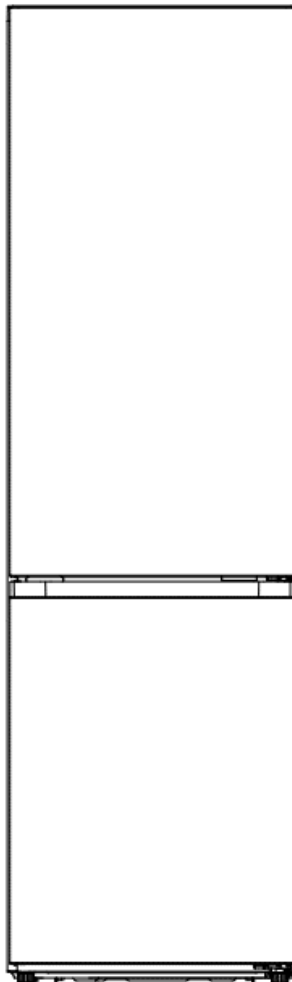


Service Manual

BMF No Frost Series

Market Model	Product Model	Product Code
MDRB483EIA45	CE-BCD355WZ-AT	92031020Z14784



The picture in this service manual is only for reference, and specific appearance and configuration are subject to the real product.
This manual mainly teaches the method, the specific work skill needs engineer to accumulate through the daily work.



WARNING

Important Safety Notice

There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.



WARNING

Important Safety Notice

The Maintenance Manual is only for the use of maintenance personnel with certain experience and background in electrical, electronic and mechanical field.

Any attempt to repair main devices may lead to personal injury and property loss.

Manufacturers or distributors are not responsible for the content of the Manual and interpretation thereof.

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1. Significant update notes

(SM No.)	Date	Author	Description

2.Safety Warning

2.1 Warning for operation safety

Important Safety Instructions

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
	This symbol indicates that dangerous voltage constituting a risk of electric shock is present within your freezer.	
	This symbol indicates that there are important operating and maintenance instructions in the literature accompanying your freezer.	

WARNING

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this appliance near water.
- 6) Clean only with a damp cloth.
- 7) Do not block any ventilation openings.
- 8) Install in accordance with the manufacturer's instructions.
- 9) Do not install near any heat sources, such as radiators, heat registers, stoves, or other apparatus that produce heat.
- 10) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 11) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the appliance.
- 12) Do not attempt to modify or extend the power cord of this appliance.
- 13) Unplug this appliance during lightning storms or when it will not be used for long periods of time.
- 14) Make sure that the available AC power matches the voltage requirements of this appliance.

CONNECTING ELECTRICITY

**WARNING****Electrical Shock Hazard.**

Plug into a grounded 3-prong outlet.
Do not remove the ground prong.
Do not use an adapter.

Failure to follow these instructions can result in death, fire, or electrical shock.

**WARNING****Electric Shock Hazard**

Failure to follow these instructions can result in electric shock, fire, or death.

- 1) **WARNING**—Keep ventilation openings, in both the freezer and the built-in structure, clear of obstruction.
- 2) **WARNING**—Do not touch the interior of the freezer with wet hands. This could result in frost bite.
- 3) **WARNING**—Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- 4) **WARNING**—Do not damage the refrigerant circuit.
- 5) **WARNING**—Do not damage the refrigerant tubing when handling, moving, or using the freezer.
- 6) **WARNING—DANGER**—Never allow children to play with, operate, or crawl inside the freezer. Risk of child entrapment. Before you throw away your old freezer:
 - 6-1) Take off the doors
 - 6-2) Leave the shelves in place so that children may not easily climb inside
- 7) Unplug the freezer before carrying out user maintenance on it.
- 8) This freezer can be used by children age eight years and older and persons with reduced physical or mental capabilities or lack of experience and knowledge if they are given supervision or instruction concerning the use of the freezer in a safe way and understand the hazards involved. Children should not play with the freezer. Cleaning and maintenance should not be performed by children without supervision.
- 9) If a component part is damaged, it must be replaced by the manufacturer, its service agent, or similar qualified persons in order to avoid a hazard.
- 10) Please dispose of the freezer according to local regulations as the freezer contains flammable gas and refrigerant.
- 11) Follow local regulations regarding disposal of the freezer due to flammable refrigerant and gas. All refrigeration products contain refrigerants, which under the guidelines of federal law must be removed before disposal. It is the consumer's responsibility to comply with federal and local regulations when disposing of this product.
- 12) This freezer is intended to be used in household and similar environments.

13) Do not store or use gasoline or any flammable liquids inside or in the vicinity of this freezer.

14) Do not use extension cords or ungrounded (two-prong) adapters with this freezer. If the power cord is too short, have a qualified electrician install an outlet near the freezer. Use of an extension cord can negatively affect the freezer's performance.

Grounding requirement

This freezer must be grounded. This freezer is equipped with a cord having a grounding wire with a grounding plug. The plug must be inserted into an outlet that is properly installed and grounded.

Improper use of the grounding plug can result in a risk of electric shock. Consult a qualified electrician or service person if the grounding instructions are not completely understood, or if doubt exists as to whether the freezer is properly grounded.

2.2 Safety instruction for refrigerant

**WARNING****Explosion Hazard.**

Keep flammable materials and vapors, such as gasoline, away from freezer. Failure to do so can result in fire, explosion, or death.

**Safety instruction for refrigerant**

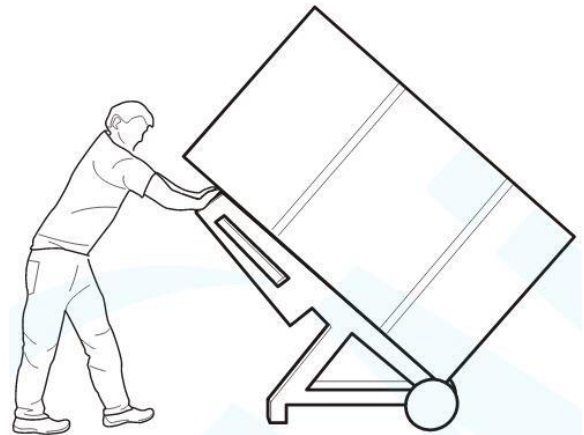
DANGER–Risk of Fire or Explosion. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Use Mechanical Devices. Do Not Puncture Refrigerant Tubing. CAUTION–Risk of Fire or Explosion. Flammable Refrigerant Used. Consult Repair Manual/Owner's Guide Before Attempting To Service This Product. All Safety Precautions Must be Followed. CAUTION–Risk of Fire or Explosion. Dispose of Properly In Accordance With Federal Or Local Regulations. Flammable Refrigerant Used. CAUTION–Risk of Fire or Explosion Due To Puncture Of Refrigerant Tubing; Follow Handling Instructions Carefully. Flammable Refrigerant Used.

3. Installation and commissioning

3.1 Handling

Handling

- 1) Protect the refrigerator in moving it, Same as shown as left photo, please move it by handcart with cushion
- 2) Remove all packing materials and bottom cushion, the move into house for placement
- 3) After moving it to appropriate location, wait for 2 hours before power on.



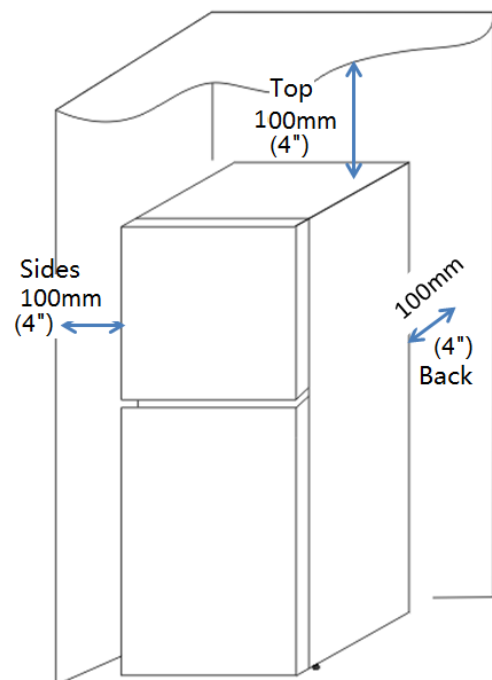
3.2 Door Disassembly and Assembly

When the whole refrigerator cannot enter the room, the door can be disassembled, then assembled after entering separately.

3.3 Installation location

Installation location

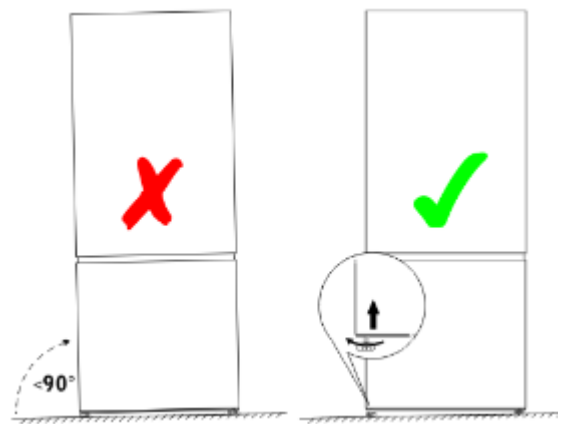
Please select a ventilated place to place the refrigerator, and reserve space according to the recommended size in the picture, which is conducive to heat dissipation, performance improvement and energy consumption reduction.



3.4 Leveling of the refrigerator

Leveling of the refrigerator

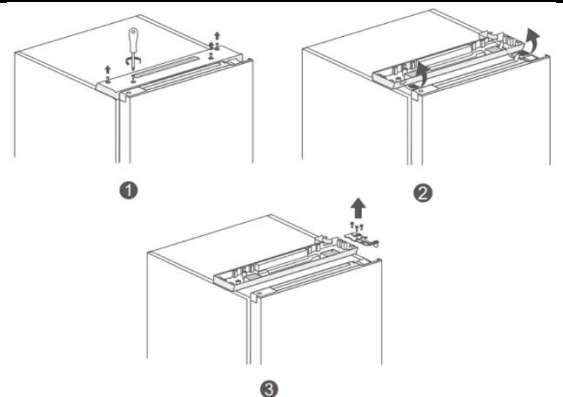
If the refrigerator cannot be placed steadily, adjust the footing to level it. Turn the feet clockwise to raise the refrigerator; turn the feet counterclockwise to lower the refrigerator.



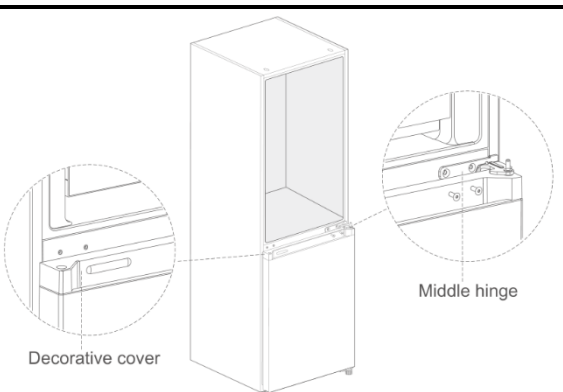
3.5 Left or right open-door reversal

Door reversal

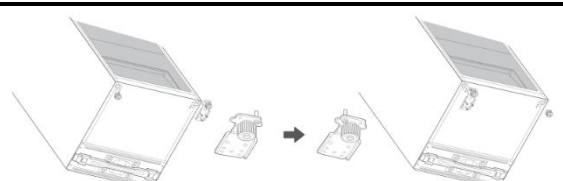
- 1) Unplug your refrigerator and remove all food from the door shelves.
- 2) Remove 4 screws from the top of the control panel using a ladder (Phillips screwdriver), rotate the panel 180°, secure it temporarily with tape, Disconnect wiring terminals of the refrigerator door, and remove the upper hinge (5/16" socket).



- 3) Carefully lift the Refrigerator door upward and away from the middle hinge.
- 4) Take off freezing chamber door (take care of the door stop and shaft pipe do not missed), dismantle bottom hinge, levelling foot, Install shaft of bottom hinge on the other side and install the bottom hinge on the other side.



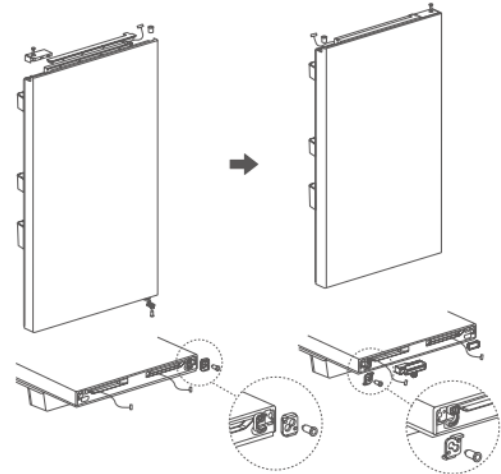
- 5) Tilt the Refrigerator against a sturdy surface (use padding), and remove the bottom hinge from the bottom (5/16" socket), then remove the adjustable feet; Remove the nut on the bottom hinge, then put the hinge shaft to the opposite axle hole, and install the nut (3/8" socket)



5) Change the refrigerating chamber door:

① Remove the upper cover of refrigerating chamber door and the left decorative cover, install the upper hinge sleeve, door signal line to the other side. Take out of the door right decorative cover from the accessory bag and install to the right side.

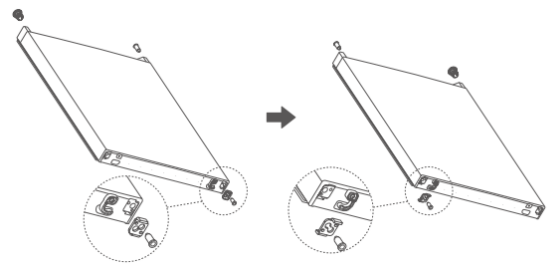
② Dismantle the door self-locking, door stopper and sleeve pipe of refrigerating chamber door. Take out left self-locking of refrigerating chamber door from accessory bag, assemble the sleeve pipe, left self-locking and door stopper to the left side.



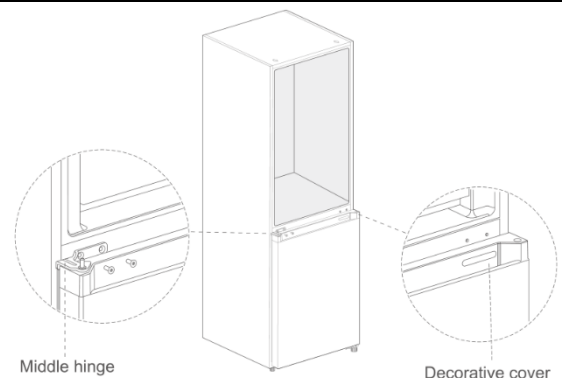
6) Change the freezing door:

① Remove the shaft sleeve and cap of the upper end cover of the freezing door and install them at the left and right swap positions.

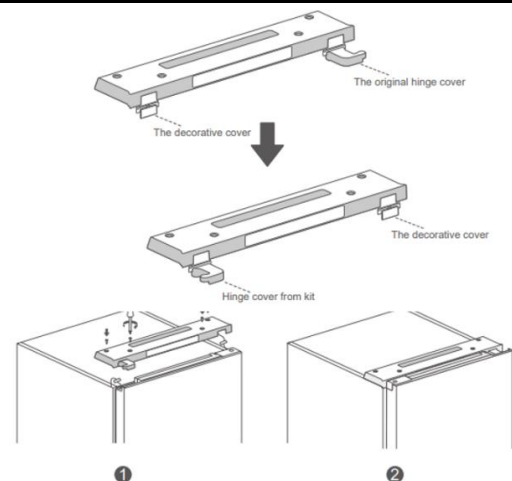
② Remove the door self-locking, door stop and shaft sleeve of the freezing door, take out the left self-locking from the accessory bag, install it on the left side of the lower end cover of the freezing door, change the door stop and shaft sleeve to the left side of the lower end cover of the freezing door.



7) Install the replaced freezing door on the lower hinge, then install the middle hinge and cover the hinge hole decorative cover.

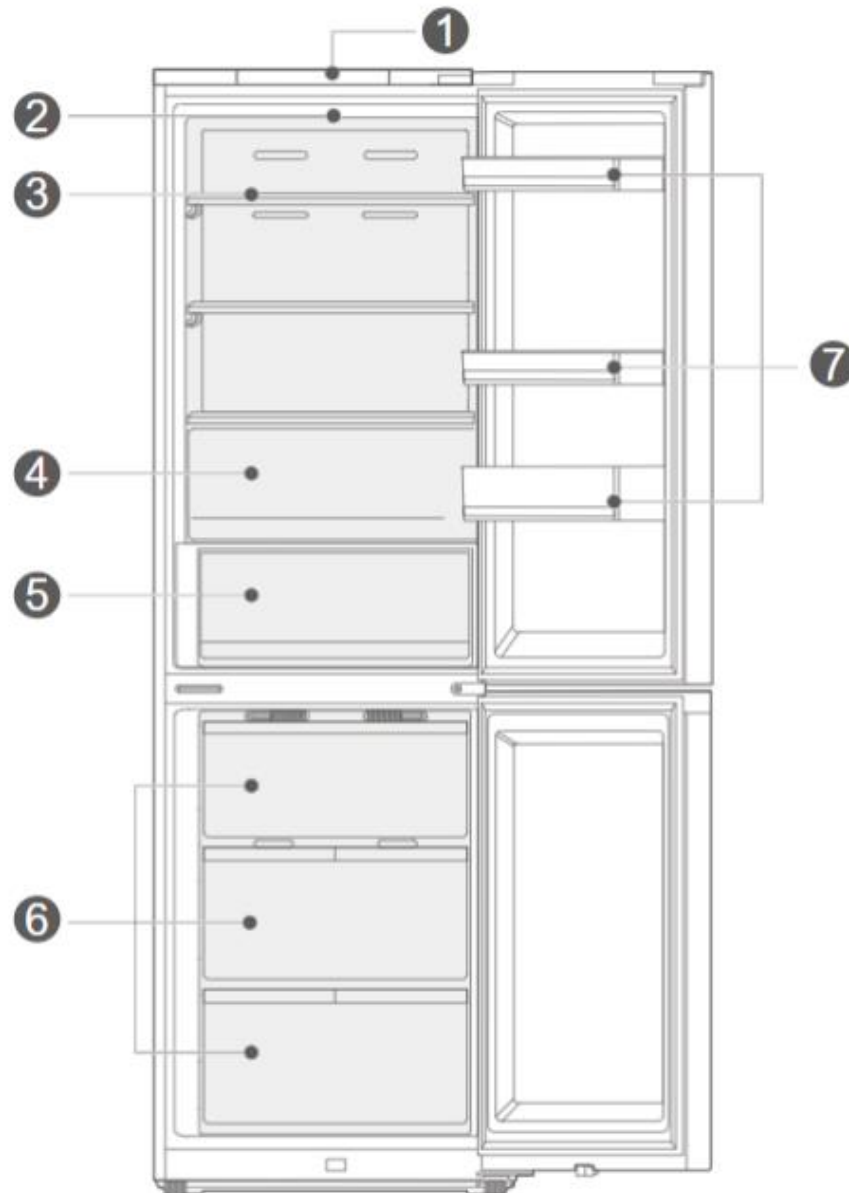


8) Reattach the refrigerator door to the refrigerator, ensuring alignment with the middle hinge shaft. Install the upper hinge (kit-provided) and reconnect the refrigerator door wiring terminals with the cabinet with a ladder. Remove secure tape, the decorative cover and the hinge cover of the control panel. Attach the hinge cover from the kit, install it to the opposite hole, then install the decorative cover. Install the control panel back on the top of the Refrigerator, Secure with 4 screws



