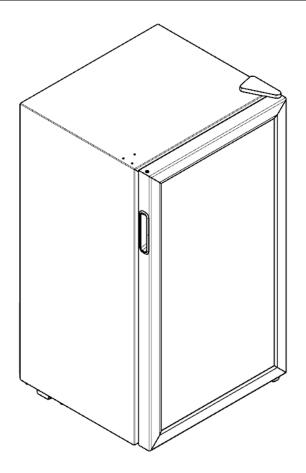
Service Manual

Wine Cooler SERIES

Applicable Models	Model Code	Applicable Models
HS-129SN	UR-LC99G-DQ	22033010001601



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 \triangle 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

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	Service Manual_2019-v2.0
1. Significant update notes (None)	

2. Safety Warning Code

2.1 Warning for operation safety

Important Safety Instructions



CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN





This symbol indicates that dangerous voltage constituting a risk of electric shock is present within your freezer.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying your freezer.

WARNING

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- **5)** Do not use this appliance near water.
- 6) Clean only with a damp cloth.
- 7) Do not block any ventilation openings.
- 8) Install in accordance with the manufacturer's instructions.
- **9)** Do not install near any heat sources, such as radiators, heat registers, stoves, or other apparatus that produce heat.
- **10)** Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- **11)** Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the appliance.
 - **12)** Do not attempt to modify or extend the power cord of this appliance.
- **13)** Unplug this appliance during lightning storms or when it will not be used for long periods of time.
- **14)** Make sure that the available AC power matches the voltage requirements of this appliance.

CONNECTING ELECTRICITY

A WARNING Electrical Shock Hazard.

Plug into a grounded 3-prong outlet.

Do not remove the ground prong.

Do not use an adapter.

Failure to follow these instructions can result in death, fire, or electrical shock.



WARNING

Electric Shock Hazard

Failure to follow these instructions can result in electric shock, fire, or death.

- 1) **WARNING**–Keep ventilation openings, in both the freezer and the built-in structure, clear of obstruction.
- **2) WARNING**—Do not touch the interior of the freezer with wet hands. This could result in frost bite.
- **3) WARNING**—Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
 - 4) WARNING-Do not damage the refrigerant circuit.
- **5) WARNING**—Do not damage the refrigerant tubing when handling, moving, or using the freezer.
- **6) WARNING-DANGER**–Never allow children to play with, operate, or crawl inside the freezer. Risk of child entrapment. Before you throw away your old freezer:
 - 6-1) Take off the doors
 - 6-2) Leave the shelves in place so that children may not easily climb inside
 - 7) Unplug the freezer before carrying out user maintenance on it.
- 8) This freezer can be used by children age eight years and older and persons with reduced physical or mental capabilities or lack of experience and knowledge if they are given supervision or instruction concerning the use of the freezer in a safe way and understand the hazards involved. Children should not play with the freezer. Cleaning and maintenance should not be performed by children without supervision.
- **9)** If a component part is damaged, it must be replaced by the manufacturer, its service agent, or similar qualified persons in order to avoid a hazard.
- **10)** Please dispose of the freezer according to local regulations as the freezer contains flammable gas and refrigerant.
- **11)** Follow local regulations regarding disposal of the freezer due to flammable refrigerant and gas. All refrigeration products contain refrigerants, which under the guidelines of federal law must be removed before disposal. It is the consumer's responsibility to comply with federal and local regulations when disposing of this product.
 - **12)** This freezer is intended to be used in household and similar environments.

- **13)** Do not store or use gasoline or any flammable liquids inside or in the vicinity of this freezer.
- **14)** Do not use extension cords or ungrounded (two-prong) adapters with this freezer. If the power cord is too short, have a qualified electrician install an outlet near the freezer. Use of an extension cord can negatively affect the freezer's performance.

Grounding requirement

This freezer must be grounded. This freezer is equipped with a cord having a grounding wire with a grounding plug. The plug must be inserted into an outlet that is properly installed and grounded.

Improper use of the grounding plug can result in a risk of electric shock. Consult a qualified electrician or service person if the grounding instructions are not completely understood, or if doubt exists as to whether the freezer is properly grounded.

2.2 Safety instruction for refrigerant

A WARNING Explosion Hazard.

