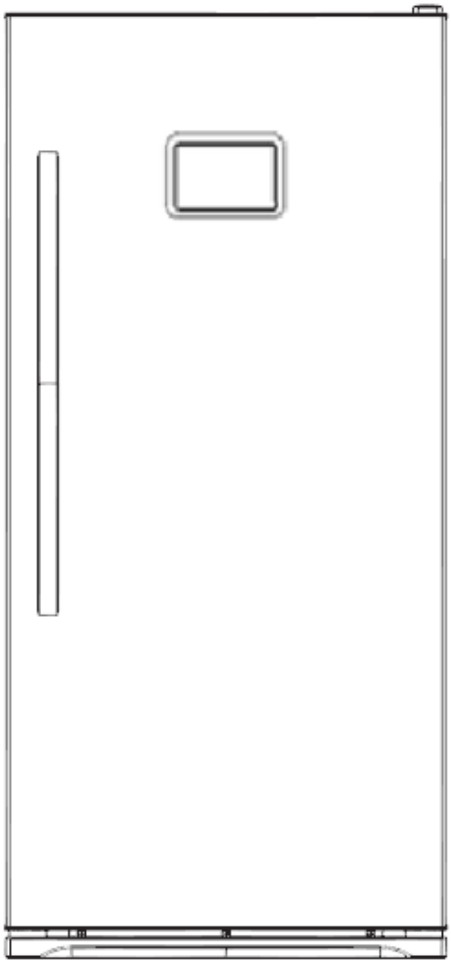
Service Manual

Applicable Models	Model No.
SO-BD386WE-UT	22031010000120
UL-BD386WE-SQ	22031010000112
UL-BD386WE-FQ	22031010000107



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

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Reviewed by	QA:Wang Tao SVC:Zhang Kun
Approved by	R&D:Geng Xiuhua SVC:Guang Taoshuai

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

Contents

1.Safety Warning Code

1.1Warning 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.

15 Do not handle the plug with wet hands. This could result in an electric shock.

16 Unplug the power cord by holding the plug, never by pulling the cord.

17 Do not turn the appliance on or off by plugging or unplugging the power cord.

18 Refer all servicing to qualified service personnel. Servicing is required when the appliance has been damaged in any way, such as the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the appliance, the appliance has been exposed to rain or moisture, does not operate normally, or has been dropped.

19 To reduce the risk of fire or electric shock, do not expose this appliance to rain, moisture, dripping, or splashing, and no objects filled with liquids should be placed on top of it.

20 Do not use extension cords or ungrounded (two prong) adapters.

21 This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

22 Children should be supervised to ensure that they do not play with the appliance.

23 If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified person, in order to avoid a hazard.

24 Take off the doors and leave the shelves in place so that children may not easily climb inside.

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:

1) Take off the doors

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.

1.2Safety instruction for refrigerant

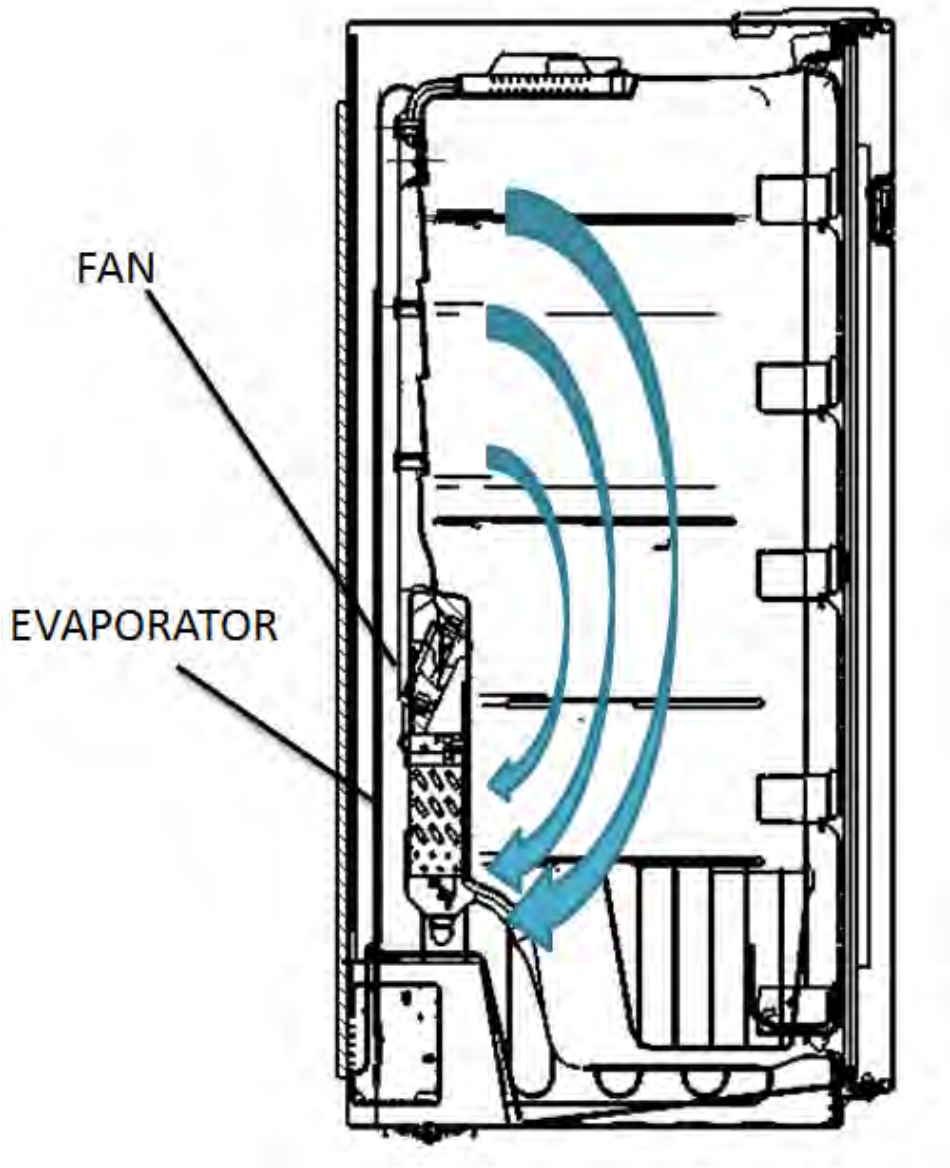
WARNING Explosion Hazard.

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

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:



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

1） Full air-cooling and frost-free design

2）Electronic temperature control system with more accurate temperature control.

3）Open delay alarm function

3.Installation and commissioning

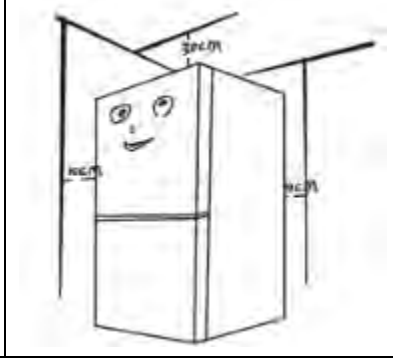
3.1Handling

1) Protecttherefrigeratorinmovingit Sameasshownasleftphoto,pleasemoveitbyhandcartwithcushion 2) Removeallpackingmaterialsandbottomcushion,then moveintohouseforplacement 3) Aftermovingittoappropriatelocation,waitfor2hoursbeforepoweron.	

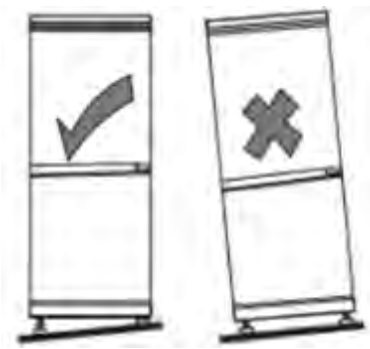
3.2Disassembly (None)

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

3.3 Installation location

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

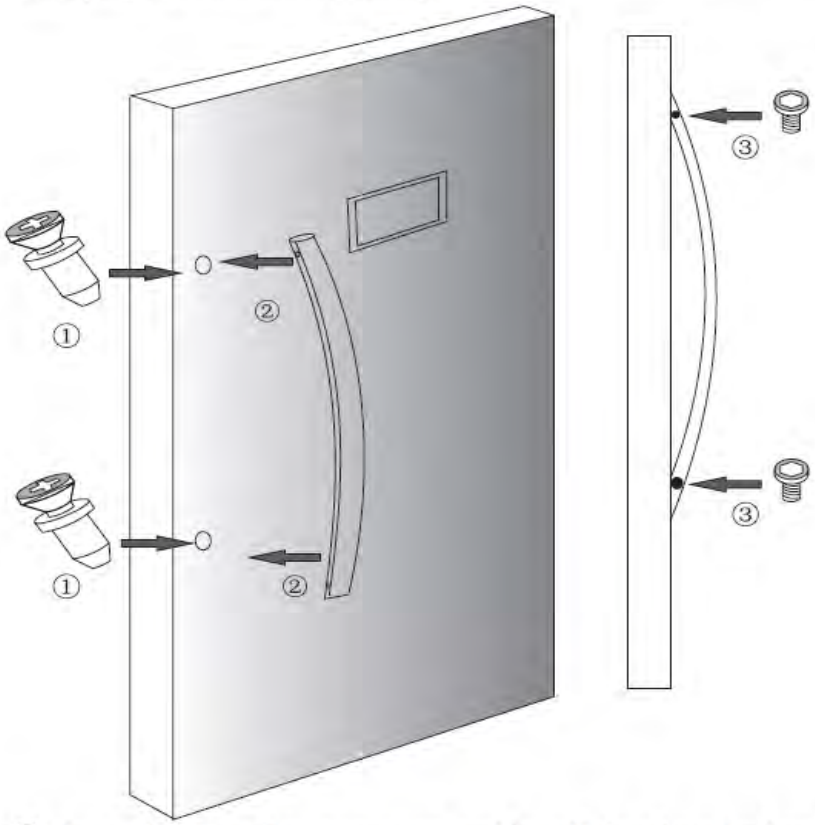
3.4 Leveling of the refrigerator

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

3.5Change the door opening direction(None)

3.6 Installation of handle

Note: Figures in the user manual are only for reference. The actual product may differ slightly.
The refrigerator must be disconnected from the source of electrical supply before attempting the installation of accessory.



