

# Service Manual

## SBS No Frost Series

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| Market Model  | Product Model  | Product Code   |
|---------------|----------------|----------------|
| MDRS925CIE46M | SA-BCD695WZ-JT | 92031050Z05922 |
|               |                |                |



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

 **WARNING****Important Safety Notice**

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

 **WARNING****Important Safety Notice**

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

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

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

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## 1. Safety Warning

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### 1.1 Warning for operation safety

#### Important Safety Instructions

|                                                                                     |                                                                                                                                    |                                                                                     |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|    | <b>CAUTION</b><br><b>RISK OF ELECTRIC SHOCK</b><br><b>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.

### 1.2 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**

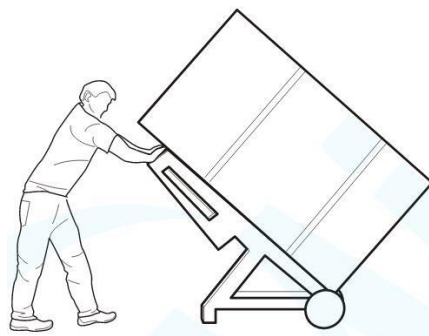
DANGER–Risk of Fire or Explosion. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Use Mechanical Devices. Do Not Puncture Refrigerant Tubing. CAUTION–Risk of Fire or Explosion. Flammable Refrigerant Used. Consult Repair Manual/Owner's Guide Before Attempting To Service 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.

## 2. Installation and commissioning-

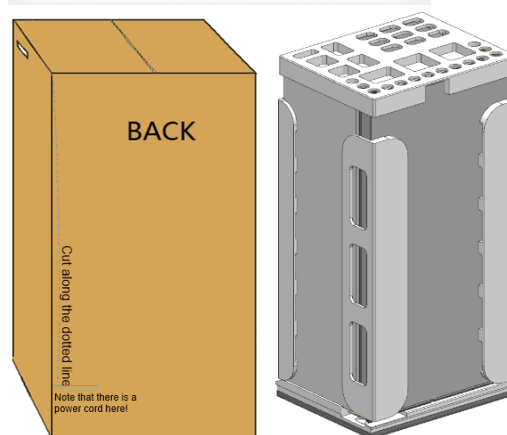
### 2.1 Handling

#### Handling

- 1) Protect the refrigerator in moving it, same as shown as the left photo. Recommend to use the handcart with cushion.
- 2) For large size refrigerators, it is recommended that two people handle it together.



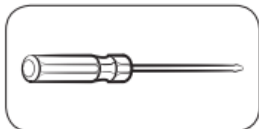
- 3) Know the door size in advance.
- 4) Recommend to remove all packing and protective materials such as the carton box and foam parts in the cabinet, then move into the home for placement.
- 5) When the refrigerator cannot enter the room because it's too big, you can remove the doors from the cabinet and enter separately, then assemble them again.



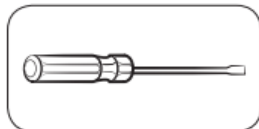
## 2.2 Door Disassembly and Assembly

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

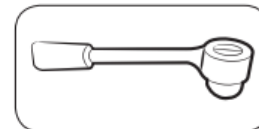
### Tools required



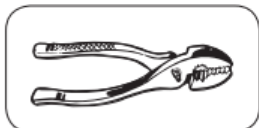
Phillips screwdriver



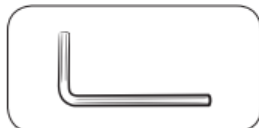
Flat-head screwdriver



Socket spanner (8 mm)



Pliers



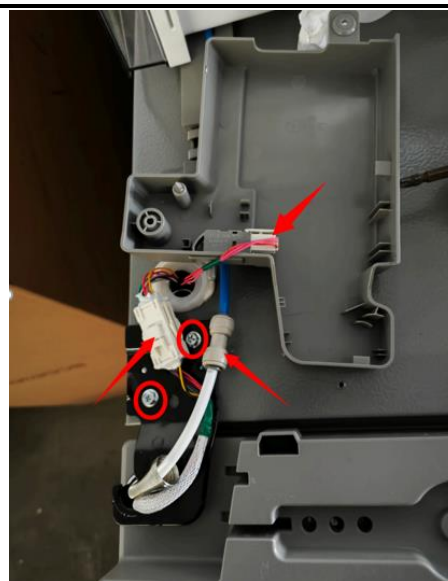
Allen spanner (4 mm)

### Disassembly of Freezer door

- 1) As shown in the picture, use a screwdriver to loosen the two fixing screws of the hinge cover and open the hinge cover.



- 2) As shown in the picture: first disconnect the plug terminal (indicated by the arrow) and the water pipe joint (indicated by the arrow), and remove the hinge cover; next, use a Phillips screwdriver or socket wrench to remove the two M5 screws fixing the upper hinge plate (within the red frame) in a counterclockwise direction; finally, remove the top hinge from the product. Note: Before removing the upper hinge screws, ensure that the freezer door is aligned with the cabinet to avoid the risk of the door falling.

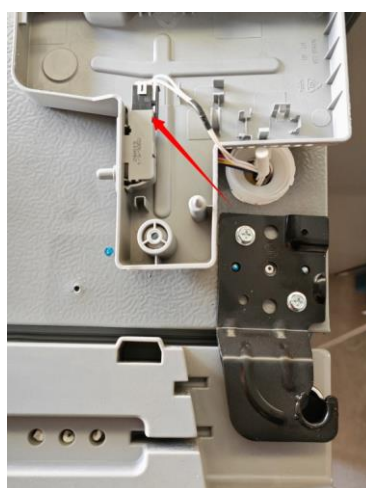


- 3) Lift up the freezer door until the hinge axis separated from the axis hole of door, then carry the door to a suitable place.



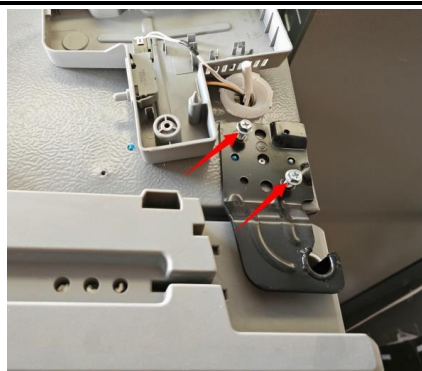
#### Disassembly of refrigerator door

- 1) As shown in the picture, use a screwdriver to remove the 1 pcs screw, disconnect the terminal of the wiring harness, and remove the upper hinge cover.



2) Use cross screwdriver or socket spanner to remove the 2 pcs M5 screws by anticlockwise, and then remove the upper hinge.

Note: please make sure the refrigerator door fit closely to the cabinet; otherwise the refrigerator door may fall down during above operation.



3) Lift up the refrigerator door until the hinge axis separated from the axis hole of door, then carry the door to a suitable place.

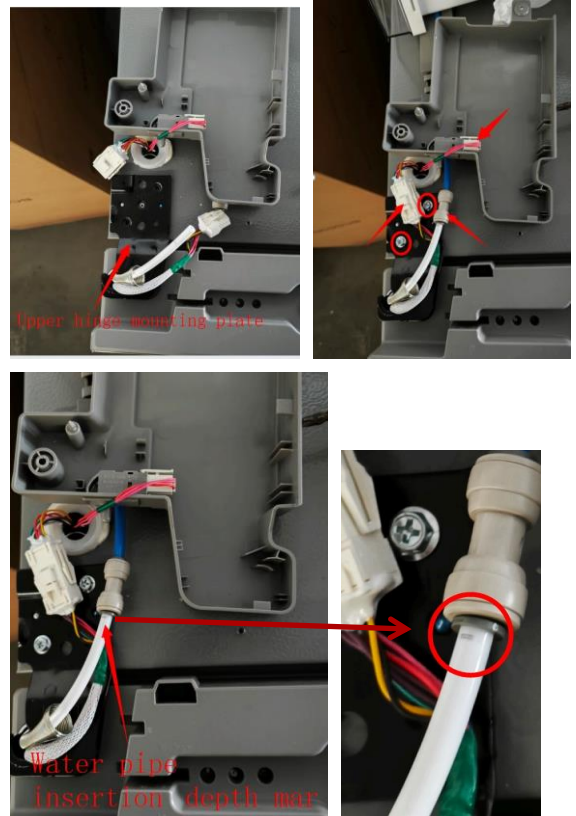


### Assembly of freezer door

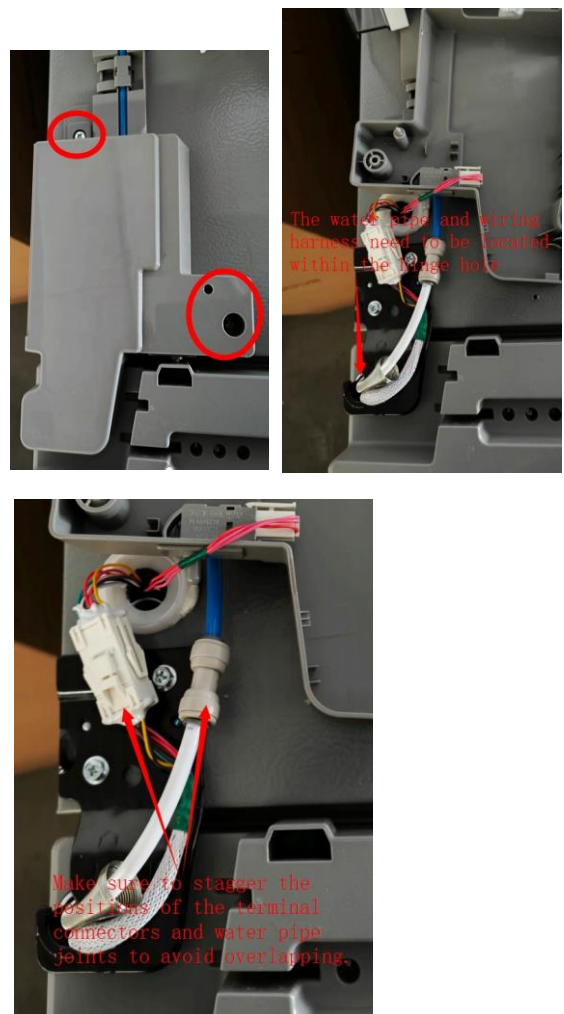
1) Put the freezer door down gently until the axis of hinge inserted into the axis hole of door completely.



- 2) Put the upper hinge on suitable position, then use cross screwdriver or socket spanner to fix the 2 pcs M5 screws and connect the 1 pcs fast connectors. Note: The depth of the water pipe insertion into the joint should reach the position of the water pipe insertion depth marking line.



- 3) Put the hinge cover on suitable position, and then use the screwdriver to fix the 2 pcs screw. Note: Ensure that the terminal and the water pipe joint are positioned apart to avoid overlapping, which may prevent the hinge cover from being assembled.

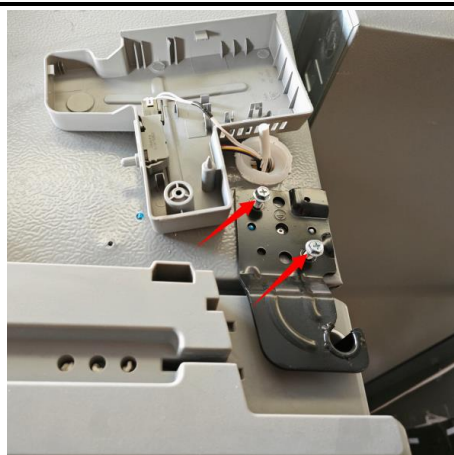


**assembly of refrigerator door**

- 1) Put the refrigerator door down gently until the axis of hinge inserted into the axis hole of door completely, and then closes the door, to make sure the refrigerator door fit the cabinet closely.



- 2) Put the upper hinge on suitable position, then use cross screwdriver or socket spanner to fix the 1 pcs M5 screws. and connect the 2 pcs fast connectors.



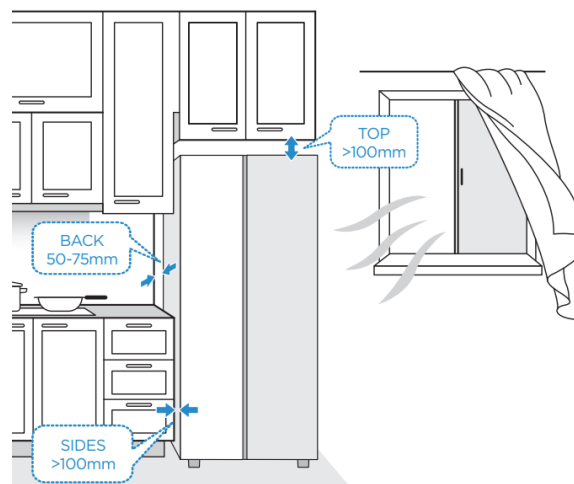
- 3) Put the hinge cover on suitable position, and then use the screwdriver to fix the 1 pcs screw.



## 2.3 Installation location

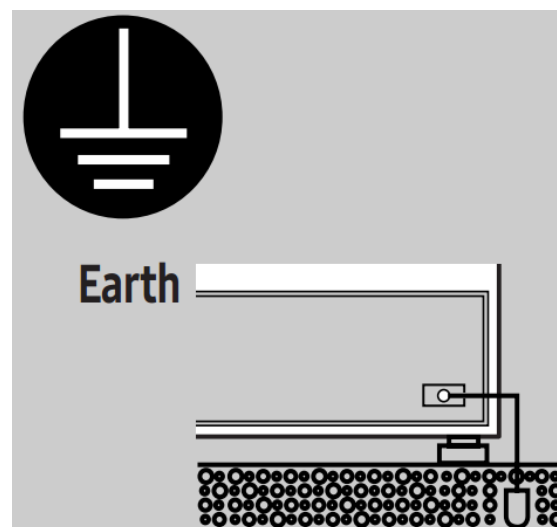
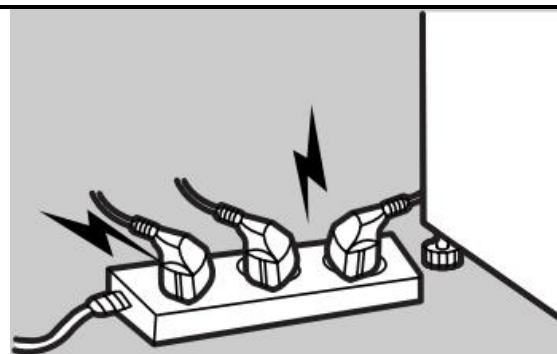
### Installation space (Counter-depth)

- 1) This refrigerator is designed to be free standing. Please select a ventilated place to place the refrigerator, and reserve space according to the recommended size in the picture, which is beneficial for heat dissipation, cooling performance improvement and power consumption reduction. and should not be recessed or built-in.



- 2) After moving it to appropriate location, wait for at least 2 hours before power on. The main reason of resting is to let the refrigerant and lubricant flow back, otherwise the compressor may be damaged. Separate sockets recommended, otherwise safety accidents can easily occur.

**Attention!** The refrigerator has a metal casing and must be reliably grounded, otherwise an electric shock accident may occur.



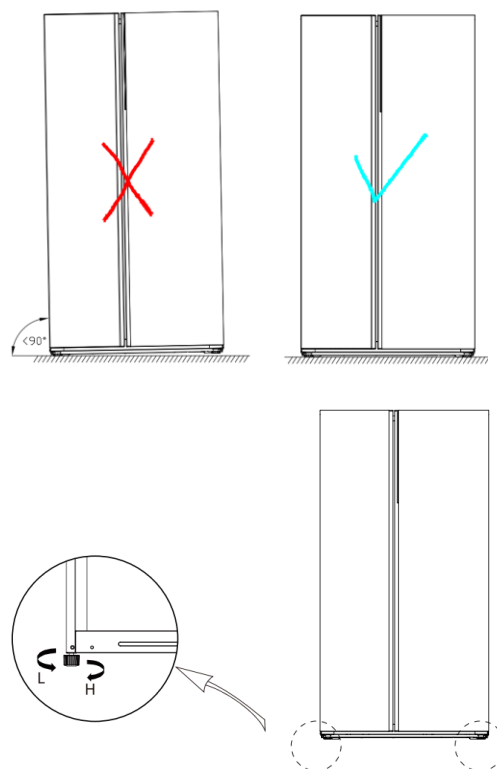
## 2.4 Leveling of the refrigerator

### ⚠ CAUTION

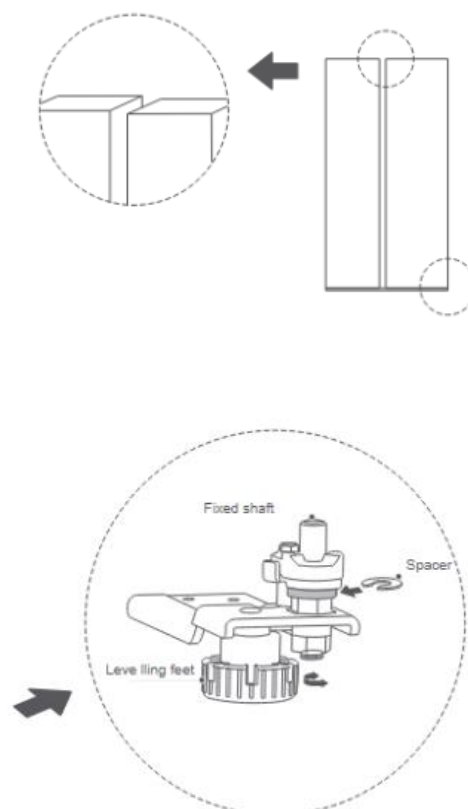
- The refrigerator must be levelled on a flat, solid floor. Failing to do so can cause damage to the refrigerator or physical injury.
- Levelling must be performed with an empty refrigerator. Make sure no food items remain inside the refrigerator.
- For safety reasons, adjust the front side a little higher than the rear side.

**Leveling of the case**

The refrigerator can be leveled using the front levelling feet on the bottom of the case.

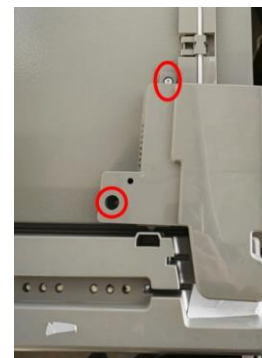
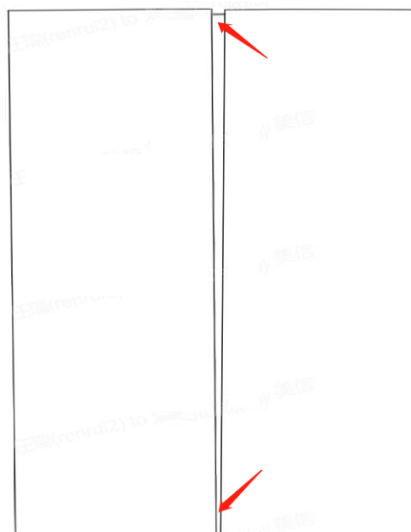
**2.5 Adjustment to level the door****Adjustment of non-level top of two doors**

If the upper edge of the door on the refrigerator is not aligned, place 1-2 shims between the lower hinge self-locking and the nut of the lower door to adjust the high

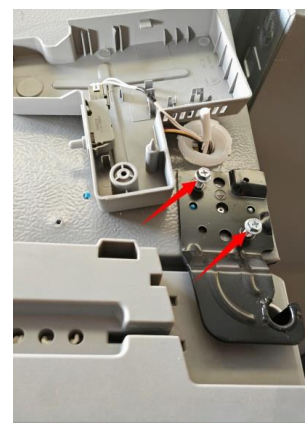


**Adjustment of uneven gaps between two doors**

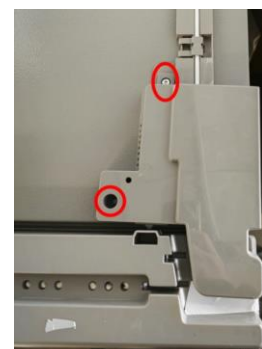
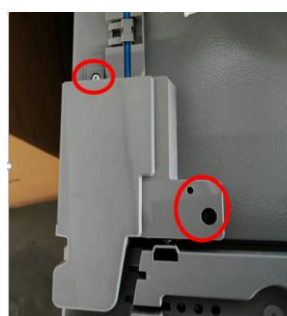
- 1) Use screwdriver to remove the 2 pcs screws, and then remove the upper hinge cover.



- 2) Use screwdriver to loosen the 2 pcs screws, right and left adjust the upper hinge to make door aperture be homogeneity.

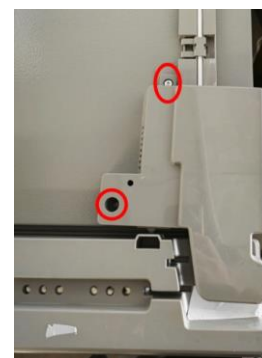
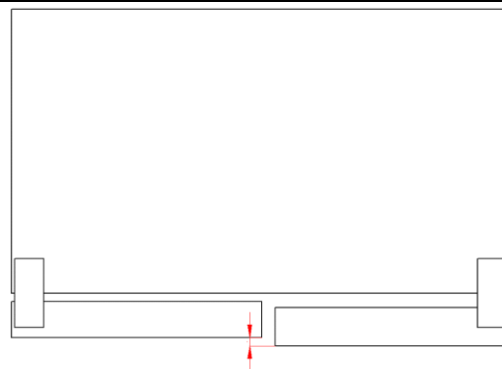


- 3) Install the upper hinge cover, then tighten the two fixing screws of the hinge cover with a screwdriver.  
Note: When installing the hinge cover, please pay attention to the precautions mentioned in section 2.2 regarding door body disassembly and assembly to avoid the hinge cover not being installed properly.

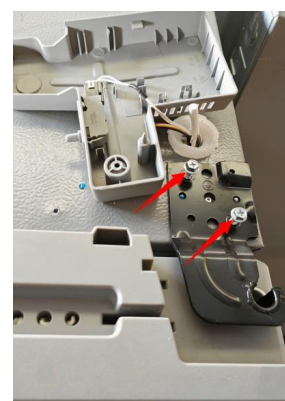
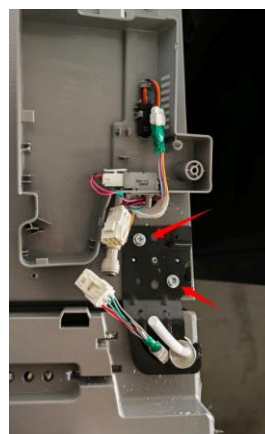


**Adjustment of an uneven plane between two doors**

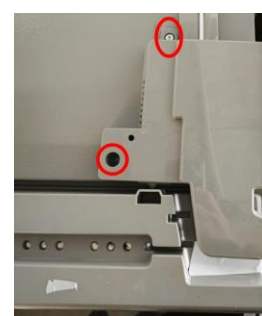
- 1) Use screwdriver to remove the 2pcs screws, and then remove the upper hinge cover.



- 2) Use screwdriver to loosen the 2 pcs screws, front and back adjust the upper hinge to make door aperture be homogeneity.

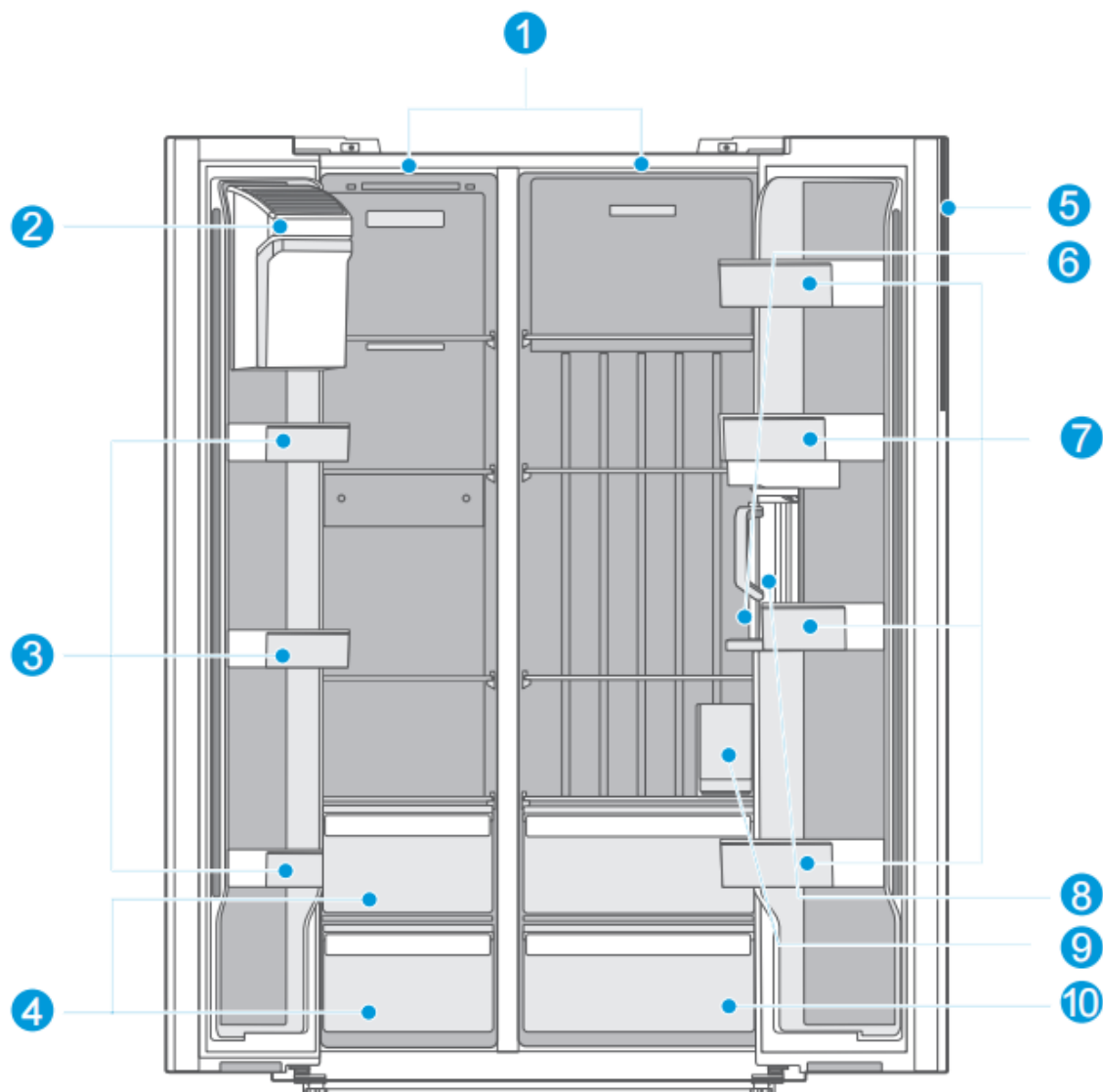


- 3) Install the upper hinge cover, then tighten the two fixing screws of the hinge cover with a screwdriver.  
Note: When installing the hinge cover, please pay attention to the precautions mentioned in section 2.2 regarding door body disassembly and assembly to avoid the hinge cover not being installed properly.



