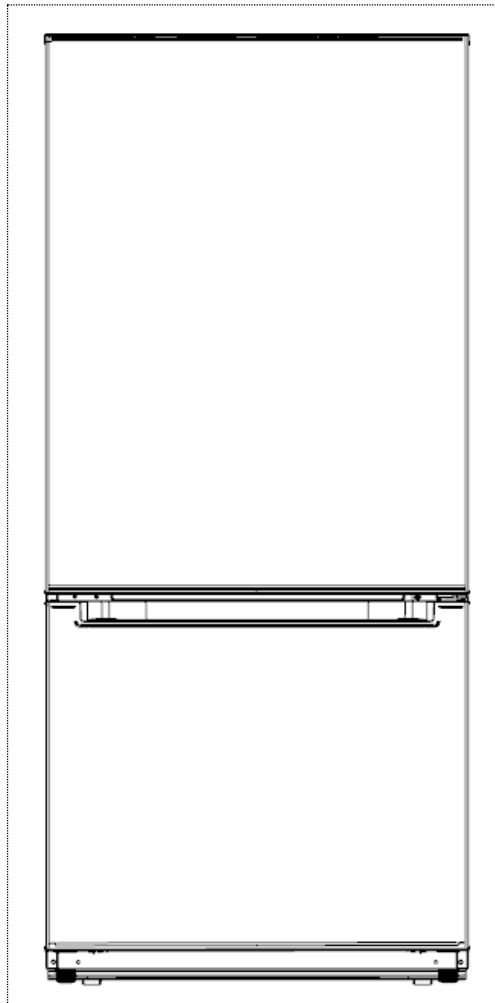


# Service Manual

## BMF No Frost Series


Applicable Models	Product Models	Applicable Models
HD-676REWV	UR-BCD520WE1-SQ	22031020008561



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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**1. Significant update notes (None)**

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## 2. Safety Warning

### 2.1 Warning for operation safety

#### Important Safety Instructions

	<b>CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</b>	
	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.

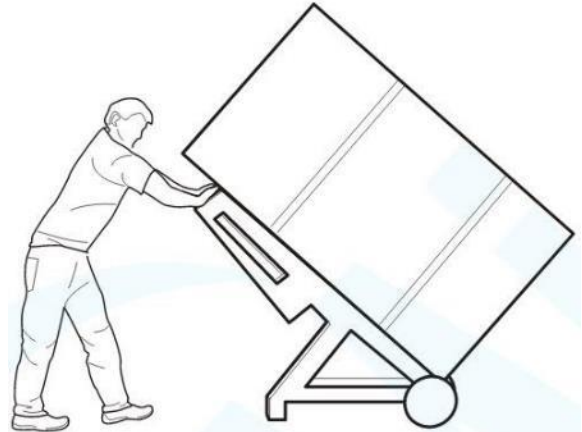


### 3. Installation and commissioning

#### 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.



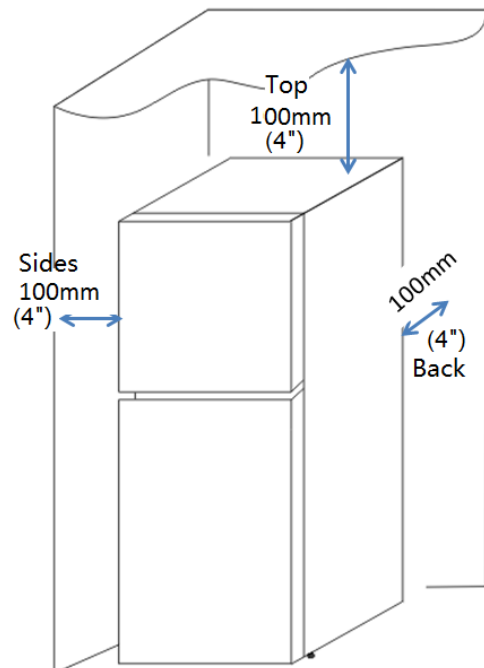
#### 3.2 Door Disassembly and Assembly

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

#### 3.3 Installation location

##### Installation location

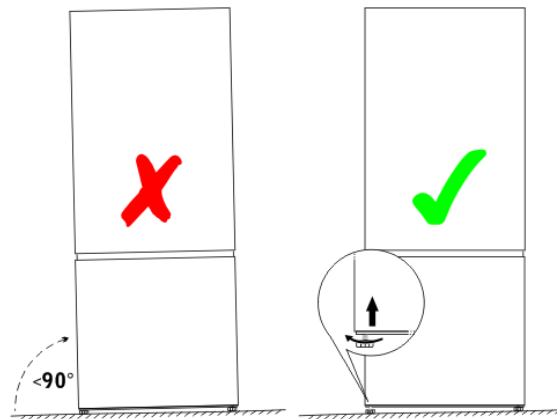
Please select a ventilated place to place the refrigerator, and reserve space according to the recommended size in the picture, which is conducive to heat dissipation, performance improvement and energy consumption reduction.



### 3.4 Leveling of the refrigerator

#### Leveling of the refrigerator

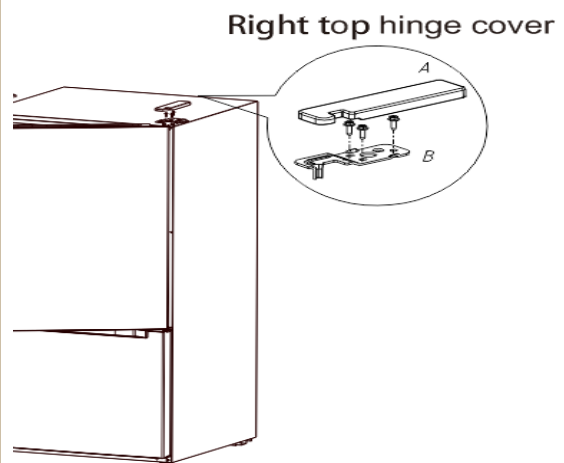
If the refrigerator cannot be placed steadily, adjust the footing to level it. Turn the feet clockwise to raise the refrigerator; turn the feet counterclockwise to lower the refrigerator.



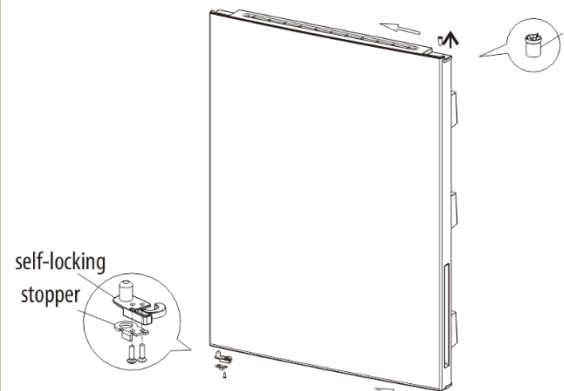
### 3.5 Left or right open door reversal

#### Door reversal

- 1) Power off and remove all food from the fridge.
- 2) Dismantle the upper hinge cover, screws and upper hinge from the right top, and remove the hole cover from the left top.
- 3) Lift the refrigerator door up and away from your refrigerator.

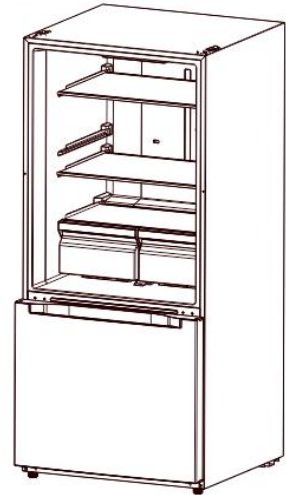
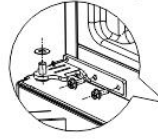


- 4) Dismantle the sleeves from the top right of doors and hole cap from top left of doors, and assemble them on the other side.
- 5) Remove the refrigerator door stopper and self-locking block on the right, take out the left self-locking block and stopper from the accessory bag in the refrigerator and installed on the left of door.

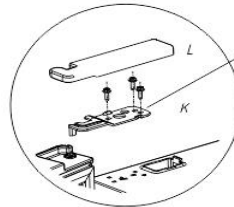


6) Remove the center hinge, remove the center hinge shaft with a slotted screw driver, install hinge shaft on opposite side of the hinge and install the hinge to the left of the box.

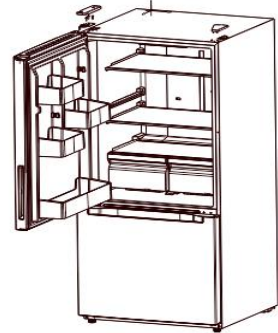
Attach the left center hinge



7) Put down the refrigerator door on the middle hinge vertically, then take out the top hinge and cover of other side from accessory bag, assemble top hinge, hinge cover and hole cover.



