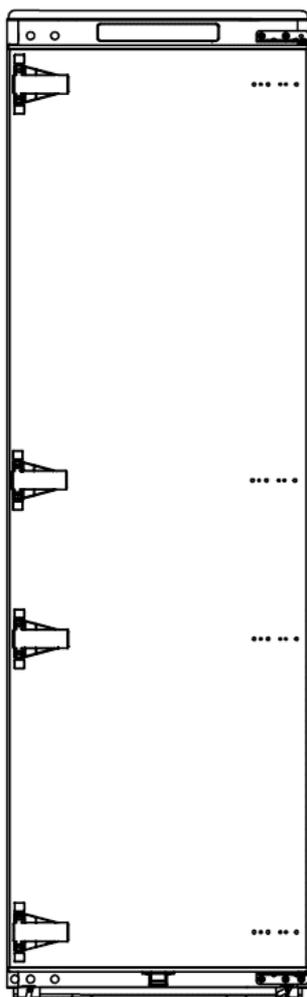


Service Manual

BMF No Frost Series

Applicable Models	Model Code	Applicable Models
HS-402LWENBI	CE-BC309WE-JQ	22031010004822



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.

Midea Refrigerators

Technical Maintenance Manual

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Contents

1. SIGNIFICANT UPDATE NOTES (NONE)	5
2. SAFETY WARNING CODE	6
2.1 WARNING FOR OPERATION SAFETY	6
2.2 SAFETY INSTRUCTION FOR REFRIGERANT	8
3. INSTALLATION AND COMMISSIONING	9
3.1 HANDLING.....	9
3.2 DOOR DISASSEMBLY AND ASSEMBLY	9
3.3 INSTALLATION LOCATION	9
3.4 LEVELING OF THE REFRIGERATOR (NONE)	12
3.5 LEFT OR RIGHT OPEN DOOR REVERSAL (OPTION).....	12
4. MAIN PARTS AND EXTERNAL DIMENSION	15
4.1 MAIN PARTS.....	15
4.2 EXTERNAL DIMENSION.....	16
4.3 MIDEA PRODUCT SERIAL NUMBER AND LOCATION	16
5. ELECTRIC CONTROL SYSTEM	18
5.1 ELECTRICAL PARAMETERS	18
5.2 CIRCUIT DIAGRAM	19
5.3 MAIN CONTROL BOARD STRUCTURE DIAGRAM	20
6. REFRIGERATION SYSTEM	21
6.1 REFRIGERATING PIPING SYSTEM.....	21
6.2 COOLING PIPELINE AND DRAIN PIPE INSIDE THE CABINET.....	21
6.3 CIRCULATING ROUTE OF COOLING AIR	22
6.4 WELDING POINTS IN CHAMBERS OR FOAM LAYER.....	22
6.5 WELDING POINT IN THE COMPRESSOR CASE	23
7. DISMANTLING OF PARTS	24
7.1 PARTS ON THE DOOR	24
7.2 PARTS INSIDE THE REFRIGERATOR	24
7.3 LIGHT SYSTEM.....	25
7.4 AIR DUCT COMPONENTS REFRIGERATING CHAMBER AND FAN MOTOR.....	26
7.5 AIR DUCT COMPONENTS IN FREEZING CHAMBER AND FAN MOTOR (NONE)	27
7.6 EVAPORATOR AND DEFROST SYSTEM.....	27
7.7 COMPRESSOR CASE.....	28
7.8 DISPLAY CONTROL BOARD	32
7.9 MAIN CONTROL BOARD	33
8. TEMPERATURE SENSING SYSTEM	34
8.1 POSITION OF SENSORS	34

8.2 REPLACEMENT OF SENSORS	34
8.3 SENSOR WITHOUT TERMINAL REPLACEMENT.....	35
8.4 SENSOR RESISTANCE (R/T).....	36
9. FUNCTION AND OPERATION	37
9.1 DISPLAY OPERATION PANEL	37
9.2 DISPLAY	37
9.3 SETTING OF THE GEAR.....	37
9.4 LOCK AND UNLOCK SETTINGS	37
9.5 BACKUP DATA FOR POWER FAIL	37
9.6 STANDBY FUNCTION	38
9.7 OPEN DOOR ALARM.....	38
9.8 FAULT CODE AND SOLUTIONS.....	38
9.9 DEFROSTING FUNCTION.....	38
9.10 TEST MODE	38
10. COMPRESSOR	40
10.1 COMPRESSOR ON AND OFF CONTROL SPECIFICATIONS.....	40
11. TROUBLESHOOTING METHOD	41
11.1 NO COOLING (AIR COOLING-ELECTRONIC).....	41
11.2 NO WORKING OF COMPRESSOR.....	42
11.3 INSIDE FROSTING, NO DEFROSTING	42
11.4 INSIDE FROSTING, NO DEFROSTING-MAINTENANCE GUIDELINES	43
11.5 LIGHT IS NOT ON.....	44
11.6 FAN FAILURE.....	44
11.7 DEFECTIVE DEFROST CIRCUIT	45
11.8 NOISE	45
11.9 AIR DUCT NOT OPERATED (ELECTRONICALLY) (NONE).....	46
12. FIGURES AND DETAILS OF REPAIR PARTS	47

1. Significant update notes (None)

2. Safety Warning Code

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.

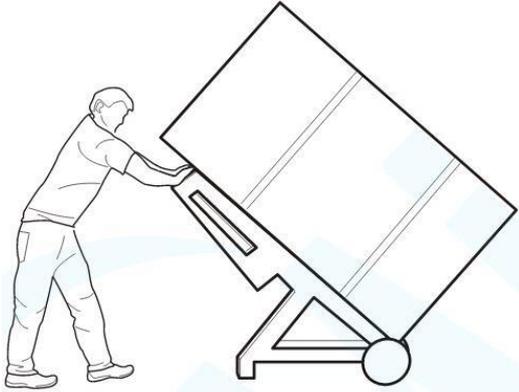


Safety instruction for refrigerant

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

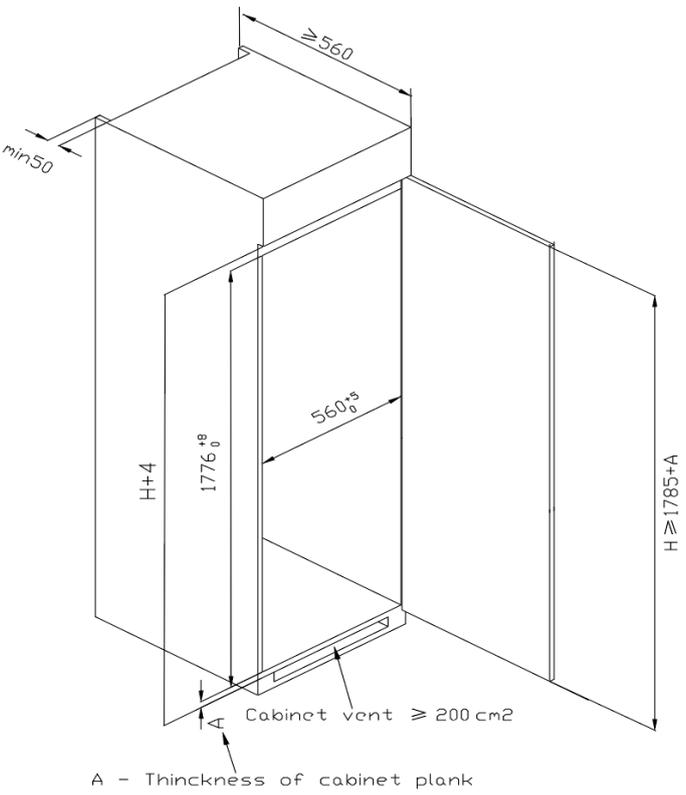
3.1 Handling

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

3.2 Door Disassembly and Assembly

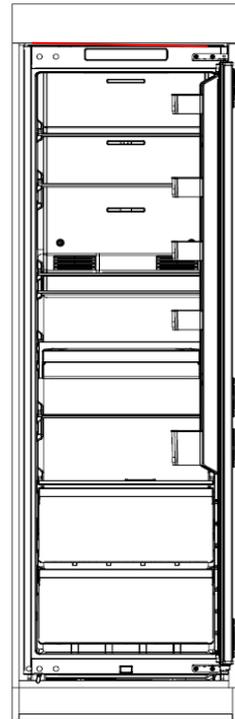
The refrigerator door needs to be dismantled if it cannot enter the room in the whole.

3.3 Installation location

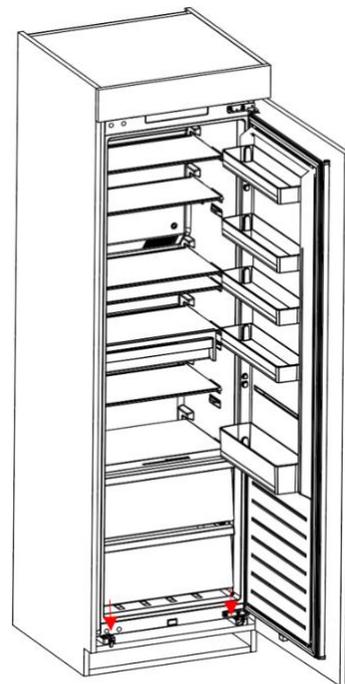
Installation location	
<p>Refrigerator installed in the cabinet and the size requirements such as the right figure.</p>	 <p>min50</p> <p>≥ 560</p> <p>$H+4$</p> <p>1776_{+8}^0</p> <p>560_{+5}^0</p> <p>$H \geq 1785+A$</p> <p>Cabinet vent $\geq 200\text{cm}^2$</p> <p>A - Thickness of cabinet plank</p>

Installation Steps

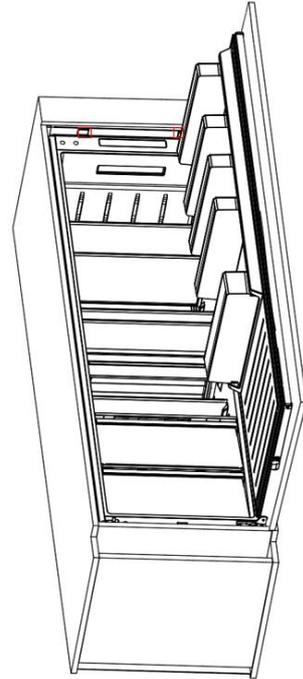
- 1) Push the refrigerator into the cabinet and adjusted it to make the baffle flange touch the edge of the cabinet, and the supporting limit is hooked to the bottom edge of the cabinet.



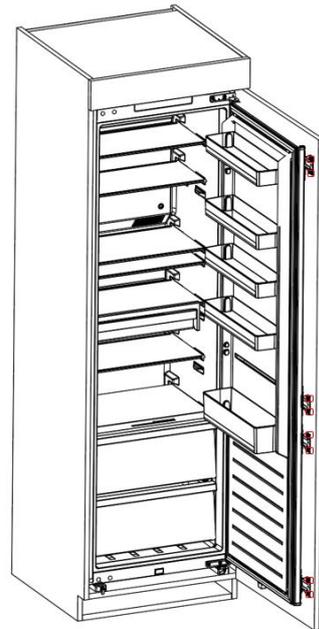
- 2) Fix the lower support with screws, and cover the screw cap.



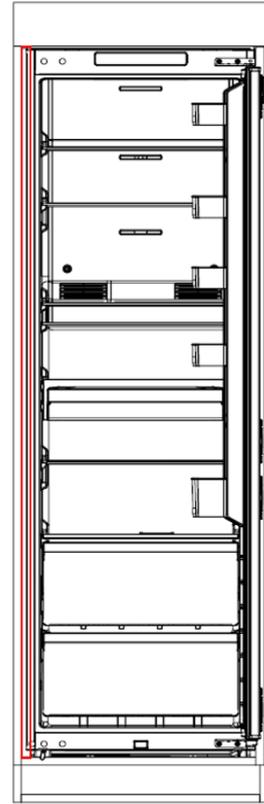
- 3) Fix the top baffle to the top of the cabinet with screws, and cover the screw cap.



- 4) The door of the cabinet is opened to the maximum angle, and the door of the refrigerator is opened to the corresponding position. Sliding the block to make inner edge align with the door edge, then fix the block to the door with screw and flip the edge of the slider to cover the screw cap.



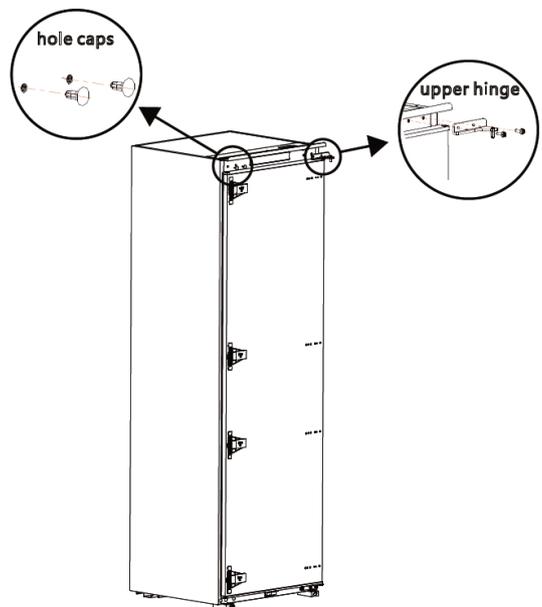
- 5) The sealing strip in the accessory is sealed in the gap between the cabinet and the refrigerator. Installation is complete.



