

Door alarm

If the appliance door is left open for a while, the warning sound is switched on and the **alarm off** button flashes.

Switch door alarm off:

- Close the door or press **alarm off** button.
The warning sound is switched off and the **alarm off** button no longer flashes.

You can switch the door alarm warning signal on or off:

Note:

On = switch on door alarm warning signal

OF = switch off door alarm warning signal

1. Press **settings** button.
2. Press **alarm** button.
3. Press **+/-** button freezer compartment repeatedly until the freezer compartment temperature display shows **On** or **OF**.
4. Press **settings** button.
The setting is saved.

Temperature alarm

If the freezer compartment becomes too warm, the warning signal switches on and the **alarm off** button flashes.

Caution!

Bacteria may develop during the thawing process and spoil the frozen food

Do not refreeze thawing or thawed food.

Refreeze food only after cooking. Do not store frozen food for the maximum storage period.

Note: The temperature alarm can be set off without risk to the frozen food in the following situations:

- When the appliance is switching on.
- If the freezer compartment door has been open too long.
- When large quantities of fresh food are put in.

Switching off the temperature alarm:

1. Check that the cause of the temperature alarm has been eliminated.
2. Press **alarm off** button.
The warning sound will be switched off and the freezer compartment temperature display will briefly indicate the warmest temperature reached in the freezer compartment. The display will then indicate the set temperature again. The warmest temperature will be measured again and saved.

Note: The **alarm off** button remains lit until the set temperature is reached again.

Home Connect

This appliance is Wi-Fi-capable and can be remotely controlled using a mobile device.

Note: Wi-Fi is a registered trademark of the Wi-Fi Alliance.

In the following cases, the appliance functions like a refrigerator without a network connection and can still be operated manually using the controls:

- The appliance is not connected to a home network.
- The Home Connect service is not available in the country in which the appliance is set up. For an overview of the countries in which Home Connect is available, see www.home-connect.com.

Note: Please observe the safety instructions in this user manual. Ensure that these are also observed if you operate the appliance via the Home Connect app and are not at home when doing so.

→ "Safety instructions" on page 3

Please also follow the instructions in the Home Connect app.

Setting up Home Connect

Notes

- Observe the Home Connect supplementary sheet, which is available for download under <http://www.siemens-home.bsh-group.com> with the instructions. To do so, enter the E-number of your appliance in the search field.
- After switching on the appliance, wait at least two minutes until internal device initialisation is complete. Only then start setting up Home Connect.
- To implement settings with Home Connect, the Home Connect app must be installed on your mobile device.
Observe the supplied Home Connect documents for this.
Follow the steps specified by the app to implement the settings.
- The Home Connect menu will close automatically when the appliance is not operated for a lengthy period of time. You can find information on how to open the Home Connect menu at the start of the appropriate sections.

Automatic connection to the home network (WLAN)

If a WLAN router with WPS function is available, the refrigerator can be automatically connected to the home network.

1. Press **settings** button.
The **connect** button lights up. The cool-fresh compartment temperature display shows **Cn**.
2. Keep pressing **+/-** button cool-fresh compartment until the cool-fresh compartment temperature display shows **AC** and the freezer compartment temperature display shows **OF**.
3. Press **+** button freezer compartment.
The appliance is ready for automatic connection. The freezer compartment temperature display shows an animation for 2 minutes.
The appliance is ready for automatic connection for as long as the animation is displayed.
4. Within those 2 minutes activate the WPS function on the home network router (e.g. using WPS/WLAN button. Note the information in the router documentation).
If connection is successful, **On** flashes in the freezer compartment temperature display.
The refrigerator is ready to connect to the app.

Note: If the freezer compartment temperature display shows **OF**, no connection could be established.

1. Check whether the refrigerator is located within the range of the home network (WLAN).
2. Repeat the process or establish the connection manually.

Manual connection with home network (WLAN)

If the available WLAN router does not have a WPS function or if this is unknown, you can connect the refrigerator to the home network (WLAN) manually.