top hinge

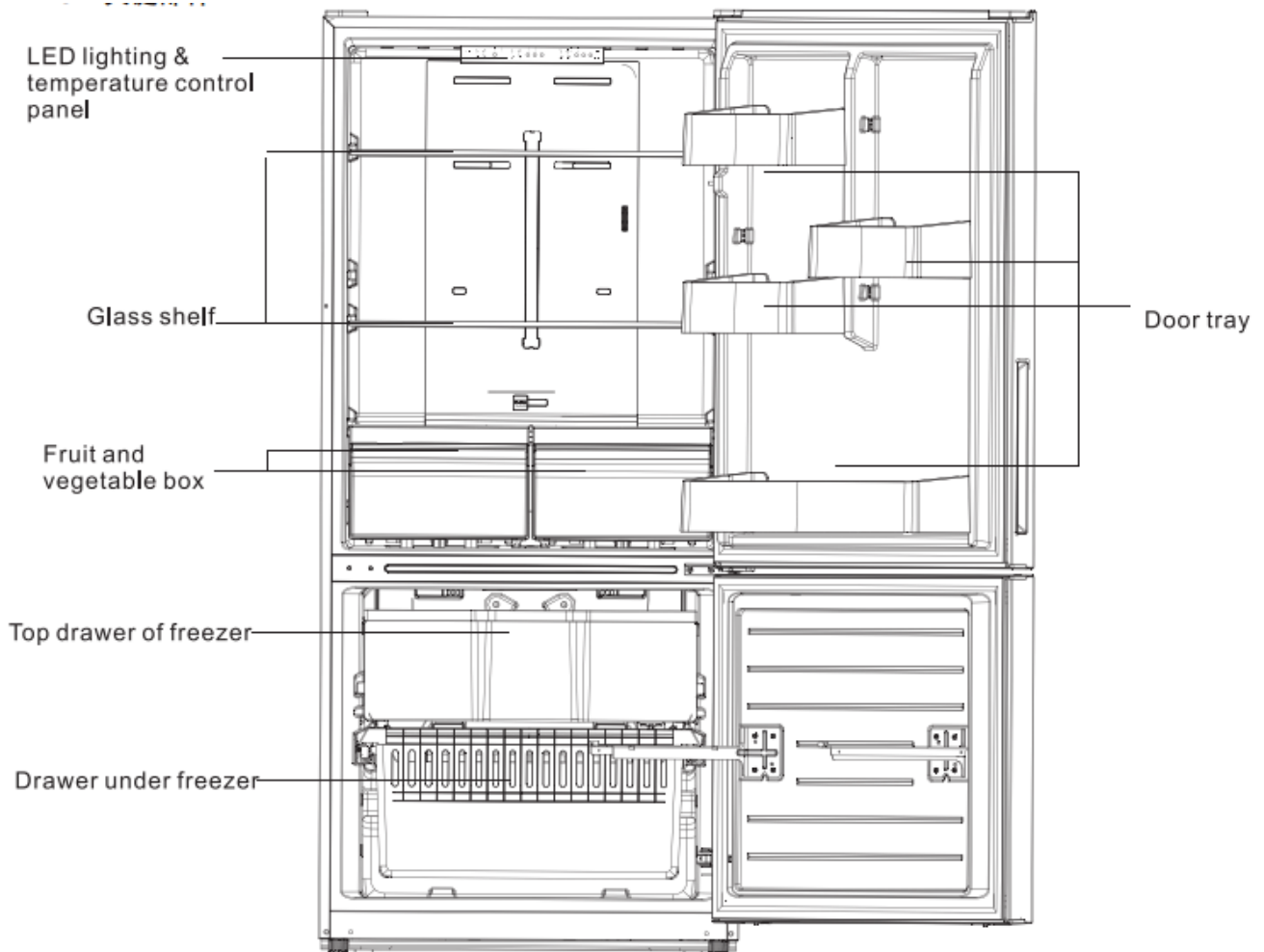


**3.6 Installation of handle (None)**

**3.7 Installation of door lock (None)**

## 4. Main parts and external dimension

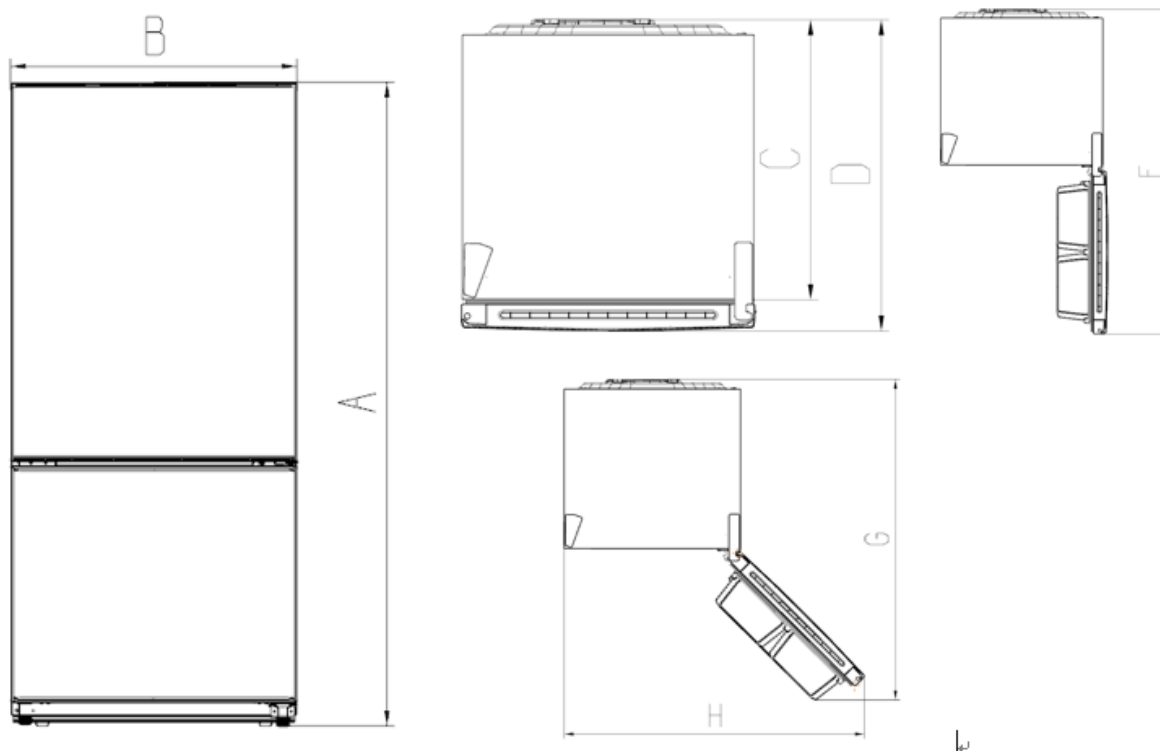
### 4.1 Main parts



(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)
Height to top of Cabinet	A	1692
Width	B	750
Depth w/Cabinet	C	680
Depth w/Door	D	785
Depth w/Handle	E	/
Depth (Door open 90 deg. w)	F	1430
Depth (Door open 135 deg. w)	G	1350
Width (Door open 135 deg. w)	H	1275



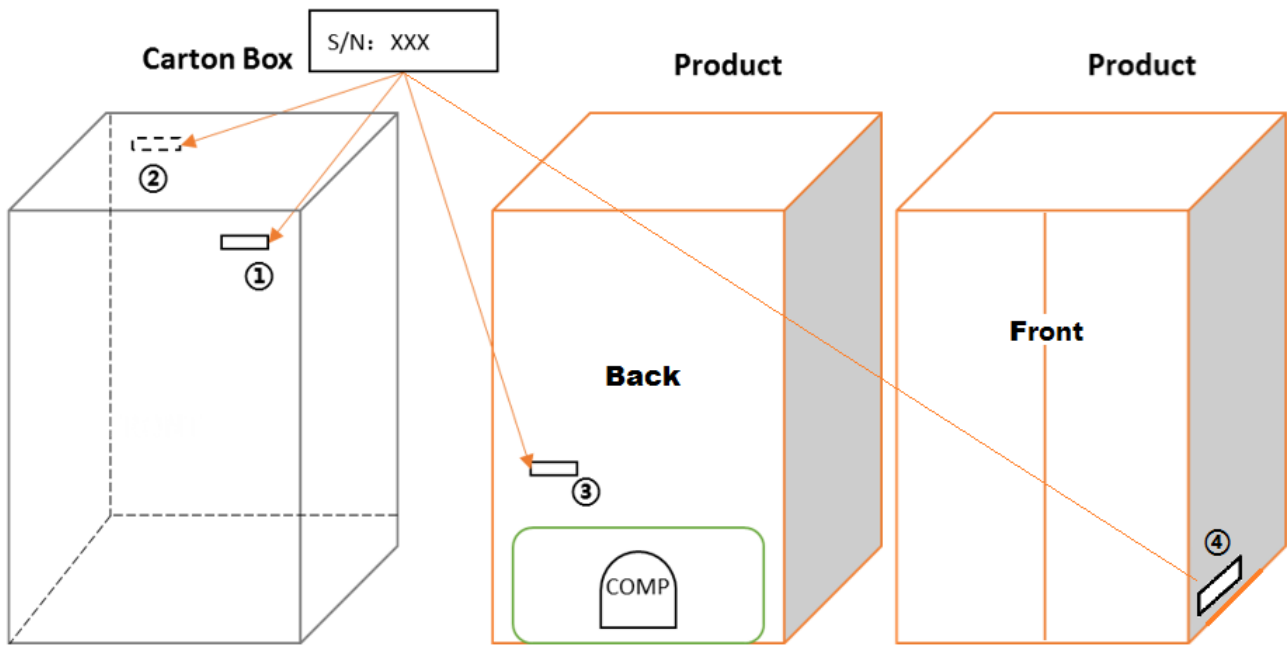
(The picture is only for reference)

**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.



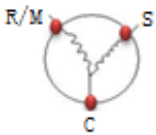
2) Paste location



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

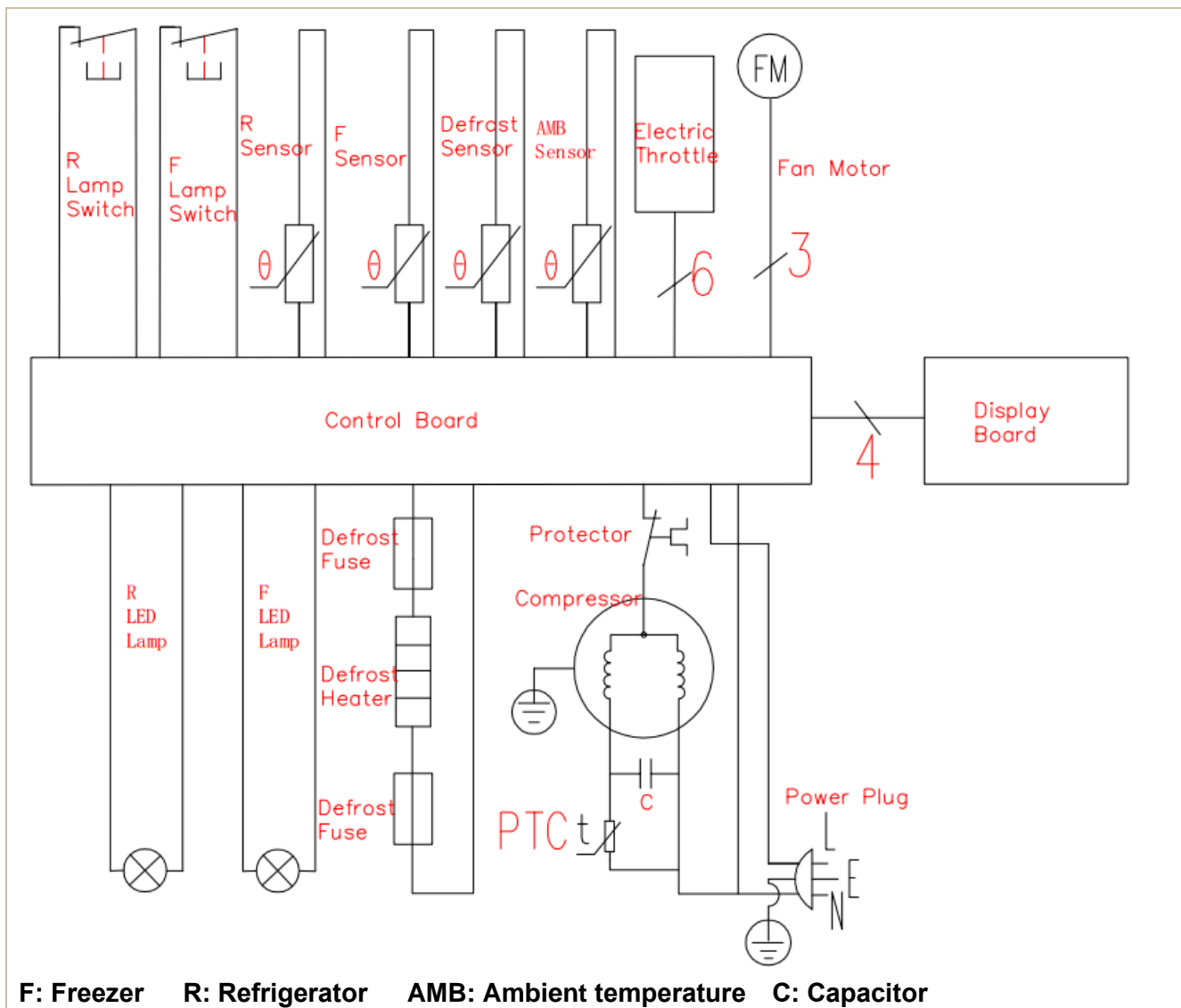
## 5. Electric control system

### 5.1 Electrical parts parameters

Applicable Model	HD-676REWN	
Product Model	UR-BCD520WE1-SQ	
Rated Voltage	115V 60Hz	
Item	Specification	
Refrigerant	R600a	
Compressor	EZ65H1Y (GMCC) (Part : 11101010006245)	
Starting device type	Fixed Speed	
The COP of compressor	1.82 (W/W)	
The max cooling capacity of compressor	138 W	
Winding resistance of compressor wiring terminal (20°C)	R <sub>mc</sub> :6.83Ω±7% R <sub>sc</sub> :6.23Ω±7% R <sub>ms</sub> = R <sub>mc</sub> + R <sub>sc</sub>	
Winding resistance picture		
Starter(PTC)	QPE2-A4R7MD3 (Part co: 17431000031686)	
Overload protector(OLP)	DRB26T61A1 (Part co : 17431000032088)	
Integrate PTC+OLP	None	
Variable frequency driver board	None	
Capacitor	10μF、250V	
Power filter (EMI)	None	
Power reactor (EU EMC)	None	
Motor		
Fan motor of the freezing chamber	DC12V/≤3.5W	
Fan motor of the refrigerating chamber	None	
Electric damper	DC12V	
Electric damper heater	0.5W	
Lights		
Lights inside the top of refrigerating chamber	LED DC12V	
Lights inside the freezing chamber	LED DC12V	
Others Lights	None	

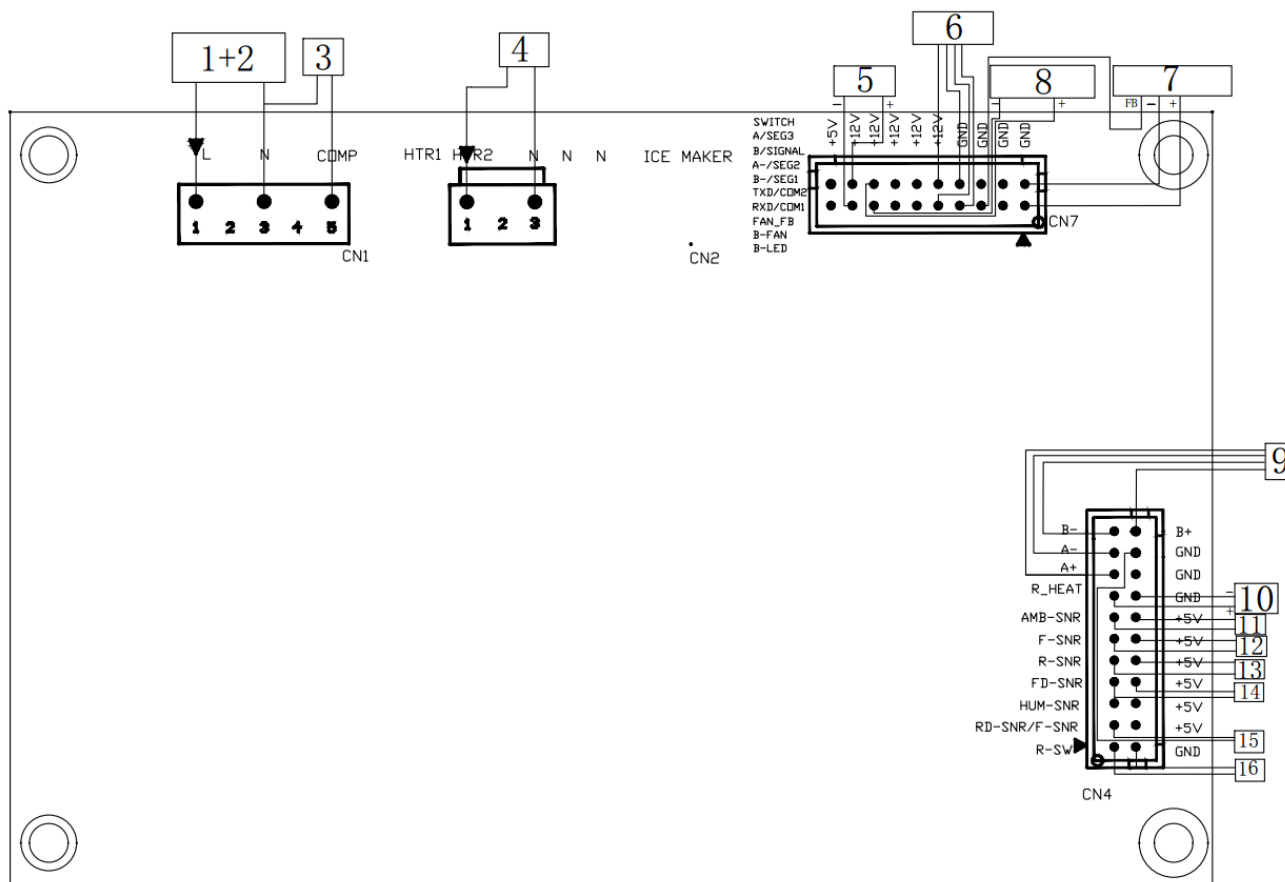
Switch of the light	<input checked="" type="checkbox"/> Mechanical switch <input type="checkbox"/> Magnetism control switch	
<b>Defrosting parts</b>		
Defrosting sensor	NTC B3839 ( B5/25=3839K±2% )	
Fuse in freezing chamber	115V、77(0 ~ -5) °C	
Defrost heater in freezing chamber	115V、200W	