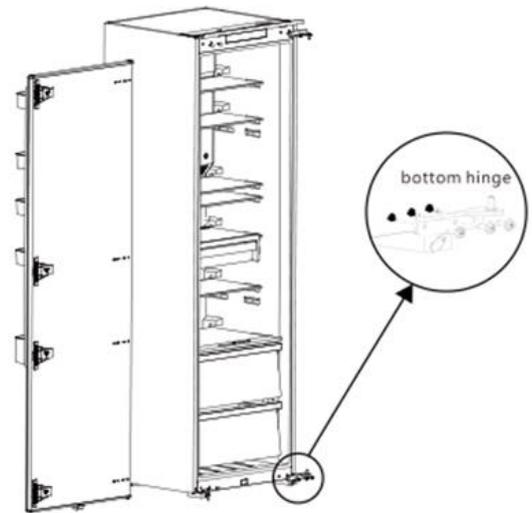
3.4 Leveling of the refrigerator (None)

3.5 Left or right open door reversal (Option)

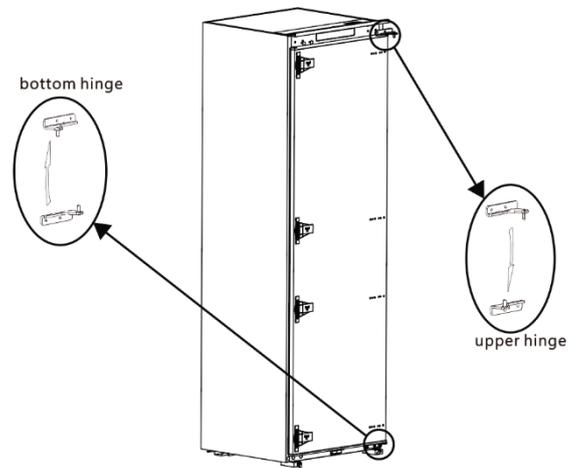
1. Power off the refrigerator, and remove all objects from the door trays.
2. Remove the upper hinge and hole caps of the refrigerator door.



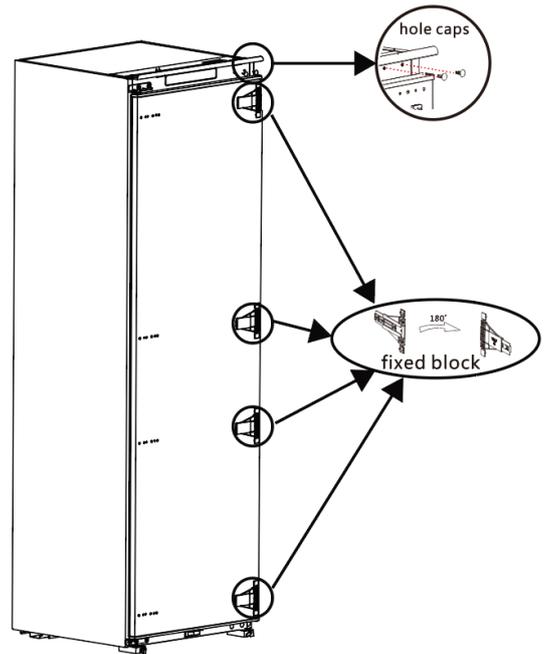
3. Remove the refrigerator door, the bottom hinge and the hole cover.



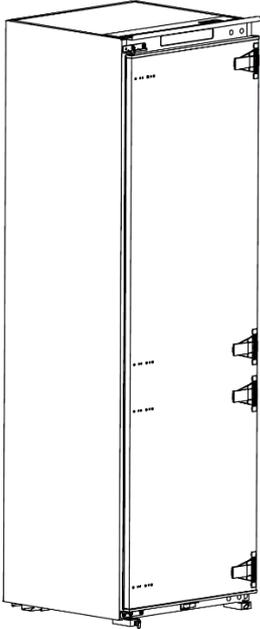
4. Exchange the upper hinge and bottom hinge, then assemble them.



5. Assemble the hole caps, remove the fixed block of fridge door and rotate it for 180°, assemble it on the other side of the refrigerator door.

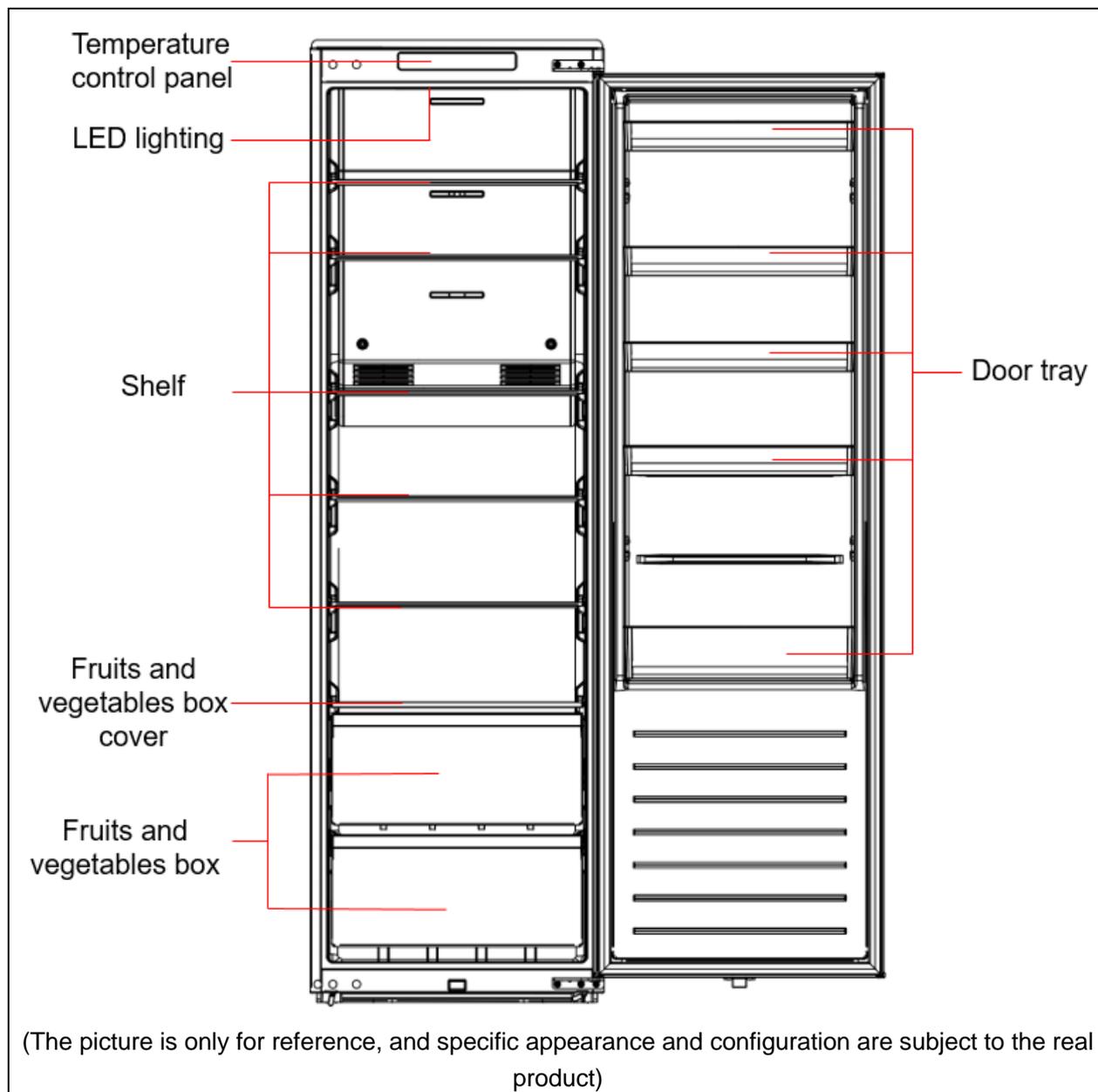


6.Finished



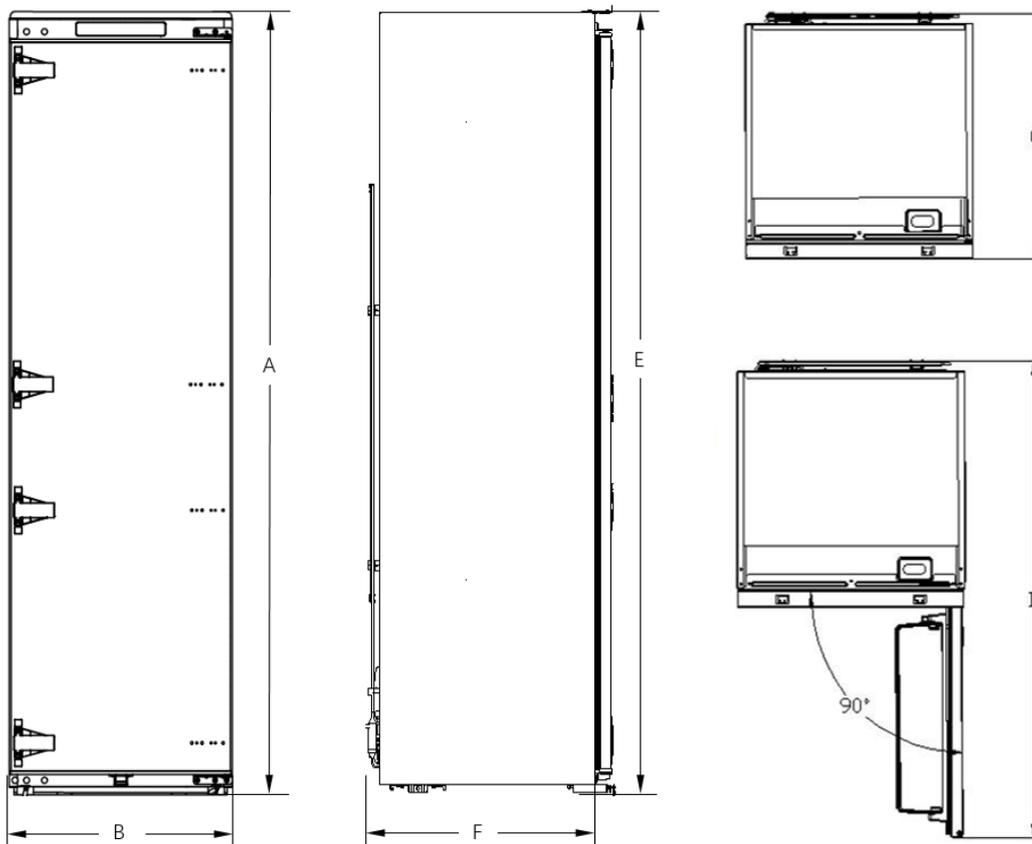
4. Main parts and external dimension

4.1 Main parts



4.2 External dimension

Description	Code	Size (mm)
Height to Top of Case	A	1785
Width	B	540
Depth w/o Handles	C	545
Depth (90 deg. with Door Open)	D	1060
Height to match the cabinet	E	1773
Depth to match the cabinet	F	545



(The picture is only for reference)

4.3 Midea product serial number and location

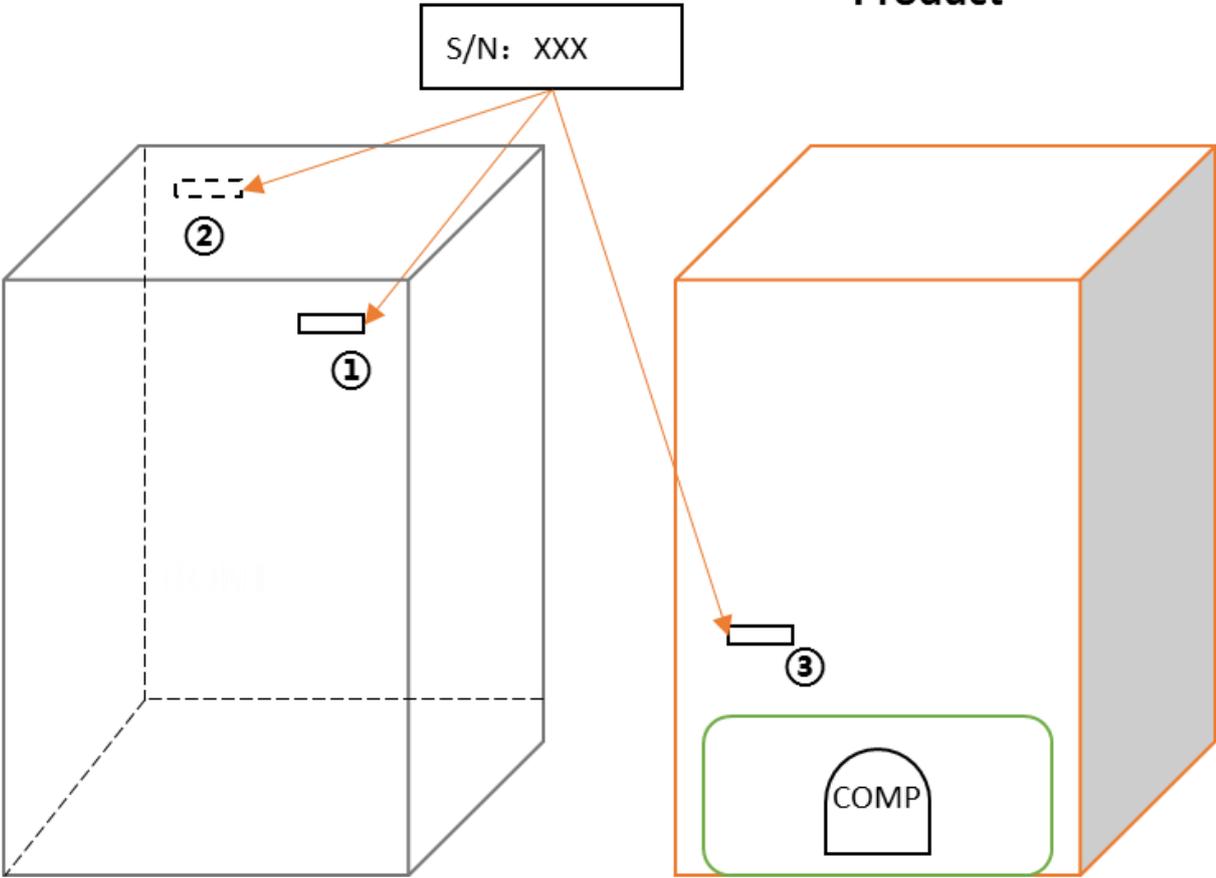
1) **Product Serial Number** — Including order number, production date and other information. When the product occur problem, it needs to be recorded or photographed and provided to us.



