

# Service Manual

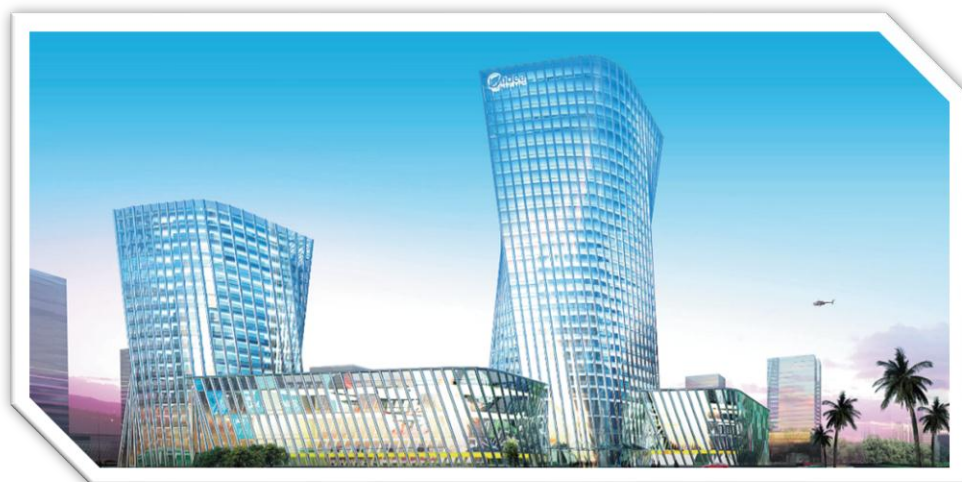
## COMPACT SERIES



| Applicable Models | Model Code     |
|-------------------|----------------|
| UR-PC140-DQ       | 22033210000081 |

|             |                                         |
|-------------|-----------------------------------------|
| Prepared by | R&D:Tian Song                           |
| Reviewed by | QA:Ke Bingfei<br>SVC:Zhang Kun          |
| Approved by | R&D: Zhang Huawei<br>SVC:Guang Taoshuai |

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



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

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

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

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

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

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

**Midea Refrigerators**

Technical Maintenance Manual

Copyright @2017

All rights reserved. Replication of all or part of the Manual in any forms shall not be allowed without written approval by the Overseas Sales Corporation of Midea Refrigerators.

# Contents

|                                                                                 |           |
|---------------------------------------------------------------------------------|-----------|
| <b>1. SAFETY WARNING CODE.....</b>                                              | <b>5</b>  |
| 1.1 WARNING FOR OPERATION SAFETY .....                                          | 5         |
| 1.2 SAFETY INSTRUCTION FOR REFRIGERANT .....                                    | 7         |
| <b>2. DESCRIPTION FOR PRODUCT FEATURES .....</b>                                | <b>8</b>  |
| <b>3. INSTALLATION AND COMMISSIONING .....</b>                                  | <b>9</b>  |
| 3.1 HANDLING.....                                                               | 9         |
| 3.2 DOOR DISASSEMBLY AND ASSEMBLY .....                                         | 9         |
| 3.3 INSTALLATION LOCATION .....                                                 | 9         |
| 3.4 LEVELING OF THE REFRIGERATOR .....                                          | 9         |
| 3.5 DOOR REVERSAL.....                                                          | 10        |
| 3.6 INSTALLATION OF HANDLE .....                                                | 12        |
| 3.7 INSTALLATION OF DOOR LOCK .....                                             | 12        |
| 3.8 ADJUSTMENT TO LEVEL THE DOOR .....                                          | 13        |
| 3.9 ADJUSTMENT TO SHELVES .....                                                 | 13        |
| <b>4. TERMS.....</b>                                                            | <b>14</b> |
| 4.1 DEFINITION OF MODEL (NONE) .....                                            | 14        |
| 4.2 LOCATION OF NAMEPLATE (NONE) .....                                          | 14        |
| <b>5. PRODUCT SPECIFICATION .....</b>                                           | <b>15</b> |
| 5.1 TYPE SPECIFICATION(NONE) .....                                              | 15        |
| 5.2 ELECTRICAL PARAMETERS .....                                                 | 15        |
| 5.3 INSIDE TEMPERATURE .....                                                    | 16        |
| 5.4 DEFROSTING PARTS .....                                                      | 16        |
| 5.5 CIRCUIT DIAGRAM .....                                                       | 17        |
| <b>6. INTERNAL VIEW AND DIMENSION .....</b>                                     | <b>18</b> |
| 6.1 MAIN PARTS AND THEIR NAMES.....                                             | 18        |
| 6.2 EXTERNAL DIMENSION .....                                                    | 19        |
| <b>7. REFRIGERATING PIPING SYSTEM AND CIRCULATING ROUTE OF COOLING AIR.....</b> | <b>20</b> |
| 7.1 REFRIGERATING PIPING SYSTEM .....                                           | 20        |
| 7.2 CIRCULATING ROUTE OF COOLING AIR(NONE) .....                                | 20        |
| <b>8. DISMANTLING OF PARTS.....</b>                                             | <b>21</b> |
| 8.1 PARTS ON THE DOOR.....                                                      | 21        |
| 8.2 PARTS INSIDE THE REFRIGERATOR .....                                         | 21        |
| 8.3 LIGHT SYSTEM.....                                                           | 22        |
| 8.4 AIR DUCT COMPONENTS REFRIGERATING CHAMBER.....                              | 22        |
| 8.5 AIR DUCT COMPONENTS IN FREEZING CHAMBER AND FAN MOTOR.....                  | 22        |
| 8.6 EVAPORATOR AND TEMPERATURE SENSING SYSTEM .....                             | 22        |

|                                                                                         |           |
|-----------------------------------------------------------------------------------------|-----------|
| 8.7 COMPRESSOR CASE .....                                                               | 24        |
| 8.8 DISPLAY CONTROL BOARD .....                                                         | 29        |
| 8.9 MAIN CONTROL BOARD .....                                                            | 29        |
| 8.10 BAR COUNTER.....                                                                   | 29        |
| 8.11 WATER DISPENSER.....                                                               | 29        |
| 8.12 ICE MAKER .....                                                                    | 29        |
| <b>9. FUNCTION AND OPERATION .....</b>                                                  | <b>30</b> |
| 9.1 OPERATION PANEL .....                                                               | 30        |
| 9.2 TEMPERATURE CONTROL .....                                                           | 30        |
| 9.3 GIVE AN ALARM (NONE) .....                                                          | 30        |
| 9.4 FAILURE CODE AND SOLUTIONS (NONE).....                                              | 30        |
| 9.5 DEFROST FUNCTION.....                                                               | 30        |
| 9.6 COMPRESSOR FAN CONTROL (NONE) .....                                                 | 30        |
| <b>10. CIRCUIT DESCRIPTION .....</b>                                                    | <b>31</b> |
| 10.1 POWER SUPPLY(NONE).....                                                            | 31        |
| 10.2 TEST CIRCUIT FOR DOOR SWITCH(NONE) .....                                           | 31        |
| 10.3 TEMPERATURE TEST CIRCUIT(NONE) .....                                               | 31        |
| 10.4 FREEZER CHAMBER FAN MOTOR CIRCUIT (NONE).....                                      | 31        |
| 10.5 REFRIGERATING CHAMBER FAN MOTOR CIRCUIT (NONE) .....                               | 31        |
| 10.6 CONDENSATION FAN CIRCUIT (NONE) .....                                              | 31        |
| 10.7 FAN MOTOR CIRCUIT OF THE VENTILATION DOOR(NONE).....                               | 31        |
| 10.8 RESISTANCE VALUE OF THE SENSOR (R/T) (NONE).....                                   | 31        |
| <b>11. TROUBLESHOOTING METHOD .....</b>                                                 | <b>32</b> |
| 11.1 NOT COOLING .....                                                                  | 32        |
| 11.2 NOT WORKING OF COMPRESSOR .....                                                    | 33        |
| 11.3 THERMOSTAT MALFUNCTION-UNDERCOOLING .....                                          | 33        |
| 11.4 LIGHT IS NOT ON.....                                                               | 34        |
| 11.5 NOISE .....                                                                        | 34        |
| <b>12. FIGURES AND DETAILS OF REPAIR PARTS(DOCUMENTS ARE PROVIDED SEPARATELY) .....</b> | <b>35</b> |
| 12.1 FIGURES.....                                                                       | 35        |
| 12.2 LIST OF PARTS AND COMPONENTS.....                                                  | 35        |
| <b>13. APPENDIX.....</b>                                                                | <b>36</b> |
| 13.1 REFRIGERATOR MAINTENANCE TOOLING AND EQUIPMENT AND MATERIAL.....                   | 36        |