Keep flammable materials and vapors, such as gasoline, away from freezer. Failure to do so can result in fire, explosion, or death.

Safety instruction for refrigerant

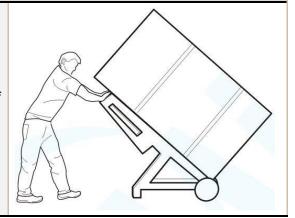
DANGER–Risk of Fire or Explosion. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Use Mechanical Devices. Do Not Puncture Refrigerant Tubing. CAUTION–Risk of Fire or Explosion. Flammable Refrigerant Used. Consult Repair Manual/Owner's Guide Before Attempting To Service This Product. All Safety Precautions Must be Followed. CAUTION–Risk of Fire or Explosion. Dispose of Properly In Accordance With Federal Or Local Regulations. Flammable Refrigerant Used. CAUTION–Risk of Fire or Explosion Due To Puncture Of Refrigerant Tubing; Follow Handling Instructions Carefully. Flammable Refrigerant Used.

3. Transport

3.1 Handling

Handling

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



4. Installation and commissioning

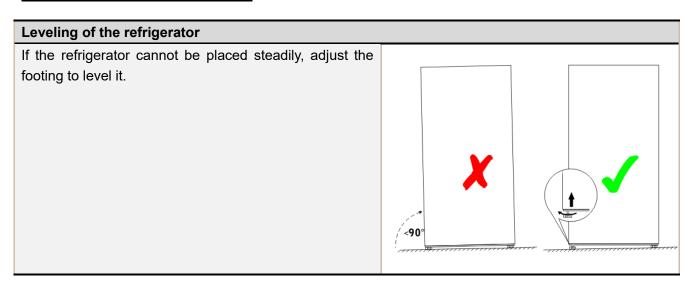
4.1 Door Disassembly and Assembly

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

4.2 Installation location

Location that is easy for ventilation shall be chosen to facilitate heat dissipation, enhance its performance and reduce the energy consumption. Sides 100mm (4") Back

4.3 Leveling of the refrigerator



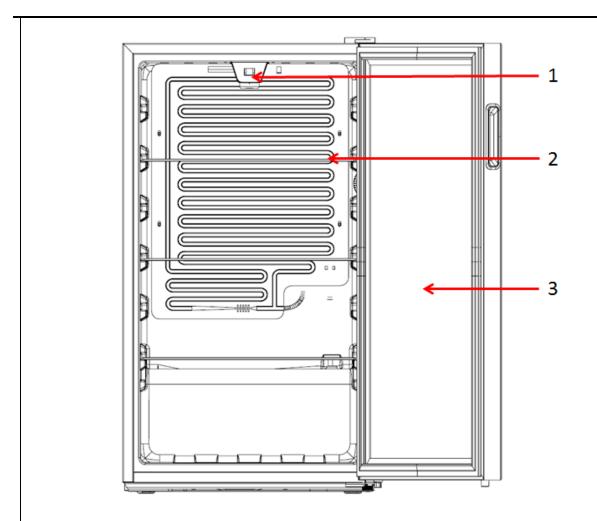
4.4 Left or right open door reversal

1) Change the installation location of the upper hinge(5) of the beverage cabinet, then the opening direction of the door could be changed at will. Please follow the following instructions for the change of the opening direction of the beverage cabinet's door (for instance: from right-handed door to left-handed door): close the glass door of the beverage cabinet, use a blade to remove the rivet② carefully, loose the mounting cover(3) of the door hinge and three positioning bolts(4) and remove the upper hinge(5). 2) Open the door of the beverage cabinet and detach the glass door of which with tremendous care. 3) Dismantle the door axle sleeve@at lower part of the glass door, door stopper block screws®and door stopper ⑦, and fix them to left side. 4) Dismantle the adjustable foot(11), positioning bolts(4) and lower hinge(10), then exchange the parts of right and left sides and later use the reverse method to install the adjustable foot, lower hing and positioning bolts. 5) Put the aforesaid glass door on the lower hinge, and fix the upper hinge(5). Align the door with the cabinet and check the tightness of gasket, and then install all the ornaments(2)(3).

