

# Haier SERVICE MANUAL

Order No.Ref1304S001V0

## Refrigerator

**MODEL:HRF-628AF6/IF6**



### WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings and cautions to advise non-technical individuals of potential dangers in attempting to service a product. Product powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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**Haier Group**

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## Chapter 1 General Information

### 1-1. General Guidelines

When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

- 1) Leakage Current Cold Check
- 2) Leakage Current Hot Check
- 3) Prevention of Electro Static Discharge (ESD) to Electrostatic Sensitive

### 1-2. Insurance test

1. Check if there is any leak of current.
2. Cut out the power supply before the repair to avoid an electrical shock hazard.
3. In the case of a live-line test, insulating gloves should be worn to avoid potential electrical shock.
4. Confirm the rated current, voltage and capacity before testing with any kinds of instruments.
5. Watch if the upper door is open when you check something at a lower position.
6. Take out every part in the cabinet before moving the machine, especially things like panels (e.g. glass shelf).
7. Please wear intact cotton gloves when repair any parts of the evaporator, so that scratches by the sharp fins can be avoided.
8. If there is a breakdown with the refrigeration system, please surrender the machine to the service center, else the leaked refrigerant may pollute the atmosphere.
9. The refrigerator use AC of 220V with a frequency of 50Hz.
10. A big fluctuation of voltage (exceed the range 187~242V) may cause a start failure of the refrigerator, a burn-out of the control panel and compressor, or an abnormal sound from the compressor in operation. In this condition an automatic voltage regulator over 60W should be added.
11. Take care not to damage the supply line. Don't yank at the line; pull the plug out gently from the receptacle. Don't press the line under the cabinet or step on it. Take care not to roll on or damage the supply line when moves the machine from the wall.
12. In the case of leakage of inflammable gases like carbon monoxide, open the door and windows. Don't pull out or insert the plugs of the appliance.
13. Don't touch the refrigeration surface of the freezing compartment when the refrigerator is in operation, especially when your hand is wet, else you may be glued to the surface.
14. Pull out the plug of power supply during clearance or power outage. Wait at least five minutes to resume the power supply in order to prevent damage to the compressor caused by continuous restart.

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## Photo used in this manual

The illustration and photos used in this Manual may not base on the final design of products, which may differ from your products in some way.

## 1-3. How to read this Service Manual

The meaning of each icon is described in the table below:



### Note:

A "note" provides information that is not indispensable.



### Caution:

A "caution" is used when there is danger, through incorrect manipulation, may damage equipment, loose data, get an unexpected result or has to restart (part of) a procedure.



### Warning:

A "warning" is used when there is danger of personal injury.



### Reference:

A "reference" guides to find additional information on a specific topic.

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## Chapter 2 Product Feature