4. Main parts and external dimension

4.1 Main parts

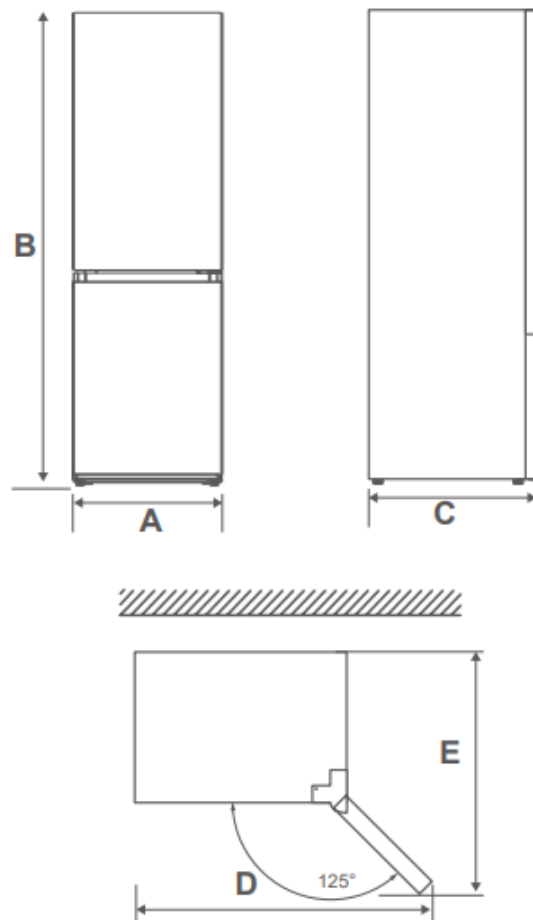


- | | | | |
|---|-------------------------|---|-----------------|
| 1 | Control panel | 5 | Meat & fish box |
| 2 | LED light | 6 | Freezer Drawer |
| 3 | Shelf | 7 | Door tray |
| 4 | Fruits & vegetables box | | |

(The picture is only for reference, and specific appearance and configuration are subject to the real product)

4.2 External dimension

Description	Code	Size (mm)
Width	A	595
Height to Top of Case	B	1858
Depth w/Door	C	676
Width (Door open 125 deg. w)	D	920
Depth (Door open 125 deg. w)	E	1145



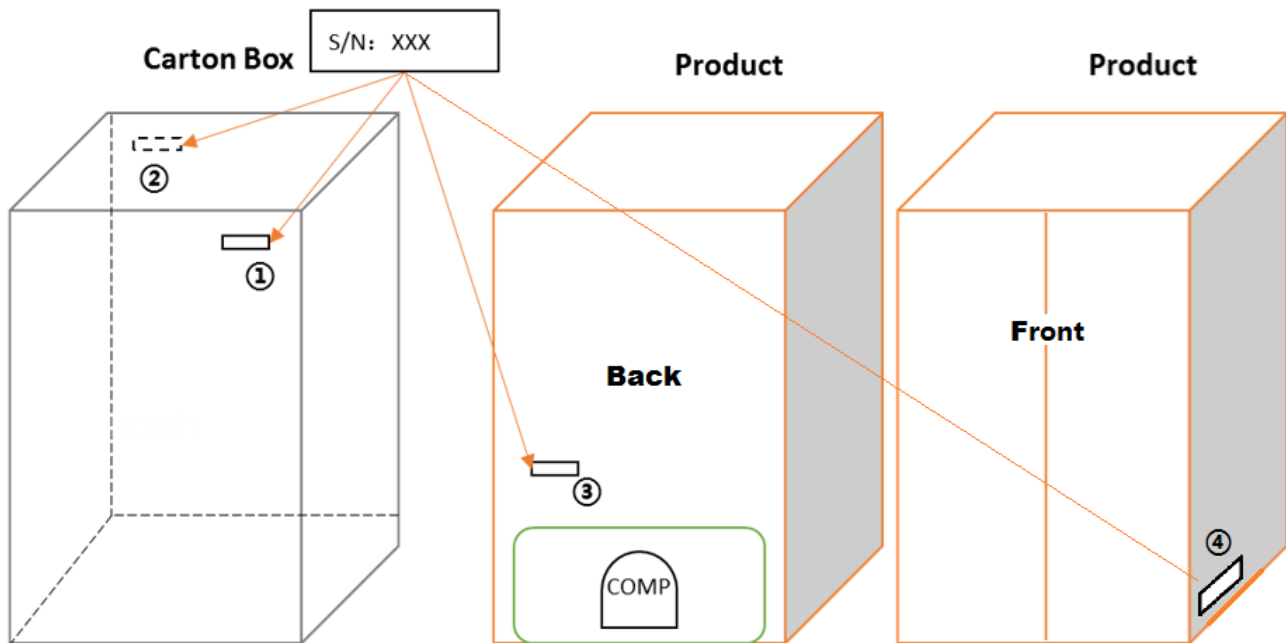
(The picture is only for reference)

4.3 Midea product serial number and location

1) **Product Serial Number** — Including order number, production date and other information. When the product occur problem, it needs to be recorded or photographed and provided to us.



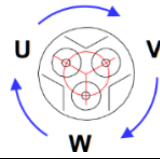
2) Paste location



Some products also have S/N on the lower part of the right side of the Cabinet.

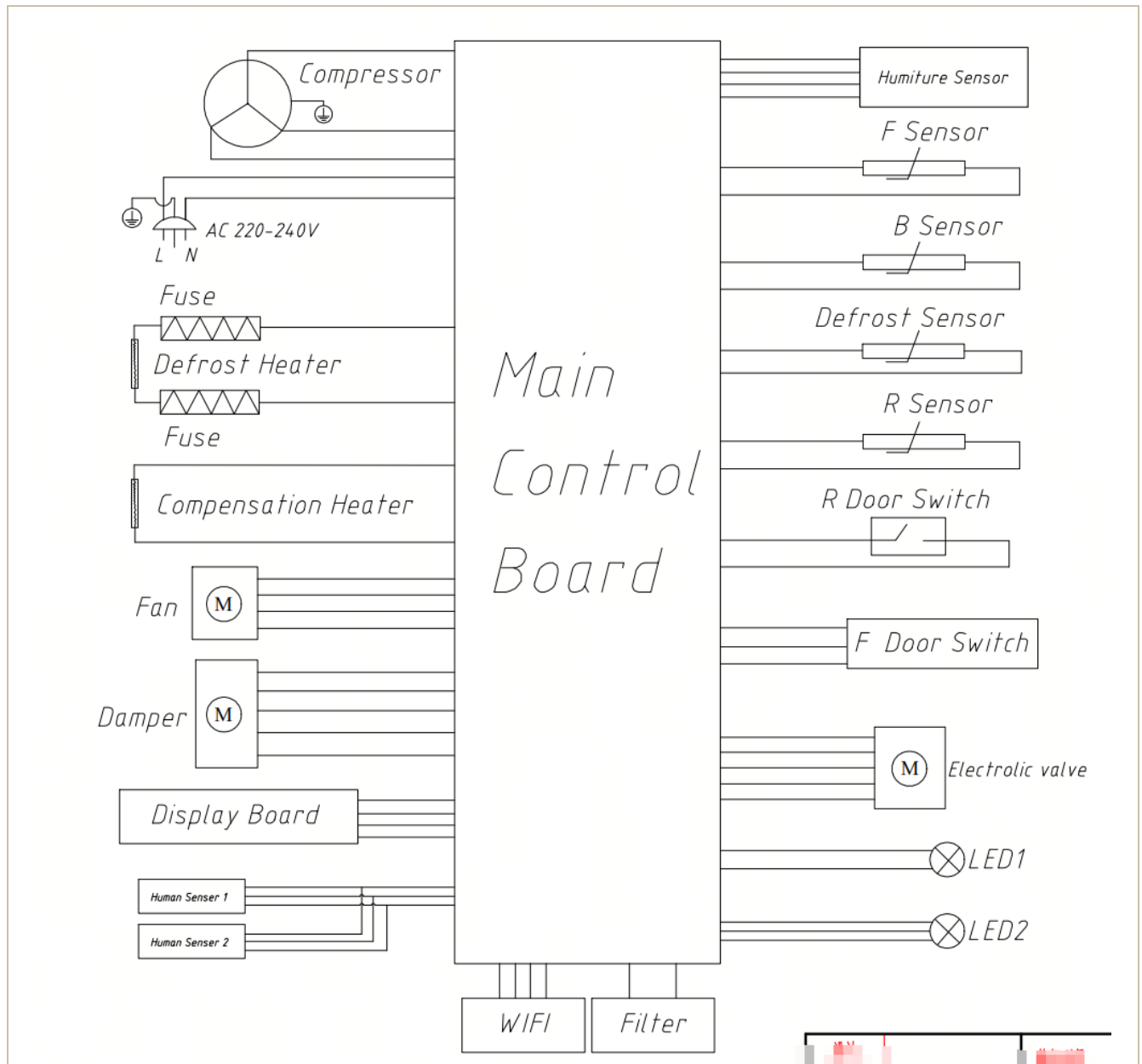
5. Electric control system

5.1 Electrical parts parameters

Applicable Model	HD-462RWEN1
Product Model	CE-BCD355WX-AT
Rated Voltage	220-240V/50Hz
Item	Specification
Refrigerant	R600a
Compressor	VTD1070Y
Starting device type	DC Inverter
The COP of compressor	1.94
The max cooling capacity of compressor	130W
Winding resistance of compressor wiring terminal (20℃)	U-W=18.15Ω±7% U-V=18.15Ω±7% W-V=18.15Ω±7%
Winding resistance picture	
Starter(PTC)	None
Overload protector(OLP)	None
Integrate PTC+OLP	None
Inverter driver board	Have
Capacitor	None
Power filter (EMI)	250V 4A
Power reactor (EU EMC)	DKQ-0016
Motor	
Fan motor of the freezing chamber	DC12V/≤3W
Fan motor of the refrigerating chamber	None
Electric damper	DC12V
Electric damper heater	None
Lights	
Lights inside the top of refrigerating chamber	DC12V、2.5W
Lights inside the freezing chamber	None
Others Lights	12V, ≤1W , 1.5W
Switch of the light	☐ Mechanical switch ☒ Magnetism control switch

Defrosting parts	
Defrosting sensor	NTC B3839 (B5/25=3839K±2%)
Fuse in freezing chamber	250V、77(0 ~ -5) °C
Defrost heater in freezing chamber	230V、170W

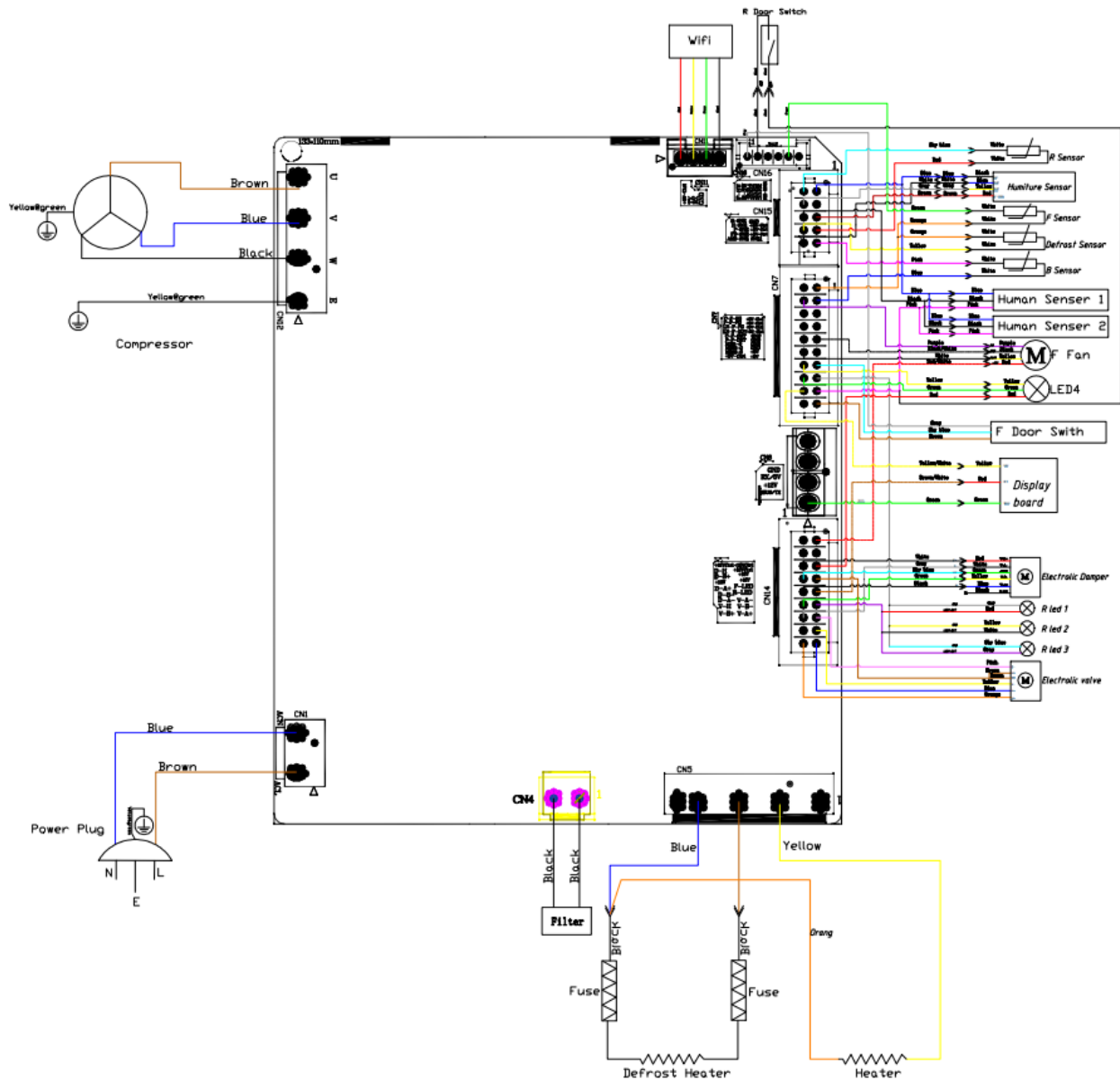
5.2 Circuit diagram



5.3 Wiring diagram



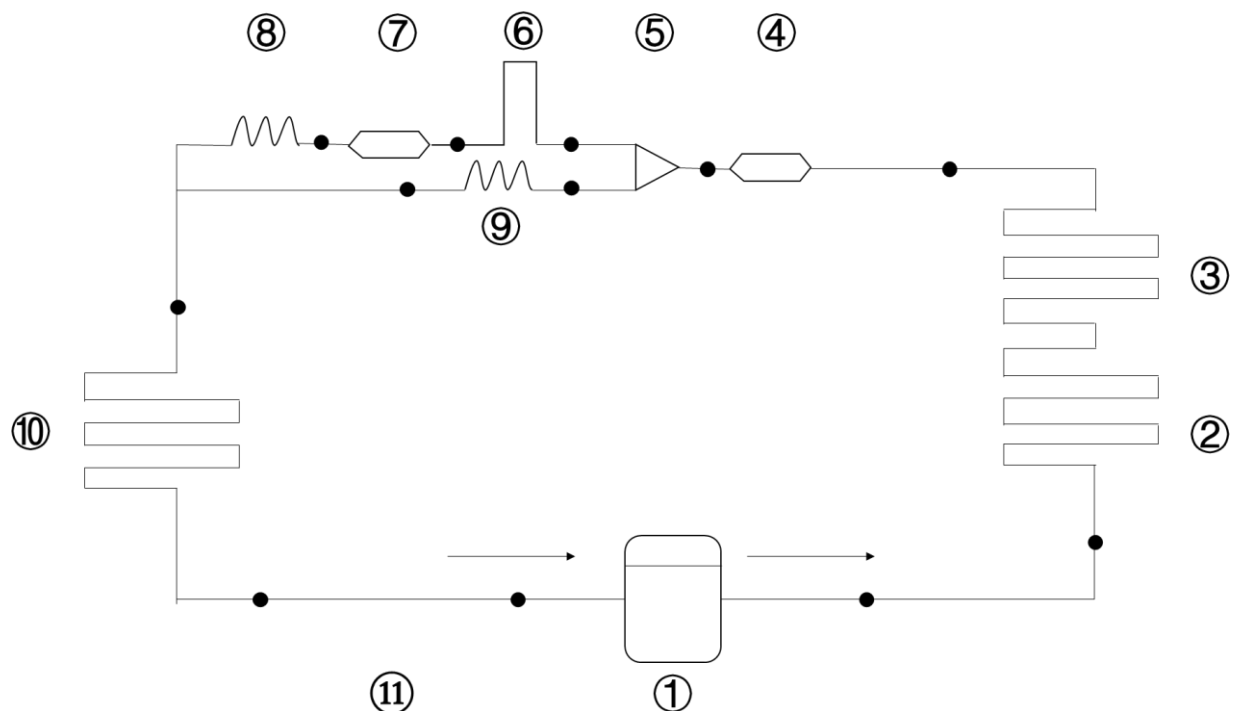
REF_Wiring
diagram_CE-BCD:



6. Refrigeration system

6.1 Refrigerating piping system

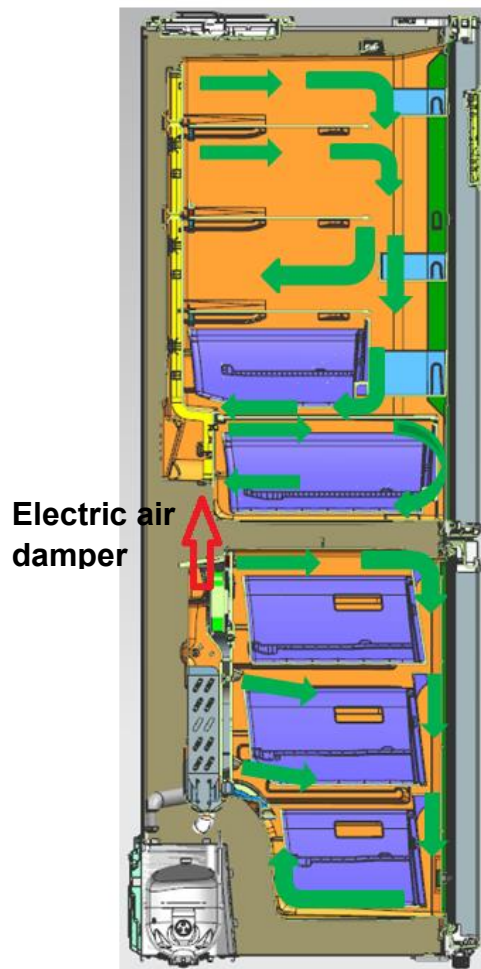
①Compressor→②Left condenser→③Right Condenser→④Dry filter→⑤Electric switching valve→
 (A-way): ⑤Electric switching valve→⑥Anti-dew tube→⑦Dry filter→⑧Capillary tube→⑩
 Evaporator→⑪Suction tube→①Compressor
 (B-way): ⑤Electric switching valve→⑨Capillary tube→⑩Evaporator→⑪Suction tube→①
 Compressor