**5.2 Circuit diagram**





**5.3 Main PCB terminal connection diagram**

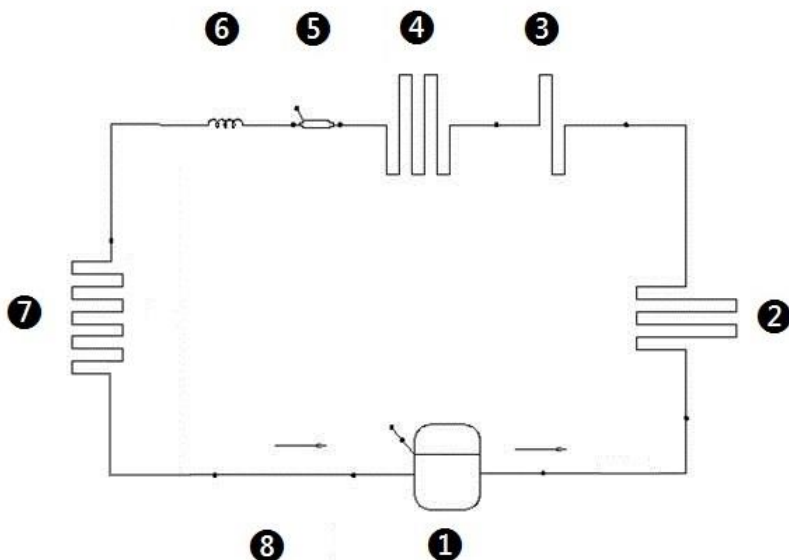


Connecting terminals	Connecting terminals
1+2.Power supply	11. Ambient temperature sensor
3. Compressor	12. Freezing temperature sensor
4. Freezing defrost heater	13. Refrigeration temperature sensor
5. LED of freezing chamber	14. Freezing defrost sensor
6. Display control panel	15.Freezing light switch
7. Fan of freezing chamber	16.Refrigeration light switch
8. Electric damper heater	
9. Electric damper	
10. LED of refrigeration chamber	

## 6. Refrigeration system

### 6.1 Refrigeration system working principle

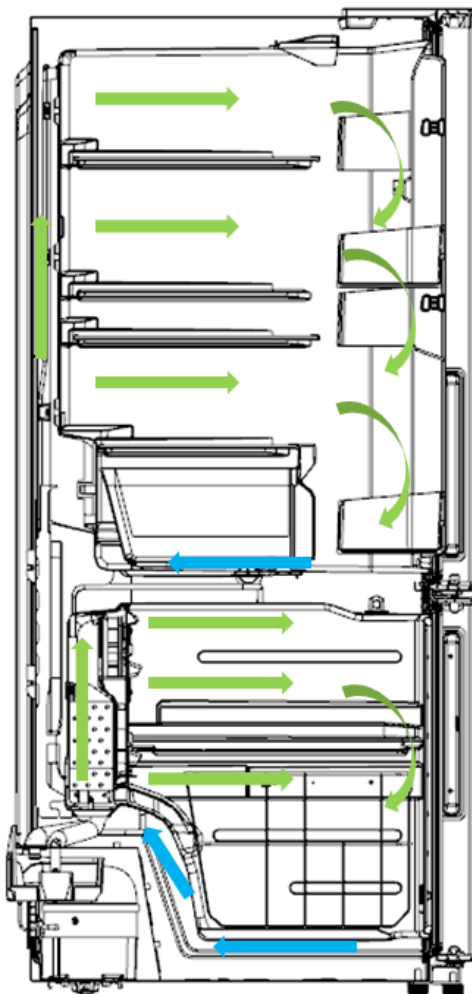
① Compressor → ② Right condenser → ③ Anti-condensation tube → ④ Left Condenser → ⑤ Dry filter → ⑥ Capillary tube → ⑦ Evaporator → ⑧ Suction tube → ① Compressor



### 6.2 Cooling pipeline and drain pipe inside the cabinet



**6.3 Circulating route of cooling air**



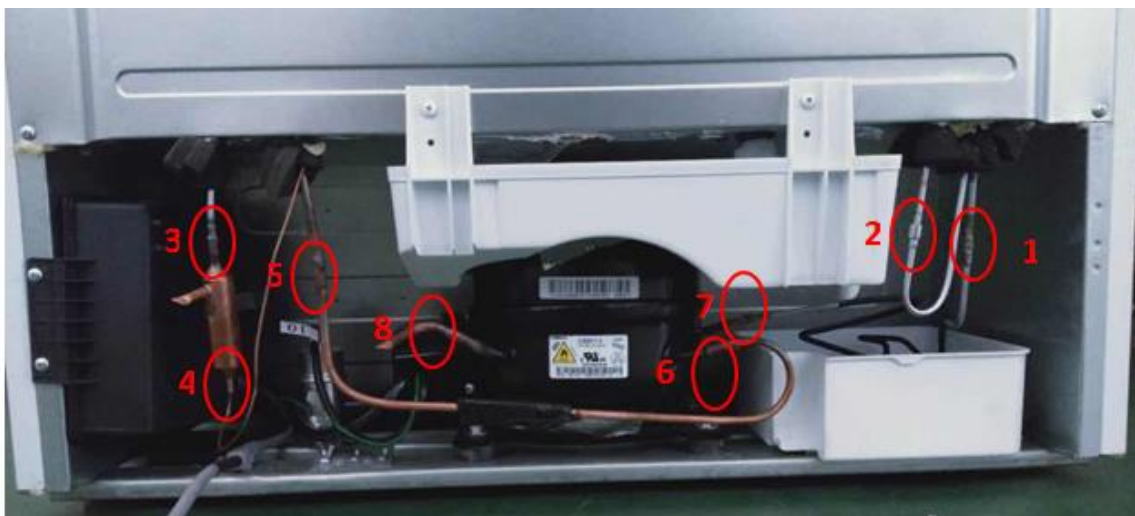
**6.4 Welding points in chambers or foam layer**

1) Welding points on freezer 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-anti-condensation tube and outlet of venting connection tube	Steel pipe: Φ4.0	Steel pipe: Φ4.0
2-outlet of anti-condensation tube and outlet of right condenser tube	Steel pipe: Φ4.0	Steel pipe: Φ4.0
3-Outlet of condenser tube and inlet of dry filter	Steel pipe: Φ4.0	Copper pipe: Φ4.0
4-Outlet of dry filter and inlet of freezer capillary	Copper pipe: Φ2.8	Copper pipe: Φ1.8
5-Heat transition tube and Suction connection tube	Copper pipe: Φ6.0	Copper pipe: Φ6.0
6-Suction connection pipe and compressor intake tube	Copper pipe: Φ6.0	Copper pipe: Φ8.17
7-Compressor outlet tube and inlet of venting connection tube	Copper pipe: Φ6.17	Steel pipe: Φ4.0
8-Compressor process tube and refrigerant filling tube	Copper pipe: Φ8.17	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 out of door liner;



#### Door tray

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



### 7.2 Parts inside the refrigerator

#### Refrigerator Fruit box cover

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

- 1) Lift up the Fruit box cover, and then pull out it firstly
- 2) Take out the box.



#### Shelves

Lift up the division plate with a proper force and pull it out towards yourself;



**Freezer Drawer**

Remove the freezer drawer according to below steps:  
 Top drawer of freezer: Lift front of the drawer, tilt the drawer upward. Drawer under freezer: Lift front of the drawer, tilt the drawer upward.



**7.3 Light system**

**Light**

Light of the refrigerating

Light of the refrigerating chamber is located upper chamber(inner display)

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





**Light of the freezing**

Light of the freezer room is located upper freezer room (inner display)

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



**Light switch**

There is a light switch on the side wall of the refrigerating chamber.

- 1) Loosen the hook with small normal screwdriver and pull out the switch until the wire connector reveals.



The switch is located in the top hinge cover of cabinet

- 1) Remove the screw of hinge cover
- 2) Remove the hinge cover
- 3) Remove the switch
- 4) The reverse operation for assembly



The door switch of freezer room is placed in the mounting box on the bottom of refrigerator room door

- 1) Use slotted screwdriver to dismantle the cover of door switch
- 2) Disconnect the wiring connector, and dismantle the door switch
- 3) The reverse operation for assembly





## 7.4 Air duct components refrigerating chamber and fan motor

### Air duct components in freezing chamber

- 1) The refrigerator air duct components is located on the back of the refrigerating chamber.
- 2) use slotted screwdriver to dismantl the decorative cover, then use cross screwdriver to remove the fittin screw of air duct cover



- 3) use fingers to hold the botton edge of air duct cover and pull it outwards with big strength



### Fan motor of air duct

None

### Electric damper

- 1) Remove the refrigerated air duct foam sponge, separate the duct foam, and take out the electric damper.

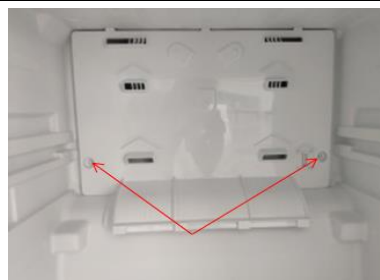


## 7.5 Air duct components in freezing chamber and fan motor

### Air duct components in freezing chamber

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

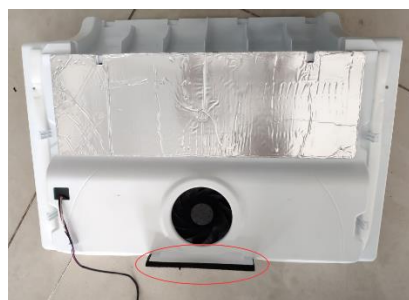
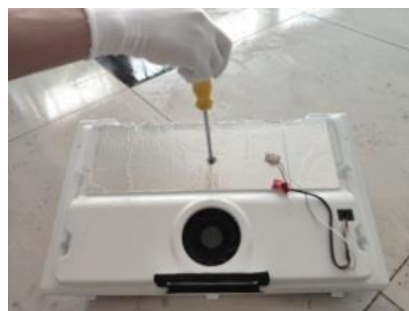
- 1) Remove 2 screws on the cover plate of the freezing air duct using a cross screwdriver;
- 2) Pull out it from the bottom of freezer chamber air duct.
- 3) Pull out the connector terminal of the fan motor;
- 4) The reverse operation for assembly





**Fan motor of air duct**

1) use screwdriver to remove the 1 pc screw on the rear side of freezer room air duct assembly, then remove the black sponge at the air duct



2) Pry up the plastic hooks ,and separate the rear board of air duct assembly from front board of air duct assembly;



3) use cross screwdriver to remove the 3 pcs screws, separate the bracket from the fan motor;



4) pull the fan blades with big strength, until it is separated from the shaft of fan motor; if need to replace the fan motor, the reverse operation is 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 two screws which are used to fix the evaporator and 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



- Fuse**
- 1) Disconnect the fuse connector.
  - 2) Cut off the band which fixes the fuse.
  - 3) Separate the fuse and the evaporator.
- \*Don't break the welding of the evaporator in case that only the fuse needs to be replaced.

The whole image



The part image



Thermal link for defrost heater

**Defrost heater**

The defrost heater is located at bottom of the evaporator.

- 1) Disconnect the connector of defrost heater.
  - 2) Cut off the band which fixes the defrost heater.
  - 3) Take off the defrost heater from the evaporator.
- \*Don't break the welding of the evaporator in case that only the defrost heater needs to be replaced.



