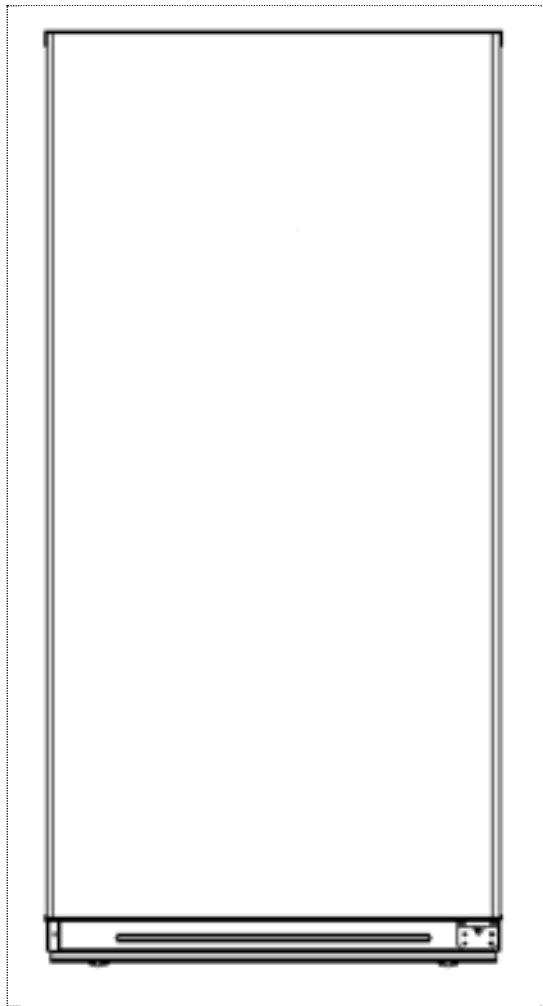


# Service Manual

## Upright No Frost Series


Applicable Models	Product Models	Applicable Models
HS-772FWEN	UR-BD594WE1-DT	22031010002602



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.

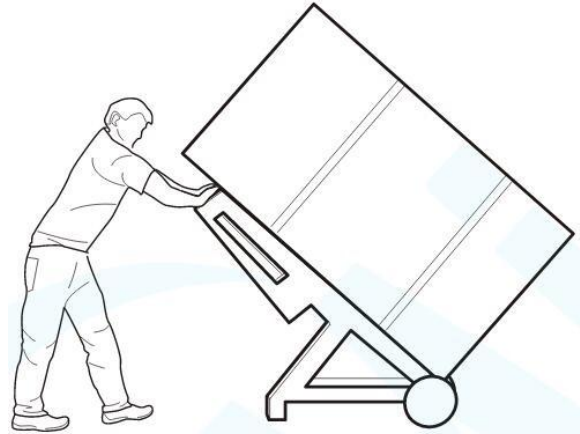


### 3. Installation and commissioning

#### 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.



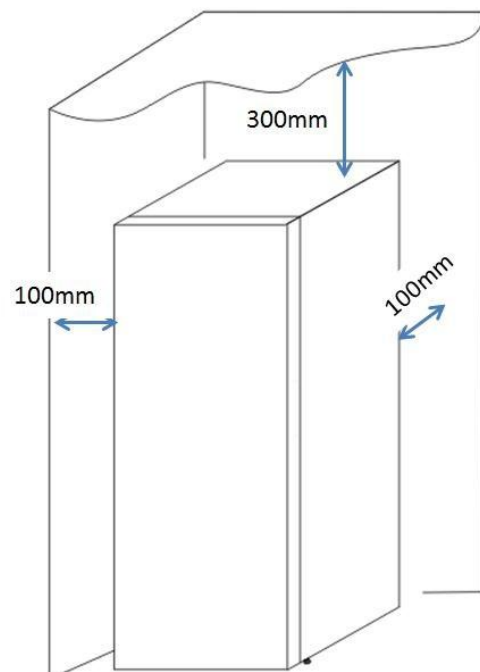
#### 3.2 Door Disassembly and Assembly

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

#### 3.3 Installation location

##### Installation location

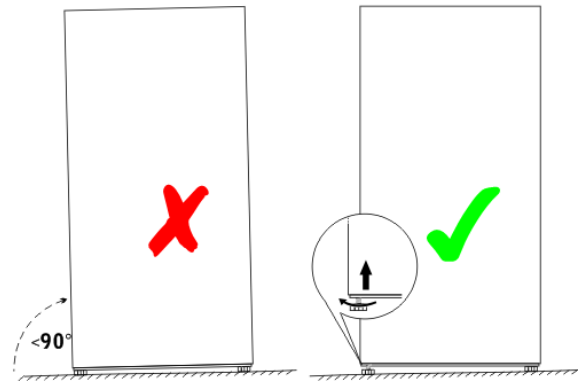
Please select a ventilated place to place the refrigerator, and reserve space according to the recommended size in the picture, which is conducive to heat dissipation, performance improvement and energy consumption reduction.



### 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 (None)

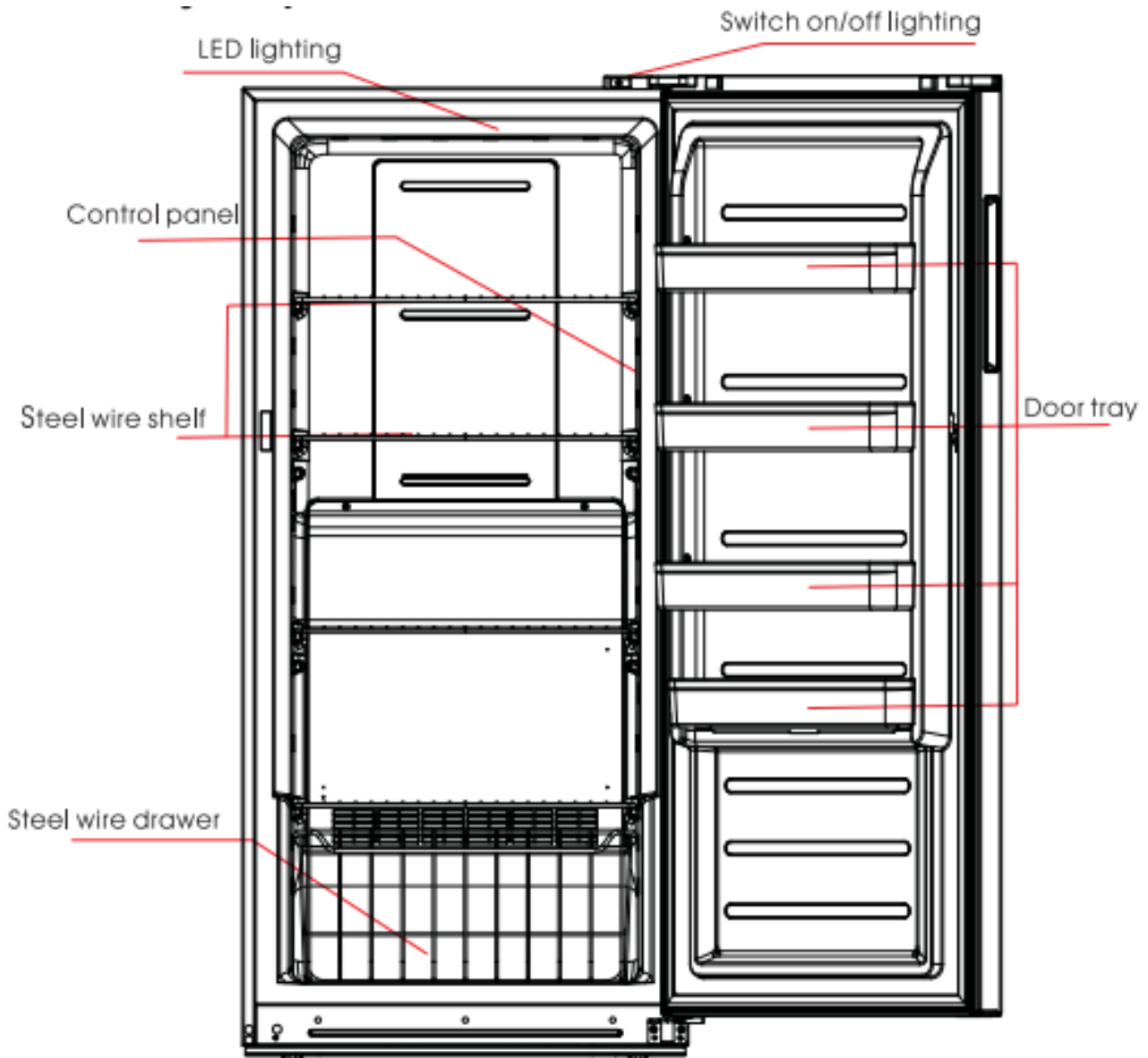
### 3.6 Installation of handle (None)

### 3.7 Installation of door lock (None)

## 4. Main parts and external dimension

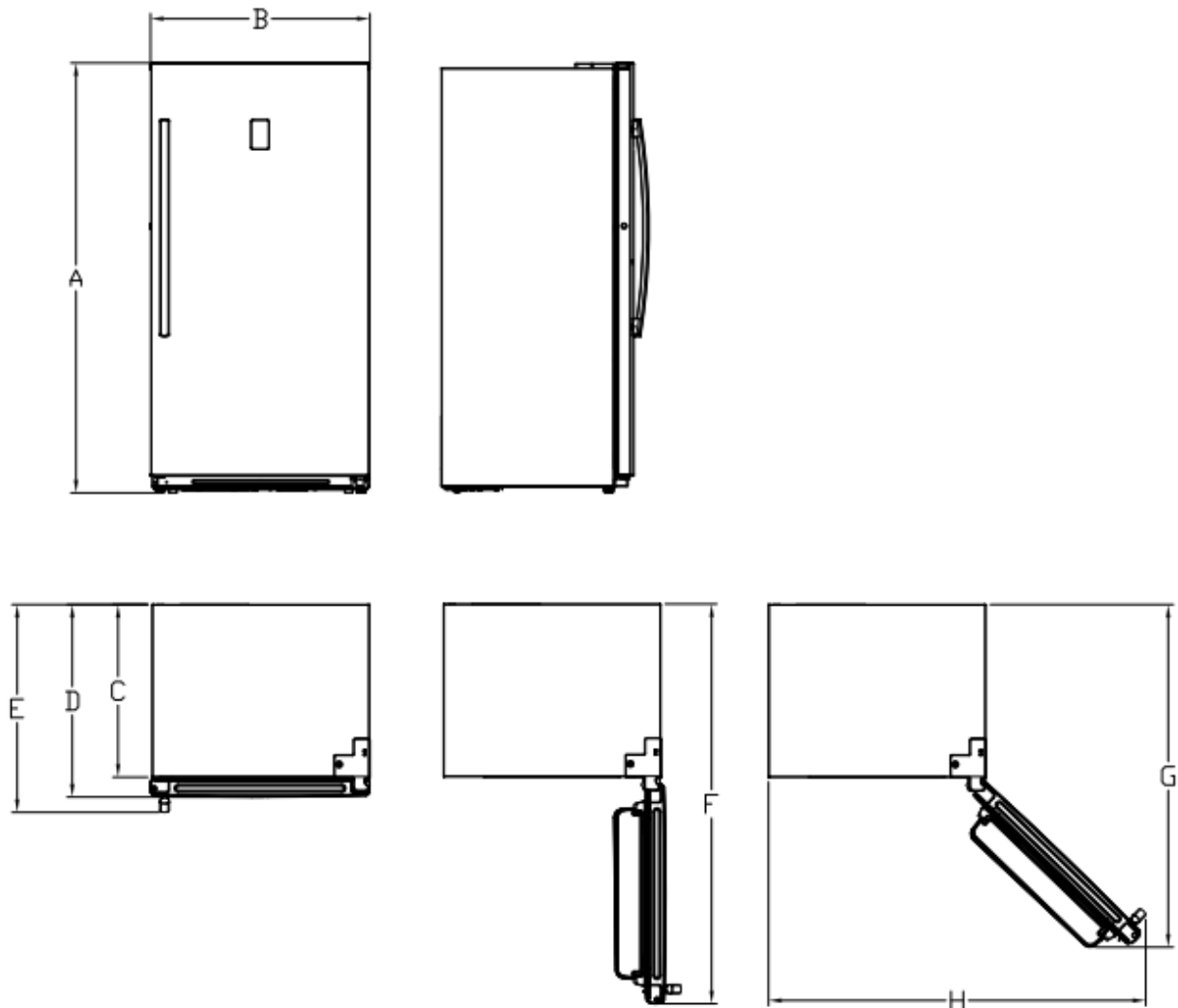
### 4.1 Main parts

(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	1950
Width	B	830
Depth w/Cabinet	C	660
Depth w/Door	D	735
Depth w/Handle	E	\
Depth (Door open 90 deg. w)	F	1528
Depth (Door open 135 deg. w)	G	1310
Width (Door open 135 deg. w)	H	1442



(The picture is only for reference)