2) Paste location

Carton Box

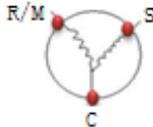
Product



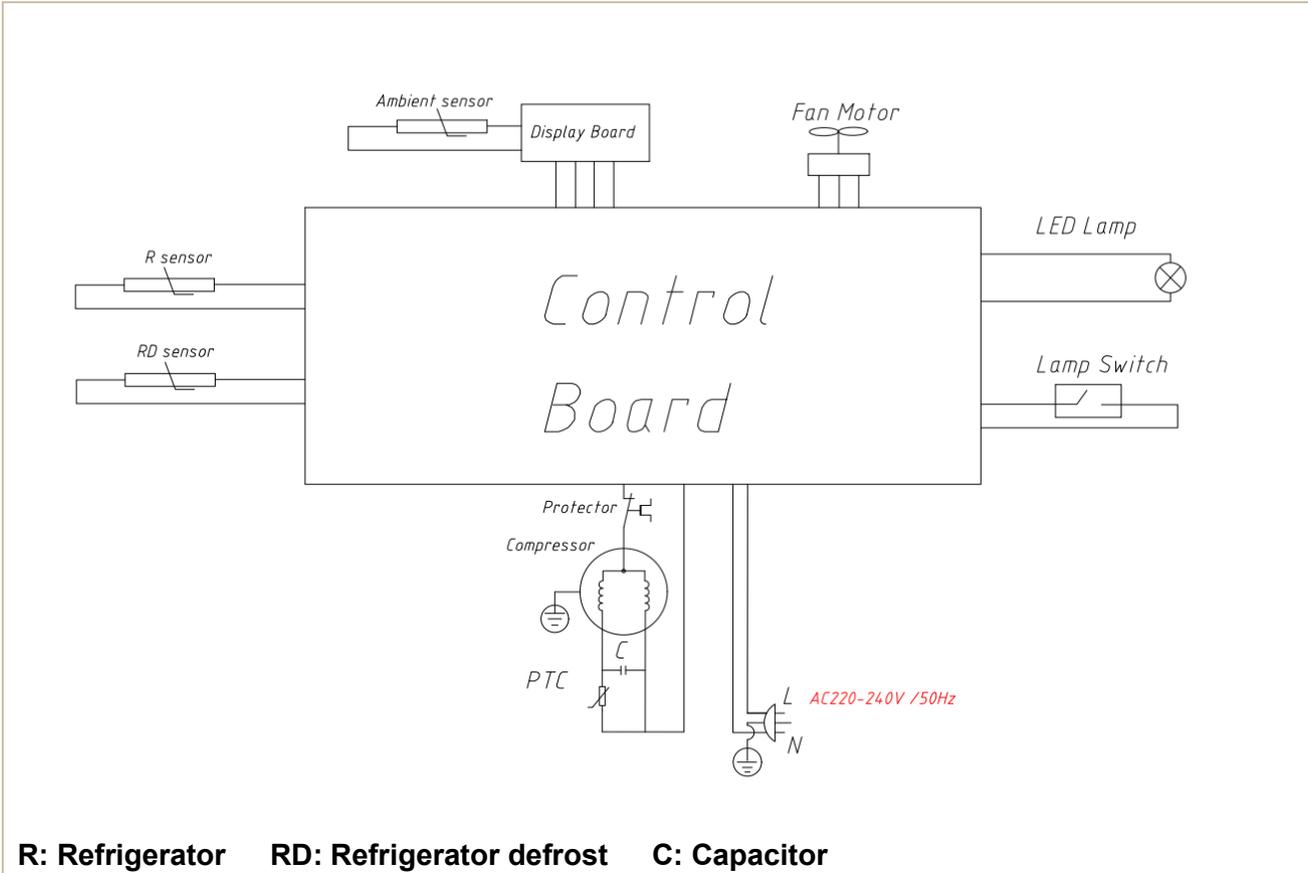
Some products also have S/N on the lower part of the right side of the Cabinet.

5. Electric control system

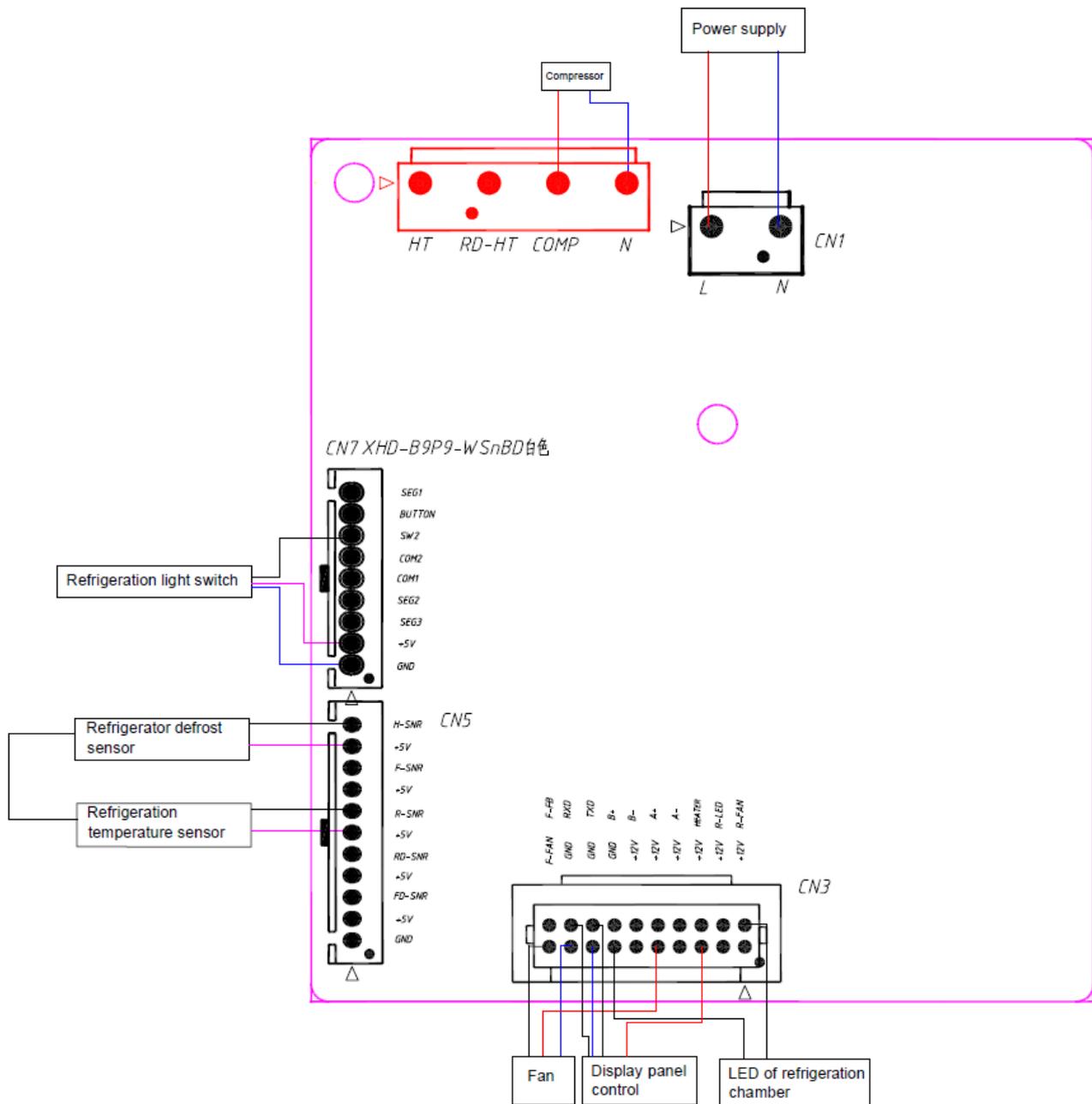
5.1 Electrical parameters

Applicable Model	HS-402LWENBI	
Product Model	CE-BC309WE-JQ	
Rated Voltage	200-240V、50Hz	
Item	Specification	
Refrigerant	R600a	
Compressor	MH1050Y (Part code : 11101010015717)	
Starting device type	Fixed Speed	
The COP of compressor	1.65(W/W)	
The max cooling capacity of compressor	50W	
Winding resistance of compressor wiring terminal (20°C)	Rmc: 78.5Ω±7% Rsc: 43.4Ω±7% Rms = Rmc + Rsc	
Winding resistance picture		
Starter(PTC)	QPE2-B15MD3	
Overload protector(OLP)	DRB100L61A2	
Integrate PTC+OLP	None	
Variable frequency driver board	None	
Capacitor	2.0μF	
Power filter (EMI)	None	
Power reactor (EU EMC)	None	
Motor		
Fan motor of the freezing chamber	None	
Fan motor of the refrigerating chamber	DC12V、1.8W、2700r/min	
Electric damper	None	
Lights		
Lights inside the refrigerating chamber	12V/2W	
Lights inside the freezing chamber	None	
Others Lights	None	
Switch of the light	<input type="checkbox"/> Mechanical switch <input checked="" type="checkbox"/> Magnetism control switch	
Defrosting parts		
Defrosting sensor	NTC B3839 (B5/25=3839K±2%)	
Fuse in freezing chamber	None	
Defrost heater in freezing chamber	None	

5.2 Circuit diagram



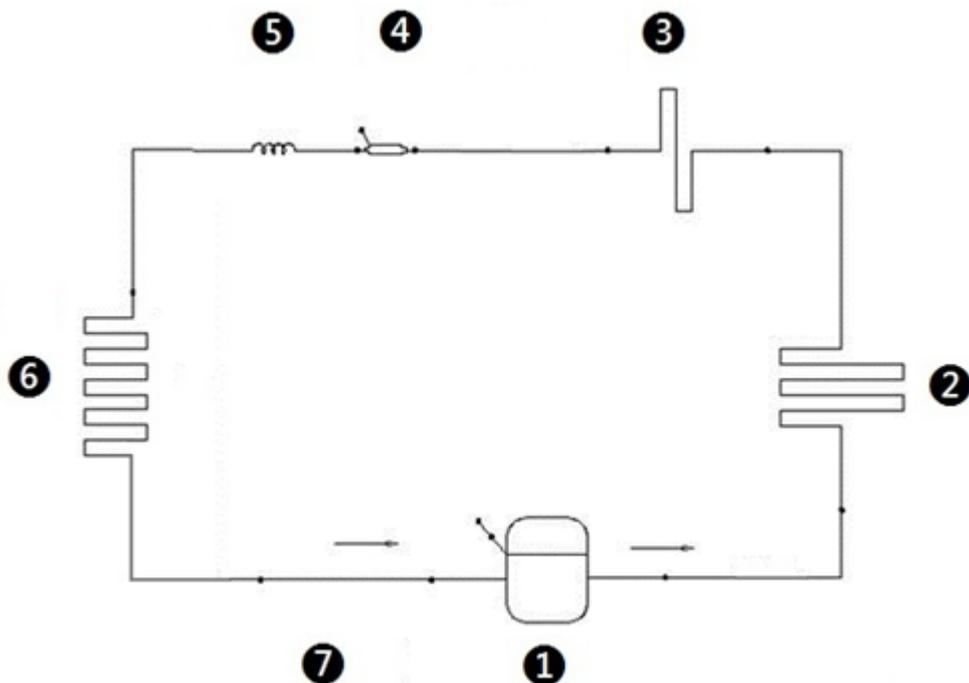
5.3 Main control board structure diagram