**Evaporator in refrigerating chamber**

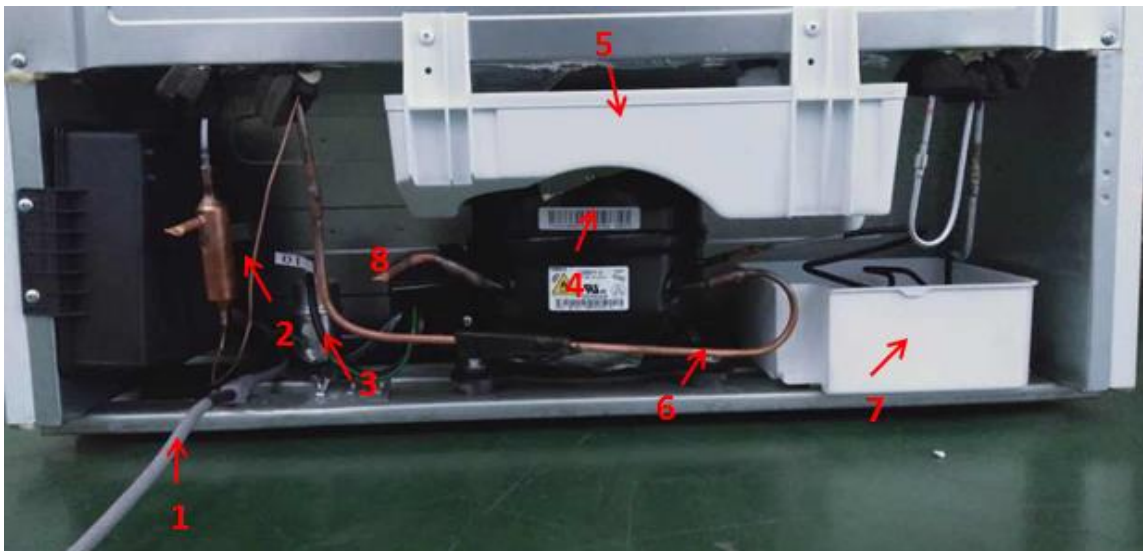
None

**7.7 Compressor case**

**Rear cover**

None

**Piping and parts in the compressor case**

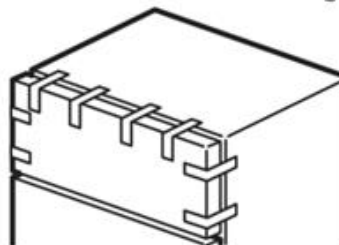


1-Power cord  
2-Dry filter  
3-Capacitor  
4-Compressor

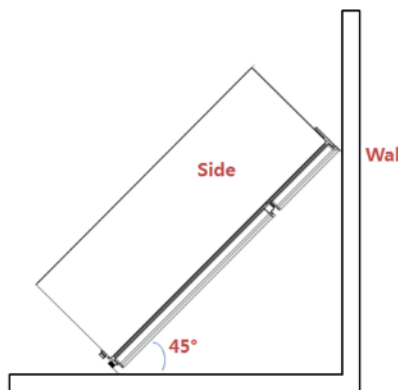
5-Drain tray  
6-Suction connection tube  
7-Drain tray

**Disassembly and assembly of compressor**

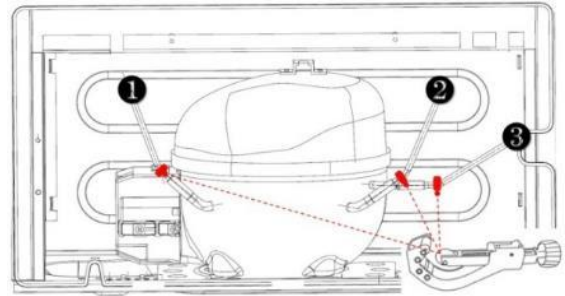
1) Cut off the power, remove the goods in the refrigerator, with the tape to make the door fixed firmly and prevent the door dropping when the refrigerator dumping.



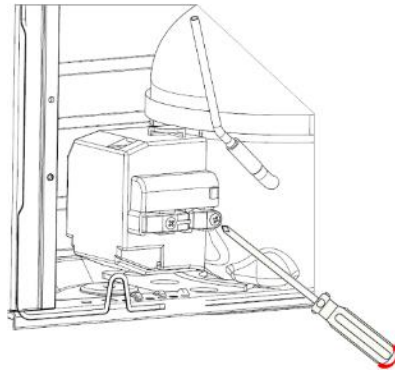
2) Slowly tilt the refrigerator forward, relying on the wall or a solid enough object, leaving space to facilitate the operation. For safety, it should be carried by someone to prevent its falling.



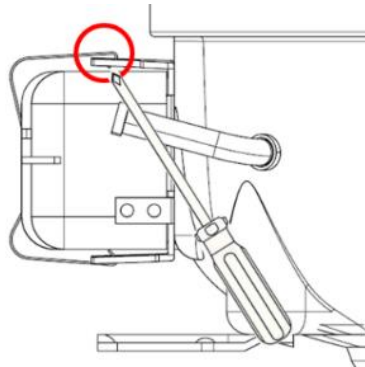
3) Cut off the compressor pipeline.-**①**Cut off the process pipeline.-**②**Cut off the low-pressure muffler.-**③**Cut off the high-pressure exhaust pipe.



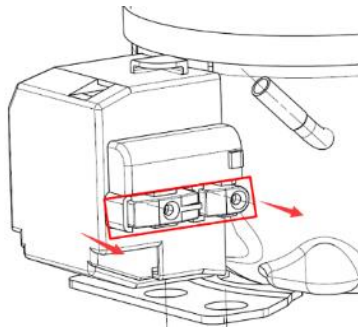
4-1) **Remove the screws(for some models)**  
 -Two screws outside  
 -One screw inside



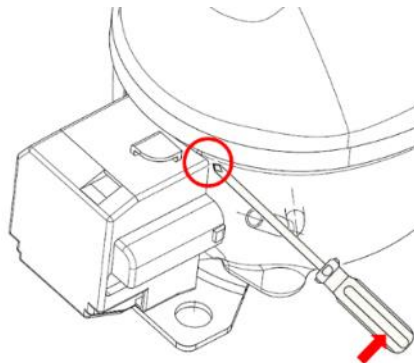
4-2) **Remove the metal clamp(for some models)**  
 -Disassembly the metal clamp that is fix the electric appliance shield



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

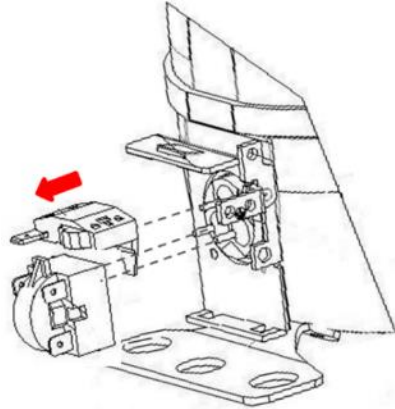


6) **Remove the protective cover**  
 -Pry the protective cover slowly from the upper part,  
 -Pull it out and remove it.

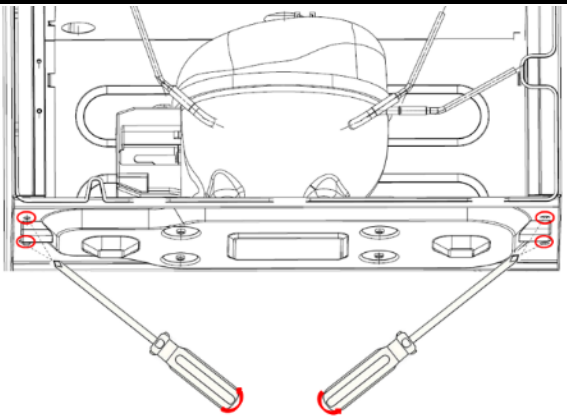


7) **Remove the starter and protector**

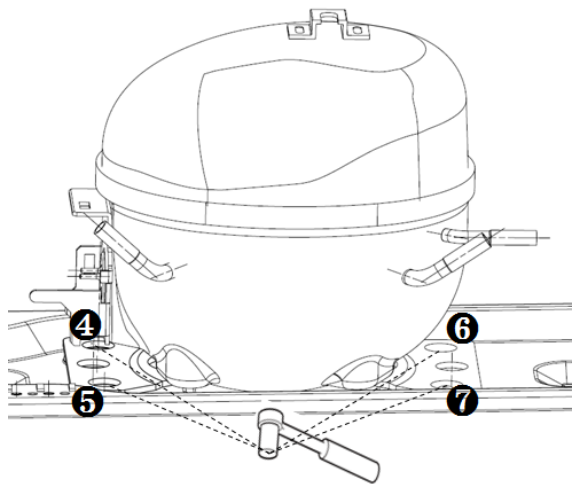
Unplug the starter and protector (you can use a screwdriver to pry it slowly)



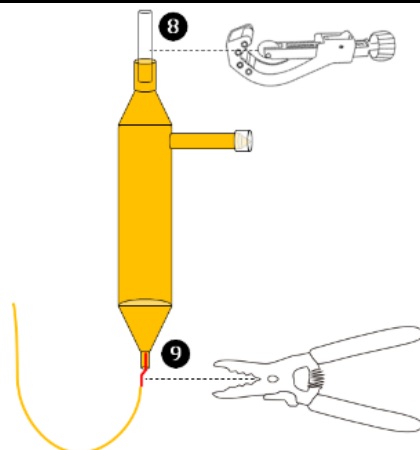
8) Loosen the screw of the compressor bottom plate, remove the floor together with the compressor from the box.



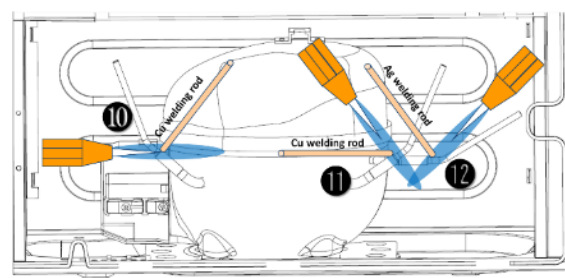
9) Use the wrench to remove the bolts by steps ④ ⑤ ⑥ ⑦, replace the compressor and reverse process can complete installation.



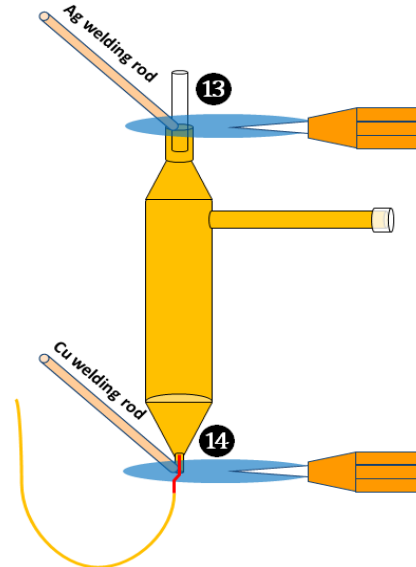
10) Use Pipe cutter cut off the condenser tube ⑧, then Shear off capillary ⑨ by the capillary tube scissors.



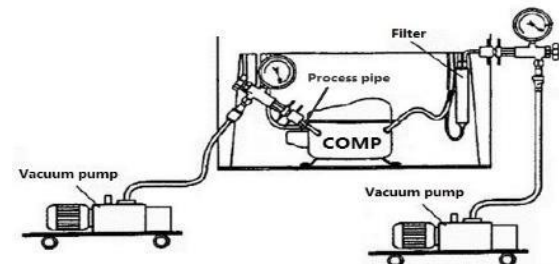
11) Replace the compressor and welding the compressor pipeline.-**10**Welding the process pipeline.-**11**Welding the low-pressure muffler.-**12**Welding the high-pressure exhaust pipe.



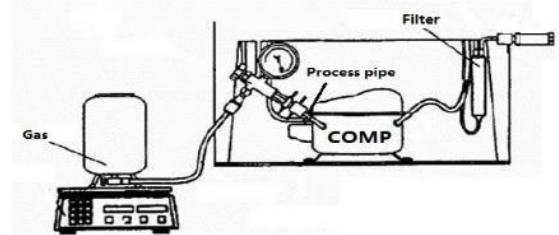
12) Replace the filter, Cu-Fe tubes welding **13** used Ag welding rod, Cu-Cu tubes welding**14** used Cu welding rod.



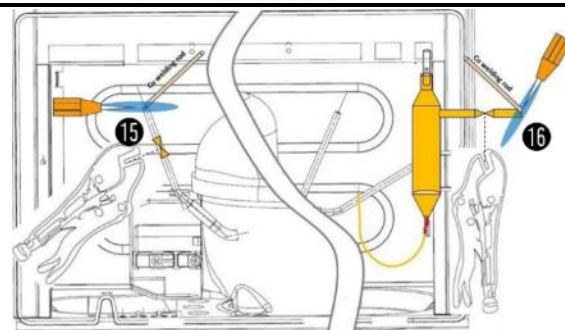
13) Vacuum system,The degree of vacuum below 6Pa.



14) Perfusion refrigerant.



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



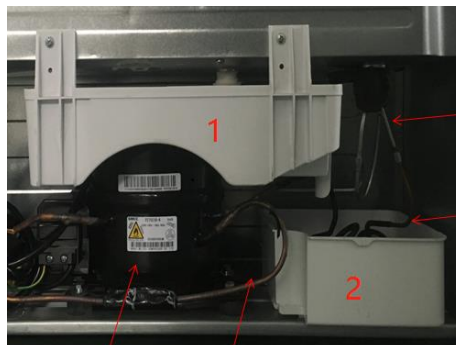


**Back-hanging wire tube condenser**

None

**Drain tray**

- 1) Remove the two fixing screws on the drain tray and pull it out, replace a new one.
- 2) Disengage the drain tray buckle out of the compressor bottom plate installation hole and pull it out, replace a new one.



**7.8 Display control board**

**Display control board**

- 1) Remove 2 fixing screws with a screwdriver.