## 4.3 Midea product serial number and location

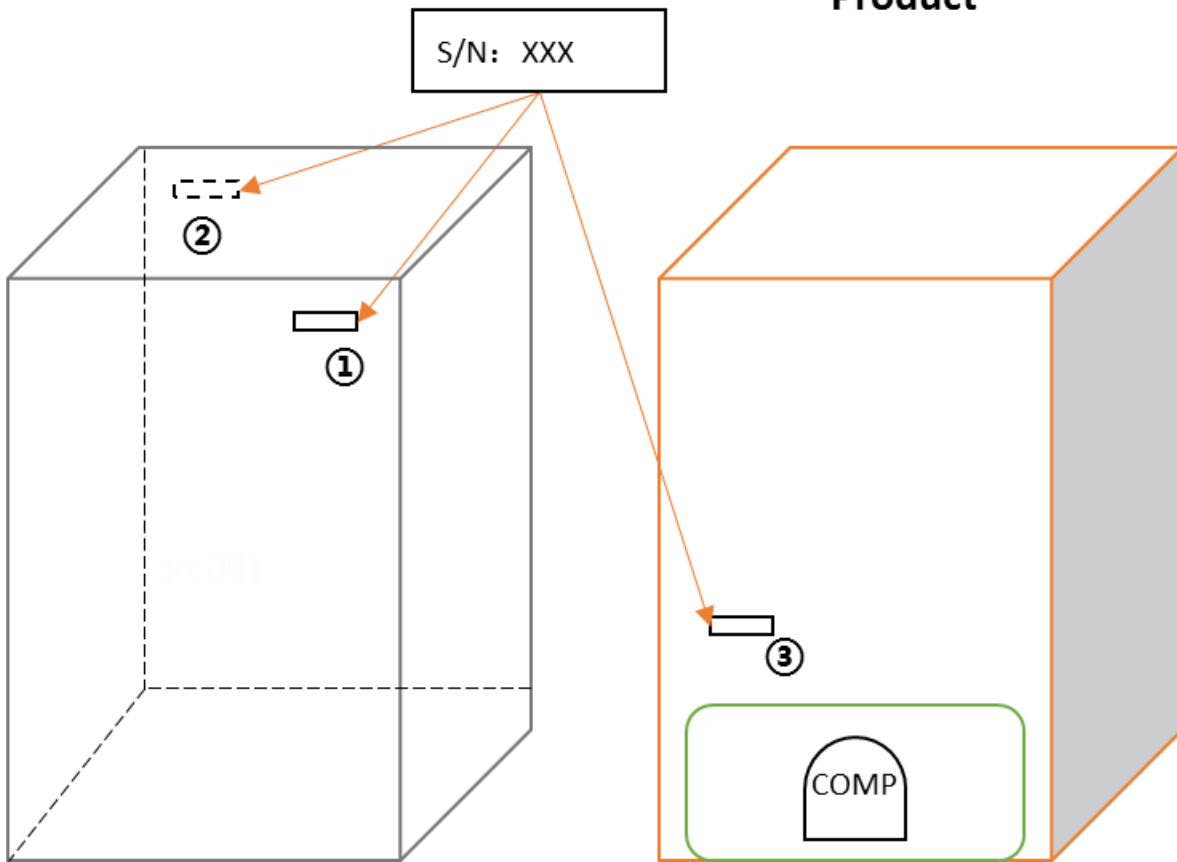
1) **Product Serial Number** — Including order number, production date and other information. When the product occur problem, it needs to be recorded or photographed and provided to us.



2) Paste location

Carton Box

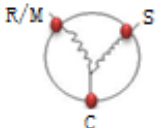
Product



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

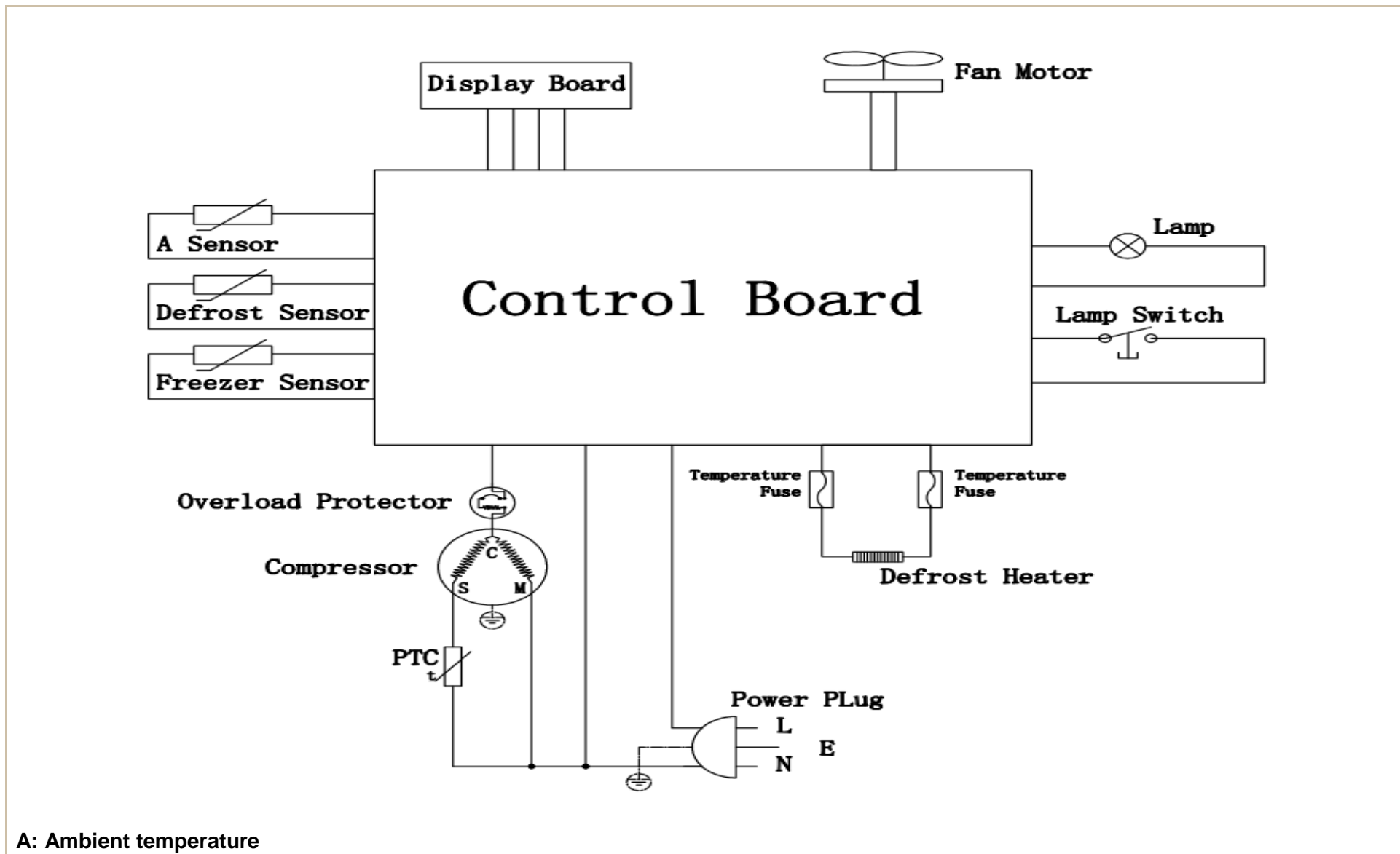
## 5. Electric control system

### 5.1 Electrical parts parameters

Applicable Model	HS-774FWEN	
Product Model	UR-BD594WE-DT	
Product code	22031010002602	
Rated Voltage	115V、60Hz	
Item	Specification	
Refrigerant	R600a	
Compressor	FZ80E1G (Part code : 11101010001525)	
Starting device type	Fixed Speed	
The COP of compressor	1.44 (W/W)	
The max cooling capacity of compressor	166 W	
Winding resistance of compressor wiring terminal (20°C)	Rmc:3.48Ω±7% Rsc:7.08Ω±7% Rms = Rmc + Rsc	
Winding resistance picture		
Starter(PTC)	QP2-4R7 (Part code : 12031000001063)	
Overload protector(OLP)	DRB35X61A1 (Part code : 12031000001232)	
Integrate PTC+OLP	None	
Variable frequency driver board	None	
Capacitor	None	
Power filter (EMI)	None	
Power reactor (EU EMC)	None	
Motor		
Fan motor of the freezing chamber	DC12V、3 W、1800 r/min	
Fan motor of the refrigerating chamber	None	
Electric damper	None	
Lights		
Lights inside the top of refrigerating chamber	None	
Lights inside the freezing chamber	DC12V、4W	
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、320W	

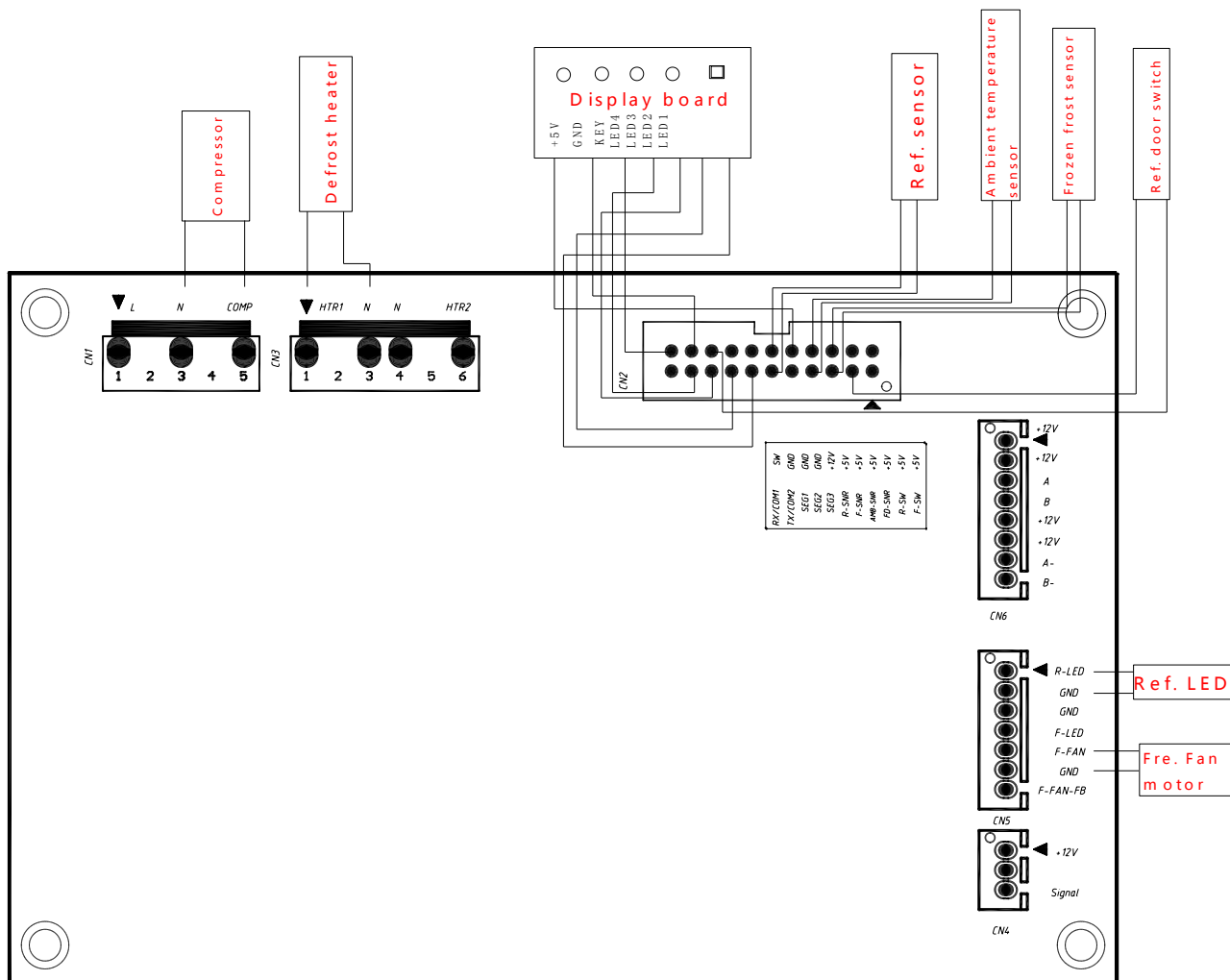
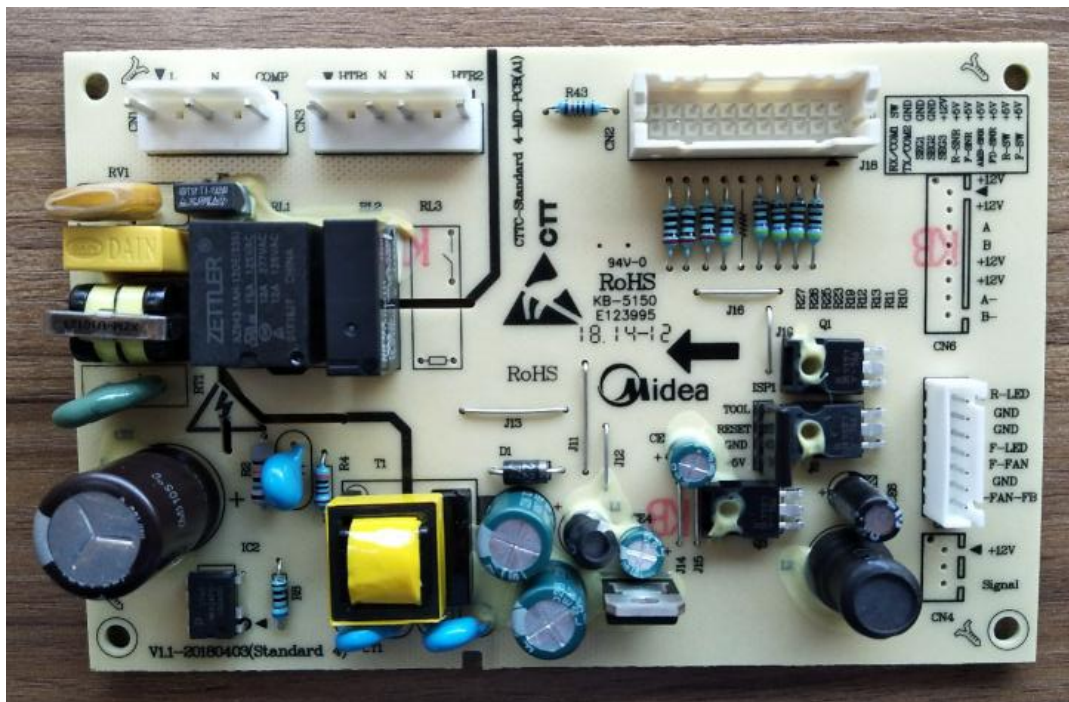
5.2 Circuit diagram



