

Haier SERVICE MANUAL

Order No.Ref1610S017V0

Refrigerator

MODEL:HRF-522IG6

HRF-522IB6

HRF-522IG7



WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings and cautions to advise non-technical individuals of potential dangers in attempting to service a product. Product powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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Chapter 1 General Information

1-1. General Guidelines

When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

- 1) Leakage Current Cold Check
- 2) Leakage Current Hot Check
- 3) Prevention of Electro Static Discharge (ESD) to Electrostatic Sensitive

1-2. Insurance test

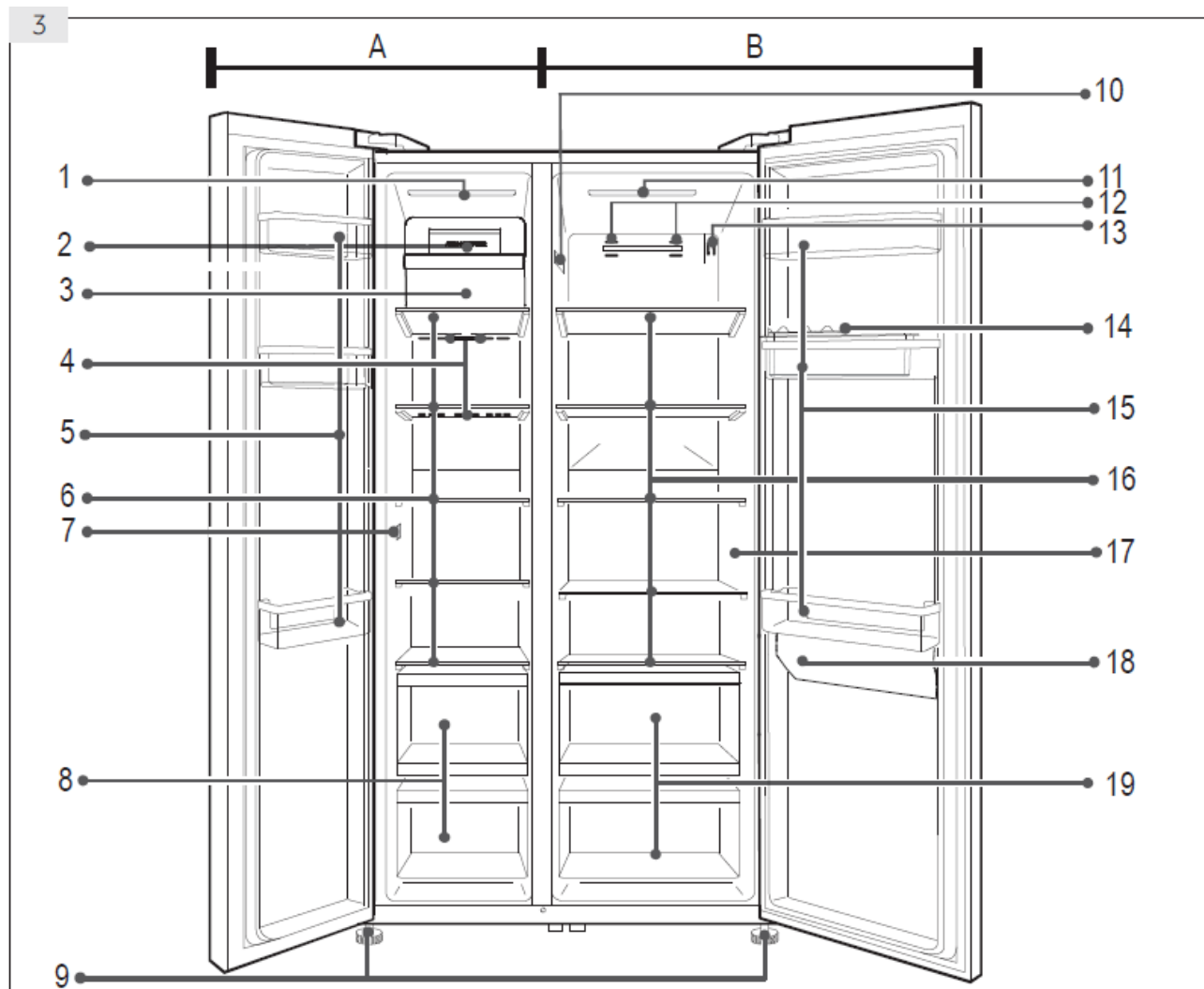
1. Check if there is any leak of current.
2. Cut out the power supply before the repair to avoid an electrical shock hazard.
3. In the case of a live-line test, insulating gloves should be worn to avoid potential electrical shock.
4. Confirm the rated current, voltage and capacity before testing with any kinds of instruments.
5. Watch if the upper door is open when you check something at a lower position.
6. Take out every part in the cabinet before moving the machine, especially things like panels (e.g. glass shelf).
7. Please wear intact cotton gloves when repair any parts of the evaporator, so that scratches by the sharp fins can be avoided.
8. If there is a breakdown with the refrigeration system, please surrender the machine to the service center, else the leaked refrigerant may pollute the atmosphere.
9. The refrigerator use AC of 220V with a frequency of 50Hz.
10. A big fluctuation of voltage (exceed the range 187~242V) may cause a start failure of the refrigerator, a burn-out of the control panel and compressor, or an abnormal sound from the compressor in operation. In this condition an automatic voltage regulator over 60W should be added.
11. Take care not to damage the supply line. Don't yank at the line; pull the plug out gently from the receptacle. Don't press the line under the cabinet or step on it. Take care not to roll on or damage the supply line when moves the machine from the wall.
12. In the case of leakage of inflammable gases like carbon monoxide, open the door and windows. Don't pull out or insert the plugs of the appliance.
13. Don't touch the refrigeration surface of the freezing compartment when the refrigerator is in operation, especially when your hand is wet, else you may be glued to the surface.
14. Pull out the plug of power supply during clearance or power outage. Wait at least five minutes to resume the power supply in order to prevent damage to the compressor caused by continuous restart.

Chapter 2 Product Feature

2-1. Specifications

	Model		HRF-522I*6/ 522I*7
1.	Product identification		
	Description of appliance		Side By Side
	Type of appliance(FS = free standing, BI = built-in)		FS
	Supplier own brand		Haier
2.	Basic features		
	Climate class		SN.N.ST.T
	Gross capacity	l	557
	capacity refrigerator compartment	l	331
	et capacity freezer compartment (total)	l	169
	Freezing capacity	kg/24 h	12
	Max storage time by power failure (Freezer)	h	5
	Refrigerant		R600a/80g
3.	Control panel		
	External control display		LED
	Temperature range (from>to)	°C	(Fridge)1~9°C/(freezer)-24~-14°C
	Power Cool (Fridge)		YES
	Power Freeze (Freezer)		YES
	Stand-by function (Holiday/Smart)		YES
4.	Basics dates		
	Voltage / frequency		230V/50Hz
	Input power / mains fuse (intensity)	W /A	200/1.8
	Length of cable/incl. plug	cm	349
5.	Packing dimensions		
	Unit dimensions without handle (H / W / D)	mm	1790*908*655
	Net weight	kg	100
	Packing dimensions (H / W / D)	mm	1890*980*730
	Gross weight	kg	114

2-2. External view



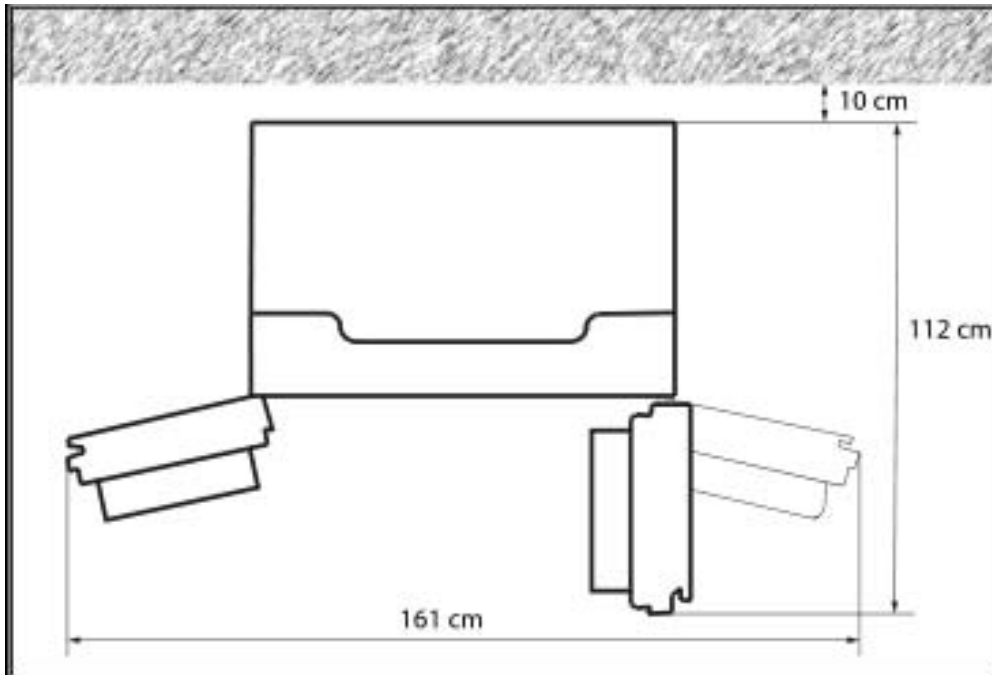
A: Freezer compartment

- 1 Ceiling lamp
- 2 Ice maker
- 3 Ice container
- 4 Air duct
- 5 Door rack/bottle holder
- 6 Shelf
- 7 Sensor
- 8 Drawer
- 9 Adjustable feet

B: Fridge compartment

- 10 Rating plate
- 11 Ceiling lamp
- 12 Air duct
- 13 Sensor
- 14 Egg tray
- 15 Door rack/bottle holder
- 16 Shelf
- 17 OK Sticker
- 18 Water tank
- 19 Drawer

2-3 Space requirement



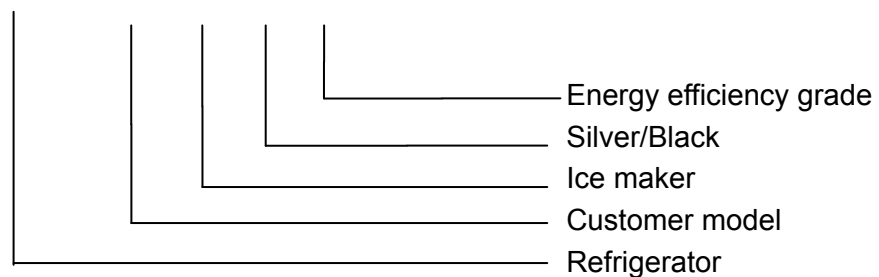
2-4. Main features

1. Single cooling system with air-cooled computer control, there is a freezer evaporator in freezing room, Fridge room temperature is controlled by ON/OFF of electronic air damper.
2. Super bright LED& energy-saving, brighter& better reliability.
3. Fault code automatically hiding function.