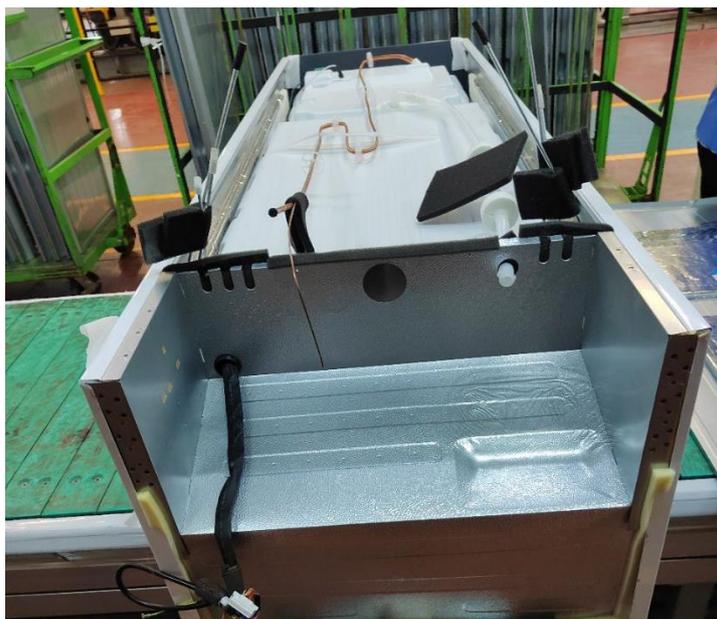
6. Refrigeration system

6.1 Refrigerating piping system

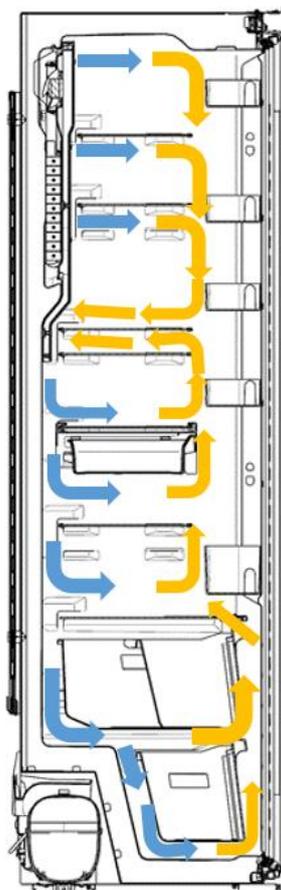
① Compressor → ② condenser → ③ Anti-condensation tube → ④ Dry filter → ⑤ Capillary tube → ⑥ Evaporator → ⑦ Suction tube → ① Compressor



6.2 Cooling pipeline and drain pipe inside the cabinet

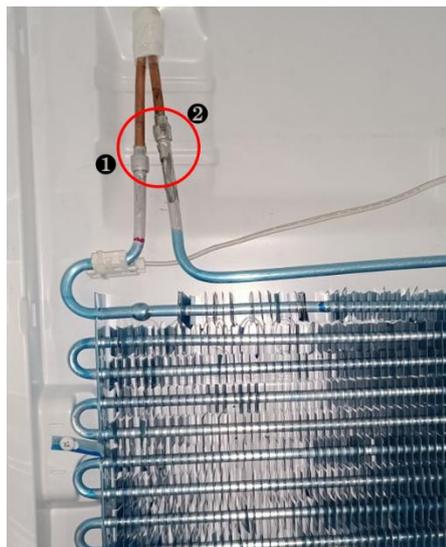


6.3 Circulating route of cooling air



6.4 Welding points in chambers or foam layer

1) Welding points on refrigerator evaporator



Welding point

Pipe outer diameter (mm)

1-Freezer capillary and inlet of evaporator

Copper pipe: Φ6

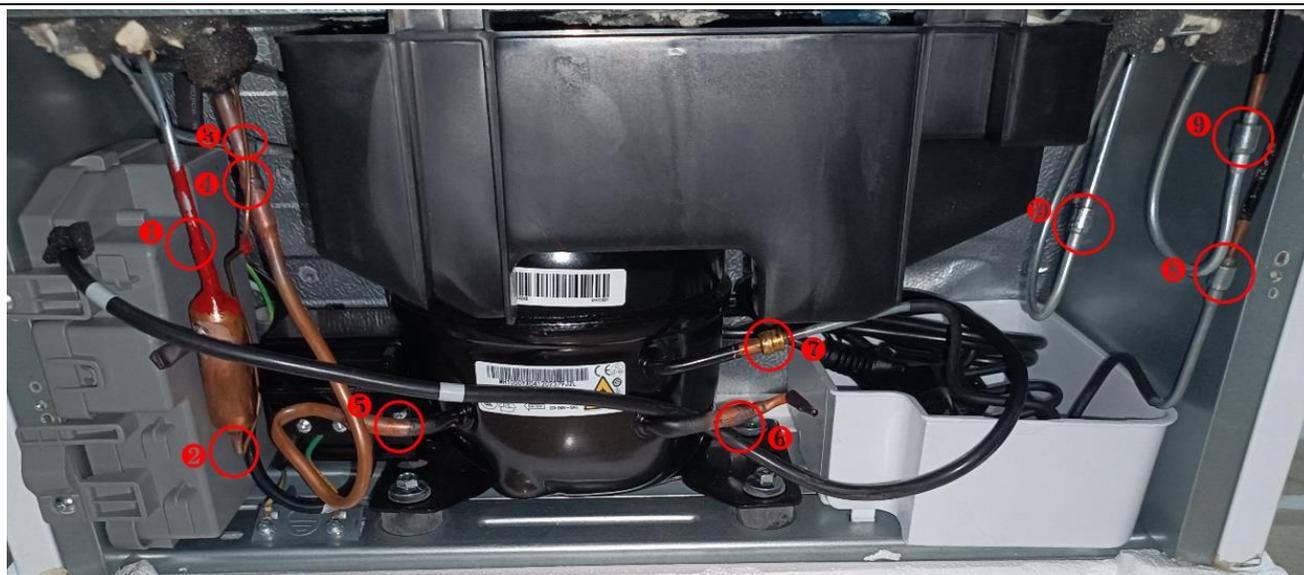
Aluminum pipe: Φ6.35

2-Heat transition tube and outlet of evaporator

Copper pipe: Φ6

Aluminum pipe: Φ6.35

6.5 Welding point in the compressor case



Welding point	Pipe outer diameter (mm)	
	1-Outlet of anti-condensation tube and inlet of dry filter	Steel pipe: $\Phi 4.0$
2-Outlet of dry filter and inlet of freezer capillary	Copper pipe: $\Phi 2.8$	Copper pipe: $\Phi 1.8$
3-Outlet of right condenser and inlet of anti-condensation tube	Copper pipe: $\Phi 4.0$	Copper pipe: pipe: $\Phi 4.0$
4-Out of heat transition tube and inlet of suction connection pipe	Copper pipe: $\Phi 6.0$	Copper pipe: $\Phi 8.17$
5-Outlet of suction connection pipe and compressor intake tube	Copper pipe: $\Phi 6.0$	Copper pipe: $\Phi 8.17$
6-Outlet of suction tube of compressor and inlet of process tube	Copper pipe: $\Phi 8.17$	Copper pipe: $\Phi 6.0$
7-Outlet of venting tube of compressor and inlet of inlet of venting Connection tube	Steel pipe: $\Phi 6.17$	Steel pipe: $\Phi 4.0$
8-Outlet of the venting Connection tube and inlet of back condenser	Steel pipe: $\Phi 4.0$	Steel pipe: $\Phi 4.0$
9-Outlet of back condenser and inlet of left condenser	Steel pipe: $\Phi 4.0$	Steel pipe: $\Phi 4.0$
10-Outlet of left condenser and inlet of right condenser tube	Steel pipe: $\Phi 4.0$	Steel pipe: $\Phi 4.0$

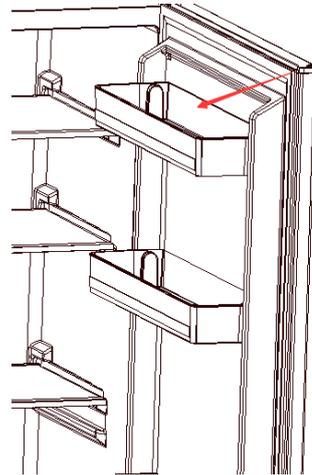
7. Dismantling of parts

7.1 Parts on the door

Door seal

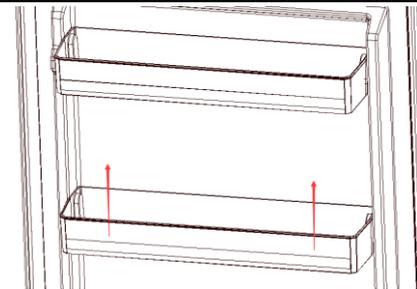
Door seal is installed into door liner groove.

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



Door tray

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

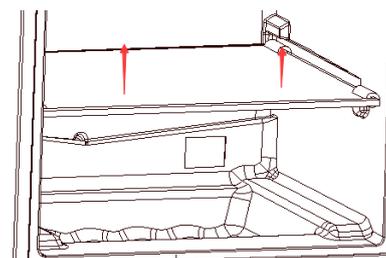
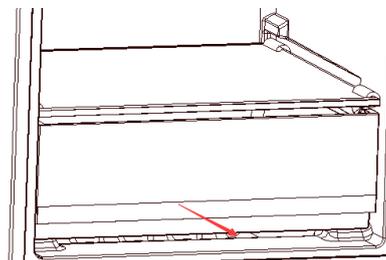


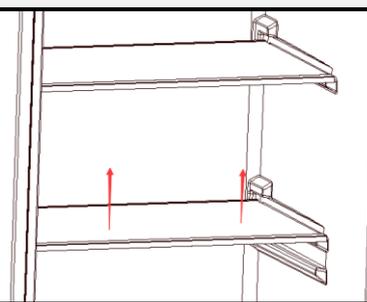
7.2 Parts inside the refrigerator

Refrigerator Fruit box cover

Remove the crisper cover of ref. compartement according to below steps:

- 1) Take out the crisper firstly.
- 2) Pull out the crisper cover completely.



Shelves	
1) Lift up the division plate with a proper force and pull it out towards yourself.	
Drawer	
	None

7.3 Light system

Light	
<p>Light of the refrigerating chamber is located upper chamber</p> <ol style="list-style-type: none"> 1) Remove the lamp cover 2) Remove the LED lamp 3) Remove the LED lamp terminal 4) The reverse process can complete installation. 	
Light switch	
<p>There is a light switch on the Lower beam assembly.</p> <ol style="list-style-type: none"> 1) Loosen the hook with small normal screwdriver and pull out the switch until the wire connector reveals. Remove the terminal. 2) The reverse process can complete installation. 	



7.4 Air duct components refrigerating chamber and fan motor

Air duct components in freezing chamber

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

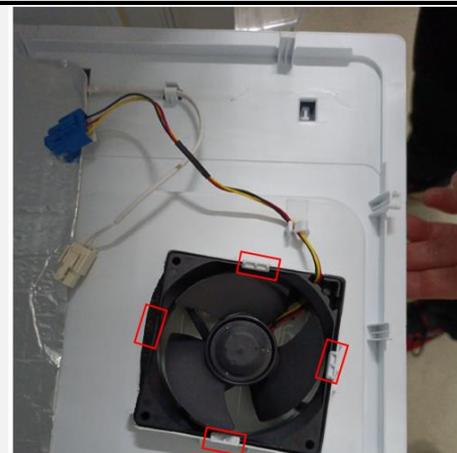
- 1) Remove 2 screws on the cover plate of the refrigerating air duct using a cross screwdriver.
- 2) Pull out the connector terminal of the fan motor.





Fan motor of air duct

- 1) The fan is fastened with clasps and can be removed directly;
- 2) Change the fan, the reverse operation for assembly



7.5 Air duct components in freezing chamber and fan motor (None)

7.6 Evaporator and Defrost system

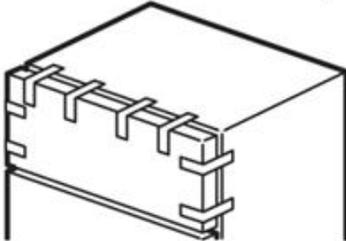
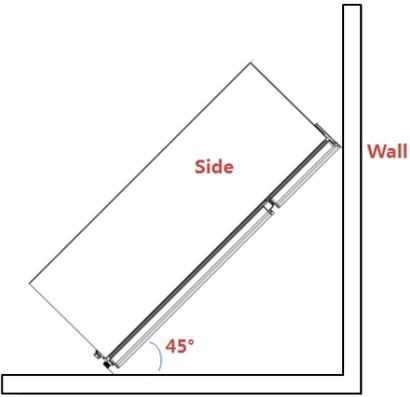
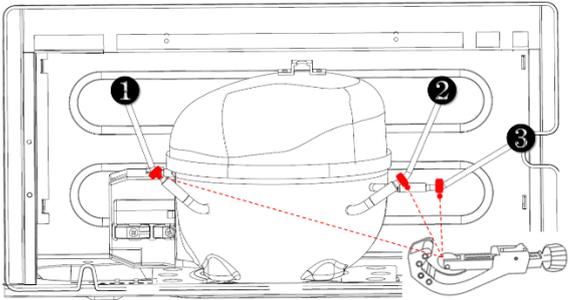
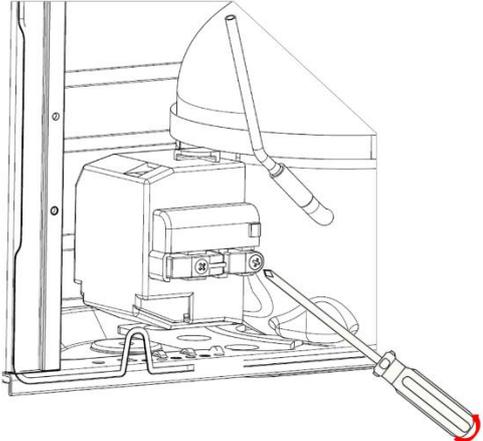
Evaporator in refrigerating chamber

Evaporator in refrigerating chamber

- 1) Remove the air duct components in refrigerating chamber.
- 2) Disconnect all connectors.
- 3) Remove the welding on inlet and outlet tubes.
- 4) Remove two screws which are used to fix the evaporator and remove the evaporator.