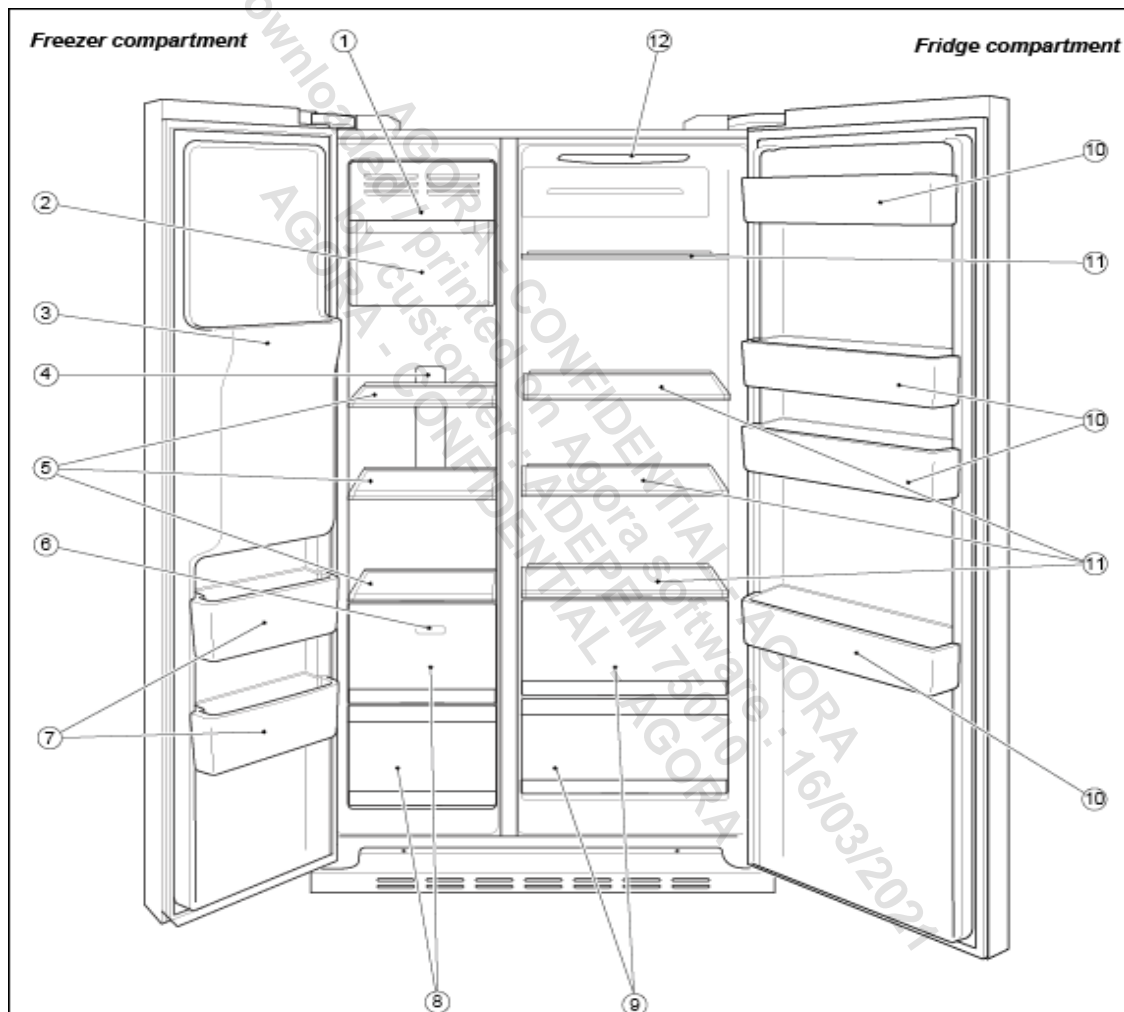
### 2-1. Specifications

Model		HRF-628AF6	HRF-628IF6
<b>1. Product identification</b>			
Description of appliance		Side By Side	Side By Side
Type of appliance(FS = free standing, BI = built-in)		FS	FS
Supplier own brand		Haier	Haier
<b>2. Basic features</b>			
Climate class (SN=10~32°C, N=16~32°C, ST=18~38°C, T=18~43°C)		SN.N.ST	SN.N.ST
Gross capacity	l	610	610
Total net capacity	l	550	550
Net capacity refrigerator compartment	l	375	375
Net capacity freezer compartment (total)	l	175	175
Freezing capacity	kg/24 h	10	10
Energy consumption	kWh/year	420	420
Energy consumption (EN153)	kWh/24 h	1.15	1.15
Max storage time by power failure (Freezer)	h	5	5
Refrigerant		R600a/80g	R600a/80g
<b>3. Control panel</b>			
External control display		LED	LED
Temperature range (from>to)	°C	(Fridge)9~1°C/ (freezer)-24~-14°C	(Fridge)9~1°C/(freezer)-24~-14°C
Super Cooling (Fridge)		YES	YES
Super Freezing (Freezer)		YES	YES
Stand-by function (Holidays)		YES	YES
<b>4. Basics datas</b>			
Voltage / frequency		220/50	220/50
Input power / mains fuse (intensity)	W /A	180/1.8	180/1.8
Lenght of cable/incl. plug	cm	349	349
<b>5. Packing dimensions</b>			
Unit dimensions without handle (H / W / D)	mm	1790*908*690	1790*908*690
Net weight	kg	120	120
Packing dimensions (H / W / D)	mm	1902*980*760	1902*980*760
Gross weight	kg	137	137

## 2-2. Main Functions

1. Single cooling system with air-cooled computer control, there is a freezer evaporator in freezing room, fridge room temperature is controlled by ON/OFF of electronic air damper.
2. Super bright LED& energy-saving, brighter& better reliability .
3. With automatically ice-making function: Can making ice automatically, and get ice, ice cubes or cold water through dispenser selection operation.
4. Fault code automaticly hiding function.