- 4.5 Installation of handle (None)
- 4.6 Installation of door lock (None)

5. Product configuration and dimension

5.1 Main parts and their names



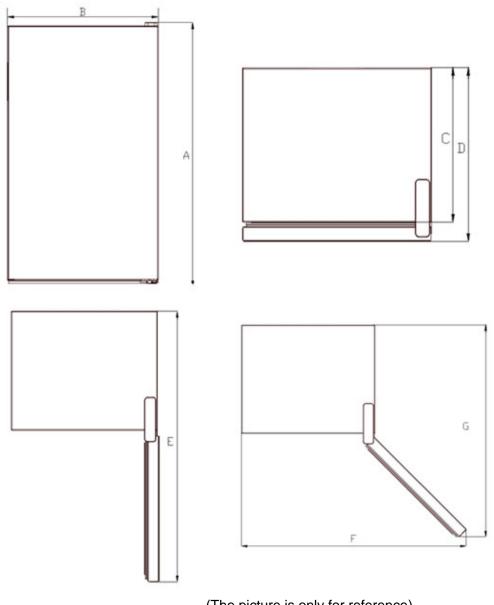
(The picture is only for reference, and specific appearance and configuration are subject to the real product)

Refrigerator chamber

- 1.Lamp mounting box assembly
- 2.Glass shelf
- 3. Glass door

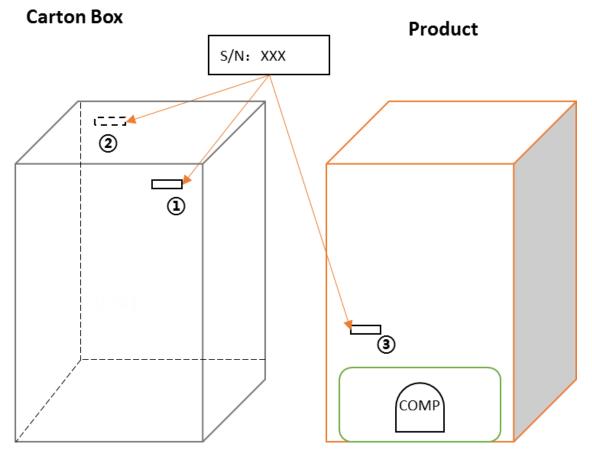
5.2 External dimension

Description	Code	HS-125WN Size (mm)
Height to Top of Case	Α	845
Width	В	470
Depth w/Cabinet	С	390
Depth w/Door	D	440
Depth (Door open 90 deg. w)	F	873
Depth (Door open 135 deg. w)	G	753
Width (Door open 135 deg. w)	Н	791



(The picture is only for reference)

5.3 Location of S/N



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

6. Product specification

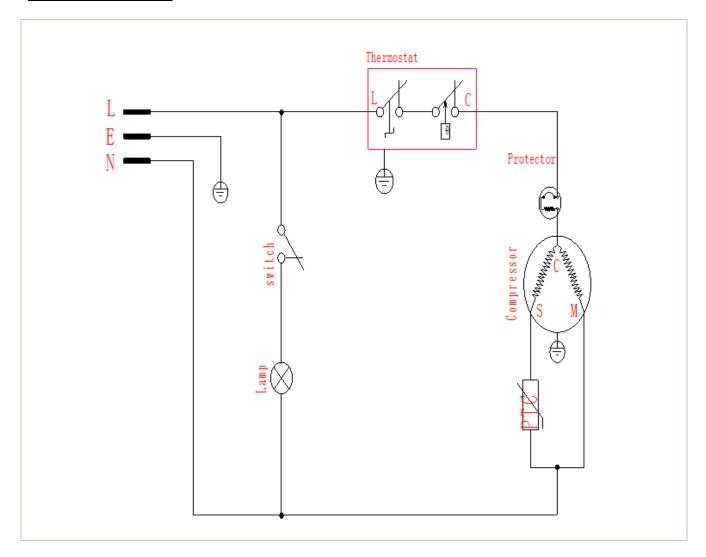
6.1 Electrical parameters

Product Name	UR-LC99G-DQ	
Applicable Models	HS-129SN	
Item	Specification	
Refrigerant	R600a	
Compressor	DFB30DF	
Starter(PTC)	QP2-4R7	
Overload protector(OLP)	DRB16N61A1	
Integrate PTC+OLP	None	
Capacitor	None	
Power filter	None	
Winding resistance of compressor wiring terminal	Rmc:13.04Ω±7% Rsc: 5.6Ω±7% Rms=Rmc+Rsc (20°C)	
Winding resistance picture The input power of compressor	44.5W	
Lights inside the refrigerator		
Lights inside the refrigerating chamber	LED AC230V/2W	
Lights others	None	
Switch of the refrigerator door	None	