### 3.Main parts and external dimension

#### 3.1 Main parts

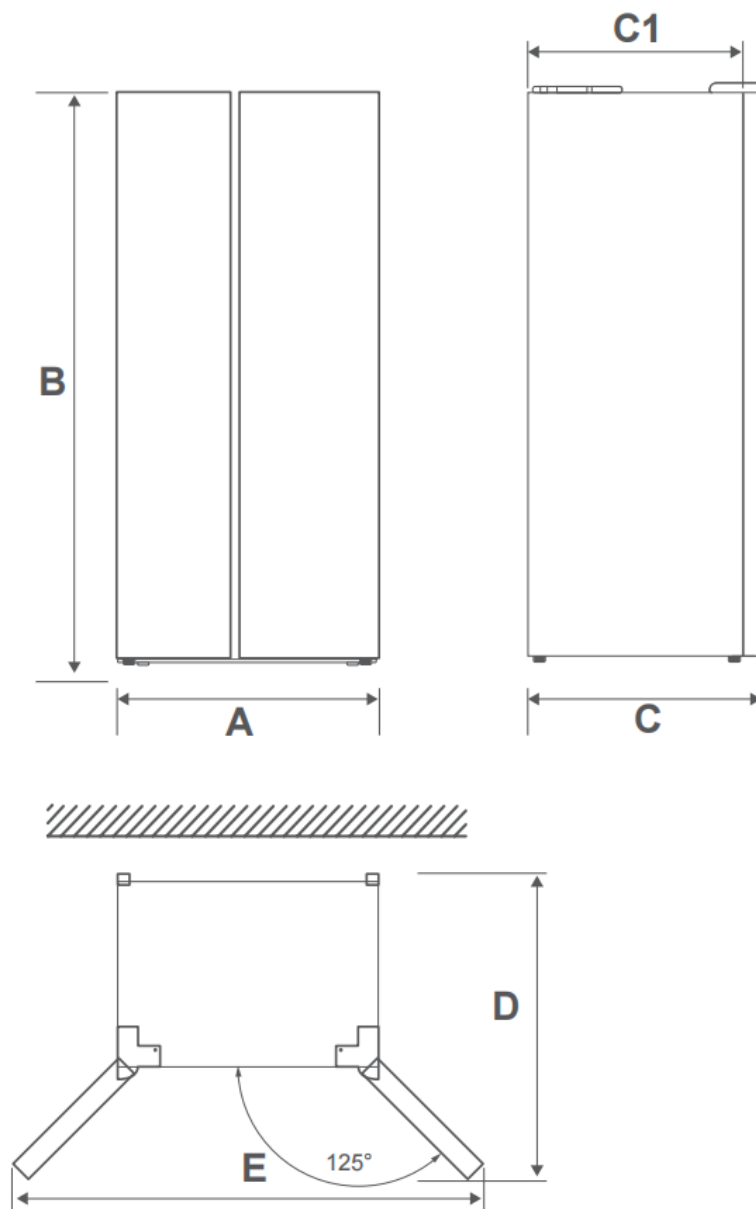


- |   |                  |    |                 |
|---|------------------|----|-----------------|
| 1 | LED Light        | 6  | Control Panel   |
| 2 | Ice Maker        | 7  | Fridge Door Bin |
| 3 | Freezer Door Bin | 8  | Water Pitcher   |
| 4 | Freezer Drawer   | 9  | Water Tank      |
| 5 | Induction Lamp   | 10 | Crisper Drawer  |

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

### 3.2 External dimension

| Description                  | Code | Size (mm)   | Size (in) |
|------------------------------|------|-------------|-----------|
| Width                        | A    | <b>910</b>  | 35.83"    |
| Height to Top of Case        | B    | <b>1775</b> | 69.88"    |
| Depth / Only Cabinet         | C1   | <b>636</b>  | 25.04"    |
| Depth w/Handle               | C    | <b>736</b>  | 28.98"    |
| Depth (Door open 125 deg. w) | D    | <b>1127</b> | 44.37"    |
| Width (Door open 125 deg. w) | E    | <b>1458</b> | 57.40"    |



(The picture is only for reference)

### 3.3 Product Factory Serial Number and Paste location

1) **Product factory serial number** — Include the product's order number, production date and other information. When the product occur problems, it needs to be recorded or photographed.

1st 2 3      4~11      12~15      16~22nd

S/N: 5 4 1 - 3200008P - 8512 - 11 6 0011

| Production date |      |
|-----------------|------|
| Year            | Code |
| 2015            | 15   |
| 2016            | 16   |
| 2017            | 17   |
| ▲ 2018          | 8    |
| 2019            | 9    |
| 2020            | 0    |
| 2021            | 1    |
| 2022            | 2    |
| 2023            | 3    |
| 2024            | 4    |

**Factory code**

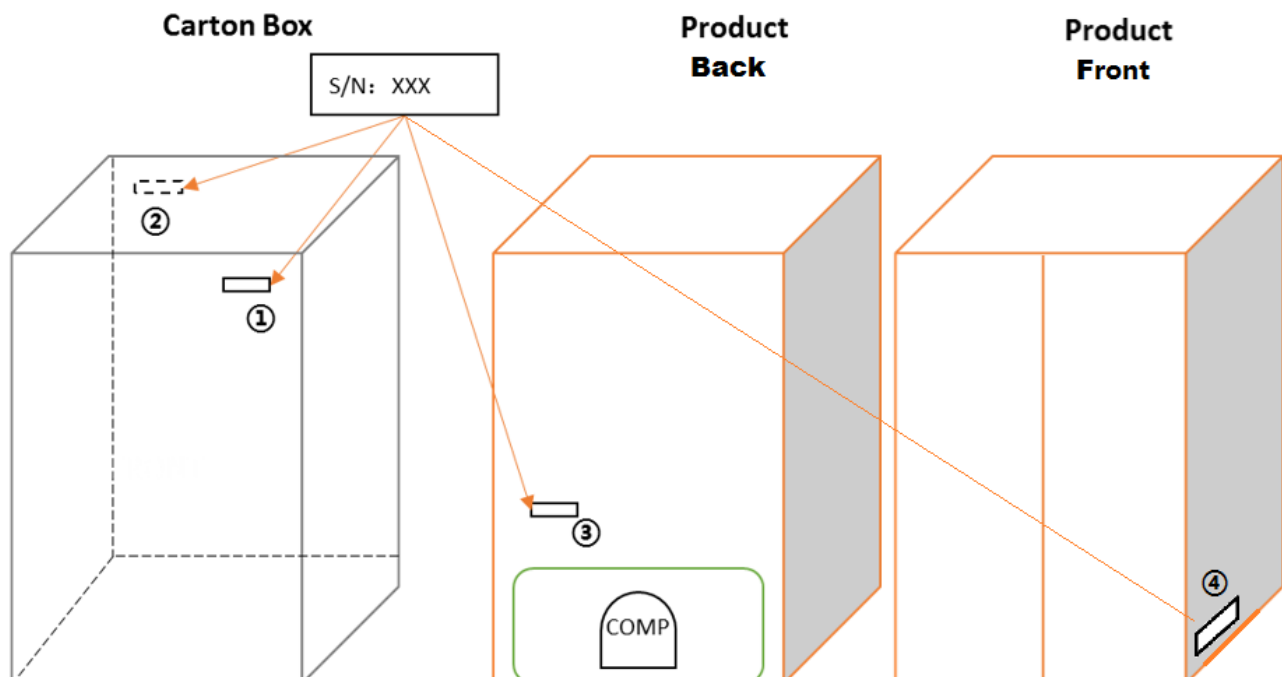
**Production date**  
 Year+Month(Oct./A; Nov./B; Dec./C) +day  
 (For example: 8512 means May.12<sup>th</sup>,2018;  
 8A12 means Oct.12<sup>th</sup>,2018 )  
 ▲ Before 2018, have two codes for YEAR.  
 (For example: 16A12 means Oct.12<sup>th</sup>,2016;



**Factory code**

- 06—Jingzhou COMMERCIAL FREEZER factory
- 07—Egypt factory
- 08—Hefei BIOMEDICAL factory
- 09—Thailand TOSHIBA factory (TPT)
- 10—Hefei LENGGUI factory
- 11—Hefei JINKAI factory
- 12—Jingzhou factory
- 13—Guangzhou NANSHA factory
- 14—Foshan NANHAI Toshiba factory

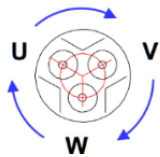
#### 2) Paste location



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

## 4. Electric control system

### 4.1 Electrical parts parameters

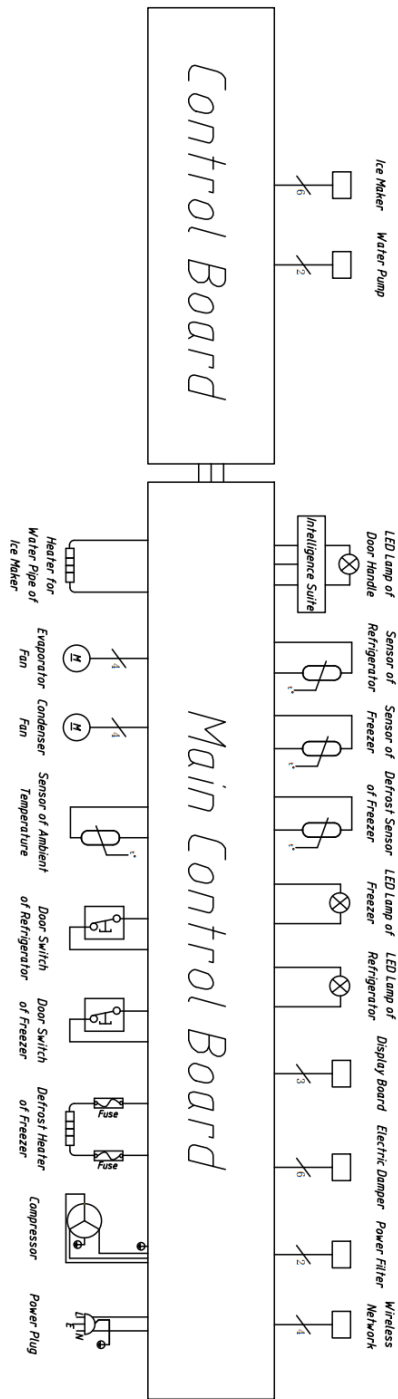
| Applicable Model                                       | MDRS925CIE46M                                                                                              |  |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--|
| Product Model                                          | CA-BCD695WZ-JT                                                                                             |  |
| Rated Voltage                                          | 220-240V , 50Hz/60Hz                                                                                       |  |
| Item                                                   | Specification                                                                                              |  |
| Refrigerant                                            | R290                                                                                                       |  |
| Compressor                                             | DA59A1Z                                                                                                    |  |
| Starting device type                                   | Inverter                                                                                                   |  |
| The COP of compressor                                  | 1.83(W/W)                                                                                                  |  |
| The max cooling capacity of compressor                 | 420 W                                                                                                      |  |
| Winding resistance of compressor wiring terminal (20℃) | U-W: 22.8Ω±15%<br>U-V: 22.8Ω±15%<br>W-V: 22.8Ω±15%                                                         |  |
| Winding resistance picture                             |                         |  |
| Starter(PTC)                                           | None                                                                                                       |  |
| Overload protector(OLP)                                | None                                                                                                       |  |
| Integrate PTC+OLP                                      | None                                                                                                       |  |
| Main transformer integrated board                      | Have                                                                                                       |  |
| Capacitor                                              | None                                                                                                       |  |
| Power filter (EMI)                                     | Have                                                                                                       |  |
| Power reactor (EU EMC)                                 | None                                                                                                       |  |
| <b>Motor</b>                                           |                                                                                                            |  |
| Fan motor of the freezing chamber                      | DC12V ≤4.2W                                                                                                |  |
| Fan motor of the refrigerating chamber                 | None                                                                                                       |  |
| Condensation fan motor in compressor case              | DC12V ≤2W                                                                                                  |  |
| Electric damper                                        | DC12V ≤1.44W                                                                                               |  |
| Electric damper heater                                 | DC12V 1W                                                                                                   |  |
| Ice maker motor                                        | None                                                                                                       |  |
| Crushed ice motor                                      | None                                                                                                       |  |
| Open door motor                                        | None                                                                                                       |  |
| <b>Lights</b>                                          |                                                                                                            |  |
| Lights inside the freezing chamber                     | DC12V, 2W                                                                                                  |  |
| Lights inside the refrigerating chamber                | DC12V, 2W                                                                                                  |  |
| Others Lights                                          | DC12V, 2.2W                                                                                                |  |
| Switch of the lights                                   | <input checked="" type="checkbox"/> Mechanical switch<br><input type="checkbox"/> Magnetism control switch |  |

| Other electrical parts                                 |                              |  |
|--------------------------------------------------------|------------------------------|--|
| Water valve                                            | None                         |  |
| Water pump                                             | None                         |  |
| Electric exchange valve                                | None                         |  |
| Defrosting and heating parts                           |                              |  |
| Defrosting sensor                                      | NTC B3839 ( B5/25=3839K±2% ) |  |
| Fuse in freezing chamber                               | AC250V/10A, 77(0,-4) °C      |  |
| Defrost heater in freezing chamber                     | 230V 196W                    |  |
| Heating wire for distributor door                      | None                         |  |
| Heating wire for freezing inlet water pipe<br>(Option) | None                         |  |
| Heating wire for distributor base                      | None                         |  |
|                                                        | None                         |  |

4.2 Circuit diagram



REF\_Circuit  
diagram\_SA-BCD6

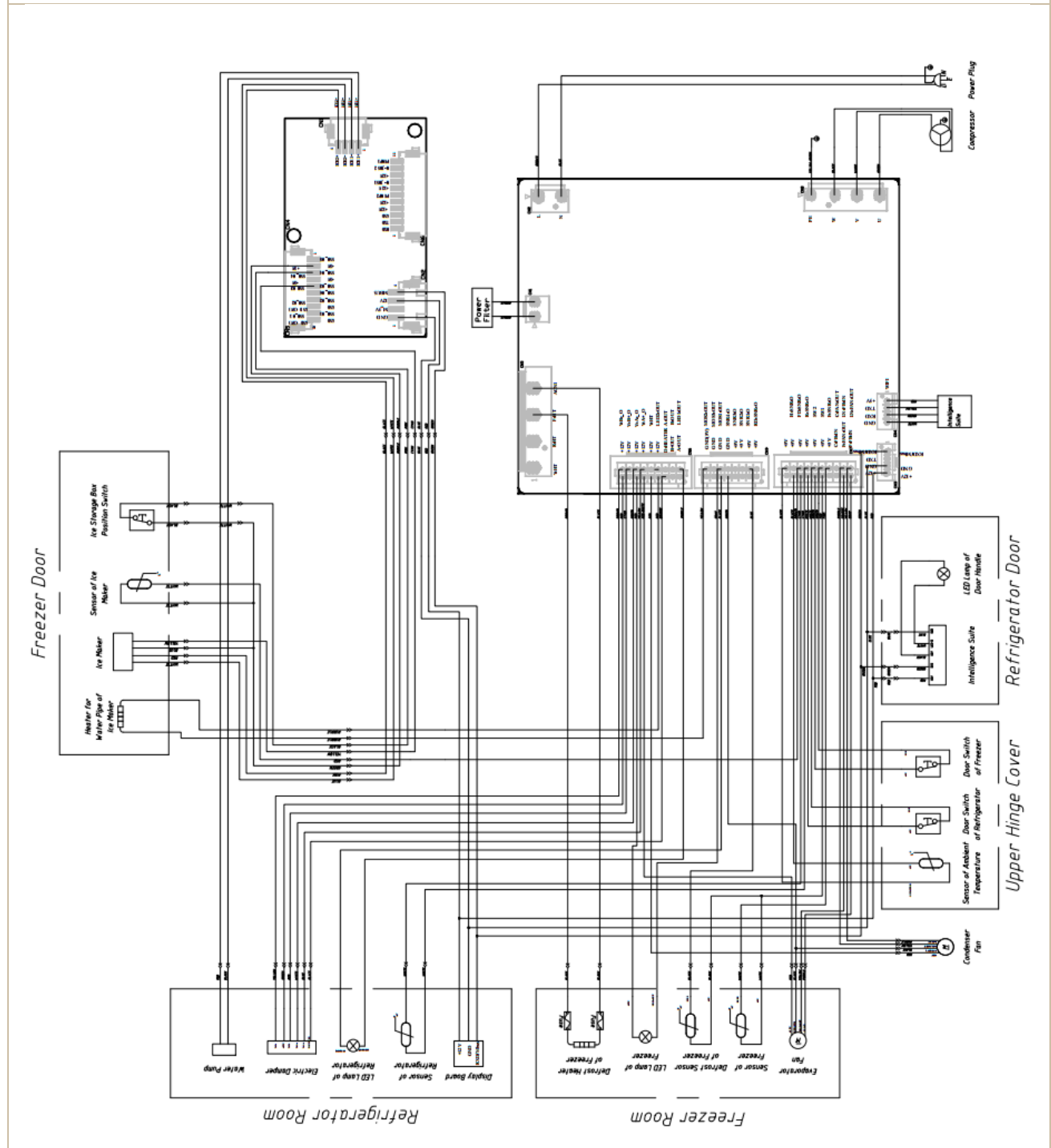


F: Freezer    R: Refrigerator    M: Chiller    FD: Freezer defrost    RD: Refrigerator defrost  
CF: Condensation fan motor    T-H: Temperature and humidity

### 4.3 Wiring diagram

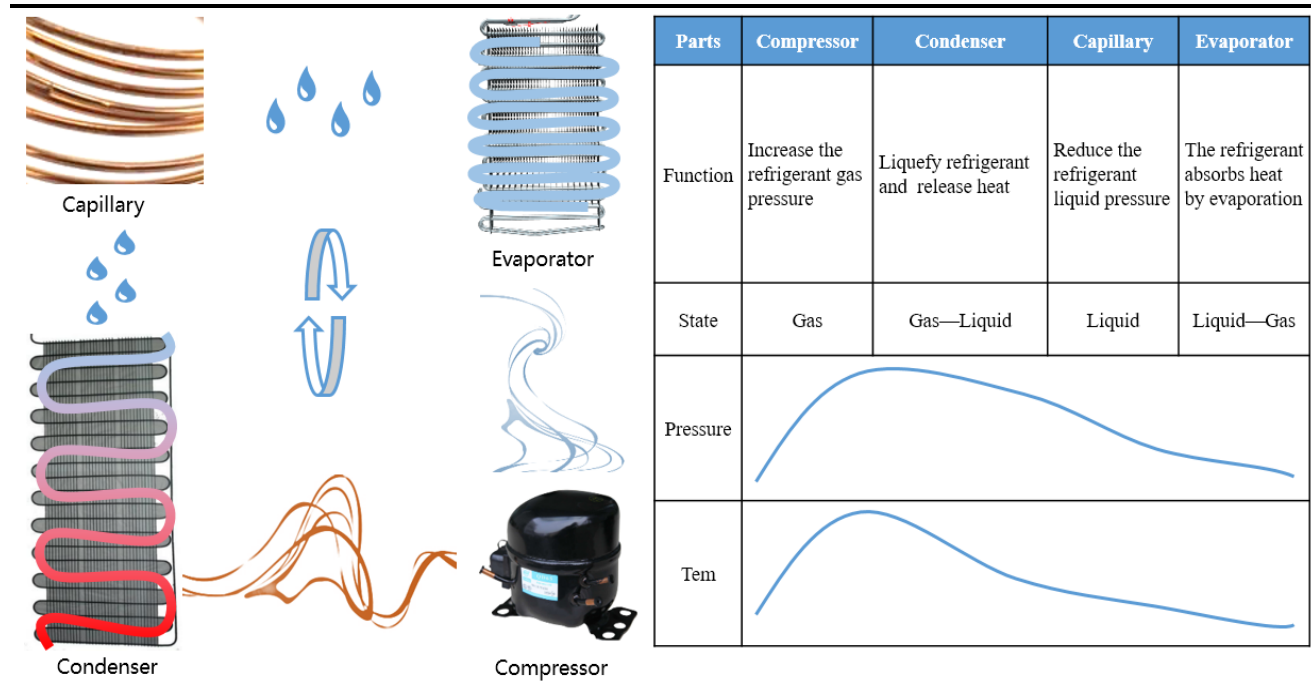


REF\_Wiring  
diagram\_SA-BCD6



## 5. Refrigeration system

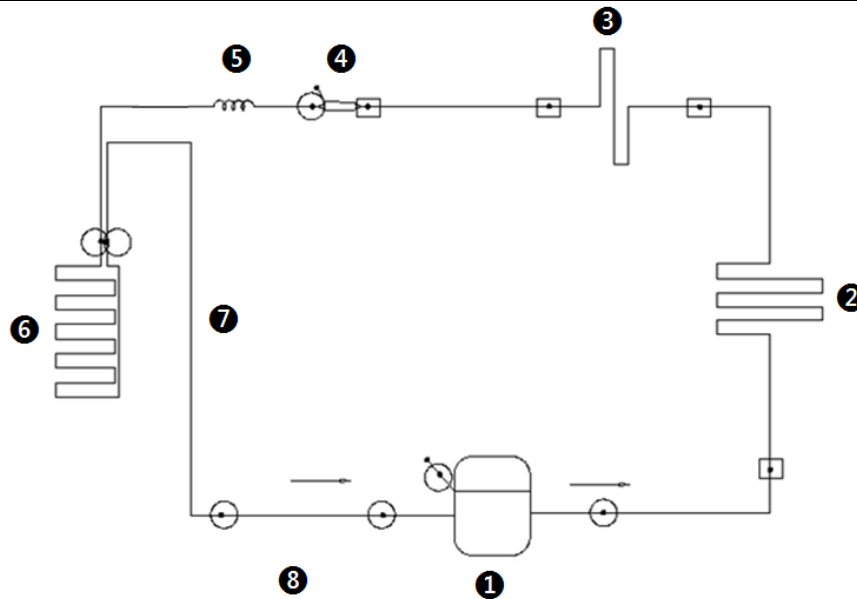
### 5.1 Refrigeration system working principle



| System | Interchange ( For after sales service ) |                                        |                           |                                                              | System pressure (PISA )<br>MPa |              | Temperature<br>℃ |               |
|--------|-----------------------------------------|----------------------------------------|---------------------------|--------------------------------------------------------------|--------------------------------|--------------|------------------|---------------|
|        | COMP                                    | Oil                                    | Varnished wire-insulation | Cooling system cleaning                                      | High pressure                  | Low pressure | Air-out<br>→     | Air-back<br>← |
| R600a  | LBP                                     | Mineral oil, synthetic oil and benzene | Level E                   | Use N2 blow wash cooling system, and need change new filter. | 0.76±0.05                      | 0.06±0.01    | 60±5             | 32±3          |
| R134a  | LBP                                     | POE/PAG, ester oil                     | Level B                   |                                                              | 1.47±0.05                      | 0.12±0.01    | 60±5             |               |
|        | HBP                                     |                                        |                           |                                                              |                                | 0.38±0.01    | 65±5             |               |
| R290   | LBP                                     | Mineral oil, ester oil                 | Level B                   |                                                              | 1.88±0.05                      | 0.22±0.01    | 60±5             |               |
|        | HBP                                     |                                        |                           |                                                              |                                | 0.59±0.01    | 65±5             |               |