A: Ambient temperature



5.3 Main PCB terminal connection diagram



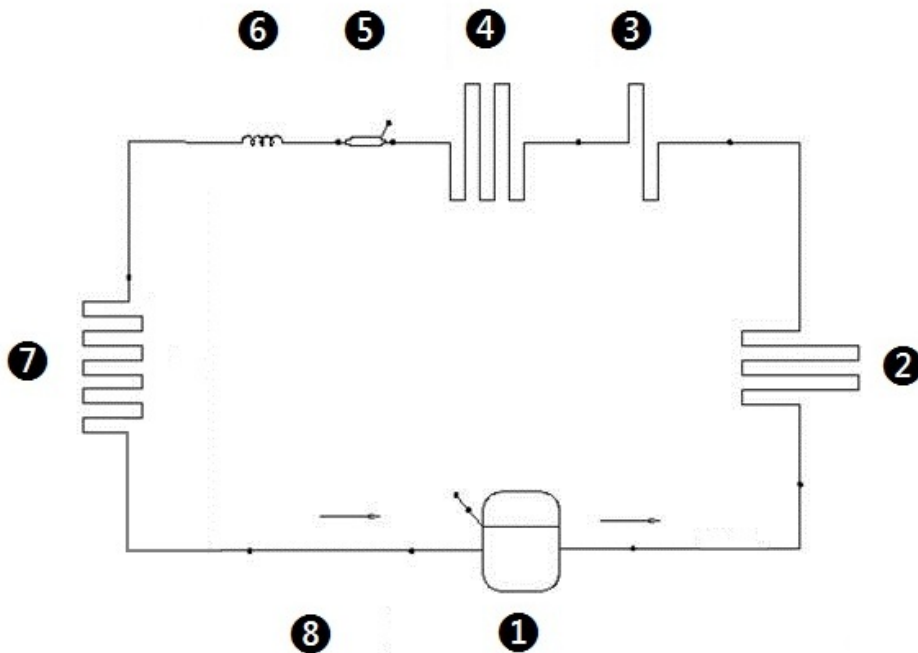
**5.4 Inverter board terminal connection diagram (None)**

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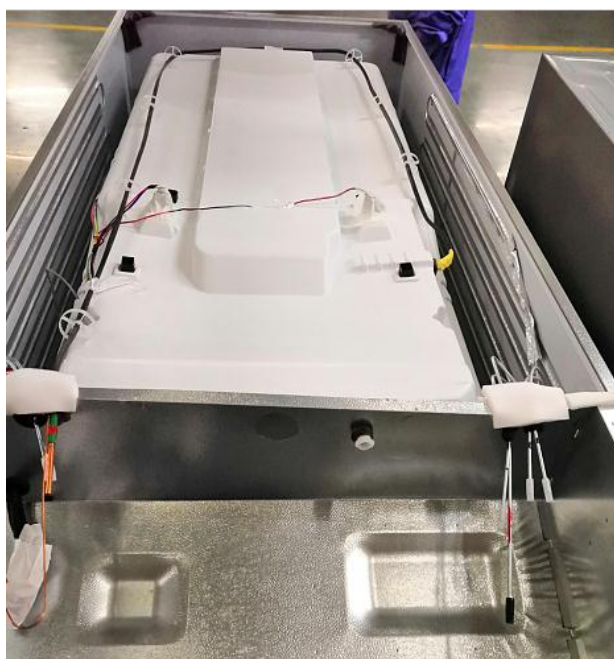
## 6. Refrigeration system

### 6.1 Refrigeration system working principle

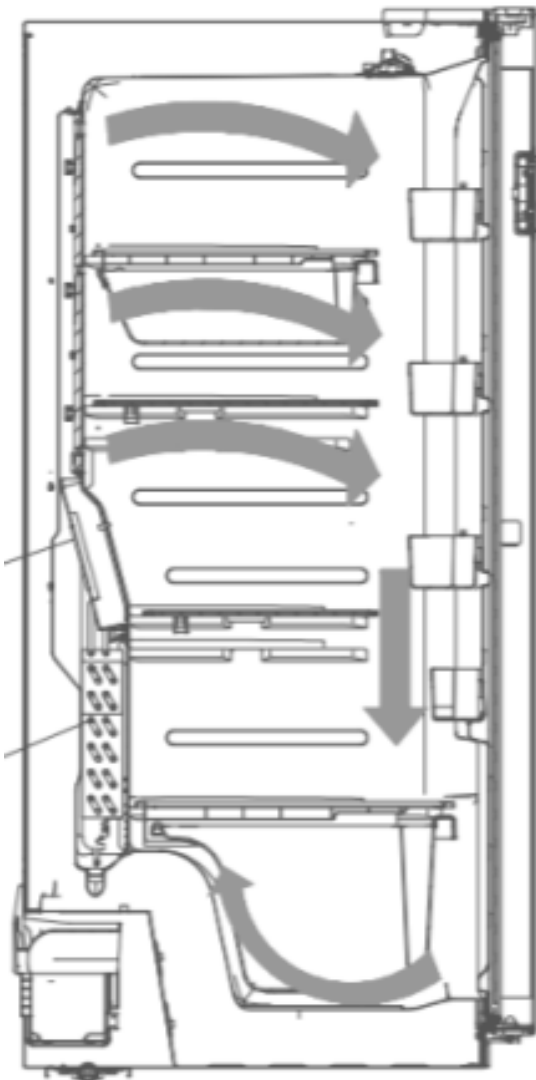
① Compressor → ② Right condenser → ③ Anti-condensation tube → ④ Left Condenser → ⑤ Dry filter → ⑥ Capillary tube → ⑦ Evaporator → ⑧ Suction tube → ① Compressor



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

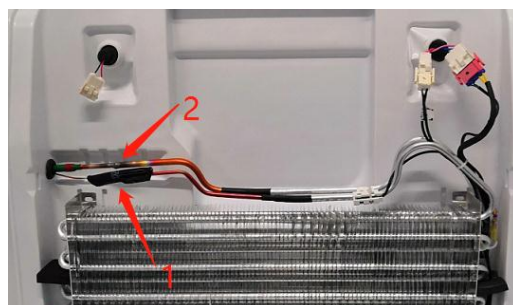


**6.3 Circulating route of cooling air**



**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:  $\Phi 6$

Copper pipe:  
 $\Phi 6.35$

2-Heat transition tube and outlet of evaporator

Copper pipe:  $\Phi 6$

Copper pipe:  
 $\Phi 6.35$

**6.5 Welding point in the compressor case**



Welding point	Pipe outer diameter (mm)	
	1-Inlet of right condenser tube and outlet of venting connection tube	Steel pipe: Φ4.0
2-Inlet of anti-condensation tube and outlet of right condenser tube	Steel pipe: Φ4.0	Steel pipe: Φ4.0
3-Outlet of anti-condensation tube and inlet of left condenser tube	Steel pipe: Φ4.0	Copper pipe: Φ4.0
4-Outlet of left condenser tube and inlet of dry filter	Steel pipe: Φ4.0	Copper pipe: Φ5.0
5-Outlet of dry filter and inlet of freezer capillary	Copper pipe: Φ2.8	Copper pipe: Φ1.8
6-Heat transition tube and Suction connection tube	Copper pipe: Φ6.0	Copper pipe: Φ6.0
7-Suction connection pipe and compressor intake tube	Copper pipe: Φ6.0	Copper pipe: Φ8.17
8-Compressor outlet tube and inlet of venting connection tube	Copper pipe: Φ6.17	Steel pipe: Φ4.0
9-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;



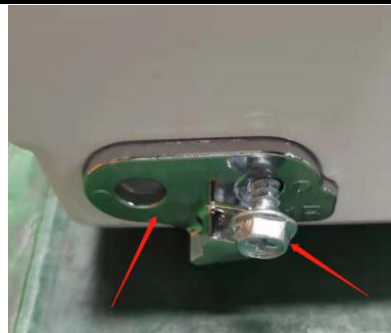
#### Door tray

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



#### Door stopper

After removing the door, remove the fixing screws at the position shown in the figure, remove the door sleeve pipe and stopper, and complete the stopper replacement.




### 7.2 Parts inside the refrigerator




#### Shelves

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



<b>Freezer Drawer</b>	
<p>The drawer is located at the freezing chambers;</p> <ol style="list-style-type: none"> <li>1) Pull the drawer out completely;</li> <li>2) Lift it up slightly and take it out from the refrigerator.</li> </ol>	

### 7.3 Light system

<b>Light</b>	
<p>Light of the freezing</p> <ol style="list-style-type: none"> <li>1) Remove the lamp cover</li> </ol>	
<ol style="list-style-type: none"> <li>2) Disconnect the terminal block, remove the LED</li> <li>3) The reverse process can complete installation.</li> </ol>	
<b>Light switch</b>	
<ol style="list-style-type: none"> <li>1) Remove the screws on the hinge cover</li> <li>2) Remove the terminal, press the light switch elastic plastic block to remove the switch</li> </ol>	

### 7.4 Air duct components in refrigerating chamber and fan motor (None)

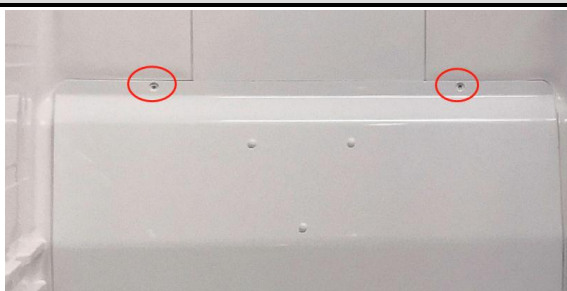
<b>Air duct components in freezing chamber</b>	
	None

## 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 1 screws on the cover plate of the freezing air duct using a cross screwdriver



2) Open the cover plate, pull out the terminal and take out the lower air duct cover plate.



3) hold the upper cover from the bottom, pull out the upper cover



4) Take out the freezing air duct assembly.



### Fan motor of air duct



1) Pry up all plastic hooks, and separate the back cover plate from air duct assembly.



2) Use cross screwdriver to remove the 3 pcs screws..

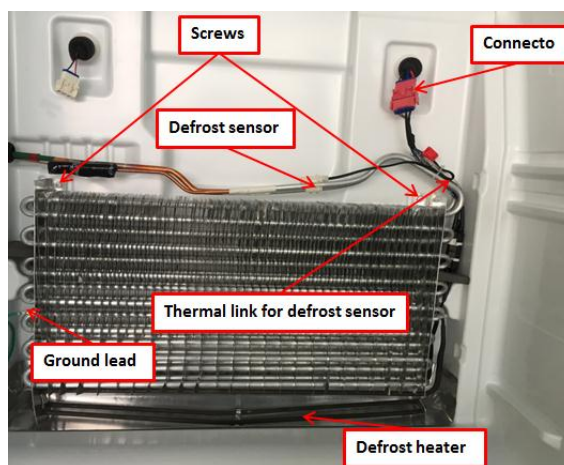


3) Take off the fan motor, replace a new one, the reverse operation is for assembly.

## 7.6 Evaporator and Defrost system

### Evaporator in freezing chamber

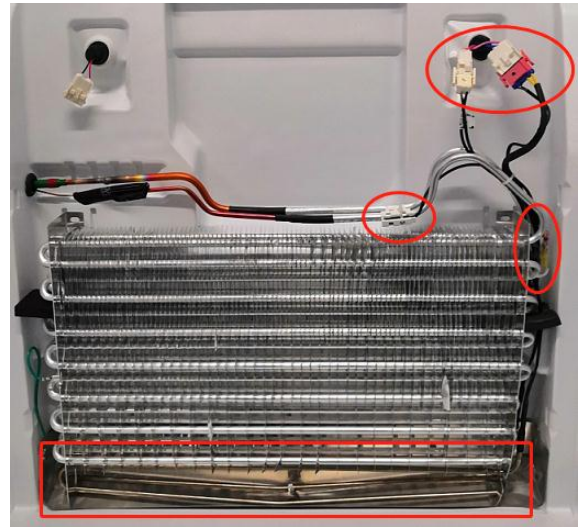
- 1) Remove the air duct components in freezing and variable temperature chamber.
- 2) Disconnect all connecting terminals.
- 3) Remove the welding on inlet and outlet tubes.
- 4) Remove the evaporator.



