



Electrolux

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Customer Care - EMEA
Training and Operations Support
Technical Support

SERVICE MANUAL

Refrigeration

Freezer Box Built-in and Freestanding

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Warnings and precautions for safety

Please observe the following safety precautions in order to use safely and correctly the refrigerator and to prevent accident and danger during repair.

1. Be care of an electric shock. Disconnect power cord from wall outlet and wait for more than three minutes before replacing PCB parts.

Shut off the power whenever replacing and repairing electric components.

2. When connecting power cord, please wait for more than five minutes after power cord was disconnected from the wall outlet.

3. Please check if the power plug is pressed down by the refrigerator against the wall.

If the power plug was damaged, it may cause fire or electric shock.

4. If the wall outlet is overloaded, it may cause fire. The refrigerator must be plugged into its own dedicated electric outlet

5. Please make sure the outlet is properly earthed, particularly in wet or damp area.

6. Use standard electrical components when replacing them.

7. Make sure the hook is correctly engaged.

Remove dust and foreign materials from the housing and connecting parts.

8. Do not damage, bend heavily, pull out or twist the power cord.

9. Please check the evidence of moisture intrusion in the electrical components.

Replace the parts or mask it with insulation tapes if moisture intrusion was confirmed.

10. Do not touch the icemaker with hands or tools to confirm the operation of geared motor.

11. Do not let the customer repair, disassemble and reconstruct the refrigerator by them.

It may cause accident, electric shock, or fire.

12. Do not store flammable materials such as ether, benzene, alcohol, chemicals, gas, or medicine in the refrigerator.

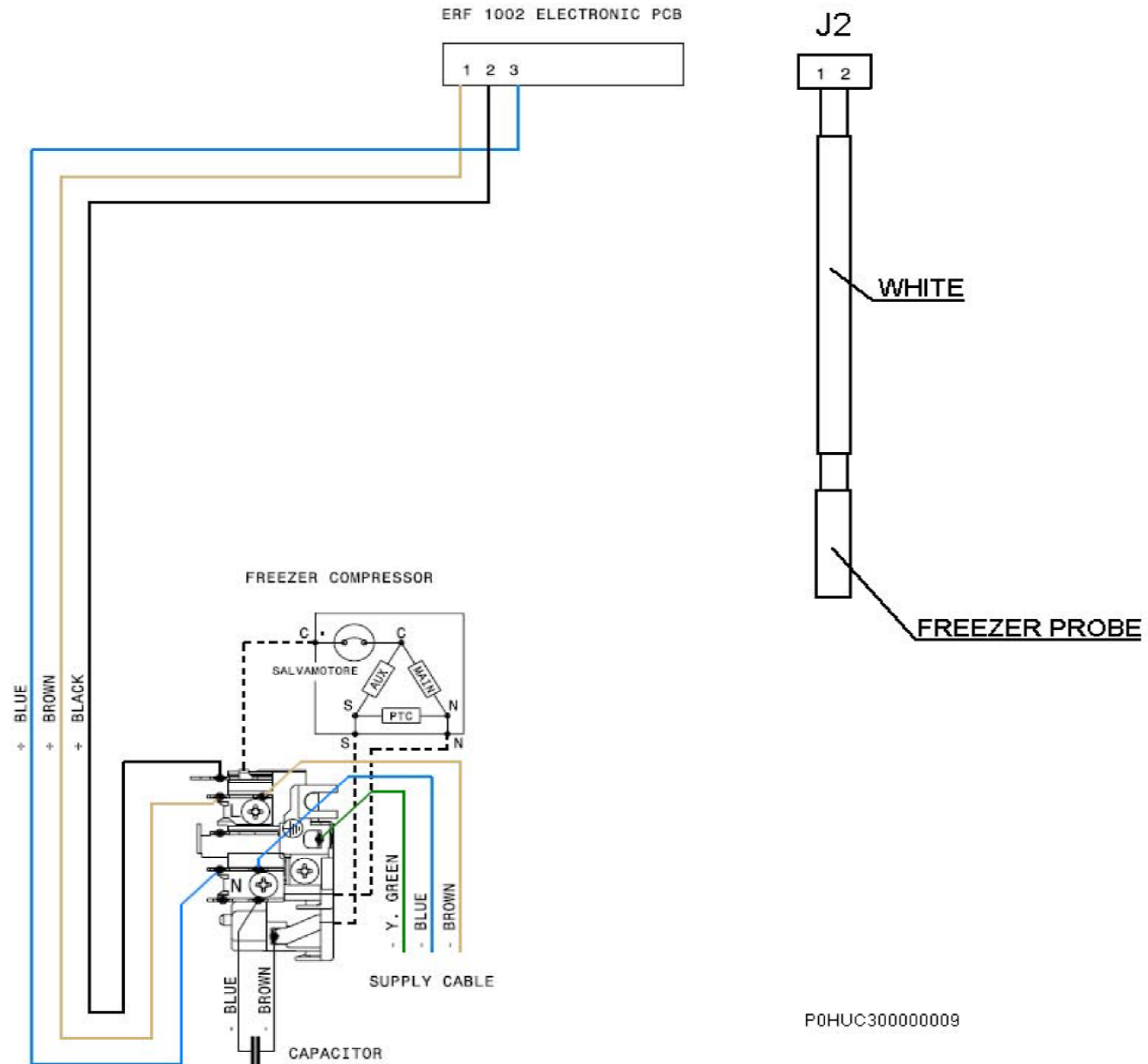
13. Do not put flower vase, cup, cosmetics, chemicals, etc., or container with full of water on the top of the refrigerator.