## 5.2 Refrigeration system working principle

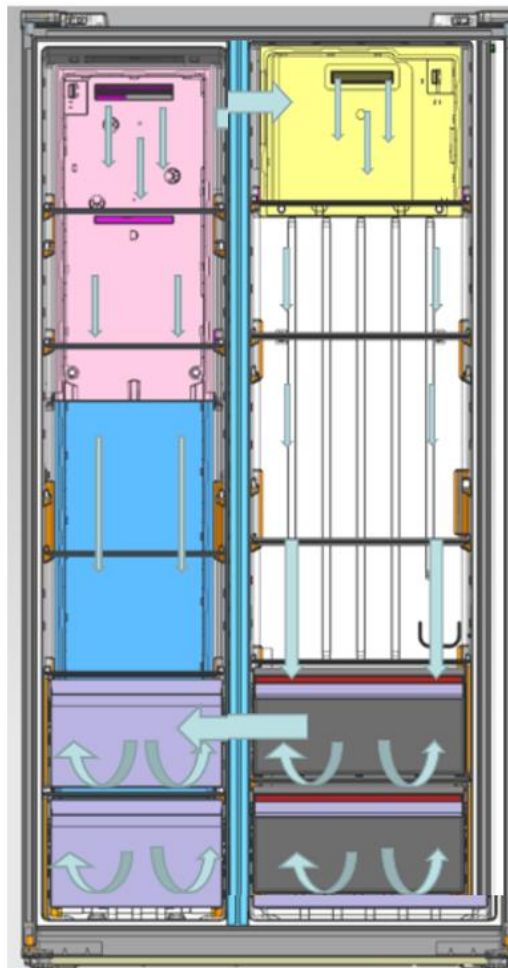
①Compressor→②Condenser→③Anti-water condensed pipe→④Drier→⑤Capillary Tube→⑥  
Evaporator→⑦Suction Pipe→⑧Suction connection Pipe→①Compressor



## 5.3 Cooling pipeline and drain pipe inside the cabinet



#### 5.4 Circulating route of cooling air



#### 5.5 Welding points in chambers or foam layer

Welding points on freezer evaporator



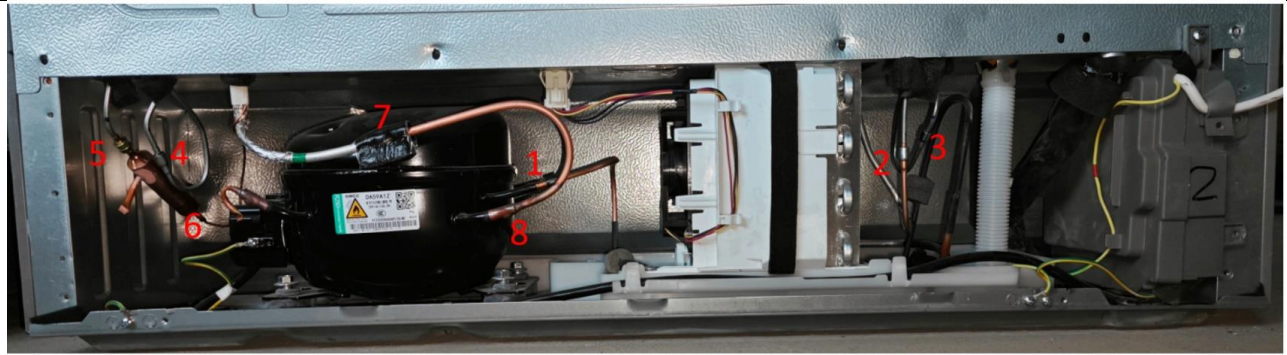
##### Welding point

- 1-Freezing capillary and inlet of evaporator
- 2-Heat transition tube and outlet of evaporator

##### Pipe outer diameter (mm)

|                                   |                         |
|-----------------------------------|-------------------------|
| Copper pipe: $\Phi 6 \times 0.65$ | Aluminum pipe: $\Phi 8$ |
| Aluminum pipe: $\Phi 7$           | Aluminum pipe: $\Phi 8$ |

## 5.6 Welding point in the compressor case



| Welding point                                                                               | Pipe outer diameter (mm) |                         |
|---------------------------------------------------------------------------------------------|--------------------------|-------------------------|
| 1-Compressor outlet tube and inlet of condenser                                             | Copper pipe: $\Phi 5.2$  | Copper pipe: $\Phi 4.0$ |
| 2-Inlet of back anti- condensation tube and outlet of condenser                             | Steel pipe: $\Phi 4.0$   | Copper pipe: $\Phi 4.2$ |
| 3-outlet of back anti- condensation tube and Inlet of freezing anti-condensation tube       | Steel pipe: $\Phi 4.2$   | Steel pipe: $\Phi 4.0$  |
| 4-Inlet of refrigerated anti-condensation tube and Inlet of freezing anti-condensation tube | Steel pipe: $\Phi 4.0$   | Steel pipe: $\Phi 4.2$  |
| 5-outlet of refrigerated anti-condensation tube and inlet of dry filter                     | Steel pipe: $\Phi 4.0$   | Copper pipe: $\Phi 4.2$ |
| 6-Outlet of dry filter and inlet of freezing capillary                                      | Copper pipe: $\Phi 2.0$  | Copper pipe: $\Phi 1.8$ |
| 7-Heat transition tube and Suction connection tube                                          | Aluminum pipe: $\Phi 7$  | Copper pipe: $\Phi 6$   |
| 8-Suction connection pipe and Compressor intake tube                                        | Copper pipe: $\Phi 6.0$  | Copper pipe: $\Phi 6.2$ |

## 6. Dismantling of parts

### 6.1 Parts on the door

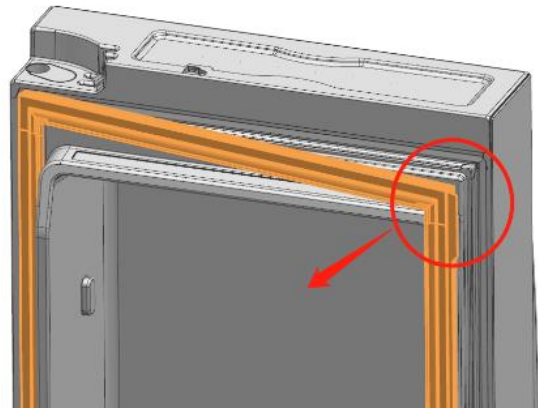
#### Door gasket

##### Disassembly

- 1) Open the doors.
- 2) Pull the door gasket away from one corner of the door liner.
- 3) Remove the door gasket gradually in both directions.

##### Assembly

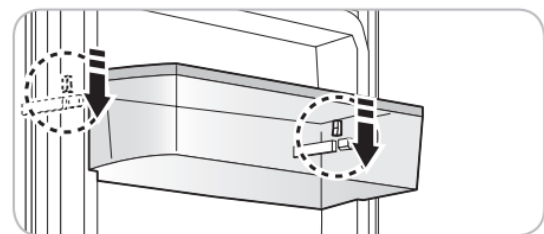
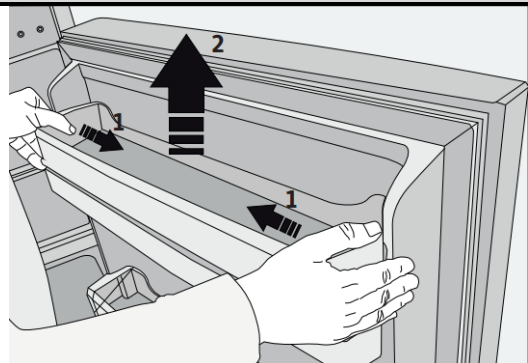
- 1) First insert the four corners of the door gasket into the recesses of the door liner.
- 2) Then insert the four edges of the door gasket into the recesses of the door liner.
- 3) Check the condition of the door gasket to ensure that it is not loose, skewed or deformed.



#### Door tray

**Disassembly:** According to the direction arrow, use both hands to squeeze the tray, and push it upward, then take it out.

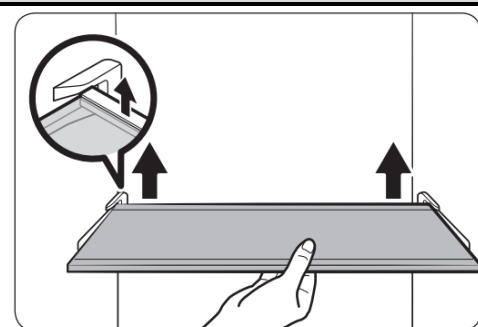
**Assembly:** Place the tray vertically on the door liner, grasp its sides down to install it into the mounting slot.



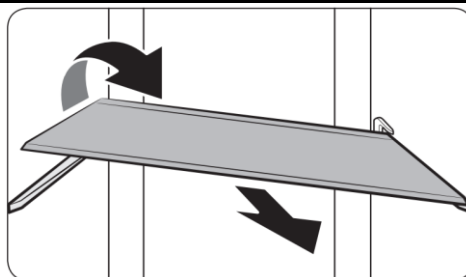
### 6.2 Parts inside the refrigerator

#### Glass shelves

- 1) Slightly lift up the rear side of the shelf to pull out.



- 2) Twist the shelf diagonally to remove it. The reverse process can complete the installation.



### Refrigerator Fruit box cover

- 1) Pull the fruits and vegetables box out.
- 2) Lift it up and take it out.
- 3) The reverse process can complete the installation.



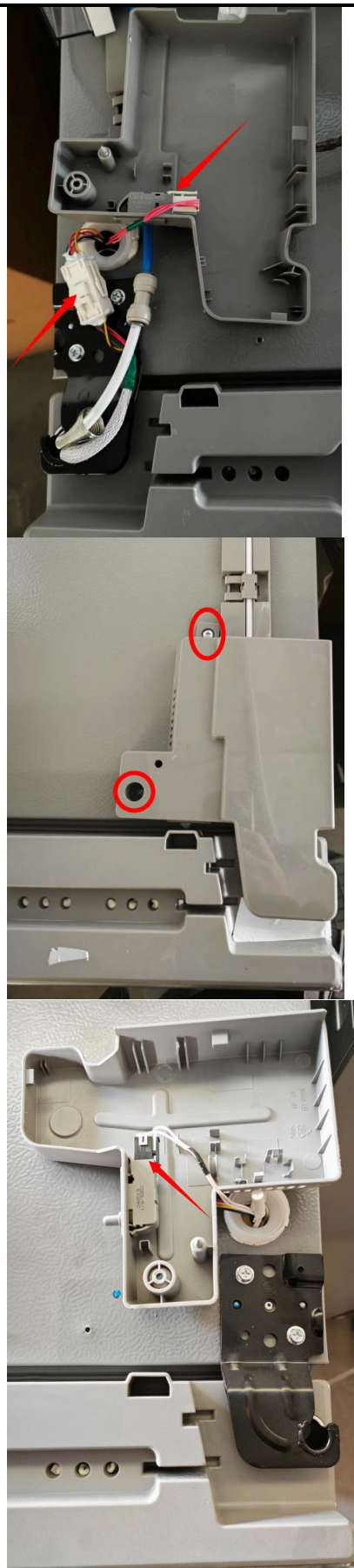
### Freezer Drawer

- 1) Pull the drawer out.
- 2) Lift it up and take it out.
- 3) The reverse process can complete the installation.

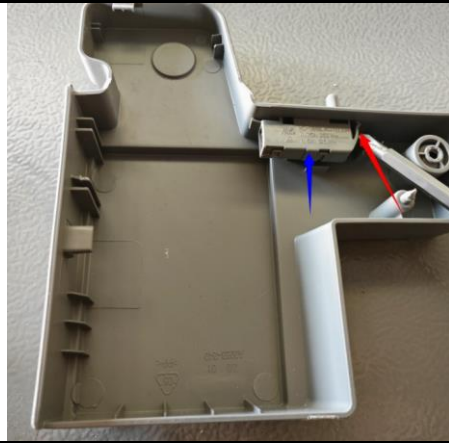


### 6.3 Lighting system

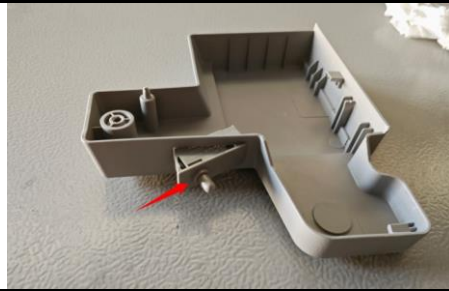
| Light                                                                                                                                                                                                 |                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Light in the refrigerated chamber                                                                                                                                                                     |                                                                                      |
| 1) <b>A:</b> Use vacuum cap to pull the lampshade outwards.<br><b>B:</b> Use a screwdriver to pry off the lamp cover at the gap shown in the red circle in the figure, and then remove the lamp cover |    |
| 2) Push away LED light panel with your hand along the arrow direction shown in the picture and separate LED light panel from the hook; then take down LED light panel                                 |    |
| 3) Remove the connecting terminals on LED light panel and take down the LED light panel.<br>4) The reverse process can complete the assembly.                                                         |   |
| Light in the freezer chamber                                                                                                                                                                          |                                                                                      |
| Refer to the method of disassembling the refrigerating light.                                                                                                                                         |                                                                                      |
| Light switch                                                                                                                                                                                          |                                                                                      |
| 1) As shown in the picture, use a screwdriver to remove the 1 pcs screw, disconnect the terminal of the wiring harness, and remove the upper hinge cover.                                             |  |



- 2) Use a screwdriver to press against the spring clip on the light switch while pushing the switch outward, and you can remove the light switch to replace it with a new one.



- 3) The reverse process can complete the installation.



#### **6.4 Air duct and damper in the refrigerated chamber**

##### **Air duct components refrigerating chamber**

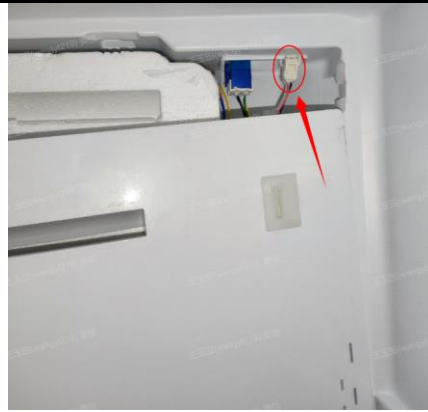
- 1) Use a blade to remove the 2 screw caps on the refrigerated air duct panel at the indicated position, and then use a Phillips screwdriver to remove the 2 screws in a counterclockwise direction.



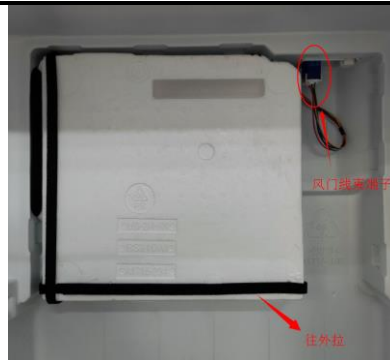
- 2) Grasp the refrigerated air duct panel component with your hand and remove it with force as shown in the diagram.



- 3) Remove the connection terminals by hand and take out the refrigeration duct panel assembly.



- 4) Remove the fuse block terminals from the air duct using your hands; grasp the cold storage air duct foam component and pull it out along the arrow direction shown in the picture, until the cold storage air duct foam and the body of the refrigerator are separated, and then remove the cold storage air duct foam.



#### Electric damper

The electric damper is installed in the air duct foam and it is not recommended to take it out to replace. Tear off the adhesive tape, open the foam, remove the electric damper and replace it with a new one. The reverse process can complete the installation.



### 6.5 Air duct and fan motor in the freezer chamber

#### Air duct components in freezer chamber

- 1) Use a blade to remove the two screw caps on the frozen air duct assembly at the indicated position, and then use a Phillips screwdriver to remove the two screws in a counterclockwise direction.



- 2) Grasp the bottom of the frozen upper air duct component with your hand and use force to remove the frozen upper air duct.



- 3) Disconnect the connection terminal and remove the frozen upper air duct component.

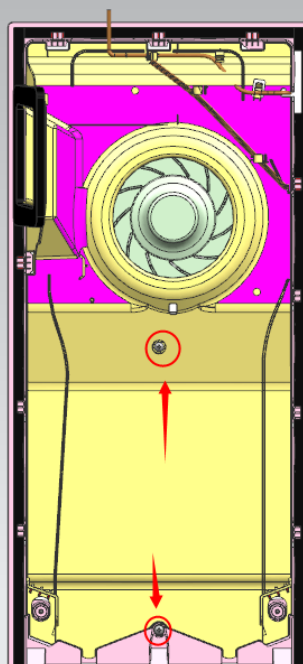


- 4) Grasp the frozen lower air duct component and remove it outward along the diagram.

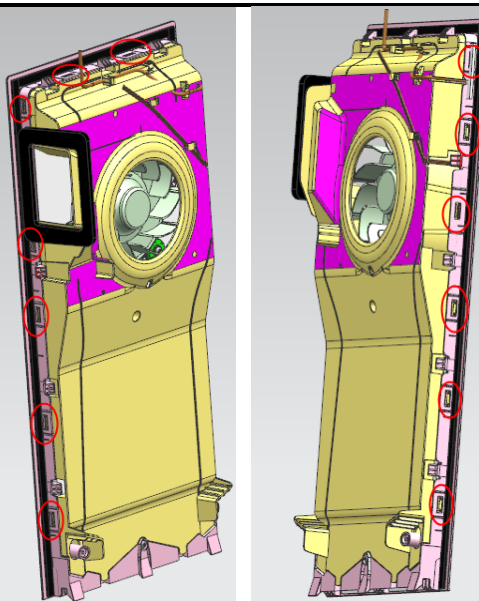


Fan motor in the freezer air duct

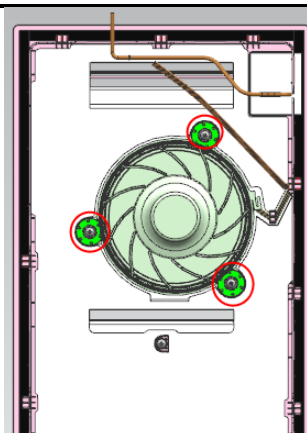
- 1) Use a Phillips screwdriver to remove the 2 screws on the upper air duct assembly of the freezer.



- 2) Open all snaps on the air duct and remove the back cover of the air duct.



- 3) Remove 3 fixing screws. Remove the fan motor and replace it with a new one.



- 4) The reverse process can complete the installation.



## 6.6 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.



### Defrost heater components on the evaporator

This defrost heater with defrost sensor and fuse can be dismantled separately, it DOES NOT need to replace the evaporator assembly if only heater fail to work.

#### Defrosting fuse ①

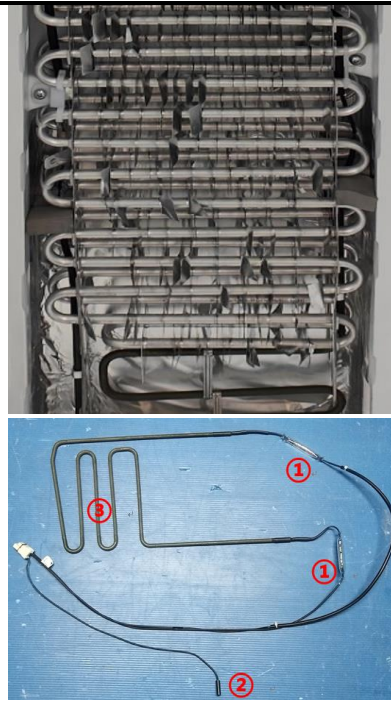
#### Defrost sensor ②

#### Defrost heater ③

- 1) Disconnect the connecting terminals.
- 2) Cut off the band.



3) Use nipper plier to unlock all metal hooks of heater pipe, separate the components from the evaporator.



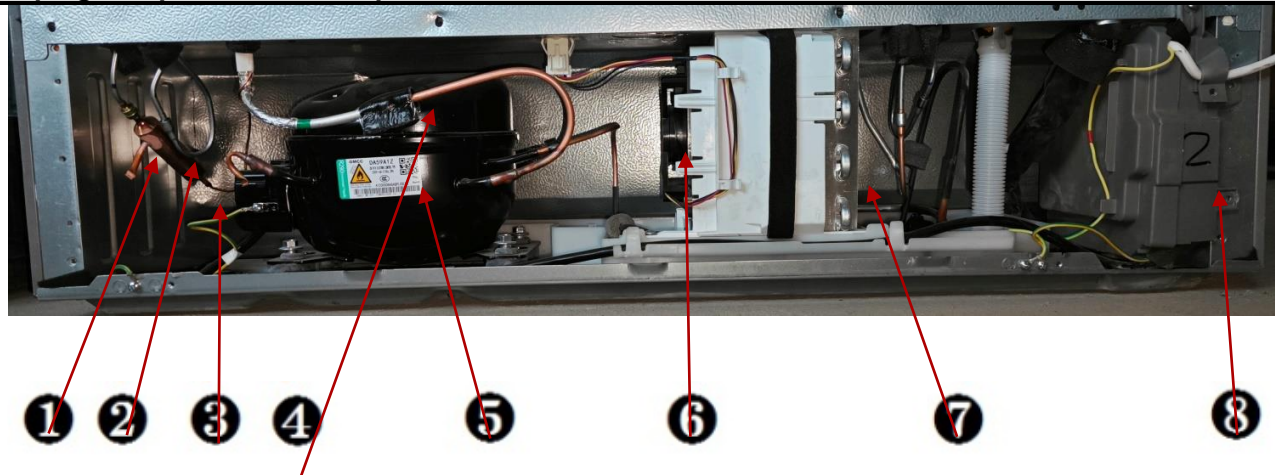
## 6.7 Compressor case

### Rear cover

- 1) Remove all the screws on the back cover.
- 2) Remove the back cover upward.



### Piping and parts in the compressor case

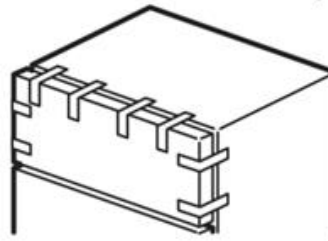


- ① Drier
- ② Anti-water condensed pipe
- ③ Capillary Tube
- ④ Suction Pipe

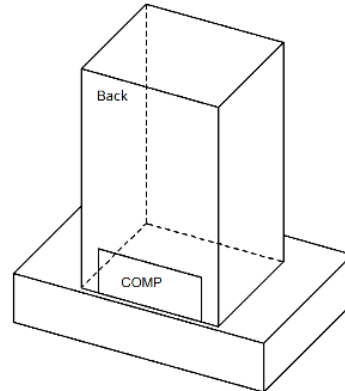
- ⑤ Compressor
- ⑥ Condenser fan
- ⑦ Condenser
- ⑧ Control box

### Disassembly and assembly of compressor

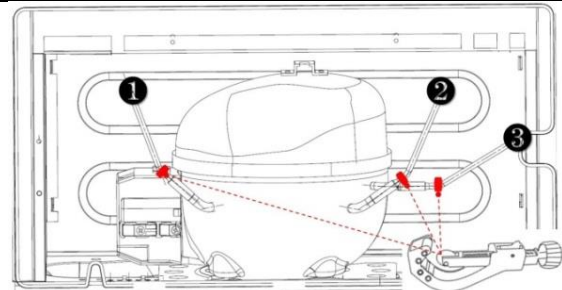
1) Cut off the power, remove the goods in the refrigerator, with the tape to make the door fixed firmly and prevent the door dropping when the refrigerator dumping.



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



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

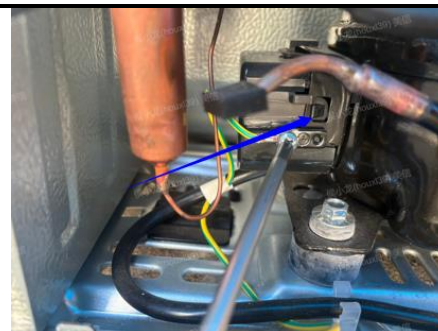


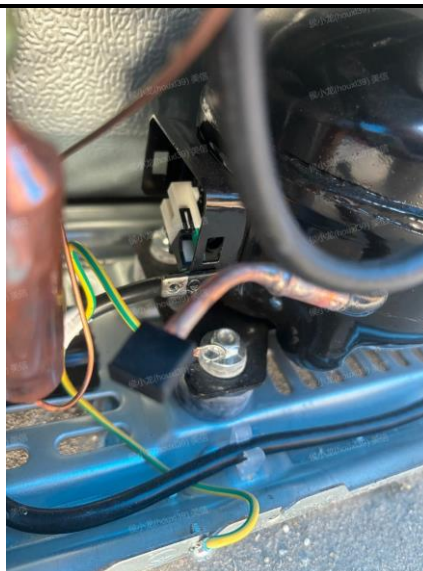
4) Blow the piping system with high pressure Nitrogen for more than 15 seconds to solve the blockage problem.



5) **Remove the protective cover**

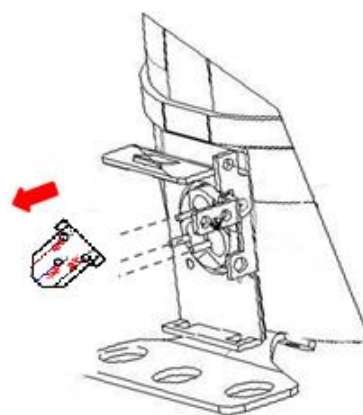
-Pry the protective cover slowly from the upper part,  
 -Pull it out and remove it.