2-5. Meaning of model number

Detailed meaning of all letters and figures of the model number:

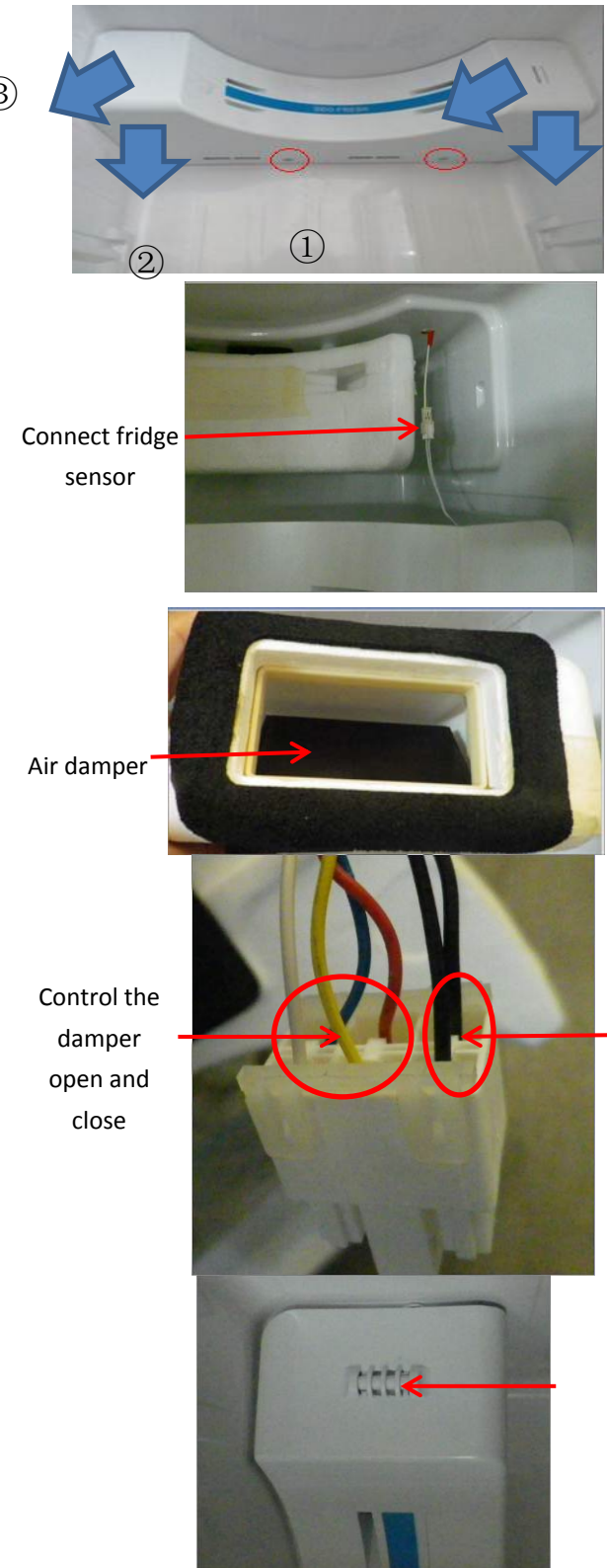
HRF - 522IG/B6



Chapter 3 Disassembly and Installation

3-1 Disassembly of the assembly

3-1-1 Disassembly of refrigerator duct

 <p>③</p> <p>②</p> <p>①</p> <p>Connect fridge sensor</p> <p>Air damper</p> <p>Control the damper open and close</p> <p>The fridge sensor</p>	<p>① Take out the screw (in the red zone)by using cross screwdriver</p> <p>② pull the air duct down</p> <p>③ Then pull the air duct out.</p> <p>Connect the heater of the damper</p>
--	--

3-1-2door display panel



Bottom of the
display panel

The first way: Use a screwdriver to tilted the bottom of the display panel, then remove the whole display panel.

The second way: use a sucker to pull the bottom of the display panel

Notice: Don't break the door

3-1-3freezer air duct



① First remove the screw cap on the freezer air duct cover (in the red zone), then take out screw by using cross screwdriver



② Pry the top freezer air duct cover plate with a screw driver then take off the top of the air duct cover



④ seize the both sides of the freezer fan

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pull out the freezer fan

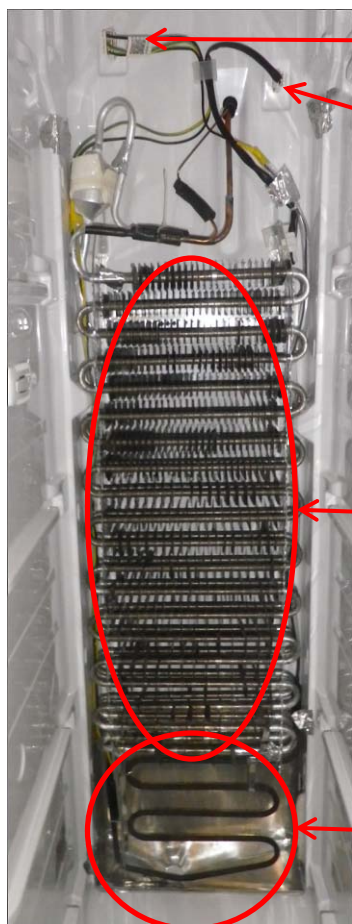
Take off the connector of the freezer fan



Freezer
sensor

④ Seize the top of the bottom freezer air duct cover and pull it then take it off

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Defrost heater
connector
Defrost
sensor
connector

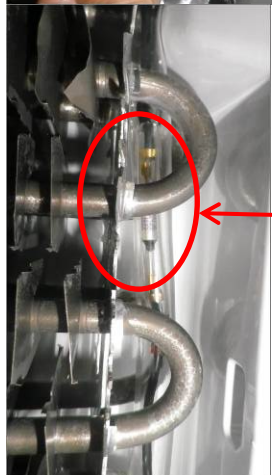
When you install the defrost heater, the bottom should be 2 cm far away from the cabinet, if it is too near, it will roast the cabinet badly, if it is too far, the drain hole will be iced up.

Freezer
evaporator

Defrost
heater



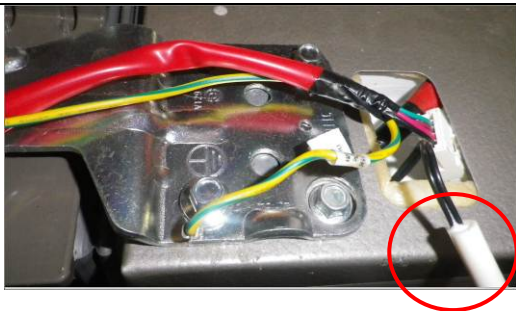
Defrost
sensor



fuse

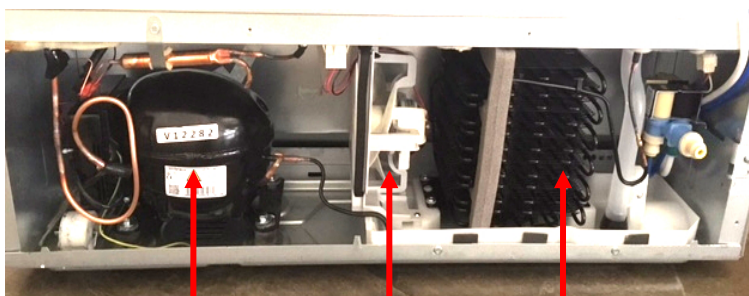
There are 2 fuse on the both sides of the evaporator, they are in series with the defrost heater

3-1-4 the ambient sensor



Open the right hinge cover, you will find the ambient sensor

3-1-5 the cabin

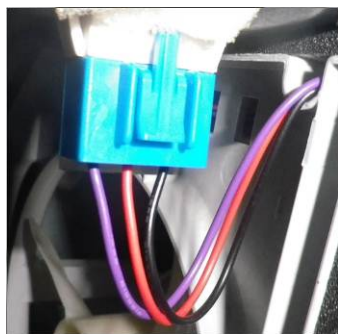


Compressor

Cooling fan

condenser

① Open the cover of the cabin, you will find the compressor and the cooling fan





The connector of the cooling fan





② use a flat screwdriver pry the Compressor accessories cover, we can take off the accessories

3-1-6 Disassembly of the ice maker

	<p>① Take out ice storage box and shelf;</p>
	<p>② Remove the 2 screws at the top of the front, pull slightly, after the ice maker assembly separate with the top of refrigerator, the connector terminal appears at the left side of the back, separate the connector terminal then take out the ice maker assembly. Note: the movement range cannot be too large, in case damage the cable jumper.</p>

3-1-7 Disassembly of water tank cover and water tank

	<p>① Put your fingers into the disassembly mouth of the water tank cover as shown in the picture, pulling slightly ramp above is able to loosen the snap joint of the water tank cover.</p>
	<p>② Grasp the loosened water tank cover, pulling slightly towards the left as shown in the picture is able to take down the water tank cover from the door.</p>



③Hold down the fixed card towards the water tank, pull out the two pipes.

Note: before pulling out the pipes, please empty water in all pipes of the refrigerator, in case the water spatters.

④Remove two fixed screws under the water tank, pull towards the right is able to take down the water tank from the door.