6.2 Cooling pipeline and drain pipe inside the cabinet



6.3 Circulating route of cooling air



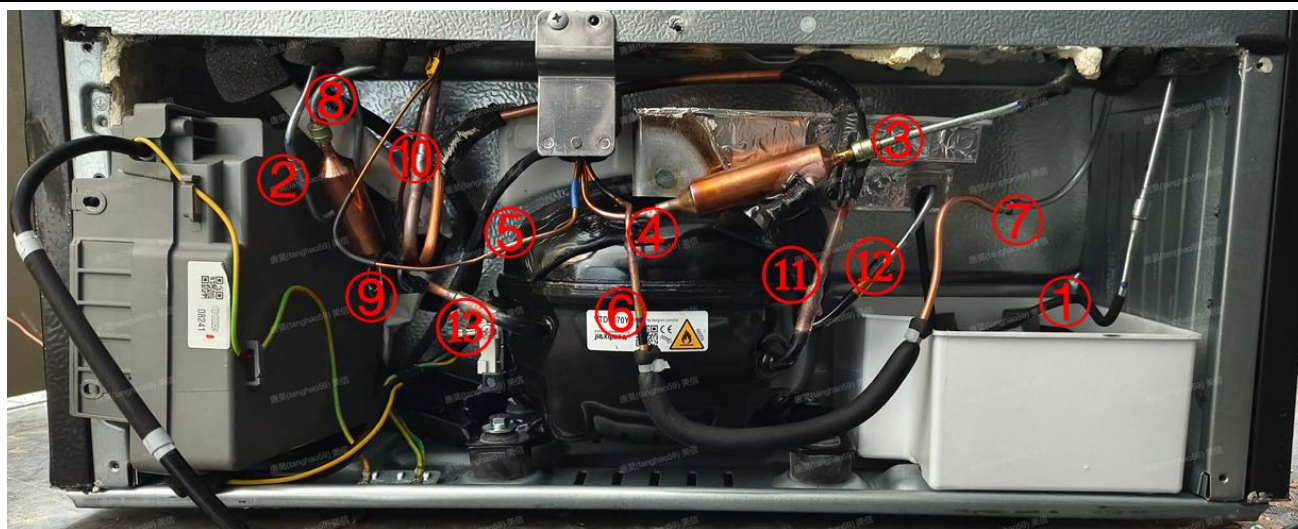
6.4 Welding points in chambers or foam layer

1) Welding points on freezer evaporator



Welding point	Pipe outer diameter (mm)	
1-Freezer capillary and inlet of evaporator	Copper pipe: $\Phi 6$	Aluminum pipe: $\Phi 6.35$
2-Heat transition tube and outlet of evaporator	Copper pipe: $\Phi 6$	Aluminum pipe: $\Phi 6.35$

6.5 Welding point in the compressor case



Welding point	Pipe outer diameter(mm)	
1. Inlet of left condenser tube and outer of venting connection tube	Steel pipe:Φ4.0	Steel pipe:Φ4.0
2. Outlet of left condenser tube and inlet of right condenser tube	Steel pipe:Φ4.0	Steel pipe:Φ4.0
3.Outlet of right condenser tube and inlet of dry filter	Steel pipe:Φ4.0	Copper pipe: Φ4.17
4.Outlet of dry filter inlet of electric switching valve	Copper pipe: Φ4	Copper pipe: Φ4.7
5. B-way outlet of electric switching valve and inlet of freezer capillary tube	Copper pipe: Φ3.0	Copper pipe: Φ1.8
6.A-way outlet of electric switching valve and inlet of connection tube	Copper pipe: Φ4.0	Copper pipe: Φ4.0
7. Outlet of connection tube and inlet of anti-dew tube	Copper pipe: Φ4.0	Steel pipe:Φ4.0
8. Outlet of anti- dew tube and inlet of dry filter	Steel pipe:Φ4.0	Copper pipe: Φ4.17
9. Outlet of dry filter and inlet of freezer capillary tube	Copper pipe: Φ2.0	Copper pipe: Φ1.8
10. Outlet of heat transition tube and inlet of suction connection tube	Copper pipe: Φ6.0	Copper pipe: Φ6.0
11. Outlet of suction connection tube and compressor intake tube	Copper pipe: Φ6.0	Copper pipe: Φ6.17
12. Compressor outlet tube and inlet of venting connection tube	Copper pipe: Φ6.17	Steel pipe:Φ4.0
13. Compressor process tube and refrigerant filling tube	Copper pipe: Φ6.17	Copper pipe: Φ6.0

7. Dismantling of parts

7.1 Parts on the door

Door seal

Door seal is installed into door liner groove.

- 1) Open the refrigerator door.
- 2) Take the door seal ① out of door liner.



Door tray

While squeezing it inward, lift up the door tray and take it out from refrigerator liner.



7.2 Parts inside the refrigerator

Glass shelves

- 1) Pull out the glass shelf.
- 2) Lift it up and take it out from the refrigerator.



Fruits & Vegetable box

Remove the Fruits & Vegetable box according to below steps: 1) Take out the glass shelves. 2) Pull out the Fruits & Vegetable box.

**Variable box cover**

Remove the Variable box cover according to below steps:
1) Take out the glass shelves and Fruits & Vegetable box first.
2) Lift up the Variable box cover, and then pull out it.

**Variable box**

Remove the Meat & Fish box according to below steps:
1) Pull out the Meat & Fish box;
2) Lift it up and take it out from the refrigerator.

**Freeze on the drawer**

Remove the upper drawer of the freezer compartment of the refrigerator according to below steps:

- 1) Pull out the Middle drawer in freezer room;
- 2) Lift it up and take it out from the refrigerator.



Middle drawer in freezer room

Remove the Middle drawer in freezer room according to below steps:

- 1) Pull out the Middle drawer in freezer room;
- 2) Lift it up and take it out from the refrigerator.

**Bottom drawer in freezer room**

Remove the Bottom drawer in freezer room according to below steps:

- 1) Pull out the Bottom drawer in freezer room;
- 2) Lift it up and take it out from the refrigerator.

**7.3 Light system****Light**

Light in the top of the Refrigerator

Light of the Fridge is located on upper chamber(inner display)



- 1) Remove the lamp cover
 - 2) Remove the lamp box
 - 3) Remove the LED light
- 4) The reverse process can complete installation.



Light of the Refrigerator on the side (for some models)

the Sidelight of the Fridge is located on the left and right side.

- 1) Remove the lamp cover
- 2) Remove the LED light
- 3) The reverse process can complete installation.



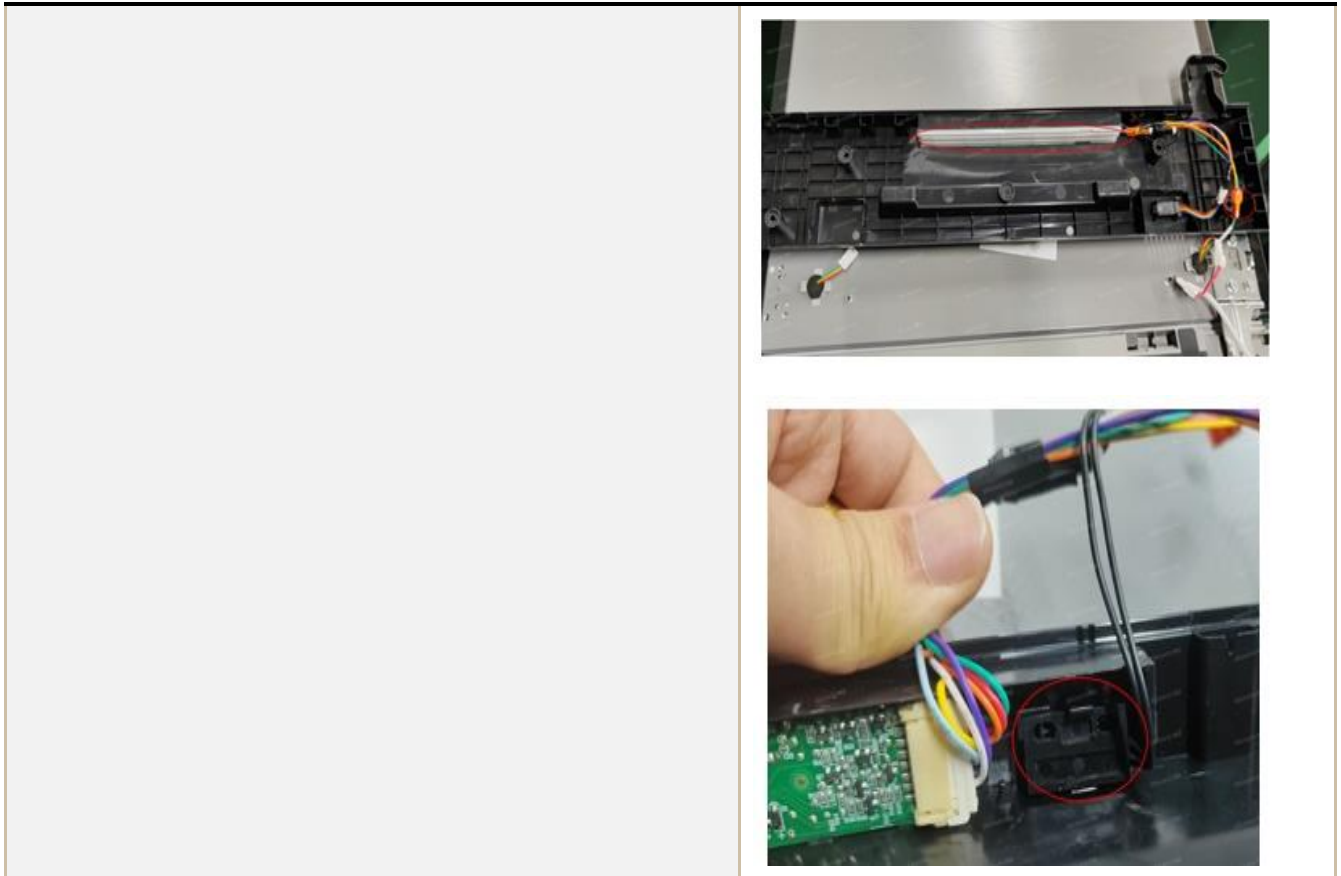
Light switch

Light switch of the Refrigerator

The light switch of the refrigerator room is located in the display and control board installation box at the top of the cabinet

- 1) Remove the 4 screws of Display control board mounting box
- 2) Remove the display control board mounting box
- 3) Remove the plastic cover of the display board and pull out the magnetron switch
- 4) The reverse operation for assembly





7.4 Air duct components refrigerating chamber and fan motor

Air duct components in freezing chamber

The refrigerator air duct components is located on the back of the refrigerating chamber.

All accessories in the cooler chamber should be dismantled before removing the air duct components.

- 1) First remove the screw cap, then remove the air duct fixing screw.
- 2) Use fingers put into the top air holes to pull out the air duct.
- 3) Unplug the connector and pull out the air duct components;

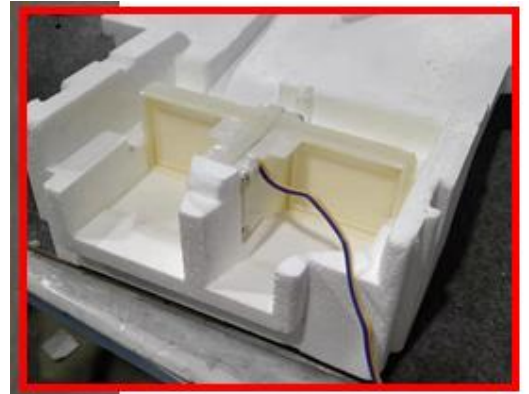
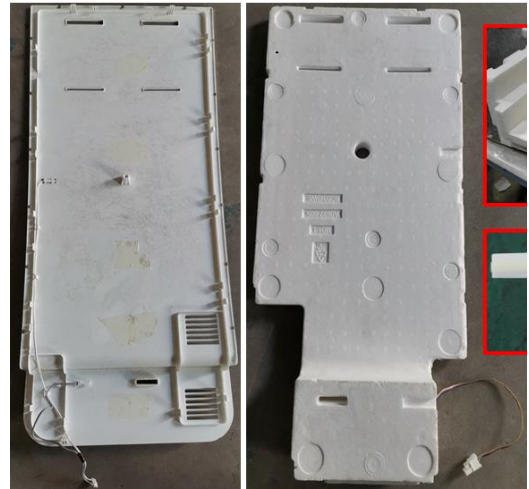


Fan motor of air duct

None

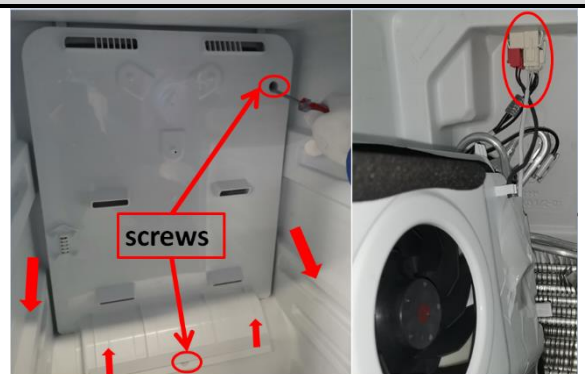
Electric damper**Damper assembly**

- 1) Separate the cooler air duct panel and foam part.
- 2) Teat off the tape and sponge,
- 3) separate the foam part to get the electric damper.

**7.5 Air duct components in freezing chamber and fan motor****Air duct components in freezing chamber**

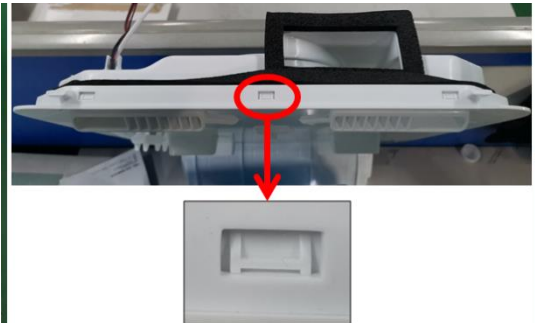
All accessories in the freezing chamber should be dismantled before removing the air duct components.

- 1) Remove 2 screws on the cover plate of the freezing air duct using a cross screwdriver;
- 2) Pull out the freezer air duct from the bottom of freezer chamber .
- 3) Pull out the connector terminal of the fan motor;
- 4) The reverse operation for assembly

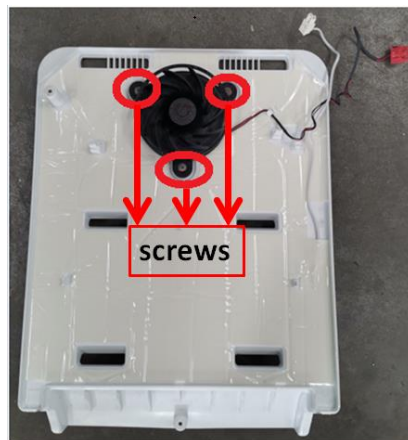


Fan motor of air duct

Remove the screw on the back of freezer air duct, break the 12 buckles around and remove the front cover.



Remove the 3 screws with a Phillips screw driver to separate the air duct cover and the fan



Change the fan motor, the reverse operation for assembly



7.6 Evaporator and Defrost system

Evaporator in freezing chamber

Evaporator in freezing chamber

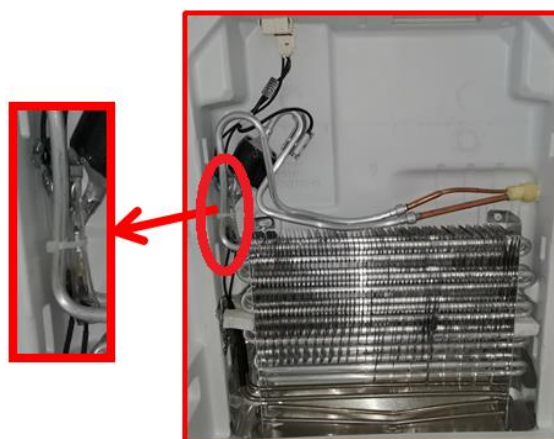
- 1) Remove the air duct components in freezing chamber.
- 2) Disconnect all connectors.
- 3) Remove the welding on inlet and outlet tubes.
- 4) Remove the evaporator.

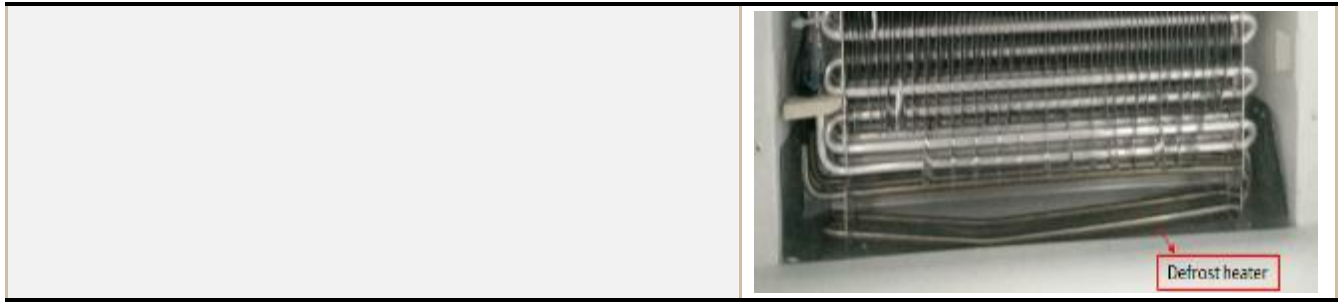


Components on the evaporator

Defrost heater with defrost sensor and fuse, it can be replaced separately.

- 1) Cut off wiring terminal
- 2) Cut off the band which fixes the sensor
- 3) Cut off the band which fixes the fuse
- 4) Separate the sensor and the evaporator
- 5) Take off the defrost heater from the supporting plate of evaporator





7.7 Compressor case

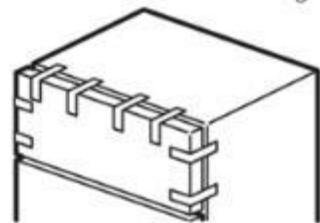
Rear cover

Remove the 5 screws with a Phillips screw driver to separate the rear cover and the cabinet.

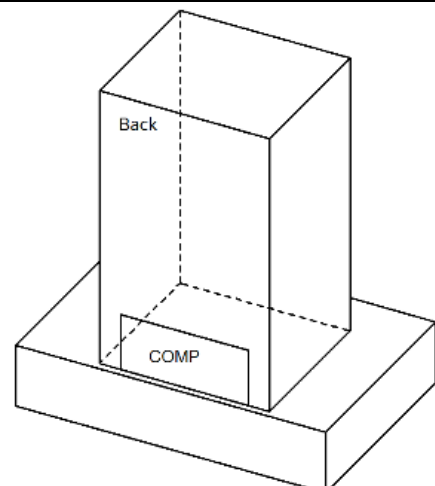


Compressor and the cooling system pipe

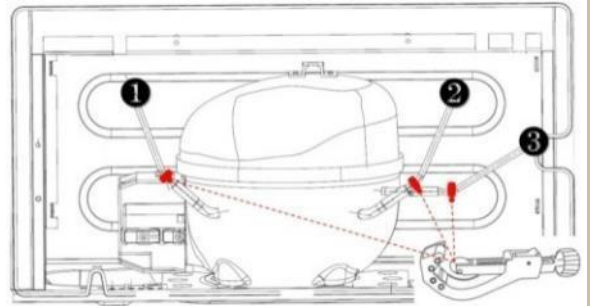
1) Cut off the power, remove the goods in the refrigerator, with the tape to make the door fixed firmly and prevent the door dropping when the refrigerator dumping.