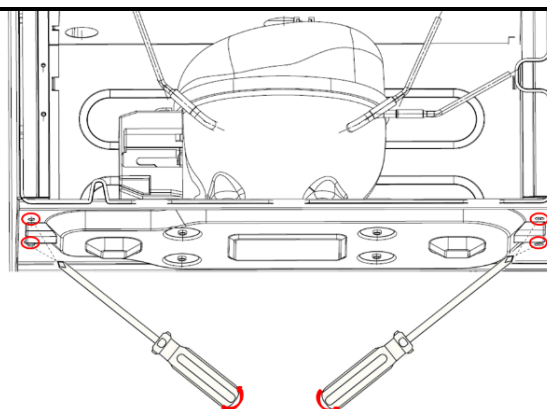


**6) Remove the connecting terminals**

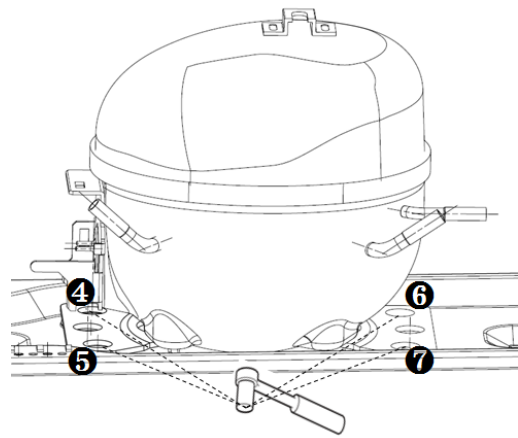
Unplug the connection terminals of a compressor. (you can use a screwdriver to pry it slowly)



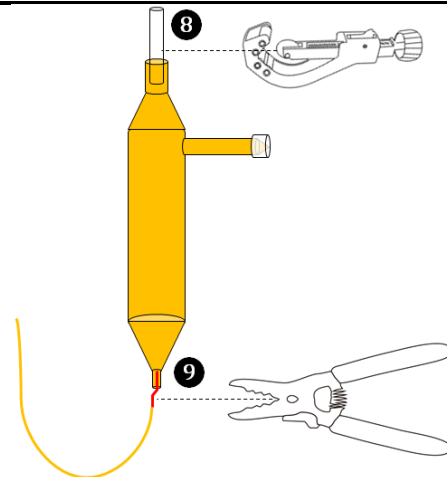
7) Loosen the screw of the compressor bottom plate, remove the floor together with the compressor from the box.



8) Use the wrench to remove the bolts by steps ④⑤⑥ ⑦, replace the compressor and reverse process can complete installation.

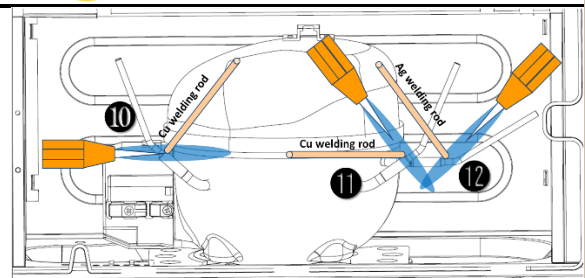


10) Use Pipe cutter cut off the condenser tube ⑧, then Shear off capillary ⑨ by the capillary tube scissors.



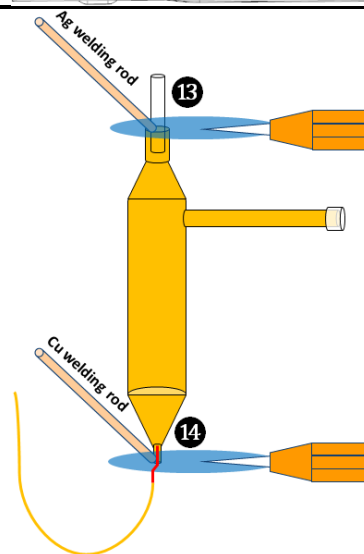
11) Replace the compressor and welding the compressor pipeline.

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



12) - Replace a dry filter for after-sales services (**Part code: 15531000006494**).

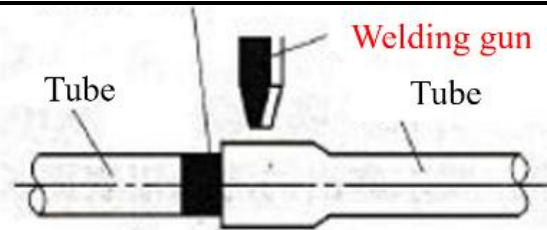
- ⑬ Cu-Stainless tubes welding used Ag welding rod.
- ⑭ Cu-Cu tubes welding used Cu welding rod.



**12-1) Fire Welding**

Welding of the tubes in the compressor compartment can be done by fire welding.

- Cu-Stainless tubes welding used Ag welding rod.
  - Cu-Cu tubes welding used Cu welding rod.
- Cu-AL tubes welding used Cu & AL welding rod.

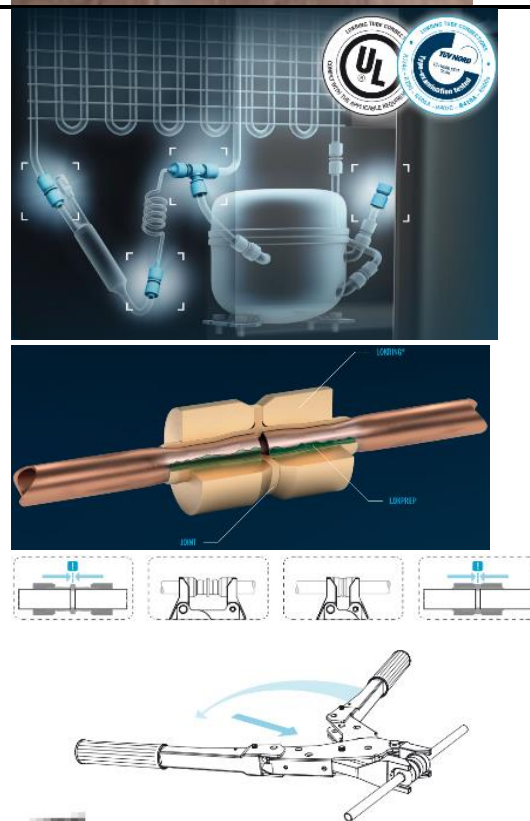
**12-2) Fireless ring welding**

- Welding of the tubes in the compressor compartment can be done by **Locke ring welding**.

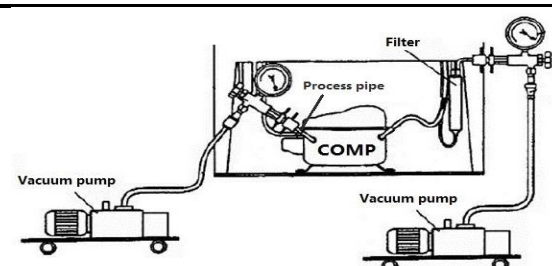


**12-3) Locke ring welding method-** According to the material and outer diameter size of the tubes, choose the appropriate **Locke ring** for welding.

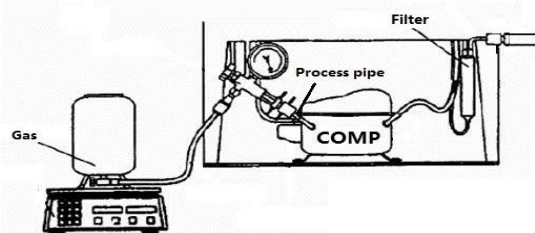
- If the welding length between the original tubes is not enough, a copper transition tube can be added.



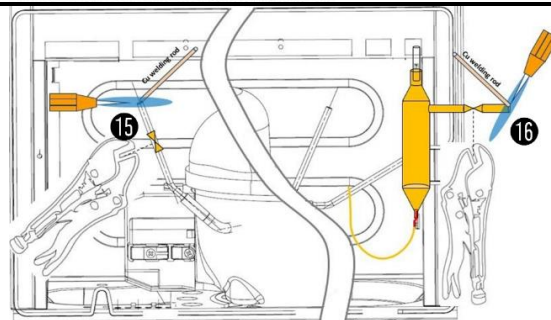
**13) Vacuum system,** The degree of vacuum below 6Pa.



14) Charge the refrigerant according to the nameplate specifications.

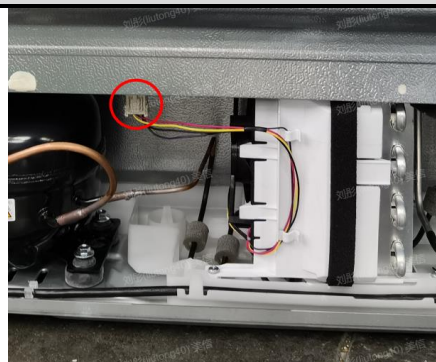


15) Use the vise grip pliers clamp the middle of the process pipe, then seal welding process tube 15 16.

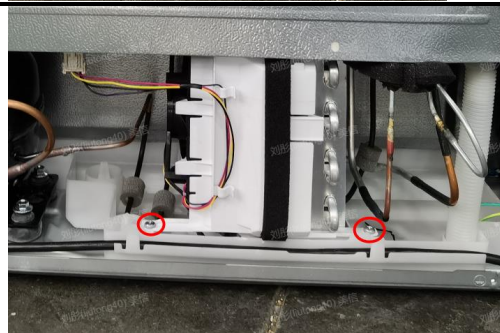


### Condenser fan motor

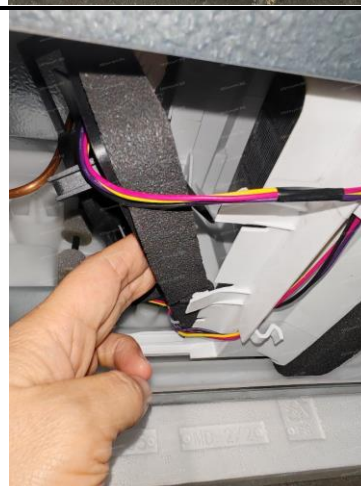
1) Unplug the connection terminal by pressing the terminal lock



2) Remove the screw.

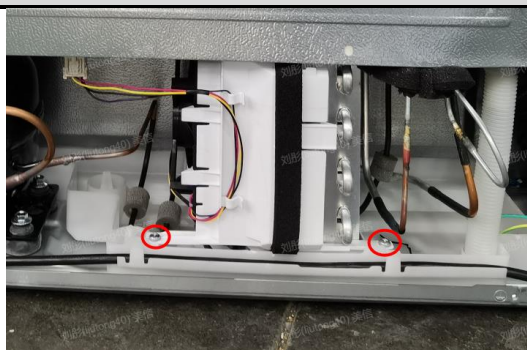


3) Dismantle the condenser fan motor from the base.



**Drain tray**

- 1) Remove the fixing screws of condensing fan



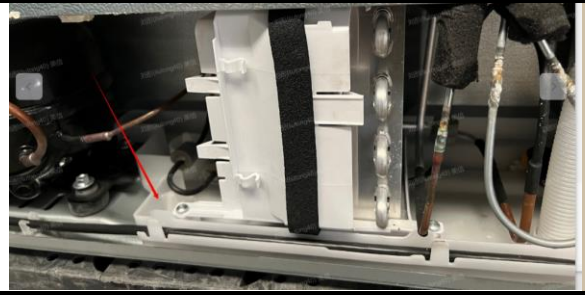
- 2) Remove the fixing screws of drain pan.



- 3) Remove the fixing screws from the base plate compressor of.



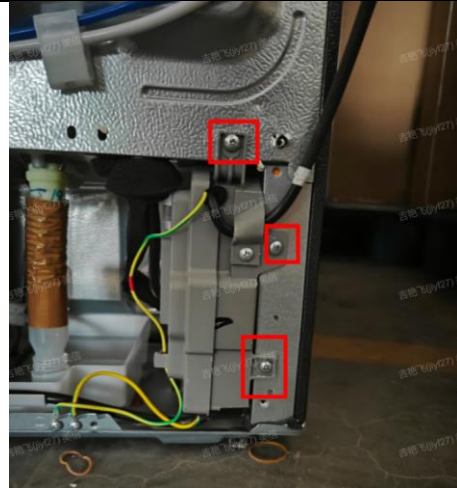
- 4) Replace the drip tray and complete installation in the reverse procedures. Watch out the buckle on the condenser.



## 6.8 Main control board

### Main control board

- 1) Loosen the three fixing screws shown in the right figure



- 2) Remove the control box from the press chamber. Use a flathead screwdriver to pry open the clips between the control box and the cover.



- 3) . After the lid is disassembled, you can see the status of the main transformer integrated board, as shown in the figure on the right



The connecting terminals remove :

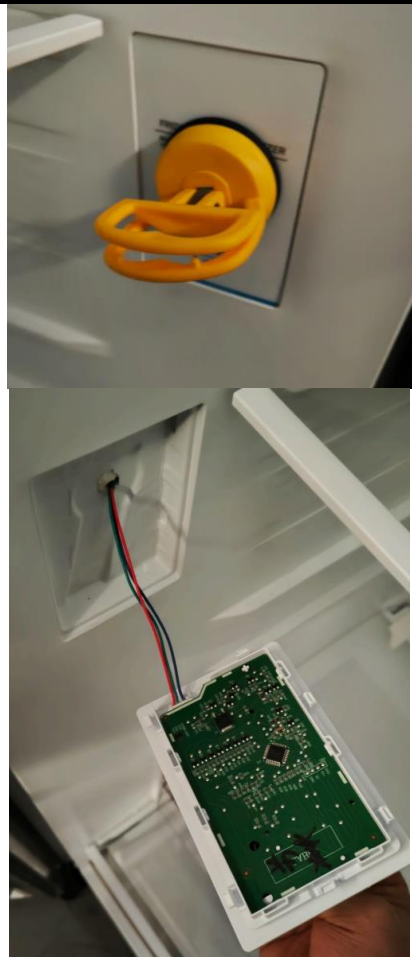
- a. Use a needle tool to remove the lock at the arrow and remove the lock upward;
- b. After the lock is removed, press the hook to remove the wiring connectors



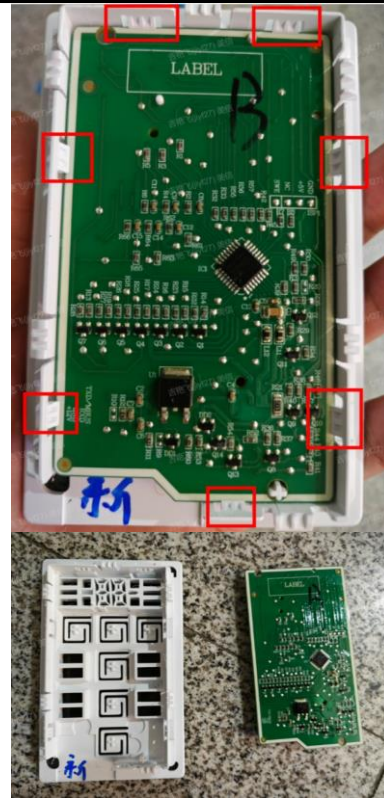
## 6.9 Display control board

### Display control board

- 1) Use vacuum cap to pull the control panel outwards
- 2) Take out the display board mounting box and unplug the terminals

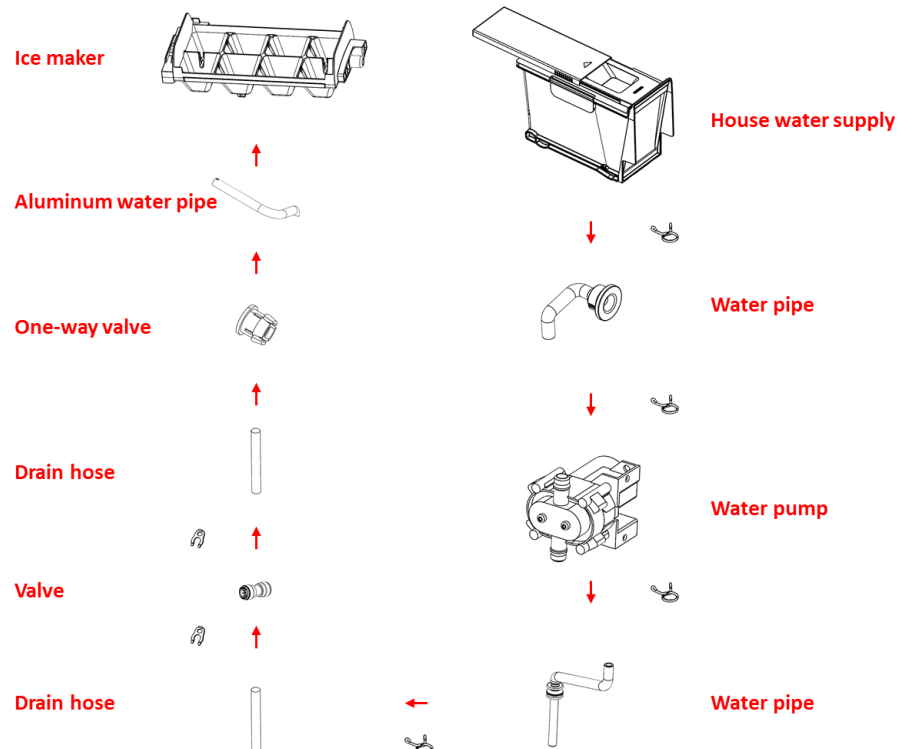


- 3) Open the jaws, remove the display and control board and replace it with a new one
- 4) The reverse process can complete the installation

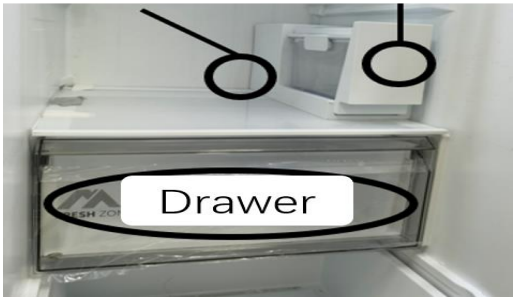
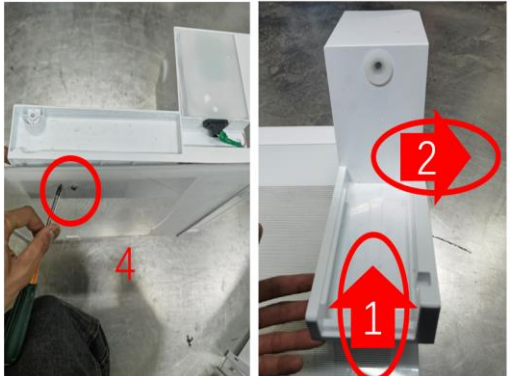


## 6.10 Water Supply & Ice Making System

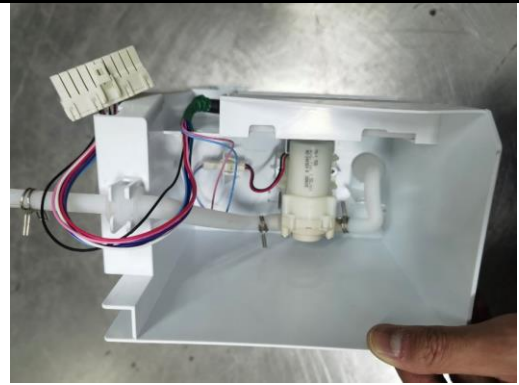
### Ice Making System



### 1. Disassembly of the water tank bracket

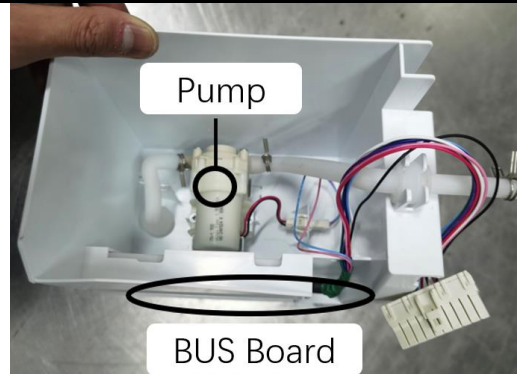
|                                                                                                                                                                                                                                                                                                      |                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| 1) The initial state.                                                                                                                                                                                                                                                                                | <p>Supporter Water Tank</p>  |
| 2) Remove the water tank and drawer, loosen the clamp at position 1, and loosen the screw at position 2.                                                                                                                                                                                             |                              |
| 3) Pull the glass shelf outward to expose the terminal at position 3, loosen the terminal, and remove the glass shelf and water tank bracket.                                                                                                                                                        |                             |
| 4) Loosen the screw at position 4. Lay the glass shelf and water tank bracket flat, lift the tail end of the water tank bracket in the direction of arrow 1, then slide it in the direction of arrow 2 to remove the water tank bracket. To install the water tank bracket, reverse the above steps. |                            |

- 5) State after the water tank bracket is removed. Based on this, the water pump and BUS board can be removed.



2. Remove the water pump and PCB board

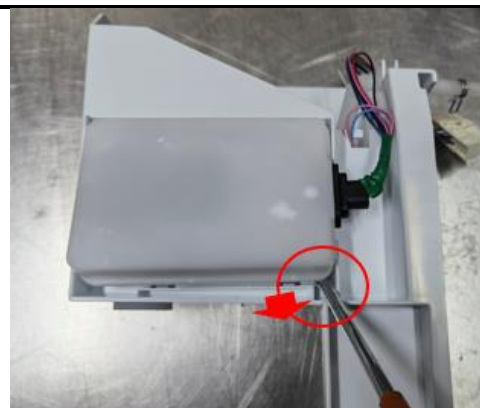
- 1) The initial state.



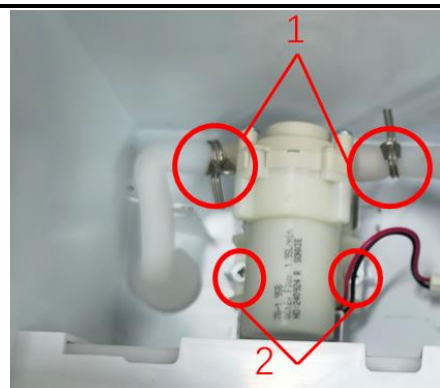
- 2) Loosen the terminal at position 1. Based on this, the BUS board and water pump can be removed separately.



- 3) Removing the BUS board: Based on step 2), flip the bracket to the BUS board side, and gently pry the edge of the BUS board at the indicated position in the diagram to remove the BUS board.



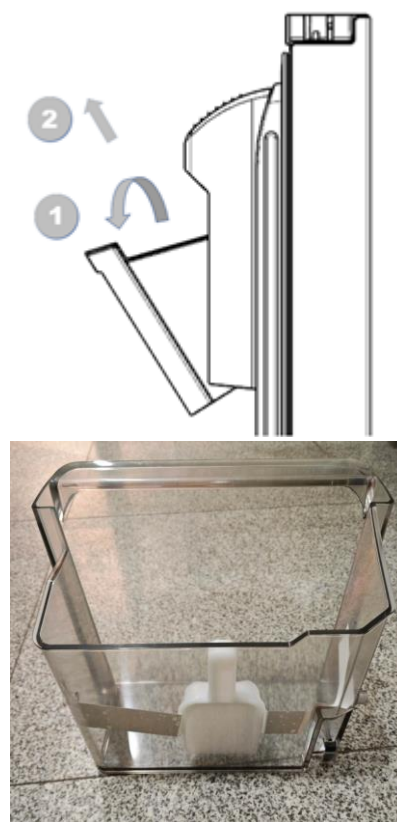
- 4) Removing the water pump: Based on step 2), loosen the hose clamp at position 1 and the screw at position 2 to remove the water pump. To install the water pump, simply reverse the above steps.



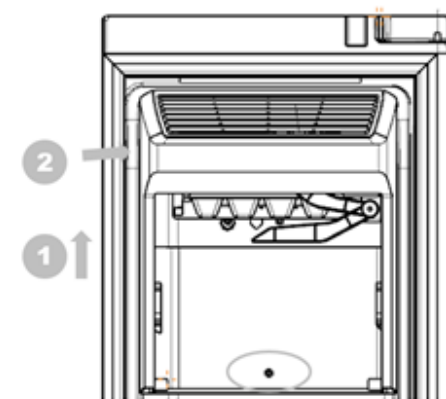
## 6.11 Ice maker

### Disassembly of ice maker

- 1) Open the doors.
- 2) Grab the ice storage box and flip it to the maximum before lifting it up.



- 3) Remove the screws under the hanger, then lift the mask up first and then take it out outward.



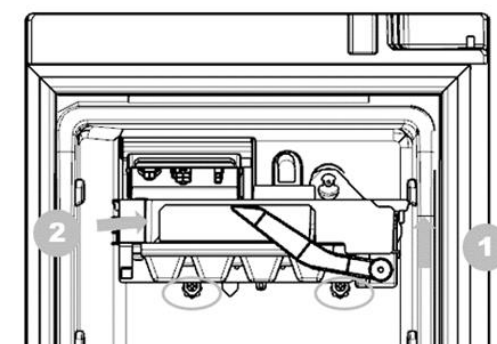
- 4) As shown in the figure on the right, remove the terminal box cover.