## 1. Safety Warning Code

### 1.1 Warning for operation safety

#### Important Safety Instructions

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



### **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



#### **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. Description for product features

This product is provided with following features:



- 1) Integrative refrigeration chamber
- 2) Mechanical control
- 3) Polisher black tower with stainless steel trim
- 4) Holds most 1/2 and 1/4 size kegs

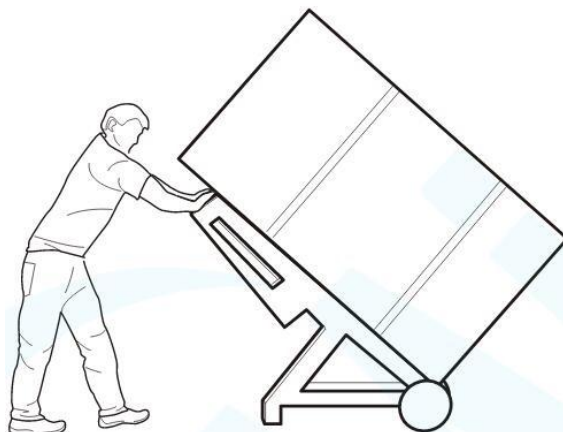


### 3. Installation and commissioning

#### 3.1 Handling

##### Handling

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



#### 3.2 Door Disassembly and Assembly

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

##### Disassembly of Freezer door

|                             |      |
|-----------------------------|------|
| Disassembly of Freezer door | None |
|-----------------------------|------|

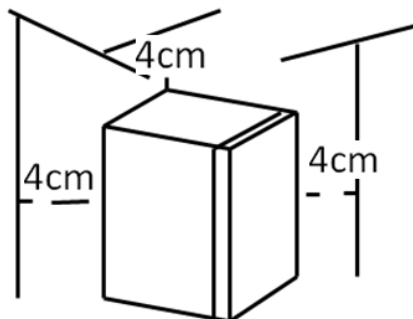
##### Disassembly of refrigerator door

|                                  |      |
|----------------------------------|------|
| Disassembly of refrigerator door | None |
|----------------------------------|------|

#### 3.3 Installation location

##### Installation location

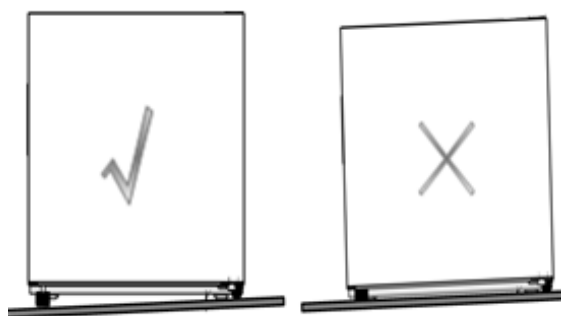
Location that is easy for ventilation shall be chosen to facilitate heat dissipation, enhance its performance and reduce the energy consumption.



#### 3.4 Leveling of the refrigerator

##### Leveling of the refrigerator

If the refrigerator cannot be placed steadily, adjust the footing to level it.



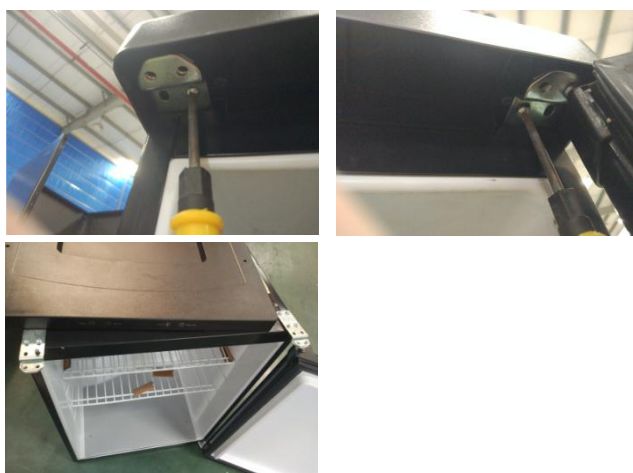
### 3.5 Door reversal

#### Door reversal

1)Disassembly the top cover fix screw, remove the seal plate of top cover.



2)Disassembly the screw that is fix upper hinge and top cover, remove the top cover.



3)Disassembly the right upper hinge, remove the door, hinge fixed axis and axle sleeve.



|                                                                                                             |                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                             |                                                                                       |
| <p>4) Reversion the bottom hinge.</p>                                                                       |    |
| <p>5) Disassembly left upper hinge, install fixed axis to upper hinge, install axle sleeve to the door.</p> |                                                                                   |

6)Assembly the left upper hinge and right upper hinge.



7)Assembly the screw that is fix top cover.



### 3.6 Installation of handle

| Installation of handle |      |
|------------------------|------|
| Installation of handle | None |

### 3.7 Installation of door lock

| Installation of door lock |      |
|---------------------------|------|
| Installation of door lock | None |

**3.8 Adjustment to level the door**

| Adjustment to level the door |      |
|------------------------------|------|
| Adjustment to level the door | None |

**3.9 Adjustment to shelves**

| Adjustment to shelves |      |
|-----------------------|------|
| Adjustment to shelves | None |

## 4. Terms

---

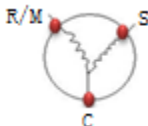
### 4.1 Definition of model (None)

### 4.2 Location of nameplate (None)

## 5. Product specification

### 5.1 Type specification(None)

### 5.2 Electrical parameters

|                                                  |                                                                                     |               |               |               |
|--------------------------------------------------|-------------------------------------------------------------------------------------|---------------|---------------|---------------|
| Product Name                                     | UR-PC140-DQ                                                                         | None          | None          | None          |
| Product Code                                     | 22033210000081                                                                      | None          | None          | None          |
| Item                                             | Specification                                                                       | Specification | Specification | Specification |
| <b>Compressor</b>                                |                                                                                     |               |               |               |
| Compressor                                       | FZ59E1G                                                                             | None          | None          | None          |
| Starter(PTC)                                     | QP2-4R7                                                                             | None          | None          | None          |
| Overload protector(OLP)                          | DRB29T61A1                                                                          | None          | None          | None          |
| Winding resistance of compressor wiring terminal | Rmc:7.55±7%Ω<br>Rsc:9.77±7%Ω<br>Rms=Rmc+Rsc<br>(20°C)                               | None          | None          | None          |
| Winding resistance picture                       |  | None          | None          | None          |
| Variable frequency driver board                  | None                                                                                | None          | None          | None          |
| The input power of compressor                    | 74.7W                                                                               | None          | None          | None          |
| <b>Motor</b>                                     |                                                                                     |               |               |               |
| Fan motor of the freezing chamber                | None                                                                                | None          | None          | None          |
| Ventilation door of the refrigerating chamber    | None                                                                                | None          | None          | None          |
| Condensation fan                                 | None                                                                                | None          | None          | None          |
| separation the ice motor                         | None                                                                                | None          | None          | None          |
| ice output motor                                 | None                                                                                | None          | None          | None          |
| Open door motor                                  | None                                                                                | None          | None          | None          |
| <b>Lights inside the refrigerator</b>            |                                                                                     |               |               |               |
| Lights inside the freezing chamber               | None                                                                                | None          | None          | None          |
| Lights inside the refrigerating chamber          | None                                                                                | None          | None          | None          |
| Switch of the                                    | None                                                                                | None          | None          | None          |