1. Press **settings** button.
The **connect** button lights up. The cool-fresh compartment temperature display shows **Cn**.
2. Press **+/-** button cool-fresh compartment repeatedly until the cool-fresh compartment temperature display shows **SA** and the freezer compartment temperature display shows **OF**.
3. Press **+** button freezer compartment.
The appliance is ready for manual connection. The freezer compartment temperature display shows an animation.
The appliance is ready for manual connection for as long as the animation is displayed.
4. The refrigerator has now set up its own WLAN network with the network name HomeConnect.
You can now access this network with your mobile device.
5. Follow the instructions in the app until the process is complete.
 - If connection is successful, **On** flashes in the freezer compartment temperature display.
The device connects to the app automatically.
 - If the freezer compartment temperature display shows **OF**, no connection could be established. Check whether the refrigerator is located within the range of the home network (WLAN). Repeat the process.

Connecting the refrigerator to the Home Connect app

The appliance automatically connects to the app with set-up for the first time after a connection to the home network (WLAN) has been established.

If the appliance does not automatically connect to the app, connect the appliance manually:

1. Press **settings** button.
The **connect** button lights up. The cool-fresh compartment temperature display shows **Cn**.
2. Keep pressing **+/-** button cool-fresh compartment until the cool-fresh compartment temperature display shows **PA** and the freezer compartment temperature display shows **OF**.
3. Press **+** button freezer compartment to connect the appliance to the app.
The freezer compartment temperature display shows an animation.
As soon as the refrigerator and the app are connected, the freezer compartment temperature display shows **On**.
4. Open the app and wait until the refrigerator is displayed.
Use **Add** to confirm the connection between the app and the refrigerator.
If the refrigerator is not automatically displayed, click on **Add appliance** in the app and follow the instructions. As soon as your refrigerator is displayed, add it with **+**.
5. Follow the instructions in the app until the process is complete.
The cool-fresh compartment temperature display shows **PA** and the freezer compartment temperature display shows **On**.
The refrigerator has been connected to the app. If the connection fails, check whether the mobile device is connected to the home network (WLAN). Then try to establish the connection again.
If **Er** appears in the freezer compartment temperature display, reset the Home Connect settings.
Note: With reset, all Home Connect settings are reset.

Checking signal strength

You should check the signal strength if no connection can be established.

1. Press **settings** button.
The **connect** button lights up. The cool-fresh compartment temperature display shows **Cn**.
2. Keep pressing **+/-** button cool-fresh compartment until the cool-fresh compartment temperature display shows **SI**. A value between 0 (no signal) and 3 (full signal) appears in the freezer compartment temperature display. The signal strength should be at least 2. If the signal strength is too weak, the connection may be interrupted.
 - Place the router and refrigerator closer together.
 - Check that screening walls do not interfere with the connection.
 - Or install a repeater to make the signal stronger.

Resetting Home Connect settings

If there is a problem when trying to establish a connection or if you would like to register the appliance in a different home network (WLAN), the Home Connect settings can be reset:

1. Press **settings** button.
The **connect** button lights up. The cool-fresh compartment temperature display shows **Cn**.
2. Keep pressing **+/-** button cool-fresh compartment until the cool-fresh compartment temperature display shows **rE** and the freezer compartment temperature display shows **OF**.
3. Press **+** button freezer compartment.
The freezer compartment temperature display shows an animation for 15 seconds.
The freezer compartment temperature display then shows **OF**.
The Home Connect settings have been reset.

Installing updates for the Home Connect software

The refrigerator checks at regular intervals whether updates are available for the Home Connect software.

If an update is available, the temperature display shows **UP**:

- Confirm update in Home Connect app.
Do not switch the refrigerator off during updates.
The freezer compartment temperature display shows an animation. The update is installed.

Note: All buttons are locked during installation.

- If installation was successfully completed, the freezer compartment temperature display will show **On**.
- If installation was not successfully completed, the freezer compartment temperature display will show **Er**.
Start the update again at a later time.
If installation cannot be completed even after multiple attempts, notify Customer Service.

Press any button to reset the display to the set temperature.