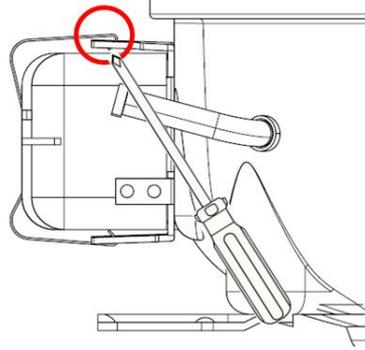


7.7 Compressor case

Rear cover and compressor case	
	None
Compressor and the cooling system pipe	
<p>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.</p>	
<p>2) Slowly tilt the refrigerator forward, relying on the wall or a solid enough object, leaving space to facilitate the operation. For safety, it should be carried by someone to prevent its falling.</p>	
<p>3) Cut off the compressor pipeline.- ①Cut off the low-pressure muffler. - ②Cut off the process pipeline.- ③Cut off the high-pressure exhaust pipe.</p>	
<p>4-1) Remove the screws(for some models) -Two screws outside -One screw inside</p>	

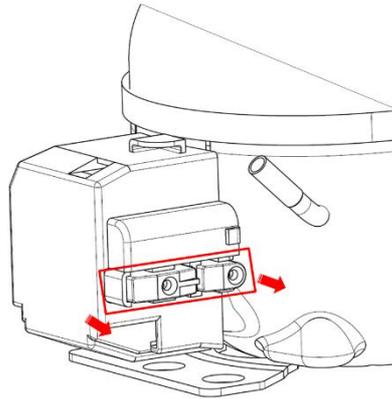
4-2) **Remove the metal clamp(for some models)**

-Disassembly the metal clamp that is fix the electric appliance shield



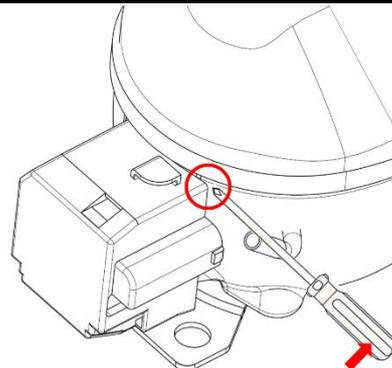
5) **Remove the clipping strip**

Slowly pull it out



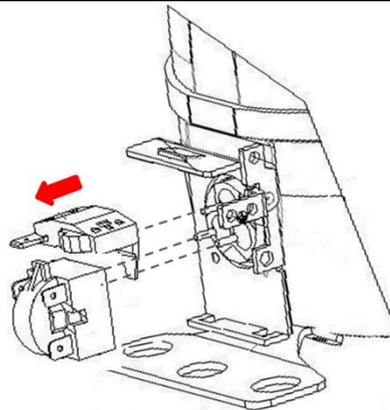
6) **Remove the protective cover**

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

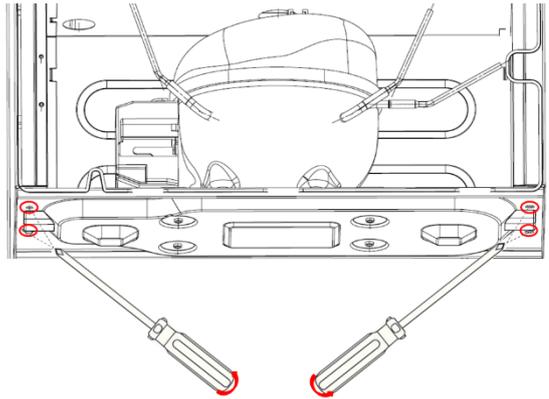


7) **Remove the starter and protector**

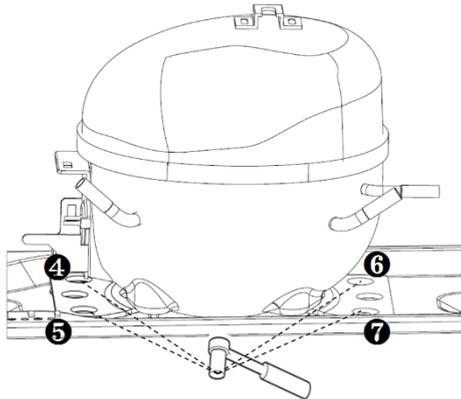
Unplug the starter and protector (you can use a screwdriver to pry it slowly)



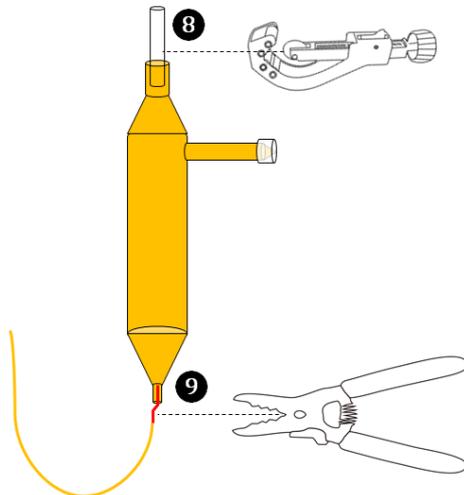
8) Loosen the screw of the compressor bottom plate, remove the floor together with the compressor from the box.



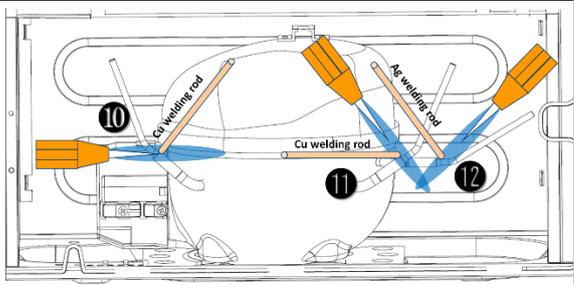
9) Use the wrench to remove the bolts by steps 4 5 6 7, replace the compressor and reverse process can complete installation.



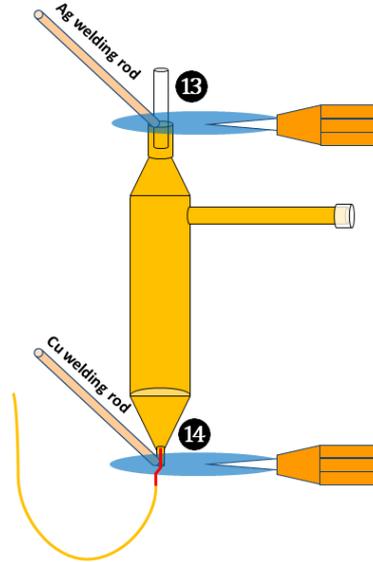
10) Use Pipe cutter cut off the condenser tube 8, then Shear off capillary 9 by the capillary tube scissors.



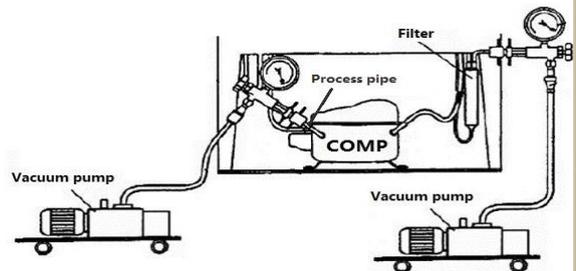
11) Replace the compressor and welding the compressor pipeline.-10Welding the low-pressure muffler.-11Welding the process pipeline.-12Welding the high-pressure exhaust pipe.



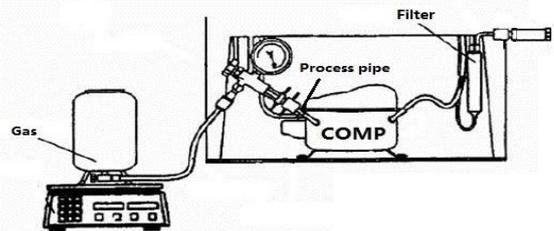
12) Replace the filter, Cu-Fe tubes welding ⑬ used Ag welding rod, Cu-Cu tubes welding ⑭ used Cu welding rod.



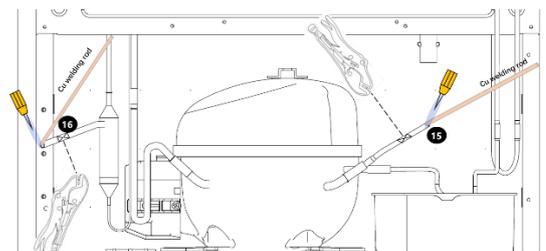
13) Vacuum system, The degree of vacuum below 6Pa.



14) Perfusion refrigerant.



15) Use the vise grip pliers clamp the middle of the process pipe, then seal welding process tube ⑮ ⑯.



Piping system in the compressor case

- | | |
|----------------------------------|------------------------------------|
| ① .drain tray | ⑥ .main control board box assembly |
| ② . back condenser(enter) | ⑦ .compressor |
| ③ .back condenser(exit) | ⑧ .suction transition tube |
| ④ .anti-dew tupe assembly(exit) | ⑨ .Power wire |
| ⑤ .anti-dew tupe assembly(enter) | ⑩ .dry filter |



Drain tray

1) Remove the screws from the back of cabinet assembly



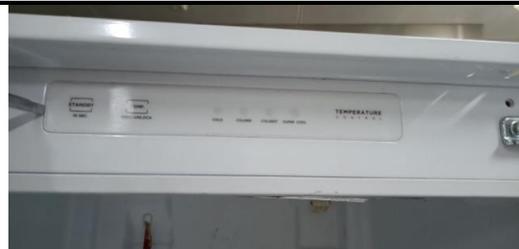
2) Replace the drain tray, the reverse process can complete installation.



7.8 Display control board

Display control board

- 1) Pry open the buckle of the display control board installation box with a straight screwdriver
- 2) Pull all connector terminals out;
- 3) Replace the master control board in reverse steps;

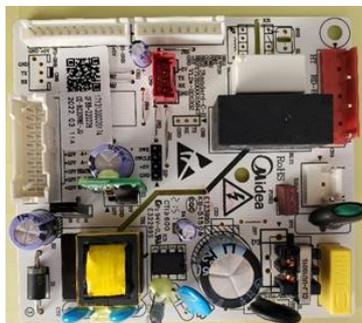
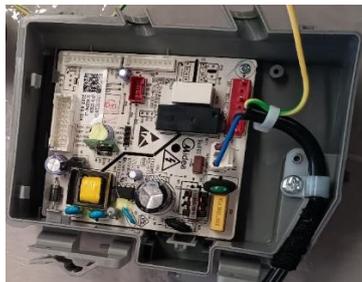




7.9 Main control board

Main control board

- 1) The main control board box is located compressor case.
- 2) Using a cross screwdriver to remove 2 screws which secure the main control board installation box.
- 3) Pry open the buckle of the main control board installation box with a straight screwdriver.
- 4) using a cross screwdriver to remove 1 screw which secure the main control board
- 5) Pull all connector terminals out and then remove the main control board.
- 6) Replace the master control board in reverse steps.