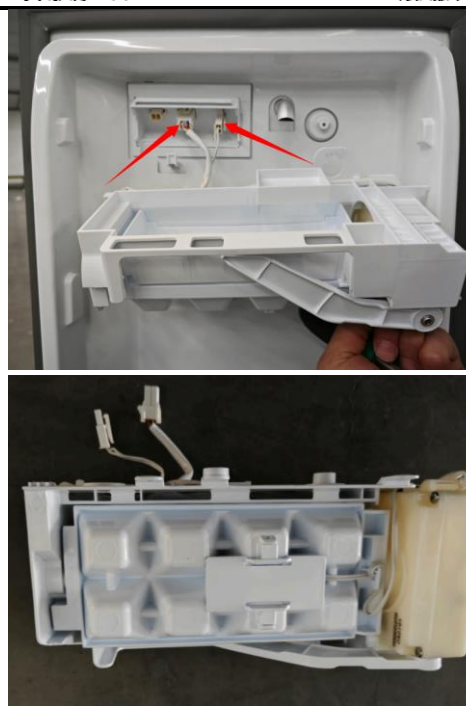
- 5) As shown in the figure on the right, disconnect the ice maker cover plug terminal and remove the ice maker cover.



- 6) Remove the two screws under the ice maker, and then take out the ice maker first upwards and then outwards



- 7) The reverse process can complete the installation



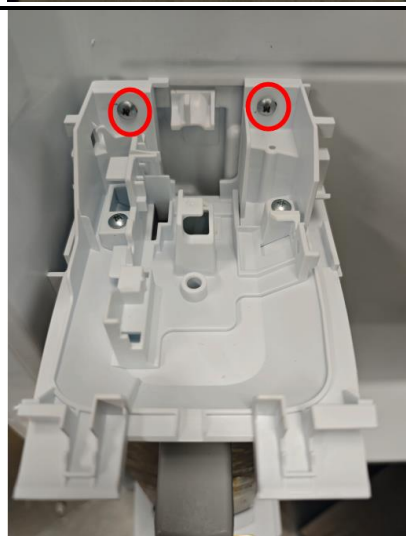
## 6.13 Inner water bottle

### Inner water bottle

- 1) The water bottle is located on the left side of the refrigerator door.
- 2) Pull the water bottle cover plate outwards in the direction shown.



- 3) Loosen the screw indicated by the red circle, then remove the water bottle bracket. .



4) Reverse the installation process.



## 7. Temperature sensing system

### 7.1 Position of sensors

#### Position of sensors

Have 5 sensors

- ① Freezer temperature sensor
- ② Refrigerator temperature sensor
- ③ Ice maker temperature sensor
- ④ Ambient temperature and humidity sensor
- ⑤ Freezer defrosting temperature sensor



### 7.2 Replacement of sensors

#### Sensor in freezing chamber

Refer to section 6.5 and remove the back cover of the refrigeration duct.

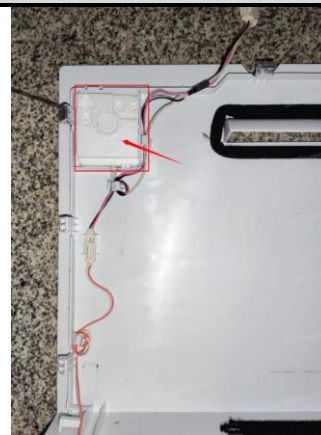
Tear off the sponge and remove the sensor.



#### Sensor in refrigerating chamber

Refer to section 6.4 and remove the refrigeration duct panel assembly.

Remove the sensor sealing foam and take out the sensor.



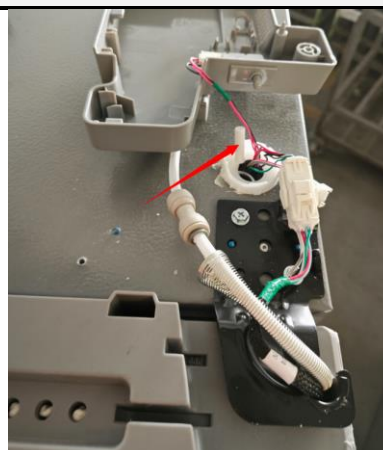
The defrost sensor is located on top of the evaporator.

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



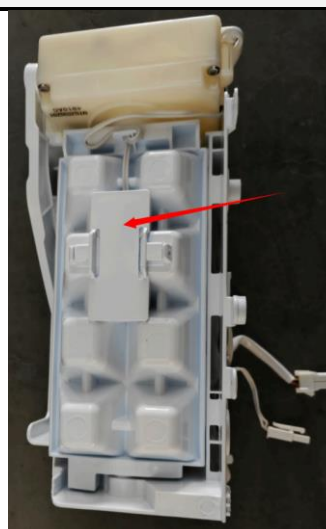
#### Ambient temperature and humidity sensor

The sensor used for measurement of ambient temperature is located within upper hinge cover of refrigerating chamber door;

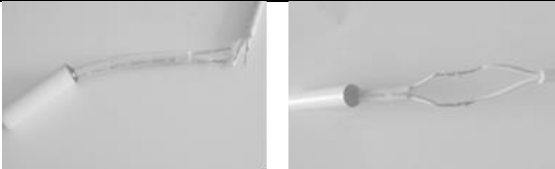


#### Ice machine sensor

The ice machine sensor is located on bottom of the ice-making box.



### 7.3 Sensor without terminal replacement

| Sensor replacement guidelines                                                                                                                            |                                                                                      |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|
| 1) Cut off the damaged head of sensor.                                                                                                                   |    |  |
| 2) Strip off the sensor wiring.                                                                                                                          |    |  |
| 3) Take out a new sensor to cut the head of sensor.<br>(Spare parts code: 11201007000795) Its technical specifications apply to all MIDEA refrigerators. |   |  |
| 4) Strip off the head of the sensor and connect it.                                                                                                      |  |  |
| 5) Wrap the two wires together with insulation tape.                                                                                                     |  |  |
| 6) Wrap the two wires together.                                                                                                                          |  |  |

**7.4 Sensor R/T table**

| Tx(℃) | Tx(℉) | Rmin<br>(KΩ) | Rnom<br>(KΩ) | Rmax<br>(KΩ) | Tx(℃) | Tx(℉) | Rmin<br>(KΩ) | Rnom<br>(KΩ) | Rmax<br>(KΩ) | Tx(℃) | Tx(℉) | Rmin<br>(KΩ) | Rnom<br>(KΩ) | Rmax<br>(KΩ) |
|-------|-------|--------------|--------------|--------------|-------|-------|--------------|--------------|--------------|-------|-------|--------------|--------------|--------------|
| -15   | 5     | 13.74        | 14.31        | 14.9         | 3     | 37.4  | 5.464        | 5.587        | 5.71         | 22    | 71.6  | 2.206        | 2.287        | 2.37         |
| -14   | 6.8   | 13.02        | 13.55        | 14.1         | 4     | 39.2  | 5.205        | 5.316        | 5.428        | 23    | 73.4  | 2.109        | 2.188        | 2.269        |
| -13   | 8.6   | 12.34        | 12.83        | 13.33        | 5     | 41    | 4.959        | 5.06         | 5.161        | 24    | 75.2  | 2.016        | 2.094        | 2.174        |
| -12   | 10.4  | 11.71        | 12.16        | 12.62        | 6     | 42.8  | 4.717        | 4.818        | 4.919        | 25    | 77    | 1.929        | 2.005        | 2.083        |
| -11   | 12.2  | 11.11        | 11.52        | 11.94        | 7     | 44.6  | 4.488        | 4.589        | 4.69         | 26    | 78.8  | 1.845        | 1.919        | 1.996        |
| -10   | 14    | 10.54        | 10.92        | 11.31        | 8     | 46.4  | 4.272        | 4.372        | 4.472        | 27    | 80.6  | 1.765        | 1.838        | 1.913        |
| -9    | 15.8  | 10           | 10.36        | 10.71        | 9     | 48.2  | 4.067        | 4.167        | 4.256        | 28    | 82.4  | 1.609        | 1.761        | 1.835        |
| -8    | 17.6  | 9.497        | 9.82         | 10.15        | 10    | 50    | 3.874        | 3.972        | 4.071        | 29    | 84.2  | 1.617        | 1.687        | 1.759        |
| -7    | 19.4  | 9.019        | 9.316        | 9.619        | 11    | 51.8  | 3.69         | 3.788        | 3.886        | 30    | 86    | 1.549        | 1.617        | 1.687        |
| -6    | 21.2  | 8.568        | 8.841        | 9.119        | 12    | 53.6  | 3.517        | 3.613        | 3.71         | 31    | 87.8  | 1.483        | 1.55         | 1.619        |
| -5    | 23    | 8.141        | 8.392        | 8.647        | 13    | 55.4  | 3.352        | 3.447        | 3.543        | 32    | 89.6  | 1.421        | 1.486        | 1.553        |
| -4    | 24.8  | 7.738        | 7.968        | 8.202        | 14    | 57.2  | 3.197        | 3.29         | 3.385        | 33    | 91.4  | 1.363        | 1.426        | 1.492        |
| -3    | 26.6  | 7.357        | 7.568        | 7.782        | 15    | 59    | 3.049        | 3.141        | 3.234        | 34    | 93.2  | 1.306        | 1.368        | 1.432        |
| -2    | 28.4  | 6.997        | 7.19         | 7.386        | 16    | 60.8  | 2.908        | 2.999        | 3.091        | 35    | 95    | 1.252        | 1.312        | 1.375        |
| -1    | 30.2  | 6.656        | 6.833        | 7.011        | 17    | 62.6  | 2.776        | 2.865        | 2.956        | 36    | 96.8  | 1.2          | 1.259        | 1.32         |
| 0     | 32    | 6.333        | 6.495        | 6.658        | 18    | 64.4  | 2.649        | 2.737        | 2.827        | 37    | 98.6  | 1.151        | 1.209        | 1.269        |
| 1     | 33.8  | 6.027        | 6.175        | 6.324        | 19    | 66.2  | 2.53         | 2.616        | 2.704        | 38    | 100.4 | 1.105        | 1.161        | 1.22         |
| 2     | 35.6  | 5.378        | 5.873        | 6.008        | 20    | 68    | 2.417        | 2.501        | 2.587        | 39    | 102.2 | 1.06         | 1.115        | 1.172        |

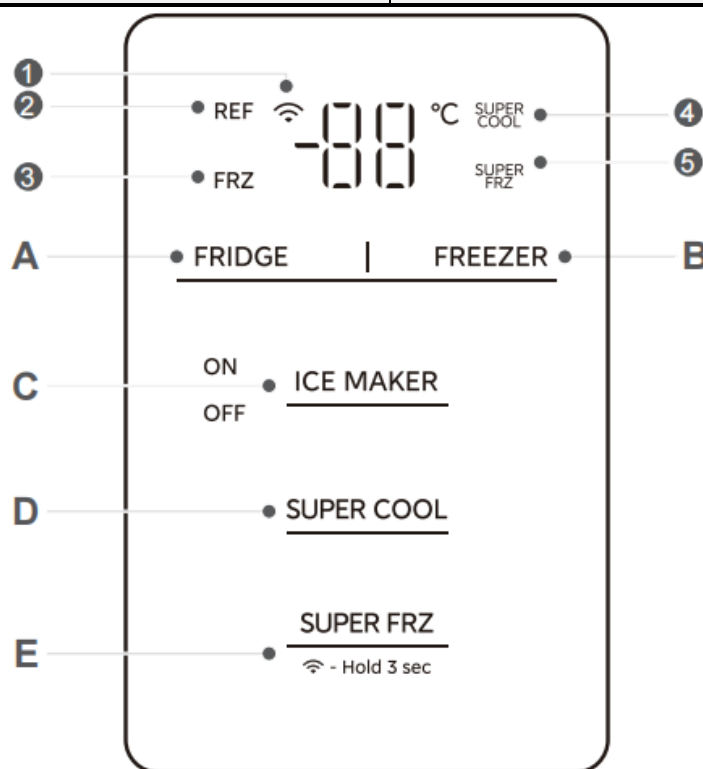
**7.5 Sensor R/T table**

| Tx(℃) | Tx(℉) | Rmin<br>(KΩ) | Rnom<br>(KΩ) | Rmax<br>(KΩ) | Tx(℃) | Tx(℉) | Rmin<br>(KΩ) | Rnom<br>(KΩ) | Rmax<br>(KΩ) | Tx(℃) | Tx(℉) | Rmin<br>(KΩ) | Rnom<br>(KΩ) | Rmax<br>(KΩ) |
|-------|-------|--------------|--------------|--------------|-------|-------|--------------|--------------|--------------|-------|-------|--------------|--------------|--------------|
| -15   | 5     | 26.38        | 27.34        | 28.30        | 3     | 37.4  | 11.28        | 11.76        | 12.24        | 22    | 71.6  | 5.026        | 5.280        | 5.540        |
| -14   | 6.8   | 25.11        | 26.01        | 26.91        | 4     | 39.2  | 10.79        | 11.25        | 11.71        | 23    | 73.4  | 4.828        | 5.074        | 5.327        |
| -13   | 8.6   | 23.91        | 24.76        | 25.60        | 5     | 41    | 10.32        | 10.76        | 11.21        | 24    | 75.2  | 4.639        | 4.878        | 5.123        |
| -12   | 10.4  | 22.79        | 23.60        | 24.40        | 6     | 42.8  | 9.867        | 10.30        | 10.730       | 25    | 77    | 4.459        | 4.690        | 4.927        |
| -11   | 12.2  | 21.75        | 22.52        | 23.29        | 7     | 44.6  | 9.441        | 9.858        | 10.280       | 26    | 78.8  | 4.286        | 4.510        | 4.740        |
| -10   | 14    | 20.76        | 21.50        | 22.24        | 8     | 46.4  | 9.037        | 9.439        | 9.848        | 27    | 80.6  | 4.121        | 4.338        | 4.561        |
| -9    | 15.8  | 19.79        | 20.51        | 21.23        | 9     | 48.2  | 8.651        | 9.041        | 9.436        | 28    | 82.4  | 3.964        | 4.174        | 4.390        |
| -8    | 17.6  | 18.85        | 19.55        | 20.24        | 10    | 50    | 8.285        | 8.661        | 9.044        | 29    | 84.2  | 3.813        | 4.016        | 4.226        |
| -7    | 19.4  | 17.97        | 18.64        | 19.31        | 11    | 51.8  | 7.936        | 8.300        | 8.670        | 30    | 86    | 3.668        | 3.866        | 4.069        |
| -6    | 21.2  | 17.13        | 17.77        | 18.42        | 12    | 53.6  | 7.604        | 7.956        | 8.314        | 31    | 87.8  | 3.530        | 3.722        | 3.919        |
| -5    | 23    | 16.33        | 16.96        | 17.58        | 13    | 55.4  | 7.287        | 7.628        | 7.975        | 32    | 89.6  | 3.398        | 3.584        | 3.775        |
| -4    | 24.8  | 15.58        | 16.18        | 16.79        | 14    | 57.2  | 6.985        | 7.315        | 7.651        | 33    | 91.4  | 3.272        | 3.452        | 3.637        |
| -3    | 26.6  | 14.86        | 15.45        | 16.03        | 15    | 59    | 6.698        | 7.017        | 7.342        | 34    | 93.2  | 3.151        | 3.325        | 3.505        |
| -2    | 28.4  | 14.19        | 14.75        | 15.31        | 16    | 60.8  | 6.424        | 6.733        | 7.048        | 35    | 95    | 3.035        | 3.204        | 3.379        |
| -1    | 30.2  | 13.54        | 14.09        | 14.63        | 17    | 62.6  | 6.163        | 6.462        | 6.767        | 36    | 96.8  | 2.924        | 3.088        | 3.257        |
| 0     | 32    | 12.93        | 13.46        | 13.99        | 18    | 64.4  | 5.914        | 6.203        | 6.498        | 37    | 98.6  | 2.817        | 2.977        | 3.141        |
| 1     | 33.8  | 12.36        | 12.86        | 13.37        | 19    | 66.2  | 5.676        | 5.956        | 6.242        | 38    | 100.4 | 2.715        | 2.870        | 3.030        |
| 2     | 35.6  | 11.80        | 12.30        | 12.79        | 20    | 68    | 5.490        | 5.720        | 5.997        | 39    | 102.2 | 2.618        | 2.768        | 2.923        |

## 8. Function and operation

### 8.1 Display operation panel

| Icons                  | Button                                 |
|------------------------|----------------------------------------|
| ① Wireless Network     | A. Refrigerator temperature adjustment |
| ② Refrigerator chamber | B. Freezing temperature adjustment     |
| ③ Freezing chamber     | C. Ice maker on/off                    |
| ④ Super cooling        | D. Super cooling mode                  |
| ⑤ Super freezing       | E. Super freezing mode                 |



### 8.2 Temperature control

#### 8.2.1 Temperature setting of refrigerating chamber

Press the **Fridge** button to select the refrigeration temperature zone, then click the **Fridge** button to change the set temperature of refrigerating chamber. Each press adjusts the temperature by 1°C, the setting will take effect after 10 seconds of no button operation. The refrigerator temperature setting range is 2 ~8°C.

#### 8.2.2 Temperature setting of freezing chamber

Press the **FREEZER** button to select the freezer temperature zone, then click the **FREEZER** button to change the set temperature of freezer chamber. Each press adjusts the temperature by 1°C, the setting will take effect after 10 seconds of no button operation. The freezer temperature setting range is -24~ -16°C.

### 8.3 Mode setting

#### 8.3.1 Super cool mode

Press the **"SUPER COOL"** button once to set or cancel super cooling mode. The temperature of refrigerator compartment is automatically set to 2°C, the **"SUPER COOL"** icon will light on. The setting takes effect automatically after 10 seconds. This mode will automatically exit after 6 hours of operation.

### 8.3.2 Super freezer mode

Press the **"SUPER FRZ"** button once to set or cancel super freezer mode. The temperature of freezer compartment is automatically set to -24°C, the **"SUPER FRZ"** icon will light on. The setting takes effect automatically after 10 seconds. This mode will automatically exit after 40 hours of operation.

### 8.3.3 Sabbath mode

Long press the **"SUPER FRZ"** and **"ICE MAKER"** button for 3 seconds to enter **Sabbath mode**, the screen displays **"ON"** for 2 seconds. In this mode, the lights do not light up, the display control panel goes out, and the door opens without sound. The mode will automatically exit after 48 hours of operation. Press and hold the **"SUPER FRZ"** and **"ICE MAKER"** button for 3 seconds again to exit this mode, the screen displays **"OFF"** for 2 seconds.

### 8.3.4 Ice making mode

Press the **"ICE MAKER"** button to setting or cancel ice making function, the **ON** and **OFF** icon will light up. The ice maker's ice-making cycle is 90 minutes, each ice-making cycle produces approximately 95 grams of ice, with a maximum storage capacity of 3.6 kilograms. It takes about 38 to 42 ice-making cycles to reach the maximum storage capacity.

### 8.3.5 Water Supply Timer Setting for Ice Maker

Long press the **"FREEZER"** and **"ICE MAKER"** button for 3 seconds to enter the setting screen. The default water inlet time is 5.2 seconds, and the screen display **52**. The inlet time can be adjusted by pressing the **"FRIDGE"** and the **"FREEZER"** button, the accuracy is 0.5 second, the upper limit of the inlet time is 9.5 seconds, and the lower limit is 3 seconds.

### 8.3.6 Locking and unlocking

It is not locked and automatically enters the locked state 10 seconds later.

In the locked state, press any key to enter the non-locked state.

The alarm sound release operation can be carried out in the locked state, and other key operations.

## 8.4 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--- fan motor is turned off after 3~10 minutes (for different model refrigerator, the time is different)--- electric damper closed---the heater start working---the heater stop when the temperature rise to setting--- after 7 minutes, if the start-up condition is reached, the compressor will start---the electric damper resets once---after 3 minutes, the fan motor will start work

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

- 1) When the frozen defrosting sensor has no fault, the measured temperature  $T_{fd} \geq$  the set temperature which defrost heating exit
- 2) When the frozen defrosting sensor has no fault, the defrosting time is  $\geq 60$  minutes
- 3) When the frozen defrosting sensor is faulty, the heater will stop after work 20 minutes

## 8.5 Open door alarm

When the door of refrigerating chamber or freezer is opened, the lamp will be on, no door opening beep sound.

If refrigerator door or freezer door is open last for 120 seconds, there will be a buzzer alarm, afterwards give alarm one time per second until the door is closed, or press any buttons on control panel can cancel this buzzer 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 30 seconds if there is no any operation on display panel.

## 8.6 Error code and solutions

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

### Error Mode Entry:

Long press the "SUPER FRZ" and "FREEZER" button for 7 seconds to enter **test mode**, after display "0", press "FRIDGE" or "FREEZER" button to select the mode "A6".

### Error Mode Exit:

Error code mode will exit automatically after 5 minutes of display. Or keep pressing "SUPER FRZ" and "FREEZER" button for 7 seconds to enter the test mode, and then press the "FRIDGE" or "FREEZER" button to select the mode "0".

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

| Error code | Fault Type                                        | Troubleshooting and Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E0         | Initialization fault of freeze ice maker          | <b>Step 1:</b> Check whether the connection terminals on the ice maker and the main PCB are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again.<br><b>Step 2:</b> Enter the forced ice making mode and check whether the ice maker works normally.<br><b>Step 3:</b> If the ice maker does not work, replace the ice motor.<br><b>Step 4:</b> If the fault still occurs, replace the main PCB.                                                                        |
| E1         | 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.<br><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.<br><b>Step 3:</b> If the resistance value is wrong, replace the sensor.<br><b>Step 4:</b> If the fault still occurs, replace the main PCB. |
| E2         | Temperature sensor fault in freezing chamber      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| E3         | Temperature sensor fault in variable chamber      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| C9         | Sensor fault of ice-making compartment            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| E4         | Defrost 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.<br><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.<br><b>Step 3:</b> If the resistance value is wrong, replace the sensor.<br><b>Step 4:</b> If the fault still occurs, replace the main PCB. |
| E5         | Defrost sensor fault in freezing chamber          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| CC         | Defrosting fault of ice-making compartment        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| E6         | 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.<br><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.)<br><b>Step 3:</b> If the wire is OK, replace the display control board.<br><b>Step 4:</b> If the fault still occurs, replace the main PCB.                                                                                                                                                                                            |
| E7 | Ambient temperature sensor fault                | <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.<br><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.<br><b>Step 3:</b> If the resistance value is wrong, replace the sensor.<br><b>Step 4:</b> If the fault still occurs, replace the main PCB.                    |
| EE | Sensor fault at the bottom of freeze ice maker  | <b>Step 1:</b> Check whether the connection terminals on the ice maker and the main PCB are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again.                                                                                                                                                                                                                                                                                                                                          |
| F4 | Sensor fault at the bottom of freeze ice maker  | <b>Step 2:</b> If the fault still occurs, pull out the connection terminal on ice maker, use a multimeter to check the resistance value of the sensor, and confirm whether it is normal.<br><b>Step 3:</b> If the resistance value is wrong, replace the sensor.<br><b>Step 4:</b> If the fault still occurs, replace the main PCB.                                                                                                                                                                                                                    |
| F5 | Ice-flipping fault of refrigerating ice maker   | <b>Step 1:</b> Check whether the connection terminals on the ice maker and the main PCB are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again.                                                                                                                                                                                                                                                                                                                                          |
| F6 | Initialization fault of refrigerating ice maker | <b>Step 2:</b> Enter the forced ice making mode and check whether the ice maker works normally.<br><b>Step 3:</b> If the ice maker does not work, replace the ice motor.<br><b>Step 4:</b> If the fault still occurs, replace the main PCB.                                                                                                                                                                                                                                                                                                            |
| EH | Circuit fault of ambient humidity sensor        | <b>Step 1:</b> Check whether the connection terminals in the hinge cover and the main PCB are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again.<br><b>Step 2:</b> If the fault still occurs, pull out the connection terminal on the hinge cover, use a multimeter to check the voltage value of the sensor, and confirm whether it is normal.<br><b>Step 3:</b> If the voltage value is wrong, replace the sensor.<br><b>Step 4:</b> If the fault still occurs, replace the main PCB. |
| EF | Water tank installation failure                 | <b>Step 1:</b> Check whether the water tank is installed in place, pull out the water tank and install it again;<br><b>Step 2:</b> Check whether the connection terminals behind the water tank seat is plugged in place and whether there are foreign matters in it; after cleaning the terminal, plug it in again.<br><b>Step 3:</b> Check whether the switch in the water tank seat is damaged, replace a new switch.                                                                                                                               |
| EP | Ice-flipping fault of freeze ice maker          | <b>Step 1:</b> Check whether the connection terminals on the ice maker and the main PCB are plugged in place and whether there are foreign matters in them; after cleaning the terminals, plug them in again.<br><b>Step 2:</b> Enter the forced ice making mode and check whether the ice maker works normally.<br><b>Step 3:</b> If the ice maker does not work, replace the ice motor.<br><b>Step 4:</b> If the fault still occurs, replace the main PCB.                                                                                           |

|    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CA | Main control board-communication fault of ice-making board | <p><b>Step 1:</b> Check whether the connection terminal on the icemaker control PCB, 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.</p> <p><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 icemaker control board and the main PCB to see if it is broken. If test value is <math>\infty\Omega</math>, the wire is broken.</p> <p><b>Step 3:</b> If the wire is OK, replace the icemaker control board.</p> <p><b>Step 4:</b> If the fault still occurs, replace the main PCB.</p> |
| L3 | Freezer fan failure                                        | <p><b>Step 1:</b> Check whether the connection terminals of fan motor are plugged in place and whether there are foreign matters in them, after cleaning, plug them in again.</p> <p><b>Step 2:</b> Check whether the fan motor is blocked by ice or foreign objects. If so, clean them out.</p>                                                                                                                                                                                                                                                                                                                                                                                       |
| L4 | Freezer fan abnormal rotation speed                        | <p><b>Step 3:</b> Enter the Forced Cooling Mode and check whether the fan motor works OK.</p> <p><b>Step 4:</b> If the fan motor does not work, replace it with a new one.</p> <p><b>Step 5:</b> If the fault still occurs, replace the main control board.</p>                                                                                                                                                                                                                                                                                                                                                                                                                        |
| L5 | Condenser fan failure                                      | <p><b>Step 1:</b> Check whether the connection terminals of fan motor are plugged in place and whether there are foreign matters in them, after cleaning, plug them in again.</p> <p><b>Step 2:</b> Check whether the fan motor is blocked by ice or foreign objects. If so, clean them out.</p>                                                                                                                                                                                                                                                                                                                                                                                       |
| L6 | Condenser fan abnormal rotation speed                      | <p><b>Step 3:</b> Enter the Forced Cooling Mode and check whether the fan motor works OK.</p> <p><b>Step 4:</b> If the fan motor does not work, replace it with a new one.</p> <p><b>Step 5:</b> If the fault still occurs, replace the main control board.</p>                                                                                                                                                                                                                                                                                                                                                                                                                        |

## 8.7 Test mode of the product

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

| Test items                                  | Setting Method                                                               | Setting result                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enter Test Mode                             | Long press the "SUPER FRZ" and "FREEZER" button for 7 seconds                | If LED display is "0", then the refrigerator will enter the test mode                                                                                                                                                                                                                                                      |
| Select to enter forced cooling mode         | After entering into test mode, press "FRIDGE" or "FREEZER" button to select  | Display screen shows "1". After 10 seconds, the air damper opens and the compressor and fan will work all the time. You can check whether there is wind at the air outlet of the air duct and whether the compressor is shaking to determine whether they are damaged.                                                     |
|                                             | In forced cooling mode, if no button is pressed within 72 hours              | The refrigerator will exit the test mode and return to normal operation mode                                                                                                                                                                                                                                               |
| Select to enter into forced defrosting mode | After entering into test mode, press "FRIDGE" or "FREEZER" button to select  | Display screen shows "3". After light off, the compressor and the freezing fan will stop working, the refrigerating air damper close, the freezing defrost heater starts to work. You can open the freezing air duct and determine whether the heater is damaged by seeing whether the frost on the evaporator has melted. |
|                                             | In forced defrosting mode, when the defrosting sensor reach a temperature of | The refrigerator will exit the test mode and return to normal operation mode                                                                                                                                                                                                                                               |

|                              |                                                                                                                                                       |                                                                                                                          |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
|                              | 10°C and the defrosting heater has been working for at least 3 minutes.                                                                               |                                                                                                                          |
|                              | In forced defrosting mode, if the temperature of defrosting sensor is always lower than 8°C and the defrosting heater has been working for 60 minutes | The refrigerator will exit the test mode and return to normal operation mode                                             |
| Select to exit the test mode | After entering into test mode, press "FRIDGE" or "FREEZER" button to select                                                                           | Display screen shows "0". After light off, the refrigerator will exit the test mode and return to normal operation mode. |

## 8.8 EYE Detection Mode of Ice Maker

Long press the "SUPER FRZ" and "FREEZER" button for 7 seconds to enter **test mode**, after display "0", press "FRIDGE" or "FREEZER" button to select. When display screen shows "4", enter the EYE mode.