Information on data protection

The first time your Home Connect appliance is registered on the WLAN network connected to the Internet, your appliance will transmit the following types of data to the Home Connect server (initial registration):

- Unique appliance identification (consisting of appliance codes as well as the MAC address of the installed Wi-Fi communication module).
- Security certificate of the Wi-Fi communication module (to ensure a secure data connection).
- The current software and hardware version of your home appliance.
- Status of any previous resetting to factory settings.

This initial registration prepares the Home Connect functions for use and is only required when you want to use these Home Connect functions for the first time.

Note: Please note that the Home Connect functions can only be utilised with the Home Connect app. Information on data protection can be called up in the Home Connect app.


Declaration of Conformity

BSH Hausgeräte GmbH hereby declares that the appliance with Home Connect functionality meets the essential requirements and the other relevant provisions of the Directive 2014/53/EU.

A detailed RED Declaration of Conformity can be found online at <http://www.siemens-home.bsh-group.com> among the additional documents on the product page for your appliance.



2.4 GHz band: 100 mW max.
5 GHz band: 100 mW max.

	BE	BG	CZ	DK	DE	EE	IE	EL
	ES	FR	HR	IT	CY	LV	LT	LU
	HU	MT	NL	AT	PL	PT	RO	SI
	SK	FI	SE	UK	NO	CH	TR	
5 GHz WLAN: for indoor use only								

Refrigerator compartment

The refrigerator compartment is suitable for storing meat, sausages, fish, dairy products, eggs, ready meals and pastries.

The temperature can be set from 36 °F (2 °C) ... 46 °F (8 °C).

The refrigerator compartment can also be used to store highly perishable foods in the short to medium term. A temperature of +39 °F (+4 °C) or lower ensures optimum freshness and hygiene of the stored food.

Note when storing food

Note: Avoid contact between food and the rear panel. Otherwise, the air circulation will be impaired and food or packaging may freeze to the rear panel.

- Store food when fresh and undamaged. The quality and freshness will then be retained for longer.
- In the case of convenience products and bottled goods, do not exceed the minimum sell-by date or use-by date specified by the manufacturer.
- To retain aroma, colour and freshness, pack or cover food well before placing it in the appliance. This will prevent flavours being transferred between foods and the plastic parts from becoming discoloured.
- Leave warm food and beverages to cool down before placing them in the refrigerator compartment.

Note the chill zones in the refrigerator compartment

The air circulation in the refrigerator compartment creates different chill zones.

Coldest zone

The coldest zone is inside on the back wall and on the extendable shelf.

Warmest zone

The warmest zone is at the very top of the door.

Notes

- Store e.g. hard cheese and butter in the warmest zone. Cheese can then continue to release its aroma and the butter will still be easy to spread.
- Store perishable food such as fish, sausages and meat in the cool-fresh compartment. → *"Cool-fresh compartment" on page 21*

Cool-fresh compartment

With cool-fresh storage, you can keep fresh foodstuff fresh for up to three times longer than in the refrigerator compartment – for even longer freshness and nutrient retention, and consistent flavour.

The temperature can be set from –3 °C (27 °F) ... 3 °C (37 °F).

Cool-fresh container

The storage climate in the cool-fresh container offers ideal conditions for storing fish, meat and sausage as well as fruit and vegetables.

Notes

- Store food no higher than the container rim to prevent detaching the lid of the cool-fresh container.
- Never store fruit and vegetables in a cool-fresh container with meat or fish.
- Fruit sensitive to cold (e.g. pineapple, banana, papaya and citrus fruit), and vegetables sensitive to cold (e.g. eggplants, cucumbers, zucchini, peppers, tomatoes and potatoes) should be stored outside the refrigerator at temperatures of approx. 46 °F (8 °C) ... 54 °F (12 °C) for optimum preservation of quality and flavour.
- Condensation may form in the cool-fresh container depending on the type and quantity of food stored. Remove condensation with a dry cloth and adjust the humidity in the cool-fresh container with the controls for cool-fresh compartment.

Storage recommendations

You can adjust the temperature in the cool-fresh compartment and the humidity in the cool-fresh containers depending on the food and quantity stored.