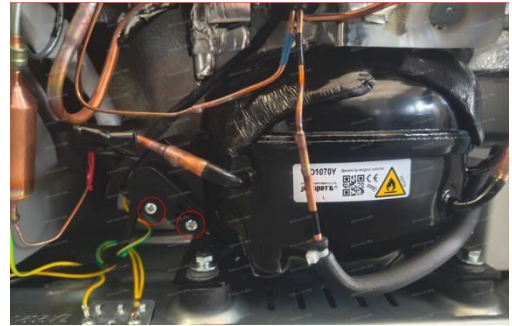
2) Place the refrigerator in an area that is open, ventilated, and away from fire sources. Then placing on an operating table and securing it firmly.



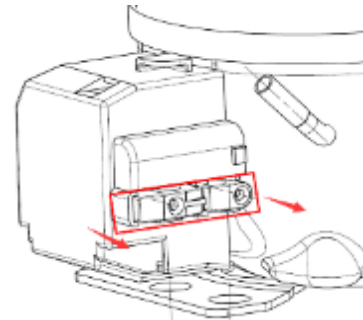
- 3) Cut off the compressor pipeline.
- ①Cut off the process pipeline.
 - ②Cut off the low-pressure muffler.
 - ③Cut off the high-pressure exhaust pipe.



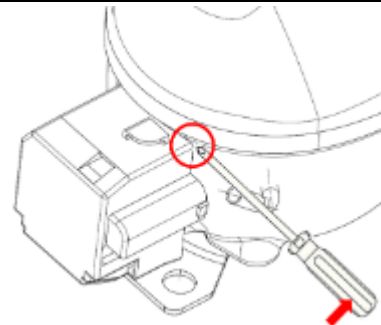
- 4) **Remove the screws(for some models)**
- Two screws outside
 - One screw inside



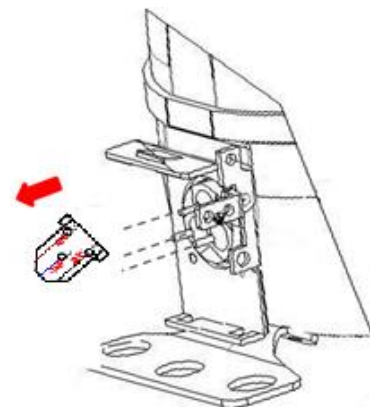
- 5) **Remove the clipping strip**
Slowly pull it out



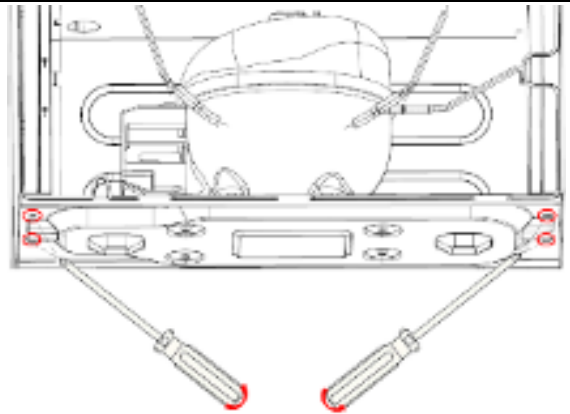
- 6) **Remove the protective cover**
- Pry the protective cover slowly from the upper part,
 - Pull it out and remove it.



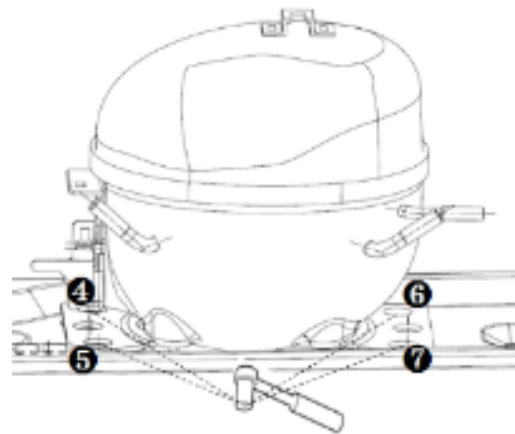
- 7) **Remove the connecting terminals**
Unplug the connection terminals of a compressor.
(you can use a screwdriver to pry it slowly)



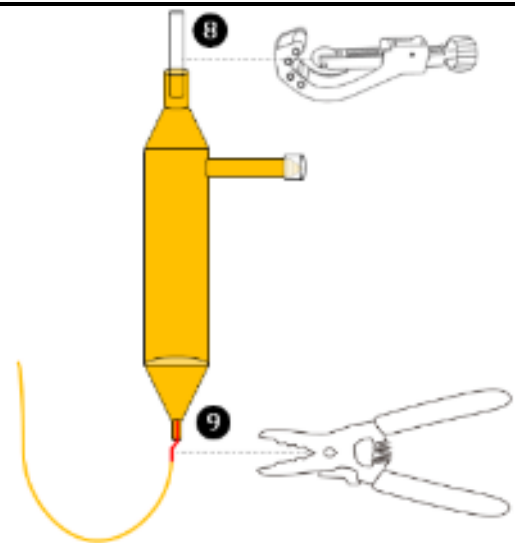
8) Loosen the screw of the compressor bottom plate, remove the floor together with the compressor from the box.



9) Use the wrench to remove the bolts by steps 4 5 6 7, replace the compressor and reverse process can complete installation.

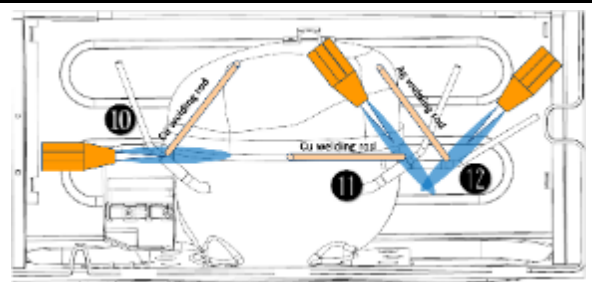


10) Use Pipe cutter cut off the condenser tube 8, then Shear off capillary 9 by the capillary tube scissors.

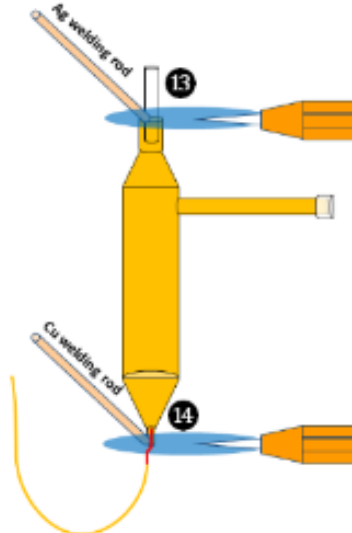


11) Replace the compressor and welding the compressor pipeline.

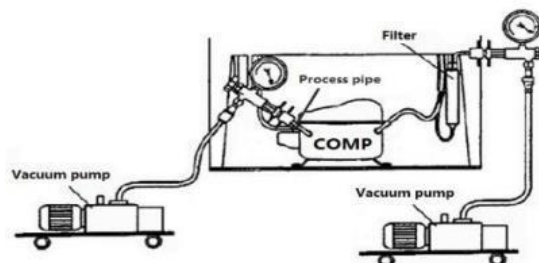
- 10 Welding the process pipeline.
- 11 Welding the low-pressure muffler.
- 12 Welding the high-pressure exhaust pipe.



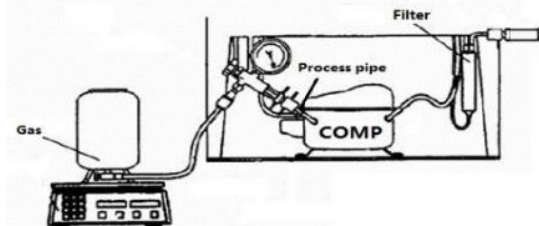
12) Replace the filter, Cu-Fe tubes welding ⑬ used Ag welding rod, Cu-Cu tubes welding ⑭ used Cu welding rod.



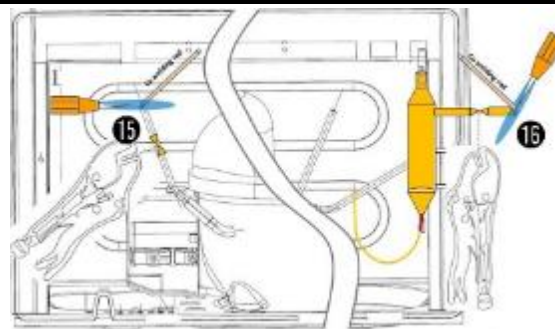
13) Vacuum system, the degree of vacuum below 6Pa.



14) Perfusion refrigerant.



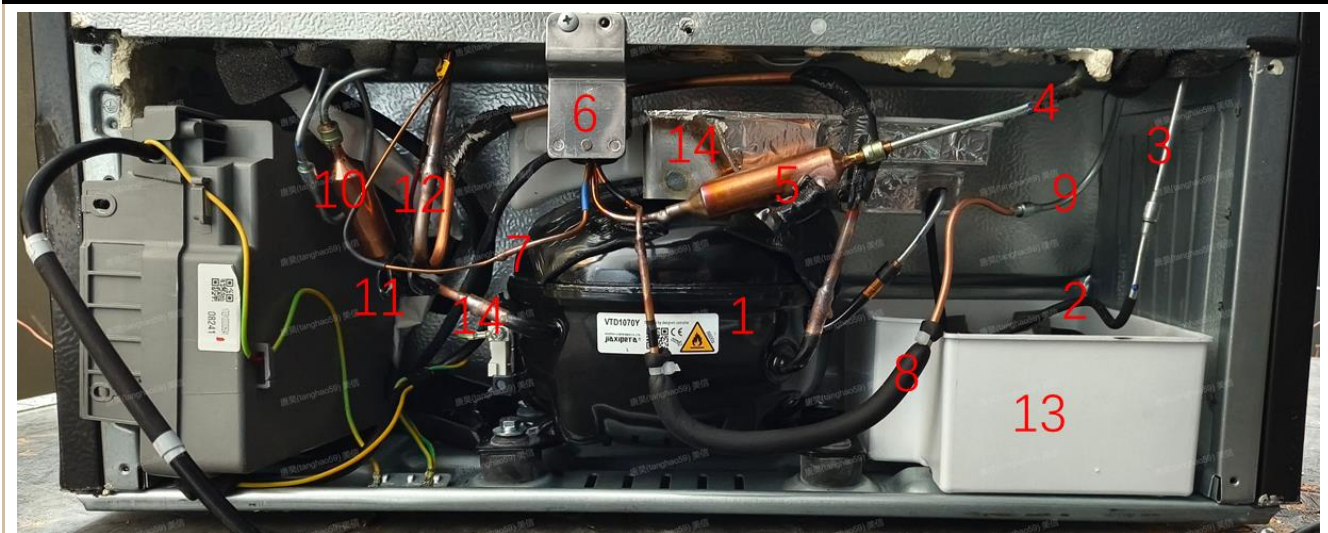
15) Use the vise grip pliers clamp the middle of the process pipe, then seal welding process tube ⑮⑯.



Piping system in the compressor case

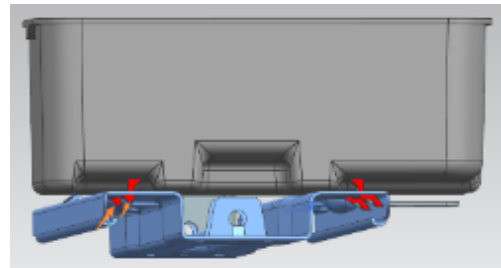
1. Compressor
3. Left condenser
5. Dry filter 1
7. Freezer capillary tube1
9. Anti-dew tube
11. Freezer capillary tube 2
13. Drain tray 1
14. Process tubes

2. Evaporator
4. Right condenser
6. Electric switching valve
8. Connection tube
10. Dry filter 2
12. suction connection
14. Drain tray2

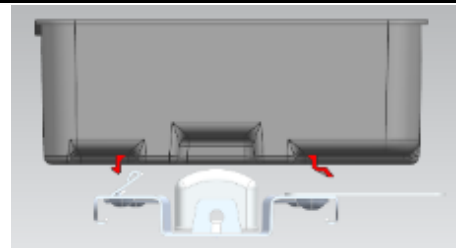


Drain tray

1) Disengage the drain tray buckle out of the compressor bottom plate installation hole.



2) Replace the drain tray, the reverse process can complete installation.



7.8 Display control board

Display control board on door

1) Remove the 4 screws of the display and control board mounting box fixed to the top of the cabinet, and then remove the mounting box with the back facing up





- 2) Pry out the white plastic cover on the back of the board, pull out the board, and then remove the lock
3) Reverse operation to complete the installation



7.9 Main control board

Main control board

- 1) remove the 2 fitting screws of main control PCB housing box of the compressor compartment.

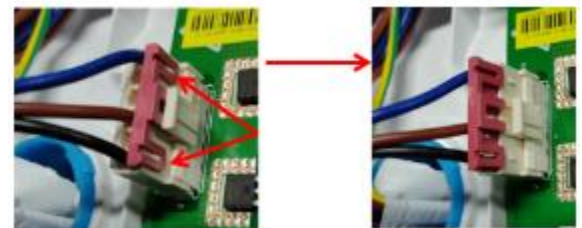


- 2) take out the main control PCB housing box cover.

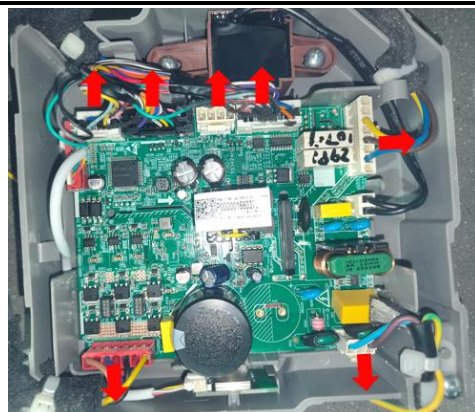


The connecting terminals remove:

- Use a needle tool to remove the lock at the arrow and remove the lock upward;
- After the lock is removed, press the hook to remove the wiring connectors



- 3) Unplug the wiring harness buckle on the main control board, take out the motherboard, and replace the main control board.



7.10 Human-feeling atmosphere lighting

Human-feeling atmosphere lighting

- 1) Remove the screws on the right side of the lower end cover of the refrigeration, unplug the lock card and take out the human sensory component



- 2) Unscrew the 5 screws on the refrigerated lower end cap to secure the trim and remove the transparent trim



	
3) Buckle the light plate by hand, unplug the buckle, and take out the light board	 
4) Reverse operation to complete the installation	

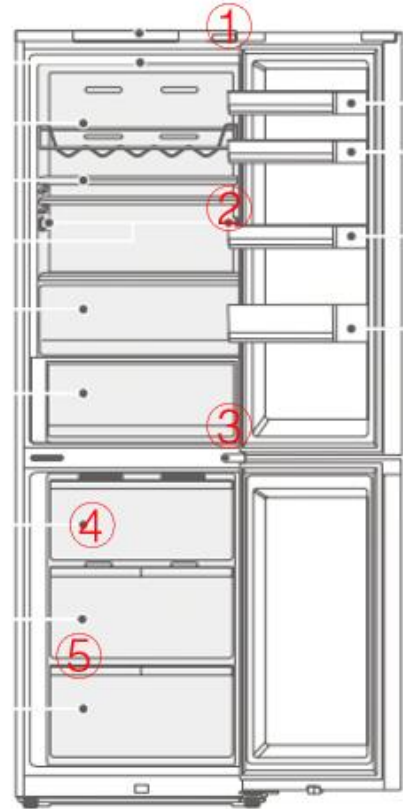
8. Temperature sensing system

8.1 Position of sensors

Position of sensors

Have 5 sensors

- ① Temperature and humidity sensor
- ② Sensor in refrigerating chamber
- ③ Sensor A behind the vario box
- ④ Sensor in freezing chamber
- ⑤ Freezer defrost sensor



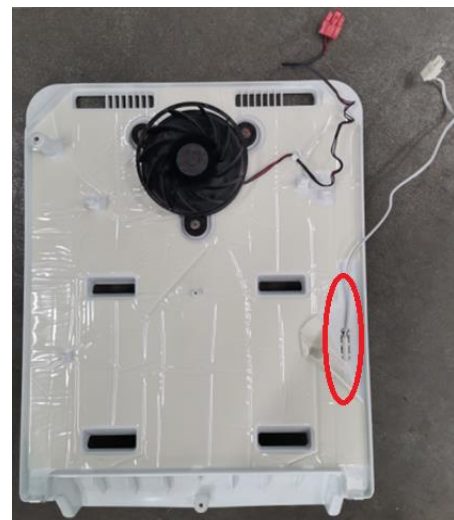
8.2 Replacement of sensors

Sensor in freezing chamber

Sensor in freezing chamber

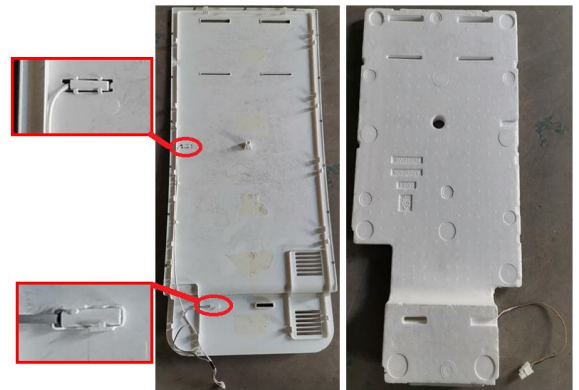
Before remove the sensor, the freezer duct assembly should be removed

- 1) Remove the air duct assembly from the freezer.
- 2) Remove the sensor



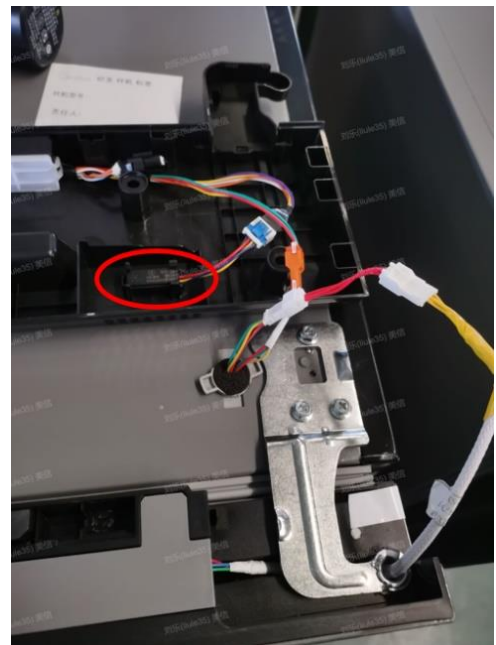
Sensor in refrigerating chamber

- 1) Before remove the sensor, the refrigerating duct assembly should be removed Remove the air duct assembly from the refrigerating.
- 2) Remove the sensor.