---

refrigerator door

---

### **5.3 Inside temperature**

Temperature tolerance  $\leq 2^{\circ}\text{C}$

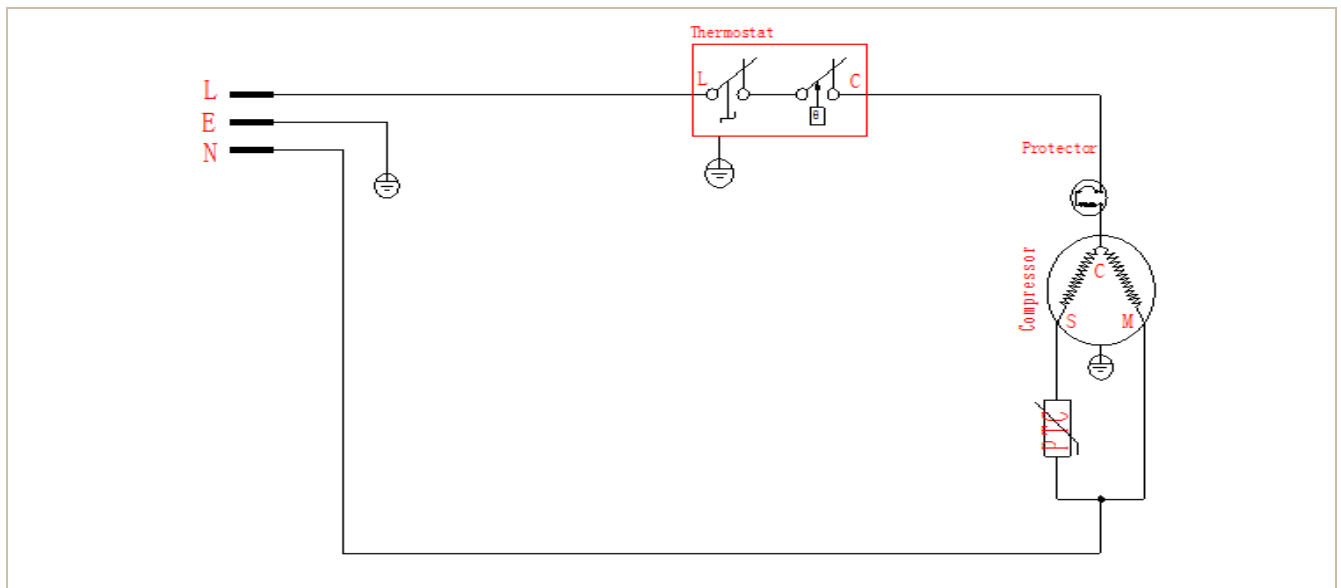
| Compartment          | The highest ( $^{\circ}\text{C}$ ) | Lowest ( $^{\circ}\text{C}$ ) |
|----------------------|------------------------------------|-------------------------------|
| Freezing             | None                               | None                          |
| Refrigerating        | 7                                  | 0                             |
| Variable temperature | None                               | None                          |

### **5.4 Defrosting parts**

| Item                                  | Initial defrosting period | Normal defrosting period |
|---------------------------------------|---------------------------|--------------------------|
| Defrosting period                     | None                      | None                     |
| Defrosting sensor                     | None                      | None                     |
| Defrosting temperature controller     | None                      | None                     |
| Thermal fuse                          | None                      | None                     |
| Defrosting heater in freezing chamber | None                      | None                     |



## 5.5 Circuit diagram



## 6. Internal view and dimension

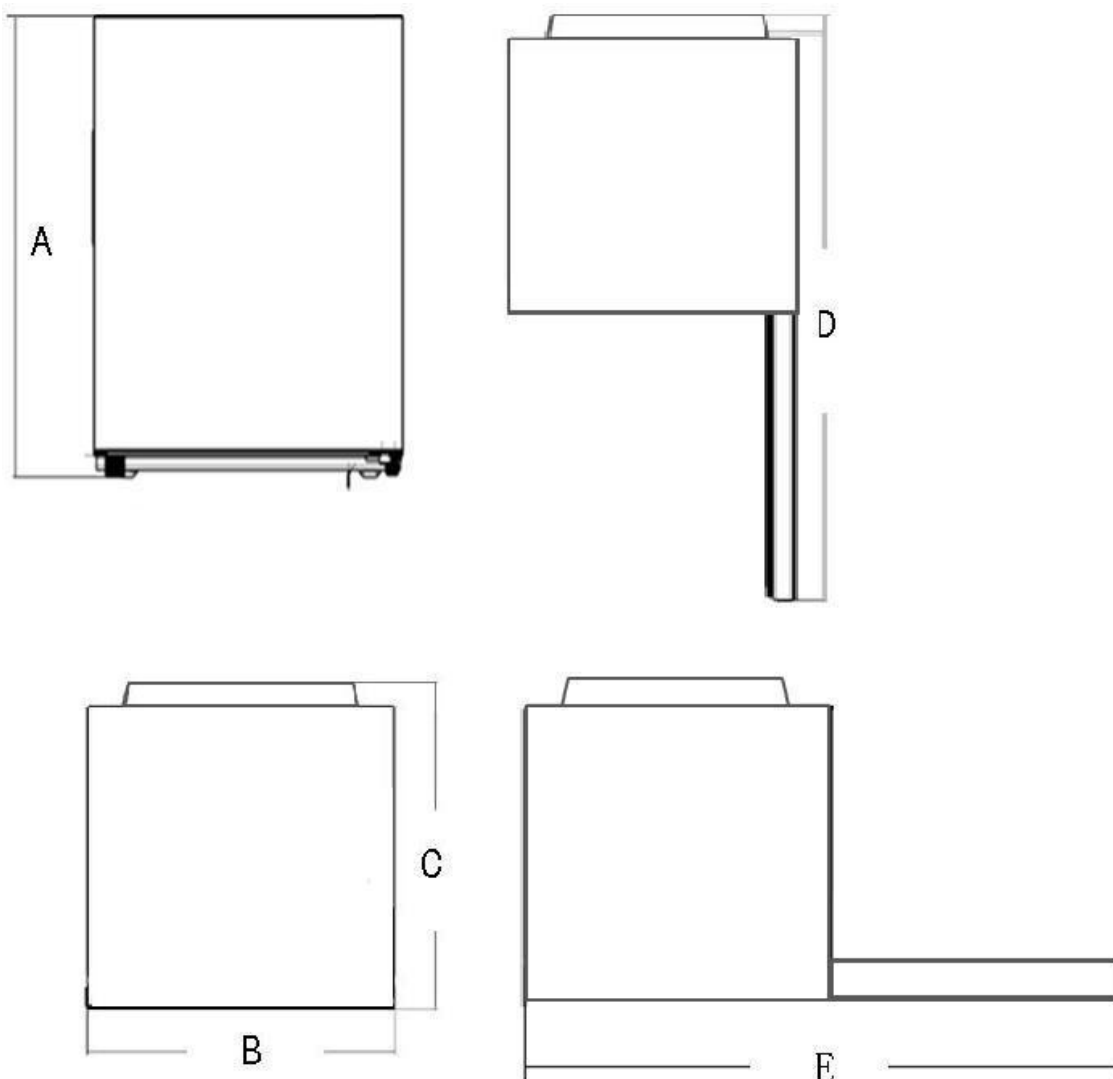
### 6.1 Main parts and their names

| Freezer chamber | Refrigerator chamber                                                                                                                 |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------|
| None            | <ul style="list-style-type: none"> <li>❶ Thermostat</li> <li>❷ Shelf</li> <li>❸ Evaporator</li> <li>❹ Beer can bottom pad</li> </ul> |