①take out the two crisscross-screw;and install them into the door holes; turn the screws till to the bottom;

②aim at screws to install the handle;

③install the screws at the side of the handle and turn the screws till them very tight.

NOTE:the screws and wrench are in the plastic bag.

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

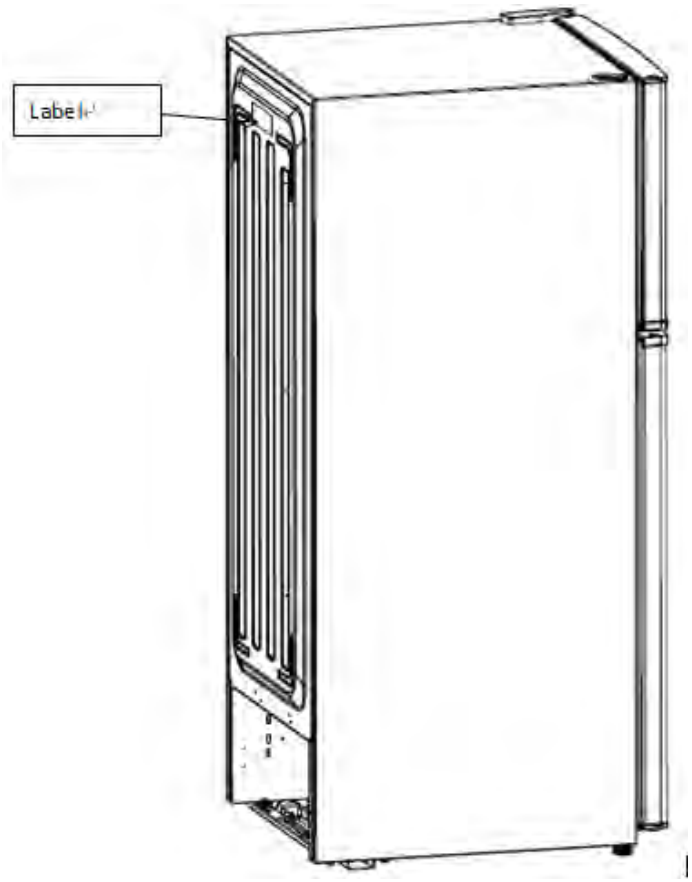
3.8 **Adjustment to level the door(None)**

3.9 **Adjustment to shelves(None)**

4.Terms

4.1 **Definition of model(None)**

4.2**Location of nameplate**



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

5.Product specification

5.1 typespecification(None)

5.2 Electrical parameters

Product Name			SO-BD386WE-UT	UL-BD386WE-SQ	UL-BD386WE-FQ
Product Code			22031010000120	22031010000112	22031010000107
Name	**Item**	**Type**	**Specification**	**Specification**	**Specification**
Compressor	**Compressor**	/	PE50H1F-4SVL	EE50H1C	HYE60Y42
	Starter	**PTC**	8EA19C3/QP2-15/ QP2-15	QPE2-A4R7MD3	QP2-4R7
	Overload protector	**OLP**	3TM166TF2/DRB 18T61A1	DRB31T61A1	DRB33S61A1
	Winding resistance of compressor wiring terminal		Rmc:10-20Ω Rsc:30-50Ω Rms=Rmc+Rsc	Rmc:10-20Ω Rsc:30-50Ω Rms=Rmc+Rsc	Rmc：10～20Ω Rsc：30～50Ω Rms=Rmc+Rsc
	Variable frequency driver board	/	/	/	/
Motor	**Fan motor of the freezing chamber**		DC12V/≤4W	DC12V/≤4W	DC12V/≤4W
	Ventilation door of the refrigerating chamber	/	/	/	
	Condensation fan	/	/	/	
Lights inside the refrigerator	**Lights inside the freezing chamber**		240V/40W	125V /40W	125V /40W
	Lights inside the refrigerating chamber	/	/	/	/
	Switch of the refrigerator door	mechanicals witch	sector	sector	sector

5.3Inside temperature

Temperature tolerance ≤ 2 ℃

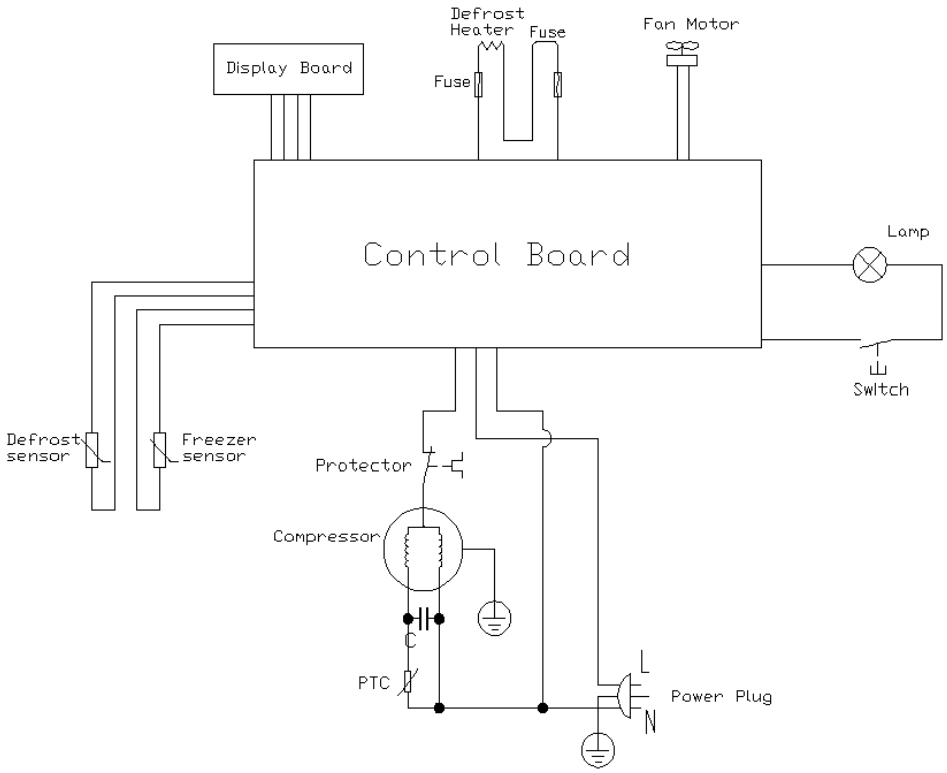
Compartment	The highest (°C)	Lowest (°C)
Freezing	-24	-26
Refrigerating	/	/
Variable temperature	/	/

5.4Defrosting parts

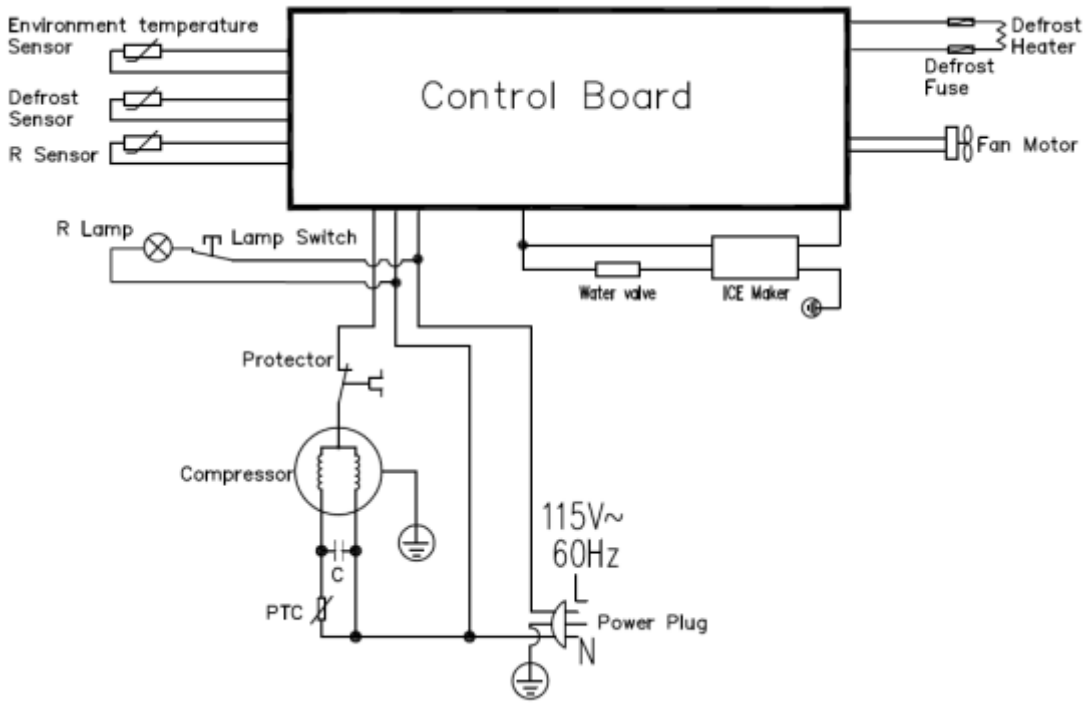
Defrosting period	Initial defrosting period	Normal defrosting period
	Temperature is lower than 0 °C	6~24 hours
Defrosting sensor	NTC	B3839
Thermal fuse	Can't be restored	77℃
Defrosting heater in freezing chamber	Steel pipe	230V/180W 115V/180W