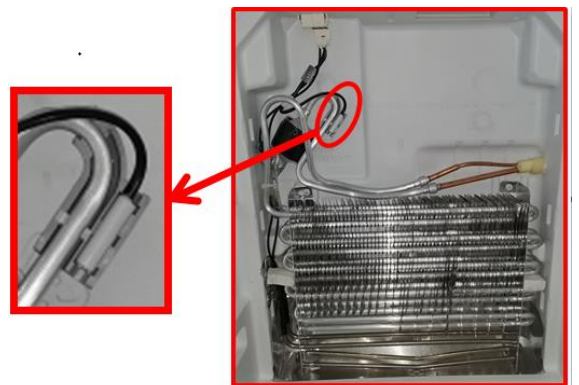
**Ambient temperature sensor**

Ambient temperature sensor is located on the top of the right cabinet, the display panel should be removed before disassembling the sensor

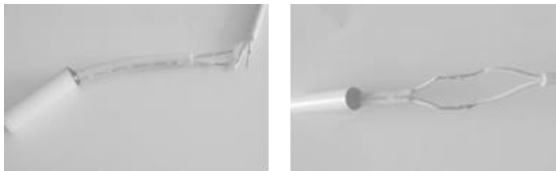
- 1) Remove the display control board assembly
- 2) Dismantle the sensor

**Defrost sensor**

The defrost sensor is located on top of the evaporator.



8.3 Sensor without terminal replacement

Sensor replacement guidelines	
Cut off the damaged head of sensor.	
Strip off the sensor wiring.	
Take out a new sensor to cut the head of sensor. (Spare parts code: 11201007000795) Its technical specifications apply to all MIDEA refrigerators.	
Strip off the head of the sensor and connect it.	
Wrap the two wires together with insulation tape.	
Wrap the two wires together.	

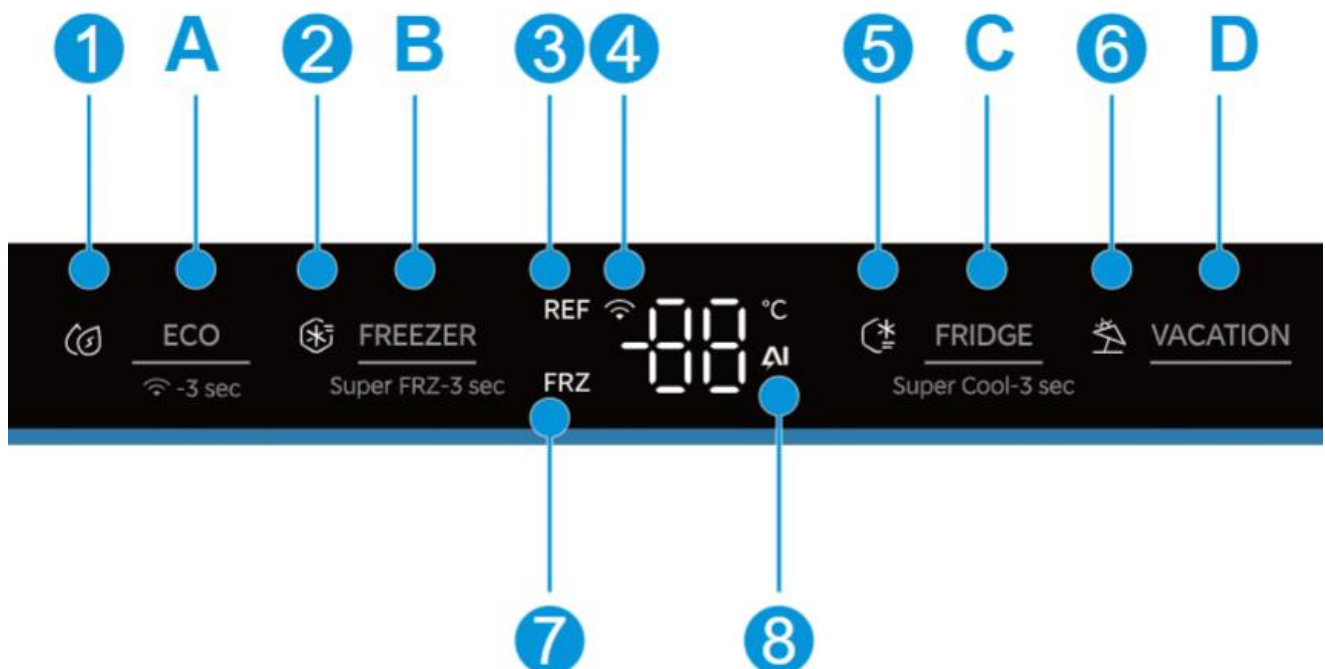
8.4 Sensor R/T table

Tx(°C)	Tx(°F)	R (KΩ)	Tx(°C)	Tx(°F)	R (KΩ)	Tx(°C)	Tx(°F)	R (KΩ)
-30	-22.00	33.81	-5	23.00	8.392	20	68.00	2.501
-29	-20.20	31.85	-4	24.80	7.968	21	69.80	2.391
-28	-18.40	30.01	-3	26.60	7.568	22	71.60	2.287
-27	-16.60	28.29	-2	28.40	7.190	23	73.40	2.188
-26	-14.80	26.68	-1	30.20	6.833	24	75.20	2.094
-25	-13.00	25.17	0	32.00	6.495	25	77.00	2.005
-24	-11.20	23.76	1	33.80	6.175	26	78.80	1.919
-23	-9.40	22.43	2	35.60	5.873	27	80.60	1.838
-22	-7.60	21.18	3	37.40	5.587	28	82.40	1.761
-21	-5.80	20.01	4	39.20	5.315	29	84.20	1.687
-20	-4.00	18.90	5	41.00	5.060	30	86.00	1.617
-19	-2.20	17.87	6	42.80	4.818	31	87.80	1.550
-18	-0.40	16.90	7	44.60	4.589	32	89.60	1.486
-17	1.40	15.98	8	46.40	4.372	33	91.40	1.426
-16	3.20	15.12	9	48.20	4.167	34	93.20	1.368
-15	5.00	14.310	10	50.00	3.972	35	95.00	1.312
-14	6.80	13.550	11	51.80	3.788	36	96.80	1.259
-13	8.60	12.830	12	53.60	3.613	37	98.60	1.209
-12	10.40	12.160	13	55.40	3.447	38	100.40	1.161
-11	12.20	11.520	14	57.20	3.290	39	102.20	1.115
-10	14.00	10.920	15	59.00	3.141	40	104.00	1.071
-9	15.80	10.350	16	60.80	2.999	41	105.80	1.029
-8	17.60	9.820	17	62.60	2.865	42	107.60	0.989
-7	19.40	9.316	18	64.40	2.737	43	109.40	0.951
-6	21.20	8.841	19	66.20	2.616	44	111.20	0.914

9. Function and operation

9.1 Display operation panel

Button	Icons
A. ECO button	① Eco icon
B. Freezer Compartment Adjustment or Super freeze button	② Super freeze icon
C. Refrigerator Compartment Adjustment or Super cool button	③ Refrigerator Compartment icon
D. VACATION mode	④ WIFI icon
	⑤ Super cool icon
	⑥ Vacation icon
	⑦ Freezer Compartment icon
	⑧ AI icon



9.2 Temperature control

9.2.1 Refrigerator compartment temperature settings

Press the **FRIDGE** button to select the temperature range, then press the button to regulate the refrigerator compartment temperature. Each press of the button reduces the temperature by 1°C. When the temperature reaches 2°C, press the button again to set the compartment to 8°C. The refrigerator compartment setting range is 2~8°C, and the setting becomes effective after locking.

9.2.2 Freezer compartment temperature settings

Press the **FREEZER** button to select the temperature range, then press the button to regulate the freezer compartment temperature. Each press of the button reduces the temperature by 1°C. When the temperature reaches -24°C, press the button again to set the compartment to -16°C. The freezer compartment setting range is -24~-16°C, and the setting becomes effective after locking.

9.3 Mode setting

9.3.1 ECO mode

1. When Basic ECO is enabled via the mobile app, the ECO light illuminates.
2. Operate on the mobile app to turn on Advanced ECO, and the ECO light and AI energy-saving indicator light will light up simultaneously.
3. When ECO is enabled on the display panel, only the ECO light illuminates.

When entering ECO mode, the refrigerator compartment is automatically set to 8°C and the freezer compartment to -16°C; when exiting ECO mode, the temperature settings automatically revert to the pre-ECO mode settings. Adjusting refrigerator temperature does not exit ECO mode, but adjusting freezer temperature does exit ECO mode.

9.3.2 Super cool mode

Press and hold the **FRIDGE** button for 3s to set Super cool mode, the Super cool indicator light will illuminate; When Super cool mode is active, the refrigerated compartment temperature is automatically set to 2°C; When exiting the Super cool mode, refrigerated compartment temperature will automatically revert to its previous setting.

9.3.3 Super freeze mode

Press and hold the **FREEZER** button for 3s to set Super freeze mode, the Super freeze indicator light will illuminate; When Super freeze mode is active, freezer compartment temperature is automatically set to -18°C; When exiting the Super freezer mode, freezer compartment temperature will automatically revert to its previous setting.

9.3.4 Vacation Mode

Activate Vacation mode by pressing the **VACATION** button. The related icon will light up automatically; When Vacation mode is activated, the refrigerator and variable temperature compartments will be turned off, the freezer compartment will be set to -18°C, and the temperature display will switch to the freezer zone; When exiting Vacation mode, the temperature settings will automatically revert to the stable settings prior to entering Vacation Mode.

9.4 Open door alarm

When refrigerator door or freezer door is open, the display panel is light on, there is no notification tone when open door. If refrigerator door or freezer door is open last for 120 seconds, the "beep" sound sounded three times, the interval of 1 minute after four times, and then the interval of 1 minute after five times, and so on, until 30 times after the ring (30 times per minute). Press any buttons on control panel can cancel this buzzer alarm.

Note: When open the door, the display panel is light on; when the door is closed, the display panel will be light off after 30 seconds if there is no any operation on display panel

9.5 Defrosting function

Defrosting principle:

The defrosting of the evaporator is heated by the defrosting heater. The temperature rises to melt the ice and frost accumulated on the evaporator into water and discharge it to the water receiving tray of the press bin for evaporation.

Defrosting steps:

STEP1: The compressor is closed, the damper is closed, the defrosting heating wire is closed, and the fan is turned on when the door is not opened. Run continuously for 10 minutes before the step ends

STEP2: The compressor is closed, the damper is closed, the defrosting heating wire is opened, and the fan is closed. Until the defrost sensor temperature $\geq$ defrost exit temperature, or when the defrost sensor is not faulty, it lasts for 60min, or when the defrost sensor fails, it lasts for 30 minutes;

STEP3: The compressor is turned off, (when the ambient temperature interval 1, 2 and 3 intervals, the damper is opened, the damper is closed in the 5.5th minute, and the damper is kept closed at other ambient temperatures, (when the parameter is 0, the damper is continuously closed for 7min), the defrosting heating wire is closed, and the fan is closed; After 7 minutes; End of step;

STEP4: The compressor is turned off, the defrosting heating wire is turned off, the refrigeration fan is turned on for 15 seconds, and the step is over;

STEP5: The compressor is closed, the damper is closed, the defrosting heating wire is closed, the fan is closed, and the damper is reset once; Wait for the freezing to reach the start-up point (or the freezing sensor is faulty), and the step is over;

STEP6: The damper is closed, the defrosting heating wire is closed, and the fan is closed; If the refrigeration reaches the start-up point at SETP5, the compressor is turned on; If SETP5 is a freeze sensor fault, the compressor does not turn on; After 3 minutes, or when the temperature of the freezer sensor is below -20°C , the step ends (the fan is turned on);

9.6 Error code and solutions

Error codes will be displayed within the first 30 minutes of each power-on, after that you will have to enter the error code display mode to view them.

Error Mode Entry:

Long press the “ECO” and “VACATION” button for 7 seconds to enter **test mode**, after display “0”, press “FRIDGE” button to select the mode “A6”.

Error Mode Exit:

Error code mode will exit automatically after 5 minutes of display. Or keep pressing “ECO” and “VACATION” button for 7 seconds to enter the test mode, and then press the “FRIDGE” button to select the mode “0”.

Note: Midea full common fault code, combined with the actual product display reference.

Error code	Fault Type	Troubleshooting and Solutions
E0	Initialization fault of freeze ice maker	Step 1: Check whether the connection terminals on the ice maker and the main control PCB are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again. Step 2: Enter the forced ice making mode and check whether the ice maker works normally. Step 3: If the ice maker does not work, replace the ice motor. Step 4: If the fault still occurs, replace the main control PCB.

E1	Temperature sensor fault in refrigerating chamber	Step 1: Check whether the connection terminals are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again.
E2	Temperature sensor fault in freezing chamber	
E3	Temperature sensor fault in chiller chamber or flex drawer	Step 2: If the fault still occurs, pull out the corresponding connection terminal on the main control PCB, use a multimeter to check the resistance value of the sensor, and confirm whether it is normal. Step 3: If the resistance value is wrong, replace the sensor. Step 4: If the fault still occurs, replace the main control PCB.
C9	Sensor fault of ice-making compartment	
E4	Defrost sensor fault in refrigerating chamber	Step 1: Check whether the connection terminals are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again. Step 2: If the fault still occurs, pull out the corresponding connection terminal on the main control PCB, use a multimeter to check the resistance value of the sensor, and confirm whether it is normal. Step 3: If the resistance value is wrong, replace the sensor. Step 4: If the fault still occurs, replace the main control PCB.
E5	Defrost sensor fault in freezing chamber	
CC	Defrosting fault of ice-making compartment	Step 1: Check whether the connection terminal on the display control panel, hinge cover and main control PCB are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again. Step 2: If the fault still occurs, pull out all connection terminals, use a multimeter to check the resistance value of the wire between the display control board and the main control PCB to see if it is broken. If test value is $\infty\Omega$, the wire is broken.(If the wire in the door is broken, replace the door. Other conditions cannot be repaired.) Step 3: If the wire is OK, replace the display control board. Step 4: If the fault still occurs, replace the main control PCB.
E6	Main control PCB and Display control PCB communication fails	
E7	Ambient temperature sensor fault	Step 1: Check whether the connection terminals are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again. Step 2: If the fault still occurs, pull out the corresponding connection terminal on the main control PCB, use a multimeter to check the resistance value of the sensor, and confirm whether it is normal. Step 3: If the resistance value is wrong, replace the sensor. Step 4: If the fault still occurs, replace the main control PCB.
E8	Defrost sensor fault in chiller chamber	
E9	High temperature alarm in freezing chamber	Step 1: Check whether the door is not closed, or whether there is leakage between the door gasket and the cabinet. Step 2: Check whether the door gasket is deformed and causes leakage, reshape or replaced with a new one.

		Step 3: Check whether the freezing frost is OK, if there is ice on the evaporator and the fan motor is frozen, replace a new defroster heater. Step 4: Check whether the light switch is damaged, replace new one. Step 5: Check whether the freezer fan stops working, plug and unplug connection terminals, replace a new fan motor. Step 6: Check if the pipeline is leaking or blocked. After maintenance, vacuum and refill the refrigerant.
EE	Sensor fault at the bottom of freeze ice maker	Step 1: Check whether the connection terminal s on the ice maker and the main control PCB are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again.
F4	Sensor fault at the bottom of refrigeration ice maker	
L7	Temperature sensor of FRZ. Half cubed ice maker failure	Step 2: If the fault still occurs, pull out the connection terminal on ice maker, use a multi meter to check the resistance value of the sensor, and confirm whether it is normal.
H7	Temperature sensor of the FRZ. cubed ice maker failure	Step 3: If the resistance value is wrong, replace the sensor. Step 4: If the fault still occurs, replace the main control PCB.
F5	Ice-flipping fault of refrigerating ice maker	Step 1: Check whether the connection terminals of ice maker are plugged in place and whether there are foreign matters in them, after cleaning, plug them in again. Step 2: Enter the Forced Ice-making (EYE) Mode and check whether the ice maker works normally. Step 3: If the ice maker does not work, replace the ice maker. Step 4: If the fault still occurs, replace the main control board or power control board.
L9	FRZ. small ice maker ice-flipping failure	
H9	FRZ. big ice maker ice-flipping failure	
F6	Initialization fault of refrigerating ice maker	Step 1: Check whether the connection terminals on the ice maker and the main control PCB are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again. Step 2: Enter the forced ice making mode and check whether the ice maker works normally. Step 3: If the ice maker does not work, replace the ice maker. Step 4: If the fault still occurs, replace the main control PCB
L8	FRZ. half cubed ice maker horizontal initialization failure	
H8	FRZ. cubed ice maker horizontal initialization failure	
F7	The upper chamber low temperature sensor failure	Step 1: Check whether the connection terminals are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again. Step 2: If the fault still occurs, pull out the corresponding connection terminal on the main control PCB, use a multimeter to check the resistance value of the sensor, and confirm whether it is normal. Step 3: If the resistance value is wrong, replace the sensor. Step 4: If the fault still occurs, replace the main control PCB.
F8	The lower chamber low temperature sensor failure	

EH	Circuit fault of ambient humidity sensor	Step 1: Check whether the connection terminals in the hinge cover and the main control PCB are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again. Step 2: If the fault still occurs, pull out the connection terminal on the hinge cover, use a multi meter to check the voltage value of the sensor, and confirm whether it is normal. Step 3: If the voltage value is wrong, replace the sensor. Step 4: If the fault still occurs, replace the main control PCB.
EF	Water tank installation failure	Step 1: Check whether the water tank is installed in place, pull out the water tank and install it again; Step 2: Check whether the connection terminals behind the water tank seat is plugged in place and whether there are foreign matters in it; after cleaning the terminal, plug it in again. Step 3: Check whether the switch in the water tank seat is damaged, replace a new switch.
EP	Ice-flipping fault of freeze ice maker	Step 1: Check whether the connection terminal on the ice maker and the Ice-making PCB (Power board) are plugged in place and whether there are foreign matters in them, after cleaning the terminals, plug them in again. Step 2: If the fault still occurs, enter the Forced Ice Making mode and check whether the ice maker works normally. Step 3: If the ice maker not OK, replace it with a new one. Step 4: If the fault still occurs, replace the Ice-making PCB (Power board).
CA	Main control PCB and Ice-making PCB communication fails	Step 1: Check whether the connection terminal on the Ice-making PCB (Power board) and main control PCB are plugged in place and whether there are foreign matters in them, after cleaning the terminals, plug them in again. Step 2: If the fault still occurs, pull out the connection terminal, use a multi meter to check the resistance value of the wire between the Ice-making PCB (Power board) and the main control PCB to see if it is broken. (If test value is $\infty\Omega$, the wire is broken. Replace it with a new one.) Step 3: If the wire is OK, replace the Ice-making PCB. Step 4: If the fault still occurs, replace the main control PCB.
L3	Freezer fan failure	Step 1: Check whether the connection terminals of fan motor are plugged in place and whether there are foreign matters in them, after cleaning, plug them in again. Step 2: Check whether the fan motor is blocked by ice or foreign objects. If so, clean them out.
L4	Freezer fan abnormal rotation speed	Step 3: Enter the Forced Cooling Mode and check whether the fan motor works OK.