6.2 Cooling temperature setting range

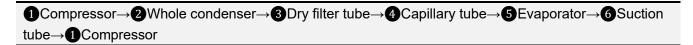
Compartment	The highest (°C)	Lowest (°C)
Refrigerating	10	1

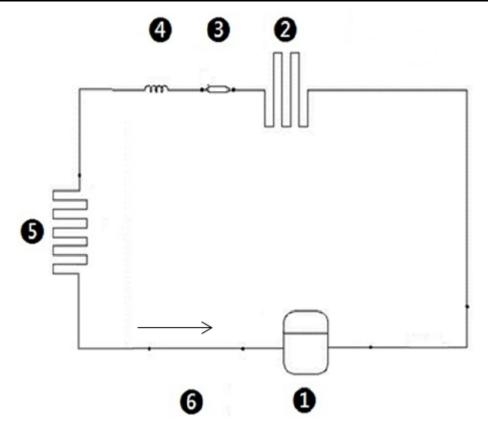
6.3 Circuit diagram



7. Refrigerating piping system and circulating route of cooling air

7.1 Refrigerating piping system





8. Dismantling of parts

8.1 Parts on the door

Door seal

Door seal is installed into door liner groove.

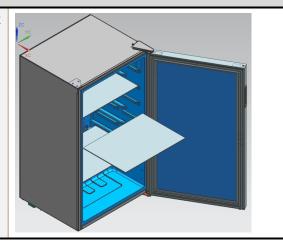
- 1) Open the wine cabinet door;
- 2) Take the door seal ①out of door liner.



8.2 Parts inside the refrigerator

wine rack

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



8.3 Light system

Light

- 1) Take down the screw on lampshade, Push the lampshade inner and take it down
- 2) Take down the screw on LED light plate then push out the light.





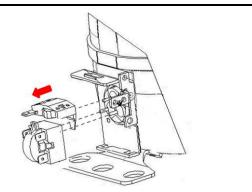
8.4 Compressor case

Rear cover		
	None	
Compressor and the cooling system pipe		
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.	Side Wall	

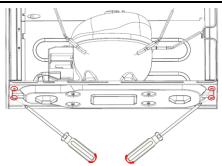
3) Cut off the compressor pipeline.- 1 Cut off the process pipeline.-2 Cut off the low-pressure muffler.-3 Cut off the high-pressure exhaust pipe. 4-1) Remove the screws(for some models) -Two screws outside -One screw inside 4-2) Remove the metal clamp(for some models) -Disassembly the metal clamp that is fix the electric appliance shield 5) Remove the clipping strip Slowly pull it out 6) Remove the protective cover -Pry the protective cover slowly from the upper part, -Pull it out and remove it.

7) Remove the starter and protector

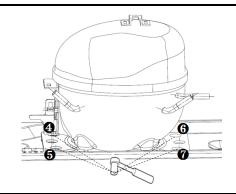
Unplug the starter and protector (you can use a screwdriver to pry it slowly)



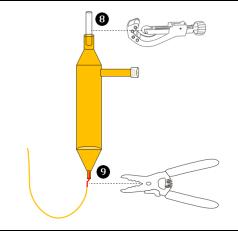
8) Loosen the screw of the compressor bottom plate, remove the floor together with the compressor from the box.

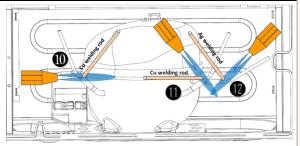


9) Use the wrench to remove the bolts by steps 4567, replace the compressor and reverse process can complete installation.