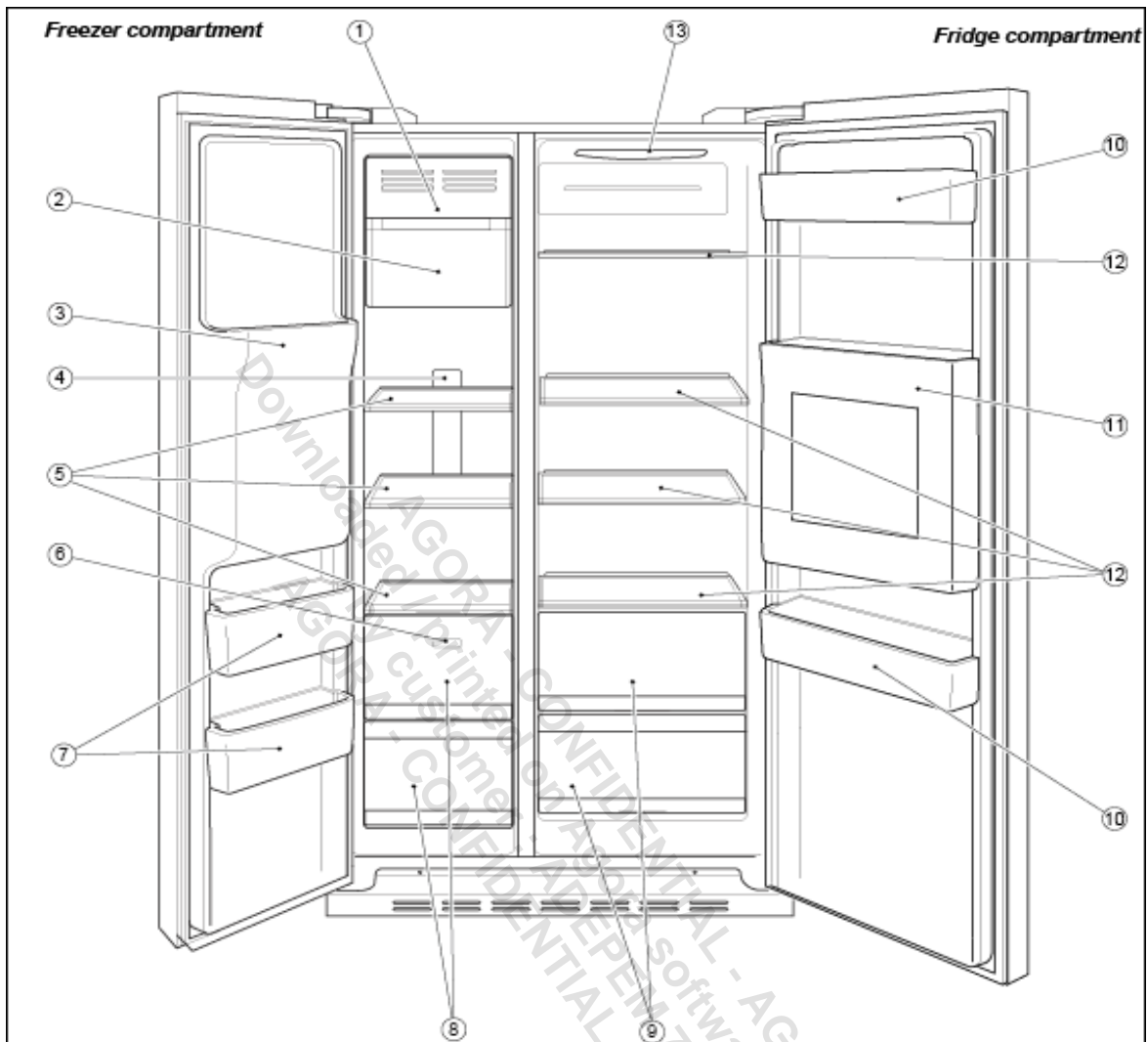
## 2-3. External views



The HRF-628I\*6 (Fig.2-1) has the following features:

- |  |                              |
|--|------------------------------|
| 1. Ice cream shelf                     | 10. 4 fridge door bins       |
| 2. Ice bin with ice maker (inside bin) | 11. 4 fridge storage shelves |
| 3. Water and ice dispenser             | 12. Fridge LED light         |
| 4. Freezer LED light                   |                              |
| 5. 3 freezer storage shelves           |                              |
| 6. Freezer LED light (behind drawer)   |                              |
| 7. 2 freezer door bins                 |                              |
| 8. 2 freezer drawers                   |                              |
| 9. 2 crisper drawers                   |                              |

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The HRF-628A\*6 (Fig.2-2) has the following features:

- 1. Ice cream shelf
- 2. Ice bin with ice maker (inside bin)
- 3. Water and ice dispenser
- 4. Freezer LED light
- 5. 3 freezer storage shelves
- 6. Freezer LED light (behind drawer)
- 7. 2 freezer door bins
- 8. 2 freezer drawers
- 9. 2 crisper drawers
- 10. 2 fridge door bins
- 11. Home bar inner cover
- 12. 4 fridge storage shelves
- 13. Fridge LED light

## Chapter3 Disassembly and Installation

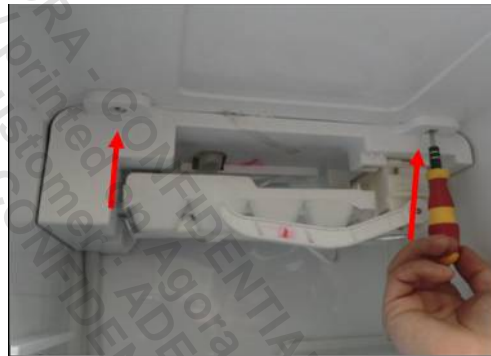
Note:Unplug the power cord from the outlet when demount the refrigerator;