## 6.2 External dimension

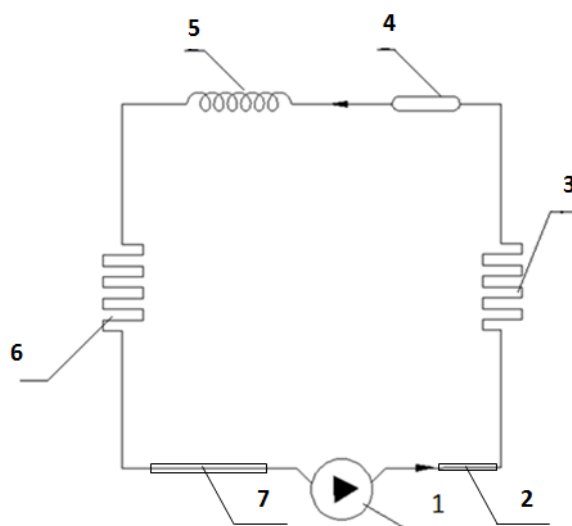
| Description                         | Code | Size (mm) |
|-------------------------------------|------|-----------|
| Height to Top of Case               | A    | 860       |
| Width                               | B    | 510       |
| Depth w/Handles                     | C    | 660       |
| Depth (Total with Door Open)        | D    | 1140      |
| Width (door open 90 deg. w/ handle) | E    | 990       |



## 7. Refrigerating piping system and circulating route of cooling air

### 7.1 Refrigerating piping system

① Compressor→② Exhaust transition pipe→③ Condenser→④ Dry filter→⑤ Capillary tube→⑥ Evaporator→⑦ Suction tube→① Compressor



### 7.2 Circulating route of cooling air (None)

## 8. Dismantling of parts

### 8.1 Parts on the door

| Door seal                                                           |                                                                                    |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Open the wine cabinet door; Take the door seal ① out of door liner. |  |
| Guardrail                                                           |                                                                                    |
| Guardrail                                                           | None                                                                               |
| Door stopper                                                        |                                                                                    |
| Door stopper                                                        | None                                                                               |
| rollover beam                                                       |                                                                                    |
| rollover beam                                                       | None                                                                               |

### 8.2 Parts inside the refrigerator

| Shelf                                                                                                                           |                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Lift up the shelf with a proper force and pull it out towards yourself.                                                         |  |
| Refrigerator Fruit box cover                                                                                                    |                                                                                      |
| Refrigerator Fruit box cover                                                                                                    | None                                                                                 |
| Drawer                                                                                                                          |                                                                                      |
| Drawer                                                                                                                          | None                                                                                 |
| Beer can bottom pad                                                                                                             |                                                                                      |
| Loosen the two screws on the beer can bottom pad. Push up the pad from the gap between the shell and the liner and take it out. |                                                                                      |

### **8.3 Light system**

|                     |      |
|---------------------|------|
| <b>Light</b>        |      |
| Light               | None |
| <b>Light switch</b> |      |
| Light switch        | None |
| <b>Pilot light</b>  |      |
| Pilot light         | None |
| <b>Fresh light</b>  |      |
| Fresh light         | None |

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

|                                                 |      |
|-------------------------------------------------|------|
| <b>Air duct components refrigeratingchamber</b> |      |
| Air duct components refrigeratingchamber        | None |

### **8.5 Air duct components in freezing chamber and fan motor**

|                                                 |      |
|-------------------------------------------------|------|
| <b>Disassembly and installation of Air duct</b> |      |
| Disassembly and installation of Air duct        | None |
| <b>Fan motor of air duct</b>                    |      |
| Fan motor of air duct                           | None |
| <b>Damper assembly</b>                          |      |
| Damper assembly                                 | None |

### **8.6 Evaporator and temperature sensing system**

|                                            |      |
|--------------------------------------------|------|
| <b>Evaporator in freezing chamber</b>      |      |
| Evaporator in freezing chamber             | None |
| <b>Components on the evaporator</b>        |      |
| Defrost thermostat                         | None |
| Fuse                                       | None |
| Defrost sensor                             | None |
| Defrost heater                             | None |
| <b>Evaporator in refrigerating chamber</b> |      |

Take down screws and gaskets on the evaporator.  
Remove the welding on inlet and outlet tubes.



Components on the evaporator

None

#### Sensor

Sensor in freezing chamber

None

Sensor in refrigerating chamber

None

Ambient temperature sensor

None

Sensor in Variable temperature chamber

None

#### Thermostat

1) Disassembly the screw that is fix the thermostat box.



2) Pull out the thermostat fix plate and knob, remove the wiring and thermostat from the thermostat box.



## 8.7 Compressor case

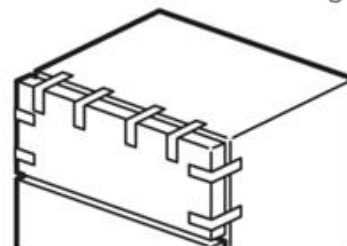
### Rear cover and compressor case

1) Remove by cross screwdriver the screws fixing back cover plate of compressor chamber anticlockwise.  
2) Take the back cover plate of compressor chamber upward.



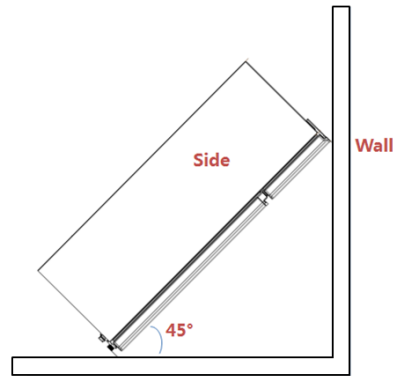
### Compressor and the cooling system pipe

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

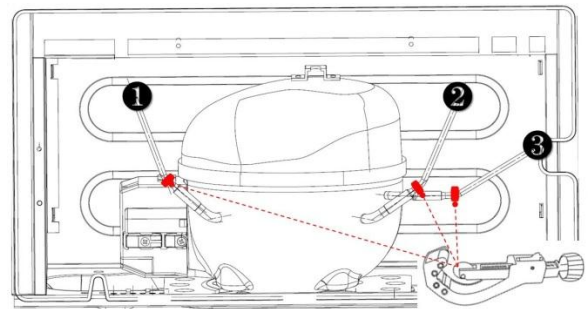




2) Slowly tilt the refrigerator forward, relying on the wall or a solid enough object, leaving space to facilitate the operation. For safety, it should be carried by someone to prevent its falling.