14. Do not put glass bottles with full of water into the freezer.

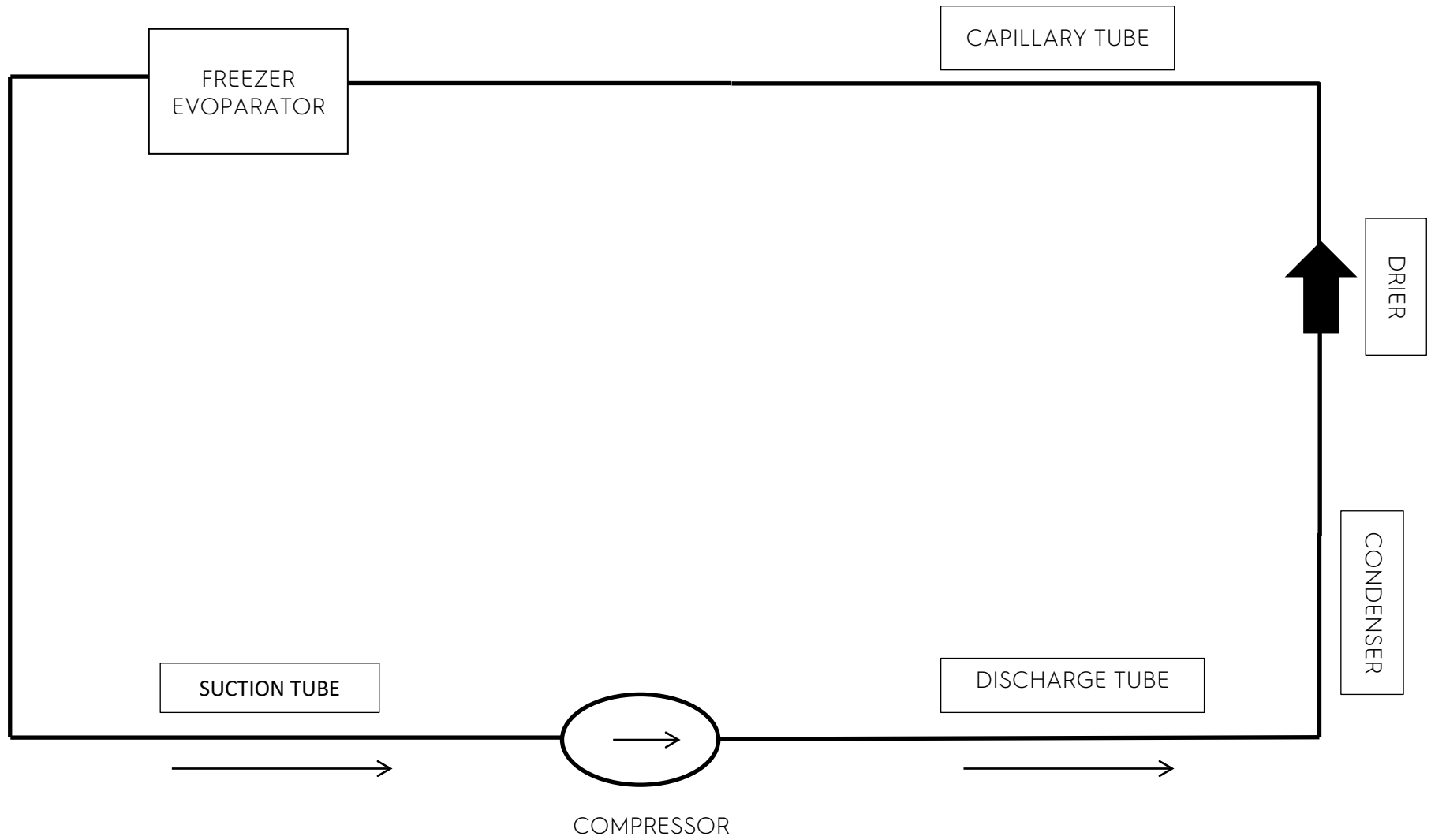
The contents shall freeze and break the glass bottles.