Storage recommendation with low humidity:

Fish and seafood	–3 °C (27 °F) ... 0 °C (32 °F)
Meat and sausage	0 °C (32 °F) ... 2 °C (36 °F)
Cheese and dairy products	0 °C (32 °F) ... 3 °C (37 °F)

Storage recommendation with medium humidity:

Fruit, mixed load with fruit and vegetables	0 °C (32 °F) ... 3 °C (37 °F)
---	-------------------------------

Storage recommendation with high humidity:

Vegetables	0 °C (32 °F) ... 3 °C (37 °F)
------------	-------------------------------

Storage times at 32 °F (0 °C)

The storage times are dependent on the original quality.

Fresh fish, seafood:	up to 3 days
Poultry, meat (boiled/fried):	up to 5 days
Beef, pork, lamb, sausage products (cold meat):	up to 7 days
Smoked fish, broccoli:	up to 14 days
Salad greens, fennel, apricots, plums:	up to 21 days
Soft cheese, yoghurt, quark, buttermilk, cauliflower:	up to 30 days

Freezer compartment

The freezer compartment is suitable for:

- Storing frozen food
- Making ice cubes
- Freezing food

The temperature can be set from -16 °C (3 °F) ... -24 °C (-11 °F).

The freezer compartment can be used to store perishable foods for long periods almost without any noticeable reduction in quality, as the low temperatures considerably slow down or stop deterioration. The appearance, flavour and all the valuable ingredients are largely retained.

The time between putting fresh food in the freezer compartment and it freezing solid depends on the following factors:

- Set temperature
- Type of food
- Amount of food in the freezer compartment
- Quantity and type of storage

Maximum freezing capacity

The maximum freezing capacity indicates the quantity of food that can be frozen solid within 24 hours.

Information about the maximum freezing capacity can be found on the rating plate.

→ "Getting to know your appliance" on page 11

Prerequisites for max. freezing capacity

1. When inserting fresh produce: switch on the super freezing function.
→ "Super freezing" on page 16
2. Freeze fresh food as close as possible to the side panels.

Purchasing frozen food

- Ensure the packaging is not damaged.
- Check there is a sell-by date.
- The temperature in the supermarket freezer must be 0 °F (-18 °C) or lower.
- Do not interrupt the freezing chain. If possible, transport frozen food in a cool bag and place in the freezer compartment quickly.

Note when loading products

- Freeze larger quantities of food in the lower frozen food containers.
This is where the food will freeze especially quickly and gently.
- Distribute food in the compartments or frozen food containers.
- Do not bring food which is to be frozen into contact with frozen food.
If required, restack frozen food in the frozen food containers.
- Important for unrestricted air circulation in the appliance:
push in frozen food containers up to the limit stop.

Freezing fresh food

Freeze only fresh and undamaged food.

Food which is boiled, fried or baked is more suitable for freezing than food which is raw.

Before freezing food, make preparations appropriate to the food in order to retain the best possible nutritional value, flavour and colour:

- Vegetables: wash, chop, blanch.
- Fruit: wash, pit and perhaps peel, possibly add sugar or ascorbic acid solution.

Information on how to do this can be found in the relevant literature.

Suitable for freezing

- Baked goods
- Fish and seafood
- Meat
- Poultry and game
- Vegetables, fruit and herbs
- Eggs without shells
- Dairy products, e.g. cheese, butter and quark
- Ready meals and leftovers, e.g. soups, stews, cooked meat and fish, potato dishes, bakes and desserts

Not suitable for freezing

- Types of vegetables which are usually eaten raw, e.g. lettuce or radishes
- Unpeeled or hard boiled eggs
- Grapes
- Whole apples, pears and peaches
- Yoghurt, soured milk, sour cream, creme fraiche and mayonnaise

Packing frozen food

The correct type of packaging and material selection are decisive factors in the retention of the product quality, and prevent the development of freezer burn.

1. Place food in packaging.
2. Squeeze out the air.
3. Pack food airtight to prevent it from losing flavour and drying out.
4. Label packaging with contents and date of freezing.