**Components on the evaporator**

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

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

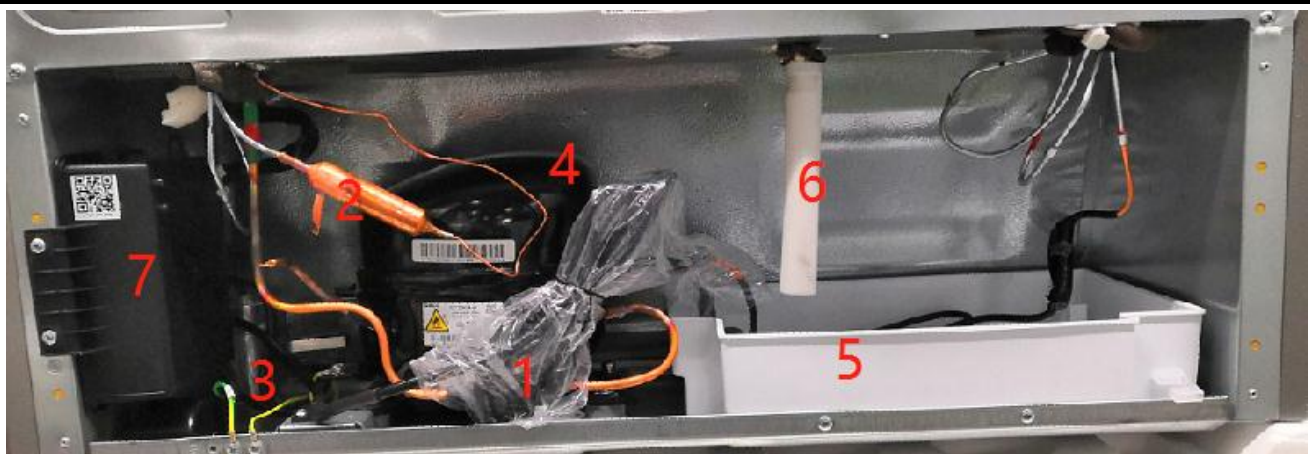


**7.7 Compressor case**

**Rear cover**

None

**Piping and parts in the compressor case**

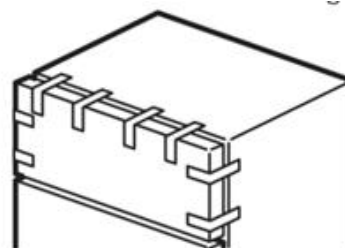


- 1-Power cord
- 2-Dry filter
- 3-Capacitor
- 4-Compressor

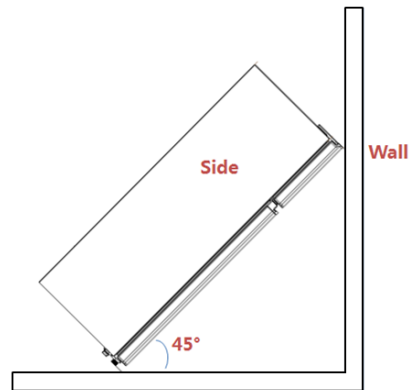
- 5-Drain tray
- 6-Drain-pipe
- 7-Main PCB mounting box

**Disassembly and assembly of compressor**

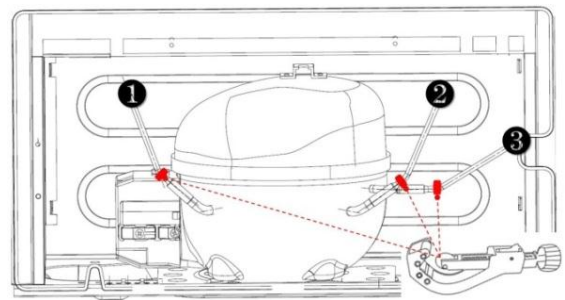
- 1) Cut off the power, remove the goods in the refrigerator, with the tape to make the door fixed firmly and prevent the door dropping when the refrigerator dumping.



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.

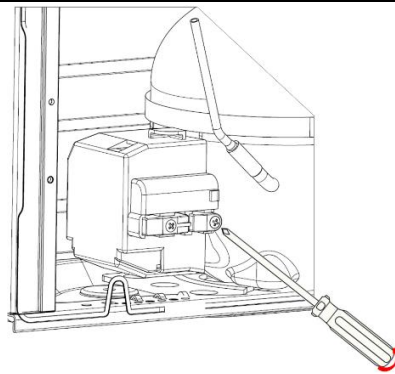


3) Cut off the compressor pipeline.-①Cut off the process pipeline.-②Cut off the low-pressure muffler.-③Cut off the high-pressure exhaust pipe.



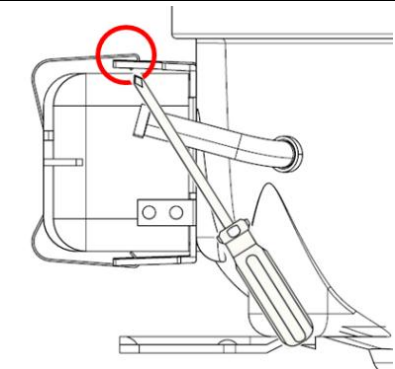
4-1) **Remove the screws(for some models)**

- Two screws outside
- One screw inside



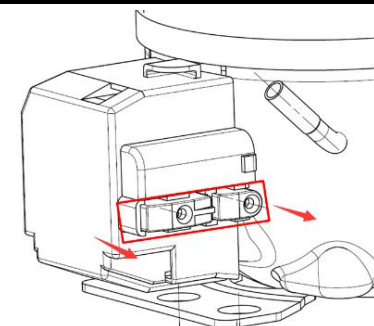
4-2) **Remove the metal clamp(for some models)**

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



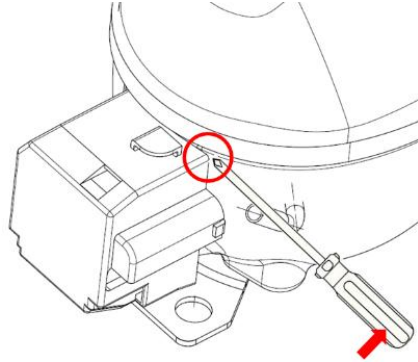
5) **Remove the clipping strip**

Slowly pull it out



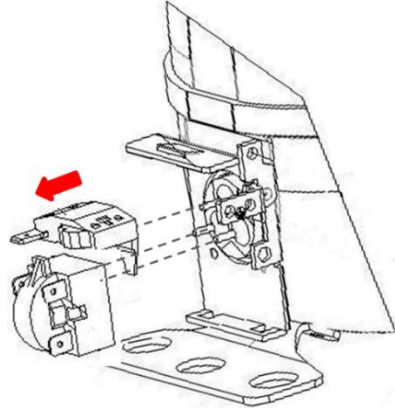
6) **Remove the protective cover**

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

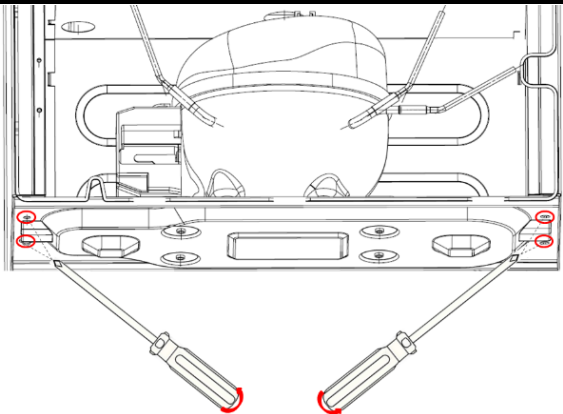


7) **Remove the starter and protector**

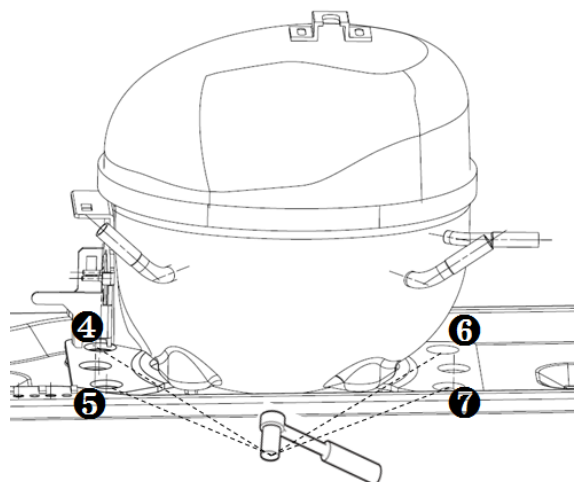
Unplug the starter and protector (you can use a screwdriver to pry it slowly)



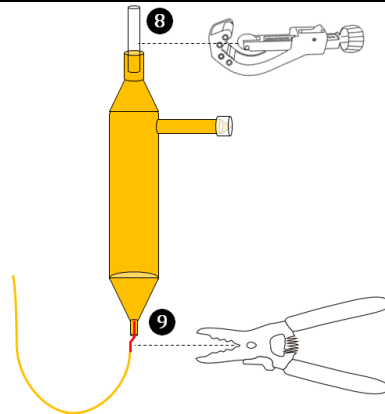
8) Loosen the screw of the compressor bottom plate, remove the floor together with the compressor from the box.



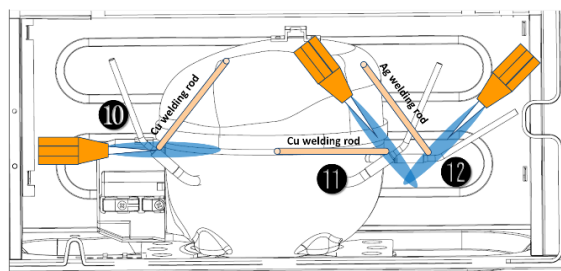
9) Use the wrench to remove the bolts by steps ④⑤⑥⑦, replace the compressor and reverse process can complete installation.



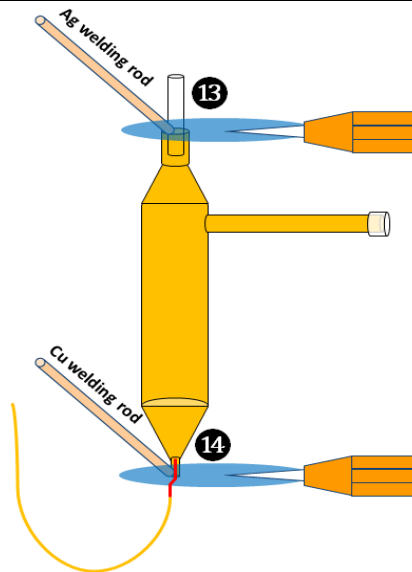
10) Use Pipe cutter cut off the condenser tube ⑧, then Shear off capillary ⑨ by the capillary tube scissors.



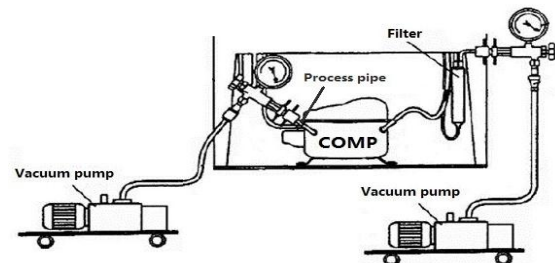
11) Replace the compressor and welding the compressor pipeline.-⑩Welding the process pipeline.-⑪Welding the low-pressure muffler.-⑫Welding the high-pressure exhaust pipe.



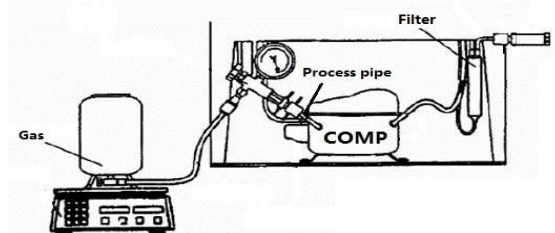
12) Replace the filter, Cu-Fe tubes welding ⑬ used Ag welding rod, Cu-Cu tubes welding ⑭ used Cu welding rod.



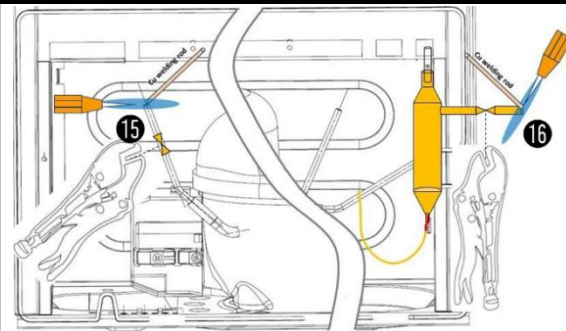
13) Vacuum system, The degree of vacuum below 6Pa.



14) Perfusion refrigerant.



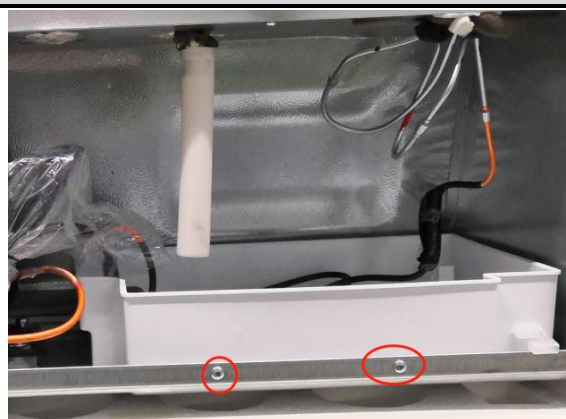
15) Use the vise grip pliers clamp the middle of the process pipe, then seal welding process tube 15 16.



**Back-hanging wire tube condenser (None)**

**Drain tray**

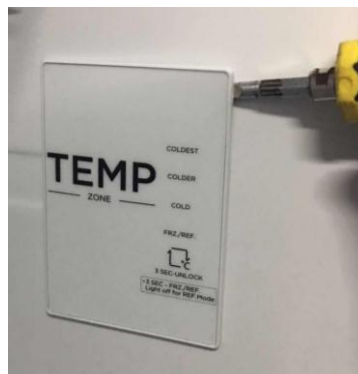
Remove the two fixing screws on the drain tray and pull it out, replace a new one.



**7.8 Display control board**

**Display control board**

- 1) Uncover the temperature control indication sticker on the cover plate of the display duct
- 2) Gently pry out the PCB installation box with a straight screwdriver to get the master control board and installation box components



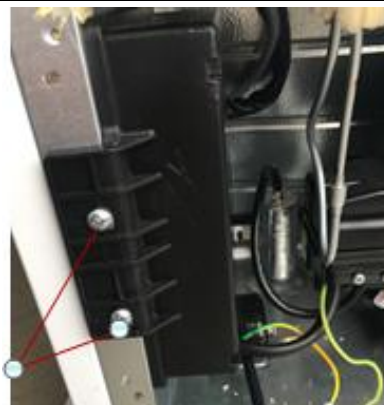
- 3) Pry open the buckle of the PCB installation box with a straight screwdriver to see the PCB board;
- 4) Remove 2 screws using a cross screwdriver to remove the master control board;
- 5) Pull out the connector terminal and replace the master control board in reverse steps;
- 6) \*The temperature control indication sticker is likely to be damaged when replacing PCB, thus it is advised to prepare one for standby before replacement:



## 7.9 Main control board

### **Main control board**

- 1) Remove 2 fitting screws of main control panel mounting box

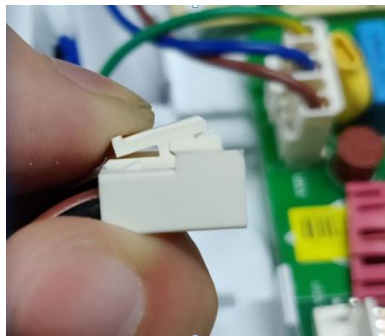
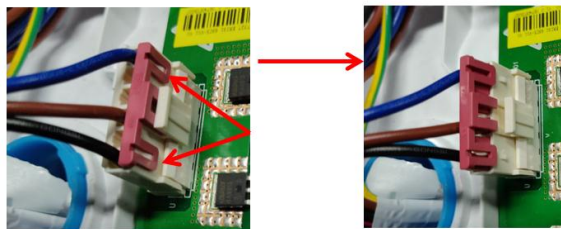


- 2) Take out the mounting box, pry up the cover, disconnect the wiring terminal.