◆ Working process of detection mode of freeze ice maker is as follows:

- 1) Wait the freeze ice maker to stop running
- 2) The ice box rotates back to the horizontal state
- 3) The ice maker drives the ice box to flip once
- 4) The water valve opens to start water intake
- 5) If the freeze ice maker motor is operating normally, it will automatically quit mode.

## 8.9 Demo mode

### Mode entry:

Long press the "SUPER FRZ" and "FREEZER" button for 7 seconds to enter **test mode**, after display "0", press "FRIDGE" or "FREEZER" button to select. When display screen shows "7", enter the Demo mode.

### Mode operation:

When entering the mall demonstration mode, the refrigerator display board is always bright without going out, the cold display is 2, 5, 8°C, and the freeze display is -16, -18, -24°C. The refrigerator stops freezing, the compressor does not work, does not enter the defrosting. Lights, etc. are controlled according to normal logic, do not enter or return commodity inspection, power off memory.

### Mode exit:

After entering into test mode, press "FRIDGE" or "FREEZER" button to select until the screen displays "0", then lock and exit mode.

## 8.10 Backup data for power fail

- 1) When a power outage occurs in the refrigerator, remember the operating mode of the refrigerator (quick freezing), the set temperature, and the running time of the compressor.
- 2) When powered on for the first time, the full display is 3 seconds, and the startup bell rings at the same time, and then enters the normal operation display (the temperature of the refrigerator and freezer is set at 4 ° C / -18 ° C for the first time, and the ice machine is turned on by default and the power is not memorized).
- 3) When the refrigerator is out of power and recharged, the running state of the refrigerator is same as before.

## 8.11 IOT product networking control

### 8.11.1 Turn on the Wireless Network module

Long press the “**SUPER FRZ**” button for 3 seconds, when the temperature display area shows **AP** character, the WIFI network module starts. After the startup is successful, the **AP** character stops flashing, and the **Wireless Network** icon lights up.

#### **8.11.2 Connect to mobile SmartHome APP**

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

The download method is as follows:



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

## 9. Compressor

### 9.1 Compressor on and off control specifications

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

- 1) Measured temperature in freezer room  $\leq$  Shutdown temperature of freezer room
- 2) Enter defrosting cycle
- 3) The compressor runs continuously for more than 7 hours, will stop at least 7 minutes

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

- 1) Measured temperature in freezer room  $\geq$  Start up temperature of freezer, or when refrigerator is set to forced cooling mode or fast cooling or fast freezing mode
- 2) Compressor shutdown time has been more than 7 min

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

### 9.2 Inverter board fault analysis

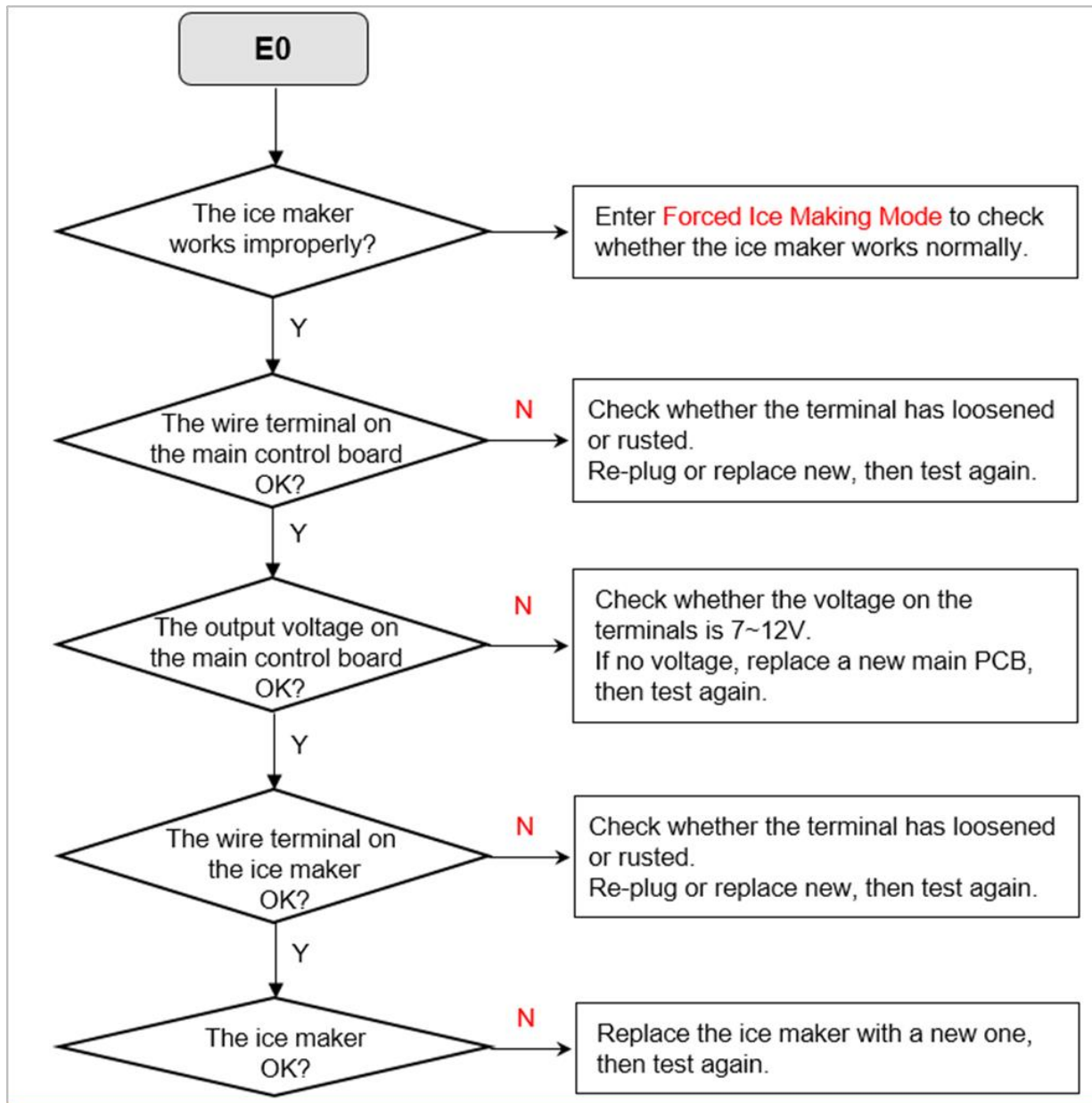
| Running status of LED                                                                                                                 | Fault Type                       | Troubleshooting and Solutions                                                                                                  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

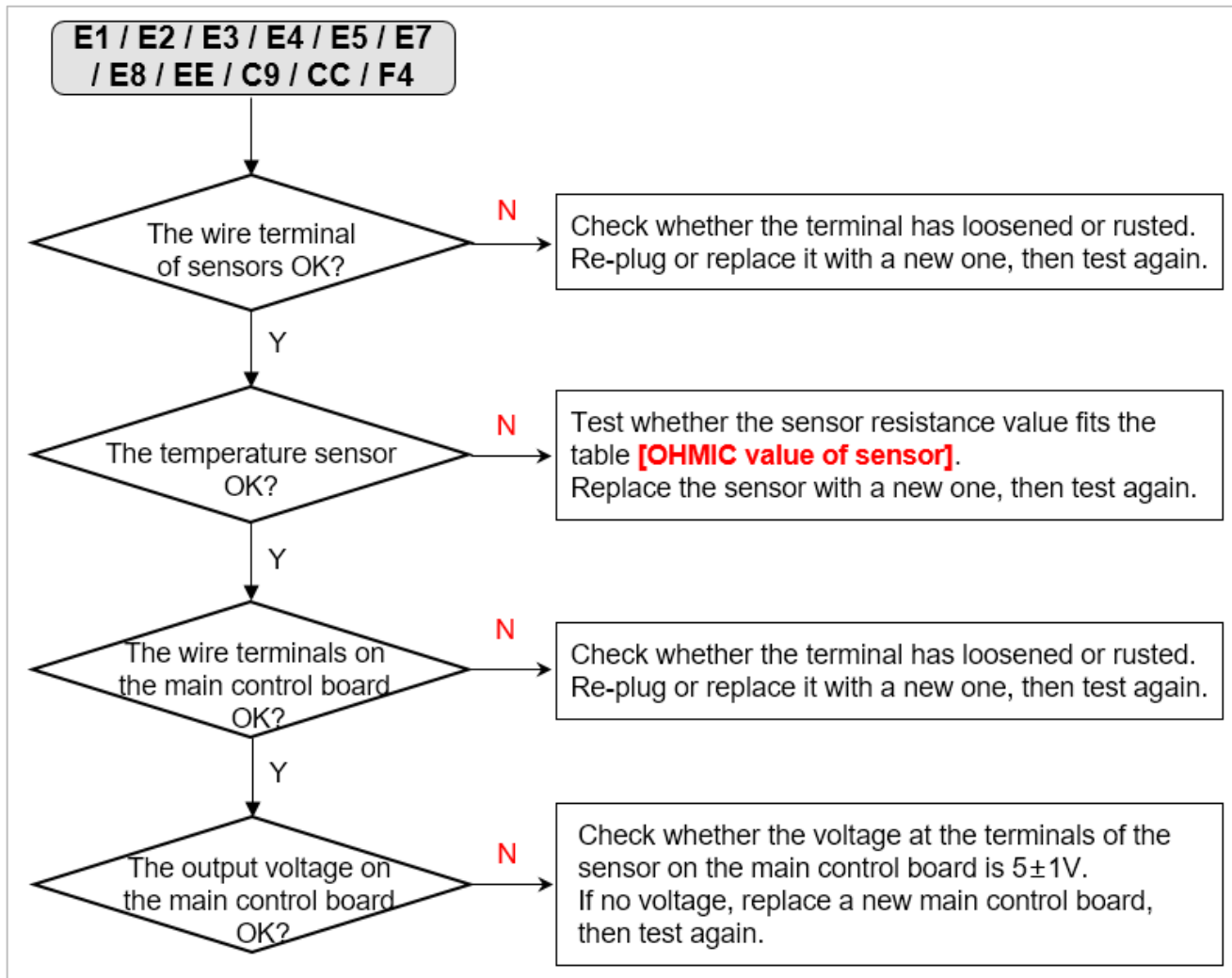
|                                                                                                    |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Blink five times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second   | IPM Hardware temperature throttling                                              | In this case, the inverter is usually normal. If the refrigerator cooling function is working, it may be due to insufficient lubrication inside the compressor. If it is not cooling, then there may be a blockage in the refrigeration circuit.                                                                                                                                                                                                                                                                                    |
| Blink six times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second    | Lack of phase protection                                                         | <p>Step 1: Check if the UVW wiring harness is securely connected to the inverter board and compressor.</p> <p>Step 2: Disconnect the UVW wiring harness, measure the resistance between any two phases of UVW terminals. If the resistance between any one or two phases is infinite, replace the compressor.</p> <p>Step 3: Re-power and if the compressor runs for a period of time before tripping, it may indicate a blockage in the piping system.</p> <p>Step 4: If the fault still occurs, replace a new inverter board.</p> |
| Blink seven times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second  | Voltage bias fault                                                               | <p>Step 1: Power off and restart.</p> <p>Step 2: If the fault still occurs, replace a new inverter board.</p>                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Blink eight times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second  | Misstep protection                                                               | <p>Step 1: After powering on, touch the compressor and wait for the indicator light on the inverter board to light up.</p> <p>Step 2: If the compressor does not respond and the indicator light is flashing, it means the compressor is damaged, replace a new compressor.</p> <p>Step 3: If the compressor shakes when starting and then protects, replace a new inverter board.</p>                                                                                                                                              |
| Blink eight times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second  | Running block protection                                                         | <p>Step 1: After powering on, touch the compressor and wait for the indicator light on the inverter board to light up.</p> <p>Step 2: If the compressor does not respond and the indicator light is flashing, it means the compressor is damaged, replace a new compressor.</p> <p>Step 3: If the compressor shakes when starting and then protects, replace a new inverter board.</p>                                                                                                                                              |
| Blink ten times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second    | Over-temperature and over-power shutdown protection for variable frequency board | In this case, the inverter is usually normal. If the refrigerator cooling function is working, it may be due to insufficient lubrication inside the compressor. If it is not cooling, then there may be a blockage in the refrigeration circuit.                                                                                                                                                                                                                                                                                    |
| Blink eleven times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second | Starting failure                                                                 | <p>Step 1: After powering on, touch the compressor and wait for the indicator light on the inverter board to light up.</p> <p>Step 2: If the compressor does not respond and the indicator light is flashing,</p>                                                                                                                                                                                                                                                                                                                   |

|                                                                                                      |                               |                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                      |                               | <p>it means the compressor is damaged, replace a new compressor.</p> <p>Step 3: If the compressor shakes when starting and then protects, replace a new inverter board.</p>                                                                      |
| Blink twelve times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second   | Power and frequency reduction | In this case, the inverter is usually normal. If the refrigerator cooling function is working, it may be due to insufficient lubrication inside the compressor. If it is not cooling, then there may be a blockage in the refrigeration circuit. |
| Blink thirteen times: light 0.5 second, extinguish 0.5 second, interval time(extinguish) is 2 second | UART communication failure    | Check the communication wiring harness between the main control board and the inverter board. If the connection is good, replace either the main control board or the inverter board.                                                            |

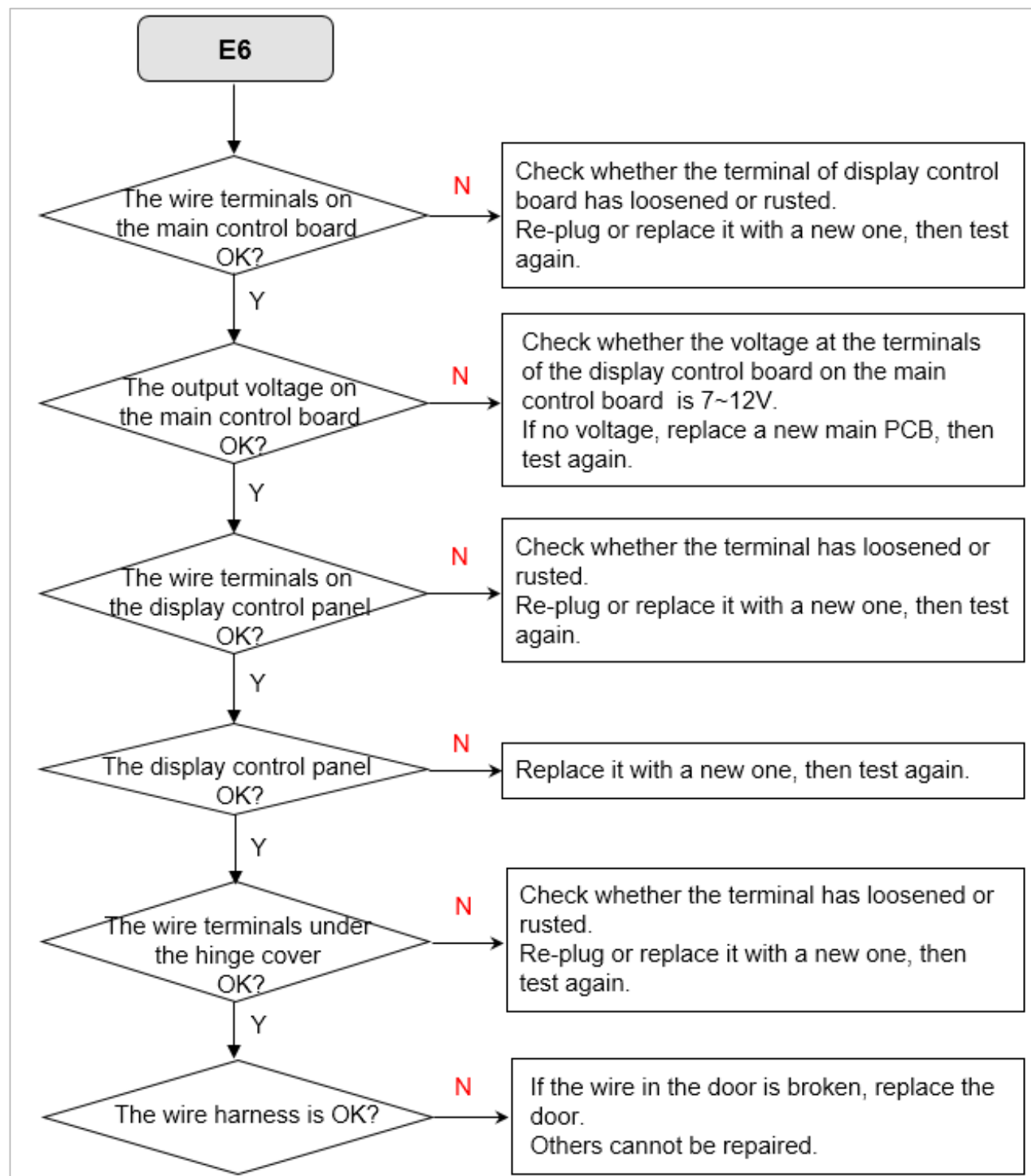
## 10. Troubleshooting Method

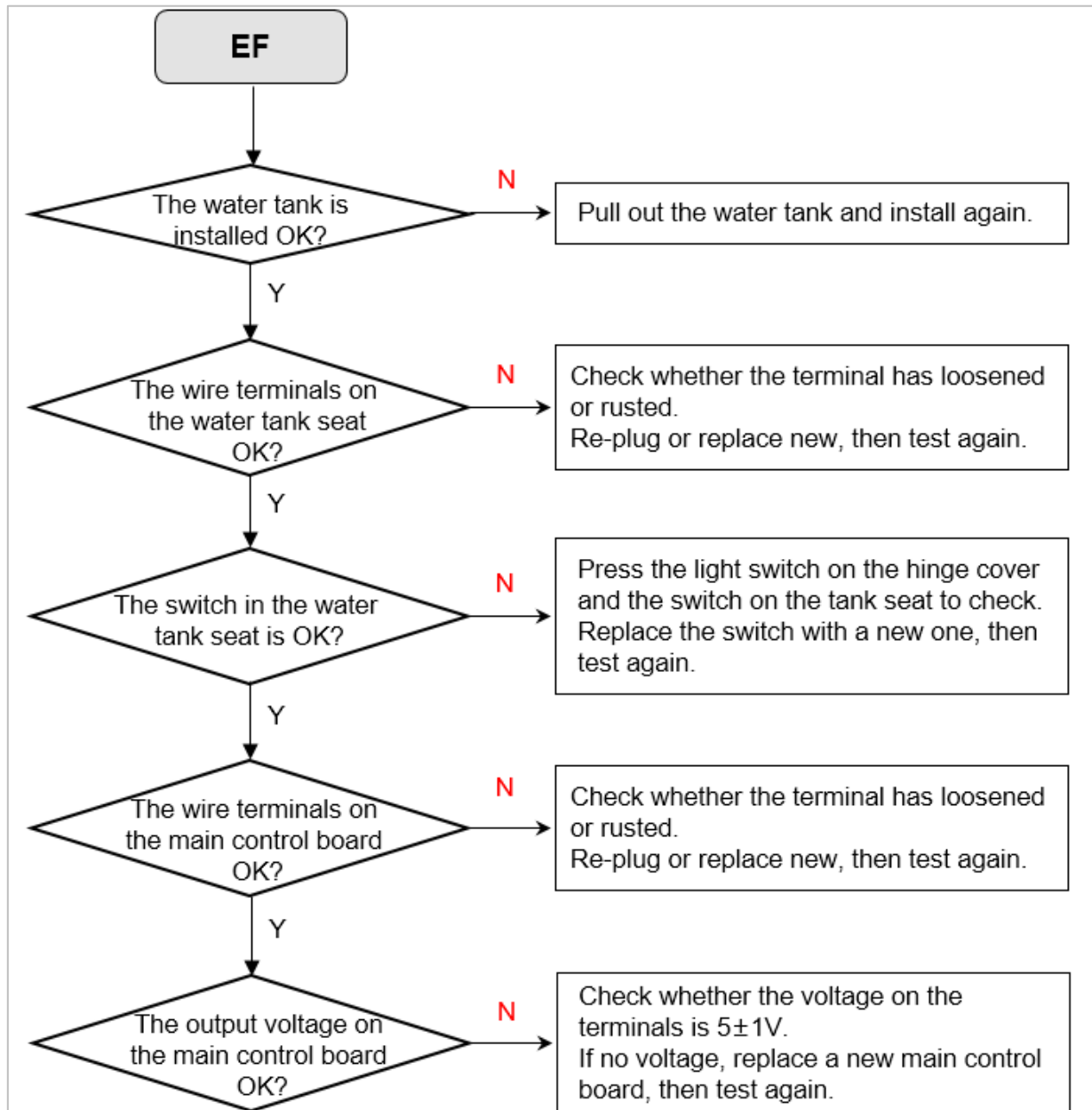
### 10.1 Error code E0



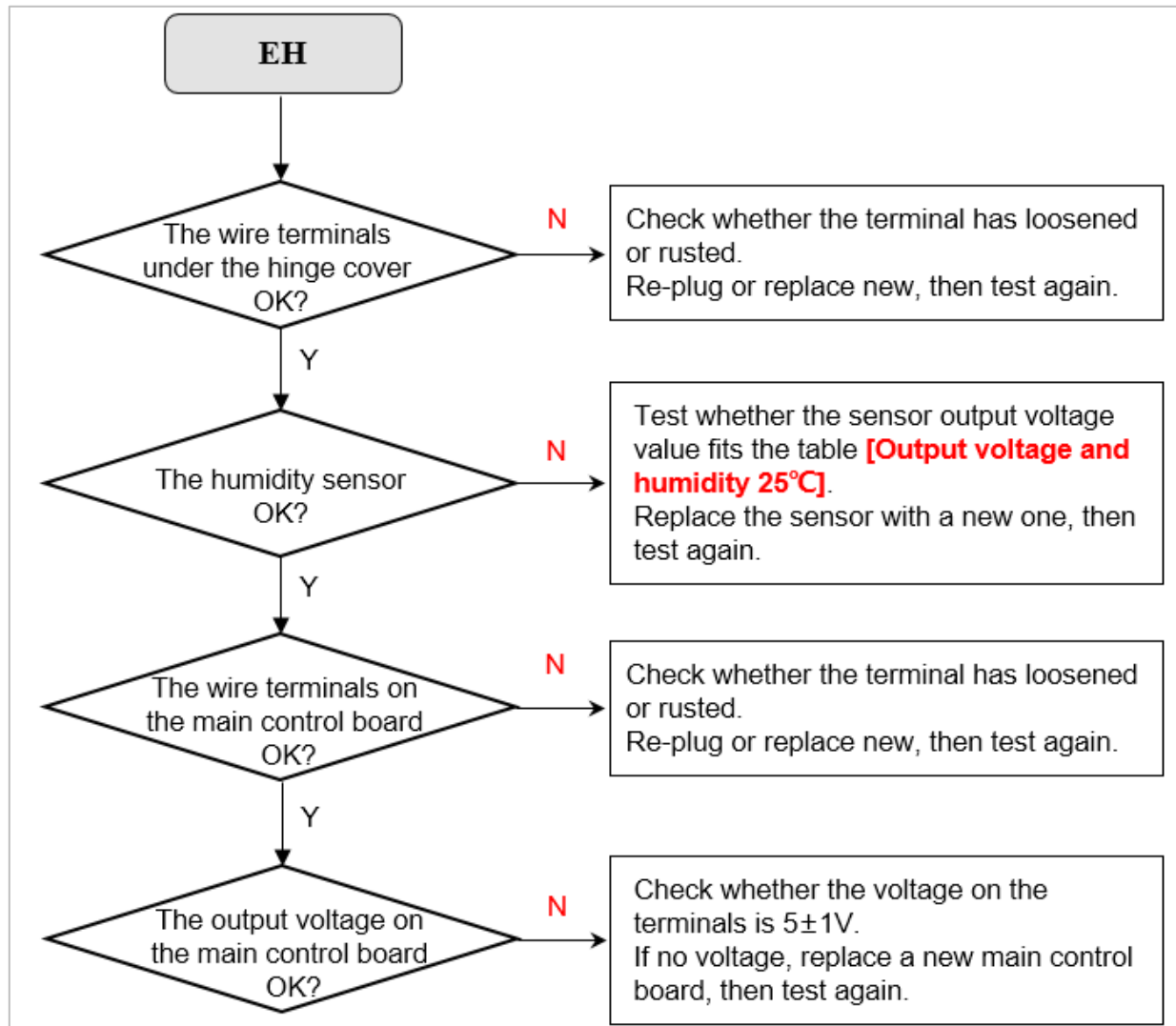
**10.2 Error code E1 / E2 / E3 / E4 / E5 / E7 / E8 / EE / C9 / CC / F4**