Suitable packaging:

- Plastic film
- Tubular film made of polyethylene (PE)
- Aluminium foil
- Freezer containers

Suitable sealing materials:

- Rubber bands
- Plastic clips
- Cold-resistant adhesive tape

Unsuitable packaging:

- Wrapping paper
- Greaseproof paper
- Cellophane
- Rubbish bags and used shopping bags

Shelf life of frozen food at -18°C

Fish, sausage, ready meals, baked goods:	Up to 6 months
Meat, poultry:	Up to 8 months
Fruit, vegetables:	Up to 12 months

Defrosting frozen food

The defrosting method must be adjusted to the food and application in order to retain the best possible product quality.

Defrosting methods:

- In the refrigerator compartment (especially suitable for animal-based foods such as fish, meat, cheese, quark)
- At room temperature (bread)
- In the microwave (food for immediate consumption or immediate preparation)
- In the oven/cooker (food for immediate consumption or immediate preparation)

Caution!

Do not refreeze food after it has been defrosted or started to defrost. You can only refreeze the food after it has been used for a ready-to-eat meal (boiled or fried). The frozen food can no longer be stored for the maximum duration.

Cleaning

Caution!

Avoid damaging the appliance and the fittings.

- Do not use abrasive, chloride or acidic cleaning agents or solvents.
- Do not use scouring or abrasive sponges. Metallic surfaces may corrode.
- Never clean shelves or containers in the dishwasher. These parts may become deformed.

Cleaning the appliance interior

Proceed as follows:

1. Pull out the mains plug or switch off the fuse.
2. Take out the food and store in a cool location. Place ice pack (if available) on the food.
3. Clean the appliance with a soft cloth, lukewarm water and a little pH-neutral washing-up liquid.

Caution!

1. The rinsing water must not run into the light.
2. Wipe the door seal with clean water and dry thoroughly with a cloth.
3. Reconnect appliance, switch on and put in food.

Cleaning the equipment

To clean, take the variable parts out of the appliance.
→ "Features" on page 13

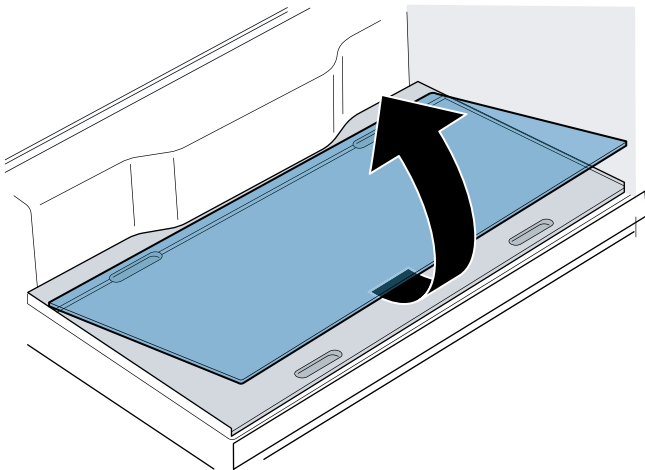
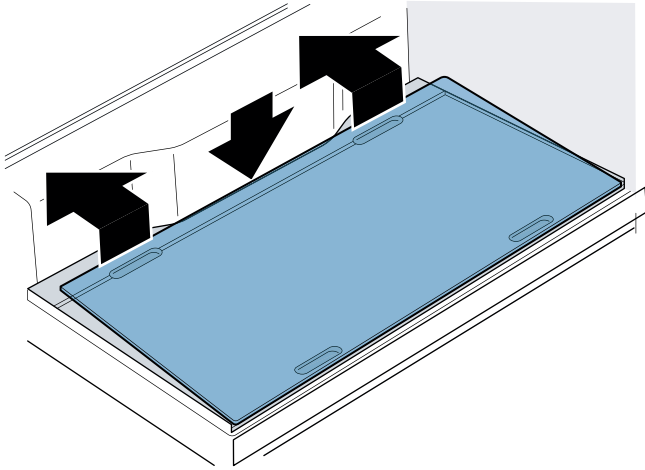
Defrosting

The fully automatic NoFrost system ensures that the appliance remains free of frost. Defrosting is not required.