5.5Circuit diagram

SO-BD386WE-UT_22031010000120

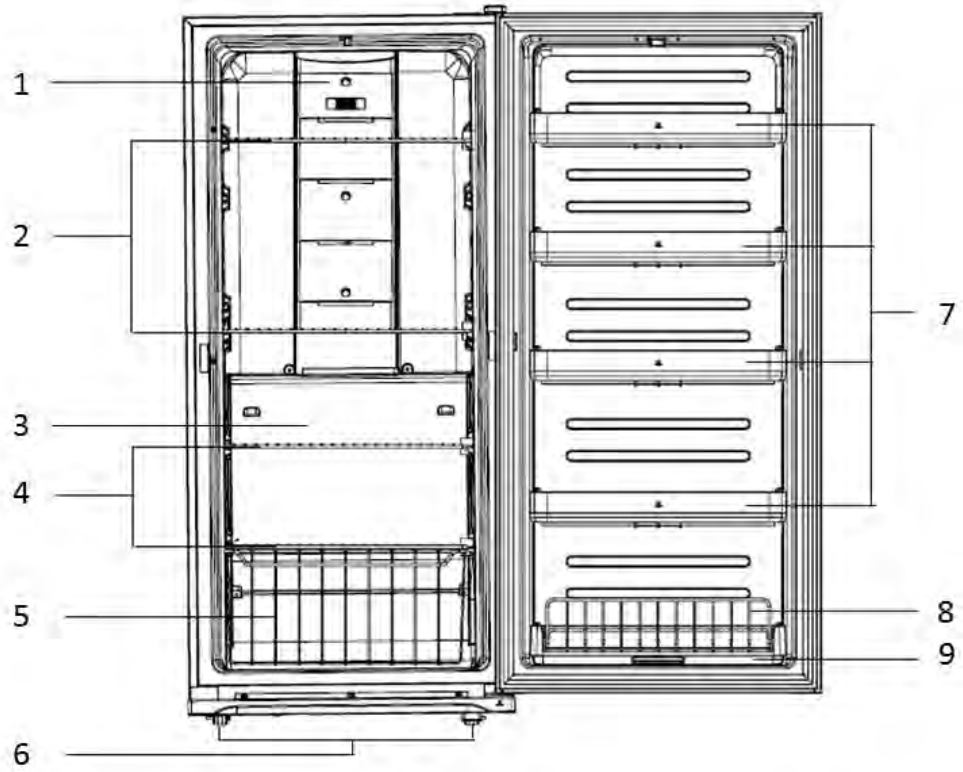


UL-BD386WE-SQ_22031010000112(UL-BD386WE-FQ_22031010000107)


Environment temperature Sensor
Defrost Sensor
R Sensor
Control Board
Defrost Heater
Defrost Fuse
Fan Motor
R Lamp
Lamp Switch
Water valve
ICE Maker
Protector
Compressor
C
PTC
115V~
60Hz
L
N
Power Plug

6.Internal view and dimension

6.1Main parts and their names



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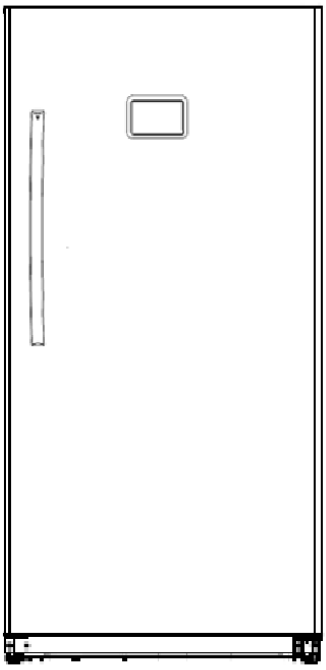
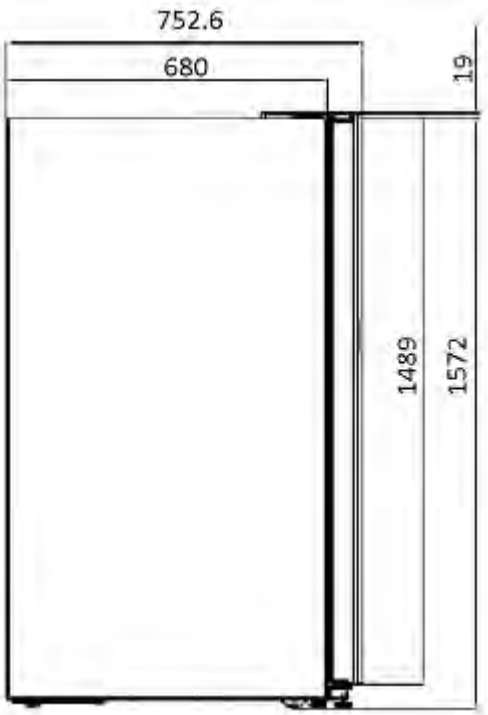
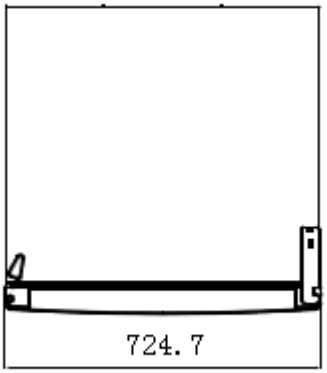
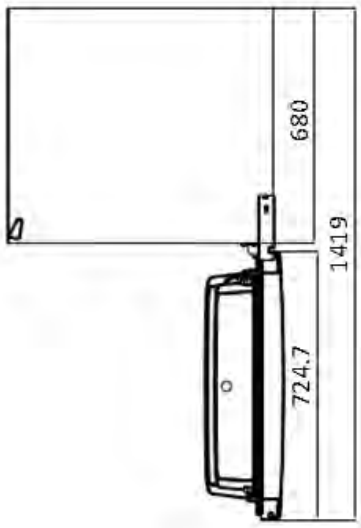
Freezing chamber	Refrigerator chamber
1.Air duct front plate	7.Freezer door tray
2.Steel wire storage rack（big）	8.Reversible adjustable shelf
3.Air duct assembly of freezer	9.Refrigerator door tray
4.Steel wire storage rack（small）	
5.Steel wire drawer	
6.Leveling feet	

6.2External dimension

Front view	Side view

<table>
<tr><td>  </td><td> 
</td></tr>
<tr><td>Down view</td><td>Open Door</td></tr>
<tr><td> 
</td><td> 
</td></tr>
<tr><td colspan="2">Maximum open angle of door(135°)</td></tr>
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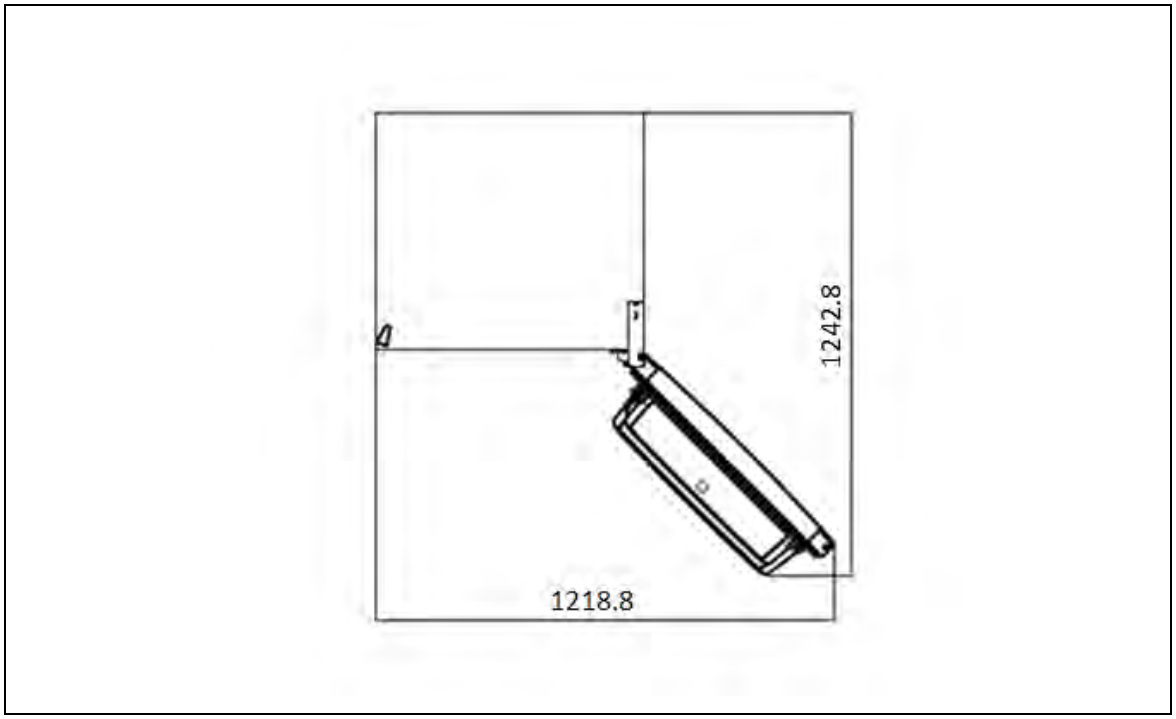
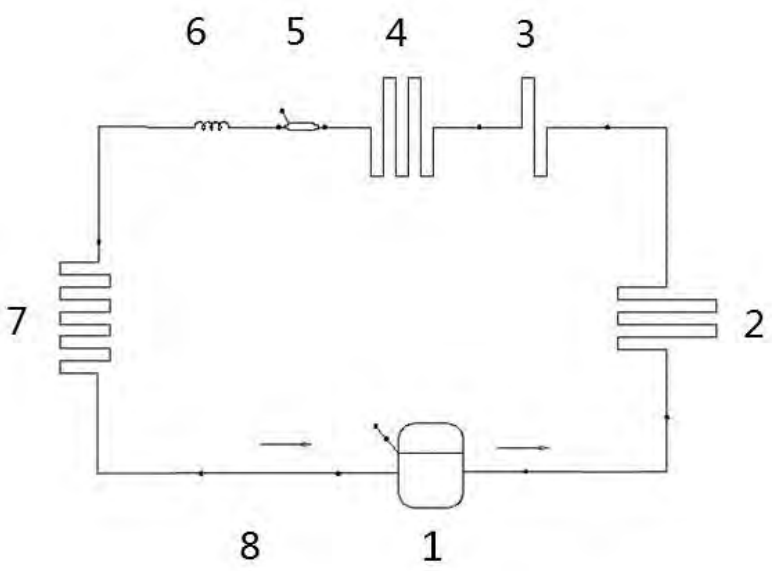