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



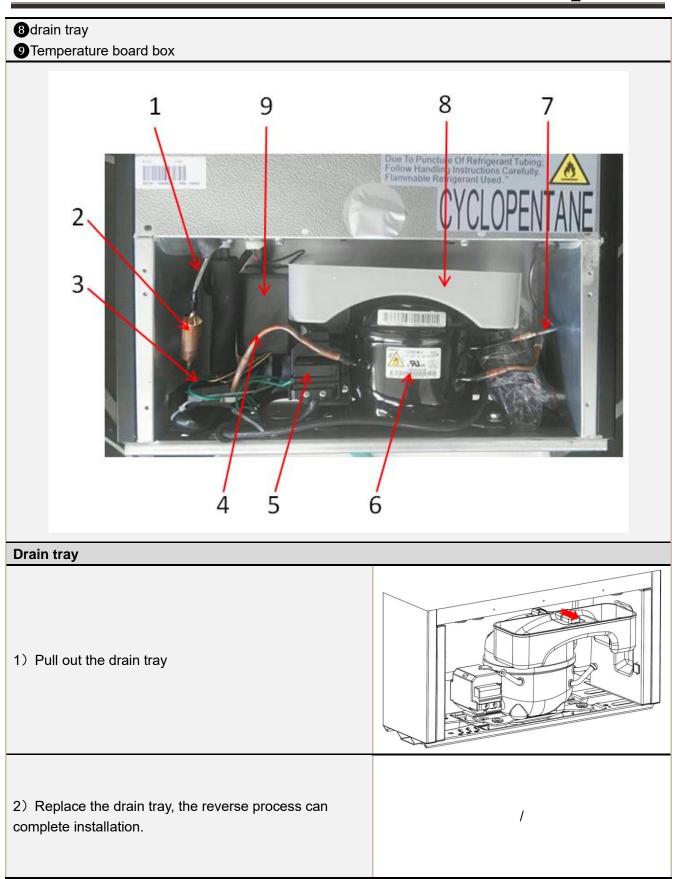


12) Replace the filter, Cu-Fe tubes welding (3) used Ag welding rod, Cu-Cu tubes welding used Cu welding rod. 13) Vacuum system, The degree of vacuum below 6Pa. 14) Perfusion refrigerant. 15) Use the vise grip pliers clamp the middle of the process pipe, then seal welding process tube 15 16. Piping system in the compressor case 1 Condenser-1(out) 2 Drier 3 Capillary Tube 4 Sution Tube

6 Compressor

5Compressor cover

7 Condenser-1(in)

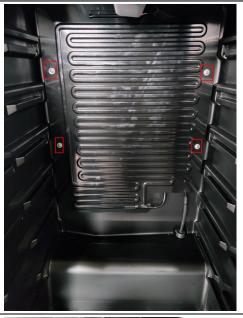


9. Temperature sensing system

9.1 Thermostat

Sensor in refrigerating chamber

- 1) Take down screws and gaskets on the evaporator.
- 2) Remove the welding on inlet and outlet tubes.



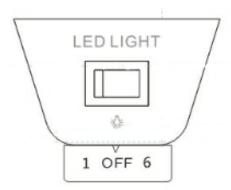
3) Take the sensor out from card slot.