Glass plate partition

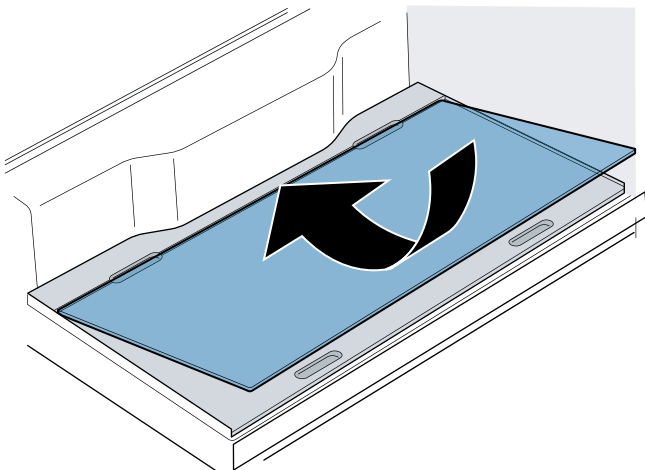
Remove the glass plate:

1. Reach into the back of the recess, lift the glass plate and push right back.
2. Reach into the front of the recess, lift the glass plate at the front and remove.



Install the glass plate:

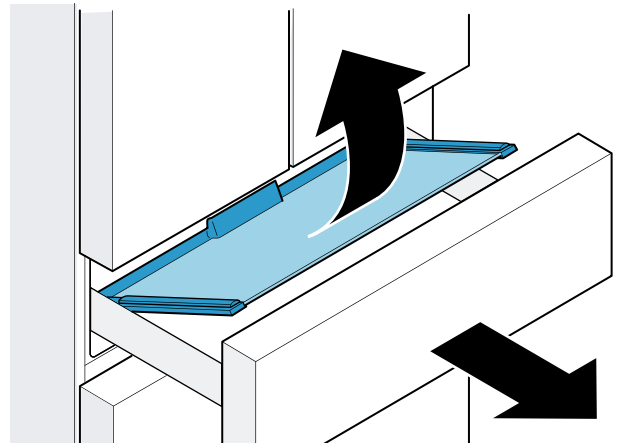
- Place the glass plate on the partition and push right to the front.



Glass plate drawer

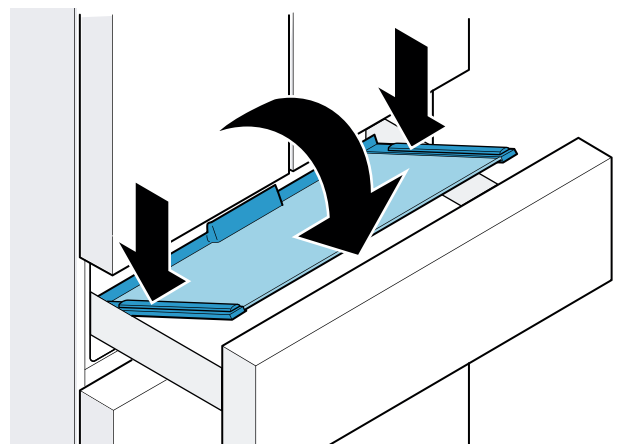
Remove the glass plate:

1. Open the drawer as far as it will go and remove the container.
2. Lift the glass plate at the front and remove.



Install the glass plate:

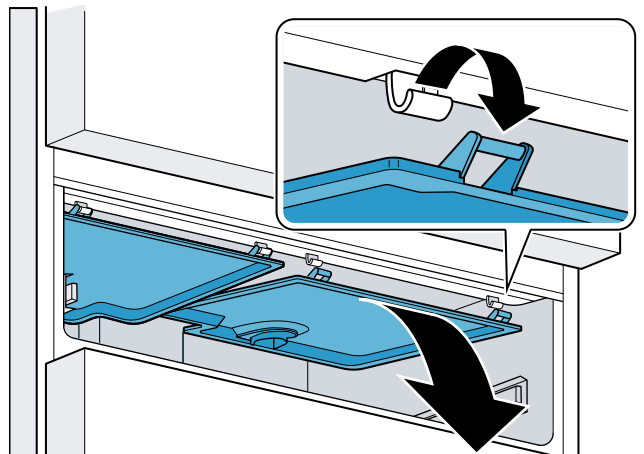
- Place the glass plate on the rail guide at the rear and tilt forwards.