(The picture is only for reference, and specific appearance and configuration are subject to the real product)

7.Refrigerating piping system and circulating route of cooling air

7.1 Refrigerating piping system

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


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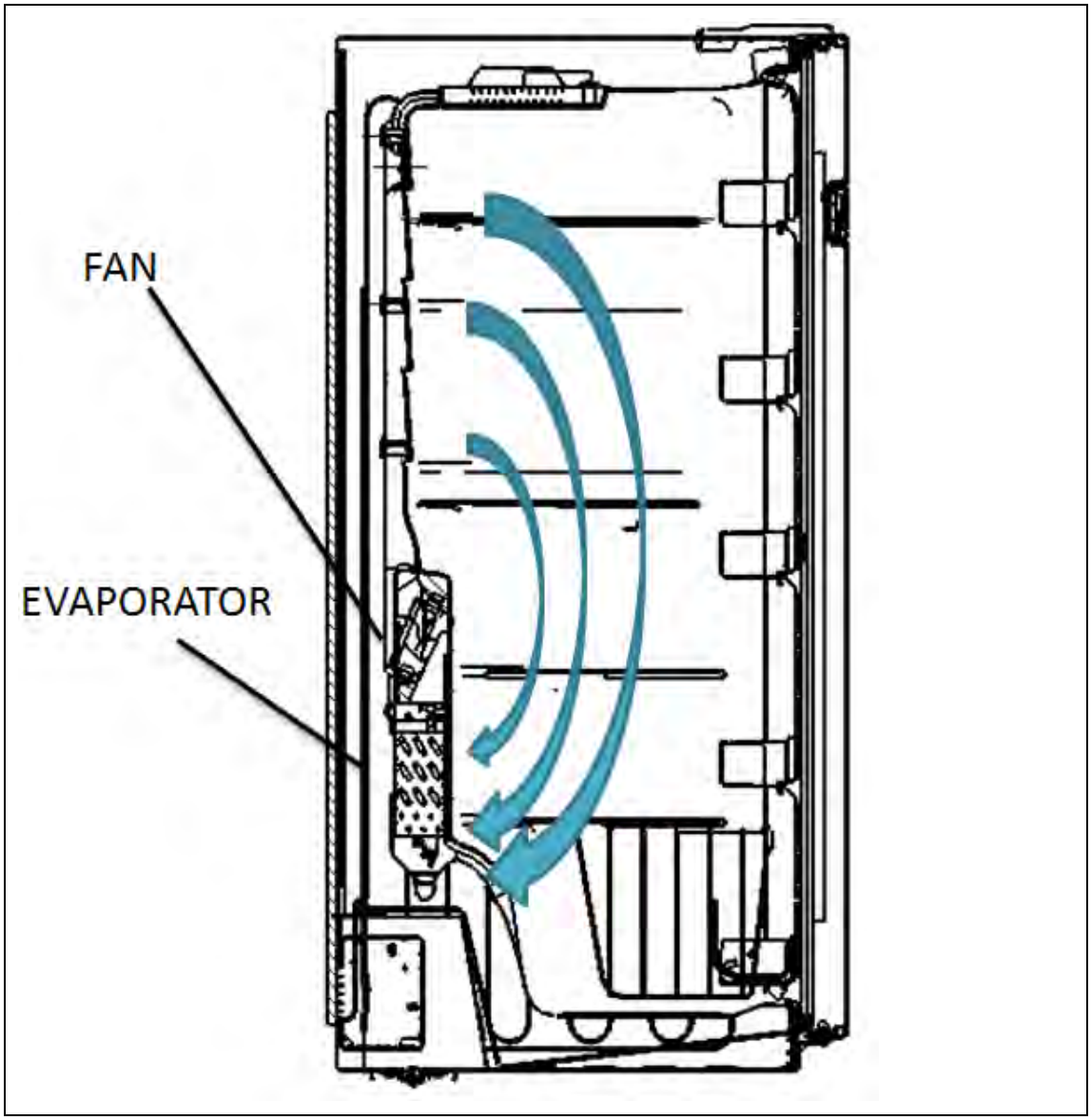
7.2Circulating route of cooling air



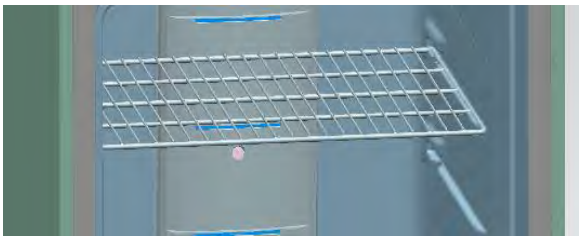
(The picture is only for reference, and specific appearance and configuration are subject to the real product)

8. Dismantling of parts

8.1 Parts on the door

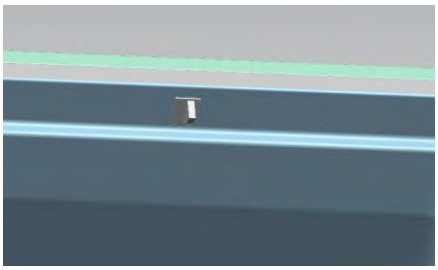
Door seal	
Door seal is installed into door liner groove. 1） Open the refrigerator door; 2） Take the door seal ①out of door liner;	
Door tray	
Lift up the bottle frame and take it out from the door liner of the refrigerator.	
rollover beam	None

8.2Parts inside the refrigerator

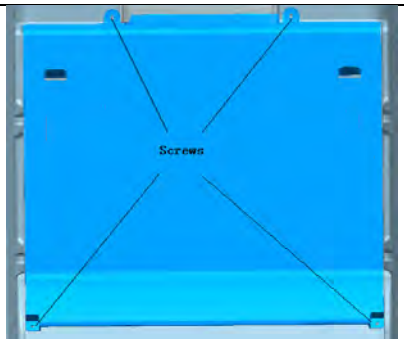
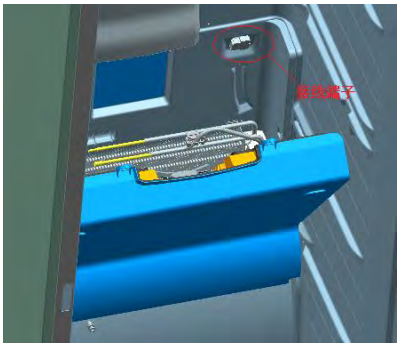
Shelves	
1） Pull out the partition plate completely. 2） Lift it up and take it out from the refrigerator.	
Ice tray	None
Refrigerator tray	None
Drawer	None

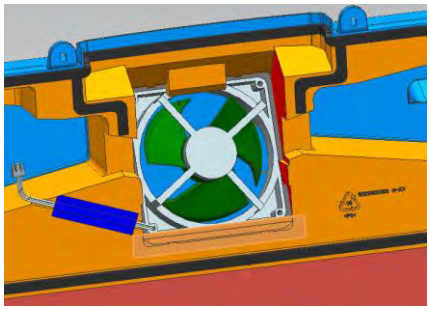
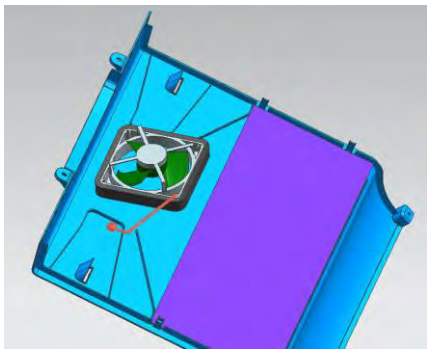
8.3Light system

Light

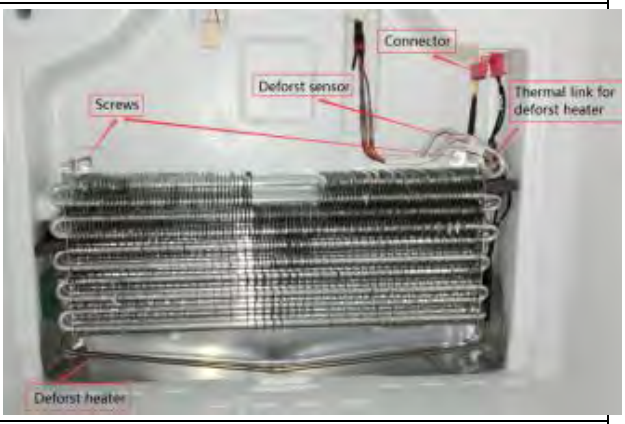
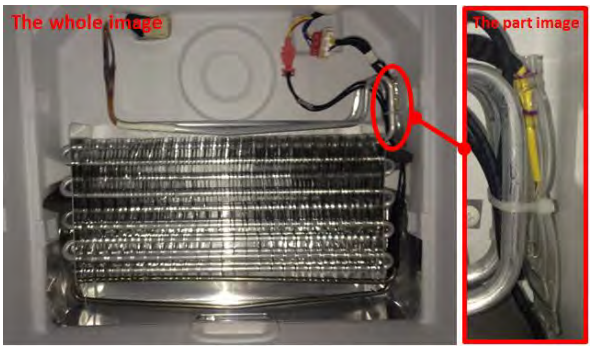
Light of the refrigerating chamber is located upper chamber 1） Remove the lamp cover 2） Remove the bulb	 
Light switch	
There is a light switch on the side wall of the refrigerating chamber. 1） Loosen the hook with small normal screwdriver and pull out the switch until the wire connector reveals.	