15. When you scrap the refrigerator, please disconnect the door gasket first and scrap it.

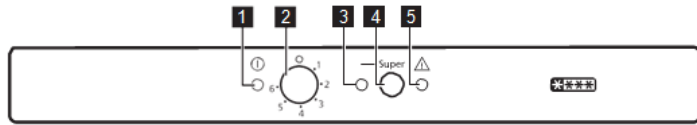
Wiring Diagram



Cooling Diagram



Control panel



1. Power indicator light
2. Temperature regulator
3. Super light
4. Super switch and alarm reset switch
5. Alarm light

Switching on

Connect the appliance to the main power supply.

1. Turn the Temperature regulator clockwise to a medium setting.

The power indicator light will light up and a sound will signal for 2 seconds.

- i** If the temperature inside the appliance is too high, the Alarm light will blink and the sound signal alarm will turn on.
2. Push the Super switch and the sound signal alarm will get off.
 3. Push the Super switch once again and the Super light will light up. The appliance will start to operate.

Switching off

Turn the Temperature regulator to the "0" position and a sound is on only for

2 seconds.

The power indicator light will switch off.

Temperature regulation

The temperature is regulated automatically.

A medium setting is generally the most suitable.

However, the exact setting should be chosen keeping in mind that the temperature inside the appliance depends on:

- room temperature,
- how often the door is opened,
- the quantity of food stored,
- the location of the appliance.

1. Turn the Temperature regulator toward lower settings to obtain the minimum coldness.
2. Turn the Temperature regulator toward higher settings to obtain the maximum coldness.

CAUTION!

- If the ambient temperature is high or the appliance is fully loaded, and the appliance is set to the lowest temperatures, it may run continuously causing frost to form on the rear wall. In this case the dial must be set to a higher temperature to allow automatic defrosting and therefore reduced energy consumption

Super function

You can activate Super function by pressing the Super switch. The Super light will light up.

It is possible to deactivate the function at any time by pressing Super switch. The Super light will switch off.

High temperature alarm

If the temperature inside the freezer has risen to a point where the safe storage of frozen food is no longer ensured (for example due to a power failure), the Alarm light will blink and an acoustic alarm will sound.

i When the freezer is first switched on, the Alarm light blinks until the temperature has dropped to a safe level for the storage of frozen food.

1. Switch off the warning tone by pressing the Super switch.

The Super indicator appears.

The Alarm light blinks until the required temperature has been reached again.

2. Release the Super switch as soon as the Alarm light is off.

The Super indicator turns off.

Installation

Positioning

This appliance can be installed in a dry, well ventilated indoor where the ambient temperature corresponds to the climate class indicated on the rating plate of the appliance:

Cli- mate class	Ambient temperature
SN	+10°C to + 32°C
N	+16°C to + 32°C
ST	+16°C to + 38°C
T	+16°C to + 43°C



Some functional problems might occur for some types of models when operating outside of that range. The correct operation can only be guaranteed within the specified temperature range.