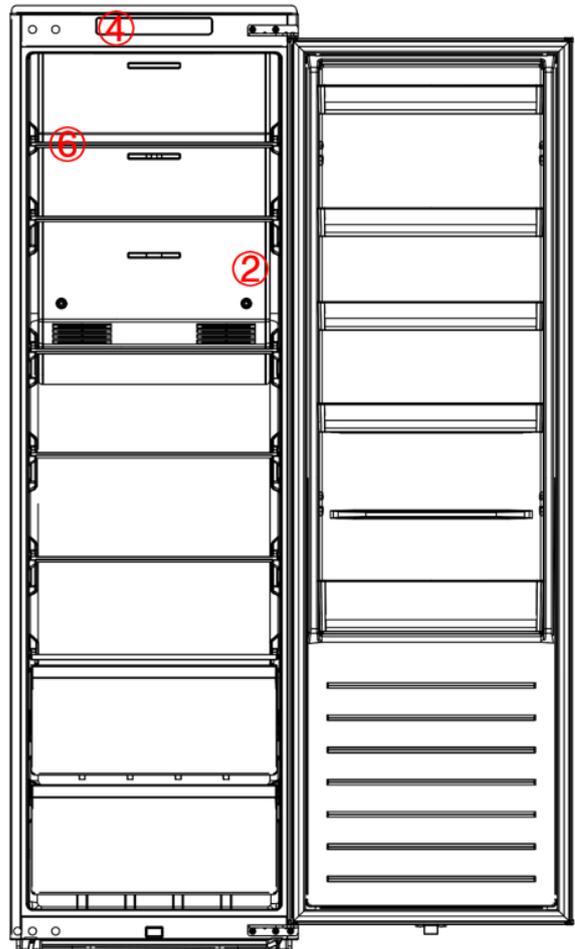
8. Temperature sensing system

8.1 Position of sensors

Position of sensors

Have 3 sensors

- ② Sensor in refrigerating chamber
- ④ Ambient temperature sensor
- ⑥ Defrost sensor in refrigerating chamber



8.2 Replacement of sensors

Sensor

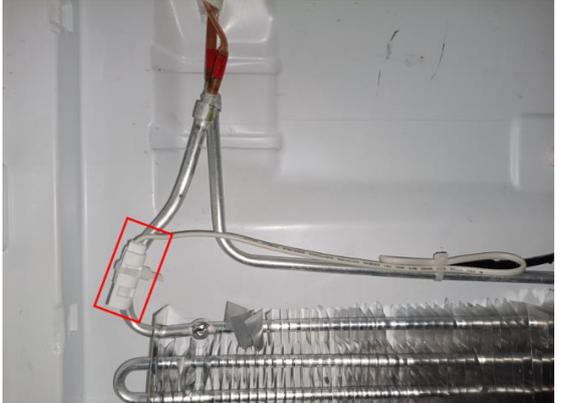
Sensor in refrigerating chamber

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

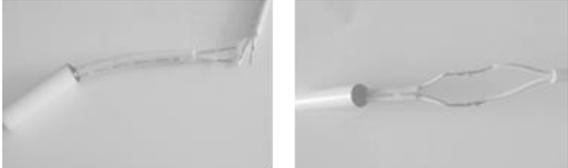


Ambient temperature sensor

<p>The Ambient temperature sensor is located on the display control board.</p>	
--	--

<p>Defrost sensor</p>	
<p>The defrost sensor is located on top of the evaporator.</p> <ol style="list-style-type: none"> 1) Disconnect the connector of defrost sensor 2) Cut off the band which fixes the sensor. 3) Separate the sensor and the evaporator. <p>**Don't break the welding of the evaporator in case that only the sensor needs to be replaced.</p>	

8.3 Sensor without terminal replacement

<p>Sensor replacement guidelines</p>	
<p>Cut off the damaged head of sensor.</p>	
<p>Strip off the sensor wiring.</p>	
<p>Take out a new sensor to cut the head of sensor. (Spare parts code: 11201007000795) Its technical specifications apply to all MIDEA refrigerators.</p>	
<p>Strip off the head of the sensor and connect it.</p>	

<p>Wrap the two wires together with insulation tape.</p>	
<p>Wrap the two wires together.</p>	

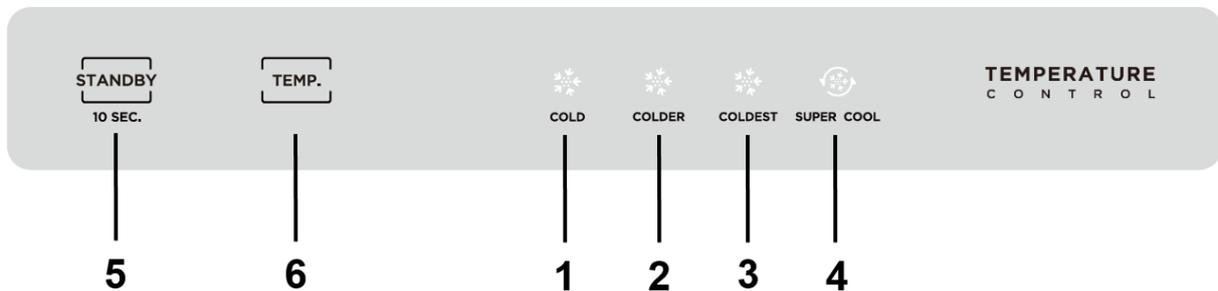
8.4 Sensor resistance (R/T)

Tx(°C)	R (KΩ)								
-30	33.81	-15	14.31	0	6.495	15	3.141	30	1.617
-29	31.85	-14	13.55	1	6.175	16	2.999	31	1.55
-28	30.01	-13	12.83	2	5.873	17	2.865	32	1.486
-27	28.29	-12	12.16	3	5.587	18	2.737	33	1.426
-26	26.68	-11	11.52	4	5.315	19	2.616	34	1.368
-25	25.17	-10	10.92	5	5.06	20	2.501	35	1.312
-24	23.76	-9	10.35	6	4.818	21	2.391	36	1.259
-23	22.43	-8	9.82	7	4.589	22	2.287	37	1.209
-22	21.18	-7	9.316	8	4.372	23	2.188	38	1.161
-21	20.01	-6	8.841	9	4.167	24	2.094	39	1.115
-20	18.9	-5	8.392	10	3.972	25	2.005	40	1.071
-19	17.87	-4	7.968	11	3.788	26	1.919	41	1.029
-18	16.9	-3	7.568	12	3.613	27	1.838	42	0.9885
-17	15.98	-2	7.19	13	3.447	28	1.761	43	0.9506
-16	15.12	-1	6.833	14	3.29	29	1.687	44	0.914

9. Function and operation

9.1 Display operation panel

Icons	Button
LED1: COLD	⑤ STANDBY set
LED2: COLDER	⑥ TEMP set
LED3: COLDEST	
LED 4: SUPER COOL	



9.2 Display

- When powering on for the first time, the display will be complete for 3 seconds, while the startup bell will ring, and then the display will enter normal operation;
(The temperature of the refrigerator is set at 4°C when it is powered on for the first time).
- Display the fault code when there is a fault (cyclic display);
Display the set temperature of the refrigeration room when there is no trouble.
- When the refrigerated door is closed to open, the display board will light up and be extinguished in 30 seconds after the door closed;
Display board off state, press any key, display board light, and then can be adjusted operation.

9.3 Setting of the gear

In refrigerating press the gear setting button 'TEMP, the gear will be changed once.

9.4 lock and unlock Settings

No lock or unlock function. The setting takes effect 15 seconds after no operation.

9.5 Backup data for power fail

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

9.6 Standby function

9.6.1 Enter: Hold down the standby button for 10 seconds to enter the standby mode. All loads are off and the display goes off.

9.6.2 Exit: In standby mode, hold down the standby button for 10 seconds to restore normal control. Standby mode can be remembered (note: commodity inspection process is not remembered)

9.7 Open door alarm

When the refrigerator door open for 120 seconds, the buzzer will alarm until the refrigerator door is closed. Press any key to cancel the buzzer alarm.

9.8 Fault code and solutions

Error code	Fault Type	Troubleshooting and Solutions
LED1 and LED2 together Blink	Refrigerator chamber sensor failure (E1)	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.
LED1 and LED3 together Blink	Refrigerator defrost sensor failure(E4)	Step 2: If the fault still occurs, pull out the corresponding connection terminal on the main PCB, use a multimeter to check the resistance value of the sensor, and confirm whether it is normal.
LED1 and LED4 together Blink	Ambient temperature sensor failure (E7)	Step 3: If the resistance value is wrong, replace the sensor. Step 4: If the fault still occurs, replace the main PCB.

9.9 Defrosting function

- 1) Refrigerate natural defrosting. When the compressor is stopped each time, the fan continues to work for 0~25 minutes, and the compressor accumulates for 6~12 hours, forcing the shutdown defrost once.
- 2) When the system is powered on, if the refrigerated defrosting sensor is lower than 0 hour and the accumulated time is more than 2 hours, the system starts defrosting.

9.10 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	Press the standby button and the temperature control button continuously for 15 seconds to enter	The indicator LED of 1、2、3、4 together lighten
	After entering into test mode, if no button is pressed within 15 seconds	The refrigerator will exit the test mode and return to normal operation mode
Select to enter	Enter into test mode and press	The indicator LED of 1、3、4 together

into forced cooling mode	"TEMP." button for the first time	lighten, other lights are off, then the compressor and the fan start work
	In forced cooling mode, if no button is pressed within 72 hours	The refrigerator will exit the test mode and return to normal operation mode
	Enter into test mode and press "TEMP." button for the second time	The indicator LED of 2、3、4 together lighten, other lights are off, then the compressor and the freezing fan will stop working, the defrost heater starts to work.
Select to enter into forced defrosting mode in all rooms	In forced defrosting mode, when the freezing and flex. defrosting sensor reach a temperature of 5°C and the defrosting heater has been working for at least 2 minutes.	The refrigerator will exit the test mode and return to normal operation mode
	In forced defrosting mode, if the defrosting heater has been working for 60 minutes,	The refrigerator will exit the test mode and return to normal operation mode
Select to exit the test mode	Enter into test mode and press TEMP. button for the three time	All lights are off, then the refrigerator will exit test mode and return to normal operation mode.

10. Compressor

10.1 Compressor on and off Control specifications

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

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

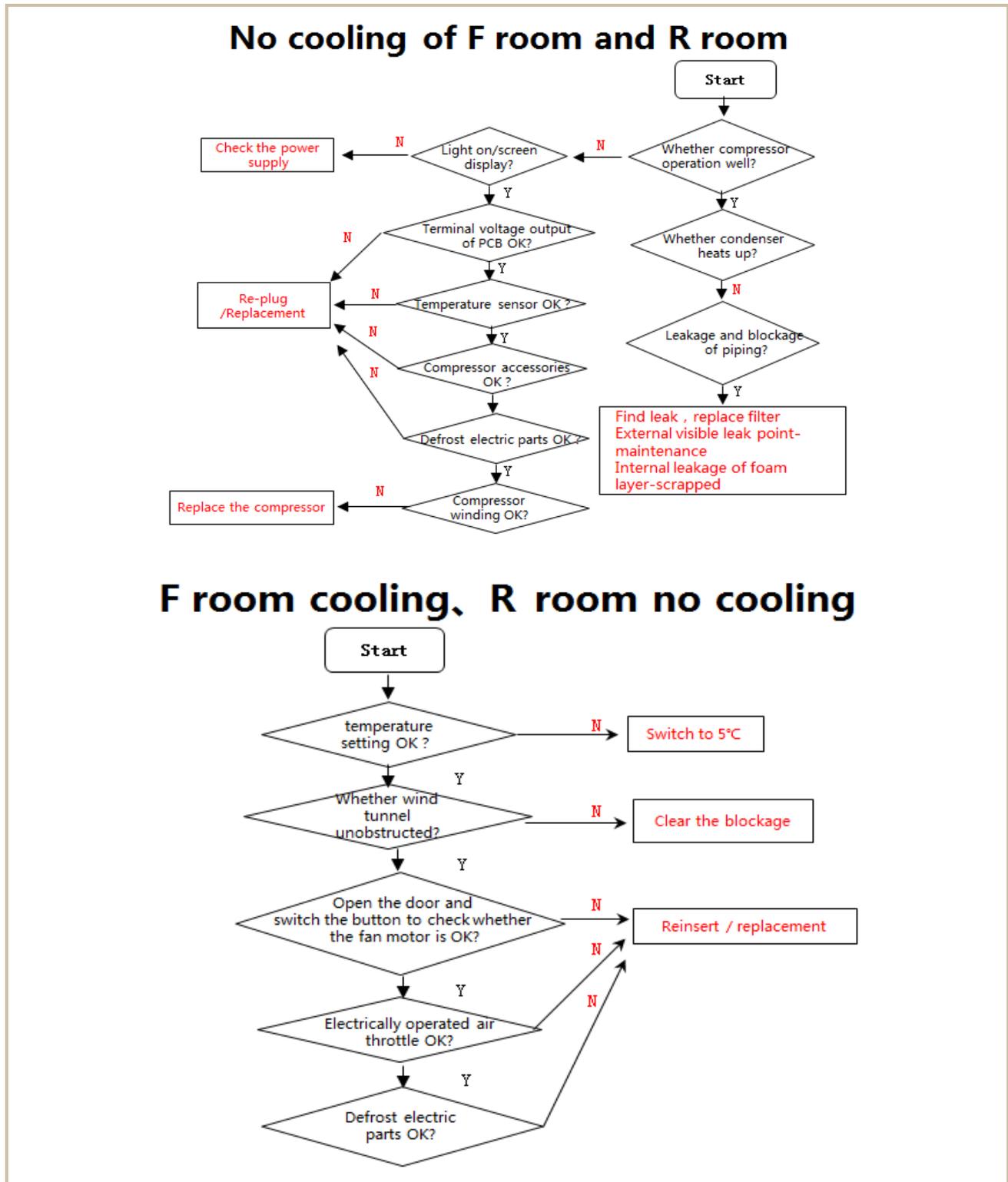
1.2 When all the following conditions are met, the compressor starts up:

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

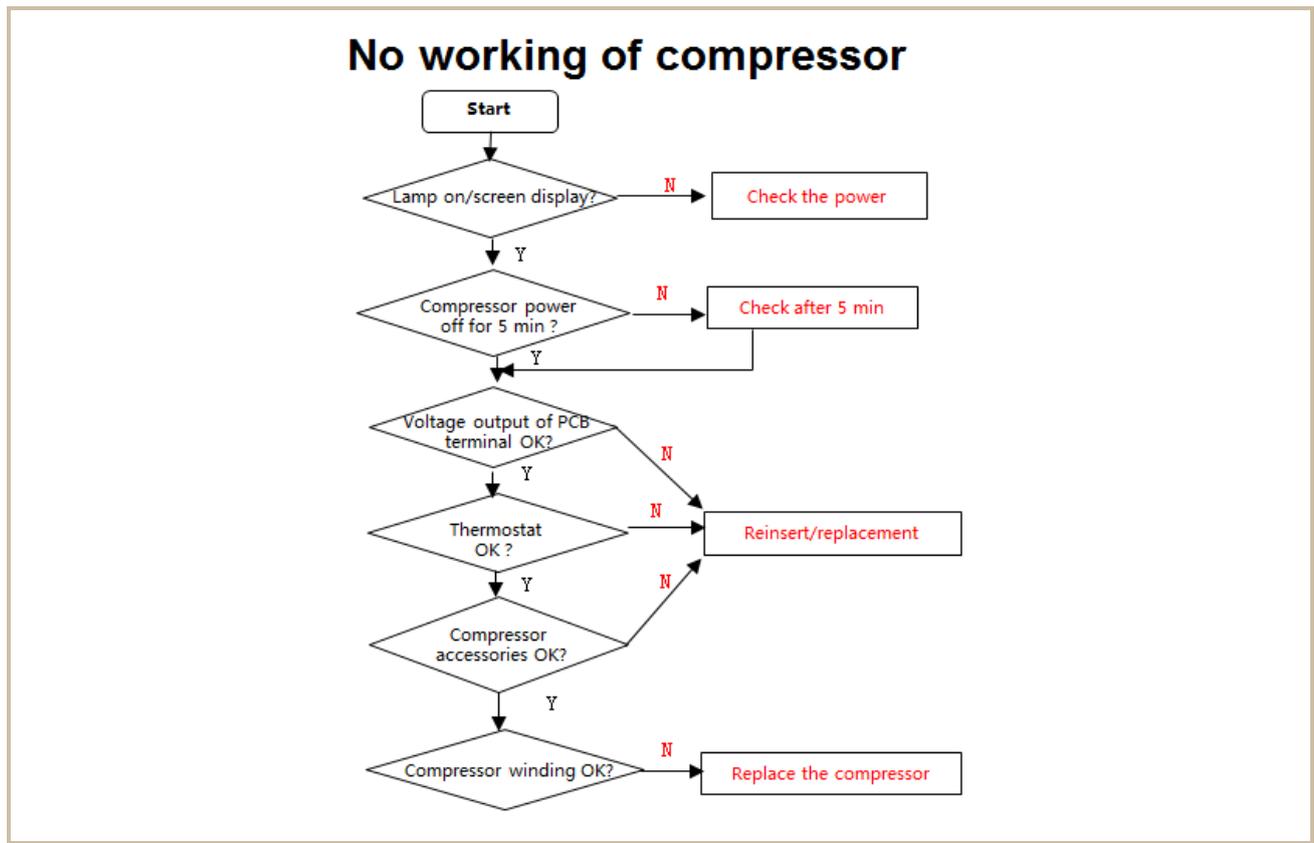
★When 1.1 and 1.2 are not satisfied, the compressor maintains the original state

11. Troubleshooting Method

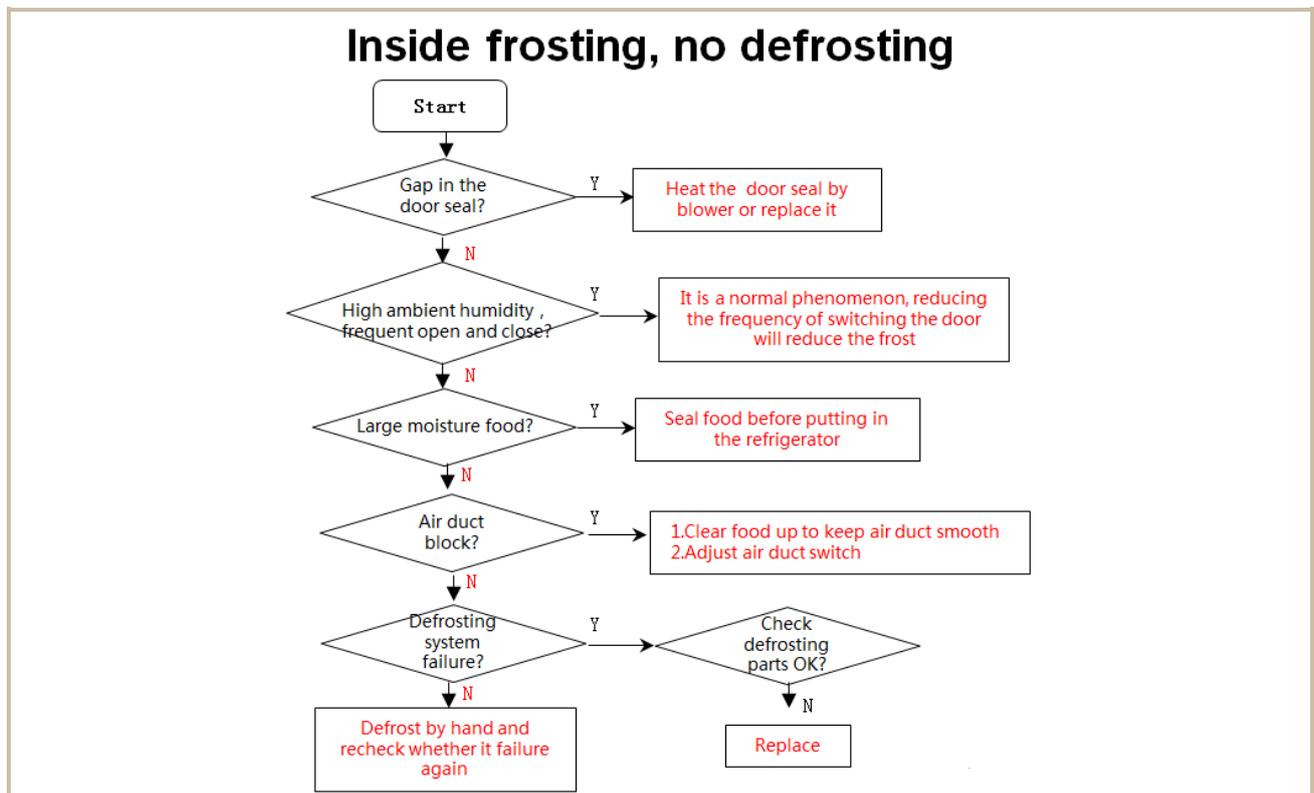
11.1 No cooling (Air cooling-Electronic)