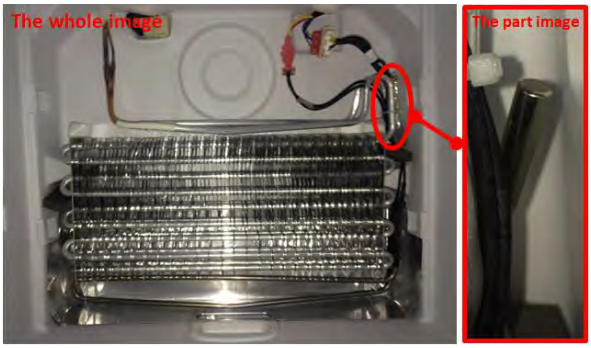
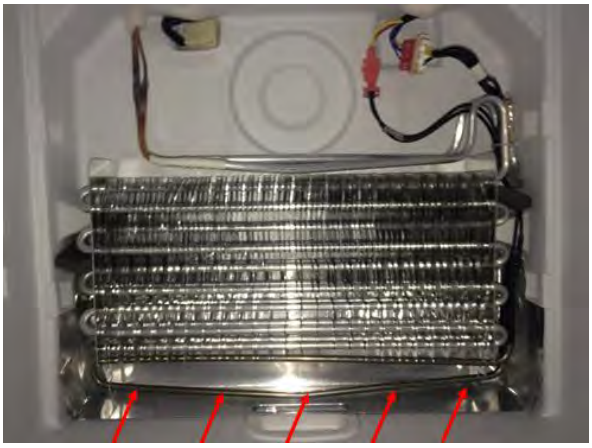
8.4 Air duct and fan motor

Air duct components in freezing chamber	
All accessories in the freezing chamber should be dismantled before removing the air duct components. 1） Remove 2 screws on the cover plate of the freezing air duct using a cross screwdriver; 2） Pull out the connector terminal of the fan motor;	 
Fan motor	

1) Remove the fixed tape on the surface of motor 2) Hold the corner, and dismantle the motor from one side(without plastic clips) 3) Remove the sealing washer by force 4) Separate the fan motor and fin blade(pull by force) 5) Change the motor, the reverse operation is for assembly	 
Damper assembly	None

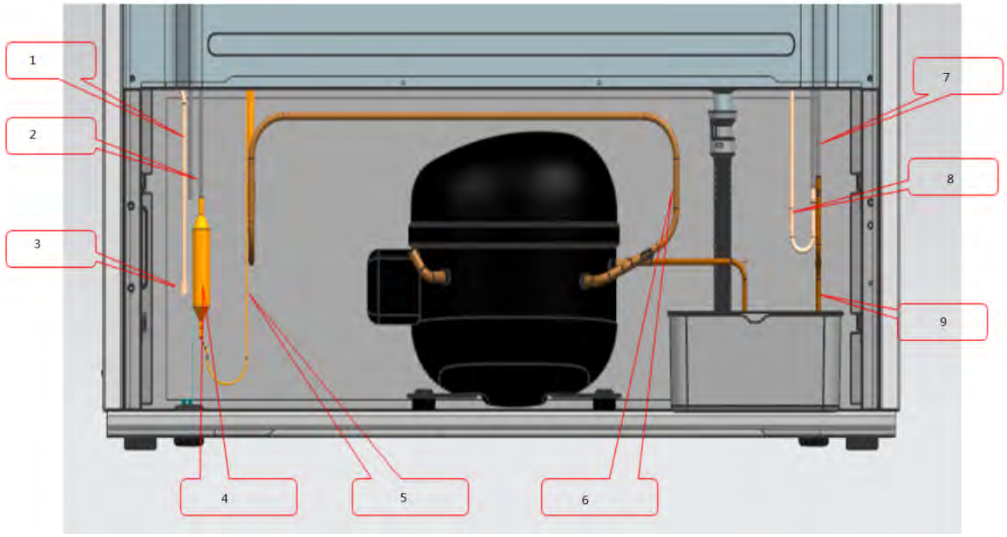
8.5Evaporator and temperature sensing system

Evaporator in freezing chamber	
1） Remove the air duct components in freezing chamber. 2） Disconnect all connectors. 3） Remove the welding on inlet and outlet tubes. 4） Remove two screws which are used to fix the evaporator and remove the evaporator.	
Components on the evaporator	
Fuse The fuse is located on top of the evaporator 1） connect the fuse connector. 2） Cut off the band which fixes the fuse. 3） Separate the fuse and the evaporator. *,Don’t break the welding of the evaporator in case that only the fuse needs to be replaced.	

Defrost 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. *,Don't break the welding of the evaporator in case that only the sensor needs to be replaced.	
Defrost heater The defrost heater is located at bottom of the evaporator. 1） Disconnect the connector of defrost heater. 2） Cut off the band which fixes the defrost heater. 3） Take off the defrost heater from the evaporator. *,Don't break the welding of the evaporator in case that only the defrost heater needs to be replaced.	
Ambient temperature sensor	
Ambient temperature sensor	None
Ambient temperature sensor	None
The ambient temperature sensor is placed in the display panel, it send the signal to the MPU	
Freezer sensor	
Freezer temperature sensor is placed in the upper position of air duct cover	

8.6Compressor case

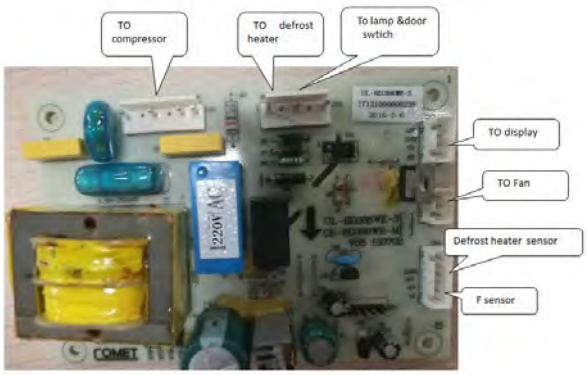
Rear cover and compressor case	None
Condenser fan moto	None
Terminal box of the compressor	None
Standby condenser	None
Piping system in the compressor case	



anti-condensation piperight condenseroutlet of anti-condensation pipedry filterSuction pipe assembly	transition pipeleft condenseranti-condensation pipedischarge and evaporating pipe
Starter and protector of the compressor	
1. Remove the screws 1） Two screws outside 2） One screw inside	
2. Remove the clipping strip Slowly pull it out	
3. Remove the protective cover 1）Pry the protective cover slowly from the upper part, 2）Pull it out and remove it.	 

4. Remove the starter and protector Unplug the starter and protector (you can use a screwdriver to pry it slowly)	
5. The reverse process can complete installation.	/

8.7Display and main control panel

Display	
1)use slotted screwdriver to prize up the display PCB assembly slightly, to get the display PCB assembly 2)use cross screwdriver to remove the 4 pcs screws, to dismantle the display PCB 3)Unplug the wiring connector, change the display PCB, the reverse operation is for assembly	
main control panel	
1) Use cross screwdriver to remove the 2 screws, to get the main PCB assembly 2) Use slotted screwdriver to prize up the cover of main PCB box slightly 3) Use cross screwdriver remove the 1 pc screw of main PCB,and dismantle the main PCB 4) Unplug the wiring connector,change the main PCB, the reverse operation is for assembly	

8.8 Bar counter(None)

Disassembly and installation of bar counter	None
Disassembly and installation bar doorseal	None

8.9 Water dispenser(None)

Disassembly and installation of water valve	None
Disassembly and installation of water tank	None

8.10 Ice maker(None)

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

9.2 Button

A Quick Freeze button
B. Switch button of Fahrenheit display and Centigrade display
C. Cancellation button of alarm
D. Lock/Unlock button
E. Temperature adjustment button (warmer)
F. Temperature adjustment button(Colder)

9.3 Display screen

1. Freezer/Refrigerator temperature display zone
2. Indicated lamp of door open alarm
3. Indicated lamp of high temperature alarm

9.4 Display

·when power on the refrigerator, the display panel lighten for 3 seconds, and the start-up tone rings at same time, if it is the 1st time to power on the refrigerator, the default temperature setting is -18℃

·Normal display

Digital display zone: if there is any failure happen, it will display the error code, if no, it displays the setting temperature,

·Display control(normal working mode, inspection mode)

If in locked status, the display panel will darken if there is no any operation on control panel for 30 seconds, any operation on control panel will wake up the display panel.

If there is failure happen, and there is corresponding error code related to this failure, the error code will

display for 30 seconds, then darken.