		Step 4: If the fan motor does not work, replace it with a new one. Step 5: If the fault still occurs, replace the main control board.
L5	Condenser fan failure	Step 1: Check whether the connection terminals of fan motor are plugged in place and whether there are foreign matters in them, after cleaning, plug them in again. Step 2: Check whether the fan motor is blocked by ice or foreign objects. If so, clean them out.
L6	Condenser fan abnormal rotation speed	Step 3: Enter the Forced Cooling Mode and check whether the fan motor works OK. Step 4: If the fan motor does not work, replace it with a new one. Step 5: If the fault still occurs, replace the main control board.
P1	Refrigeration failure in the refrigerator chamber	Blower door can not be opened, blower door is not closed tightly, refrigerant leakage, inverter board/compressor failure, refrigeration freezer sensor reversed, refrigeration door body is not closed tightly.
P2	Refrigeration failure in the freezer chamber	Frost heater failure, refrigerant leakage, inverter board/compressor failure, refrigeration & freezer sensor reversal, freezer door not closing tightly, freezer fan blockage, condensing fan failure.
P4	Water level sensor failure	Step 1: Check whether the connection terminal of water level sensor is plugged in place, and check if there is any foreign matter in the wiring connector. Pull out the wiring connector and clean, then re-plug it in place. Step 2: Check if the water level sensor has an 12V output voltage with a multi meter. If not, replace it. Step 3: If the fault still occurs, replace the main control board.
P6	Communication failure between the RX terminal of dispenser control board and power control board	Step 1: Check whether the connection terminal on the dispenser control board, hinge cover and power control board are plugged in place and whether there are foreign matters in them, after cleaning, plug them in again.
P7	Communication failure between the TX terminal of dispenser control board and power control board	Step 2: If the fault still occurs, pull out all connection terminals, use a multimeter to check the resistance value of the wire between the dispenser board and the power control board to see if it is broken. If test value is $\infty \Omega$, the wire is broken. (If the wire in the door is broken, replace the door. Other conditions cannot be repaired.) Step 3: If the wire is OK, replace the dispenser control board. Step 4: If the fault still occurs, replace the power control board.
P8	Communication failure between the RX terminal of dispenser control board	Step 1: Check whether the connection terminal on the dispenser control board, hinge cover and ultrasonic control board are plugged in place and whether there are foreign

	and ultrasonic control board	matters in them, after cleaning, plug them in again.
P9	Communication failure between the TX terminal of dispenser control board and ultrasonic control board	Step 2: If the fault still occurs, pull out all connection terminals, use a multimeter to check the resistance value of the wire between the dispenser board and the ultrasonic control board to see if it is broken. If test value is $\infty\Omega$, the wire is broken. (If the wire in the door is broken, replace the door. Other conditions cannot be repaired.) Step 3: If the wire is OK, replace the dispenser control board. Step 4: If the fault still occurs, replace the ultrasonic control board.

9.7 Test mode

All below functions are only for diagnosis and test purpose, we advise to restart the refrigerator by power on/off if have used these functions.

Test items	Setting Method	Setting result
Enter Test Mode	Keep pressing the “ECO” and “VACATION” button for 7 seconds and release	It indicates “0” on display panel, and buzzer sounds once, the refrigerator enter in test mode
Select to enter into forced cooling mode	In test mode(“0” on display panel), click the FRIDGE button	The display panel indicates “1”, the refrigerator enters in mandatory cooling mode, the compressor and fan start to work mandatorily, and the air damper is opened.
	In mandatory cooling mode, if there is no operation on display panel in 72 hours	The refrigerator exits test mode, and return back to normal running
Select to enter into forced defrosting mode in all rooms	In mandatory cooling mode(“1” on display panel), click the FRIDGE button	The display panel indicates “3”, the refrigerator enters in mandatory defrost mode, the compressor and fan stops working, and the air damper is closed
	In mandatory defrost mode, when the temperature of defrost sensor arrives 8℃ and the defrost heater has worked for 3 minutes	The refrigerator will exit mandatory defrost mode and return back to normal running
	In mandatory defrost mode, when the temperature of defrost sensor is lower than 8℃ and the defrost heater has worked for 1 hour	The refrigerator will exit mandatory defrost mode and return back to normal running

9.8 Demo mode

Mode entry

Keep pressing the “ECO” and “VACATION” button for 7 seconds and release. Press the **FRIDGE** buttons to select the mode. When select “7”, it will take effect after 30second.

Mode operation

When entering the demo mode, the request to stop refrigeration is made, the compressor does not work, and the defrosting does not occur. The lighting and other functions are controlled according to normal logic, and no commercial inspection or return inspection is performed. Power is cut and memory is saved.

Mode exit

Press the **FRIDGE** buttons until the screen shows 0, then lock and exit the mode.

9.9 Backup data for power fail

- 1) The running state of the refrigerator is remembered after compressor running for 1 hour continuously.
- 2) The running state of the refrigerator is remembered after change function settings and lock.
- 3) When the refrigerator is out of power and recharged, the running state of the refrigerator is same as before.

9.10 IOT product networking control

9.10.1 Turn on the Wireless Network module

Unlock the display **ECO** control panel first. Long press the **ECO** button for 3 seconds, when the temperature display area shows **AP** character, the WIFI network module starts. After the startup is successful, the **AP** character stops flashing, and the **Wireless Network** icon lights up.

9.10.2 Connect to mobile SmartHome APP

- 1) First use your mobile phone to download the **SmartHome** APP, follow the instructions in the APP to complete the account registration.

The download method is as follows:



- 2) Login to **SmartHome** APP, connect to the WIFI network module of this product according to the guide. After completing the setting of related functions, you can open remote control of this product on your mobile phone.

10. Compressor

10.1 Compressor on and off control specifications

1.1 When one of the following conditions is met, the compressor stops:

- 1) $T_f \leq T_{ft}$;
- 2) The compressor runs continuously for more than 3 hours (Stop 5 minutes);

1.2 When all the following conditions are met, the compressor starts up:

- 1) $T_f \geq T_{fk}$;
- 2) Compressor downtime is more than 5min.

★When 1.1 and 1.2 are not satisfied, the compressor maintains the original state

10.2 Inverter board fault analysis

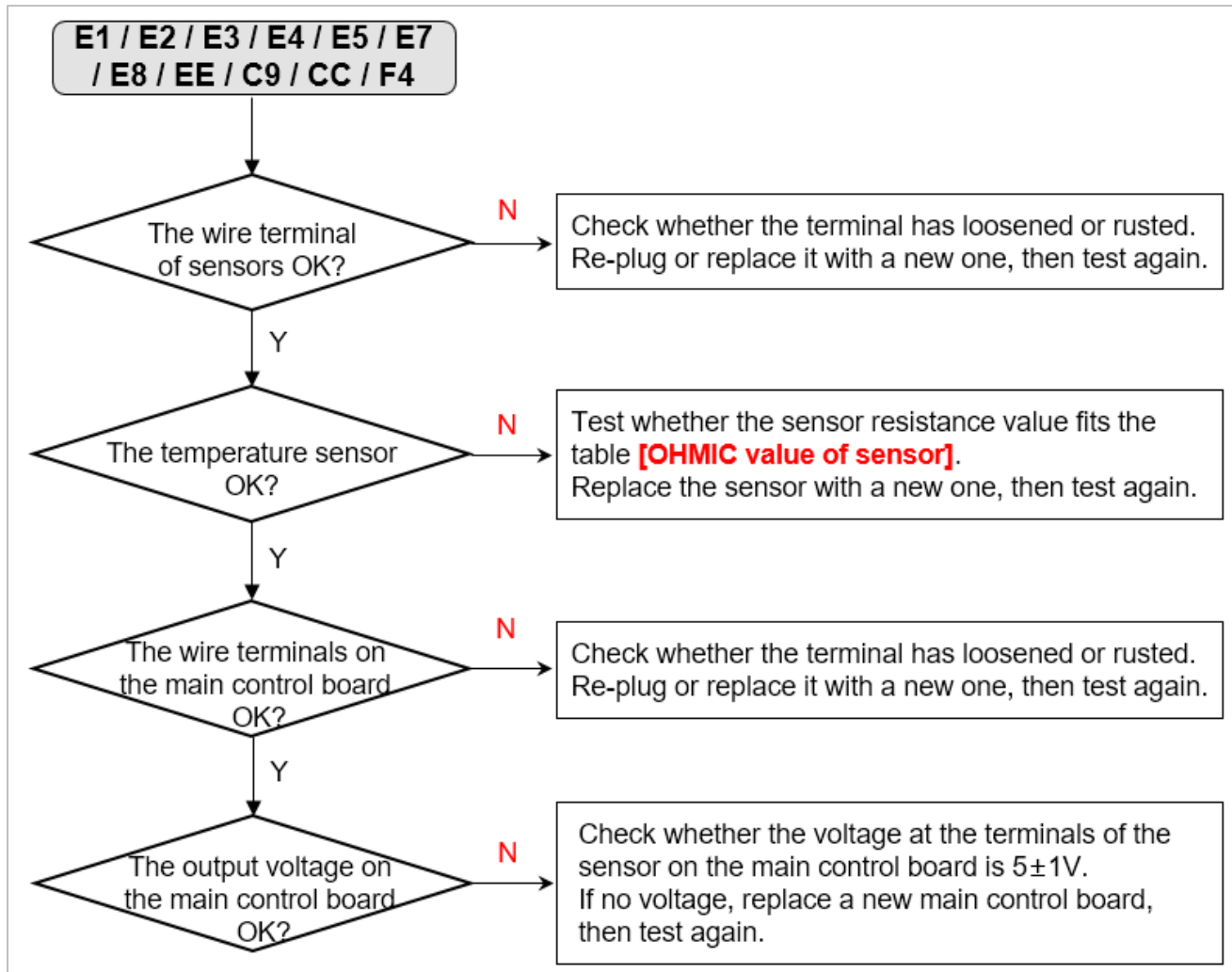
Running status of LED	Fault Type	Troubleshooting and Solutions
Not light	Standby	No repair needed
The light is always on when the power is turned on for the first time, and it is always off after the compressor is turned on and off	Normal working	No repair needed
Blink once: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second	Software over current protection	Step 1: Disconnect the U-V-W wiring harness, measure the resistance between any two phase of U-V-W terminals (between 5 and 30 Ω and equal in value between any two phase), and measure the resistance between any phase and the fridge metal casing (above 1 M Ω).
		Step 2: If ok, replace a new inverter board
		Step 3: If the fault still occurs, replace a new compressor
Blink twice: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second	Overvoltage protection	Measure the voltage between L and N
		1) If it is less than 280V, replace a new inverter board 2) If more than 280V, please check the power supply and power cable
Blink three times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second	Under voltage protection	Measure the voltage between L and N
		1) If it is less than 160V, replace a new inverter board 2) If more than 160V, please check the power supply and power cable
Blink four times: light 0.5 second, extinguish 0.5 second,	Hardware over current protection	Step 1: Disconnect the U-V-W wiring harness, measure the resistance between

interval time(extinguish) is 2 second		any two phase of U-V-W terminals (between 5 and 30 Ω and equal in value between any two phase), and measure the resistance between any phase and the fridge metal casing (above 1 M Ω).
		Step 2: If ok, replace a new inverter board
		Step 3: If the fault still occurs, replace a new compressor
Blink five times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second	IPM Hardware temperature throttling	In this case, the inverter is usually normal. If the refrigerator cooling function is working, it may be due to insufficient lubrication inside the compressor. If it is not cooling, then there may be a blockage in the refrigeration circuit.
Blink six times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second	Lack of phase protection	Step 1: Check if the UVW wiring harness is securely connected to the inverter board and compressor.
		Step 2: Disconnect the UVW wiring harness, measure the resistance between any two phases of UVW terminals. If the resistance between any one or two phases is infinite, replace the compressor.
		Step 3: Re-power and if the compressor runs for a period of time before tripping, it may indicate a blockage in the piping system.
		Step 4: If the fault still occurs, replace a new inverter board.
Blink seven times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second	Voltage bias fault	Step 1: Power off and restart.
		Step 2: If the fault still occurs, replace a new inverter board.
Blink eight times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second	Misstep protection	Step 1: After powering on, touch the compressor and wait for the indicator light on the inverter board to light up.
		Step 2: If the compressor does not respond and the indicator light is flashing, it means the compressor is damaged, replace a new compressor.
		Step 3: If the compressor shakes when starting and then protects, replace a new inverter board.

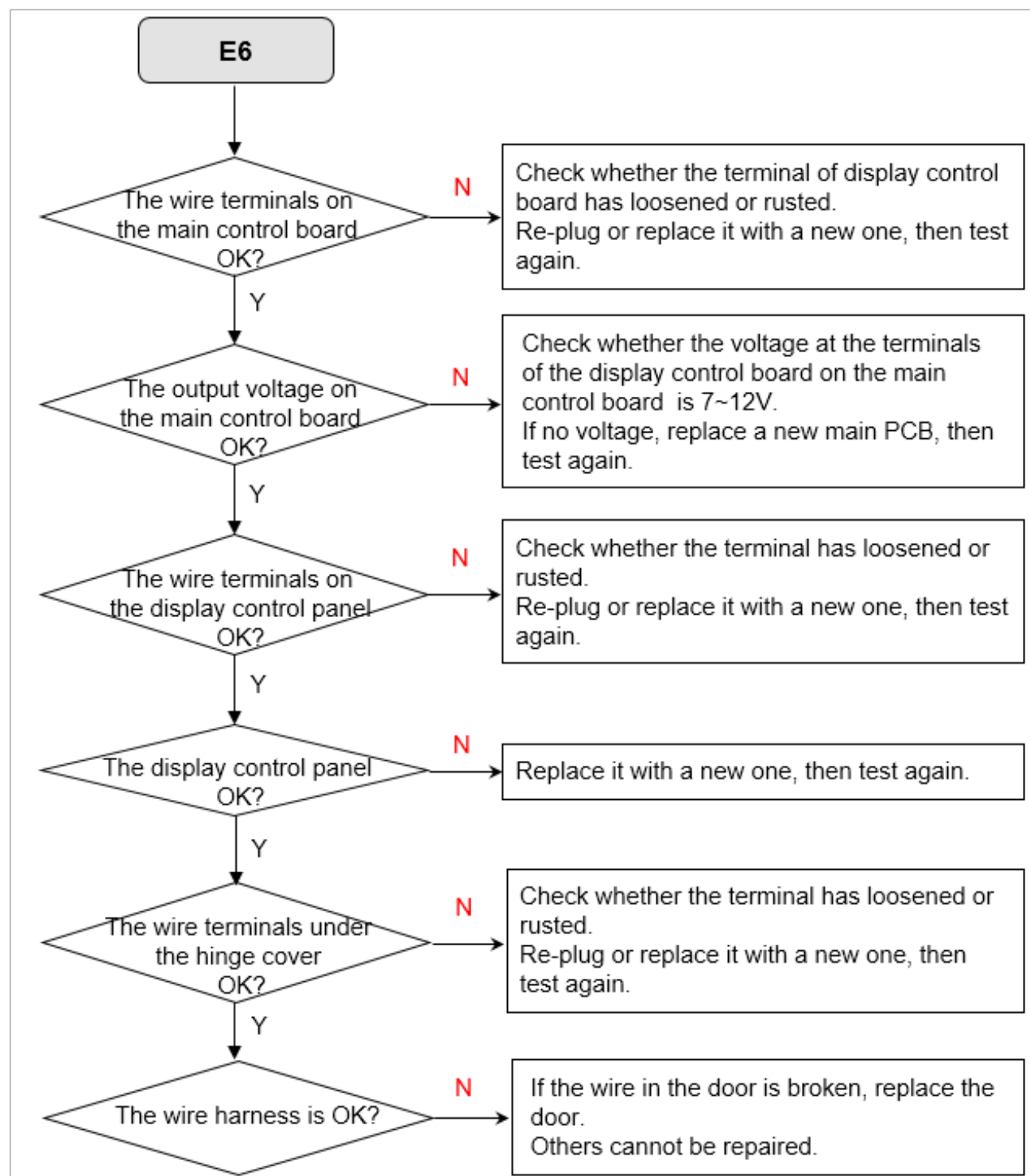
Blink eight times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second	Running block protection	Step 1: After powering on, touch the compressor and wait for the indicator light on the inverter board to light up.
		Step 2: If the compressor does not respond and the indicator light is flashing, it means the compressor is damaged, replace a new compressor.
		Step 3: If the compressor shakes when starting and then protects, replace a new inverter board.
Blink ten times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second	Over-temperature and over-power shutdown protection for variable frequency board	In this case, the inverter is usually normal. If the refrigerator cooling function is working, it may be due to insufficient lubrication inside the compressor. If it is not cooling, then there may be a blockage in the refrigeration circuit.
Blink eleven times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second	Starting failure	Step 1: After powering on, touch the compressor and wait for the indicator light on the inverter board to light up.
		Step 2: If the compressor does not respond and the indicator light is flashing, it means the compressor is damaged, replace a new compressor.
		Step 3: If the compressor shakes when starting and then protects, replace a new inverter board.
Blink twelve times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second	Power and frequency reduction	In this case, the inverter is usually normal. If the refrigerator cooling function is working, it may be due to insufficient lubrication inside the compressor. If it is not cooling, then there may be a blockage in the refrigeration circuit.
Blink thirteen times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second	UART communication failure	Check the communication wiring harness between the main control board and the inverter board. If the connection is good, replace either the main control board or the inverter board.