3-1-9Assembly of water tank and water tank cover

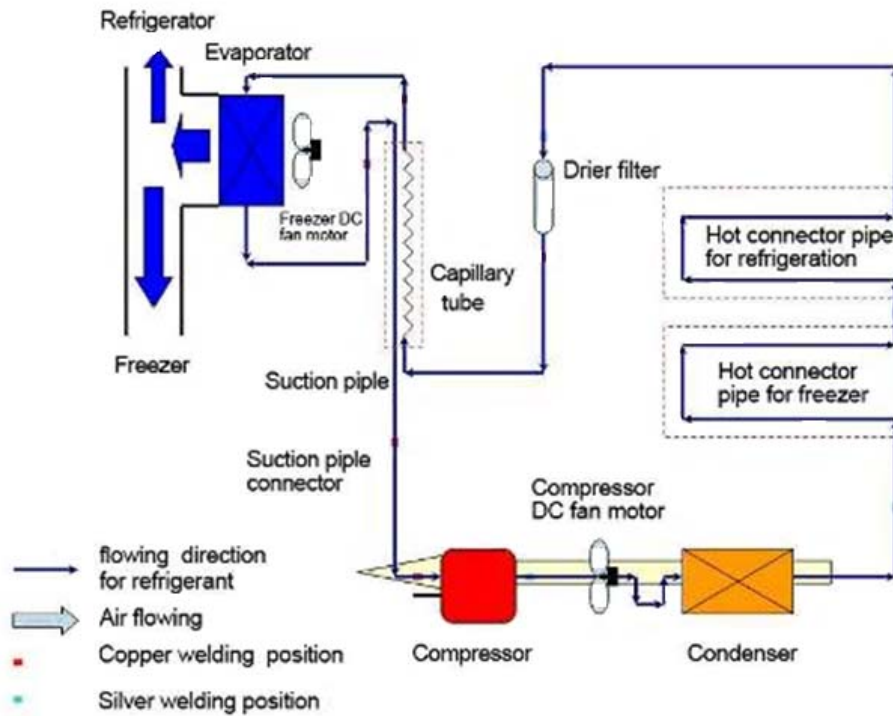
1. Install the water tank on the door, fix the water tank with two screws 0060600097 at the bottom, do not pin the two pipes.

2.Connect the white pipe to the left faucet of the water tank, and connect the blue pipe to the right faucet of the water tank, please make the color code cling the fixed card, make it water-tight.

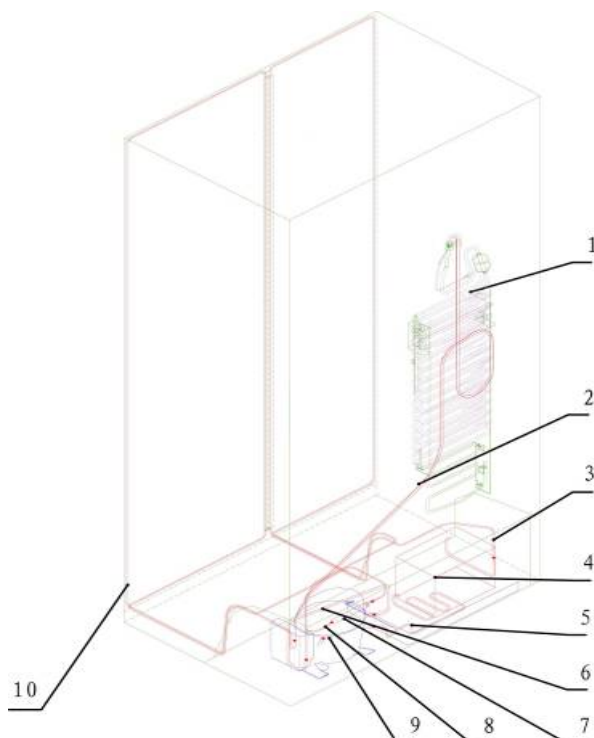
3.Fix the water tank cover: ①Incline the water tank cover towards the operator, firstly install the right to the boss on the door; ②Push the left side of the water tank cover towards the door to make the jack catch get stuck in the columnar side of the water tank; ③Pat upside of the water tank cover until the jack catch get stuck in the upper snap joint, mean that the upside of the water tank cover is not loose; ④Pat downside of the water tank cover until the jack catch get stuck in the lower snap joint, mean that the downside of the water tank cover is not loose, there is no gap between the door and water tank cover.

Chapter 5 system flow principle

4-1 Refrigerating cycle plan



4-2 refrigerating cycle perspective

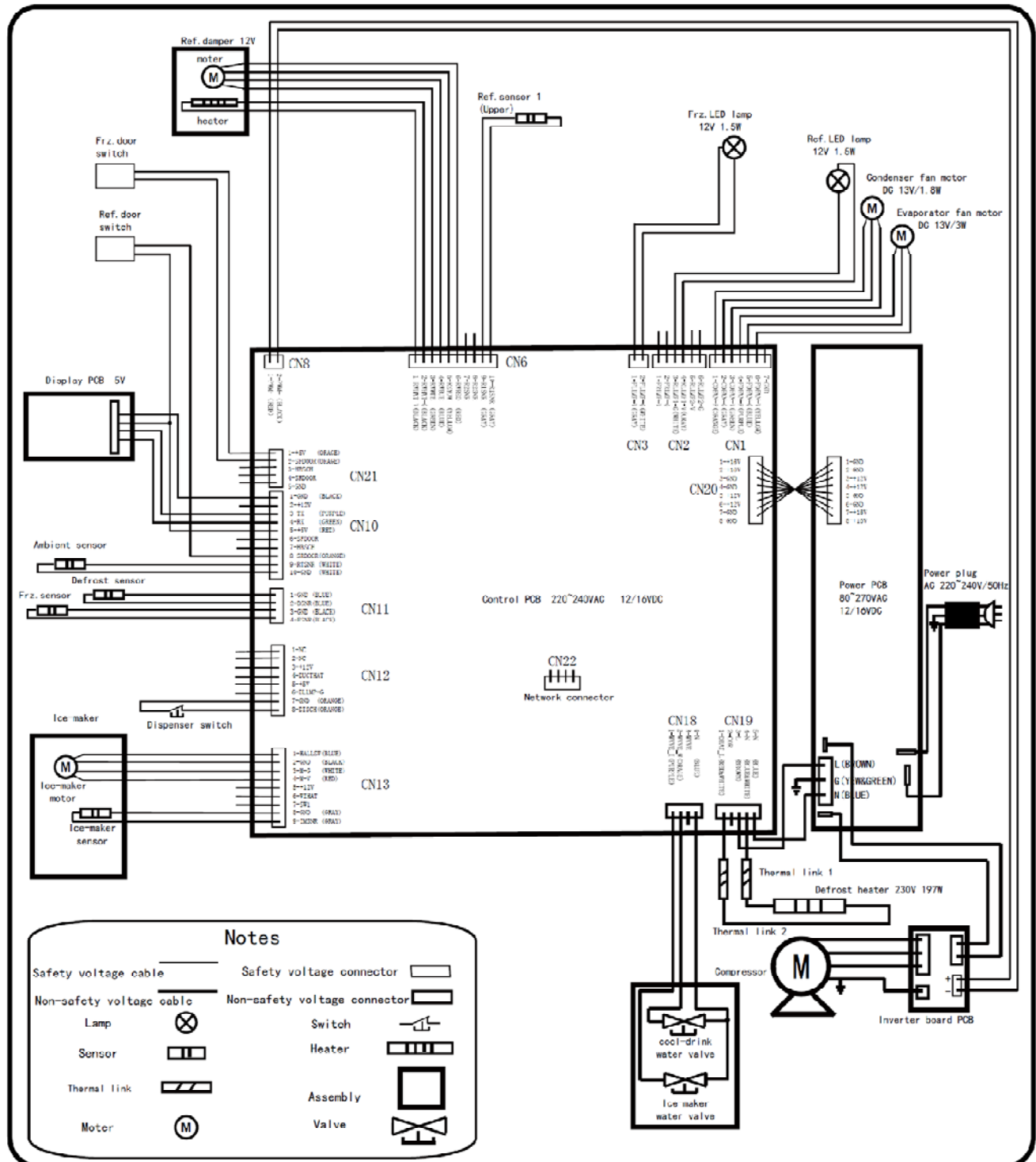


The list of system components:

- 1 Evaporator
- 2 Suction pipe
- 3 Hot connector pipe for freezer
- 4 Condenser
- 5 Condenser connector
- 6 Suction pipe connector
- 7 Drier filter
- 8 Capillary tube
- 9 Injection tube
- 10 Hot connector pipe for fridge