9.5 Setting of the gear

9.5.1 Lock and unlock
In unlocked status, press the button(LOCK/UNLOCK) for 3S,to enter into the locked status
In locked status, press the button(LOCK/UNLOCK) for 3S,to enter into the unlocked status
Note： All below operations must be in unlock status
9.5.2 Switch between Fahrenheit and Centigrade
When it displays Centigrade, press the switch button(℃/℉),it will be switched to Fahrenheit display
When it displays Fahrenheit, press the switch button(℃/℉),it will be switched to Centigrade display
9.5.3 Temperature setting and the switch between refrigerator and freezerPress temperature adjustment button(E&F) to set the temperature, during the setting ,the temperature digit will blink, the temperature setting range -14~-22℃(not change circularly); it will quit setting status and take effect with the setting till the digit blink for 10 seconds.(it also can take effect manually if press the Lock/Unlock(D) button after temperature setting)
9.5.4Quick freeze function
1. Entry condition：
If the refrigerator works as a freezer, press Quick Freeze button to enter into quick freeze mode, the temperature digit displays -24℃ or -11℉
2. working process
During working in quick freeze mode, the compressor switch on, the default time is 6 hours
3. Exit condition
1.The quick freeze mode will exit automatically after works for 6 hours or 48 hours
2. Press quick freeze button to exit quick freeze mode
3. when operate the temperature adjustment button, the quick freeze mode will exit
If the quick freeze mode exit, the product will work according to last temperature setting

9.6 Control of standby function(None)

9.7 Control of ice maker (None)

9.8 Fault code and solutions

Fault code	Fault content	Error Code	Steps for maintenance methods
E2	Freezer temperature sensor fail	E2	Step 1: to check whether the CN4 wiring connector connect well, unplug and plug in again; Step2: to check whether there is foreign object on the wiring connector of sensor, unplug the connector by refering to chapter 8.5, and check the Ohmic value by comparing with the resistance sheet Step3: change the main PCB Step4: Change the wiring harness
E5	Defrosting sensor fail	E5	Step 1: to check whether the CN4 wiring connector connect well, unplug and plug in again; Step2: to check whether there is foreign object on the wiring connector of sensor, unplug the connector by refering to chapter 8.5, and check the Ohmic value by comparing with the resistance sheet Step3: change the main PCB Step4: Change the wiring harness
E6	Ambient temperature	E6	Step1: to check whether the whether the wiring harness connected well

	sensor fail		Step2:change the main PCB Step3:change the display PCB
E9	F room high temp alarm	E9	Check the temperature of F room and check whether the door seal fan motor and compressor of F room operate normally

9.9 Defrosting function

1.Defrost the freezing chamber as per the accumulative operation time of the Compressor2.If power failure occurs abruptly to the Compressor and the defrosting sensor in freezing chamber is less than 0 **°C** after powering on, then first conduct defrosting once. If more than 0 **°C**, then defrosting is not needed.
3.After that, conduct defrosting according to using condition and ambient temperature in a period between 6 and 24 hours as per the accumulative operation time of the Compressor.

9.10 Test mode

Mandatory Defrost

1) enter into

Press the button both“∧”and “∨”for 3senconds, it will enter into mandatory defrost, the display panel will display figure “3”

If the defrosting sensor failure happen, the heater will work 20 minutes, then turn off,. If the defrosting sensor failure happen during the defrosting, the heater only work 3 minutes after that, then turn off

2) Exit

★ exit manually: under the state of mandatory defrost, press both button both “∧”and “∨” for 3 seconds, it will exit the mandatory defrost after 3 minutes

★ Exit automatically : defrost for 3 minutes ,then judge the exiting condition for exiting.

3) working state, same as the normal defrosting

9.11 Self-diagnosis

Entry condition

With 3 seconds after power on, if there is no sensor failure and the actual measured temperature ≥ 0℃, it will enter into self-diagnosis

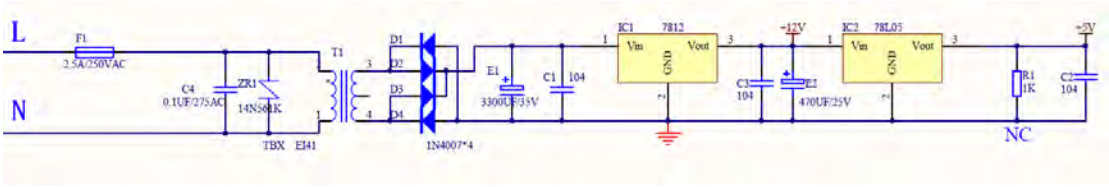
Process of Self-diagnosis

1. Switch on the defrosting heater for 5 seconds, then switch off for 5 seconds
2. Switch on the fan motor for 5 seconds, then switch off for 5 seconds
3. turn on the fan motor and compressor at same time
4. it will exit the self-diagnosis after 20 minutes.

If there is sensor failure happen, it will exit the Self-diagnosis immediately

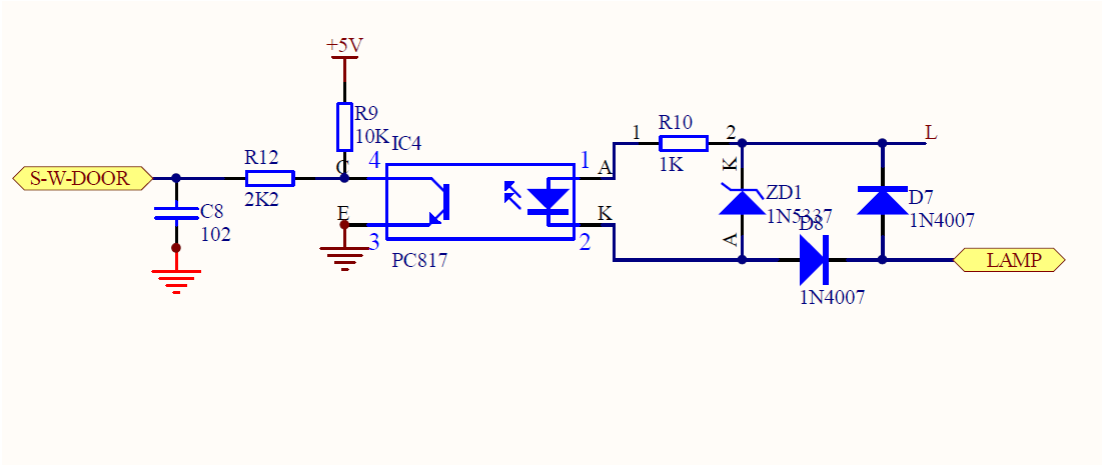
10.Circuit description

10.1 Power Supply



AC input power will be treated by transformer ,and rectified when through D1~D4,then filtered by E1 capacitor .it will output stable DC12V after through there terminal regulator 7812, DC12V is for provide power to relay(control strong electricity), the relay is for control the on-off of compressor, and the defrosting heater. DC12V will be changed into DV5V after through modifier 7805, 5V is for provide power to main PCB , main PCB monitors the status of inside temperature.

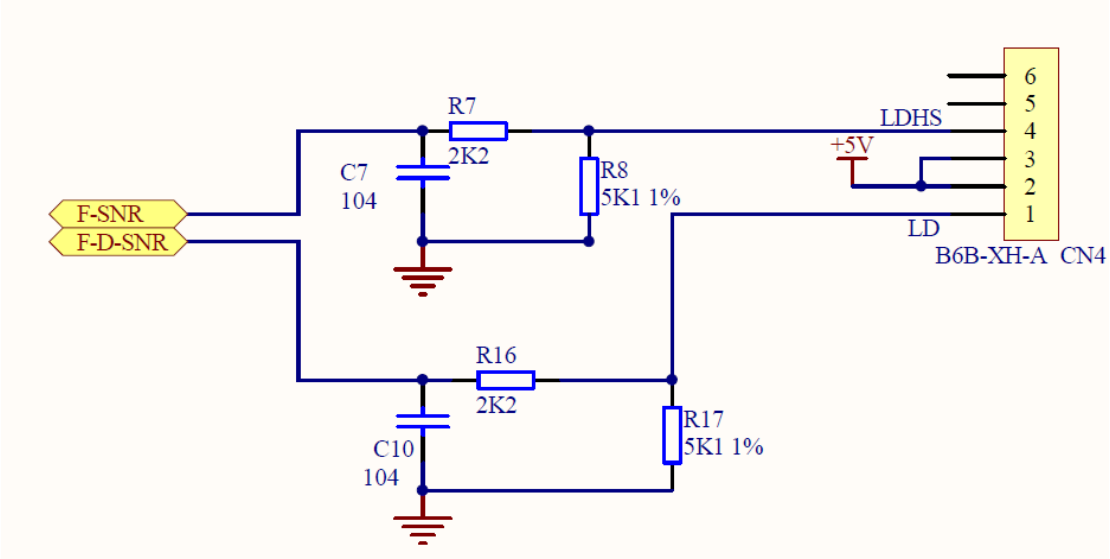
10.2Door trip test circuit



Current of strong electricity of lamp will be output onto terminal of weak currnet side by PC817 opto-isolator, then reduced voltage by R10,and rectified by D7 and D8. When door is opened , the circuit of switch is closed, and the PWM wave is detected by the terminal of weak current, and main PCB receive the signal. When door is closed, the circuit of switch is open, no wave is detected, and main PCB judge it as the signal of door closed

10.3Temperature test circuit

It's conducted by the sensor, making use of the characteristics that resistance value reduces as the temperature increases, and the thermistor that has temperature coefficient of resistance in medium temperature.