11. Troubleshooting Method

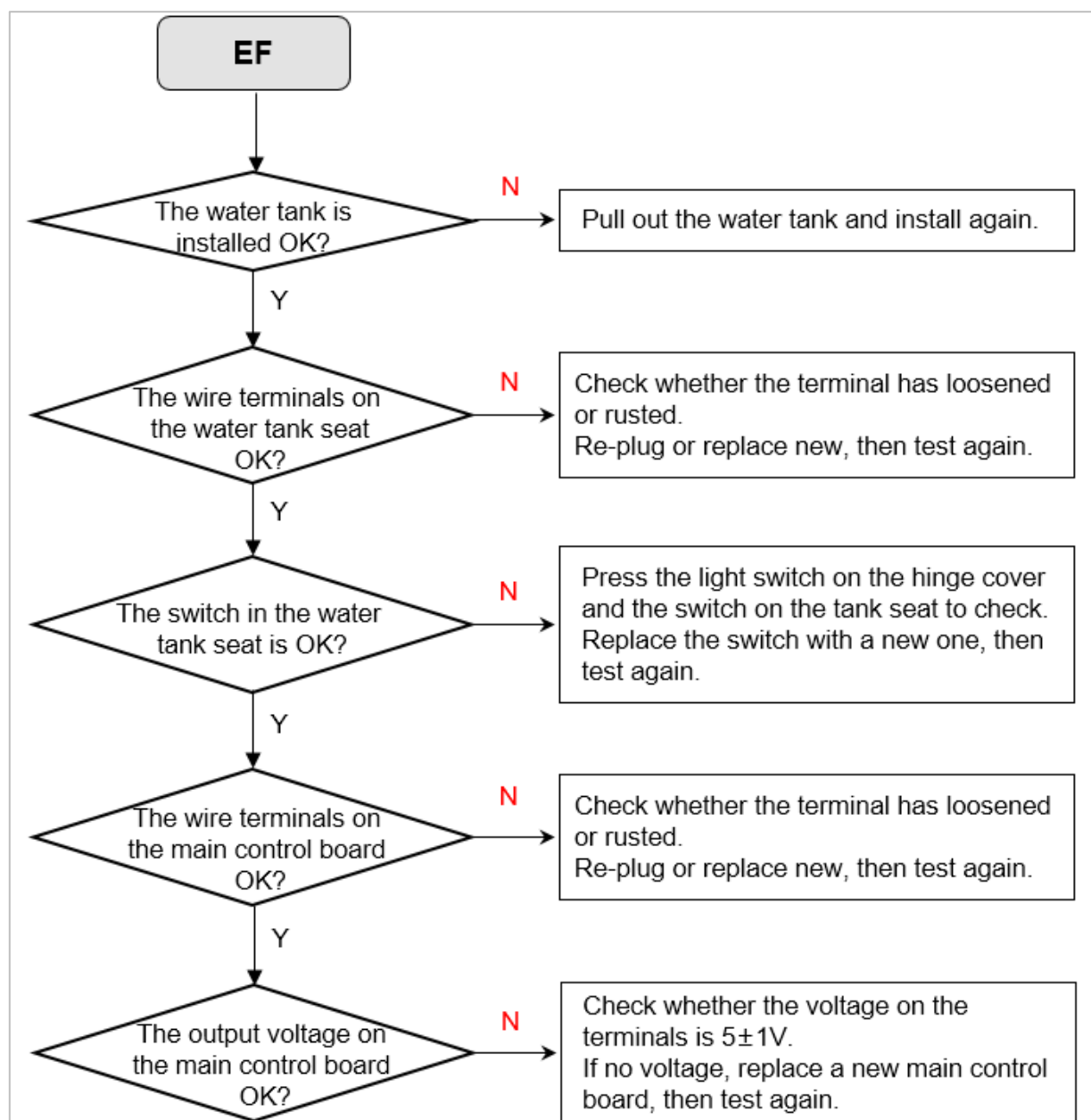
11.1 Error code E1 / E2 / E3 / E4 / E5 / E7 / E8 / EE / C9 / CC / F4



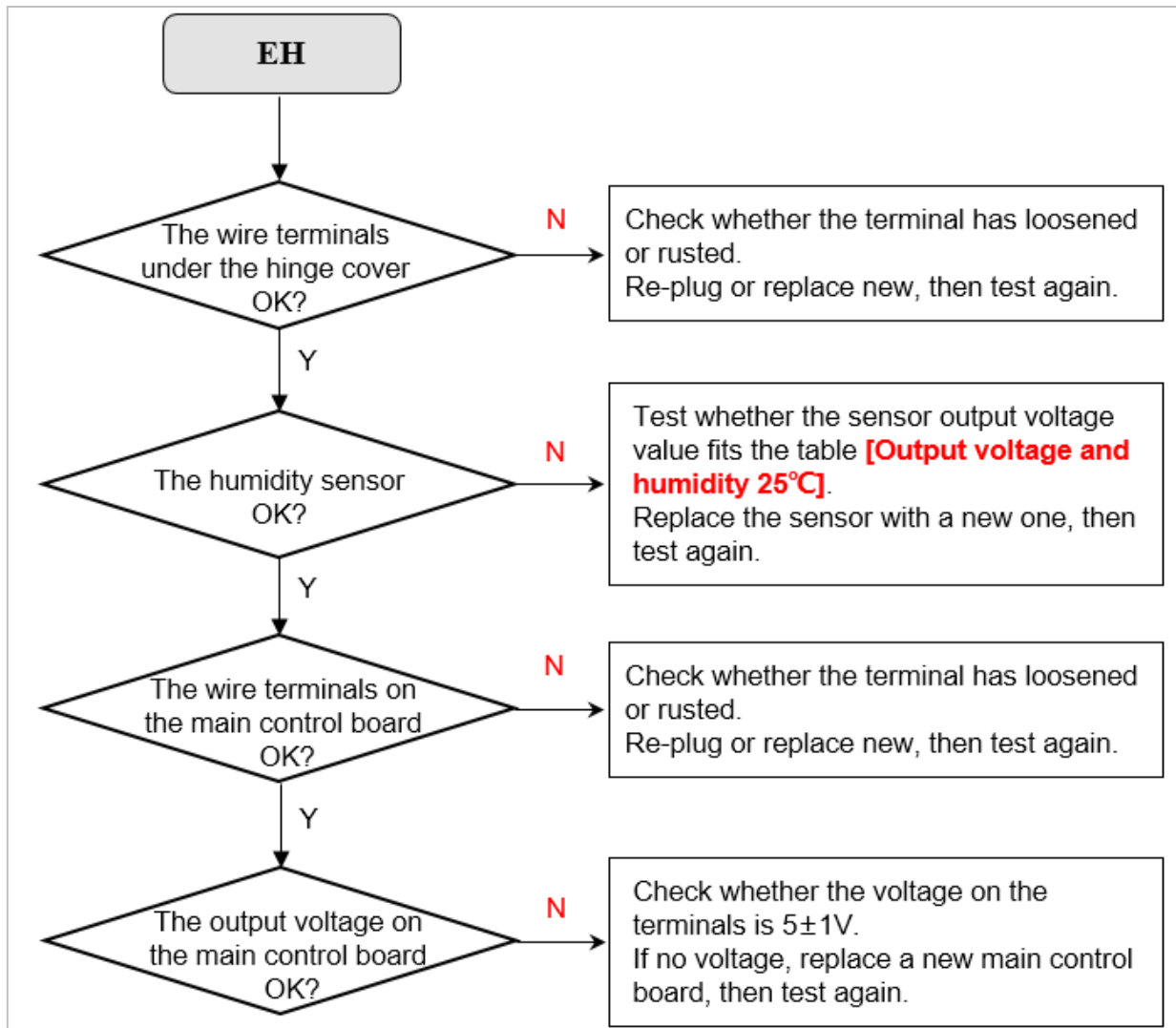
11.2 Error code E6



11.3 Error code EF



11.4 Error code EH



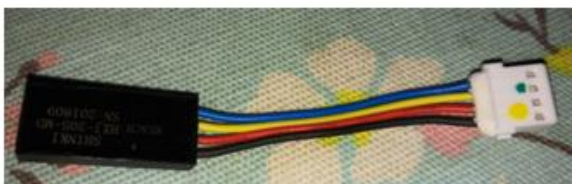
The meaning of different color wires:

Blue: Ambient temperature

Yellow: Humidity

Red: +5V

Black: GND

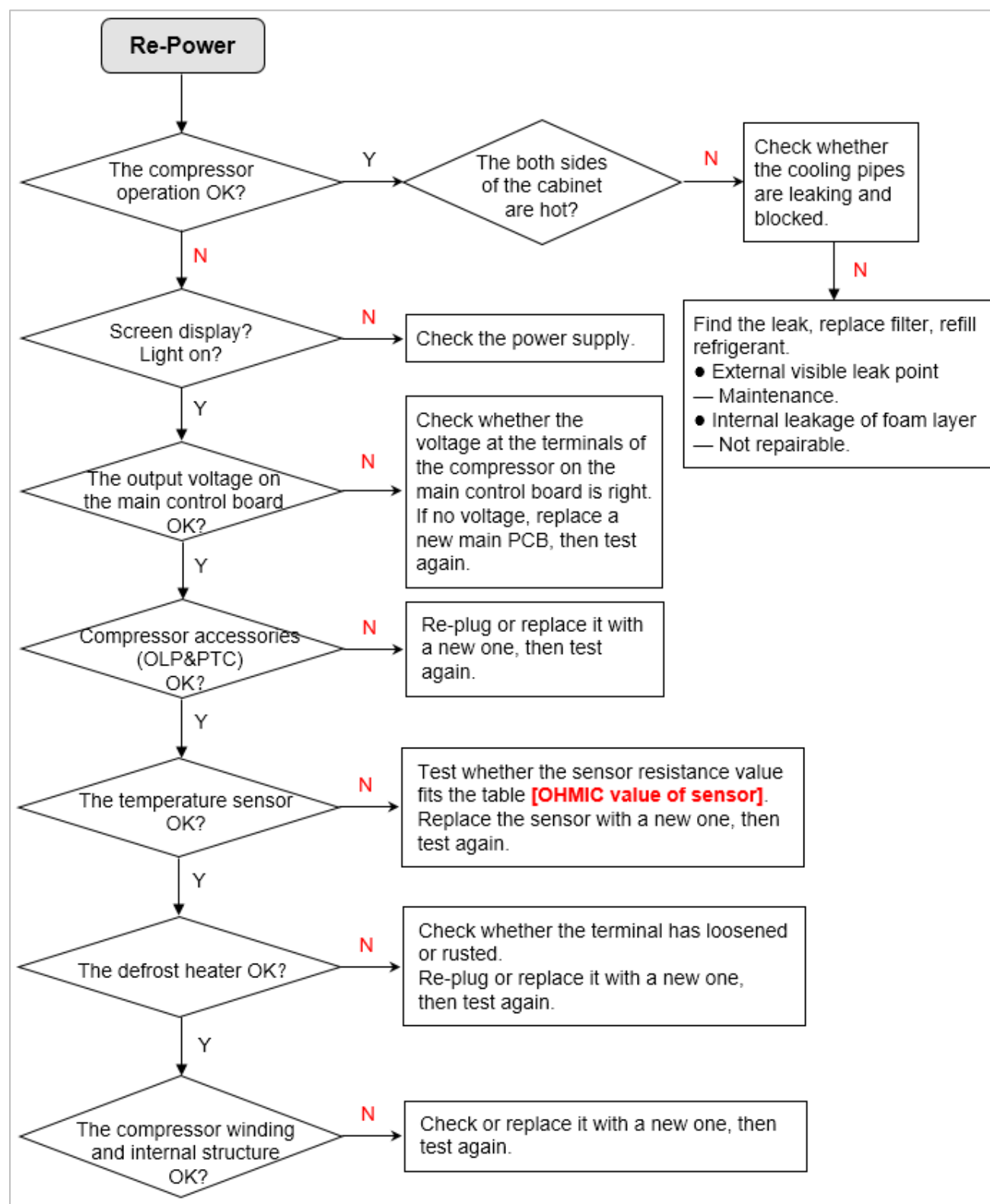


Comparison table of output voltage and humidity at 25°C

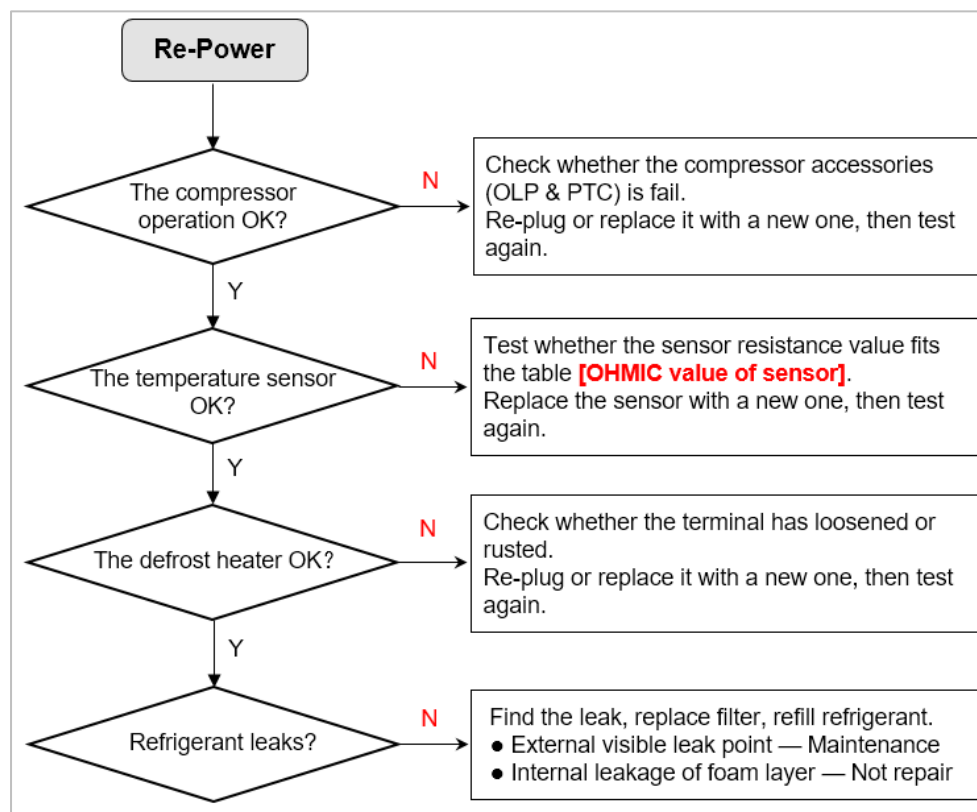
Humidity (%)	Output (V)
20	1.528
40	2.067
60	2.779
80	3.400

1. Check if the sensor has an correct output voltage between **Yellow and Black** wires with a multi meter.
2. If the value is wrong, please replace it with a new one.