### 3-1. Ice-crushed motor disassembly

1. Remove the ice store box like picture;



2. Loosen two screws from the ice maker supporter;



3. Disconnect the ice maker supporter cable and put it out;

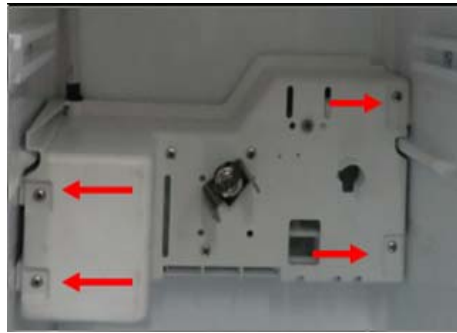


4. Disconnect the ice-crushed motor box cable ;





5. Loosen four screws fixed the ice-crushed motor box and put it out;



### 3-2 .Display Panel Disassembly

1. Loosening 2 screws fixed the bottom of control panel assembly;



2. Remove the display panel with sucker, and disconnect the cable;



3. Loosening 2 screws fixed the display PCB.



## 3-3.REF damper

1. Tear open the card claw, demount the cover plank



2. Remove screws and demount cover.



3. Disconnect the cable;



4. Demount the foam and disconnect the cable;



5. Remove the foam and you could change the damper.



### 3.6 Evaporator cover disassembly

1. Remove the screw cover;



2. Remove one screw, remove the cover with the sucker;



3. Disconnect the cable and remove the support;



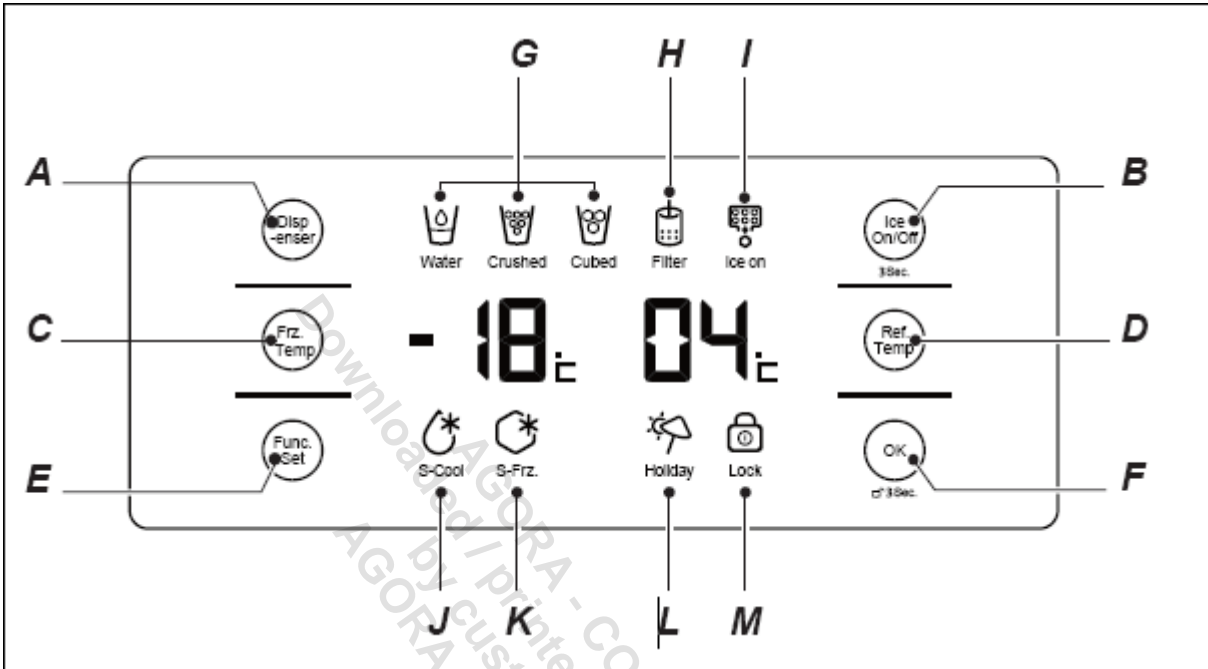
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4. Dismantle the below cover.



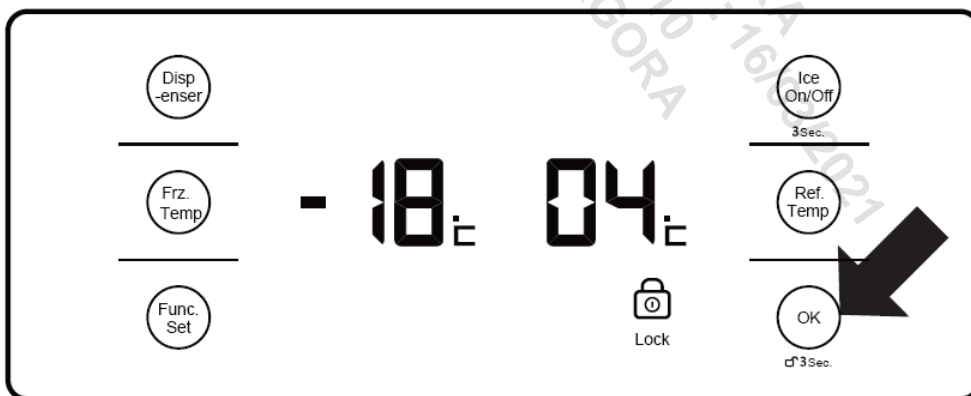
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## Chapter 4 Control and display system



- A – Dispenser selector button
- B – Ice maker on/off button
- C – Freezer temperature button
- D – Fridge temperature button
- E – Function selector button
- F – Function confirm button
- G – dispenser status icon
- H – Filter change status icon
- I – Ice maker on status icon
- J – Quick chill icon
- K – Quick freezing icon
- L – Holiday mode icon
- M – Lock icon

Fig.2-15



### Lock Mode

This feature will lock the temperature and function settings. When locked, the lock icon will blink and a beep will sound.