Cool-fresh container cover

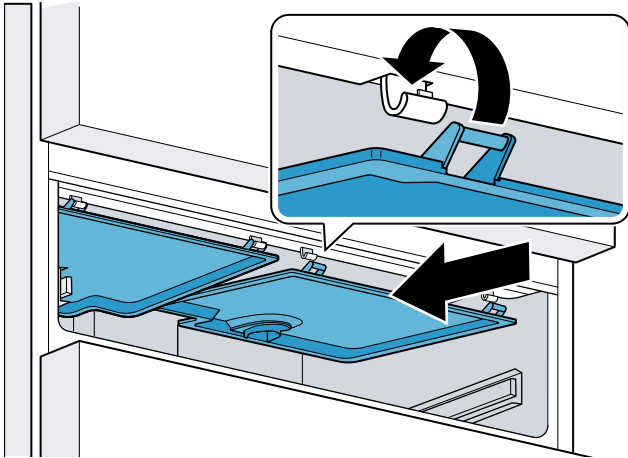
Remove the cover:

1. Open the cool-fresh compartment drawer and remove the cool-fresh container.
2. In the cool-fresh compartment, lift the cover at the front and remove.



Install the cover:

1. Slide the cover symmetrically backwards in the cool-fresh compartment at the top and hook into place.
2. Push the cover up and engage.



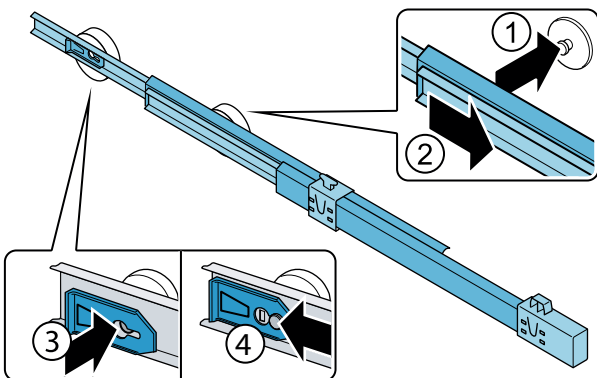
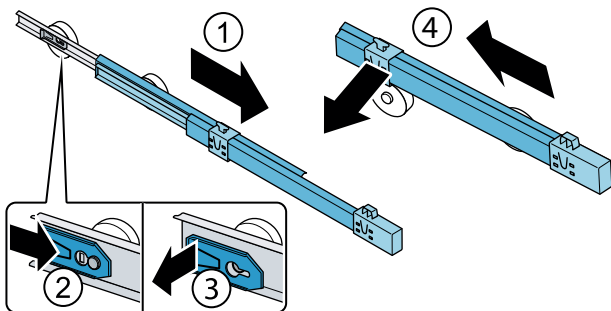
Telescopic rails

Removing telescopic rails

1. Pull out telescopic rail.
2. Push lock in the direction of the arrow.
3. Detach telescopic rail from the rear pin.
4. Push telescopic rail together, push backwards above the rear pin and disengage.

Installing telescopic rails

1. Place the extended telescopic rail on the front pin.
2. Pull the telescopic rail forwards slightly until it engages.
3. Insert telescopic rail on the rear pin.
4. Push lock backwards.



Odours

If you experience unpleasant odours:

1. Pull out the mains plug or switch off the fuse.
2. Take all food out of the appliance.
3. Clean the inside. → "Cleaning" on page 23
4. Clean all packages.
5. Seal strong smelling food in order to avoid odours from forming.
6. Switch the appliance on again.
7. Store food in the appliance.
8. Check whether the formation of odours is still occurring after 24 hours.