## 10.3 Error code E6



**10.4 Error code EF**

## 10.5 Error code EH



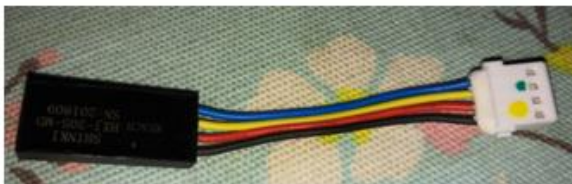
The meaning of different color wires:

Blue: Ambient temperature

**Yellow: Humidity**

Red: +5V

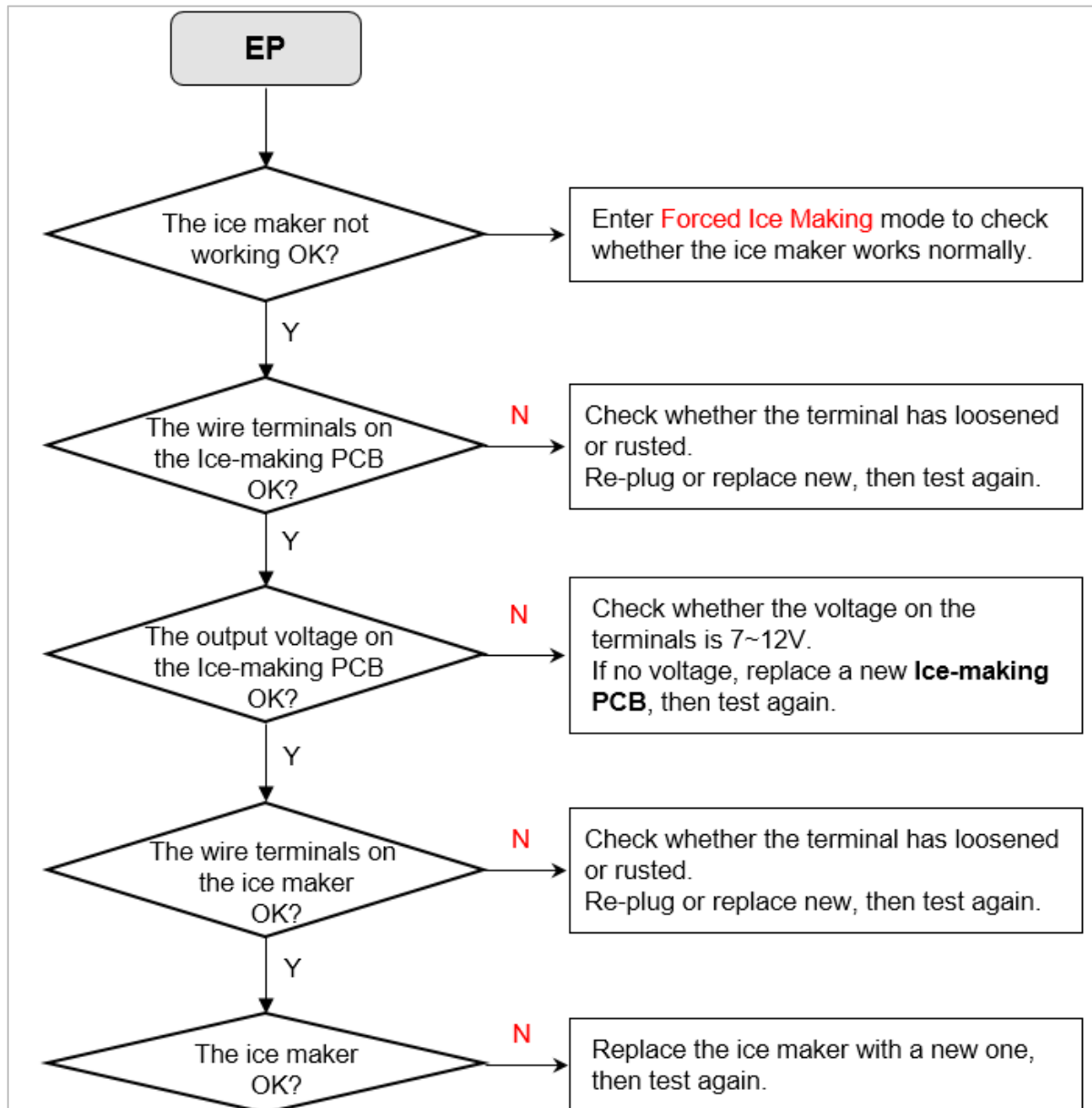
**Black: GND**

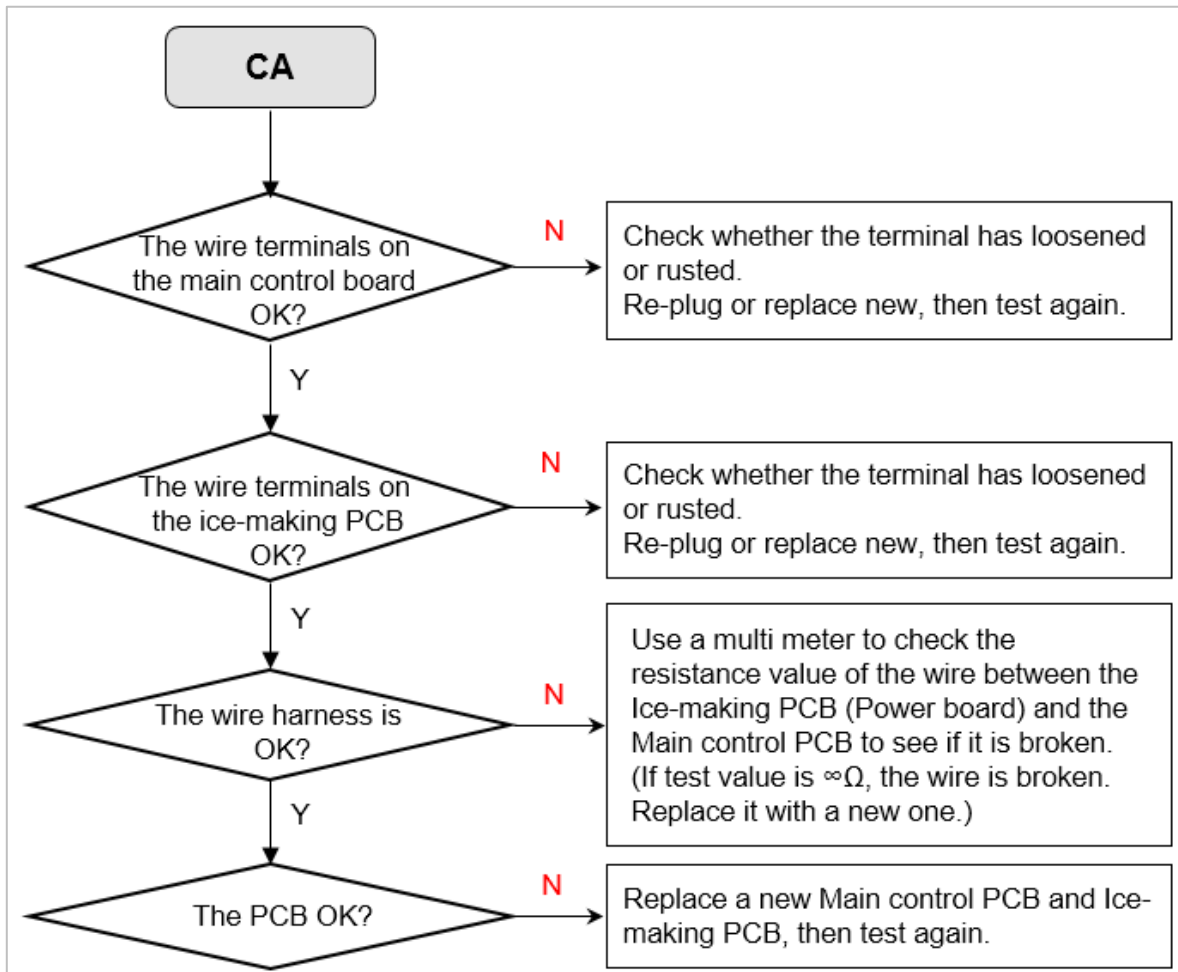


**Comparison table of output voltage and humidity at 25°C**

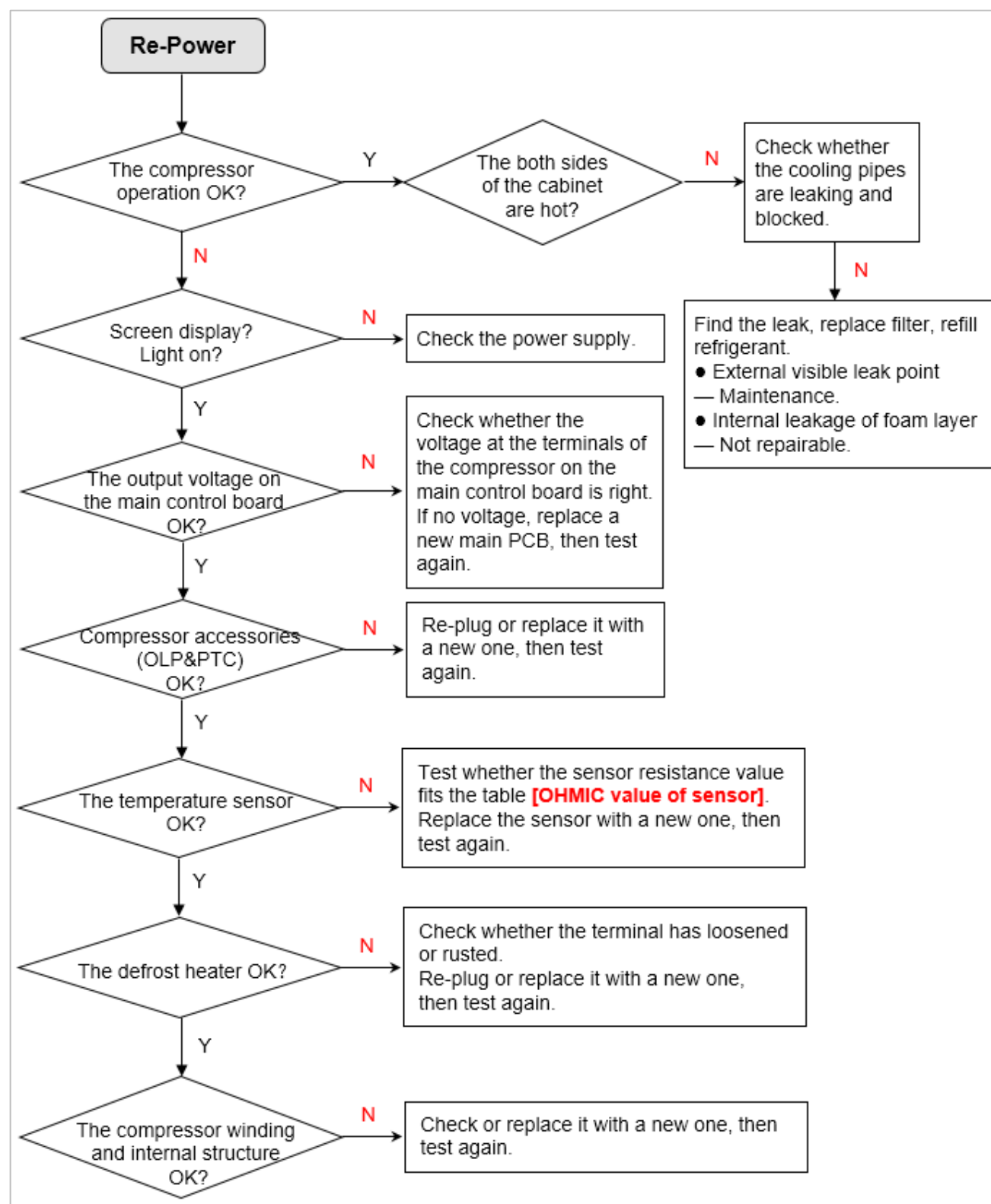
| Humidity (%) | Output (V) |
|--------------|------------|
| 20           | 1.528      |
| 40           | 2.067      |
| 60           | 2.779      |
| 80           | 3.400      |

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

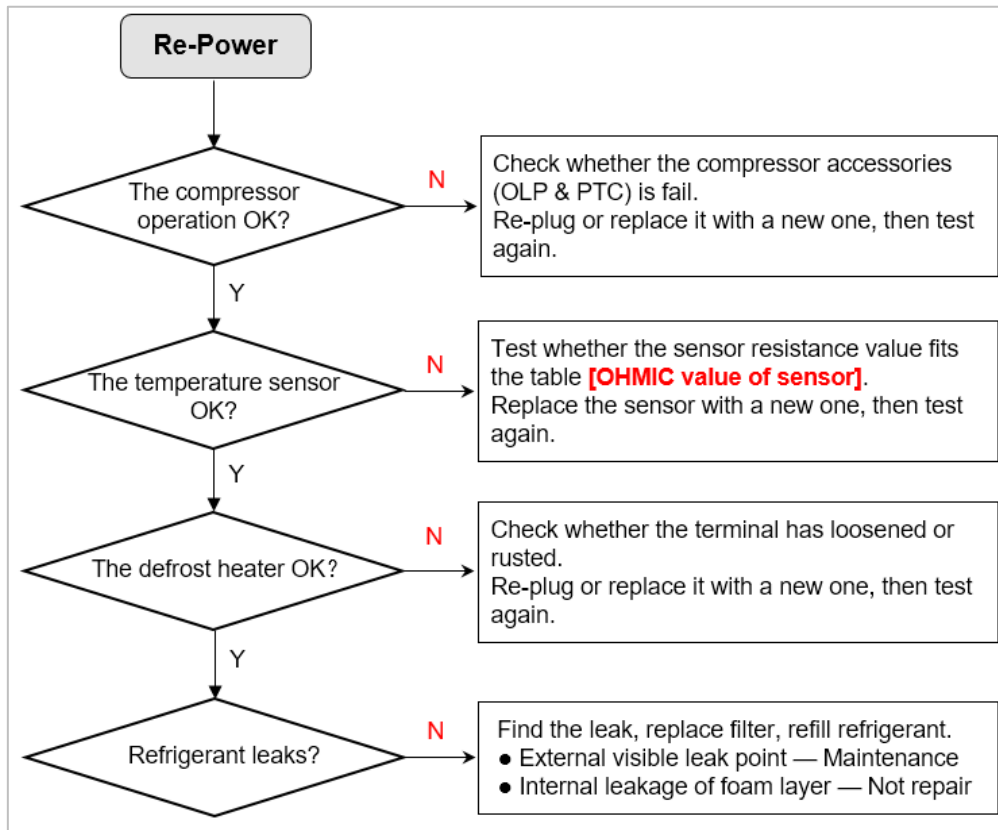
**10.6 Error code EP**

**10.7 Error code CA**

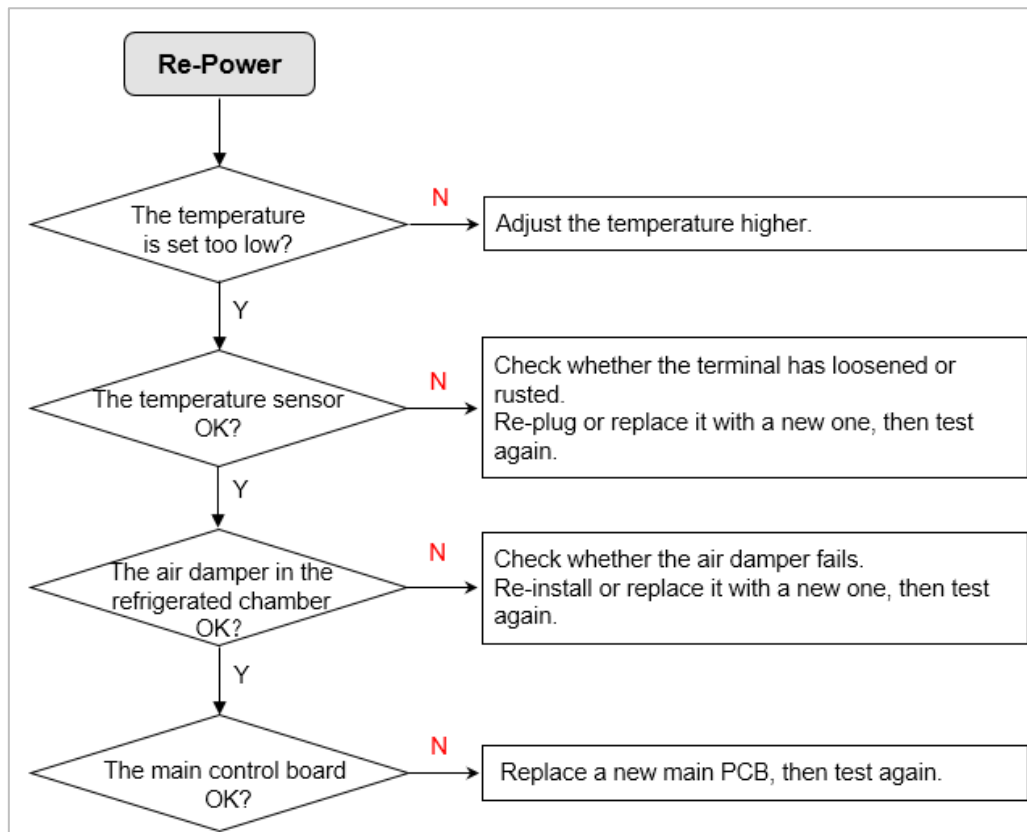
## 10.8 Not cooling in all the chambers

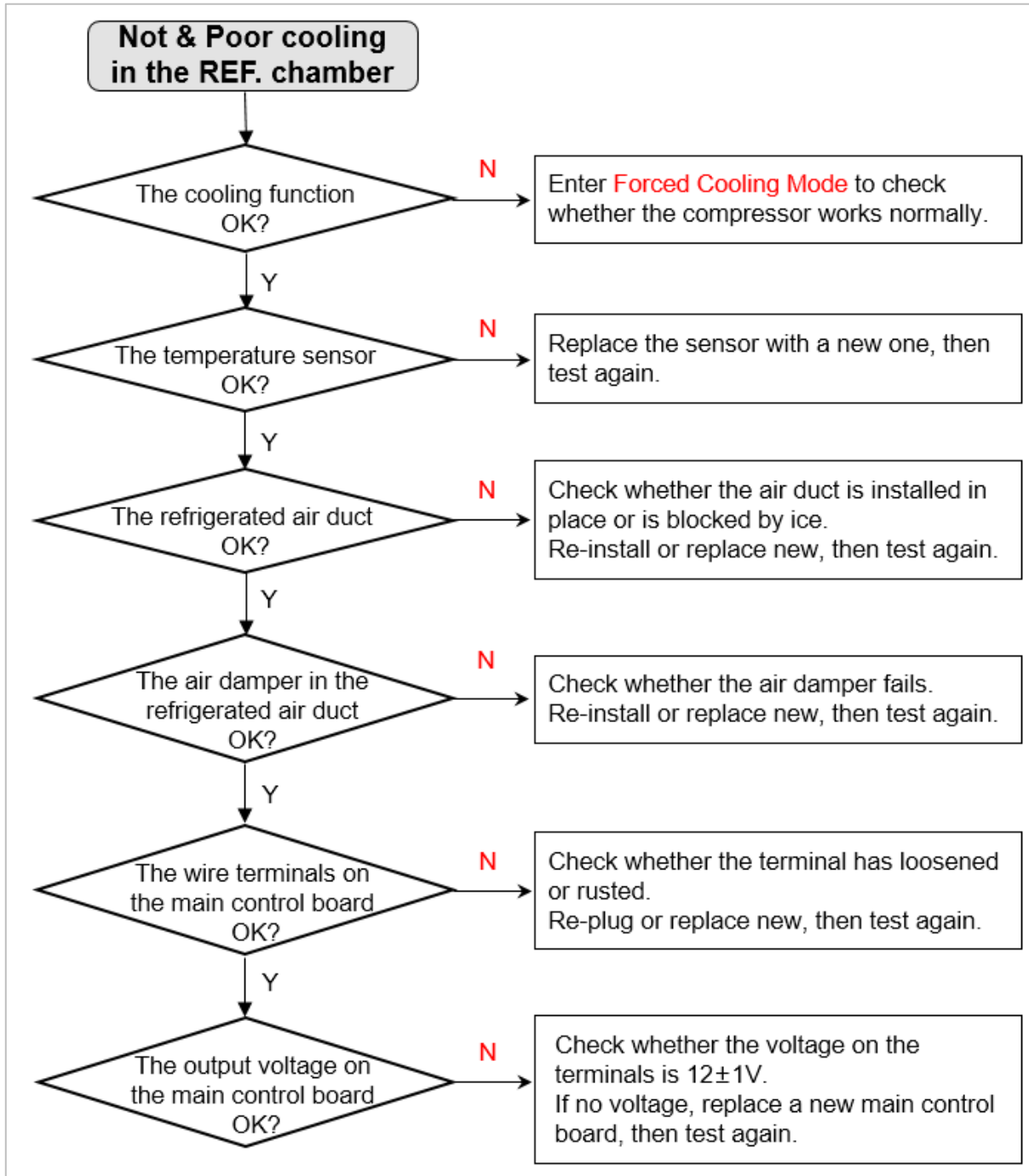


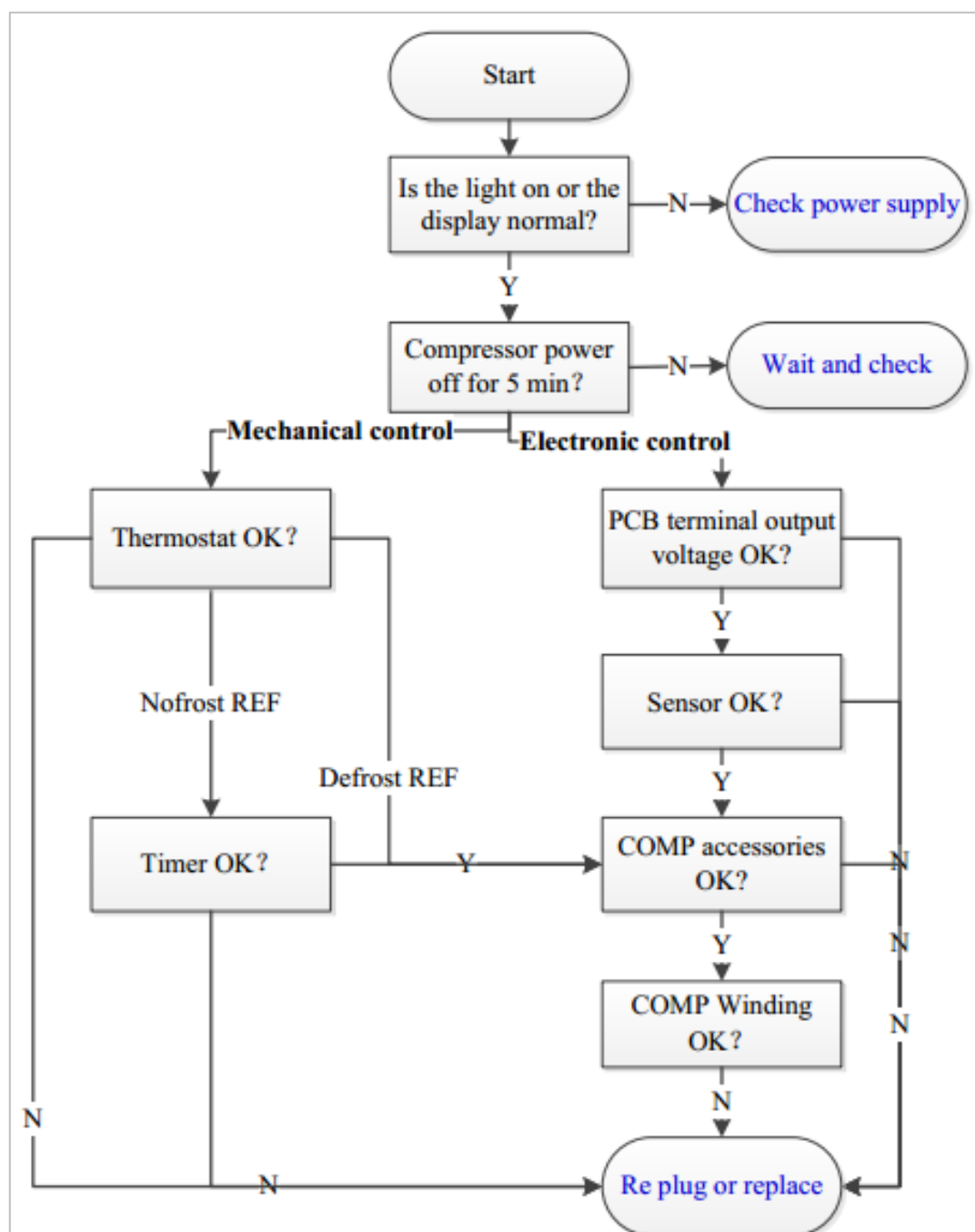
## 10.9 Poor Cooling in all the chambers