Chapter 5 Circuit diagram

5-1. Main control Chart

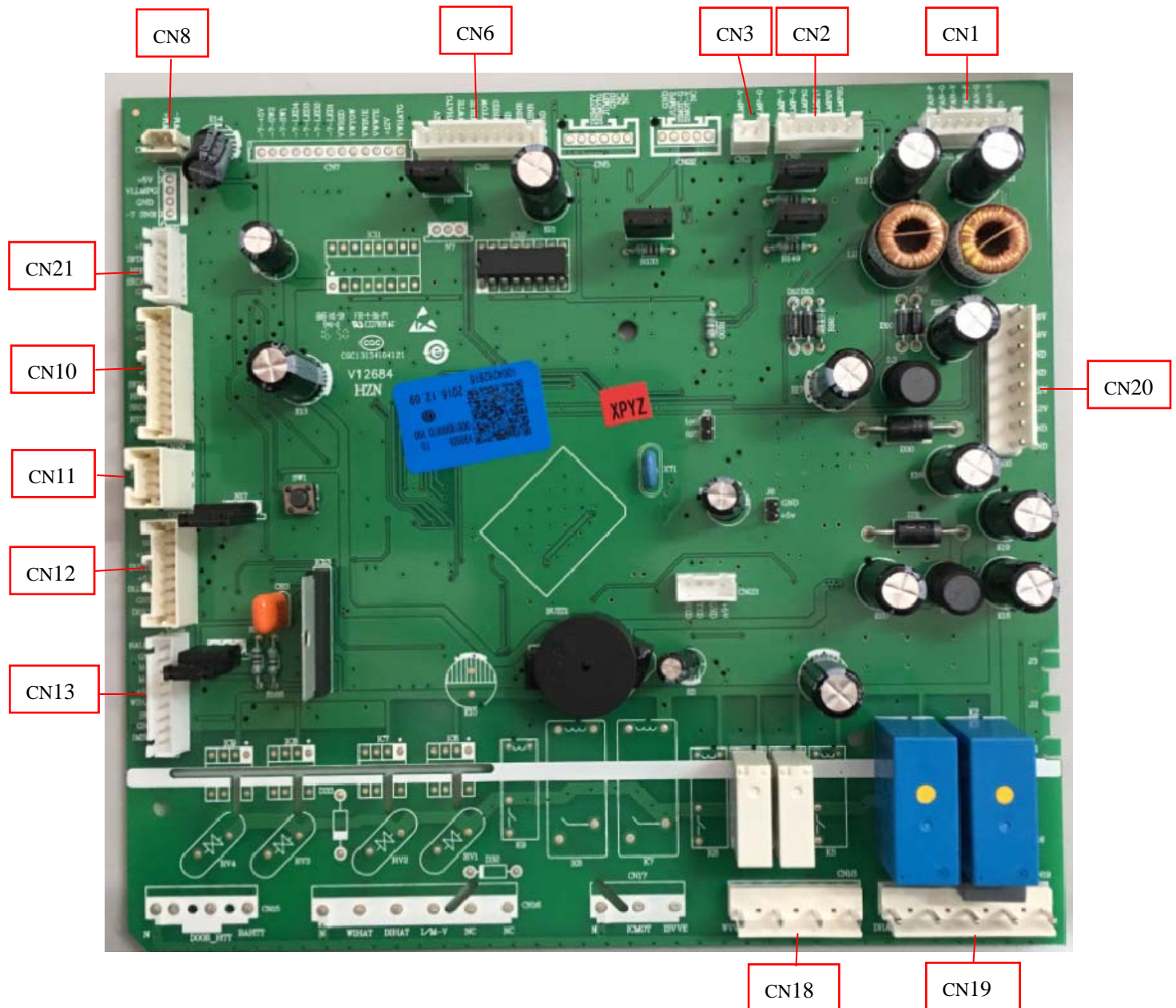


SERVICE MANUAL

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Connectors 'location on PCB

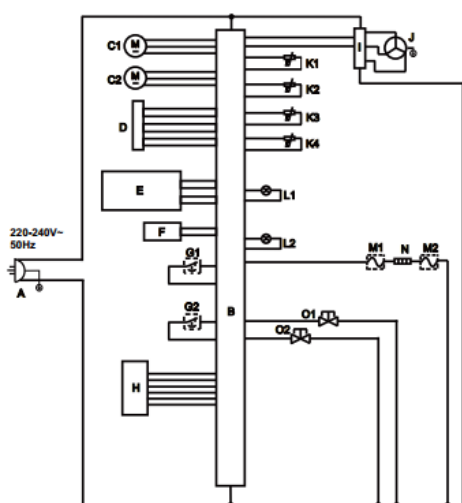


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Haier

Refrigerator/Freezer

HRF-522IG7



- A. Power plug
- C1. Condenser fan motor
- D. Ref. damper
- F. Water button
- G2. Freezer door switch
- I. Inverter panel
- K1. Defrosting sensor
- K3. Ref. sensor
- L1. Ref. LED
- M1. Thermocutout 1
- N. Defrosting heater
- O2. Icemaker intake valve

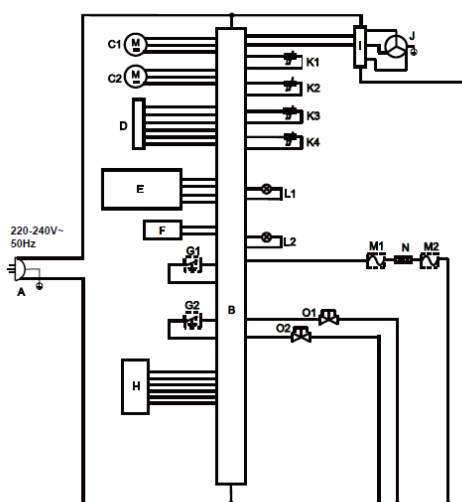
- B. Control panel
- C2. Evaporator fan motor
- E. Display panel
- G1. Refrigerator door switch
- H. Ice maker
- J. Compressor
- K2. Frz. sensor
- K4. Ambient sensor
- L2. Frz. LED
- M2. Thermocutout 2
- O1. Beverage valve

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Haier

Refrigerator/Freezer

HRF-522IG6



- A. Power plug
- C1. Condenser fan motor
- D. Ref. damper
- F. Water button
- G2. Freezer door switch
- I. Inverter panel
- K1. Defrosting sensor
- K3. Ref. sensor
- L1. Ref. LED
- M1. Thermocutout 1
- N. Defrosting heater
- O2. Icemaker intake valve

- B. Control panel
- C2. Evaporator fan motor
- E. Display panel
- G1. Refrigerator door switch
- H. Ice maker
- J. Compressor
- K2. Frz. sensor
- K4. Ambient sensor
- L2. Frz. LED
- M2. Thermocutout 2
- O1. Beverage valve

Qingdao Haier Co.,Ltd.

The display panel pins no break



Chapter 6 Main Function Operating principle

6-1 Defrost system

6-1-1 defrost control :

According to the times of opening and closing the door and the time of the compressor cumulative working, the refrigerator has different frost timing. When the temperature of the defrost sensor reaches 7℃, the defrost stops, in defrosting the compressor and freezer fan are off, the refrigeration damper closes.

If the defrost time reaches 70 minutes, but the temperature of the defrost sensor does not reach 7℃, then the defrost heater is off, Ed displays.

6-1-2. the easily broken part in the defrost system :

1) Defrost fuse, it is on the middle of the evaporator, outer is plastic bushing, normally, it is conducting.

If it is open, it is broken.

2) The connection between the defrost fuse or defrost heater and cabinet, if the connection terminal falls off or decline, poor contact will happen.

3) Defrost sensor, which locates at the top right

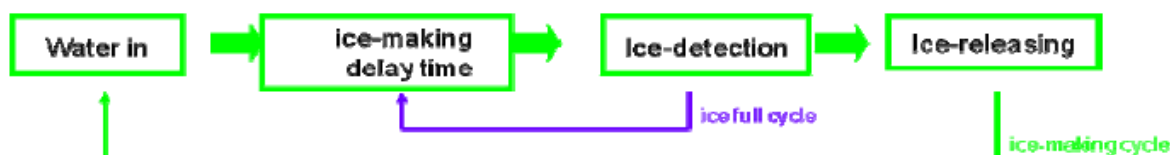
6-1-3. defrost rule

RT (℃)	Time	Defrost condition
RT<23	Compressor accumulative running time: 7H<T≤12H	R.door open accumulative time ≥9min , Defrost Immediately
	Compressor accumulative running time: T>12H	R.door open accumulative time ≥3min , Defrost Immediately;
	Refrigerator accumulative running time =50H	Defrost Immediately
23≤RT≤28	Compressor accumulative running time: 7H<T≤12H	R.door open accumulative time ≥9min , Defrost Immediately
	Compressor accumulative running time: T>12H	R.door open accumulative time ≥3min , Defrost Immediately;
	Refrigerator accumulative running time =72H	Defrost Immediately
28<RT<35	Compressor accumulative running time: 7H<T≤12H	R.door open accumulative time ≥9min , Defrost Immediately
	Compressor accumulative running time: T>12H	R.door open accumulative time ≥3min , Defrost Immediately;

	Refrigerator accumulative running time=50H	Defrost Immediately
35≤RT<41	Compressor accumulative running time: 7H<T≤12H	R.door open accumulative time ≥9min , Defrost Immediately
	Compressor accumulative running time T>12H	R.door open accumulative time ≥3min , Defrost Immediately;
	Refrigerator accumulative running time =21 小时	Defrost Immediately
RT≥41	Compressor accumulative running time: 7H<T≤12H	R.door open accumulative time ≥9min , Defrost Immediately
	Compressor accumulative running time: T>12H	R.door open accumulative time ≥3min , Defrost Immediately;
	Refrigerator accumulative running time =21 小时	Defrost Immediately

6-2 Ice-making control

1.Control principle: When the water enter into the ice box, machine test the ice-maker sensor after 100 minutes. If the temperature of ice-maker sensor is below -14℃, ice-maker starts rotate, and the ice-measure staff starts work to test if the ice in ice-store box is full. If the ice-store box is no full of ice, ice box turn over continually to release ice, then come back to original horizontal position. The water valve open again let water enter into ice-maker, and then continue a new ice-making process.



1) **Water in:** The machine let water into ice-maker after ice releasing action, the water inlet time is set through control panel.

2) **Ice-making delay time:** Include two conditions; one condition is that the ice-making time reach to 100 minutes, another condition is that the ice-maker sensor temperature is lower than -14℃.

3) **Ice-detection:** When ice-maker is under working status, ice-measure staff move downward firstly to detect if the ice is full. If the measure-staff can move to the lowest position, it means that the ice in ice-box is not full, and it can continue next ice-releasing action. If the measure-staff can not move to the lowest position, machine will take for the ice in ice-box id full, and return to ice-making delay time to wait another ice-detection action, and then come into being cycle.