To lock

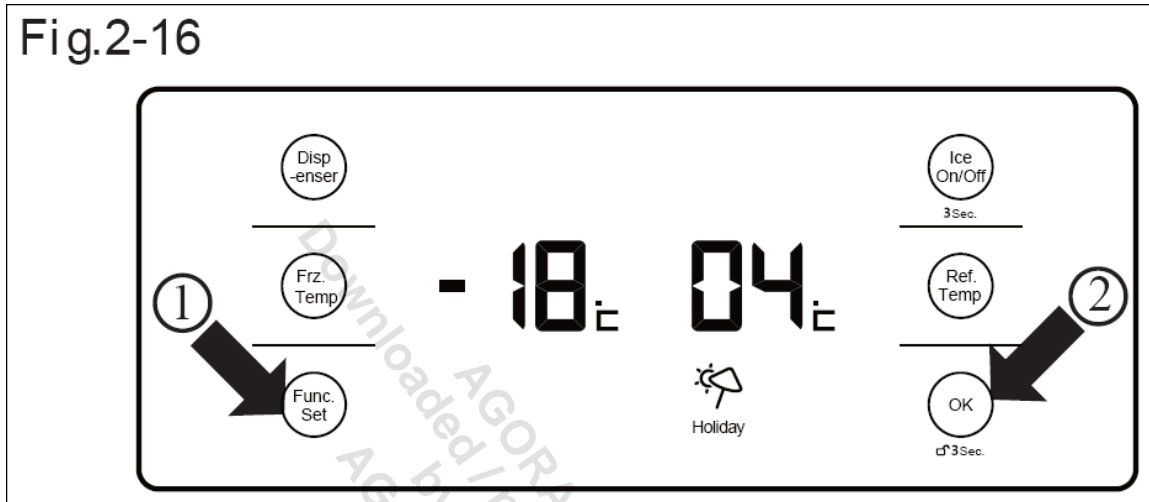
Press and hold the 'OK' button for 3 seconds (Fig.2-15). The LOCK icon will switch on and the refrigerator will lock.

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To unlock

Press and hold the 'OK' button for 3 seconds. The LOCK icon will switch off and the refrigerator will unlock.

Fig.2-16



### Holiday Mode

#### WARNING !

Before selecting Holiday Mode remove all food and drink from the fridge compartment as it may be unsafe to eat or drink after a short period of time.

This feature allows you to leave the fridge section unused while the freezer section operate as normal. When in this mode, the fridge will be automatically set to 17 °C.

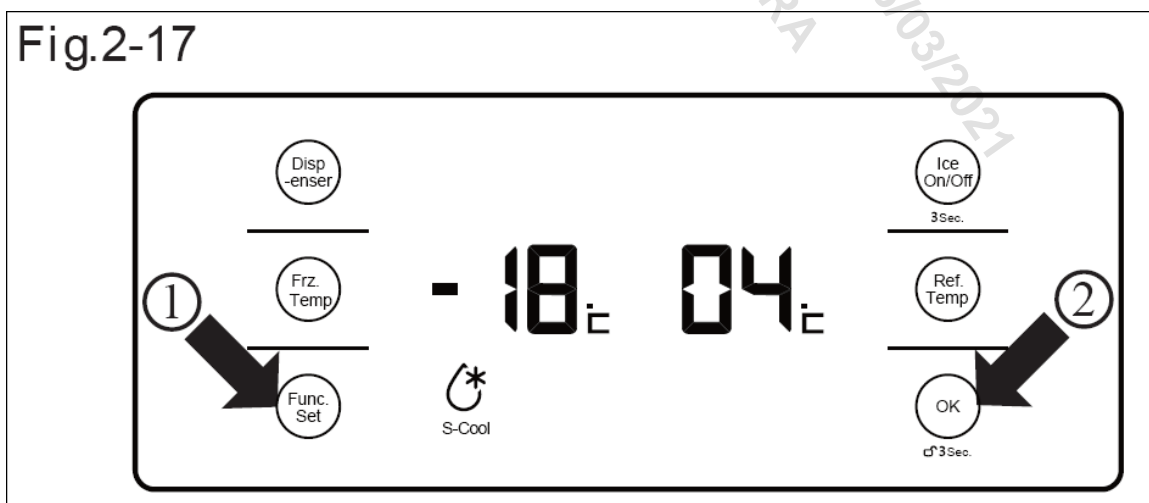
To turn on

1. Press the 'FUNC.SET' button until Holiday mode is selected (Fig.2-16).
2. Now press the 'OK' button: the HOLIDAY mode icon will turn on.

To turn off

1. Press the 'FUNC.SET' button until Holiday mode is selected.
2. Now press the 'OK' button: the HOLIDAY mode icon will turn off.

Fig.2-17



### Quick Cool Mode

This function is to chill food quickly so that the food remains fresh for as long as possible. Use this feature



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before putting large quantities of food in to the fridge chamber at any one time.