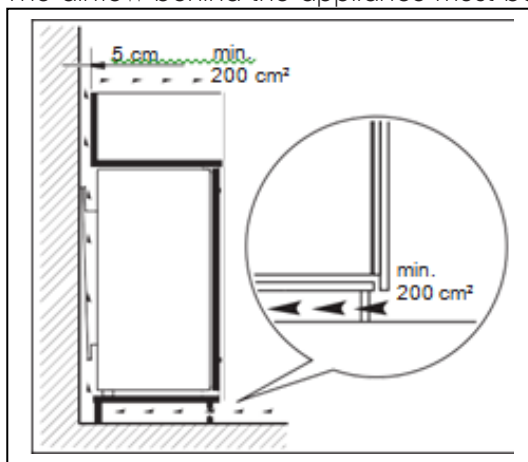
If you have any doubts regarding where to install the appliance, please turn to the vendor, to our customer service or to the nearest Authorised Service Centre.

Electrical connection

- Before plugging in, ensure that the voltage and frequency shown on the rating plate correspond to your domestic power supply.
- The appliance must be earthed. The power supply cable plug is provided with a contact for this purpose. If the domestic power supply socket is not earthed, connect the appliance to a separate earth in compliance with current regulations, consulting a qualified electrician.
- The manufacturer declines all responsibility if the above safety precautions are not observed.
- This appliance complies with the E.E.C. Directives.

Ventilation requirements Built in appliances

The airflow behind the appliance must be sufficient

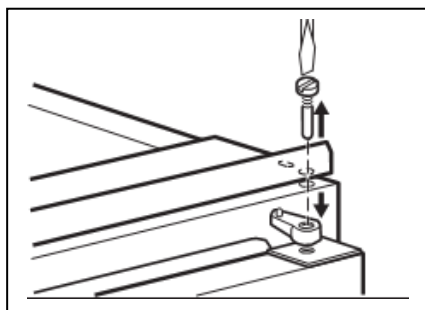


CAUTION! Refer to the assembly instructions for the installation

Door reversibility

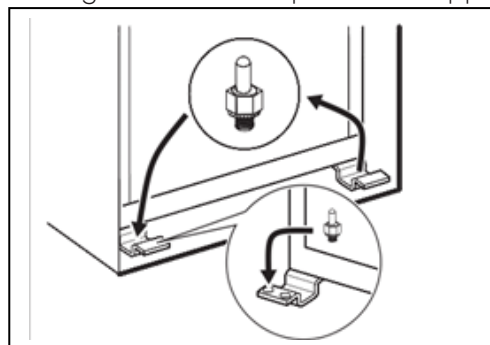
The door of the appliance opens to the right. If you want to open the door to the left, follow these steps before you install the appliance:

1. Loosen and remove the upper pin.



2. Remove the door
3. Remove the spacer

4. With a key, loosen the lower pin
5. Tighten the lower pin on the opposite side

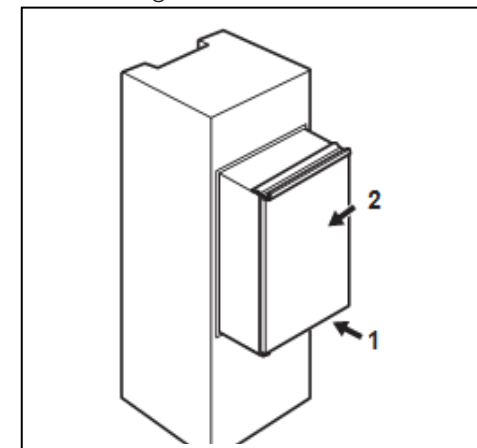
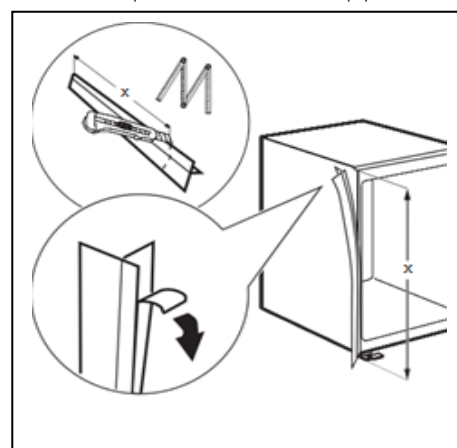