Lighting

Your appliance features a maintenance-free LED light. Only Customer Service or authorised technicians may repair the light.

Noises

Normal noises

- Droning:** A motor is running, e.g. refrigerating unit, fan.
- Bubbling, buzzing or gurgling:** Refrigerant is flowing through the tubes.
- Clicking:** The motor, switches or solenoid valves are switching on and off.
- Cracking:** Automatic defrosting is running.

Preventing noises

- Appliance is not level:** Align appliance using a spirit level. Adjust the height of the height-adjustable feet.
- The appliance is not "free-standing":** please move the appliance away from adjacent furniture or appliances.
- Containers, shelves or storage compartments wobble or stick:** Check the removable fittings and re-insert if required.
- Bottles or receptacles are touching each other:** Move bottles or receptacles away from each other.

What to do in the event of a fault

Before you call Customer Service, use this table to check whether you can rectify the fault yourself.

Temperature differs greatly from the set value.

Switch off appliance for 5 minutes.
 → "Switching off and disconnecting the appliance" on page 15
 If the temperature is too warm, check temperature again after a couple of hours.
 If the temperature is too cold, check temperature again on the following day.

Displays do not illuminate.

The mains plug has not been inserted properly.	Connect mains plug.
The fuse has been tripped.	Check the fuses.
The power has failed.	Check whether the power is on.

Display shows E....

Electronics have detected a fault.	Call Customer Service. → "Customer Service" on page 27
------------------------------------	---

The alarm off button flashes and a warning signal sounds.

	Press alarm off button. The alarm is switched off.
Refrigerator compartment, cool-fresh compartment or freezer compartment is open.	Close the appliance.
Ventilation openings are covered up.	Clear the ventilation openings.
Large quantities of fresh food were placed in the appliance.	Do not exceed maximum freezing capacity.
The temperature in the refrigerator compartment, cool-fresh compartment or freezer compartment is too warm.	Press alarm off button. After the alarm off button is pressed, the warmest temperature reached in the freezer compartment is displayed for 5 seconds. The display stops flashing.

Appliance is not cooling, display and lighting are lit.

Showroom mode switched on.	Start the appliance self-test. → "Appliance self-test" on page 27 When the programme has ended, the appliance switches over to normal operation.
----------------------------	--

Customer Service

If you are unable to rectify the fault, please contact our Customer Service. We will always find a suitable solution to avoid unnecessary visits by technicians.

The contact information for your nearest Customer Service office can be found here or on the enclosed Customer Service list.

When calling, please state the product number (E-Nr.) and the production number (FD), which can be found on the rating plate.

→ "Getting to know your appliance" on page 11

You can trust in the manufacturer's expertise. You can therefore be sure that the repair is carried out by trained service technicians who carry original spare parts for your home appliances.

Appliance self-test

Your appliance features a self-test programme; this displays the fault which your Customer Service team can rectify.

1. Switch the appliance off and wait 5 minutes.
2. Switch on the appliance.
3. Within the first 10 seconds press and hold **settings** button for 10 seconds until an audible signal sounds.

The self-test programme starts. While the self-test is running, a long audible signal will sound.

- If 2 audible signals sound after the end of the self-test and the set temperature is displayed, your appliance is OK.
- If after the self-test 5 audible signals sound and the **settings** button flashes for 10 seconds, inform Customer Service.

The appliance switches to normal operation once the programme has ended.

Obtaining advice and ordering repairs if a fault occurs

Contact information for all countries can be found on the enclosed Customer Service list.

GB	0344 892 8999	Calls charged at local or mobile rate.
IE	01450 2655	€0.03 per minute at peak. Off peak: €0.0088 per minute.
US	866 447 4363	Toll-free

Guarantee

Detailed information on the warranty period and warranty conditions in your country are available from your customer service, your dealer and on our website.

BSH Hausgeräte GmbH
Carl-Wery-Straße 34
81739 München, GERMANY

siemens-home.bsh-group.com

Manufactured by BSH Hausgeräte GmbH under Trademark License of Siemens AG



8001143945 (9908)

en