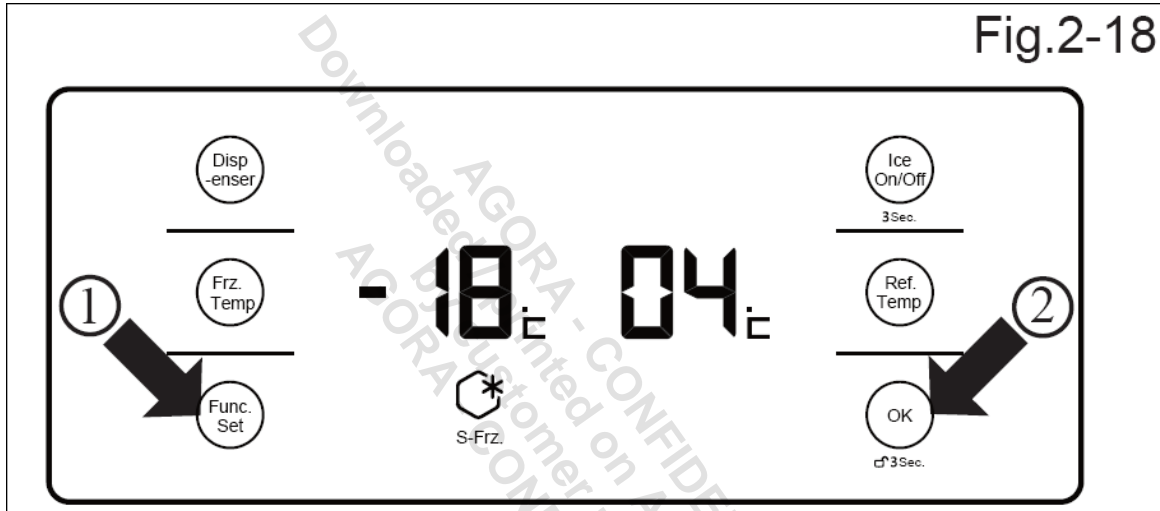
The Quick Cool mode will turn off once it has reached the set temperature.

To turn on

1. Press the 'FUNC.SET' button until Quick Cool mode is selected (Fig.2-17).
2. Now press the 'OK' button: the S-COOL icon will turn on.

To turn off

1. Press the 'FUNC.SET' button until Quick Cool mode is selected.
2. Now press the 'OK' button: the S-COOL icon will turn off. Quick Cool mode is now turned off.



### Quick Freeze Mode

This function is designed to freeze food completely in the shortest possible time to maintain the nutrients within the food. The Quick Freeze mode will turn off once it has reached the set temperature.

Use this feature before putting large quantities of food in to the freezer chamber at any one time. We recommend that you turn on the Quick Freeze mode 12 hours in advance, as this will lower the temperature in the freezer compartment before you place any food in it.

To turn on

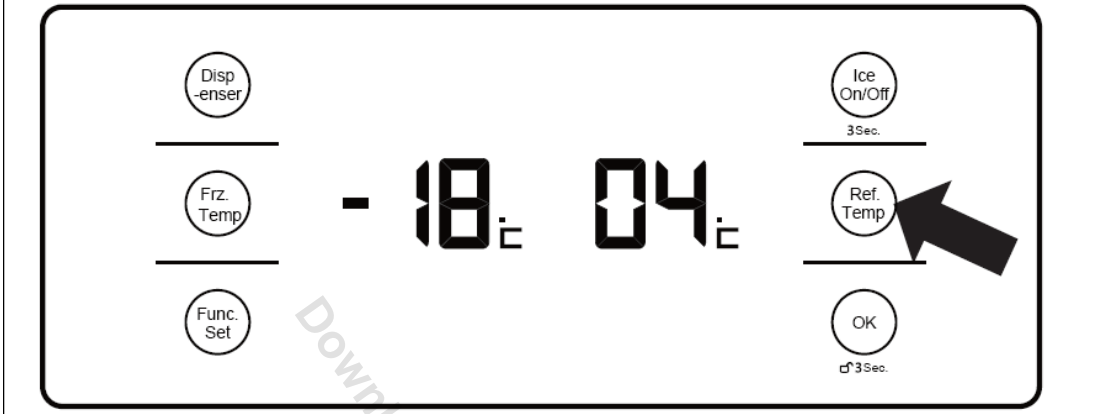
1. Press the 'FUNC.SET' button until Quick Freeze mode is selected (Fig.2-18).
2. Now press the 'OK' button: the S-Frz. icon will turn on.

To turn off

1. Press the 'FUNC.SET' button until Quick Freeze mode is selected.
2. Now press the 'OK' button: the S-Frz. icon will turn off. Quick Freeze mode is now turned off.

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Fig.2-19



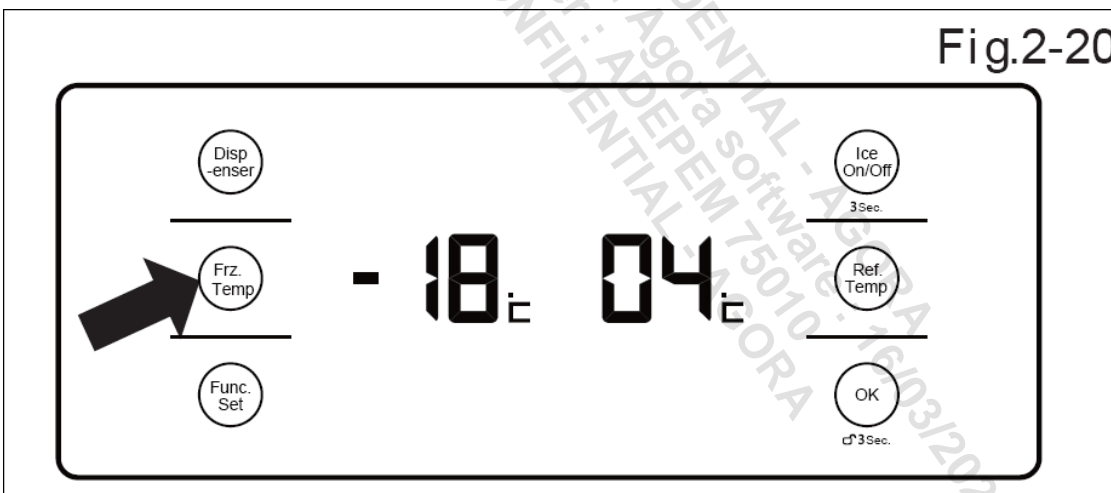
### Adjusting the Fresh Food Temperature

Press the 'Ref. Temp' button (Fig.2-19). The fridge temperature display will start blinking, which means the fridge is in the temperature setting mode.