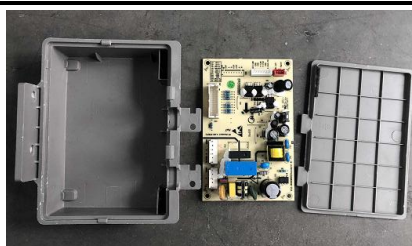


The connecting terminals remove:

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



3) Remove the screws, take out the main control board, and complete the replacement.



**7.10 Variable frequency driver board (None)**

**7.11 Water dispenser (None)**



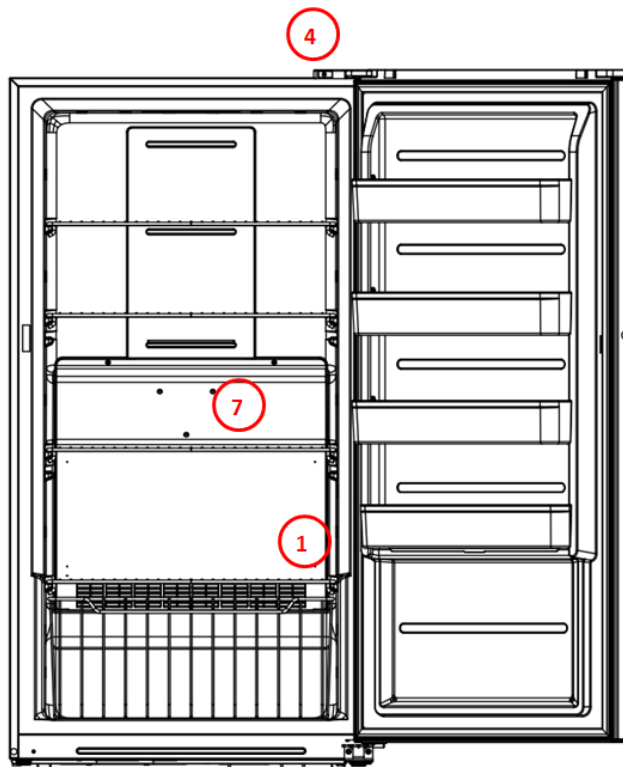
## 8. Temperature sensing system

### 8.1 Position of sensors

#### Position of sensors

Have 3 sensors

- ① Sensor in freezing chamber
- ② Sensor in refrigerating chamber
- ③ Sensor in Variable temperature chamber
- ④ Ambient temperature or humidity sensor
- ⑤ Ice machine sensor
- ⑥ Defrost sensor in refrigerating chamber
- ⑦ Defrost sensor freezing chamber



### 8.2 Replacement of sensors

#### Sensor in freezer chamber

The sensor is located at right of freezer chamber

- 1) Pull out the cover



2) Pull out the sensor



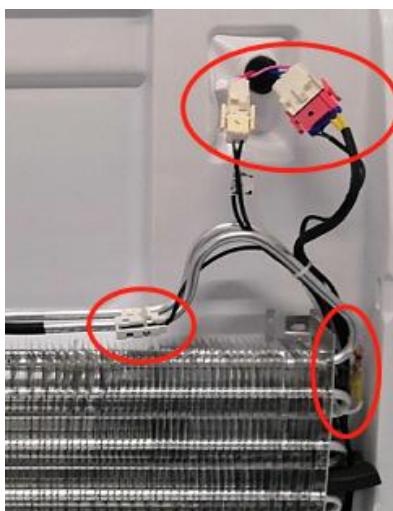
**Ambient temperature sensor**

The sensor is located in the wire box of the refrigerator top.




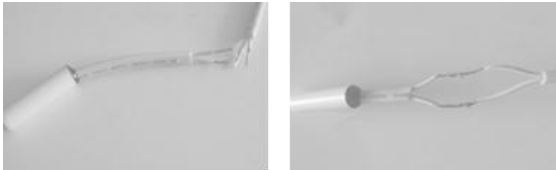




**Defrost sensor in freezing chamber**

- 1) Cut off wiring terminal;
- 2) Cut off the band which fixes the sensor;



**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**

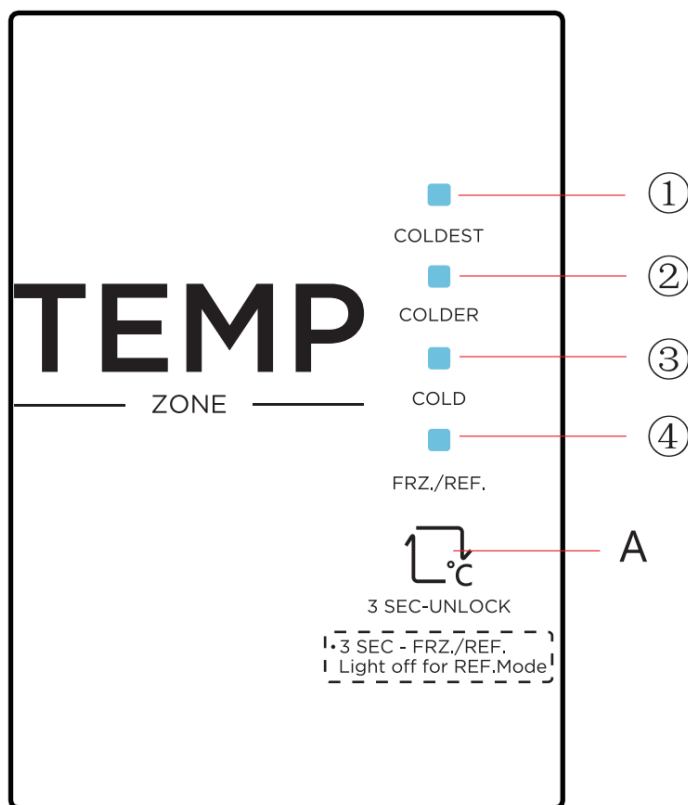
T <sub>x</sub> (°C)	T <sub>x</sub> (°F)	R (KΩ)	T <sub>x</sub> (°C)	T <sub>x</sub> (°F)	R (KΩ)	T <sub>x</sub> (°C)	T <sub>x</sub> (°F)	R (KΩ)
-30	-22.00	33.81	-5	23.00	8.392	20	68.00	2.501
-29	-20.20	31.85	-4	24.80	7.968	21	69.80	2.391
-28	-18.40	30.01	-3	26.60	7.568	22	71.60	2.287
-27	-16.60	28.29	-2	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

#### Refrigeration / freezing conversion display screen

Button	Icons
A. Gear setting	① Coldest gear ② Colder gear ③ Cold gear ④ FRZ./REF. mode switch



### 9.2 Temperature control

#### 9.2.1 Refrigeration / freezing mode switch

In the unlocked state, press and hold button A for three seconds to change the refrigeration / freezing mode. When the LED④ (FRZ./REF.) lights up, it means that the freezing mode is on, when it is off, it means that the refrigeration mode is on.

#### 9.2.2 Temperature setting

In the unlocked state, press the button A to set the temperature. Each press will cycle in the following gear sequence.

Coldest → Colder → Cold → Coldest

### **9.3 Mode setting**

#### **9.3.1 Locking and unlocking**

In unlocking state, keep pressing the button A for 3 seconds to lock, and the locking beeping will be rang.

In locking state, keep pressing the button A for 3 seconds to unlock, and the unlocking beeping will be rang.

The refrigerator enters into locking state automatically 15 seconds after no button operation.

### **9.4 Defrosting function**

#### **◆ Defrosting theory:**

The defrosting of evaporator is realized by the heating of heater, following the temperature rise, the frost on evaporator becomes water, and the water flow into the evaporating pan via the draining system, the water in evaporating pan evaporate away finally

#### **◆ Defrosting steps:**

Compressor shutdown--- the freezer fan motor closed, the heater start working ---the heater stop when the temperature rise to setting--- after 7 minutes, the compressor will start--- after 8 minutes, the fan motor will start work

#### **◆ Meet one of the following conditions , defrost heating exit:**

- 1) When the defrosting sensor has no fault, the measured temperature  $T_{fd} \geq$  the set temperature  $12^{\circ}\text{C}$  ( $54^{\circ}\text{F}$ ) which frozen defrost heating exit and the set temperature  $7^{\circ}\text{C}$ ( $45^{\circ}\text{F}$ ) which refrigerat defrost heating exit
- 2) When the defrosting sensor has no fault, the defrosting time is  $\geq 60$  minutes
- 3) When the defrosting sensor is faulty , the heater will stop after work 20 minutes

### **9.5 Open door alarm**

When the door is opened, the door opening indicator light is on, and when the door is closed, the door opening indicator light goes out;

At any time, when the door opening time of the freezing chamber is more than 5 minutes, it will enter the door opening alarm, and the door opening alarm indicator light flashes according to 500ms opening and 500ms closing; The buzzer sounds with frequency of once per second or pressing any key can eliminate the buzzer alarm.

Note: The door opening alarm time can be set through the APP and then remembered to the main board after setting.

### **9.6 Error code and solutions**

<b>Fault code</b>	<b>Fault content</b>	<b>Steps for maintenance methods</b>
LED①, ④ Light together	Ambient temperature sensor fault	Step 1: Check whether the terminal of temperature sensor in main control board is well stuck, pull out the terminal and re-stick it in place Step 2: Check whether the sensor wiring harness are connected. Step 3: Replace main control board. Step 4: Remove the temperature sensor at the hinge, and replace the temperature sensor.

LED ②, ④ Light together	Defrost sensor fault in freezing chamber	<p>Step 1: Check whether the terminal of defrost sensor in main control board is well stuck, pull out the terminal and re-stick it in place.</p> <p>Step 2: Check to see if there're foreign matters on the terminal.</p> <p>Step 3: Inspect the defrost sensor whether contact is bad, and resend contact the fast connector</p> <p>Step 4: Replace main control board</p>
LED ③, ④ Light together	Temperature sensor fault in refrigerating chamber	<p>Step 1: Check whether the terminal of temperature sensor in main control board is well stuck, pull out the terminal and re-stick it in place</p> <p>Step 2: Check to see if there're foreign matters on the terminal</p> <p>Step 3: Inspect the refrigerating sensor whether contact is bad, and resend contact the fast connector</p> <p>Step 4: Replace main control board</p>

### **9.7 Test mode**

This function is only used during the maintenance test. After the test is completed, the refrigerator needs to be powered off and then on again.

#### **9.7.1. Enter**

Press the button once when the power is fully displayed. Within 10 seconds, press the button 9 times in a row, and 4 indicator lights flash simultaneously, indicating the mandatory mode is entered

1. In forced mode, press the button once, (2), (3), (4) light up at the same time. Indicates that it is in forced run mode
2. In the mandatory mode, press the second key, (1), (2), (3) light at the same time. Means to enter mandatory frost mode

#### **9.7.2. Exit**

In mandatory mode, press the button three times to exit the mandatory mode

#### **9.7.3 Control**

1. Forced operation mode: the press exits the forced operation mode after 36h
2. Mandatory frost: frost after the withdrawal of mandatory frost automatically exit

Note: when forced defrost, defrost heater should be on for at least 2 minutes.

### **9.8 Demo mode (None)**

### **9.9 Backup data for power fail**

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

## 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 freezer chamber  $\geq$  Start up temperature of freezer
- 2) 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

★Shutdown temperature and Start up temperature have different values due to ambient temperature.