6. Install the spacer.
7. Install the door.
8. Tighten the upper pin.

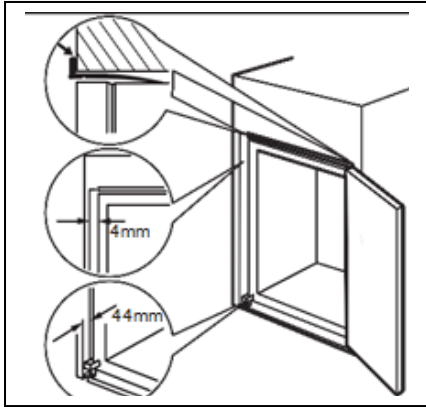
Installing the appliance

CAUTION! Make sure that the mains cable can move freely.

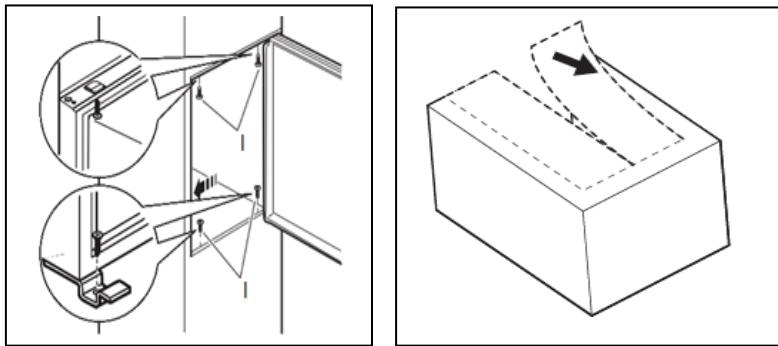
1. If necessary cut the adhesive sealing strip and then apply it to the appliance as shown in figure
2. Install the appliance in the niche.
3. Push the appliance in the direction of the arrows (1) until the upper gap cover stops against the kitchen furniture
4. Push the appliance in the direction of the arrows (2) against the cupboard on the opposite side of the hinge.



- Adjust the appliance in the niche. Make sure that the distance between the appliance and the cupboard front- edge is 44 mm. The lower hinge cover (in the accessories bag) makes sure that the distance between the appliance and the kitchen furniture is correct. Make sure that the clearance between the appliance and the cupboard is 4 mm.

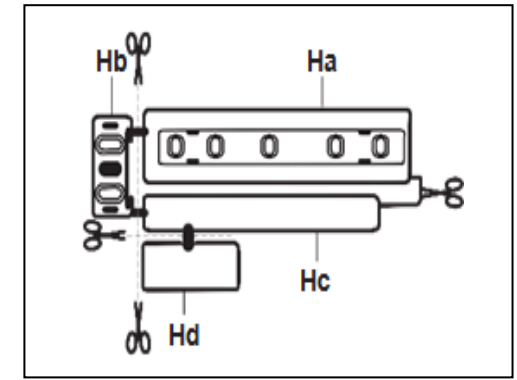
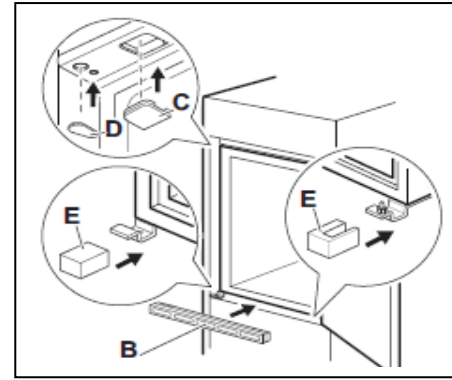


- Open the door. Put the lower hinge cover in position.
- Attach the appliance to the niche with 4 screws.