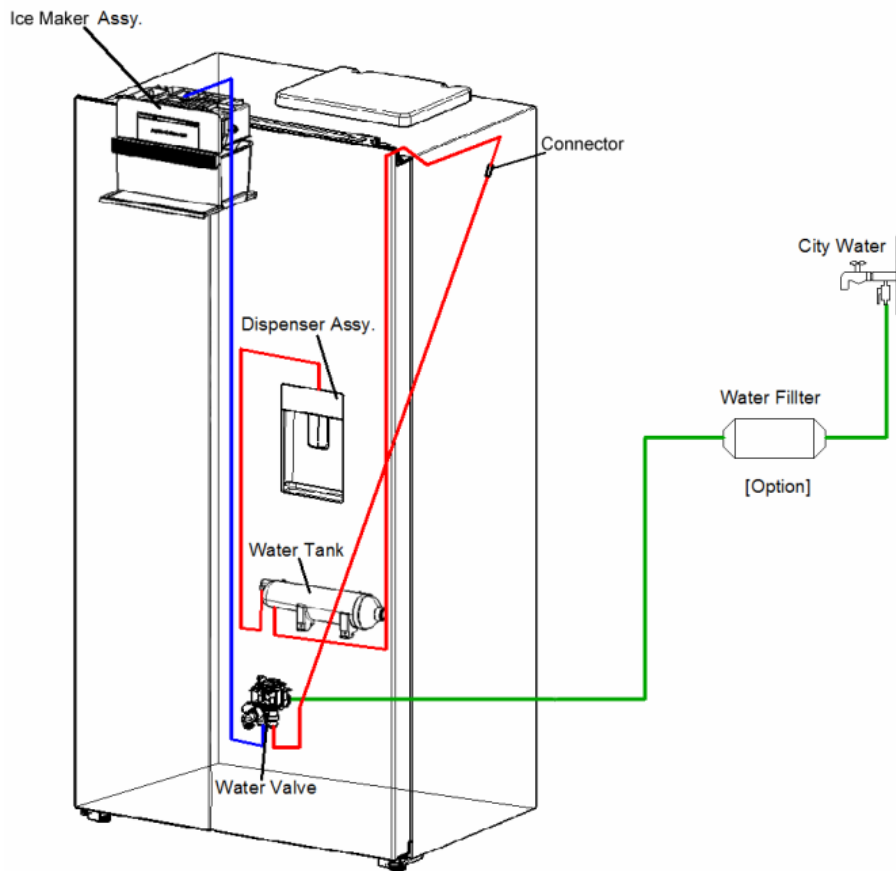
4) **Ice-releasing:** If the result of ice-detection is not full, ice-box will rotate to release ice. After ice-releasing, machine going on another water in action, and then come into being cycle.

2.Ice maker testing: Under locked state,press"ice"+"Lock" for 3 sec.,ice maker turns out automatically.

6-3 Water Line principle

Water line scenograph

Ice & Water System



Product : Pumping [-Ice
-Water]

The water is divided into two ways from water valve, one way to ice-maker, and another way to water tank, then flow to dispenser for get cold water.

1) Cold water principle:

Water enters into water tank of fridge compartment, then water getting to cold in fridge compartment for drink use from dispenser.

2) Ice-maker principle:

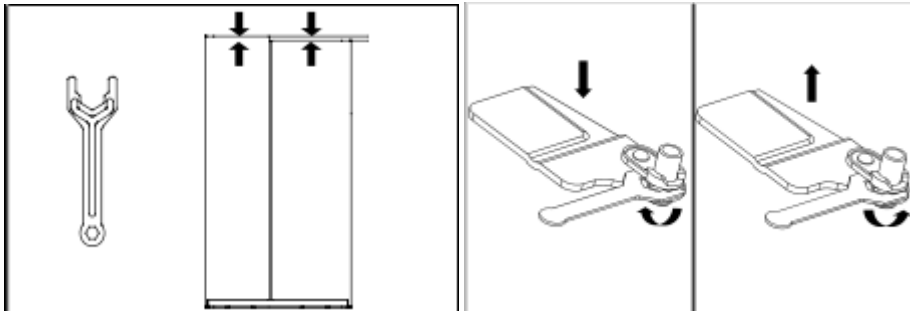
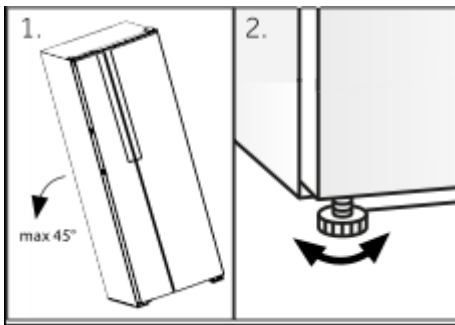
Water enter into ice-maker from water valve which at the back of cabinet, then after some time, the ice-maker test if the ice box if full, and pushing ice. Then let water into ice-maker again to continue a new ice-making process.

6-4Adjust the level of the refrigerator

The appliance should be placed on a flat and solid surface.

1. Tilt the refrigerator slightly backwards.
2. Set the feet to the desired level.

Make sure the distance to the wall on the hinge sides is at least 5 cm



If the doors are still not in one level after leveling the doors by the feet, this mismatch can be remedied by turning the hinge lifting shaft at the right bottom corner of refrigerating door with a spanner.

- Clockwise turn lifting shaft with spanner to lower door height.
- Anticlockwise turn lifting shaft with spanner to lift door height.

Chapter 7 Control and display system

7-1 Control and display panel

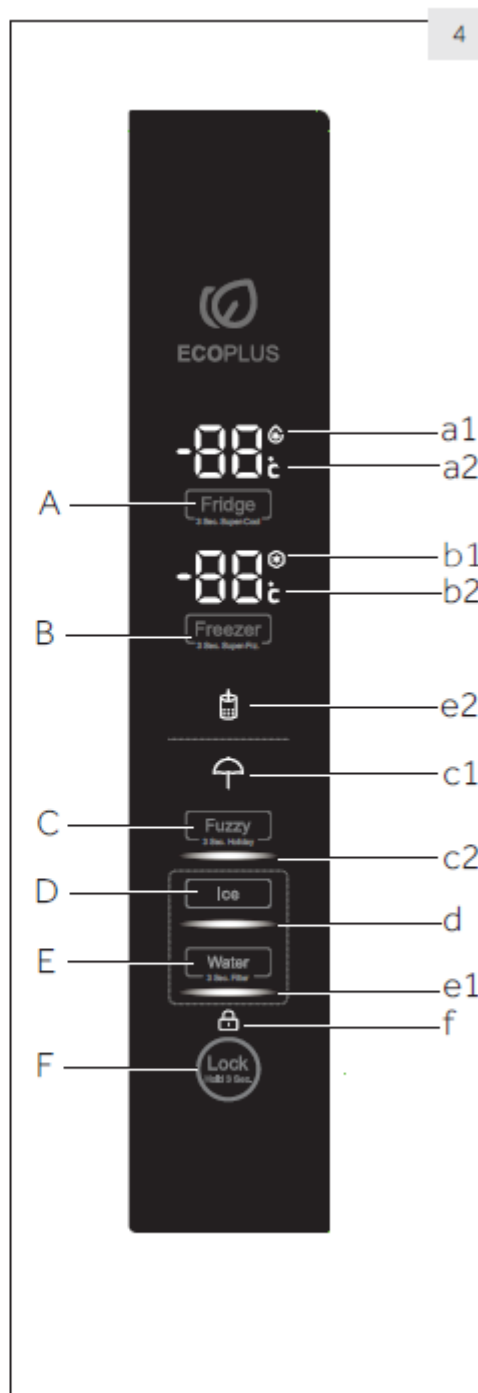
Control panel (Fig. 4)

Keys:

- A Fridge selector and "Super-Cool" function on/off
- B Freezer selector and "Super-Freeze" function on/off
- C "Fuzzy" mode and "Holiday" function on/off
- D Ice Maker function on/off
- E Cool Water function on/off and reset of "Change Filter" indicator
- F Panel lock selector

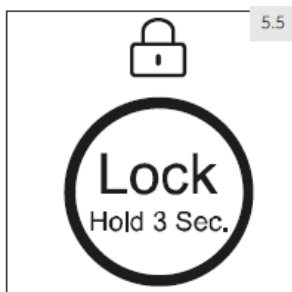
Indicators:

- a1 "Super-Cool" function
- a1 Temperature Fridge
- b1 Super-Freezer" function
- b2 Temperature Freezer
- c1 "Holiday" function
- c2 "Fuzzy" mode
- d Ice Maker function
- e1 Cool Water function
- e2 "Change Filter"
- f Panel lock



7-2 Function adjustment

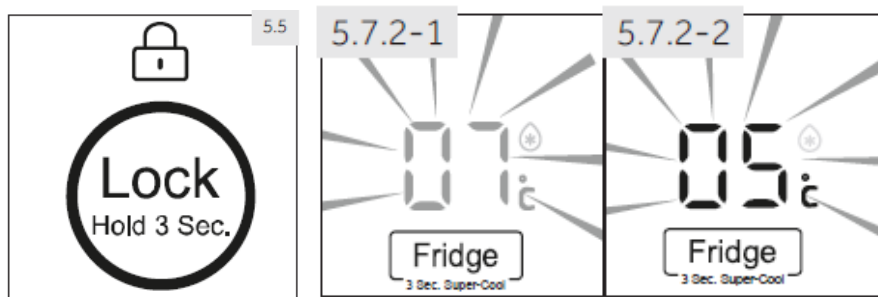
7-2-1 First, The panel is unlocked.



► Touch button “F” for 3 seconds to block all panel elements against activation. An acoustic signal sounds. The related indicator “F” is now displayed and the lighting of the panel is switched off. The icon flashes if a button will be pressed, when the panel lock is activated. The change is not running.

► For unlocking press again the button.

7-2-2 Adjust the fridge temperature



1. Unlock the panel by touching key “F” if it is locked (Fig. 5.5).

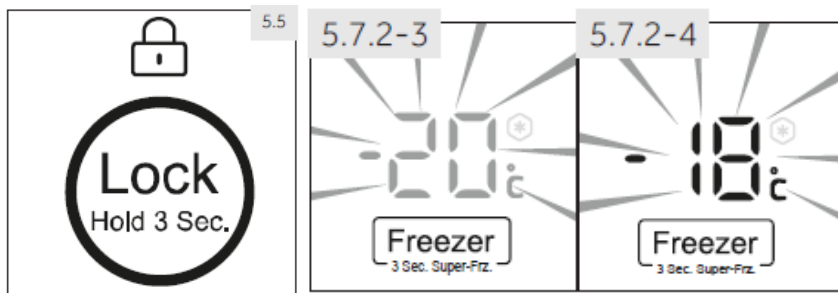
2. Touch key “A” (Fridge) to select the fridge compartment. The actual temperature in the fridge compartment is displayed (Fig. 5.7.2-1).