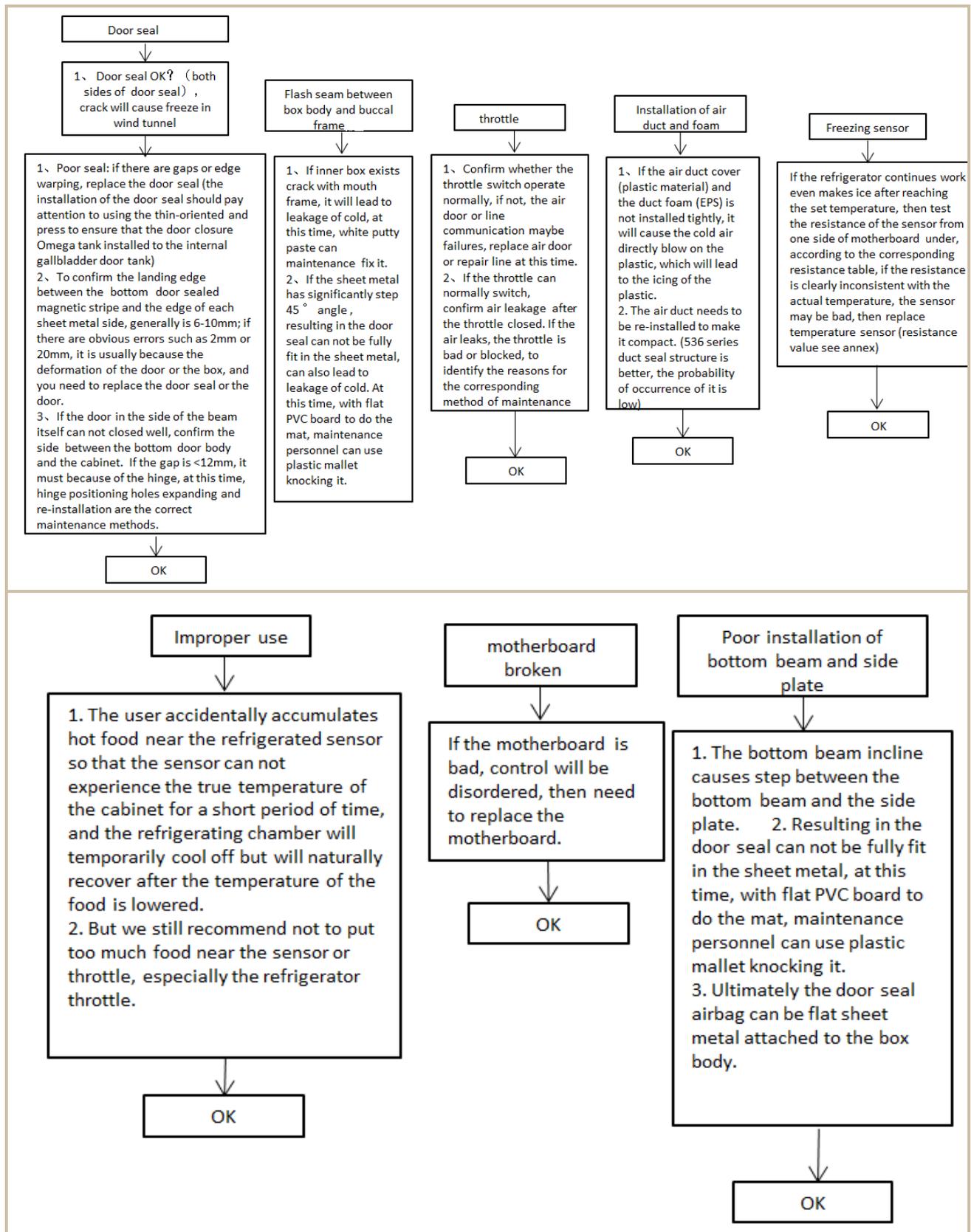
11.2 No working of compressor



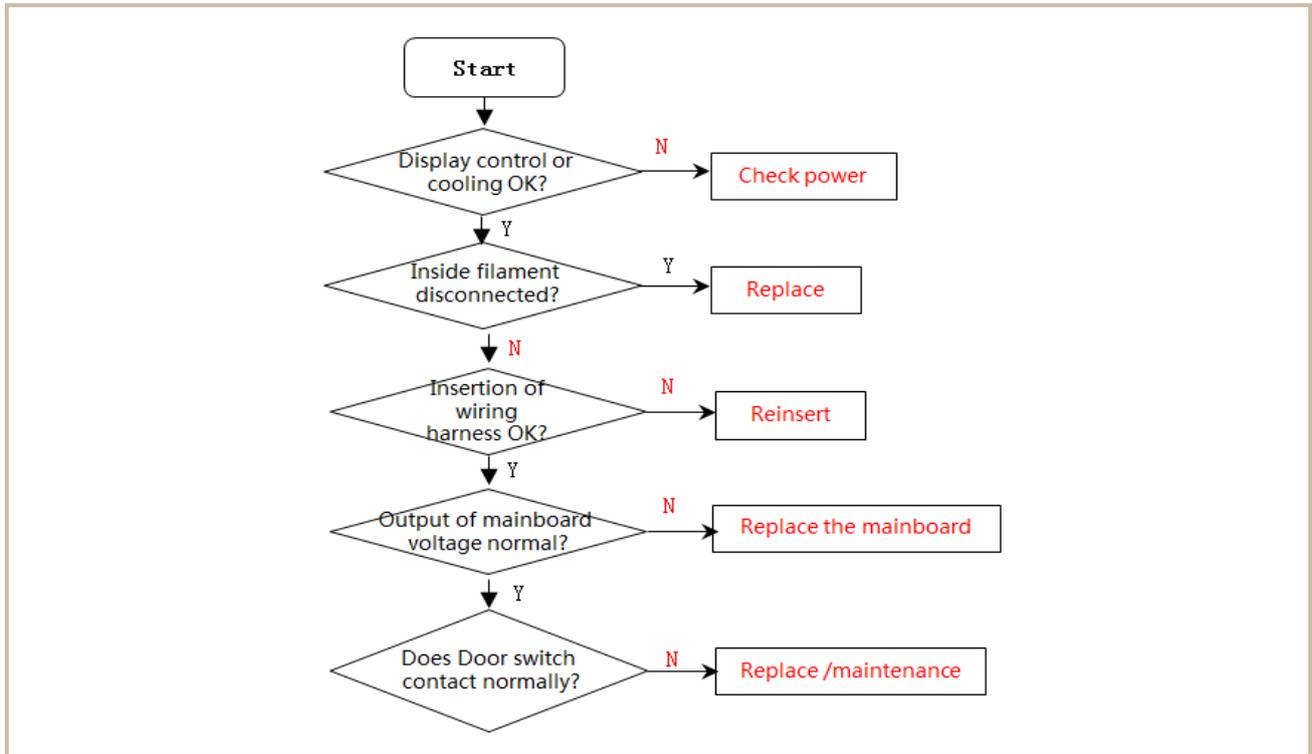
11.3 Inside frosting, no defrosting



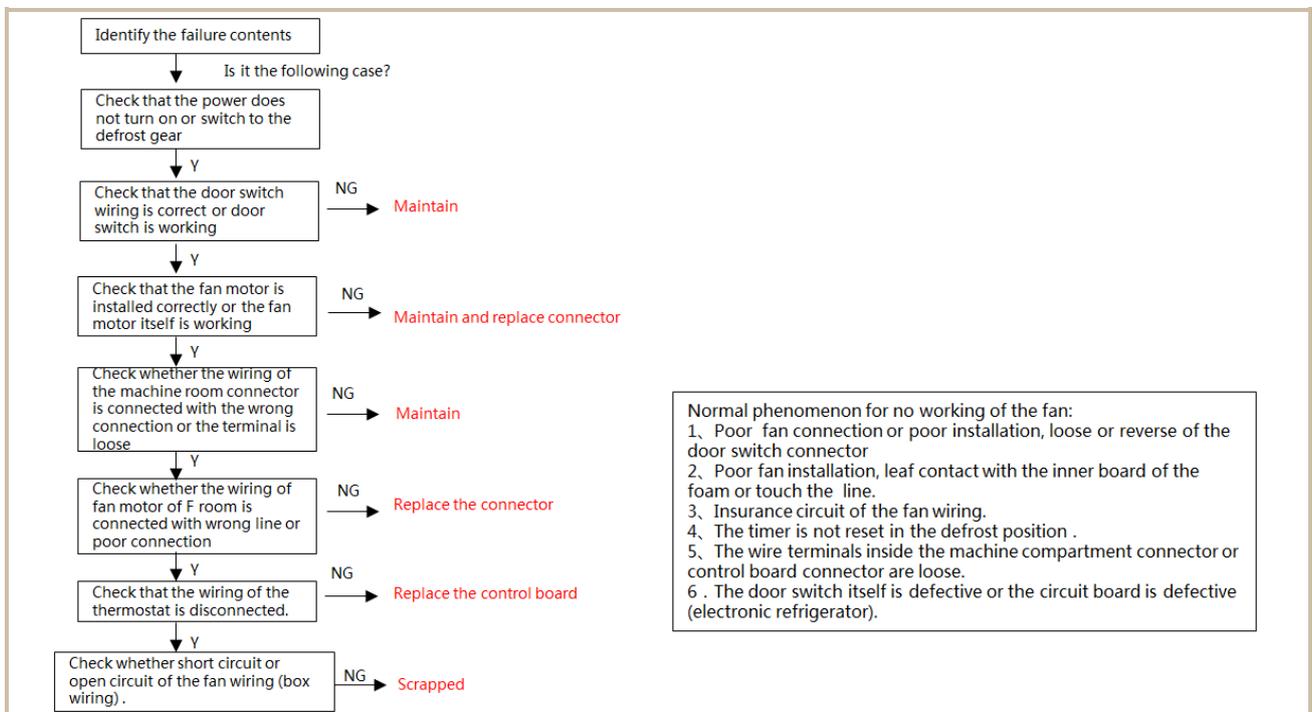
11.4 Inside frosting, no defrosting-Maintenance guidelines



11.5 Light is not on



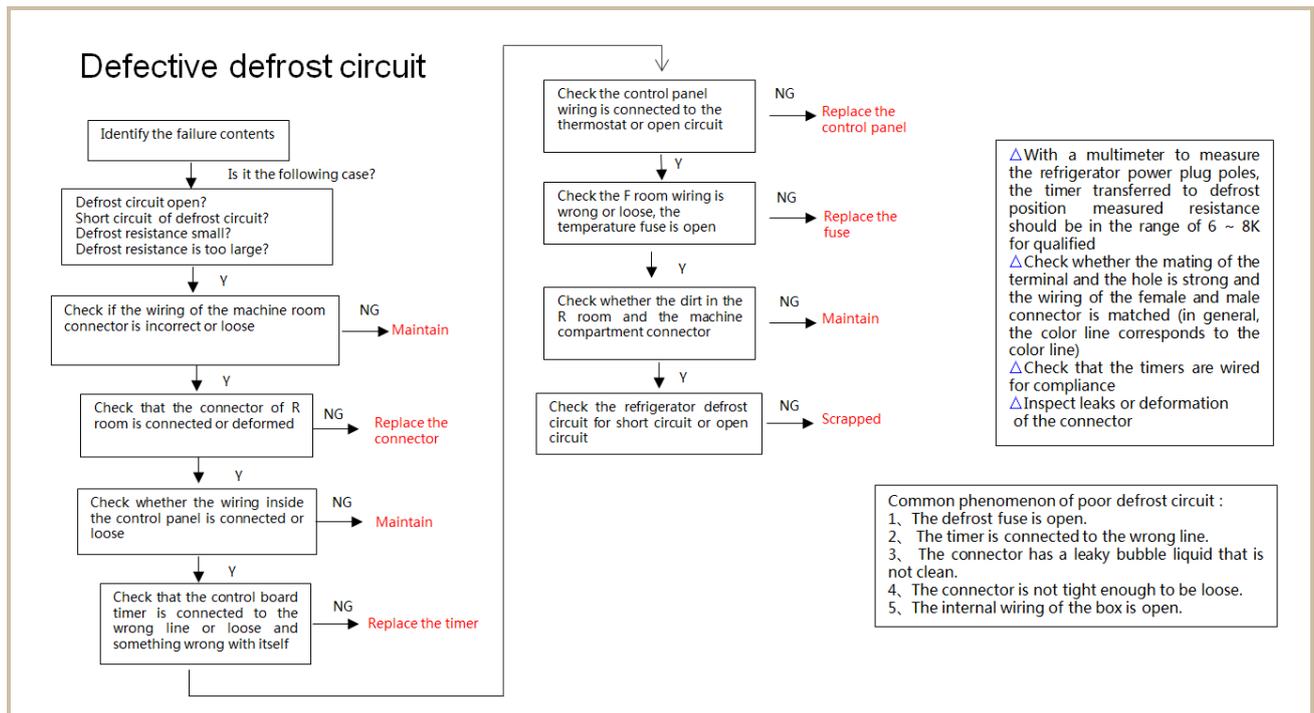
11.6 Fan failure



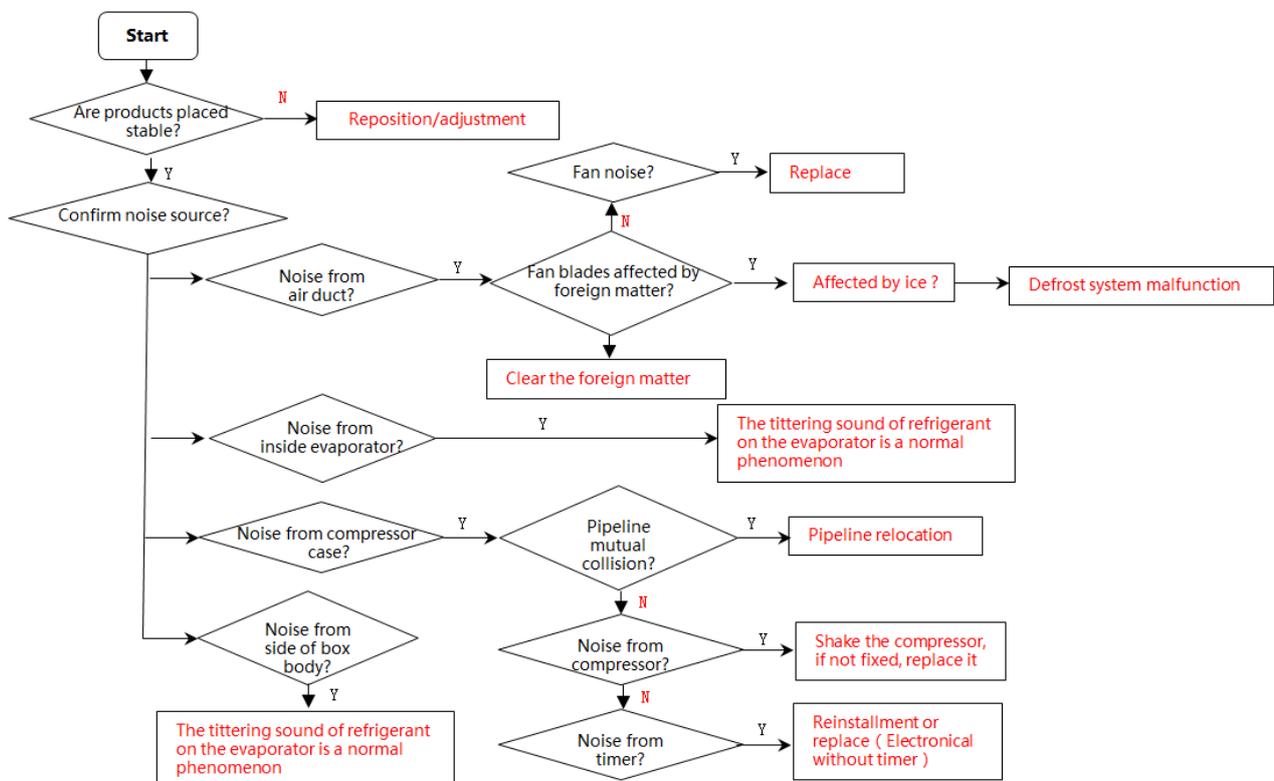
Normal phenomenon for no working of the fan:

1. Poor fan connection or poor installation, loose or reverse of the door switch connector
2. Poor fan installation, leaf contact with the inner board of the foam or touch the line.
3. Insurance circuit of the fan wiring.
4. The timer is not reset in the defrost position .
5. The wire terminals inside the machine compartment connector or control board connector are loose.
- 6 . The door switch itself is defective or the circuit board is defective (electronic refrigerator).

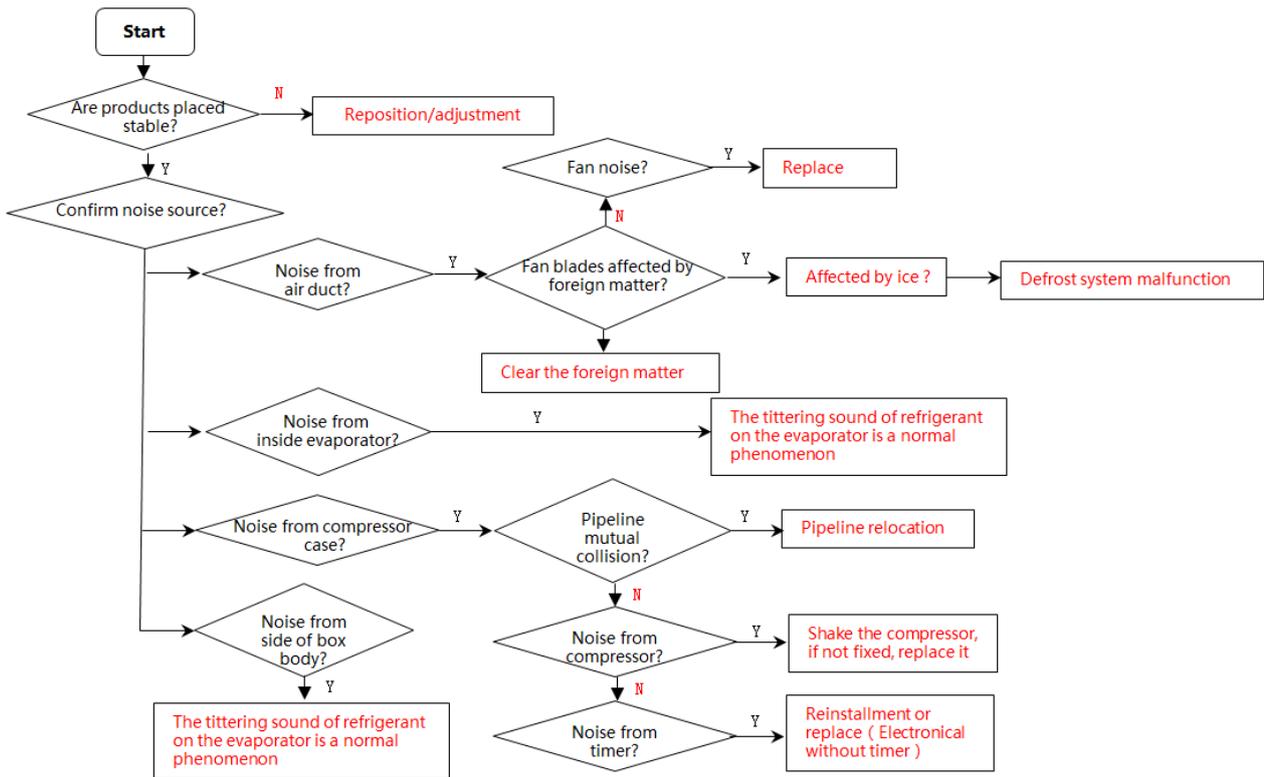
11.7 Defective defrost circuit



11.8 Noise



11.9 Air duct not operated (electronically) (None)



12. Figures and details of repair parts

Please log in to TSP system to view and download these contents.

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Internal User:

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Password: abcd1234 (please revise after login in).

Midea Refrigerators

If you need to get detailed technical information from the manufacturer, please contact:

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Refrigeration Division

Overseas Sales Company

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