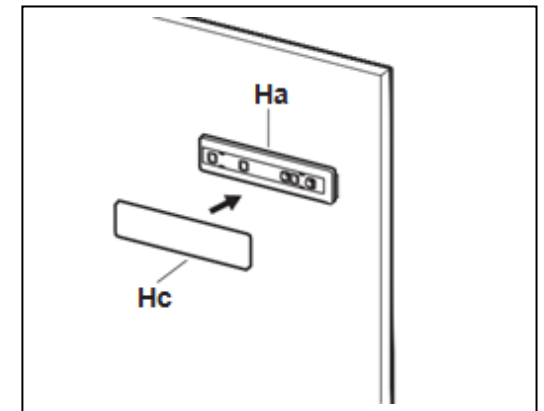
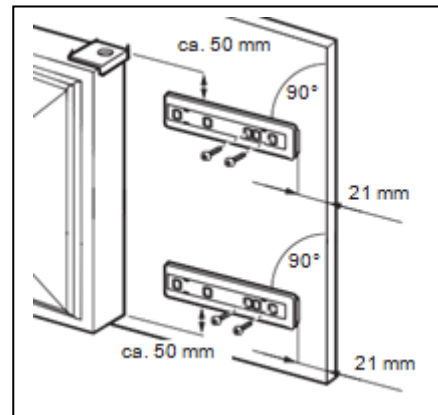


- Remove the correct part from the hinge cover (E). Make sure to remove the part DX, in the case of right hinge, SX in opposite case,
- Attach the covers (C, D) to the lugs and the hinge holes.

- Install the vent grille (B).
- Attach the hinge covers (E) to the hinge
- Disconnect the parts (Ha), (Hb), (Hc) and (Hd).

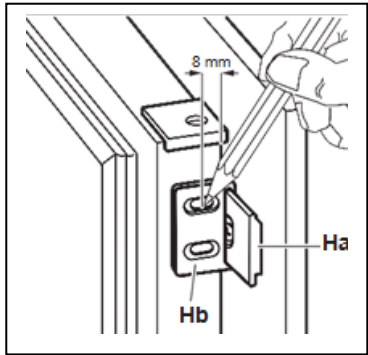


- Install the part (Ha) on the inner side of the kitchen furniture.
- Push the part (Hc) on the part (Ha).



- Open the appliance door and the kitchen furniture door at an angle of 90°.
- Insert the small square (Hb) into guide (Ha).

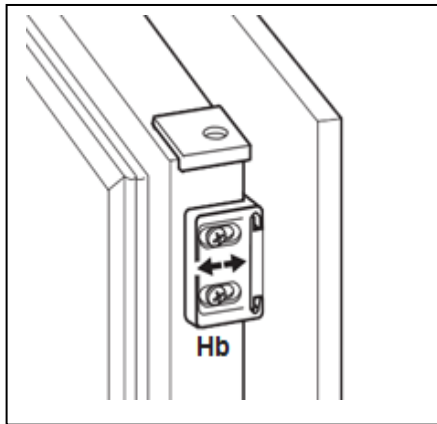
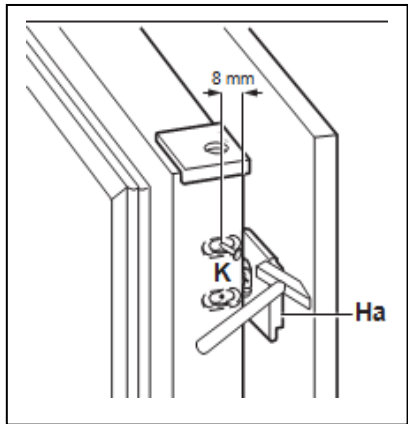
17. Put together the appliance door and the furniture door and mark the holes.



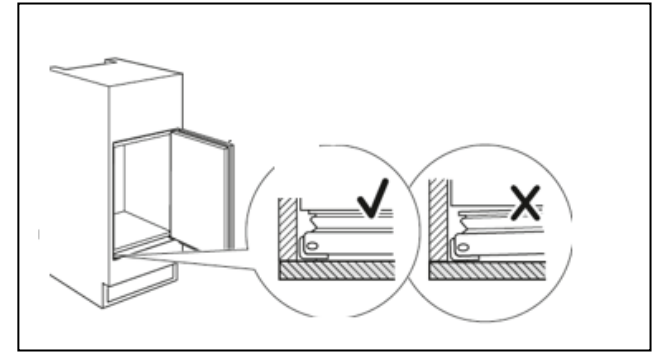
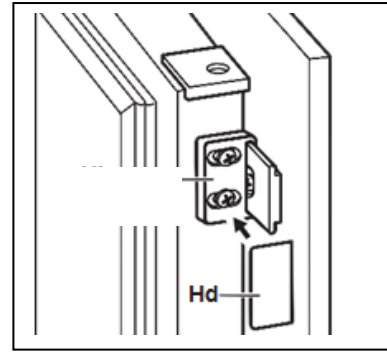
18. Remove the brackets and mark a distance of 8 mm from the outer edge of the door where the nail must be fitted (K).