10. Function and operation

10.1 Operation panel

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



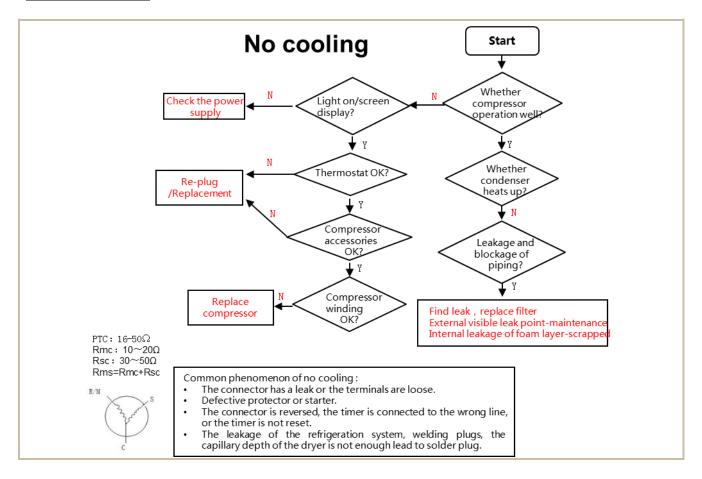
11. Compressor

11.1 Compressor on and off Control specifications

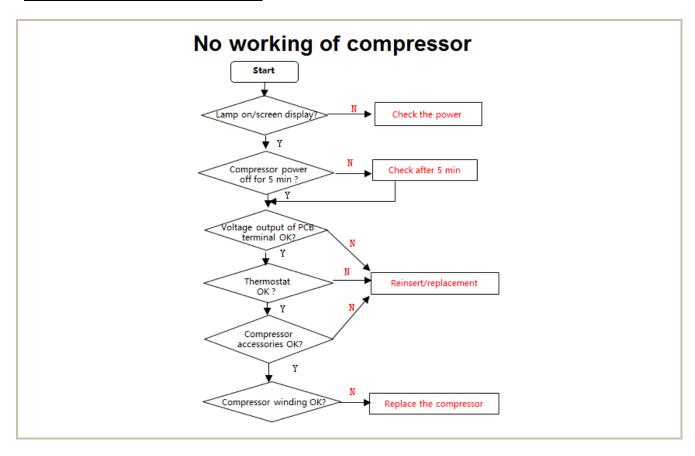
- 1.1 When one of the following conditions is met, the compressor stops:
 - 1) Tr ≤ Trt;
 - 2) The compressor runs continuously for more than 3 hours (Stop 5 minutes);
- 1.2 When all the following conditions are met, the compressor starts up:
 - 1) Tr ≥Trk;
 - 2) Compressor downtime is more than 5min.
- ★When 1.1 and 1.2 are not satisfied, the compressor maintains the original state

12. Troubleshooting Method

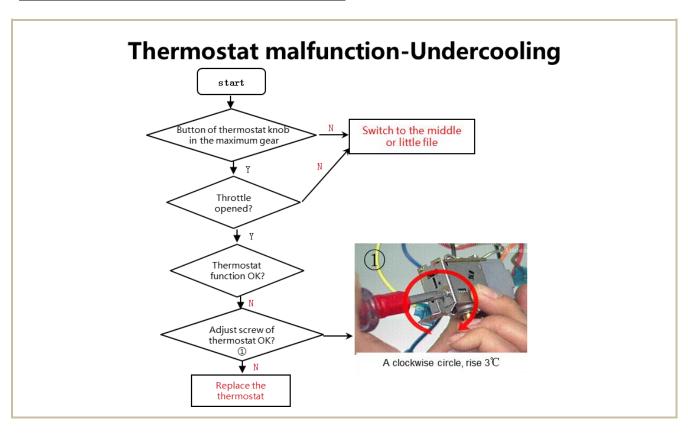
12.1 Not cooling



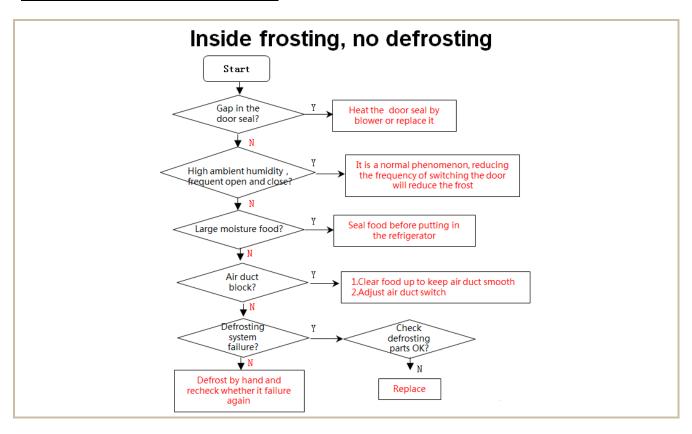
12.2 No working of compressor



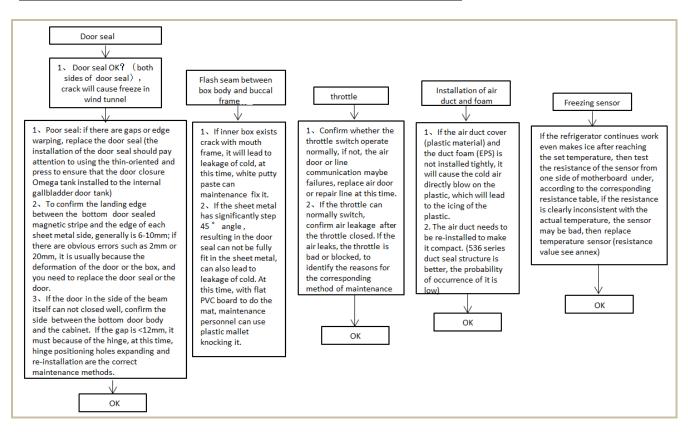
12.3 Thermostat malfunction-Undercooling