3. Touch sequentially key “A” (Fridge) until the desired value of temperature is flashing (Fig. 5.7.2-2). A signal will sound at each key touch. The temperature increases in sequences of 1°C from a minimum of 1°C to a maximum of 9°C. The optimum temperature in the fridge is 5 °C. Colder temperatures mean unnecessary energy consumption.

4. Touch any key except “A” (Fridge) to confirm, or the setting confirms automatically after 5 seconds.

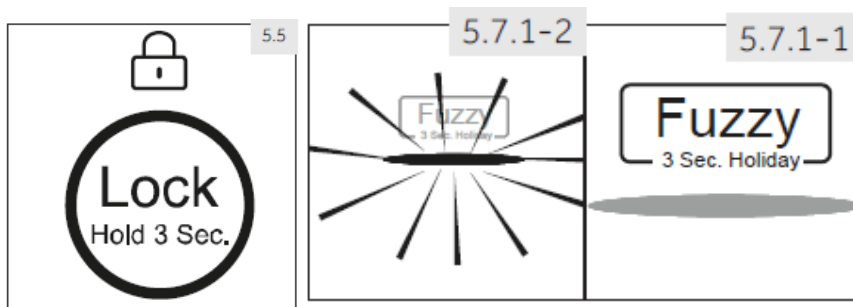
Displayed temperature stops flashing.

7-2-3 Adjust the temperature for freezer



1. Unlock the panel by touching key “F” if it is locked (Fig. 5.5).
2. Touch key “B” (Freezer) to select the freezer compartment. The actual temperature in the freezer compartment is displayed (Fig. 5.7.2-3).
3. Touch sequentially key “B” (Freezer) until the desired value of temperature is flashing (Fig. 5.7.2-4). A signal will sound at each key press. The temperature increases in sequences of 1°C from -14°C to -24°C. The optimum temperature in the freezer is -18°C. Colder temperatures mean unnecessary energy Consumption.
4. Touch any key except „B” (Freezer) to confirm, or the setting confirms automatically after 5 seconds. Displayed temperature stops flashing.

7-2-4 FUZZY function



If you do not have any special requirements, we recommend that you use fuzzy mode :

In the Fuzzy mode, the appliance can automatically adjust the temperature setting according to the ambient temperature and temperature change in the appliance. This function is totally hand free.

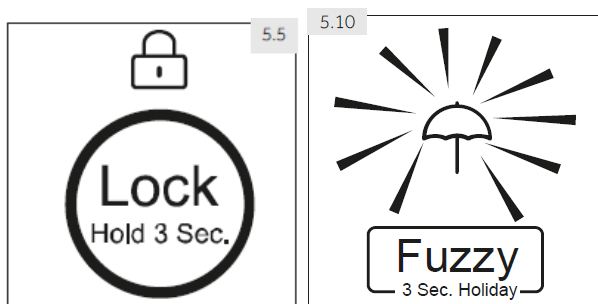
1. Unlock the panel by touching key “F” if it is locked (Fig. 5.5).

2. Touch key “C” (Fuzzy) (Fig. 5.7.1-1).

3. Indicator “c2” illuminates and the function is activated(Fig. 5.7.1-2).

By repeating the above steps or selecting an otherfunction this function can be switched off again.

7-2-5 Holiday function



This function sets the fridge temperature permanentlyto 17°C.

This allows to keep the door of the empty fridge closedwithout causing an odour or mold - during a long absence(e.g. during holiday). The freezer compartmentis free for your setting.

1. Unlock the panel by touching key “F” if it is locked(Fig. 5.5).

2. Touch key “C” (Fuzzy) for 3 seconds Fig. 5.10). Indicator “c1” illuminates .and the function is activated.

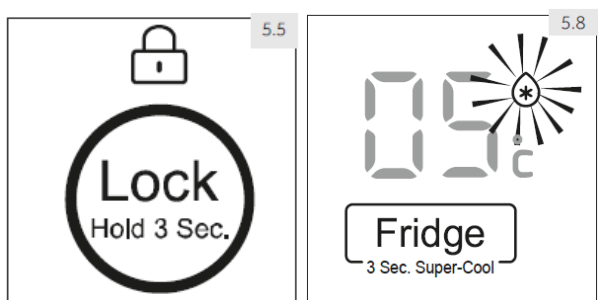
By repeating the above steps or selecting an otherfunction this function can be switched off again.

WARNING!

During the holiday function no goods must be stored in the refrigerator compartment.

The temperature of + 17 ° C is too high for storing food.

7-2-6Super- Cool function



Switch on the Super-Cool function if larger quantityof food should be stored (for example after thepurchase).

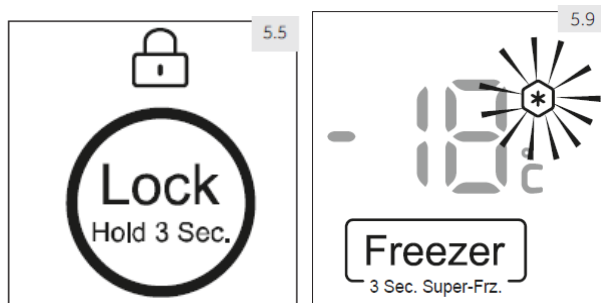
The Super-Cool function accelerates the cooling of fresh food and protects the goods already stored from undesirable warming. The factory setting temperature is 0 to +1°C.

1. Unlock the panel by touching key “F” if it is locked (Fig. 5.5).
2. Touch key “A” (Fridge) for 3 seconds. Indicator „a1“ illuminates and the function is activated. (Fig. 5.8).
3. The same operation can exit super cool function.

Notice

This function will be automatically disabled after 3 hours.

7-2-7 Super-Freeze function



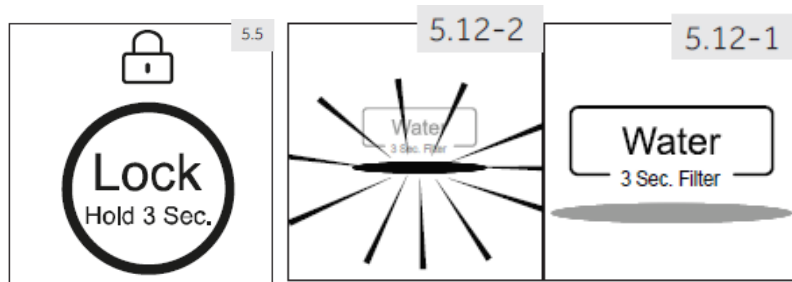
Fresh food should be frozen as quickly as possible to the core. This preserves the best nutritional value, appearance and taste. The Super-Freeze function accelerates the freezing of fresh food and protects the goods already stored from undesirable warming. If you need to freeze a large amount of food once, it is recommended to set the Super-Freeze function on ahead for 24h before the usage of frozen room. The factory setting temperature is -24 °C.

1. Unlock the panel by touching key “F” if it is locked (Fig. 5.5).
2. Touch key “B” (Freezer) for 3 seconds. Indicator „b1“ illuminates and the function is activated. (Fig. 5.9).
3. The same operation can exit Super -Freeze function.

Notice

The Power Freeze function will automatically switch off after 50 hours. The appliance is then operated at the previously set temperature.

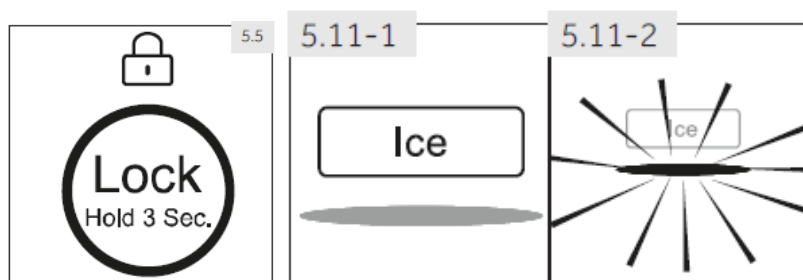
7-2-8 Cool Water function



With this function the tank in the fridge door will be filled automatically with drinking water which is cooled to drinking temperature and can be tapped.

1. Take care the water supply valve is opened.
2. Unlock the panel by touching key "F" if it is locked(Fig. 5.5).
3. Touch key "E" (Water) (Fig. 5.12-1).
4. Indicator "e1" illuminates and the function is activated(Fig. 5.12-2) and water can be tapped.By repeating the above steps this function can be switched off again.

7-2-9 Ice Maker function



This function allows to produce ice cubes which will be collected in the ice container.

The ice maker periodically receives an automatic flow of water which will be frozen into ice cubes and automatically fall into the ice container. Capacity of the ice maker depends on the ambient temperature, frequency of freezer door openings, and freezer compartment cooling temperature setting. Typical quantity of ice production per day is 1.5kg.

1. Take care the water supply valve is opened.

2. Unlock the panel by touching key “F” if it is locked(Fig. 5.5).

3. Touch key “D” (Ice) (Fig. 5.11-1).

4. Indicator “d” illuminates and the function is activated(Fig. 5.11-2).

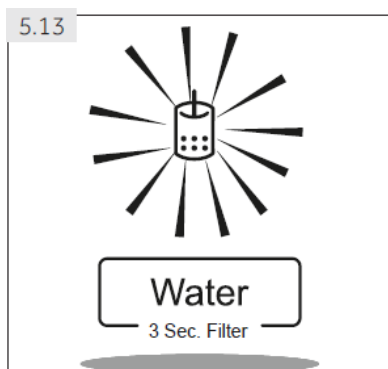
By repeating the above steps this function can be switched off again.



Notice: Ice Maker function

- ▶ The Ice Maker function will automatically switch off if the maximum ice level is reached.
- ▶ Make sure that you empty the ice maker container before turning off the ice maker function, as the ice will melt into water.
- ▶ When you don't need ice cubes for a long time, please empty the container and insert the cleaned container and close the water supply valve.