19. Place the small square on the guide again and fix it with the screws supplied.

20. Align the kitchen furniture door and the appliance door by adjusting the part (Hb).



21. Press the part (Hd) on the part (Hb).



Do a final check to make sure that:

- All screws are tightened
- The sealing strip is attached tightly to the cabinet
- The door opens and closes correctly

Troubleshooting

The common problem judging method

Problem	Cause
Refrigerator can't start	<ul style="list-style-type: none"> 1.1 Is the power cord connecting well? 1.2 Is the power voltage too low? 1.3 Is the ambient temperature too low? 1.4 Is the circuit on power? 1.5 Is there some default in compressor 1.6 Is the refrigeration system blocked by ice or dirt? Please stop the unit and restart after 10 minutes to see if the compressor can start.
Weak cooling effects	<ul style="list-style-type: none"> 2.1 Is there any heat source around the refrigerator? 2.2 Is there enough space around the refrigerator for heat rejection? 2.3 Is the temperature setting appropriate? 2.4 Is there too much food or overheated food in it? 2.5 Have you opened the door frequently? 2.6 Is the door completely closed? 2.7 Is the gasket destroyed or distorted? 2.8 Does the refrigeration gas leak?
The unit cannot stop running	<ul style="list-style-type: none"> 3.1 Is there any heat source around the refrigerator? 3.2 Is there enough space around the refrigerator for heat rejection? 3.3 Is the temperature setting appropriate? 3.4 Is there too much food or overheated food in it? 3.5 Have you opened the door frequently? 3.6 Is the door completely closed? 3.7 Is the gasket destroyed or distorted? 3.8 Is the thermostat operating well? 3.9 Does the refrigeration gas leak?
There is too much ice in the appliance	<ul style="list-style-type: none"> 4.1 Is the temperature setting appropriate? 4.2 Is there high-moisture food or is the food too close to the back wall of the refrigerator? 4.3 Is the ambient temperature too low? 4.4 Are the electric parts in good condition, especially the thermostat that in case of failure will be out of control and the appliance will work continuously?

Abnormal noise	<p>5.1 Is the refrigerator placed stably?</p> <p>5.2 Does the refrigerator bump other objects?</p> <p>5.3 Is the internal accessory of the refrigerator is in the right place?</p> <p>5.4 Is the water plate of the compressor is fallen out from the unit?</p> <p>5.5 Does the tube of the refrigeration system bump each other?</p> <p>5.6 The noise sounds like water flows inside the refrigerator, in fact, it is normal. This is caused when the refrigerator starts and shuts-down. Frost-dissolving can cause this sound as well, which is a normal phenomenon.</p> <p>5.7 When the cabinet or cabinet accessories are contracting or expanding there will be a cracking sound—that is a normal phenomenon.</p> <p>5.8 The operational sound in the compressor seems to be louder at night or when the appliance starts running—that is a normal phenomenon.</p> <p>Uneven placing can cause too much noise as well.</p>
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<p>1.Cooling is not good enough (Many reasons might cause that cooling not good enough— see below)</p>		
Reason	analysis	Solutions
1) Leakage of the gas	<p>If some gas leaked, the unit will not work well.</p> <p>Phenomenon of failure:</p> <p>a) lower pressure of liquid in the cycle system</p> <p>b) high temperature of copper tube because of discharging gas— hands feel very hot</p> <p>c) Noise- that sounds like "ZZZZZ" is coming from the outlet of the capillary</p> <p>d) the temperature decreases very slowly</p>	<p>First find out the point of leakage on the tube, seal it, vacuum it and finally recharge with gas.</p> <p>Note: If you find oil somewhere, it is possible that the leakage point is there.</p>