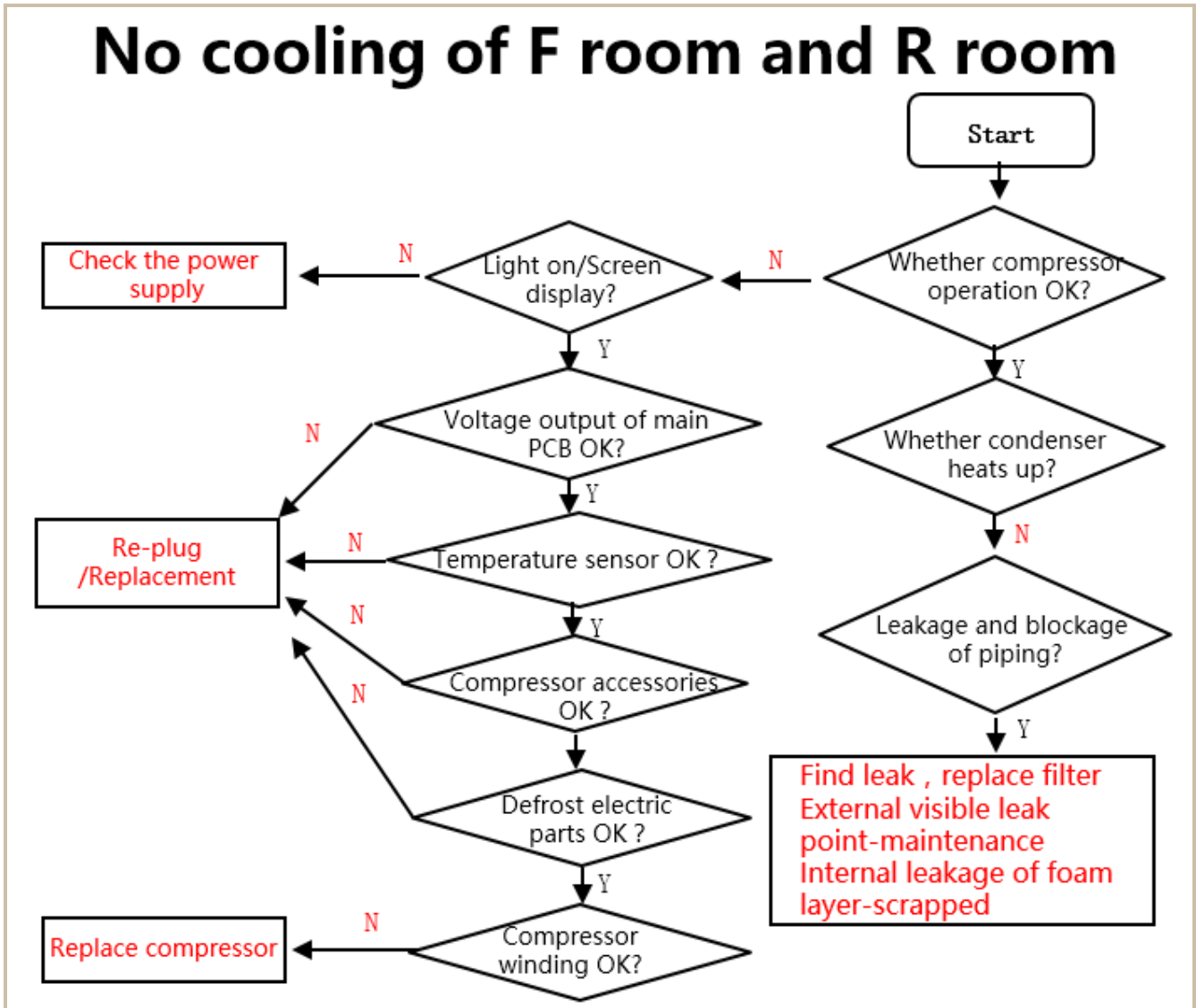
### **10.2 Inverter board fault analysis (None)**

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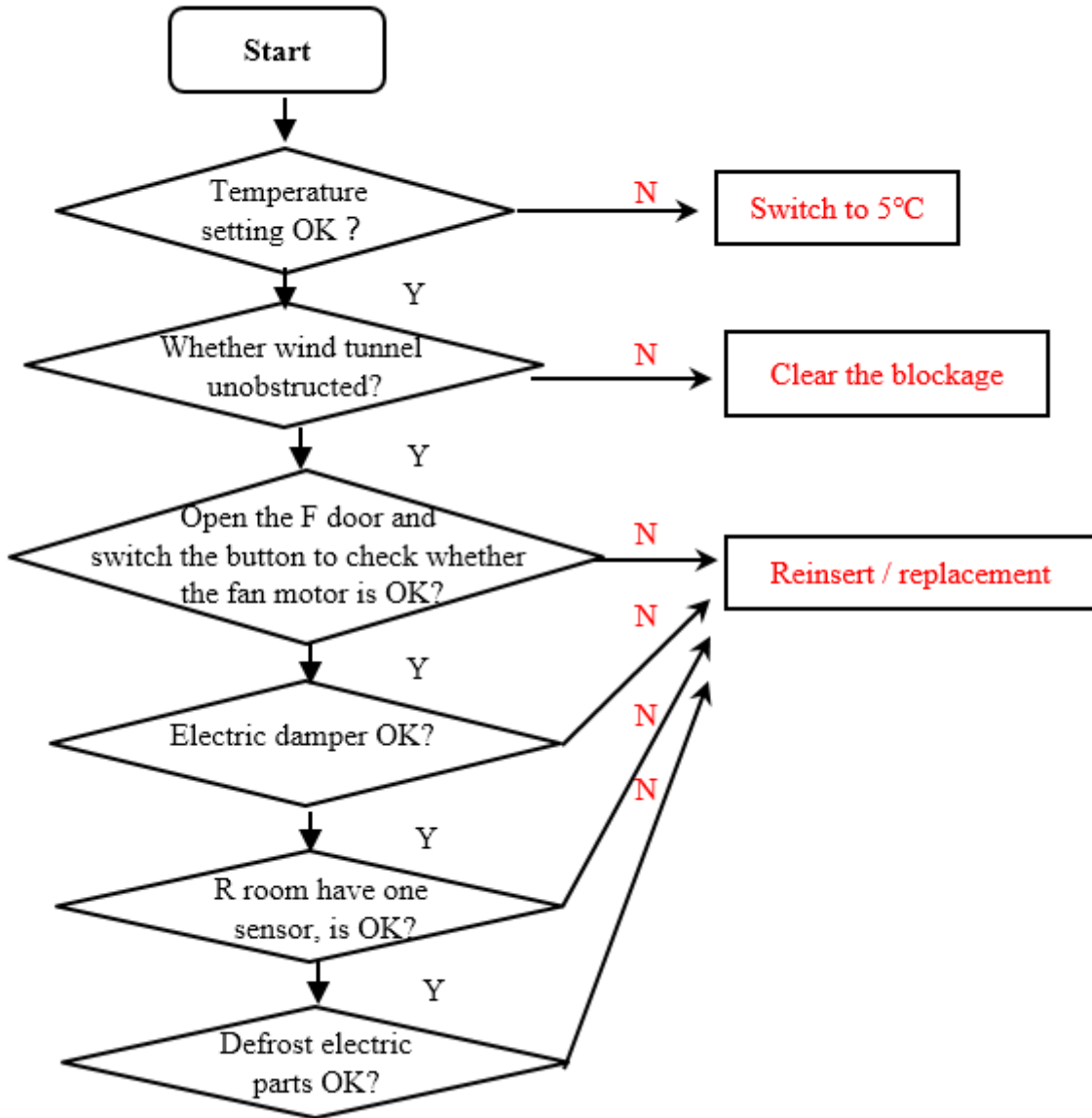


## 11. Troubleshooting Method

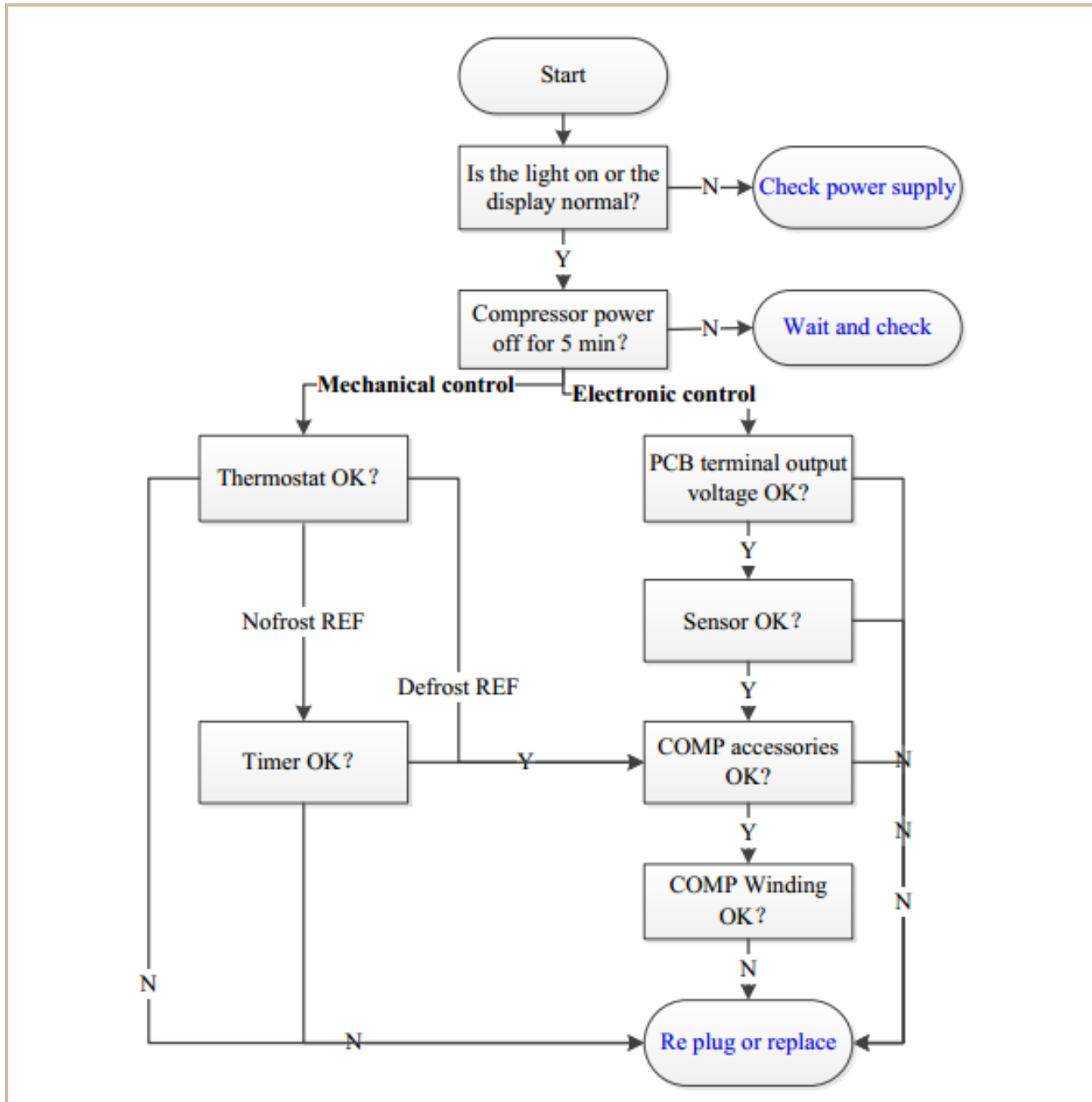
### 11.1 No cooling (Air cooling-Electronic)