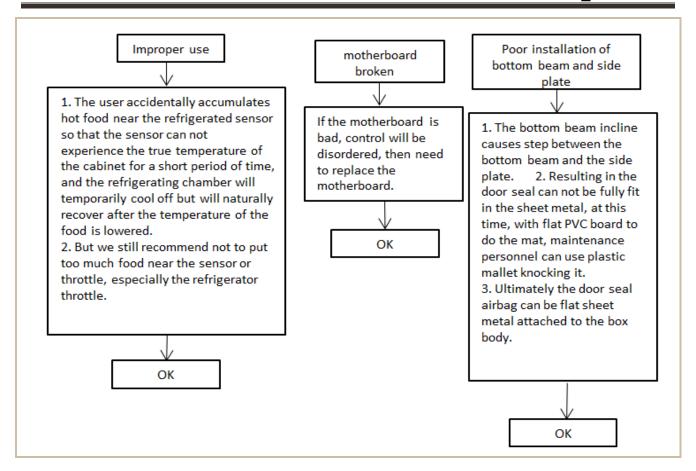


12.4 Inside frosting, no defrosting

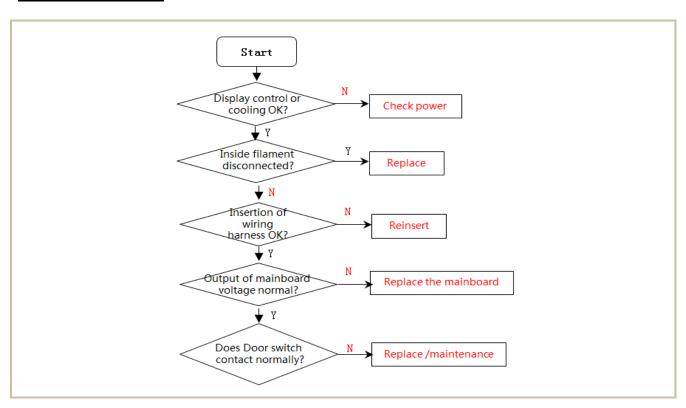


12.5 Inside frosting, no defrosting-Maintenance guidelines

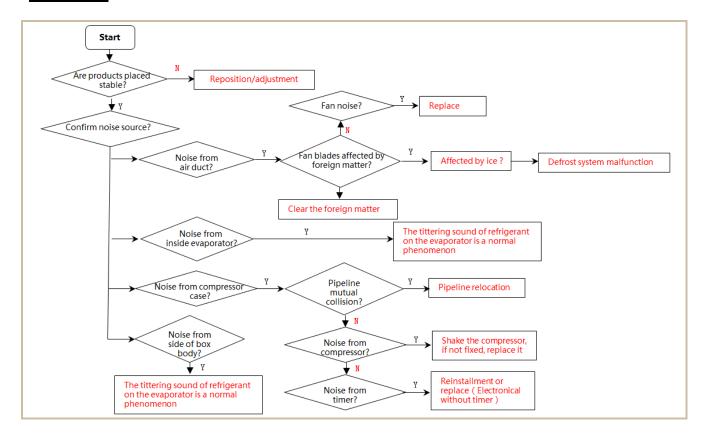




12.6 Light is not on



12.7 Noise



13. Figures and details of repair parts

See this section in the TSP.

Entry Guidelines (TSP System)



■ Where

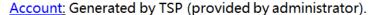
Chrome





■ How

- Midea user: Same as your MIP account & password.
- Overseas customer:



Each customer have a code in Midea Group, G/E + seven numbers.

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

Password: abcd1234 (please revise after login in).

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

Admin team:



REF: Jamie Liu(liujc5@midea.com)

IT: Martin He(dingding.he@midea.com)





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



MIDEA appliances after sales website

For more information about Midea appliances after sales, please visit the <u>tsp.midea.com</u>
For more information about the service manual, please visit the <u>tsp.midea.com</u>
For more information about the EV and SBOM, please visit the <u>tsp.midea.com</u>



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

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