- 2) Remove the upper light assembly



- 3) Unplug the wiring connector.



4) Loose a screw from the display control board.



5) Remove the light cover.



6) Pull out the LED light and display control board.  
7) The reverse process can complete installation.



## **7.9 Main control board**

### **Main control board**

1) remove the 2 fitting screws of main control PCB housing box



2) take out the main control PCB housing box, use slotted screwdriver to pry up the cover until it is separated from the housing box;



3) Unplug all wiring connector, and take out the main PCB



**7.10 Water dispenser (None)**

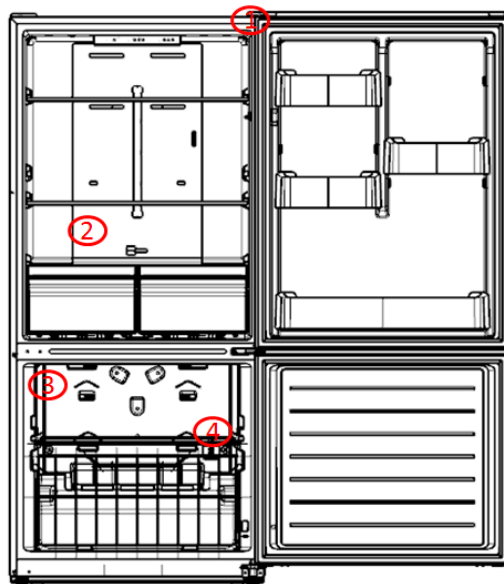
## 8. Temperature sensing system

### 8.1 Position of sensors

#### Position of sensors

Have 4 sensors

- ① Ambient temperature sensor
- ② Sensor in refrigerating chamber
- ③ Defrost sensor
- ④ Sensor in freezing chamber



### 8.2 Replacement of sensors

#### Sensor in refrigerating chamber

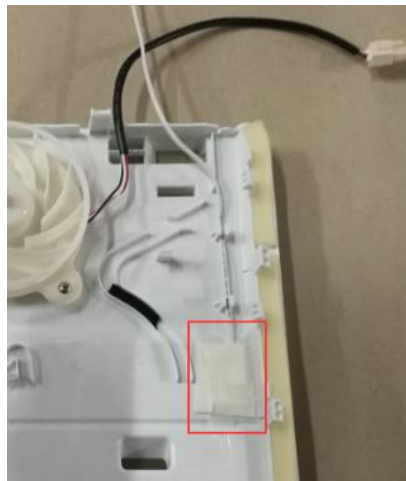
- 1) Before remove the sensor, the duct assembly should be removed
- 2) Remove the air duct assembly.
- 3) Remove the sensor.



#### Sensor in freezer chamber

The freezer air duct foam should be dismantled before removing this sensor.

- 1) Strip the tape that secures the wiring harness.
- 2) Then remove the sensor.



### Ambient temperature sensor

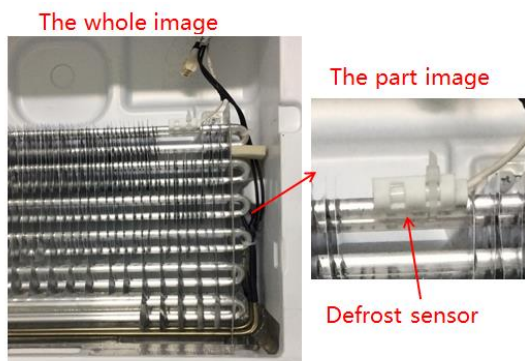
The sensor is located in the hinge cover of the refrigerator top.






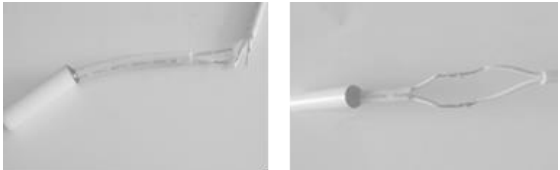


### Defrost sensor in freezing chamber

The defrost sensor is located on top of the evaporator.

- 1) Disconnect the connector of defrost sensor
- 2) Cut off the band which fixes the sensor.
- 3) Separate the sensor and the evaporator.



### 8.3 Sensor without terminal replacement

Sensor replacement guidelines	
<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>	

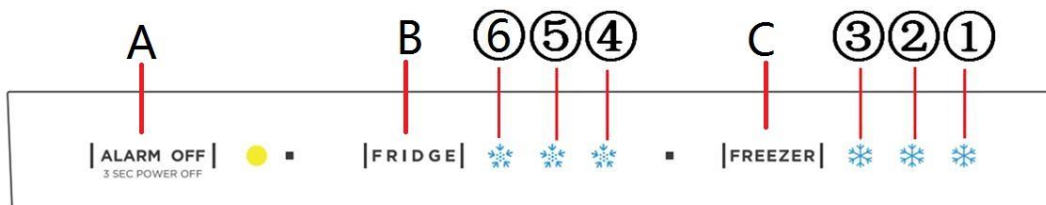
**8.4 Sensor R/T table**

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. Alarm or power off B. Refrigerator Temperature setting C. Freezer Temperature setting	① Freezer coldest setting ② Freezer colder setting ③ Freezer cold setting ④ Refrigerator coldest setting ⑤ Refrigerator colder setting ⑥ Refrigerator cold setting



### 9.2 Display

At the first time of power-on, the display screen (including button light) will be bright for 3 seconds and then press the middle gear to show operation

Normal operation display

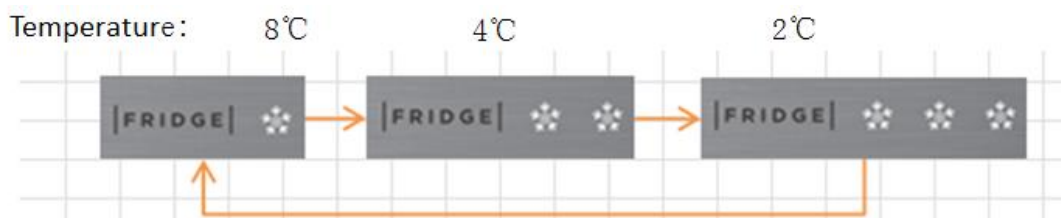
When failure occurs, the corresponding LED light group will display fault code (circular display);

If no failure occurs, the current operation gear will be displayed.

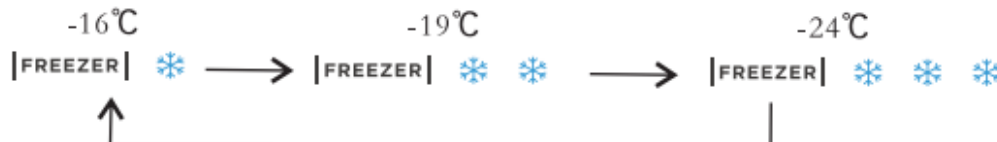
Note: Inner display product, the gear LED light is off when the refrigerator door is closed

### 9.3 Temperature setting

Press the refrigerating button to adjust the refrigerating setting position. Each time the refrigerating button is pressed, the gear position changes one:



Press the freezer button to adjust the freezer setting position. Each time the freezer button is pressed, the gear position changes one. The sequence is as follows:





### 9.4 Open door alarm

When door is open, light up, a notification tone will sound. If door is open last for 120s, there will be buzzer alarm, afterwards give alarm one time per second until the door is closed, press “ALRM OFF” button on control panel can cancel this alarm.

**Note:** When open the door, the display panel will light on. When the door is closed, the display panel will be light off after 30s if there is no any operation on display panel.

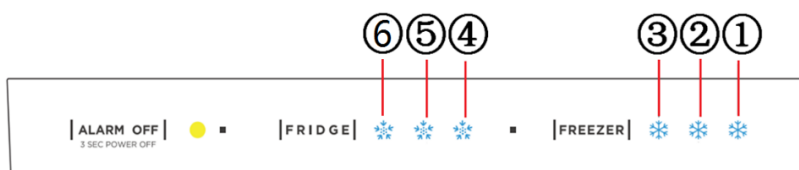
### 9.5 Function Selection

**9.5.1** When a fault alarm occurs, press the **ALARM OFF** button short, and the fault alarm sound is canceled.

#### 9.5.2 Standby mode

Press the **button A** for 3 seconds to enter standby mode, all loads are turned off and display is off. In standby mode, press the **ALARM OFF** button once, return to normal control.

### 9.6 Error code and solutions



Error code	Fault Type	Troubleshooting and Solutions
LED①② flicker at the same time	Temperature sensor fault in refrigerating chamber	<b>Step 1:</b> 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.
LED①⑤ flicker at the same time	Temperature sensor fault in freezing chamber	<b>Step 2:</b> 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.
LED①③ flicker at the same time	Defrost sensor fault in freezing chamber	<b>Step 3:</b> If the resistance value is wrong, replace the sensor. <b>Step 4:</b> If the fault still occurs, replace the main PCB.
LED②④ flicker at the same time	Communication failure	<b>Step 1:</b> Check whether the connection terminal on the display control panel, hinge cover and main PCB are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again. <b>Step 2:</b> 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 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.) <b>Step 3:</b> If the wire is OK, replace the display control board. <b>Step 4:</b> If the fault still occurs, replace the main PCB.

LED①④ flicke at the same time	Ambient temperature sensor fault	<p><b>Step 1:</b> 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.</p> <p><b>Step 2:</b> 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.</p> <p><b>Step 3:</b> If the resistance value is wrong, replace the sensor.</p> <p><b>Step 4:</b> If the fault still occurs, replace the main PCB.</p>
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### 9.7 Defrosting function mode

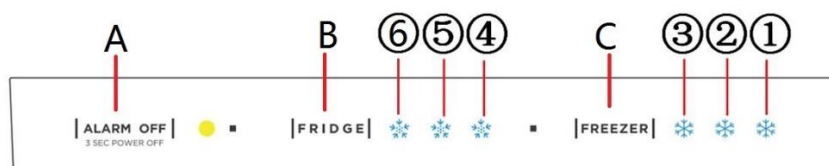
Defrost in the freezing chamber

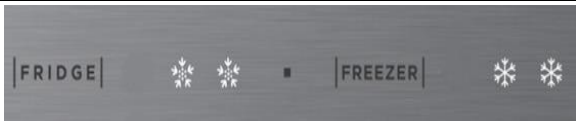

- 1) Defrost the freezing chamber as per the accumulative operation time of the compressor.
- 2) If power failure occurs abruptly to the compressor and the sensor in freezing chamber is less than 0°C after powering on, then first conduct defrosting once. If more than 0°C, then defrosting is not needed. After that, conduct defrosting according to using condition and ambient temperature in a period between 6 and 24 hours as per the accumulative operation time of the Compressor.

Defrost in refrigerating chamber

- 1) Start Condition: Refrigerate accumulated refrigeration over 6 hours, beginning to defrost.
- 2) Exit condition: Exit the defrost when one of the following conditions is met
  - A. Trd ≥ 10°C
  - B. Frosting time in the freezer ≥ 60 min

### 9.8 Test mode



Test items	Testing Method	Expected result
Select to enter into forced cooling mode	<p>Press and hold the <b>button B and C</b> 3 seconds to enter the forced operation mode, the display will show as picture 1.</p> <p>Then press the <b>button C</b> once to adjust the display to show as picture 2.</p> <ol style="list-style-type: none"> <li>1. In this mode, if no button is pressed within 36 hours</li> <li>2. Or press the <b>button C</b> for 2 times when this mode is running</li> </ol>	<div style="text-align: center;">  <p>picture 1</p>  <p>picture 2</p> </div> <p>LED①④⑤ light up at the same time, the compressor and fan motor will keep running.</p> <p>The refrigerator will exit this mode and return to normal operation mode</p>

Select to enter into forced defrosting mode

Press and hold the **button B and C** 3 seconds to enter the forced operation mode, the display will show as picture 1.  
Then press the **button C** twice to adjust the display to show as picture 2.



picture 1



picture 2

LED②④⑤ light up at the same time, the compressor and fan motor stop working, and defrost heater start to work

1. Under this mode, when defrost sensor temperature up to 8°C, and the defrost heater work more than 2 minutes2. Or press the **button C** once when this mode is running

The refrigerator will exit this mode and return to normal operation mode

## 9.9 Demo mode

### Same to standby mode

Press the **button A** for 3 seconds to enter standby mode, all loads are turned off and display is off. In standby mode, press the **ALARM OFF** button once, return to normal control.