7-2-9 Change filter indicator



Approximately every 6 months the “Change Filter” indicator light turns on (Fig. 5.13). This indicates that the water filter has to be changed. Refer to CARE AND CLEANING.

The filter in the water pipe filters absorbs impurities and makes water/ice clean and hygienic. After a long time of usage the ice cubes become smaller because the filter is blocked from the impurities.



Notice: Filter change

- ▶ For an impeccable quality of the ice cubes, it is very important to change the water filter regularly! If the water quality shows signs of deterioration, either visually or in taste, the filter should be changed sooner - before the indicator light turns on.
- ▶ After installation of new filter the next production of ice cubes (20 pieces approx) should not be consumed.

Reset the Change filter indicator

- Touch key "E" (Water) for 3 seconds (Fig. 8.5), the "Change Filter" indicator (e2) will turn off.

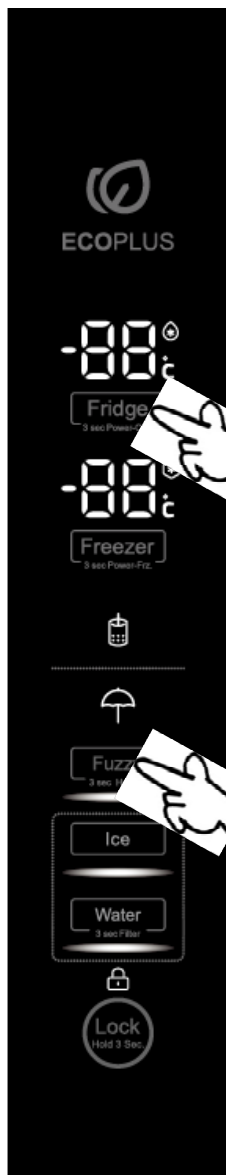


Notice: Reset Change filter indicator

To prevent possible diseases, do not deactivate the Change Filter indicator without changing the filter!

Chapter 8 Quick check and Self-test model

8-1 Checking method of fault code



5 times

lock

Step 1, locked

Step 2, Press the "Fridge" continuously

Step 3, Press "Fuzzy" for 5 times

Step 4, Press the "unlock" to check the other error code

Step 5,

Exit:

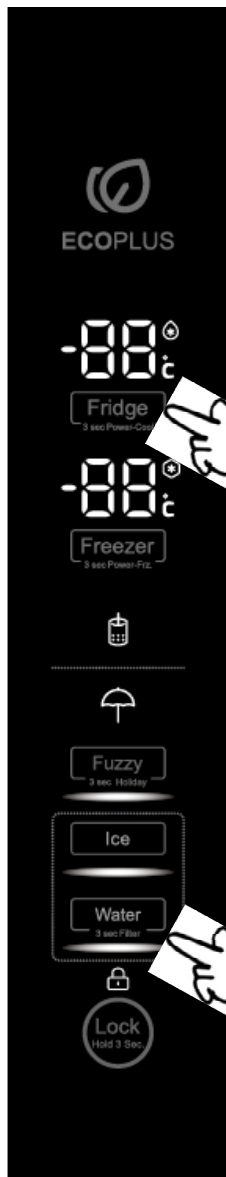
- no error, display -- for 3s ,
- display error code for 1minute,
- press the two buttons for 5 times again.

Fault code

NO	Error code	Defect explanation	Remark
1	F4	Freezer sensor fault	
2	F6	Freezer defrosting sensor fault	
3	F3	Refrigerator sensor fault	
4	F2	ambient-temperature sensor fault	
5	E1	Freezer fan fault	
6	E2	cooling fan fault	
7	E0	Communication fault between PCB and display panel	
8	Ed	Freezer defrosting fault	Check the heater , fuse and communication
9	FC	ICE sensor fault	
10	Er	ICE maker fault	

8-2 Testmode

Entry



Check

T1→T2→T3→T4→ exit the test mode

- Step 1, locked
- Step 2, Press “fridge” continuously
- Step 3, Press the “Water” for 5 times.
- Step 4, Press the “unlock” to enter the other mode



mode	T1	T2	T3	T4
Working rule	compressor /freezing fan and cooling fan working continuously ,the damper open continuously	freezer heater, Defrost sensor $> 7^{\circ}\text{C}$, defrosting heater is OFF, longest heating time: 60 minutes.	Factory test, no useful for engineer	Factory test, no useful for engineer

8-3 Demo mode

(1) Demo mode

Step 1, locked

Step 2, Press the “fridge” continuously

Step 3, Press “Ice” for 5 times.

Step 4, The Fuzzy, Ice, Water flash recycle

Note: when power off , the demo mode has no memory.