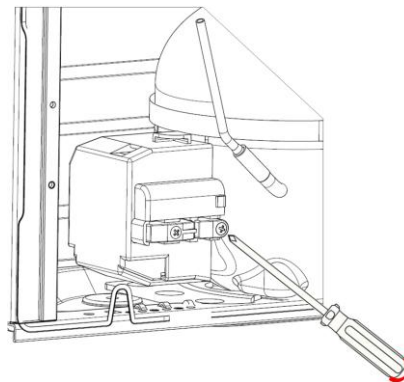


3) Cut off the compressor pipeline.-①Cut off the process pipeline.-②Cut off the low-pressure muffler.-③Cut off the high-pressure exhaust pipe.



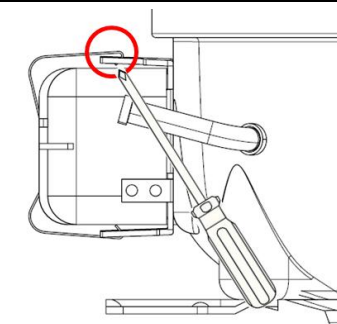
4-1) **Remove the screws(for some models)**

- Two screws outside
- One screw inside



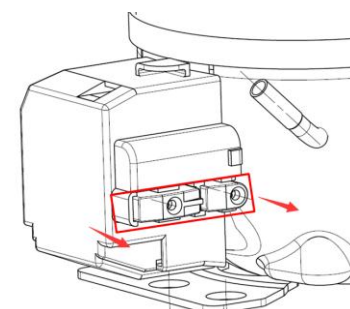
4-2) **Remove the metal clamp(for some models)**

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



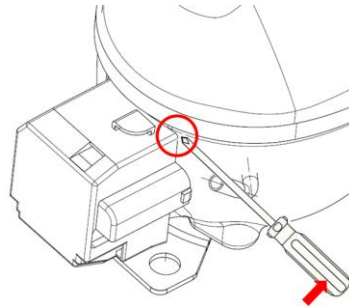
5) **Remove the clipping strip**

Slowly pull it out



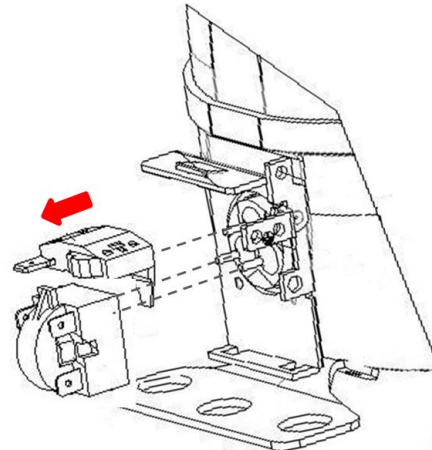
### 6) Remove the protective cover

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

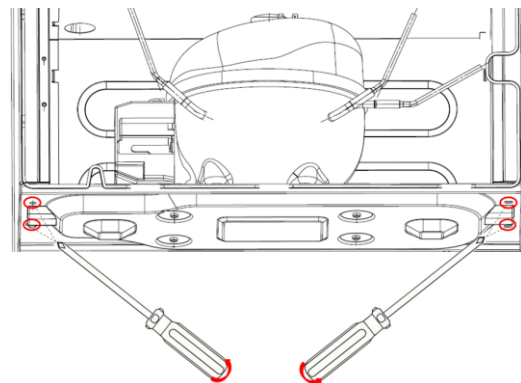


### 7) Remove the starter and protector

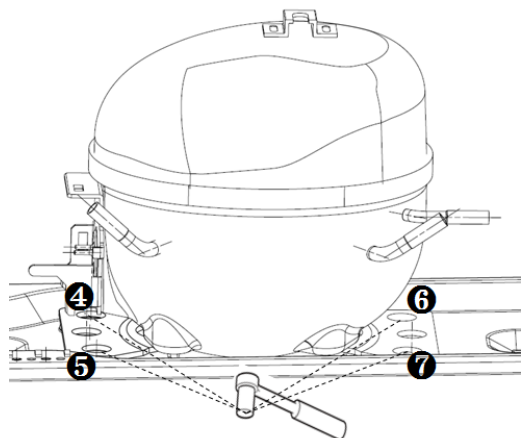
- Unplug the starter and protector (you can use a screwdriver to pry it slowly)



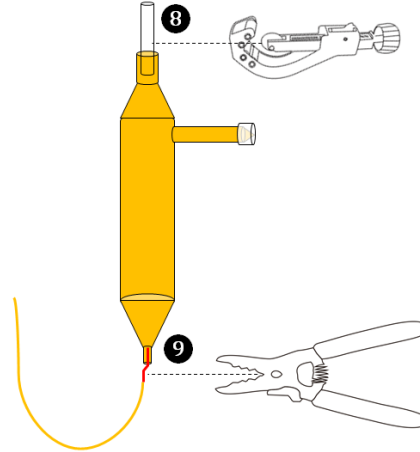
- ### 8) Loosen the screw of the compressor bottom plate, remove the floor together with the compressor from the box.



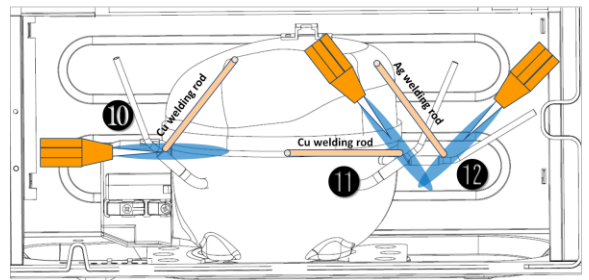
- ### 9) Use the wrench to remove the bolts by steps ④ ⑤ ⑥ ⑦, replace the compressor and reverse process can complete installation.



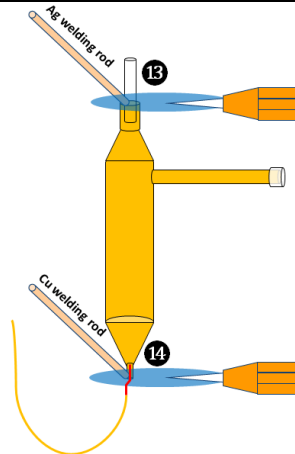
10) Use Pipe cutter cut off the condenser tube ⑧, then Shear off capillary ⑨ by the capillary tube scissors.



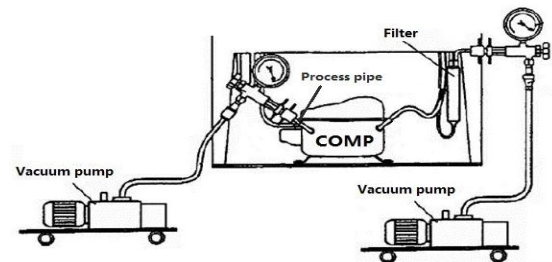
11) Replace the compressor and welding the compressor pipeline.-⑩Welding the process pipeline.-⑪Welding the low-pressure muffler.-⑫Welding the high-pressure exhaust pipe.



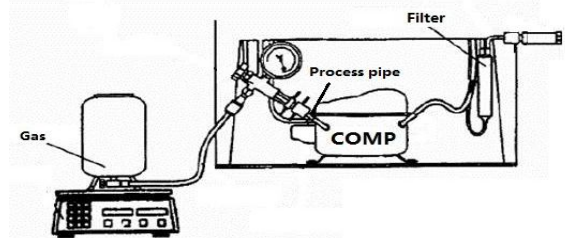
12) Replace the filter, Cu-Fe tubes welding ⑬ used Ag welding rod, Cu-Cu tubes welding ⑭ used Cu welding rod.