Press the 'Ref. Temp' button to scroll, in turn, through the fridge temperature range from 09 °C through to 01 °C.

Without any further operation in 5 seconds, the blinking will stop and the temperature will be set. The temperature will also stay still at the time you press any other button during the blinking.

Fig.2-20



### Adjusting the Freezer Temperature

Press the 'Frz. Temp' button (Fig.2-20). The freezer temperature display will start blinking, which means the freezer section is in the temperature setting mode.

Press the 'Frz. Temp' button to scroll, in turn, through the freezer temperature range from -14 °C through to -24 °C.

Without any further operation in 5 seconds, the blinking will stop and the temperature will be set. The temperature will also stay still at the time you press any other button during the blinking.

### Ice Maker On/Off Setting

When the fridge-freezer is first powered on, the ice maker defaults to off.

To turn on



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• Press the 'ICE MAKER ON/OFF' button for 3 seconds. The Ice Maker On icon will turn on and the ice maker will start working.

To turn off

• Press the 'ICE MAKER ON/OFF' button for 3 seconds. The Ice Maker On icon will turn off and the ice maker will stop working.

**IMPORTANT:** Make sure that you empty the ice maker container before you turn off the ice maker, as the ice will melt into water.

**Changing The Water Filter:**When the Filter Change Status Icon turn on,it is indicating that the water filter requires changing(approximately every 6 months).After finishing the change,press FunctionSelector button for 3 seconds,Filter Change Status Icon will disappear.

**Demo mode:**Under lock mode,press "function" and "FRZ set" buttons at the same time for 3 sec.The alarming beep will aloud,then enter "demo mode".the display board will display -18 04.

Under demo mode ,compressor ,motor fan and all the heater will not work except the lamp.

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## Chapter 5 Control principal and related test functions

### 5-1. Air damper

- 1) Refrigerator sensor R1 controls the startup and shutdown of air damper in refrigerator compartment.
- 2) The air damper is closed (in order to prevent the compartment from freezing) within 15 minutes from the beginning to the finishing of defrosting.
- 3) Force the air damper to be opened and closed once if it can not be opened within 1 hour. After that, decide whether open or close it according to R1 sensor.
- 4) The air damper heater work in-phase with damper open.

### 5-2. Control principle of fan motor

Control of F-fan:

When open any door, the F-fan will be off, after 10 minutes the F-fan will rework if any door still open; and if all door is close, the F-fan will work in normal mode;

If setting the s.FRZ or s.cooling mode, F-fan speed is 1500RPM, In other mode, the speed from 1300 to 1500rpm for different condition like environment temp, setting temp and so on.

Control of C-fan:

C-fan is working in-phase with the compressor and at a mutative speed from 1100 to 1400RPM for different environment temp.

### 5-3. Defrost control

First power on and defrost error mode, the defrost circle is comp working time reach to 4 hours,

At the normal mode: The defrost circle time is alterable; it decided by open door, close door, open door times, temperatures.

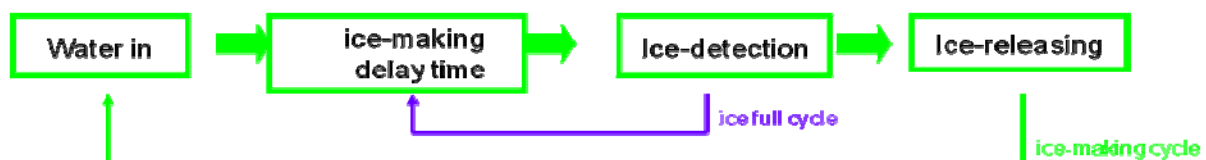
When open the door more times, the defrost circle is 7-12 hours;

When open the door less times, the defrost circle is 12-20 hours;

The longest cycle is 73 hours.

### 5-4. Ice-making control

**1. Control principle:** When the water enter into the ice box, machine test the ice-maker sensor after 100 minutes. If the temperature of ice-maker sensor is below  $-14^{\circ}\text{C}$ , ice-maker starts rotate, and the ice-measure staff starts work to test if the ice in ice-store box is full. If the ice-store box is no full of ice, ice box turn over continually to release ice, then come back to original horizontal position. The water valve open again let water enter into ice-maker, and then continue a new ice-making process.