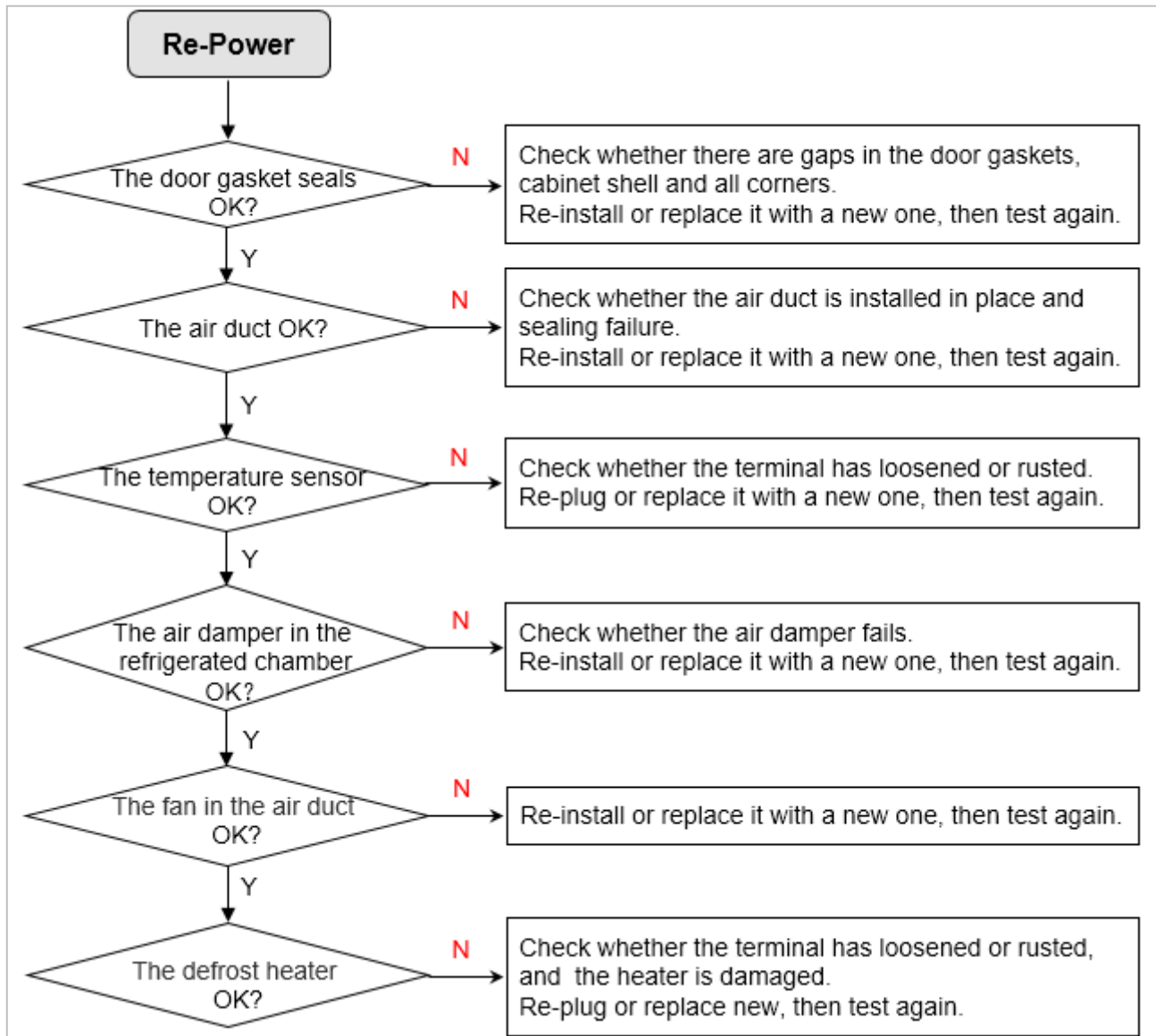


## 10.10 Overcooling in the refrigerated chamber

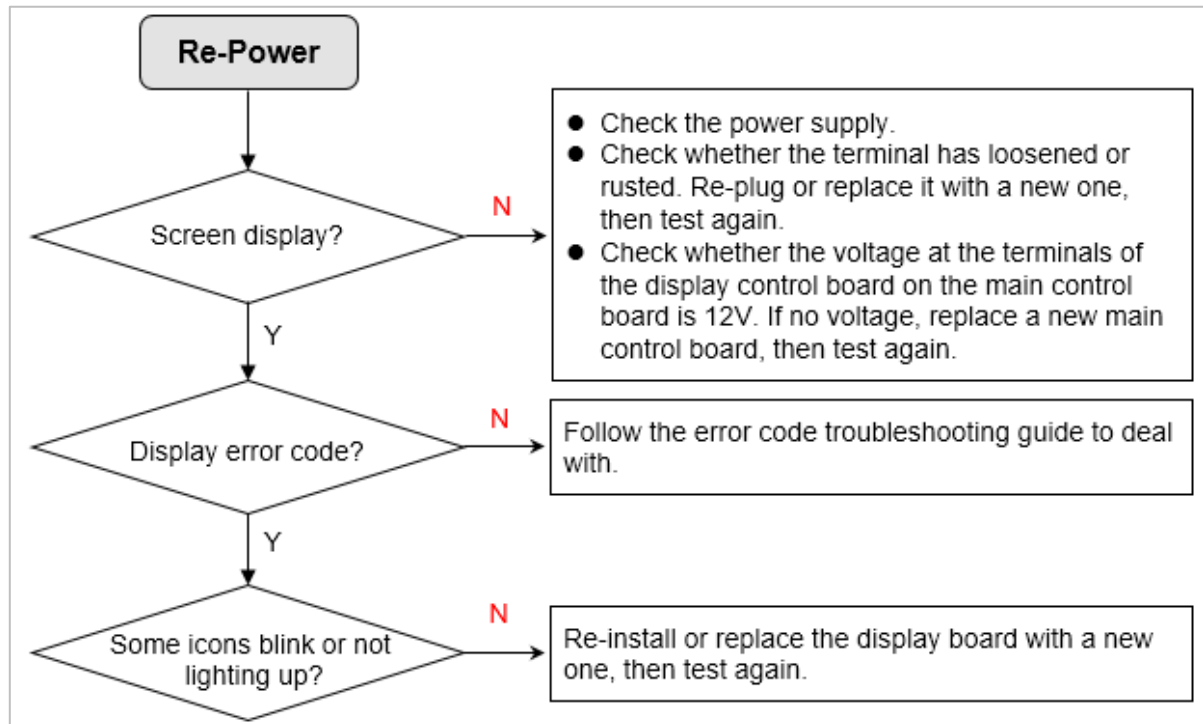


**10.11 Not & Poor cooling in the refrigerated chamber**

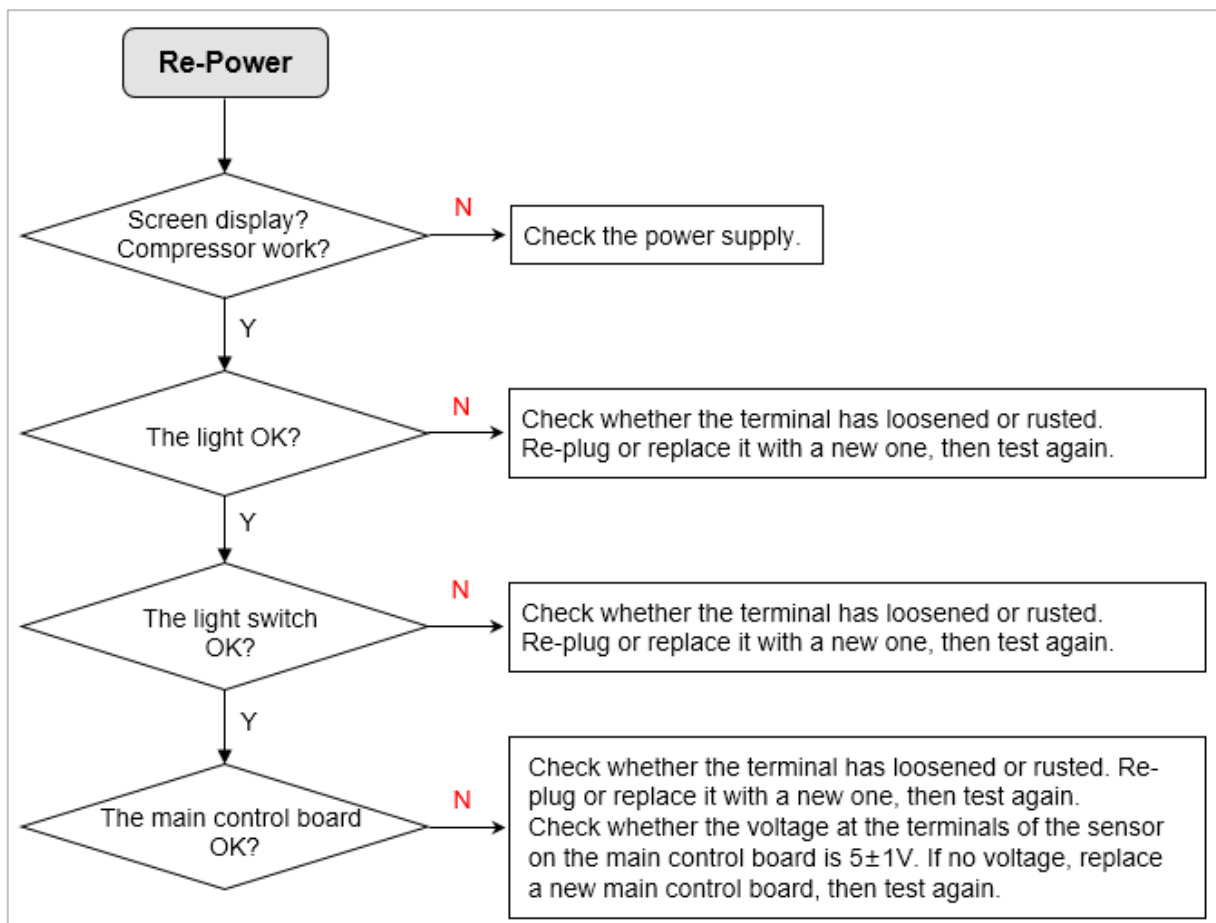
**10.12 No working of compressor**

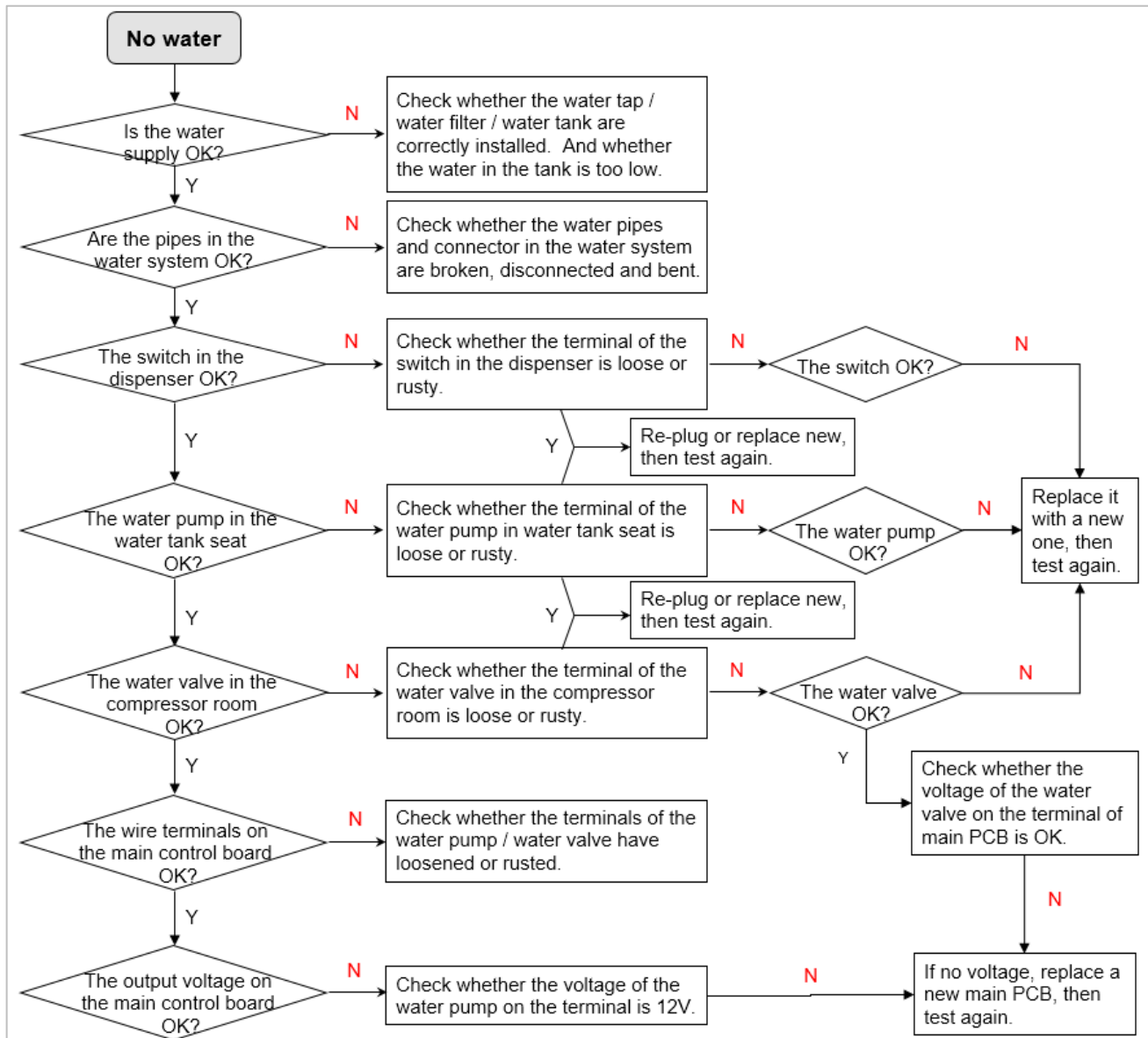
**10.13 Condensation & Frost**

### 10.14 Display panel failure

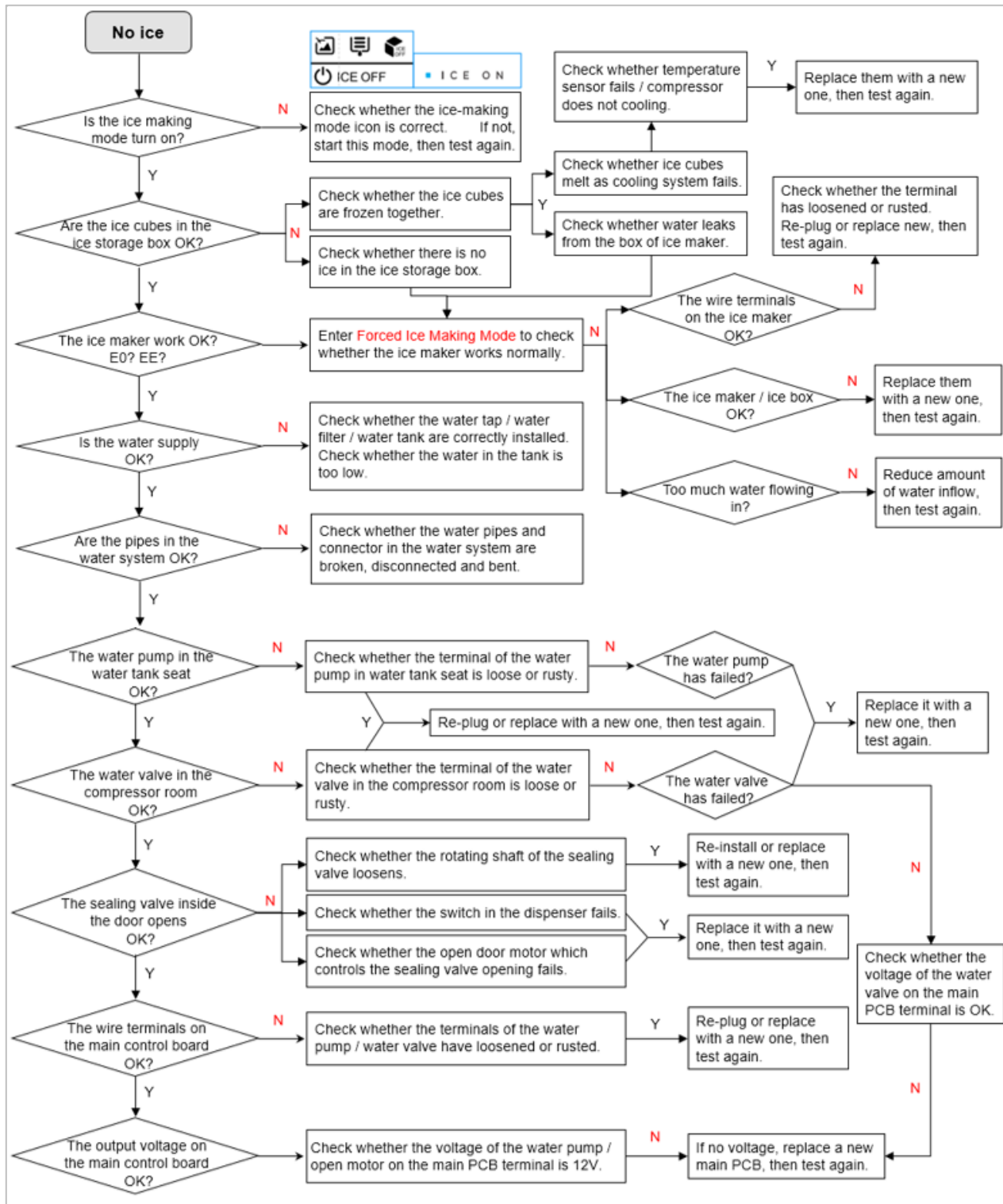


### 10.15 Light failure

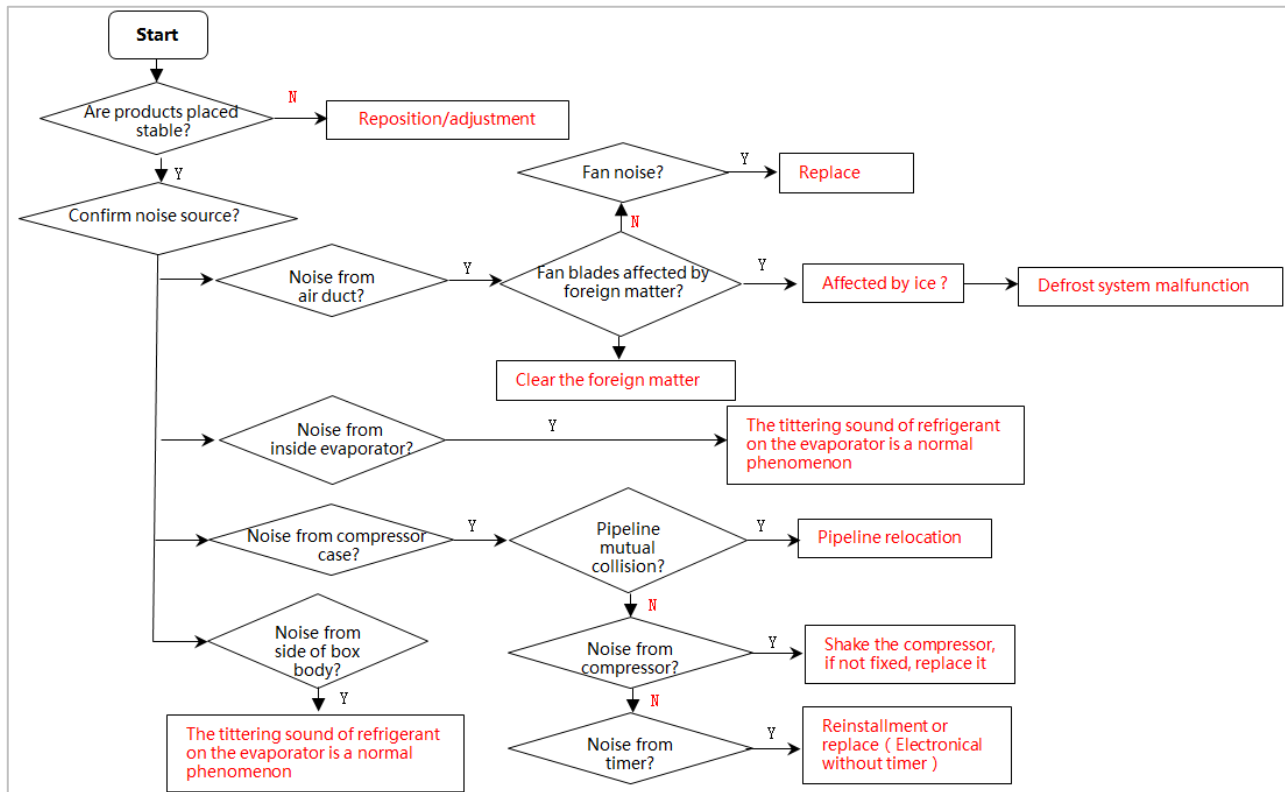


**10.16 No water from the ice & water dispenser**

## 10.17 No ice from the ice & water dispenser

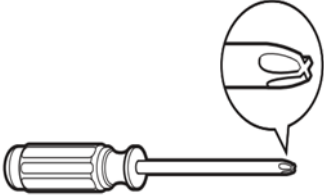
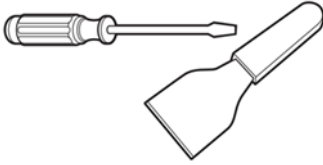
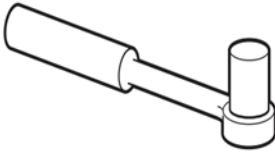


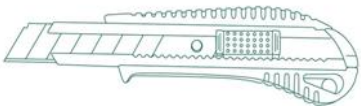
## 10.18 Noise



## 11. Maintenance tooling, equipment, and material

### Tooling

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

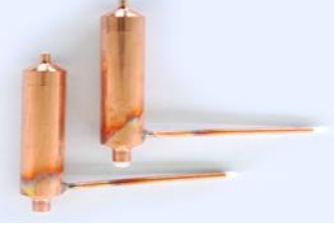
|    |                         |                                                                                    |                 |
|----|-------------------------|------------------------------------------------------------------------------------|-----------------|
| 7  | Pipe cutter          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

### Equipment

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

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

## Material

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

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

## 12. Product exploded view and spare parts list

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

URL: <https://ics.midea.com>

APAC: <https://ics.midea.com>

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