# F room cooling, R room no cooling

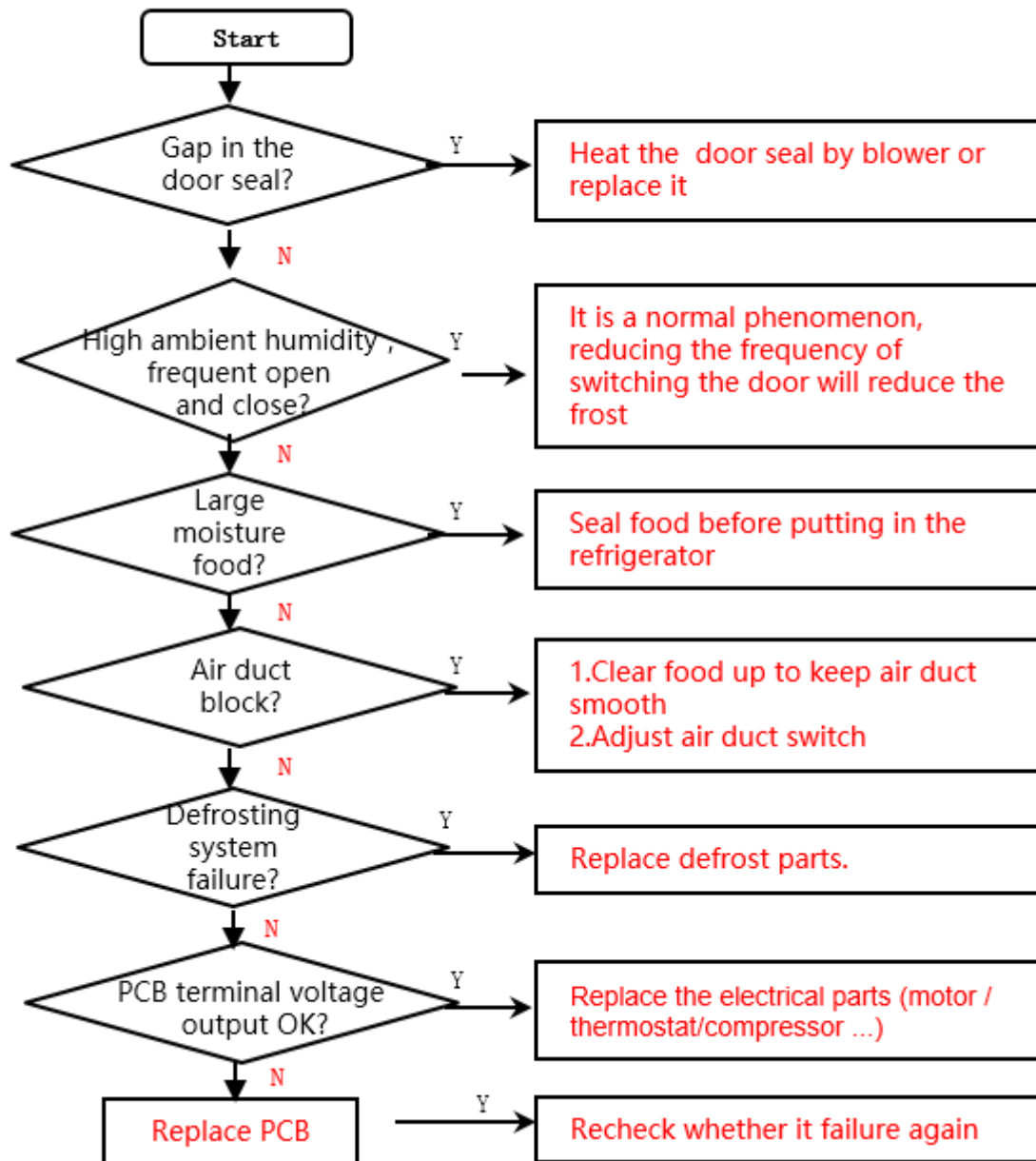


**11.2 No working of compressor**

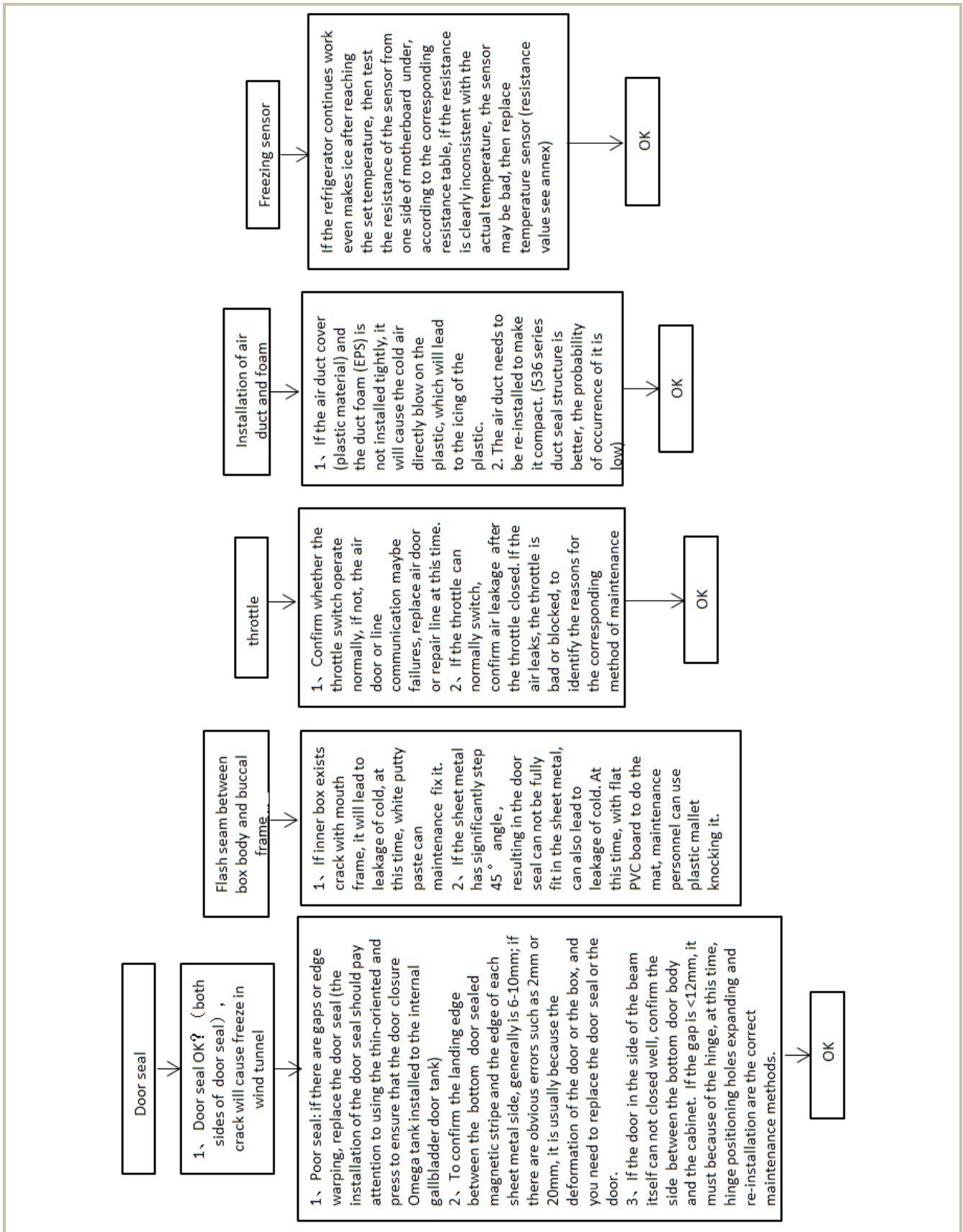


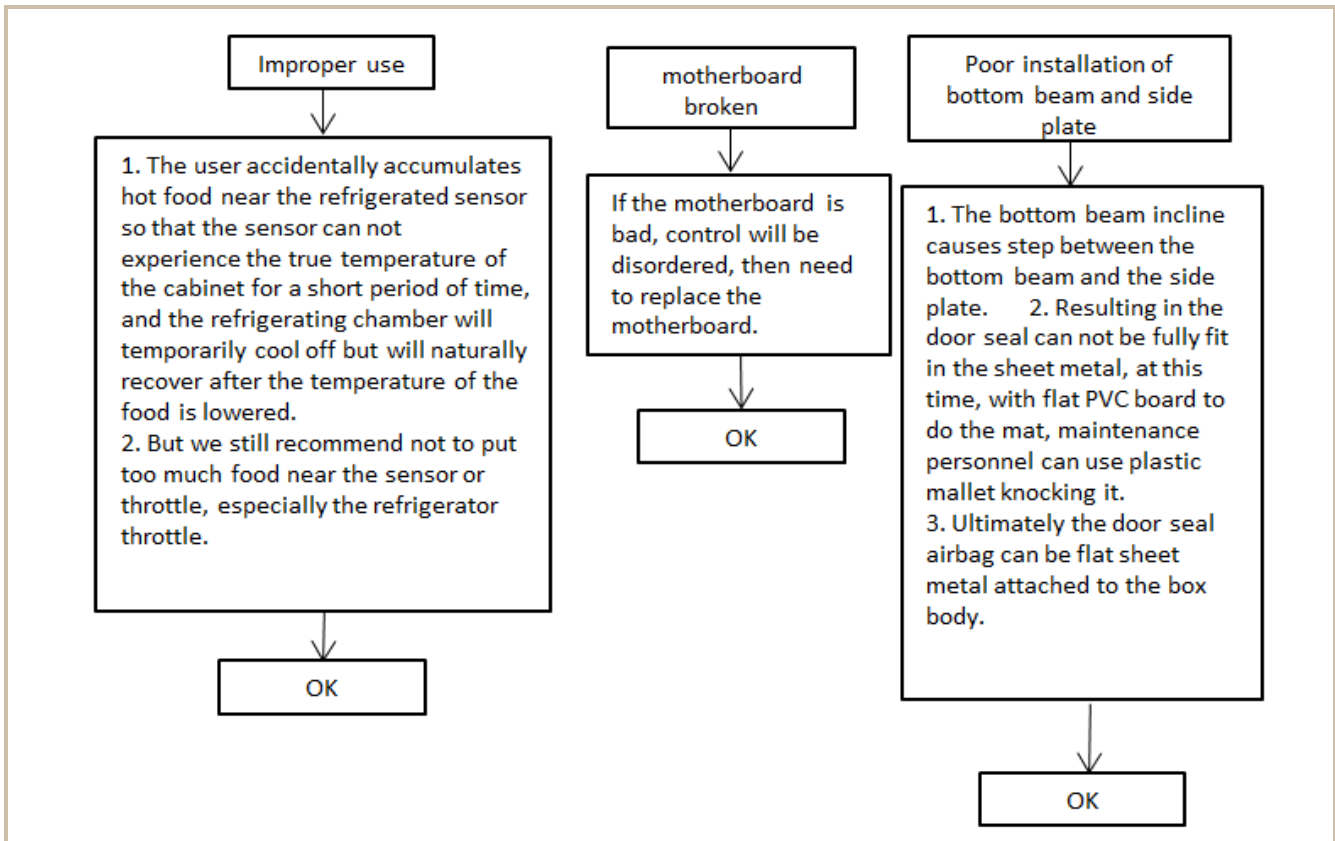
11.3 Inside frosting, no defrosting

# Inside frosting, no defrosting

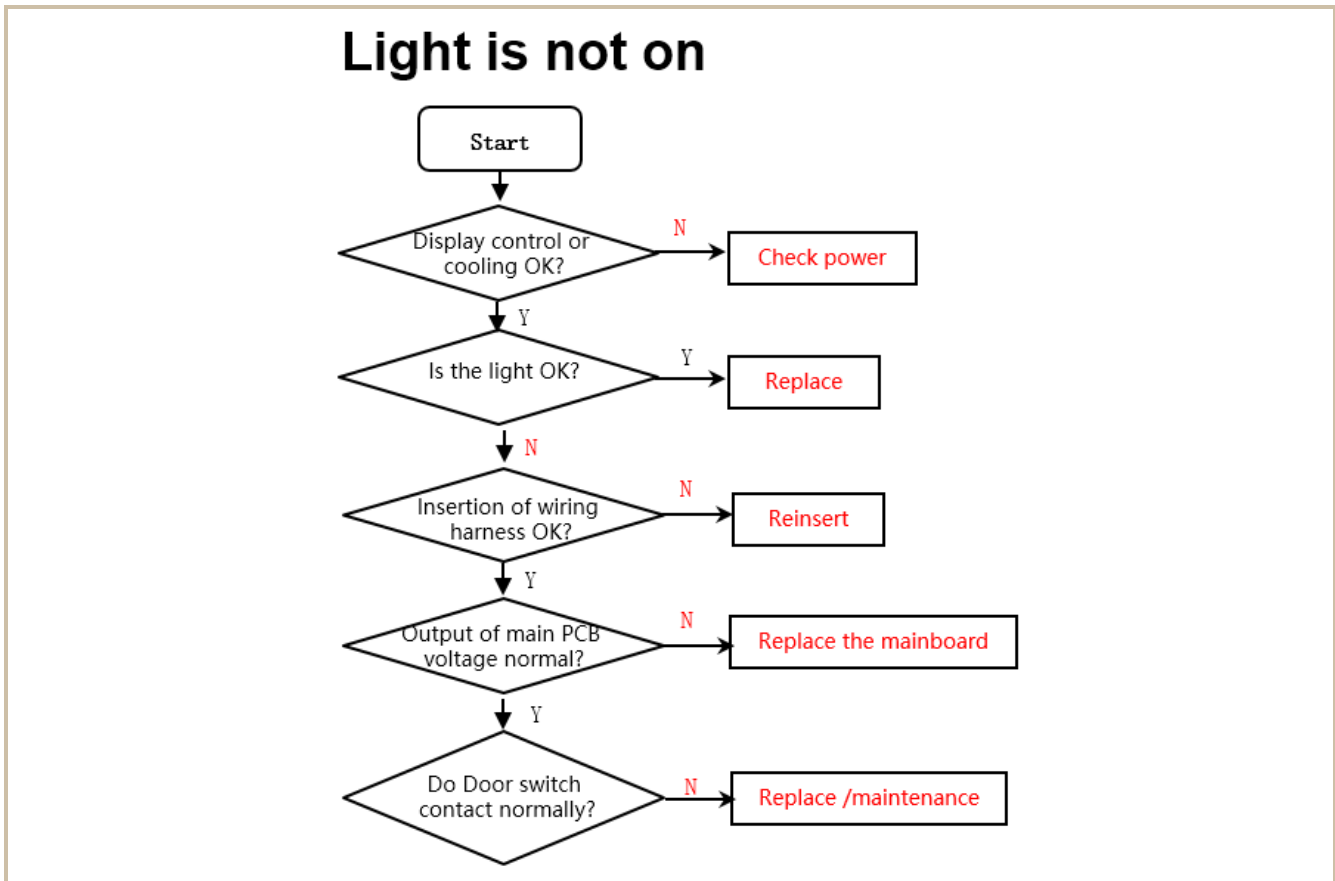


**11.4 Inside frosting, no defrosting-Maintenance guidelines**

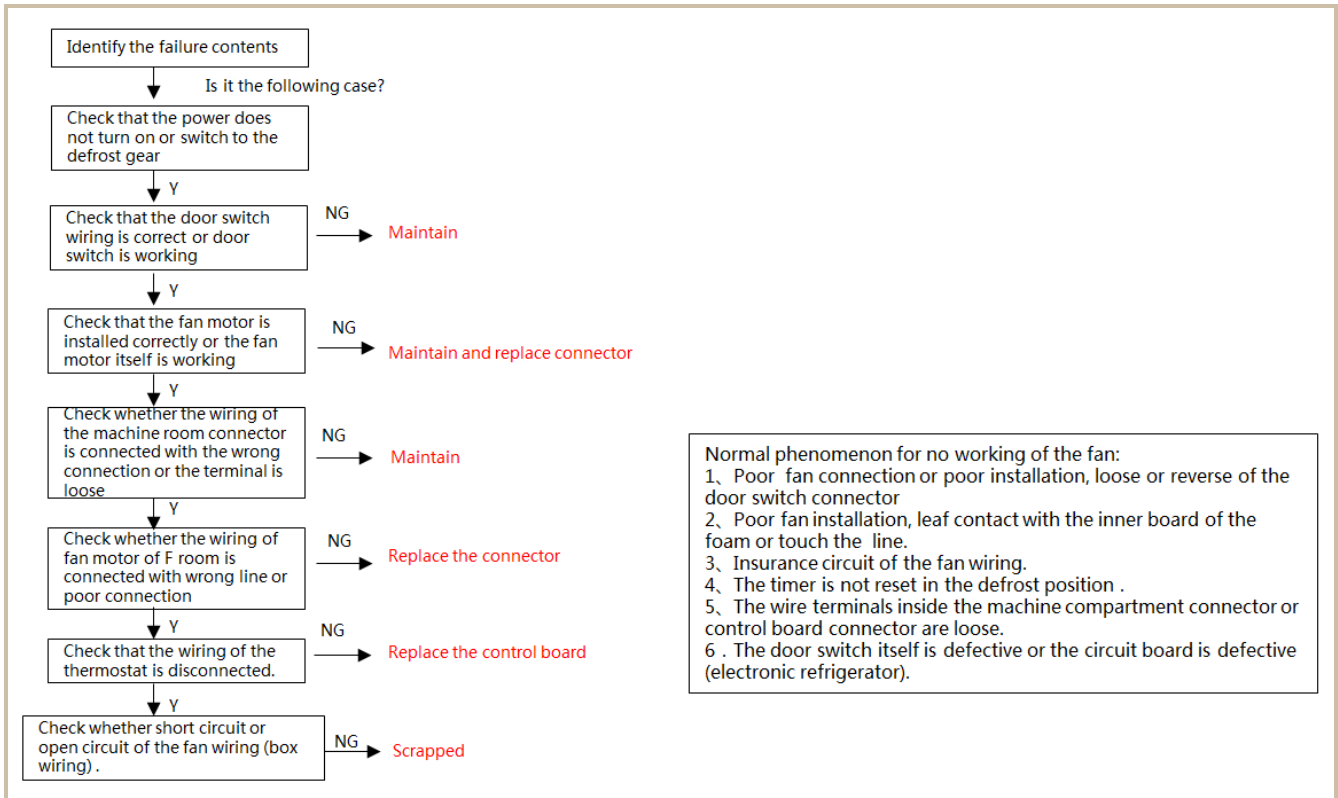




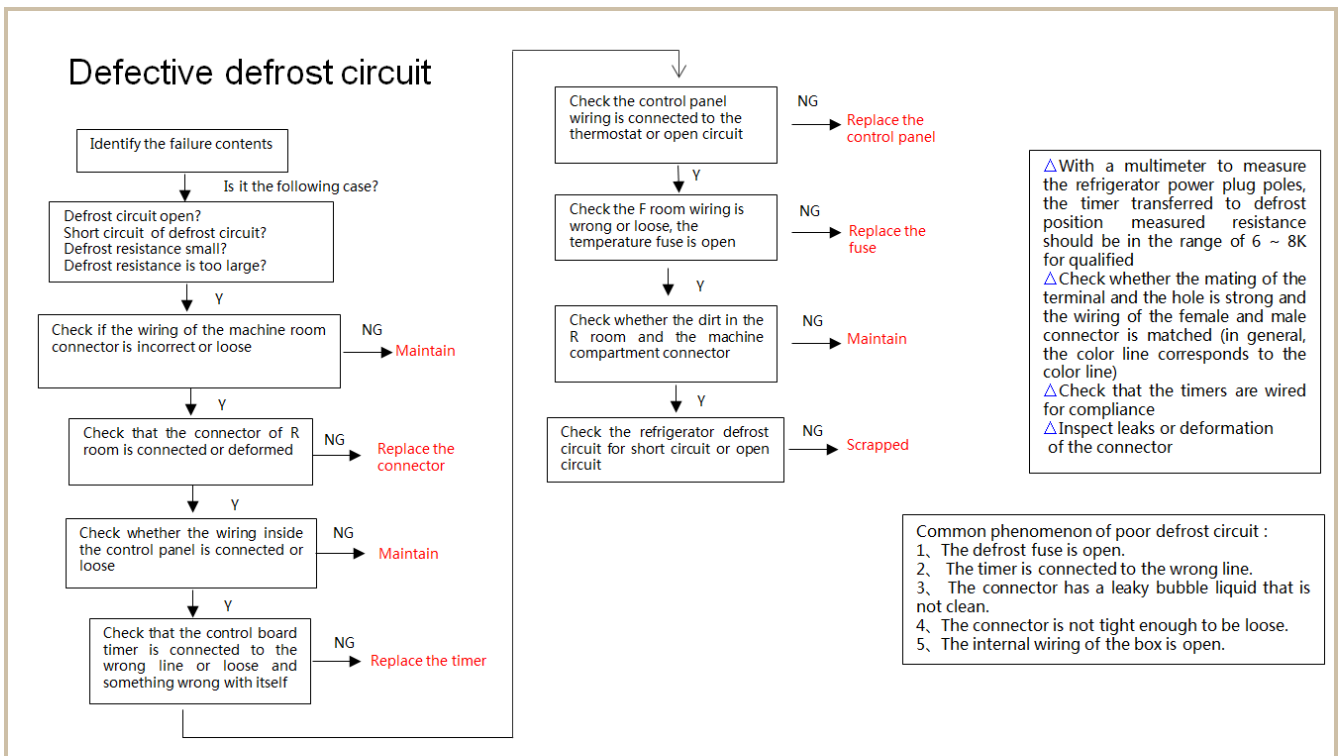
**11.5 Light is not on**



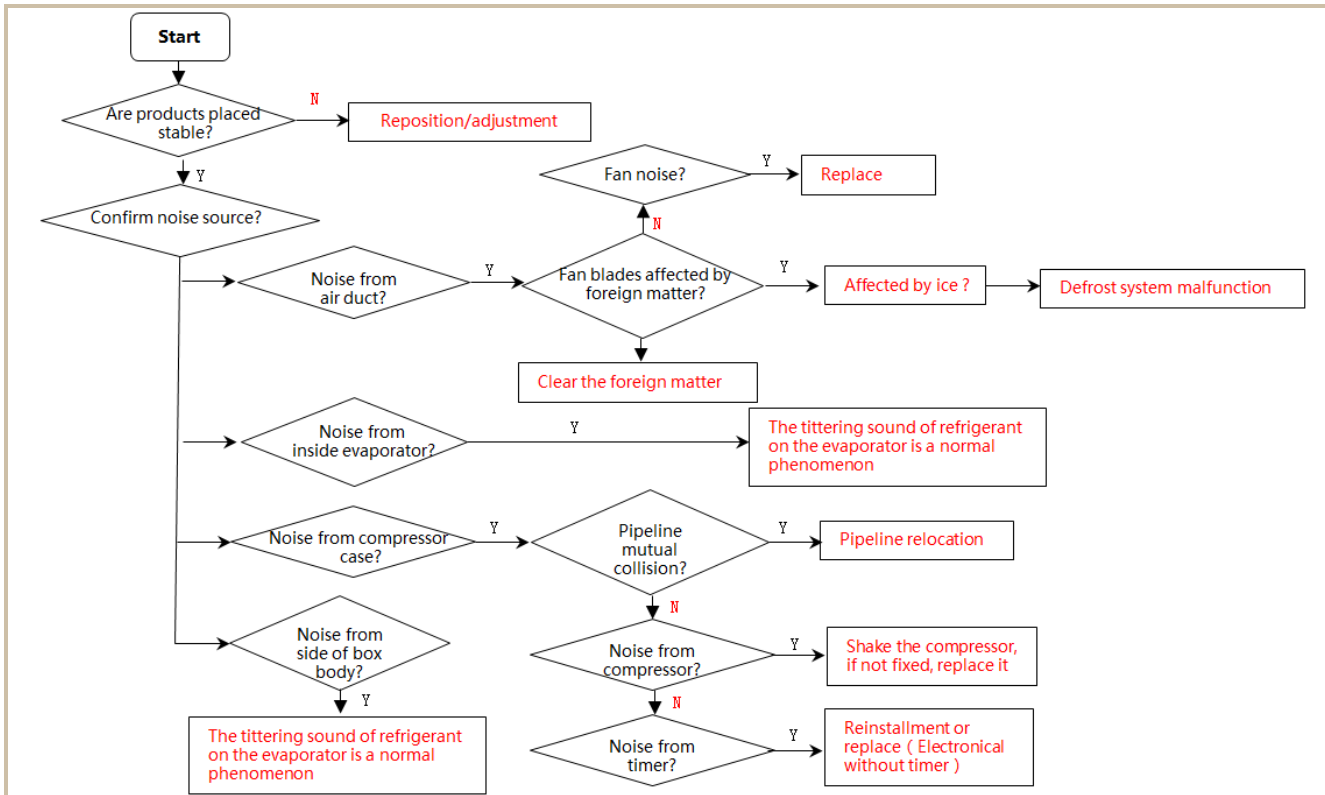
### 11.6 Fan failure



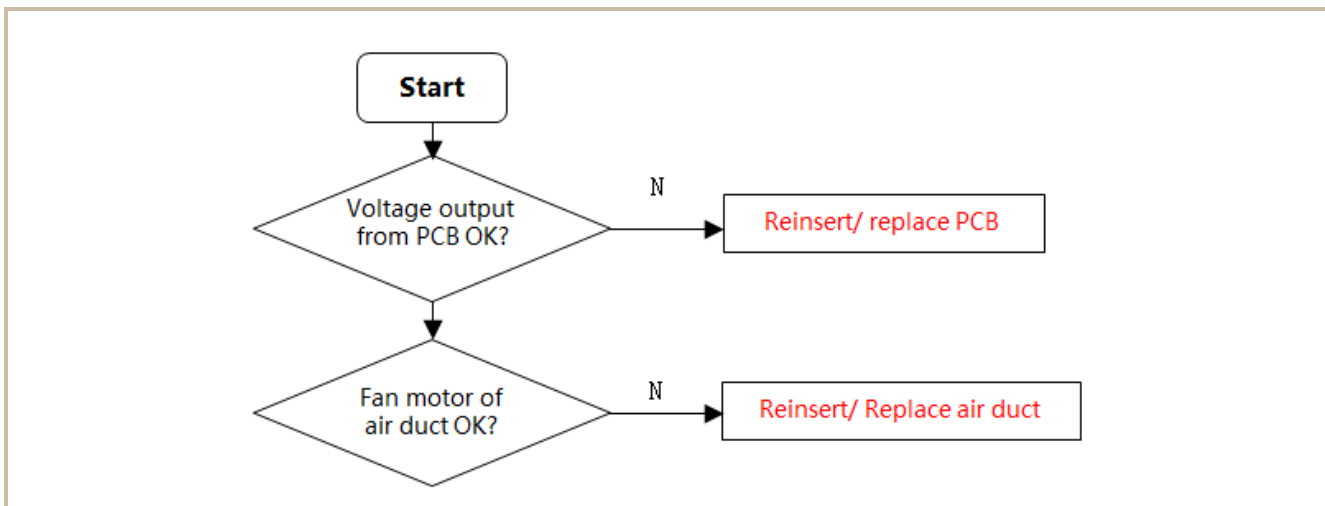