<p>2) The quantity of gas is too much</p>	<p>If too much gas was charged into the cycle system, the extra gas will occupy some space from the evaporator so the area of heat exchange becomes less –the unit will not work well.</p> <p>Phenomenon of failure:</p> <ul style="list-style-type: none"> a) higher pressure of liquid in the cycle system than normal b) higher temperature of condenser c) bigger electric 	<p>First, stop unit for several minutes then open the charging tube and discharge all the gas. Change to a new filter then recharge the gas and finally seal the system.</p>
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Solution for common problems

<p>3) There is air in the liquid cycle system</p>	<p>The air in the system will cause lower efficiency of cooling</p> <p>Phenomenon of failure:</p> <ul style="list-style-type: none"> a) higher pressure of liquid cycle system than normal but the pressure is not over the limit b) higher temperature of discharging tube 	<p>First stop the unit for several minutes then open the charging tube and discharge all of the gas. Change to a new filter then recharge the gas and finally seal the system.</p>
<p>4) Low working efficiency of the compressor</p>	<p>Generally when a compressor works for many years, some parts of the compressor were outworn so that the compressor discharges less gas out---the unit does not work strongly.</p> <p>Phenomenon of failure:</p> <ul style="list-style-type: none"> a) lower pressure of discharging; check the pressure of system with pressure meter to see if it is normal 	<p>Change to a new compressor.</p>
<p>5) There is something that blocked the liquid cycle system</p>	<p>Sometimes there is something that blocks the filter of the liquid cycle system so the unit is not cooling.</p> <p>Phenomenon of failure:</p> <ul style="list-style-type: none"> a) lower pressure of discharging b) lower temperature of discharging 	<p>Change to a new filter</p>

2.NO COOLING

Reason	analysis	Solutions:
1) Leakage of gas	<p>Phenomenon of failure:</p> <ul style="list-style-type: none"> a) leaking fast b) leaking slowly c) no sound of liquid flow d) cut off charging tube, no gas goes out 	<p>First, find out the point of leakage on the tube, seal it, vacuum it and in the end recharge with gas.</p> <p>Note: If you find oil somewhere, it is possible that the leakage point is there.</p>
2)There is something that blocked the liquid cycle system	<p>A. Ice blocking</p> <p>Sometimes because of unknown reason water comes into liquid cycle system, the capillary will be blocked by water after the unit runs for a certain period of time.</p> <p>Phenomenon of failure: At the beginning the unit works well. After a certain period of time more ice appears in the capillary until it blocks the whole capillary completely. You can find the ice on the evaporator. The noise of the liquid flow disappears. The pressure of absorbance becomes negative. The above phenomenon appears again and again.</p> <p>The way to check ice blocking: Warm the capillary with a hot towel, after a while the ice melts in the capillary. You can hear a sound of gas flow coming from the capillary. The pressure of absorbing becomes higher. It is ice blocking.</p>	<p>First, stop the unit for several minutes. Open the charging tube, discharge all of the gas. Blow the cycle system with gas of nitrogen, recharge the gas and finally seal the system.</p>

2) There is something that blocked the liquid cycle system	<p>B. There is offal that blocks the capillary</p> <p>Phenomenon of failure: If the capillary is blocked by something such as offal etc., the sound of liquid flow disappears. The ice defrosts on the evaporator. The pressure of absorbance becomes negative. The temperature of the discharging tube is higher. Check offal blocking in the following way: Warm the capillary the same way as in the case of ice blocking. If you cannot see any changes then it must be offal blocking.</p>	<p>First, stop the unit for several minutes. Open the charging tube and discharge all of the gas. Blow the cycle system with gas of nitrogen. Change to a new capillary and filter, recharge the gas and finally seal the system.</p>
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COMPRESSOR NEVER STOPS:

Reason	Solutions
1) The temperature setting is not reasonable	Readjust the temperature setting
2) The sensor is bad	Replace the sensor
3) Seal of door is damaged	Replace the gasket
4) Too much food in the refrigerator	Please put the food properly
5) Wind door is broken	Replace the wind door
6) Fan motor is broken	Replace the fan motor

Note:

- Unplug the appliance before carrying out any maintenance operation; disconnect the mains from the power supply. Failure to do so could result in electric shock or personal injury.
- For further technical information please check the technical specifications.