## 9.10 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.

## 10. Compressor

---

### 10.1 Compressor on and off control specifications

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

- 1) Measured temperature in all chambers  $\leq$  Shutdown temperature of all chamber
- 2) Enter defrosting cycle
- 3) The compressor runs continuously for more than 3 hours, will stop at least 10 minutes

1.2 When compressor shutdown time has been more than 5 min, one of the following conditions is met, the compressor starts up:

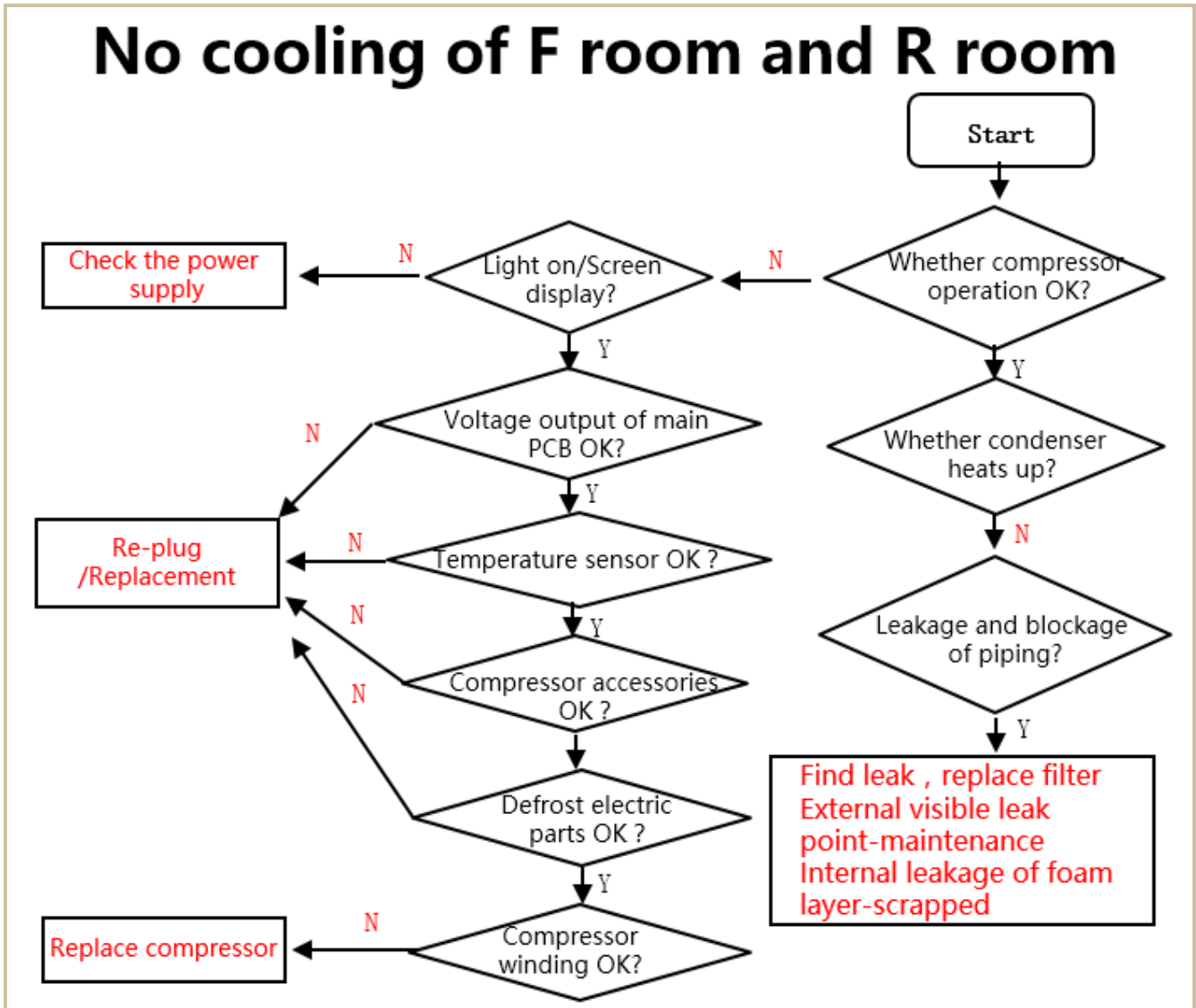
- 1) Measured temperature in refrigerator chamber  $\geq$  Start up temperature of refrigerator
- 2) Measured temperature in freezer chamber  $\geq$  Start up temperature of freezer
- 3) Refrigerator is set to forced cooling mode or super cooling or super freeze mode

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

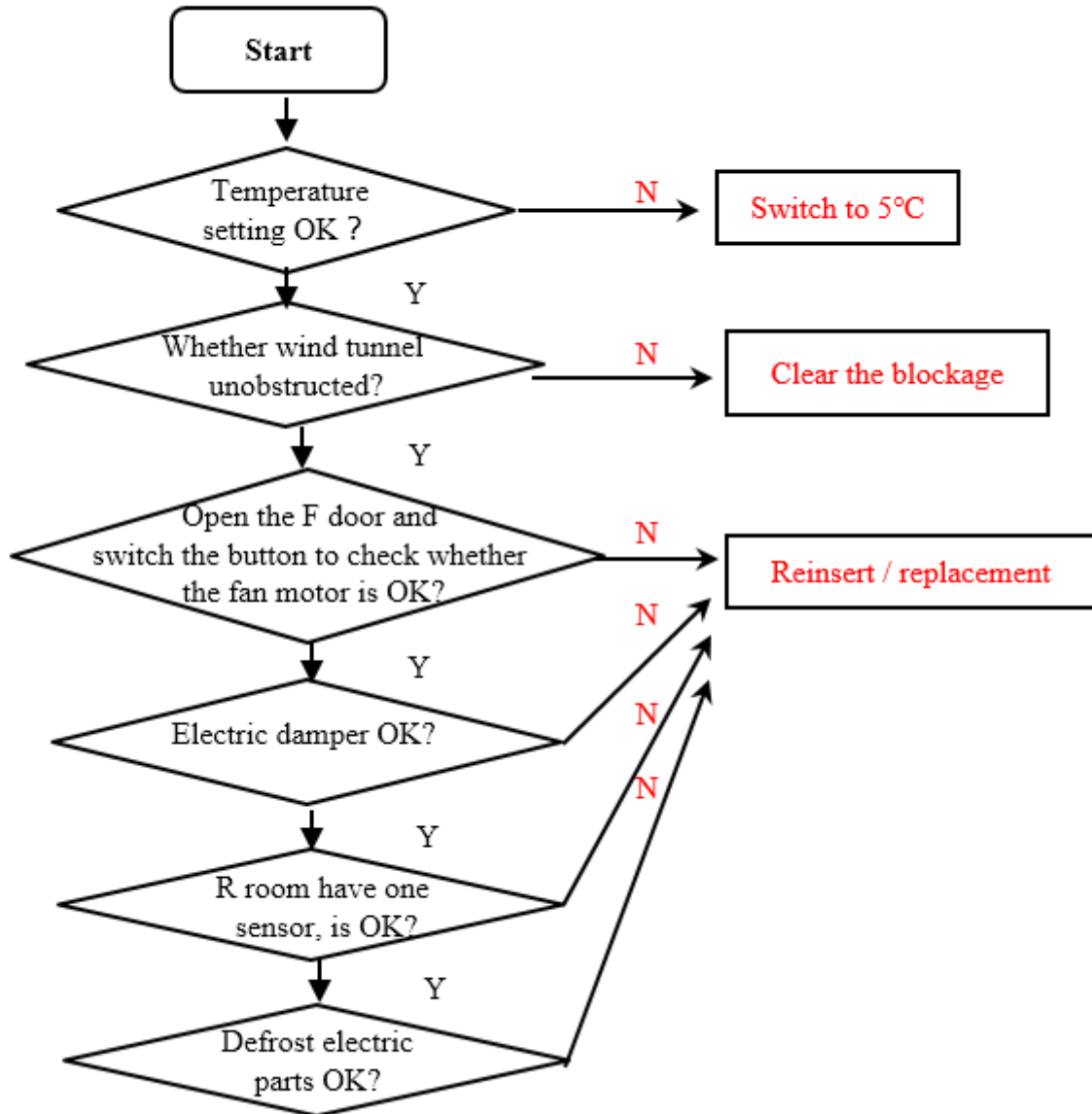
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## 11. Troubleshooting Method

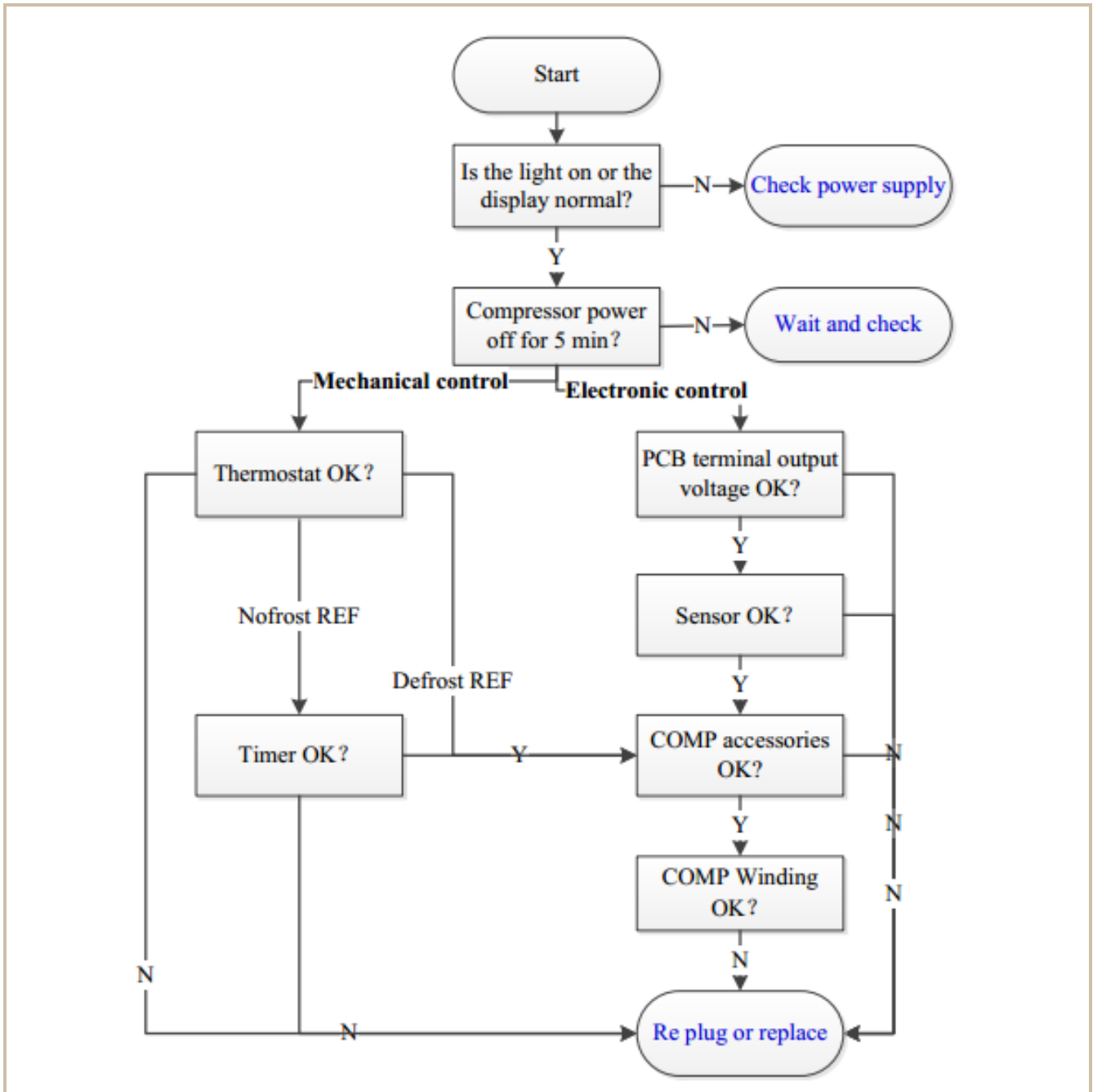
### 11.1 No cooling (Air cooling-Electronic)