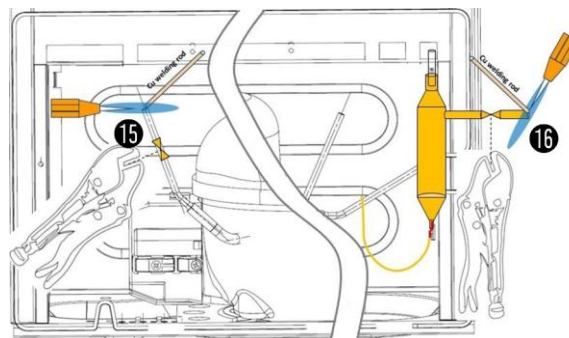
13) Vacuum system, The degree of vacuum below 6Pa.



14) Perfusion refrigerant.



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



### Condenser fan motor

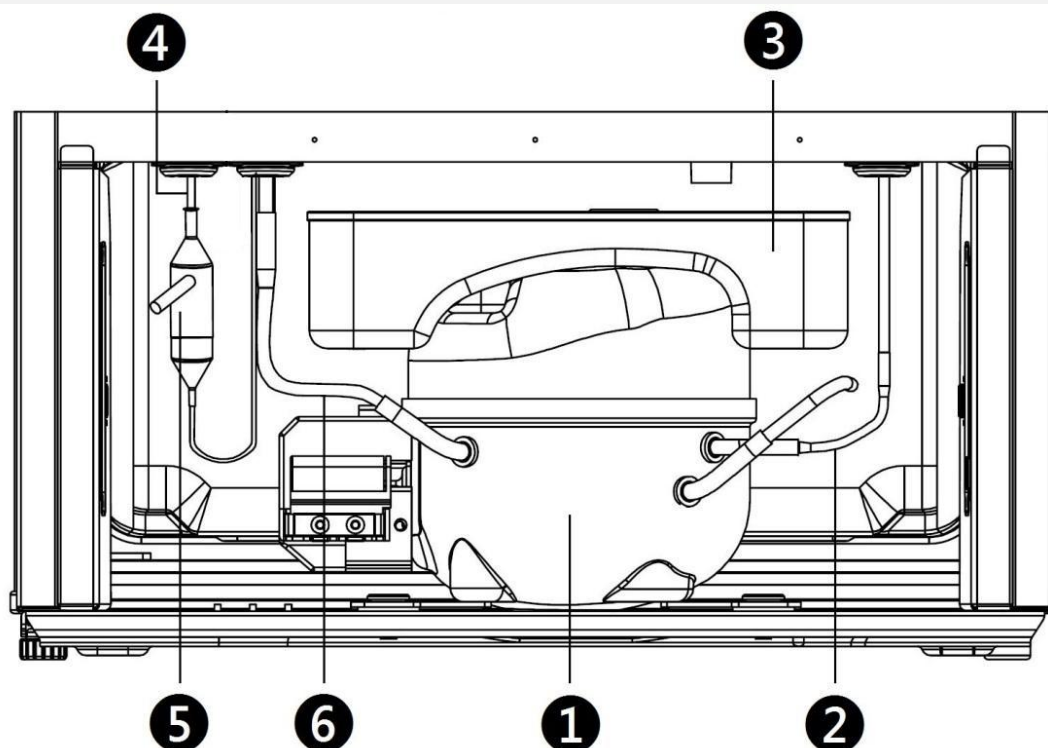
|                     |      |
|---------------------|------|
| Condenser fan motor | None |
|---------------------|------|

### Standby condenser

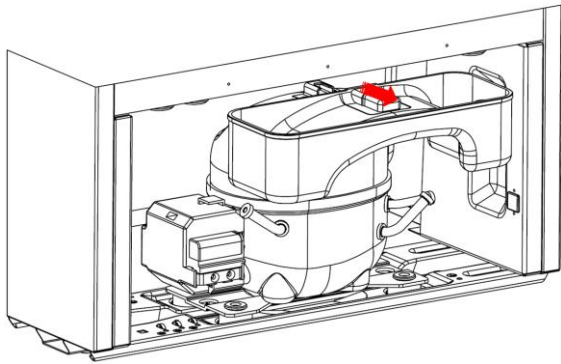
|                   |      |
|-------------------|------|
| Standby condenser | None |
|-------------------|------|

### Piping system in the compressor case

- |                   |                           |
|-------------------|---------------------------|
| 1 Compressor      | 5 Dry filter              |
| 2 Condenser (in)  | 6 Suction transition tube |
| 3 Drain tray      |                           |
| 4 Condenser (out) |                           |



### Disassembly and assembly of the drain tray

|                                                                           |                                                                                    |
|---------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 1) Pull out the drain tray                                                |  |
| 2) Replace the drain tray, the reverse process can complete installation. |                                                                                    |

### **8.8 Display control board**

| Display control board |      |
|-----------------------|------|
| Display control board | None |

### **8.9 Main control board**

| Main control board |      |
|--------------------|------|
| Main control board | None |

### **8.10 Bar counter**

| Bar counter                                 |      |
|---------------------------------------------|------|
| Disassembly and installation of bar counter | None |
| Disassembly and installation bar doorseal   | None |

### **8.11 Water dispenser**

| Water dispenser                             |      |
|---------------------------------------------|------|
| Disassembly and installation of water valve | None |
| Disassembly and installation of water tank  | None |

### **8.12Ice maker**

| disassembly of ice maker                        |      |
|-------------------------------------------------|------|
| Disassembly and installation of ice maker       | None |
| Disassembly and installation of water system    | None |
| Disassembly and installation ice machine sensor | None |

## 9. Function and operation

### 9.1 Operation panel

| Icons | Button                   |
|-------|--------------------------|
| None  | Temperature control knob |



### 9.2 Temperature control

Direct cooling mechanical refrigerator, through the thermostat knob to adjust the stalls.

Turn the temperature control knob to 6gear, the internal temperature of the refrigerator becomes lower.

Turn the temperature control knob to 1gear, the internal temperature of the refrigerator becomes higher.

NOTE:Please adjusting and using between "6gear "and"1gear "

### 9.3 Give an alarm (None)

### 9.4 Failure code and solutions (None)

### 9.5 Defrost function

Manual defrost

### 9.6 Compressor fan control (None)

## 10. Circuit description

---

10.1 Power Supply(None)

10.2 Test circuit for door switch(None)

10.3 Temperature test circuit(None)

10.4 Freezer chamber fan motor circuit (None)

10.5 refrigerating chamber fan motor circuit (None)