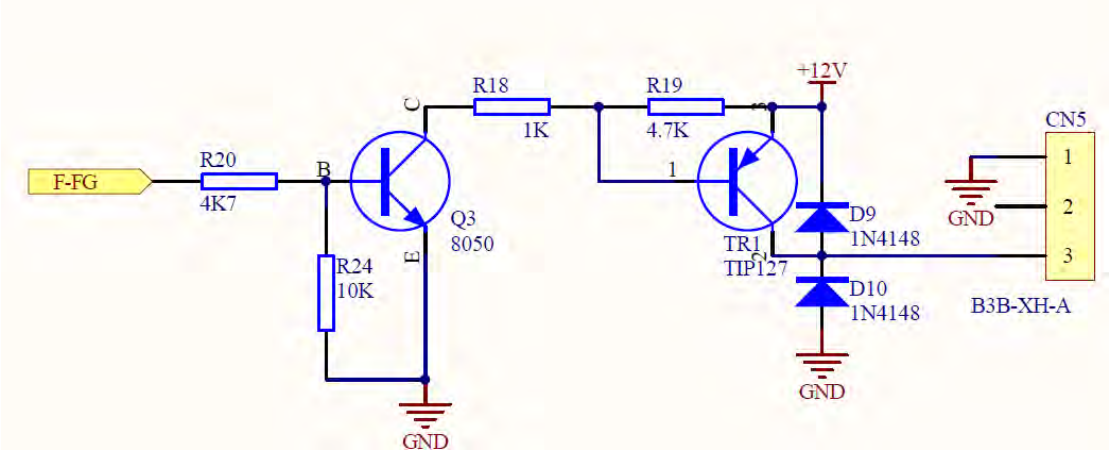
The characteristic that resistance value reduces as the temperature increases is deemed to have negative slope or negative temperature coefficient (NTC), and such thermistor is called as NTC thermistor. The resistance value changes sensitively with temperature and typically changes 7% ~ 3% per degree centigrade. Sensor used in the refrigerator is NTC thermistor.

There is following computing formula for the sensor:Sampling voltage / reference voltage = R1 / (RNTC + R1)

AD value / reference AD value = R1 / (RNTC + R1)

The reference voltage is 5V, RNTC is the resistance value of the sensor, R1 is R31\R32\R33 in schematic diagram that is 5.1K

10.4**Fan motor circuit of the freezing chamber**



The fan in the freezing chamber is running when the compressor is operating. Check 12V and FAN to see if there is a voltage of 12V. When in normal operation, the fan is in low level and the voltage between 12V and FAN is more than 11V. If theres no voltage when the compressor is in operation, fan motor or electric control panel can be replaced.

10.5Refrigerator fan motor circuit (None)

10.6Condensing fan motor circuit (None)

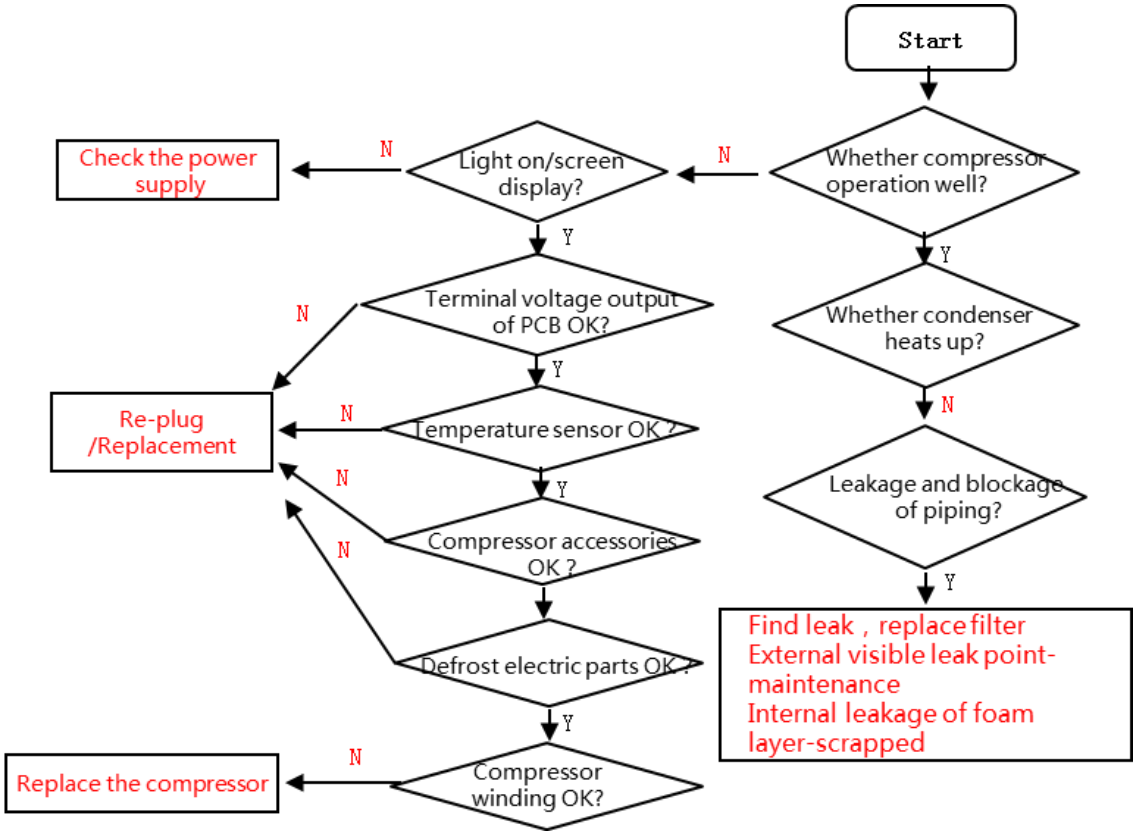
10.7Damper motor circuit (None)

10.8Resistance value of the sensor (R/T)

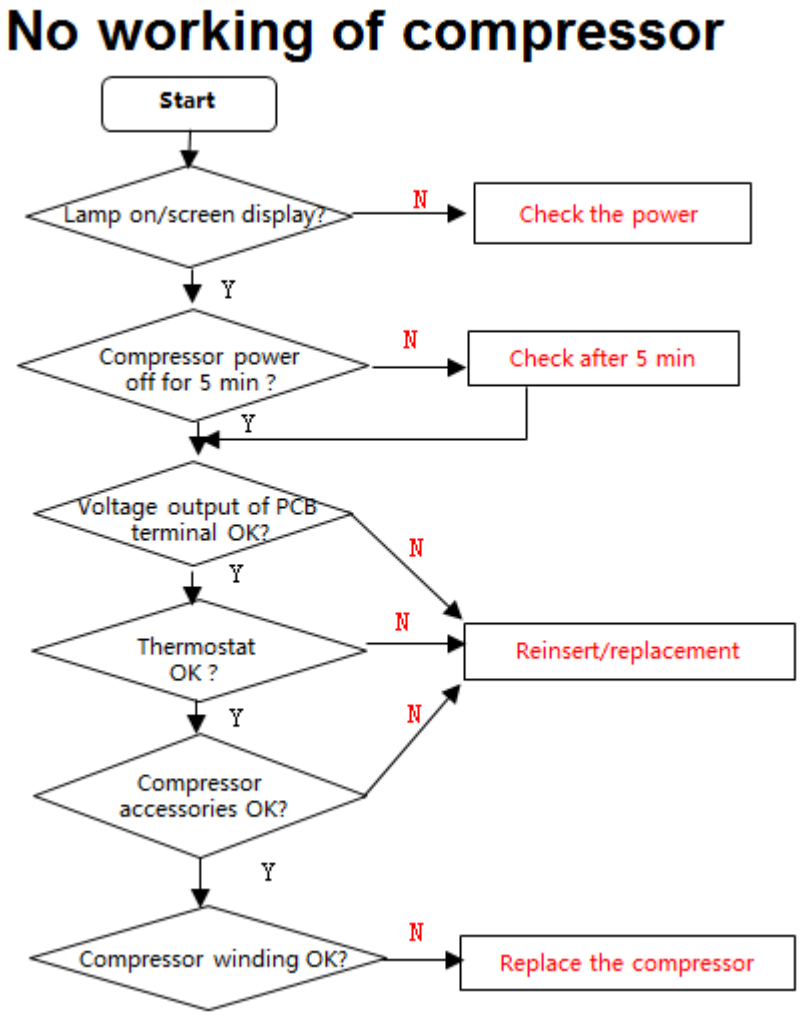
Tx(℃)	R (KΩ)	Tx(℃)	R (KΩ)	Tx(℃)	R (KΩ)	Tx(℃)	R (KΩ)	Tx(℃)	R (KΩ)
-30	33.81	-15	14.31	0	6.495	15	3.141	30	1.617
-29	31.85	-14	13.55	1	6.175	16	2.999	31	1.55
-28	30.01	-13	12.83	2	5.873	17	2.865	32	1.486
-27	28.29	-12	12.16	3	5.587	18	2.737	33	1.426
-26	26.68	-11	11.52	4	5.315	19	2.616	34	1.368
-25	25.17	-10	10.92	5	5.06	20	2.501	35	1.312
-24	23.76	-9	10.35	6	4.818	21	2.391	36	1.259
-23	22.43	-8	9.82	7	4.589	22	2.287	37	1.209
-22	21.18	-7	9.316	8	4.372	23	2.188	38	1.161
-21	20.01	-6	8.841	9	4.167	24	2.094	39	1.115
-20	18.9	-5	8.392	10	3.972	25	2.005	40	1.071
-19	17.87	-4	7.968	11	3.788	26	1.919	41	1.029
-18	16.9	-3	7.568	12	3.613	27	1.838	42	0.9885
-17	15.98	-2	7.19	13	3.447	28	1.761	43	0.9506
-16	15.12	-1	6.833	14	3.29	29	1.687	44	0.914