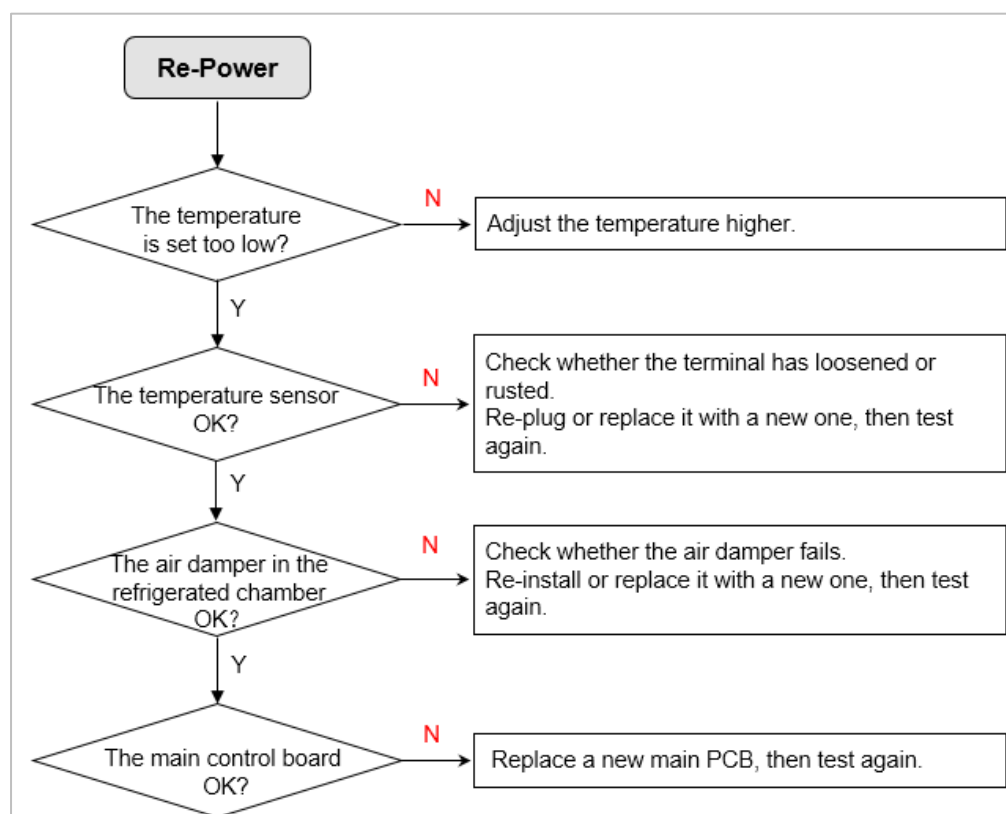
11.5 Not cooling in all the chambers



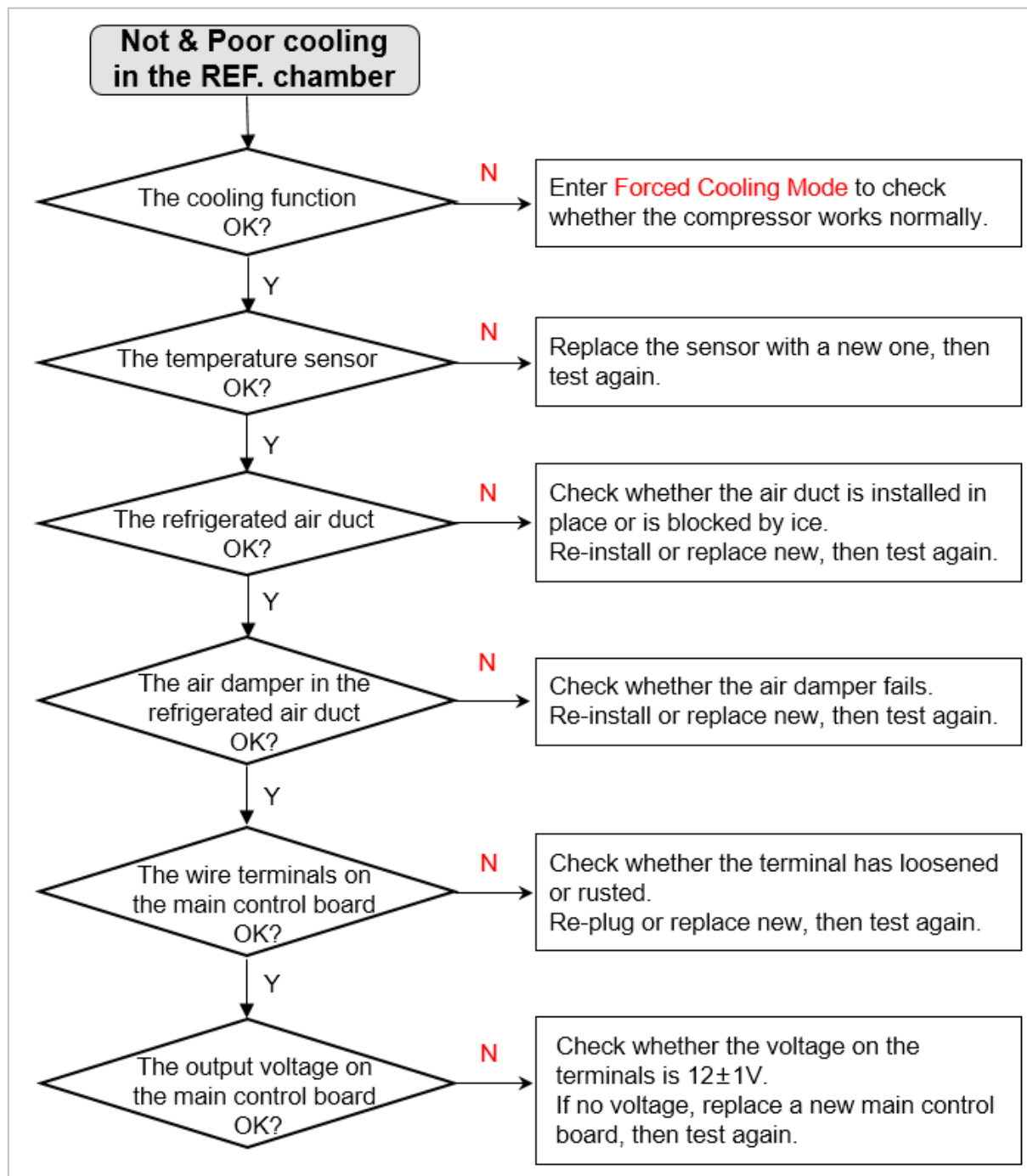
11.6 Poor Cooling in all the chambers



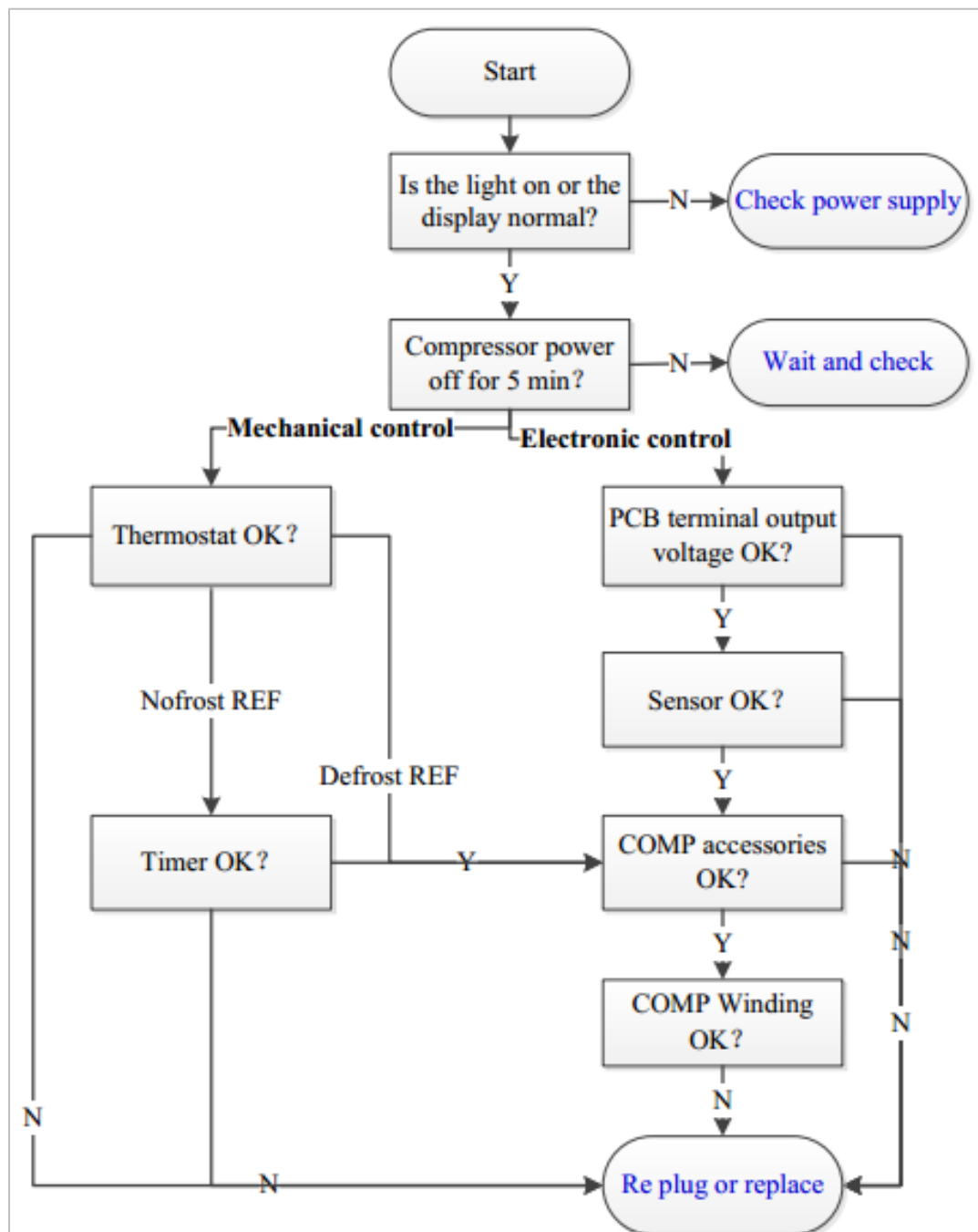
11.7 Overcooling in the refrigerated chamber



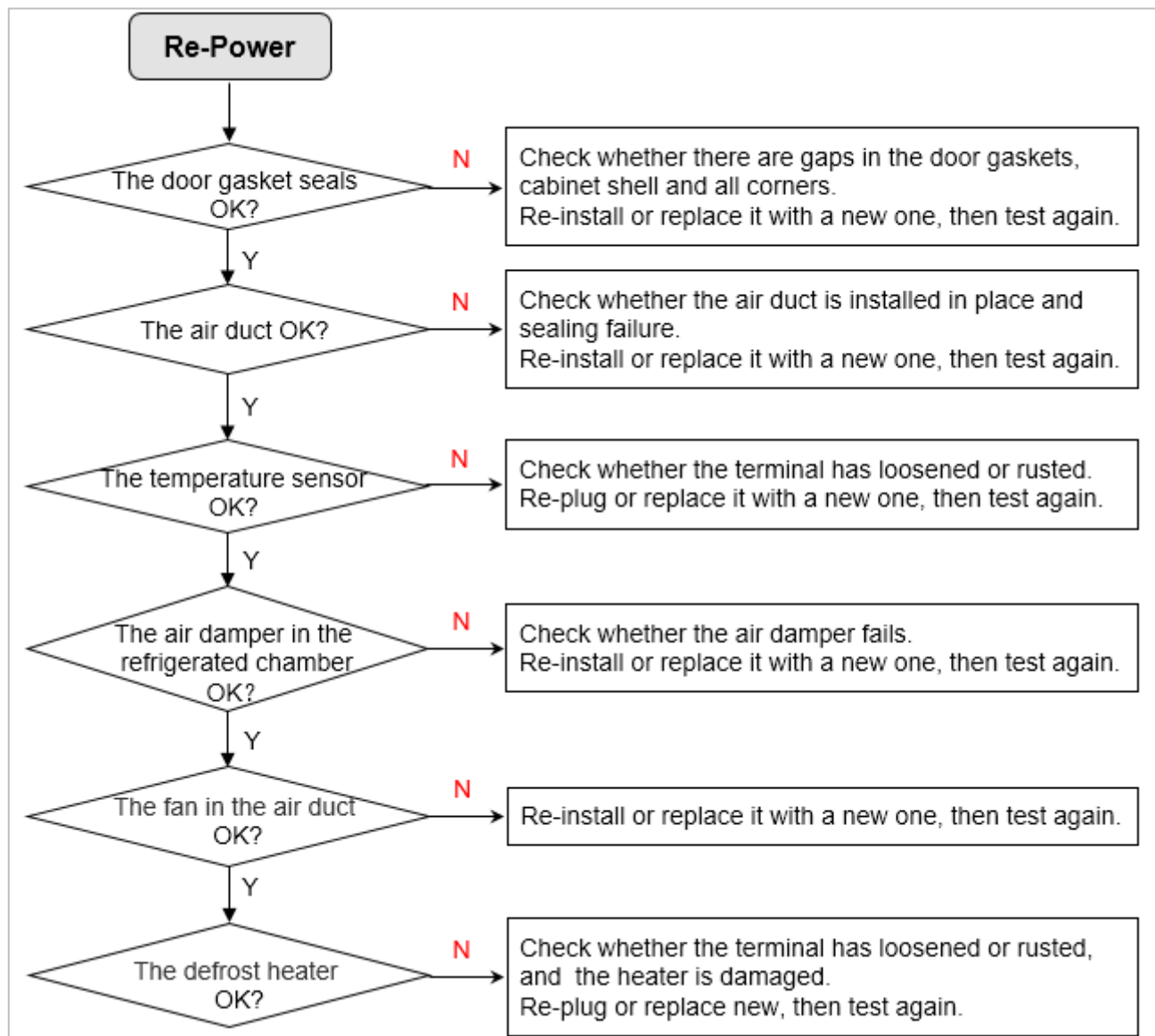
11.8 Not & Poor cooling in the refrigerated chamber



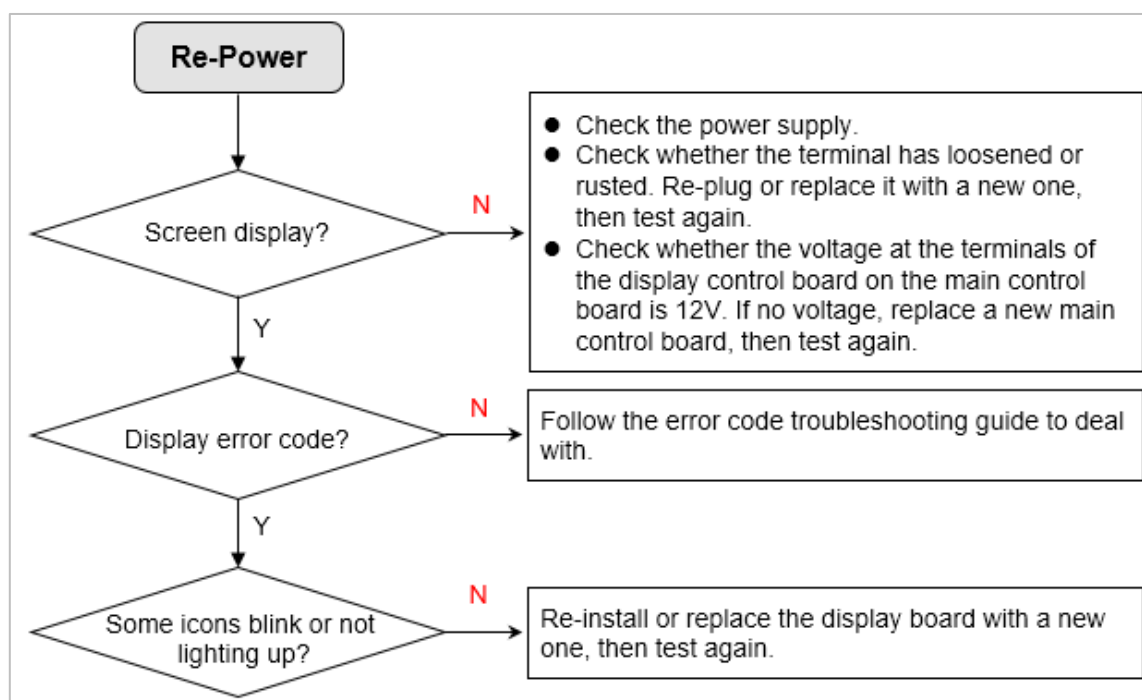
11.9 No working of compressor



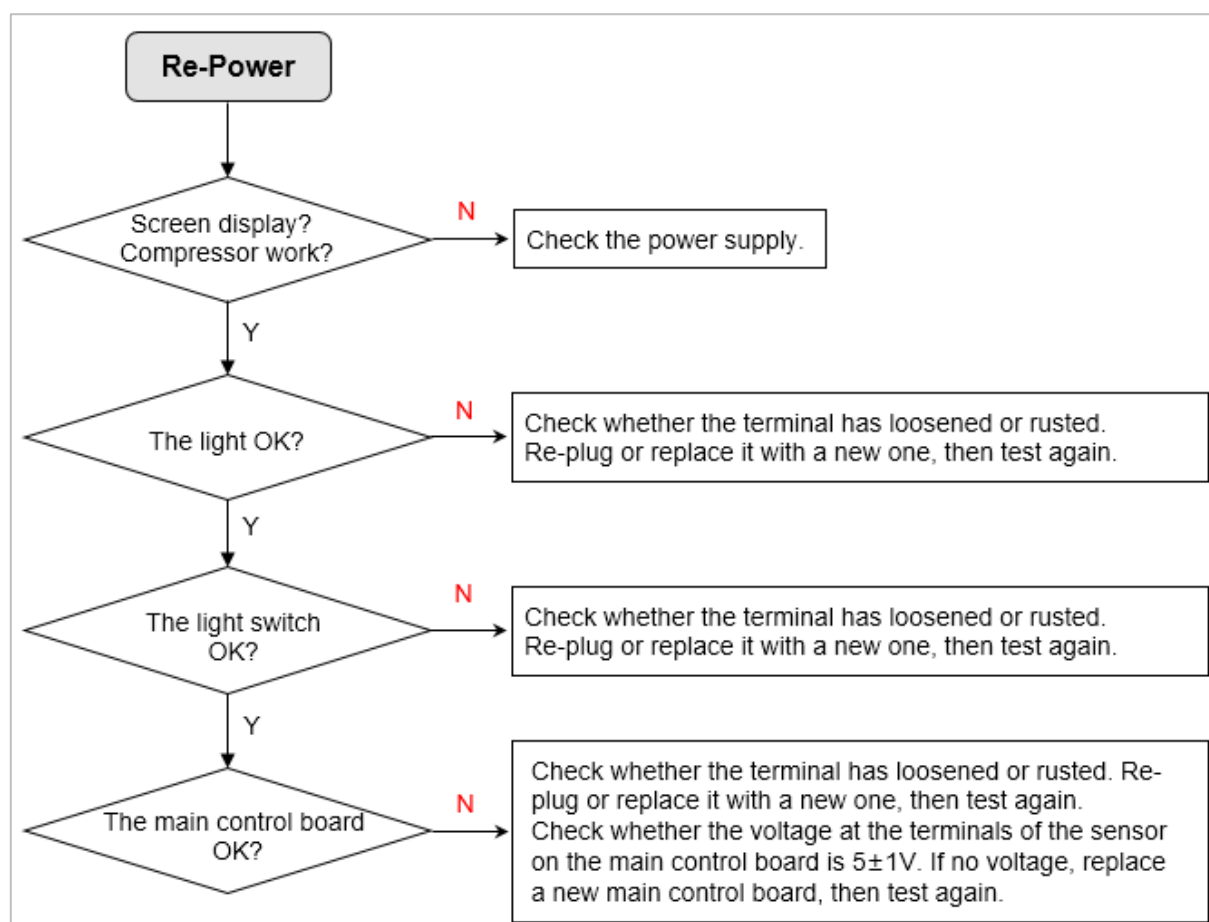
11.10 Condensation & Frost



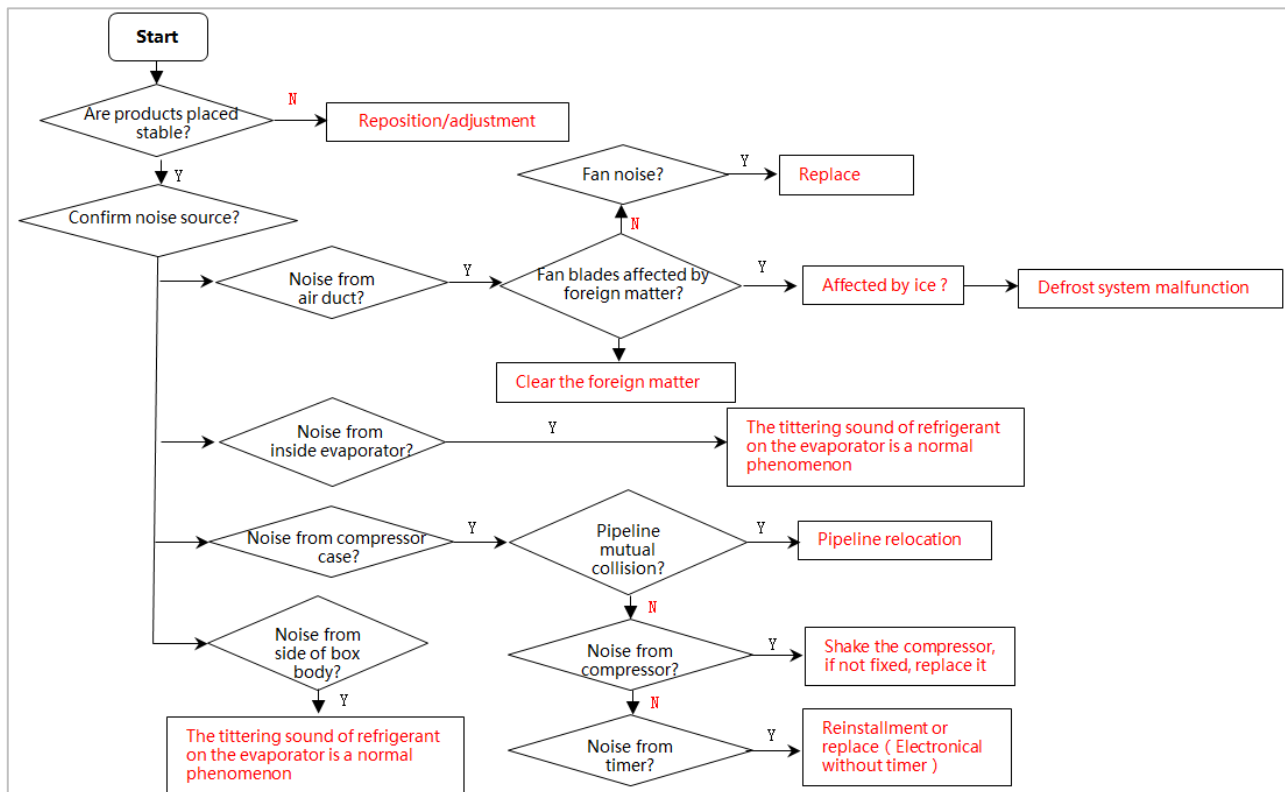
11.11 Display panel failure



11.12 Light failure

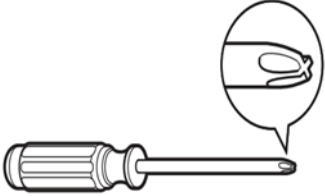
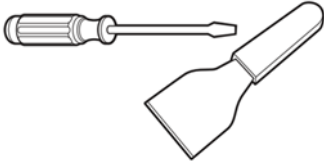
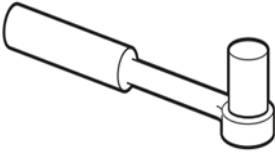


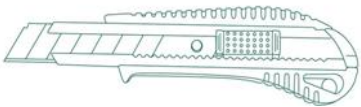
11.13 Noise



12. Maintenance tooling, equipment and material

Tooling

No.	Name	Photo	Main Usage
1	Phillips screwdriver		screw assemble and disassemble
2	slotted screwdriver/scrapper		screw and rivet assemble and disassemble
3	Socket spanner 5/16"		hinge and compressor screw assemble and disassemble
4	Sucker		display panel and air duct cover disassemble
5	Allen wrench (2.8~4mm)		handle assemble and disassemble
6	Vise grip pliers		sealing process tube

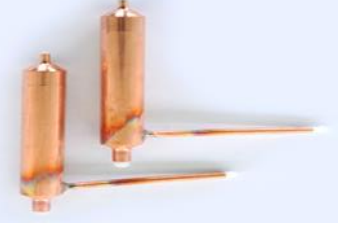
7	Pipe cutter		pipe cutting
8	Knife		assistive tool
9	Nipper pliers		assistive tool
10	Capillary tube scissors		Shear capillary

Equipment

No.	Name	Photo	Main Usage
1	Vacuum pump		vacuum pumping
2	Electronic scale		weighing refrigerant/gas

3	High pressure nitrogen with piezometer		pipe and cooling system(condenser, evaporator, etc) impurities clean
4	Soldering gun		heating and welding
5	Quick coupling		connection process pipeline, vacuum or charge refrigerant will be used.
6	hand leak detector		welding point leakage detect, if no, use soap-suds

Material

No.	Name	Photo	Main Usage
1	Process pipeline		Charge therefrigerant
2	Dry filter		Involving a system failure to be replaced

3	Copper welding rod		tube welding
4	Refrigerant/gas		Add refrigerant to the system
5	Sealing tape		door fixing for reversible door option

13. Product exploded view and spare parts list

Please log in to I-Service system to view and download these contents.

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