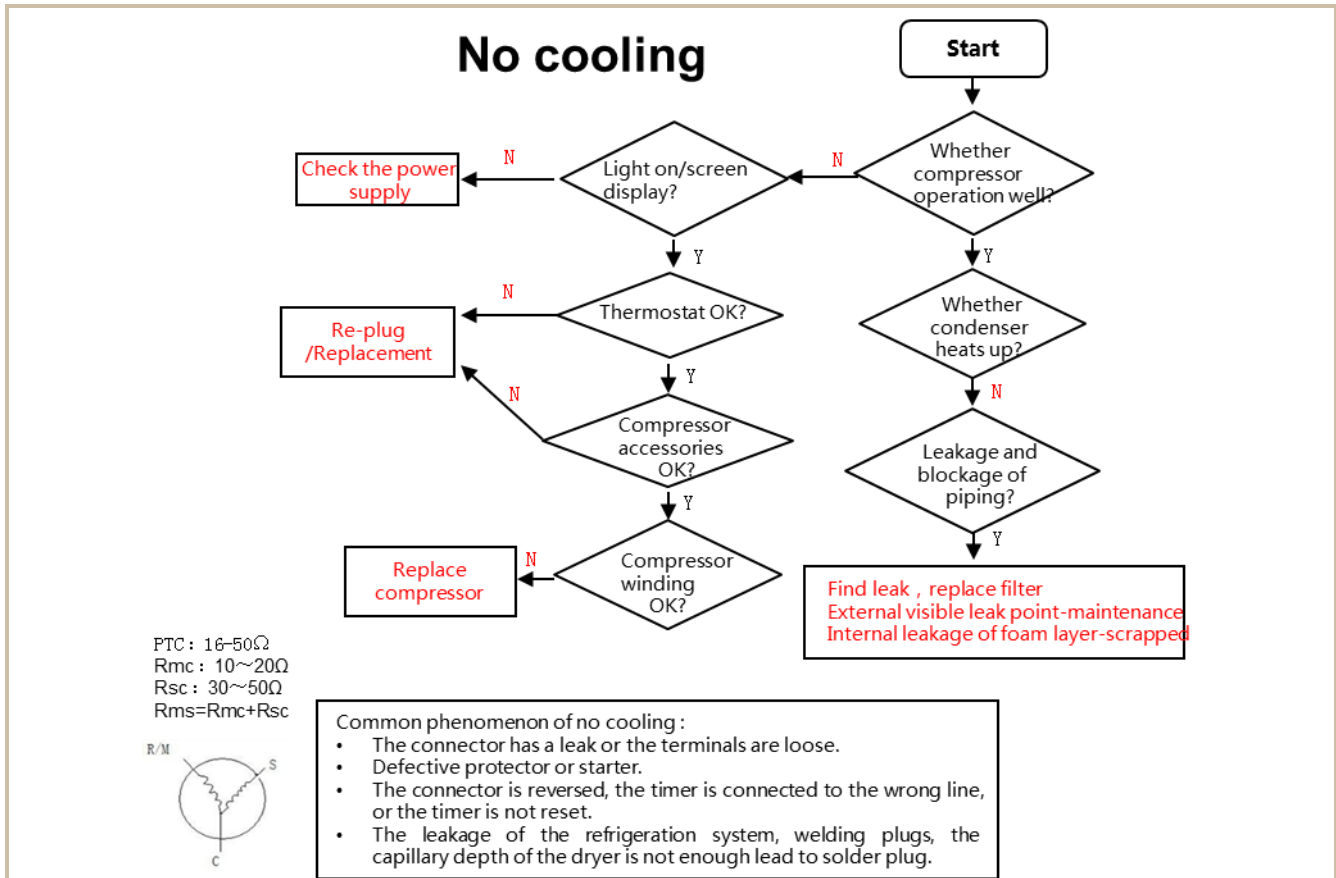
10.6 Condensation fan circuit (None)

10.7 Fan motor circuit of the ventilation door(None)

10.8 Resistance value of the sensor (R/T) (None)

## 11. Troubleshooting Method

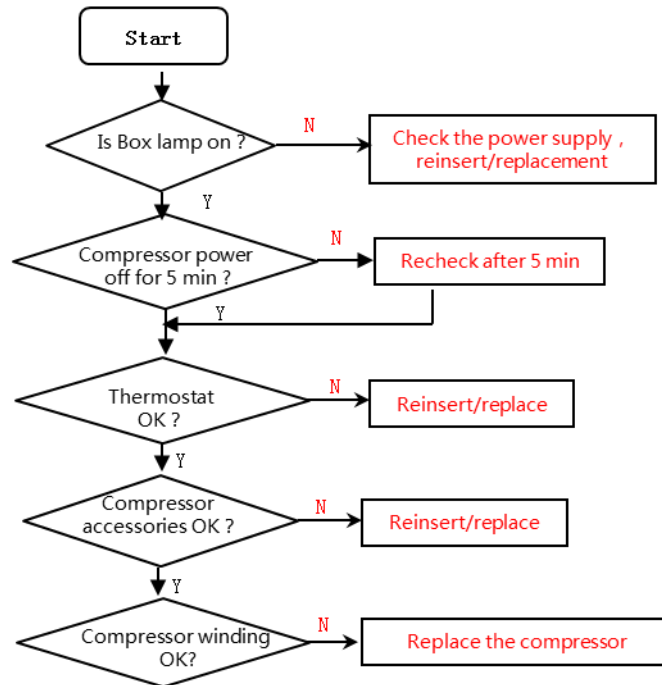
### 11.1 Not cooling





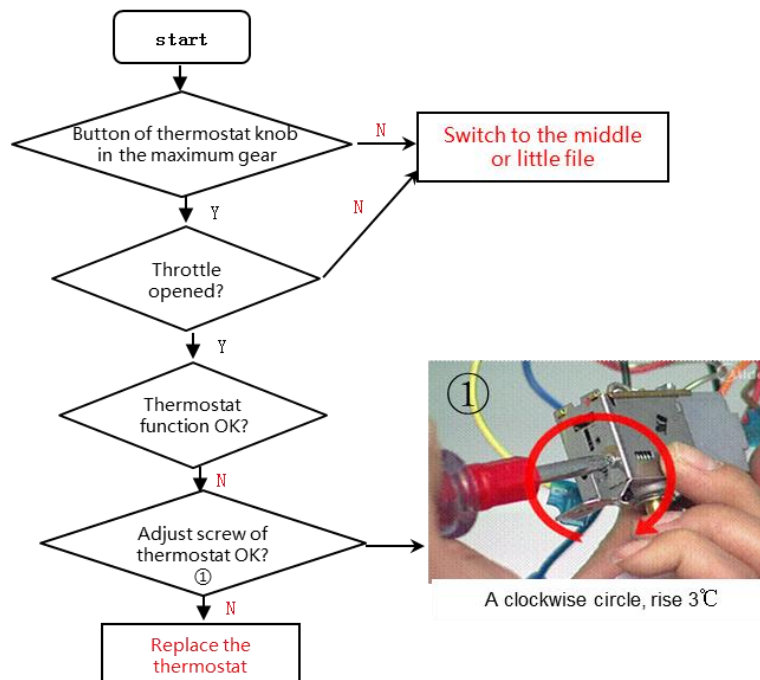
## 11.2 Not working of compressor

### No working of compressor



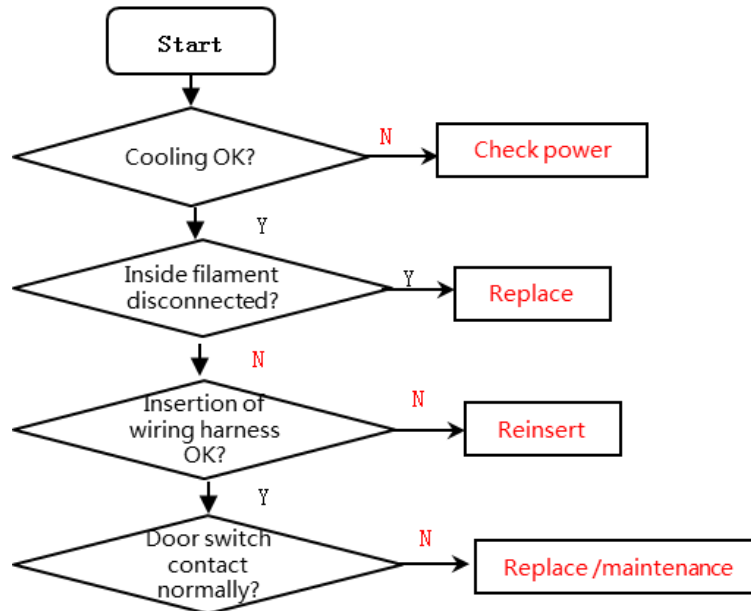
## 11.3 Thermostat malfunction-Undercooling