11.Troubleshooting Method

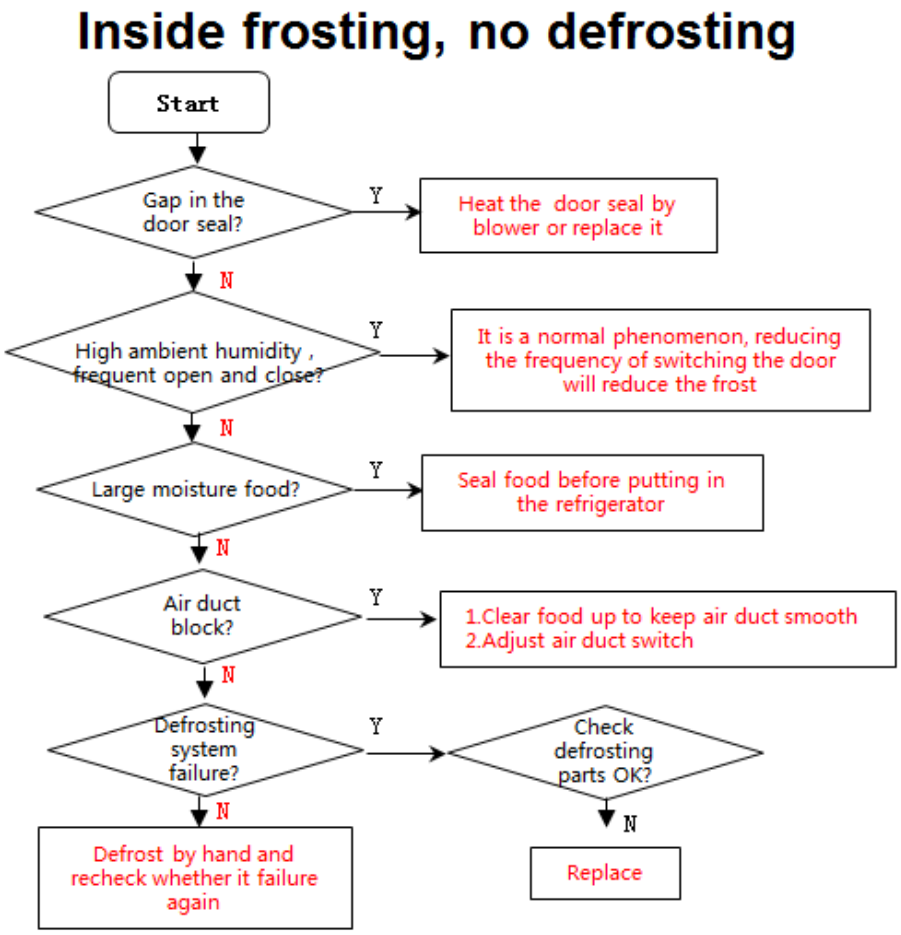
11.1 No refrigeration



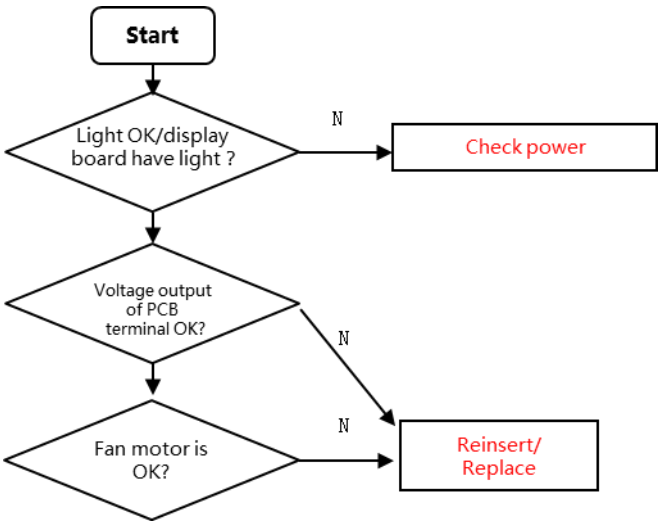
11.2 **Compressor failure**



11.3 **Defrosting is not working**



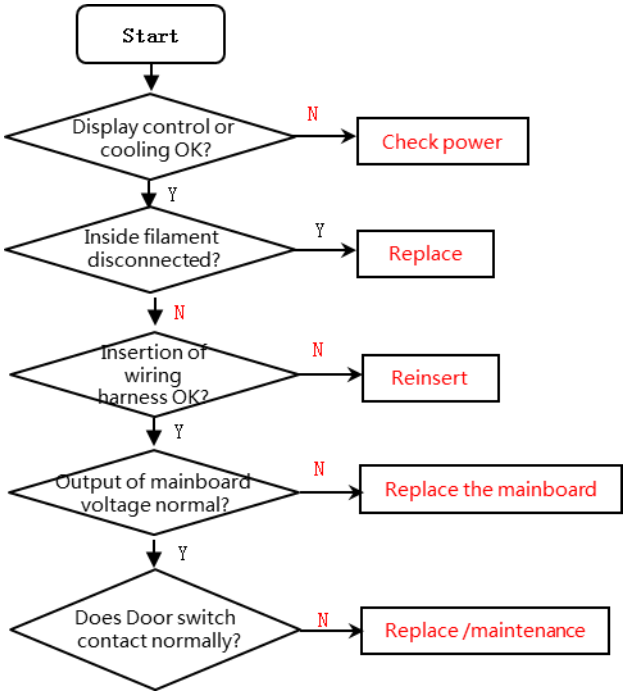
11.4 **Fan in the freezing chamber is abnormal**



Refer to this method for other fans.

11.5 **Damper is abnormal(None)**

11.6 **Lights inside the refrigerator don't light up**



12. Figures and details of repair parts(Documents are provided separately)

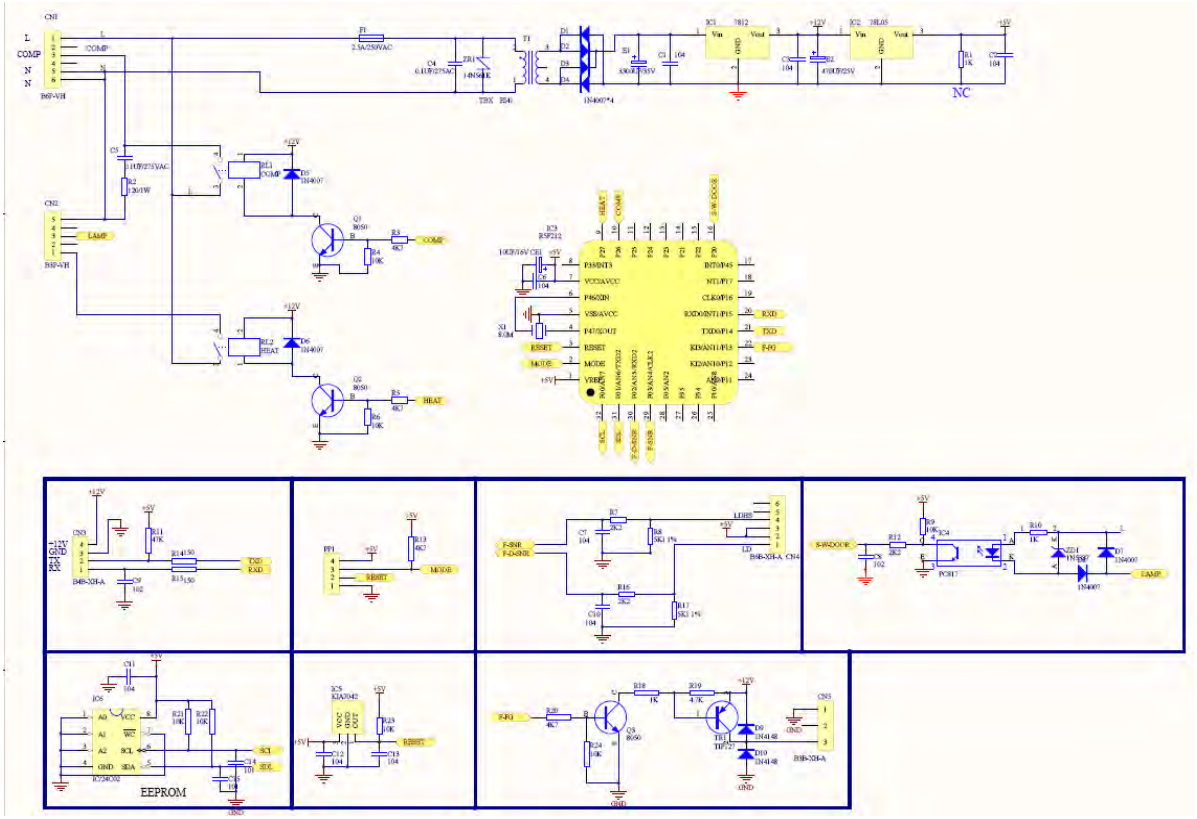
12.1 Figure

12.2 List of parts and components

13Appendix:

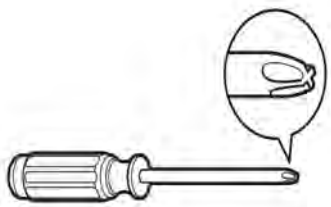
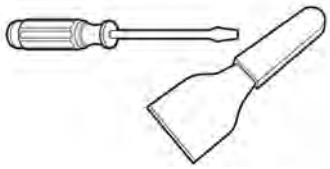
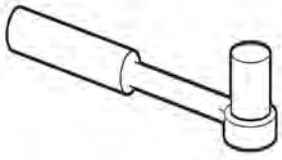
13.1Electrical Schematic Diagram

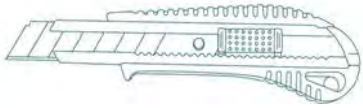
(Model:***)



13.2refrigerator maintenance tooling and equipment and material

Tooling

No.	Name	Photo	Main Usage
1	Phillips screwdriver		screw assemble and disassemble
2	slotted screwdriver/scraper		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

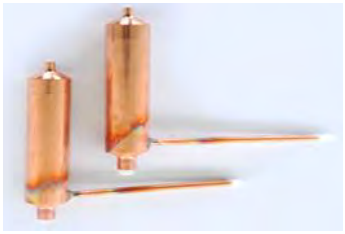
Equipment

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,vacuumorchargerefrigerantwillbeused.
6	hand leak detector		welding point leakage detect, if no, use soap-suds

material

No.	Name	Photo	Main Usage

1	Process pipeline		Chargetherefrigerant
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

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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