### 11.7 Defective defrost circuit



### 11.8 Noise

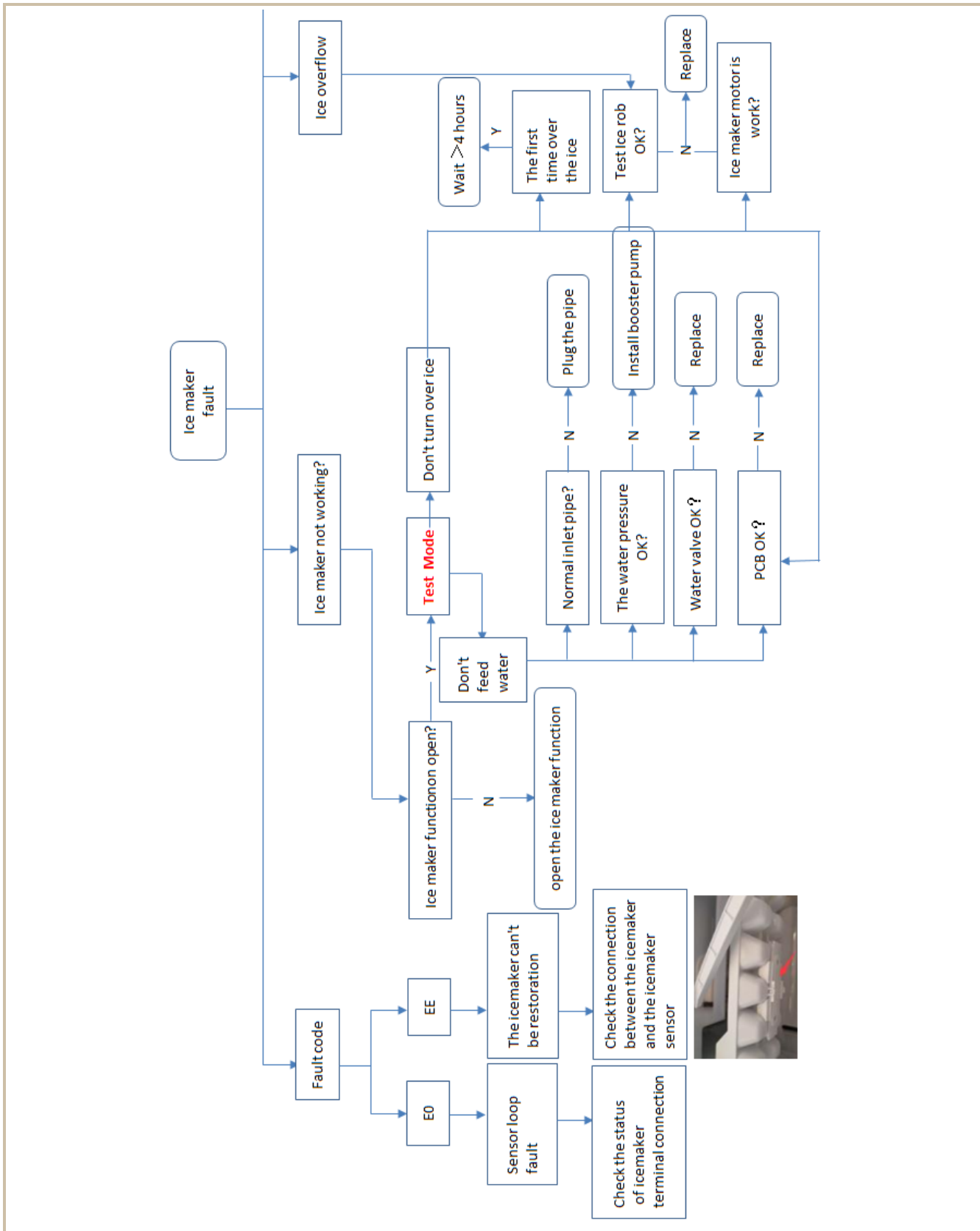


### 11.9 Air duct not operated (Option)





11.10 Ice maker not make ice (Option)



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## 12. Product exploded view and spare parts list

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

### Entry Guidelines ( TSP System )

■ Where



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■ How

International users or customers:

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*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**

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