### Thermostat malfunction-Undercooling

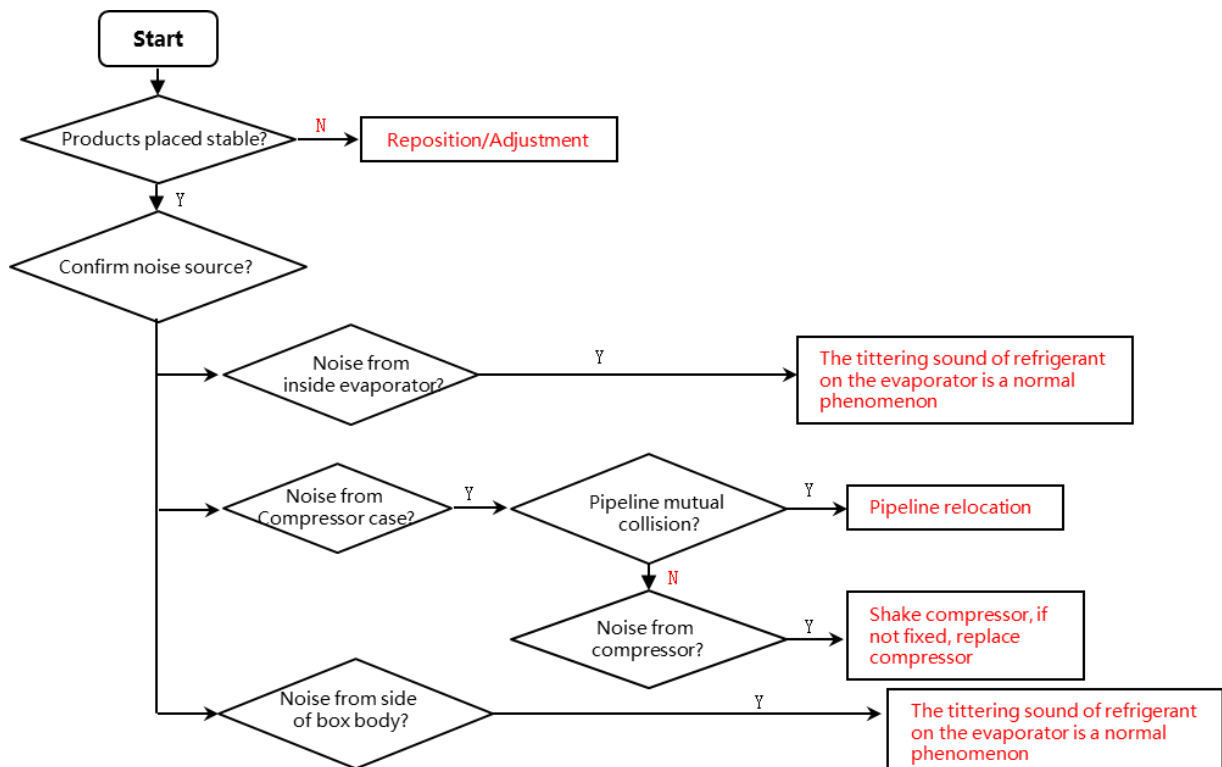


## 11.4 Light is not on

### Light is not on



## 11.5 Noise



## **12. Figures and details of repair**

**parts(Documents are provided separately)**

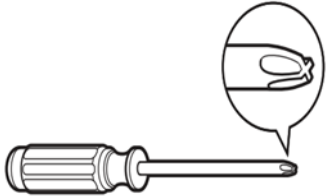
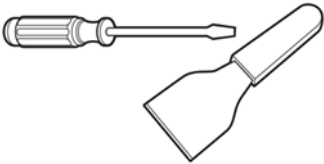
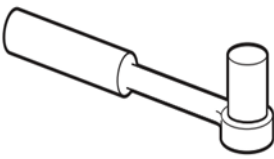
---

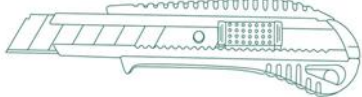
### **12.1 Figures**

### **12.2 List of parts and components**

## 13. Appendix

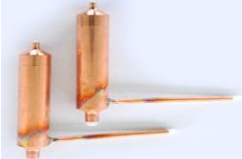
### 13.1 Refrigerator maintenance tooling and equipment and material

| Tooling |                               |                                                     |                                                                                       |
|---------|-------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------|
| No.     | Name                          | Main Usage                                          | Photo                                                                                 |
| 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       | Nipper pliers/diagonal pliers | Assistive tooling                                   |  |

|    |                                |                                                          |                                                                                      |
|----|--------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------|
| 8  | Capillary tube scissors        | Shear capillary                                          |   |
| 9  | Knife                          | assistive tool                                           |   |
| 10 | Pipe cutter, Flaring device    | Pipe cutting, flaring                                    |   |
| 11 | Electronic digital thermometer | Test temperature                                         |   |
| 12 | Multi meter                    | Measurement with resistance, voltage, current and so on. |  |

### Equipment

| No. | Name                                   | Main Usage                                                           | Photo                                                                                 |
|-----|----------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1   | Vacuum pump with gauge                 | vacuum pumping                                                       |  |
| 2   | Electronic scale                       | weighing refrigerant/gas                                             |  |
| 3   | High pressure nitrogen with piezometer | pipe and cooling system(condenser, evaporator, etc) impurities clean |  |

| 4               | Quick coupling         | Connection process pipeline, vacuum or charge refrigerant will be used. |                                                                                        |
|-----------------|------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5               | Soldering gun          | heating and welding                                                     |                                                                                        |
| 6               | hand leak detector     | welding point leakage detect, if no, use soap-suds                      |     |
| <b>Material</b> |                        |                                                                         |                                                                                                                                                                           |
| No.             | Name                   | Main Usage                                                              | Photo                                                                                                                                                                     |
| 1               | Process pipeline       | Charge the refrigerant                                                  |                                                                                        |
| 2               | Dry filter             | Involving a system failure to be replaced                               |   |
| 3               | Copper welding rod     | Copper-Copper tubes welding                                             |                                                                                      |
| 4               | Silver solder(> 25%Ag) | Not Copper-Copper tubes welding                                         |                                                                                      |
| 5               | Refrigerant/gas        | Add refrigerant to the system                                           |                                                                                      |
| 6               | Adhesive tape          | Door fixing for reversing door                                          |                                                                                      |

|   |                        |                                                            |                                                                                     |
|---|------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 7 | Transition copper pipe | Aluminium-Aluminium tubes welding, maintain lengthen tubes |  |
|---|------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------|



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

local authority, or where you purchased your product.



### **MIDEA appliances after sales website**

For more information about Midea appliances after sales, please visit the [tsp.midea.com](https://tsp.midea.com)

For more information about the service manual, please visit the [tsp.midea.com](https://tsp.midea.com)

For more information about the EV and SBOM, please visit the [tsp.midea.com](https://tsp.midea.com)



### **How to login TSP system**

Use Google browser visit the <https://tsp.midea.com/>

#### **Internal User:**

Use MIP account and Password.

#### **Customer:**

Access: Generated by TSP (provided by administrator).

Password: abcd1234 (please revise after login in).

## **Midea Refrigerators**

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

xxx@midea.com

**Refrigeration Division**

**Overseas Sales Company**

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