# F room cooling, R room no cooling

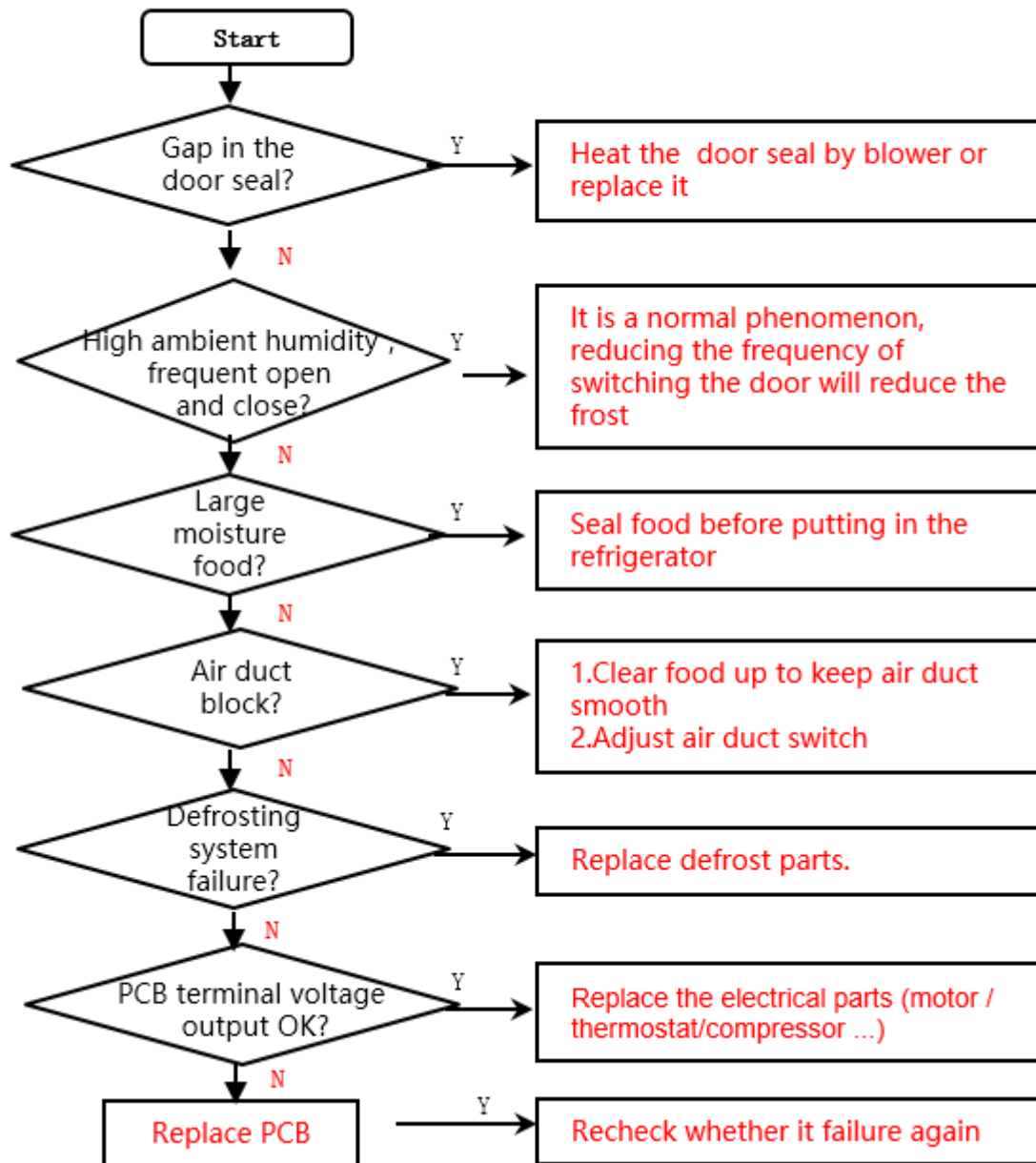


**11.2 No working of compressor**



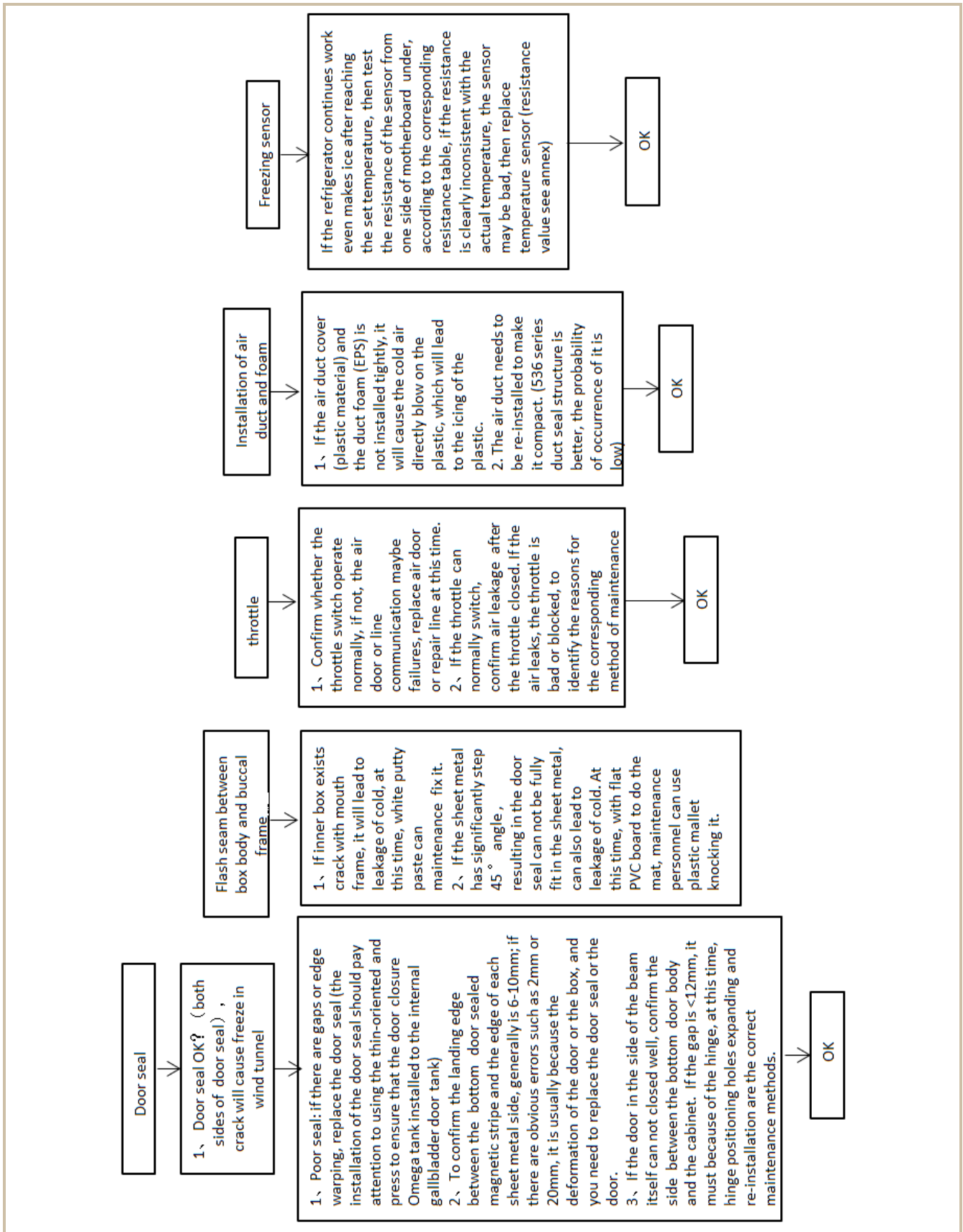
## 11.3 Inside frosting, no defrosting

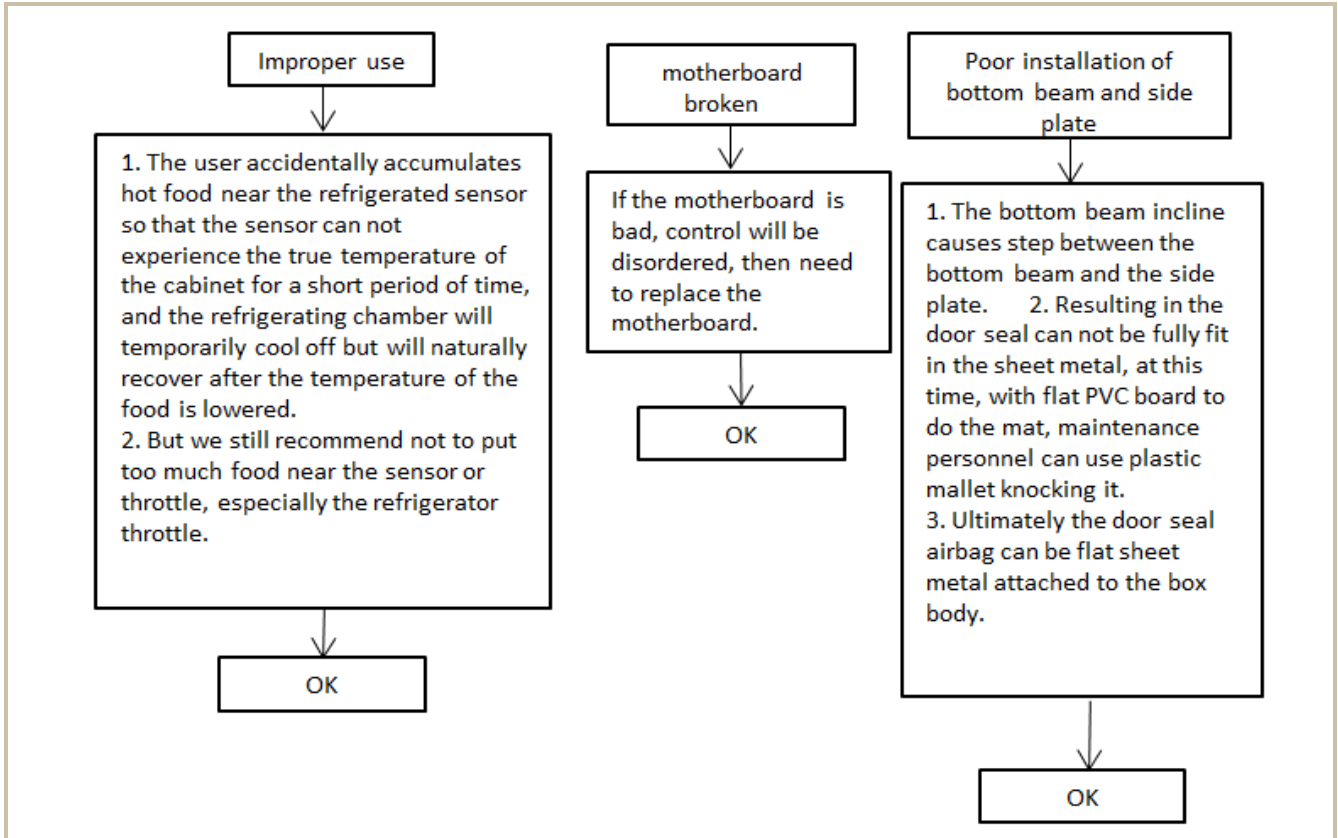
# Inside frosting, no defrosting



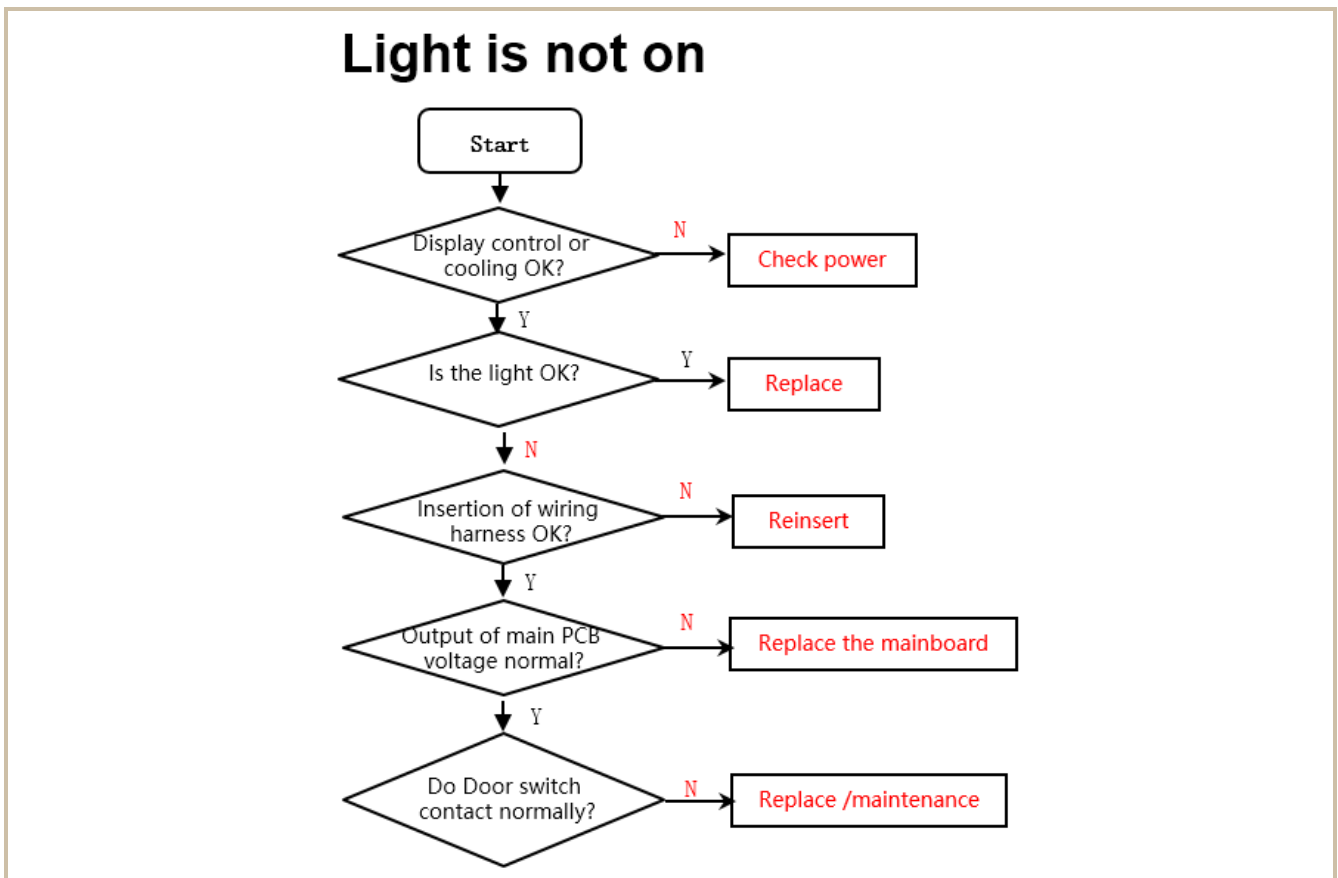


**11.4 Inside frosting, no defrosting-Maintenance guidelines**

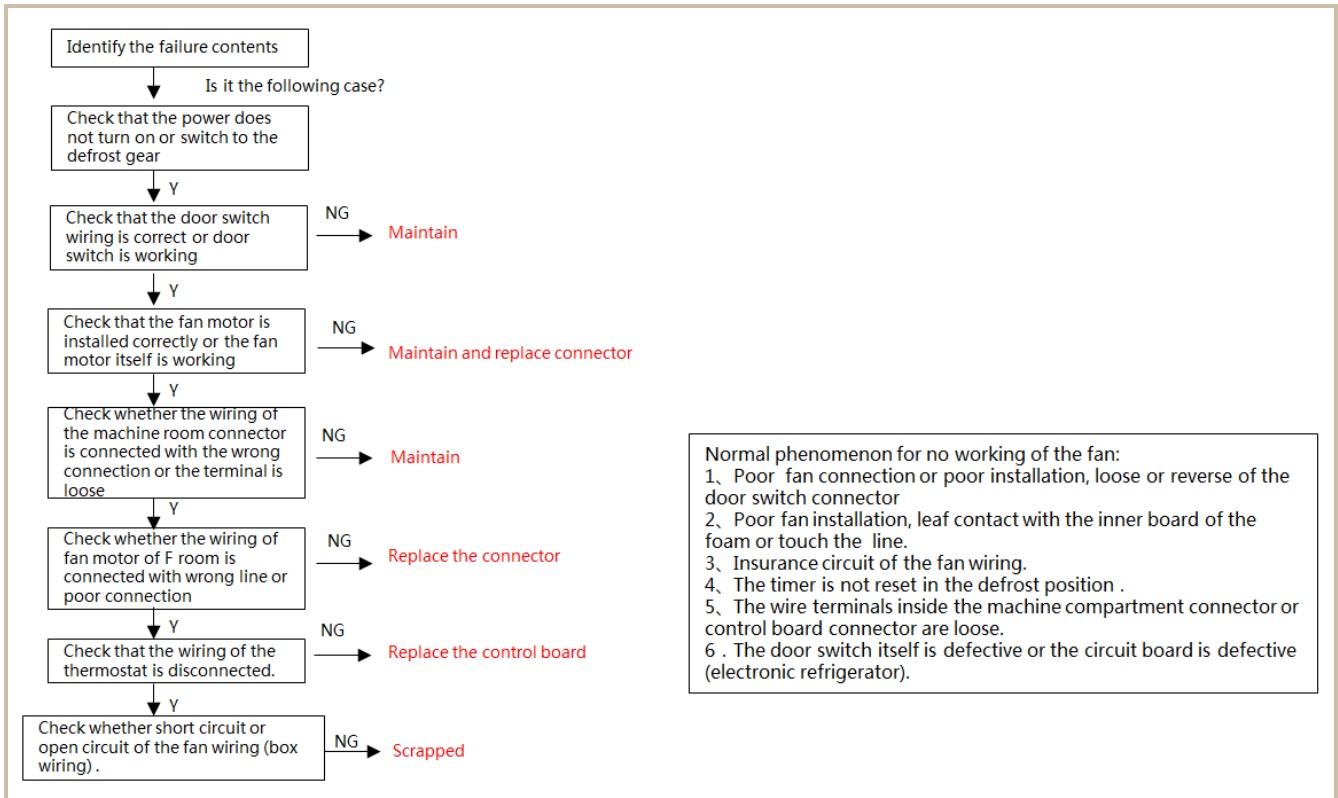




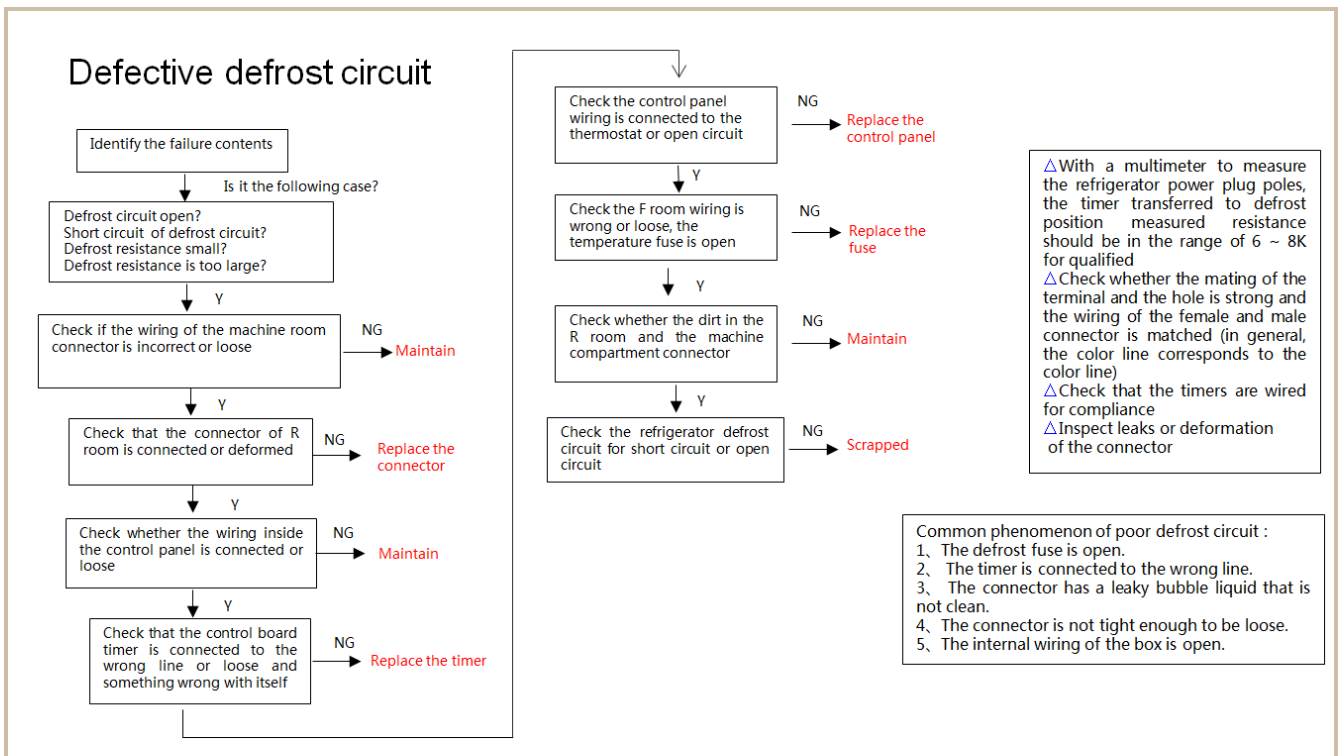
**11.5 Light is not on**



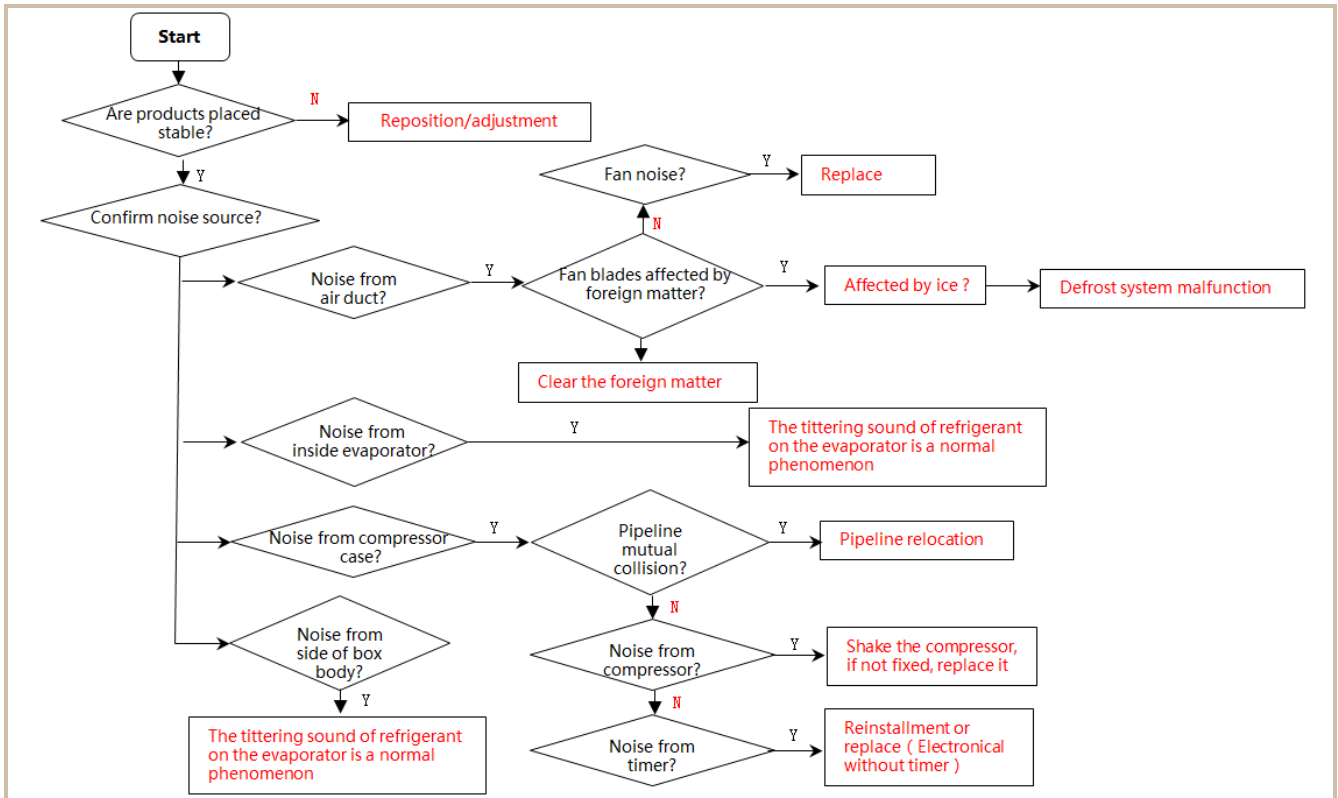
### 11.6 Fan failure



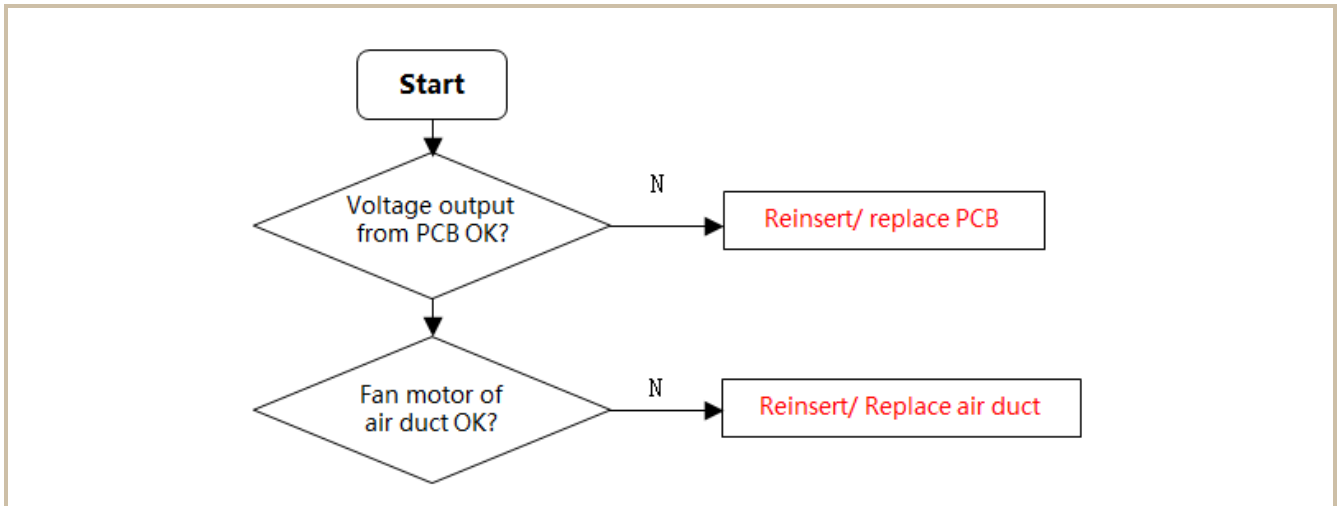
### 11.7 Defective defrost circuit



### 11.8 Noise



### 11.9 Air duct not operated



## 12. Product exploded view and spare parts list

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

### Entry Guidelines ( TSP System )

#### ■ Where



<https://tsp.midea.com>

#### ■ How

International users or customers:

**Account:** MC\*\*\*\*\* (provided by TSP administrator or Sales Manager).

*If you buy different categories from Midea group, you can see all the product information by one account.*

**Preliminary password:** Please contact the TSP administrator or sales manager for the password.

*If the input error more than 5 times, account will be locked, need contact the administrator to unlock.*



**Administrator:**

REF: Jamie Liu([liujc5@midea.com](mailto:liujc5@midea.com))



The symbol on the product or its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste for recycling, please contact your local authority, or where you purchased your product.

## Midea Refrigerators

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

[xxx@midea.com](mailto:xxx@midea.com)

**Refrigeration Division**  
**Overseas Sales Company**

Address: No. 176, Jinxiu Avenue, Economic-Technological Development Area, Hefei, Anhui, China