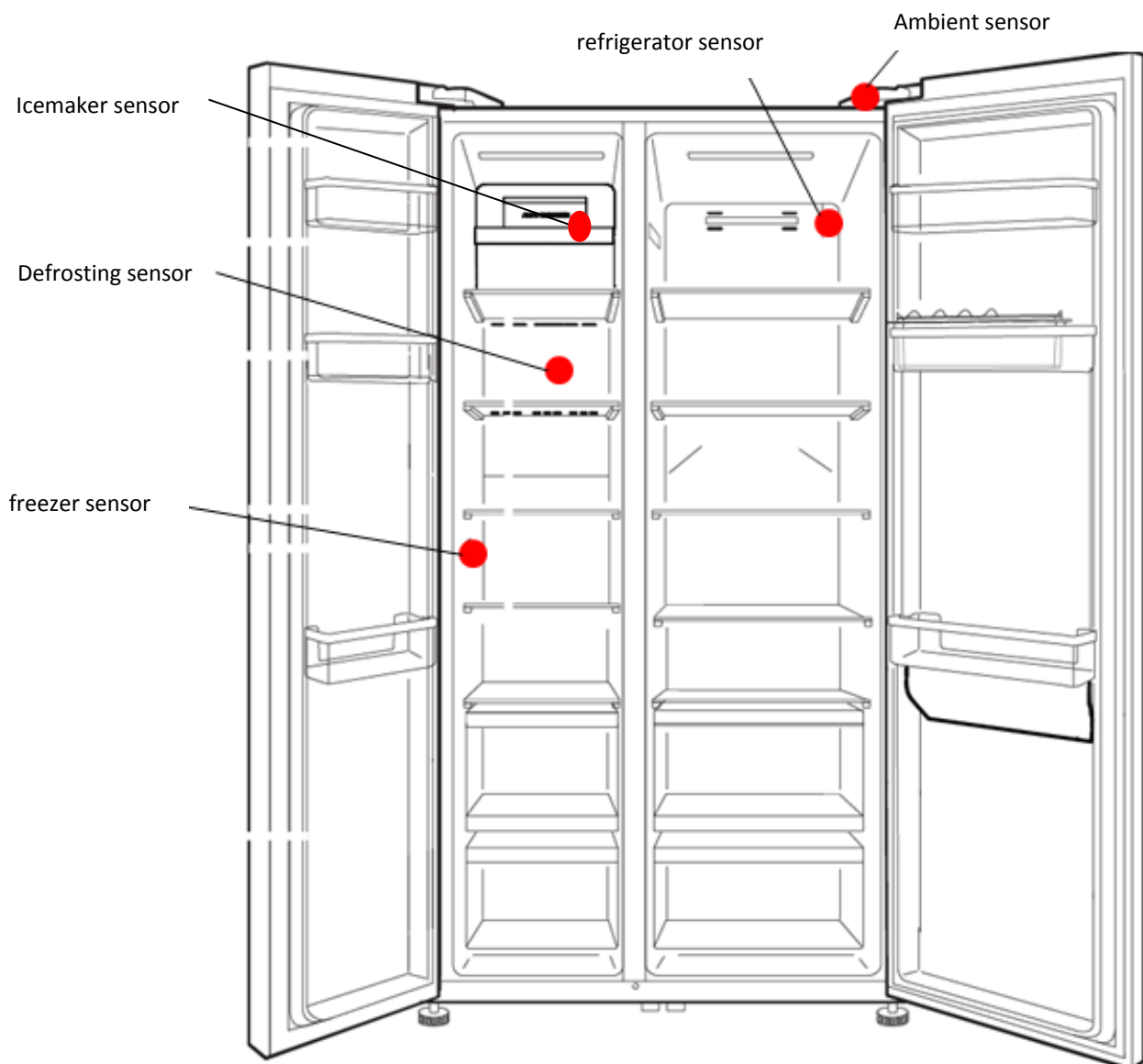


8-4 Sensor layout plan

SERVICE MANUAL

Model: HRF-522I*6/522I*7






Issue	2016-10-19
REF.	Ref1610S017V0



The resistance of the sensors

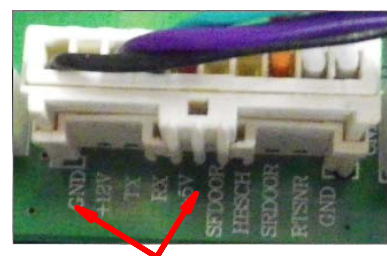
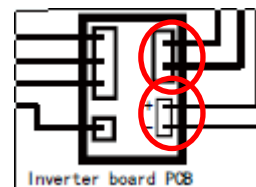
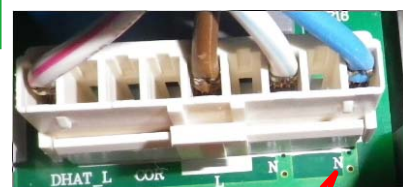
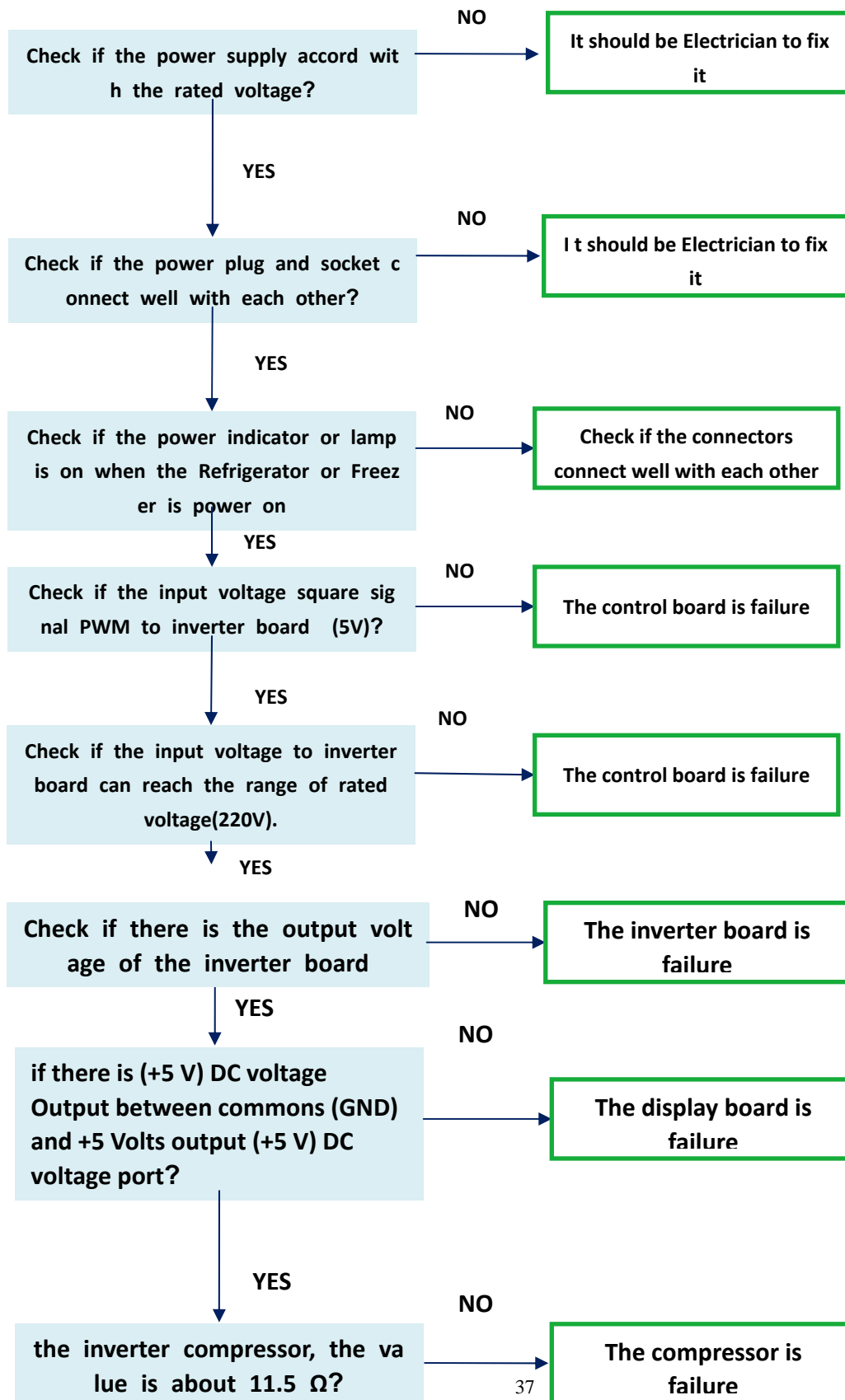
T(°C)	The resistance(K) (±5%K)		T(°C)	The resistance(K) (±5%K)		T(°C)	The resistance(K) (±5%K)	
	R type	F type		R type	F type		R type	F type
-30	33.070	33.8400	1	6.038	5.8597	21	2.339	1.3935
-29	31.160	31.8800	1.5	5.890	5.5737	22	2.237	1.3368
-28	29.370	30.0400	2	5.743	5.3033	23	2.140	1.2827
-27	27.690	28.3200	2.5	5.603	5.0476	24	2.047	1.2311
-26	26.120	26.7000	3	5.464	4.8058	25	1.960	1.1818
-25	24.640	25.1900	3.5	5.332	4.5769	26	1.876	1.1348
-24	23.250	23.7700	4	5.201	4.3602	27	1.796	1.0898
-23	21.950	22.4300	4.5	5.076	4.1550	28	1.721	1.0469
-22	20.730	21.1800	5	4.950	3.9607	29	1.649	/
-21	19.580	20.0000	5.5	4.832	3.7026	30	1.580	/
-20	18.500	18.9000	6	4.714	3.5318	31	1.514	/
-19	17.490	17.8600	6.5	4.602	3.3698	32	1.452	/
-18	16.540	16.8900	7	4.491	3.2161	33	1.392	/
-17	15.640	15.9700	7.5	4.385	3.0703	34	1.336	/
-16	14.800	15.1100	8	4.279	2.9320	35	1.281	/
-15	14.000	14.3000	8.5	4.178	2.8006	36	1.230	/
-14	13.250	13.5300	9	4.078	2.6759	37	1.181	/
-13	12.550	12.8100	9.5	3.983	2.5674	38	1.134	/
-12	11.890	12.1446	10	3.887	2.4448	39	1.089	/
-11	11.270	11.5074	10.5	3.797	2.3377	40	1.046	/
-10	10.680	10.9068	11	3.707	2.2360	41	1.005	/
-9	10.120	10.3406	11.5	3.622	2.1392	42	0.966	/
-8	9.600	9.8067	12	3.536	2.0472	43	0.928	/
-7	9.108	9.3031	13	3.373	1.9596	44	0.892	/
-6	8.643	8.8278	14	3.219	1.8762	45	0.858	/
-5	8.204	8.3792	15	3.073	1.7969	46	0.826	/
-4	7.790	7.9556	16	2.935	1.7213	47	0.794	/
-3	7.398	7.5556	17	2.803	1.6493	48	0.764	/
-2	7.029	7.1776	18	2.678	1.5807	49	0.736	/
-1	6.680	6.8204	19	2.559	1.5153	50	0.708	/
0	6.350	6.4827	20	2.446	1.4529	70	0.346	/
0.5	6.194	6.1623						

Chapter 9 Electrical Parts specifications

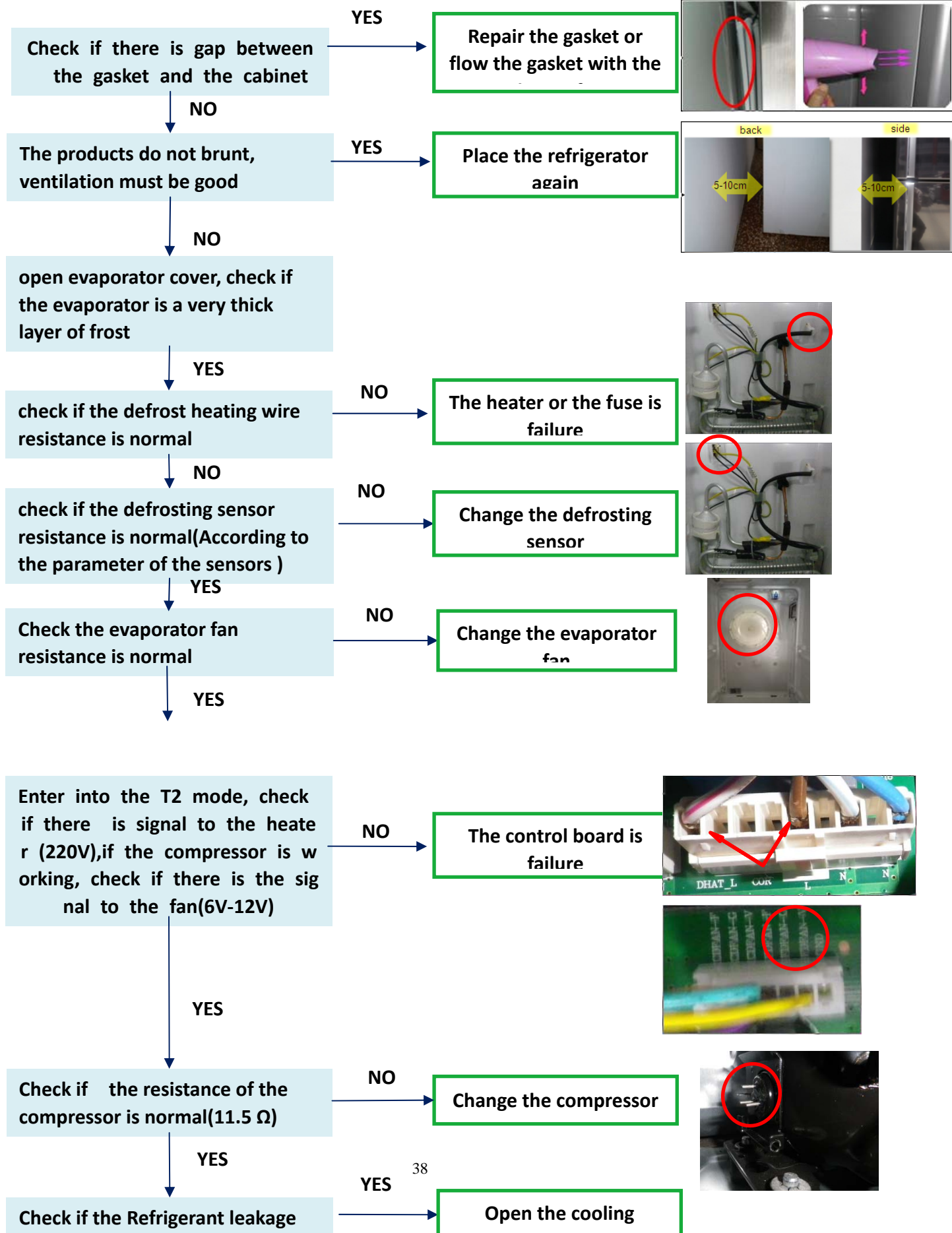
No	Photo	Spare parts list	The main parameters
1		Compressor	ENB130 The main winding resistance at 20°C : 11.24±1Ω constant frequency
2		Freezer compartment fan	Volt: 13V Power: 3.6W
3		Cooling fan	Volt: 13V Power: 1.5W
4		Defrost heating	Volt : 230V Power: 197w Resistance 268Ω
5		Damper	Volt : 12V Power: 1.5w Damper heater:144Ω

Chapter 10 Trouble shooting

9-1. Symptom: not work



9-2. Symptom: Poor cooling



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