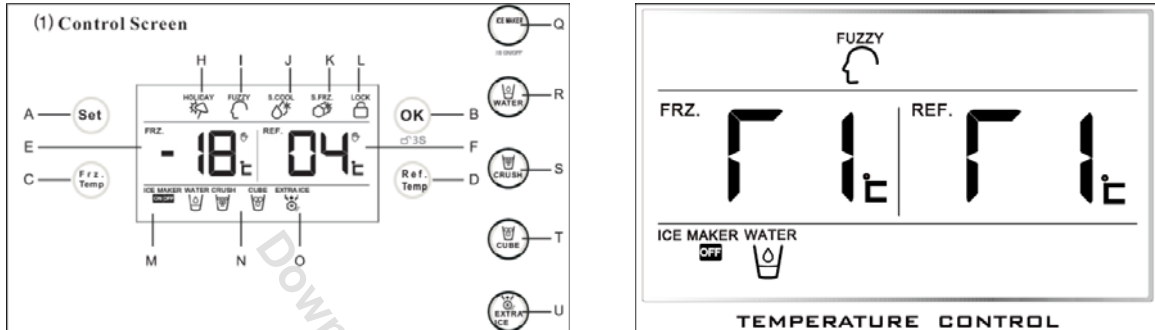
1) **Water in:** The machine let water into ice-maker after ice releasing action, the water inlet time is set through control panel.

2) **Ice-making delay time:** Include two conditions; one condition is that the ice-making time reach to 100 minutes, another condition is that the ice-maker sensor temperature is lower than  $-14^{\circ}\text{C}$ .



## 5-5. Self-testing function

**1. Force start:** Under locked mode, press Set-->Ref.Temp-->OK-->Frz.Temp”(A→D→B→C→A) one by one within 5 sec. then press “Set”, and the REF and RfZ display icon will display T1,T1)



**2. Forced defrost :** Keep the current state ,and press “Set” ,T2 will be present, then enter forced defrost mode.

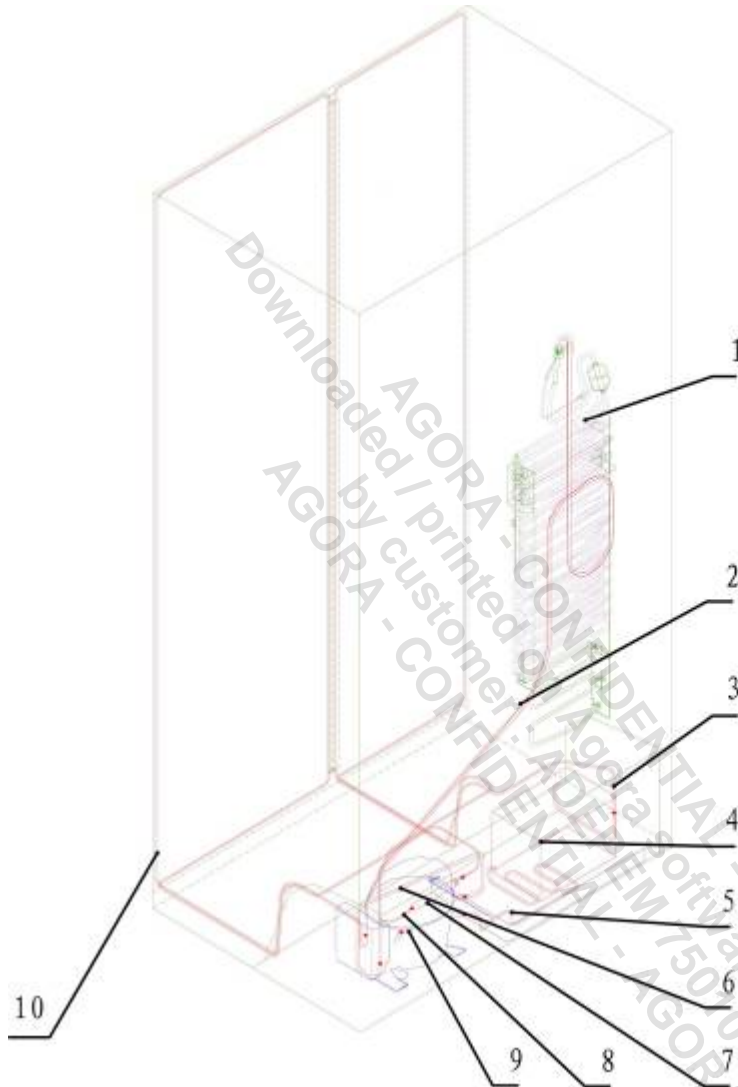
**3. Quit:** Keep the current state, press “Set” ,then will be present T3→T4→back to normal display control,and escape from test mode.

MODE	WORKING CONDITION
<b>Force start</b>	1)R and F display areas: T1、T1; 2)Compressor start work; 3)Freezer FAN work with high vottage; Cooling FAN work with high vottage; 4)defrost heater off; 5)REF air damper open;
<b>Forced defrost</b>	1)R and F display areas: T2、T2; 2)Enter defrost mode: compressor OFF Freezer /Cooloing FAN OFF Defrost heater work, if the D-SNR ≥ 7℃ , D HTR work 10 sec and then quit test 2 mode; if the D-SNR < 7℃ , D HTR will keep working until the D-SNR ≥ 7℃ , and then quit test 2 mode; 3) REF air damper keep close
<b>Quit</b>	Keep the current state, press “Set” ,then will be present T3→T4→back to normal display control,and escape from test mode.



## Chapter 6 System flow principle

### 6-1. System flow scenograph



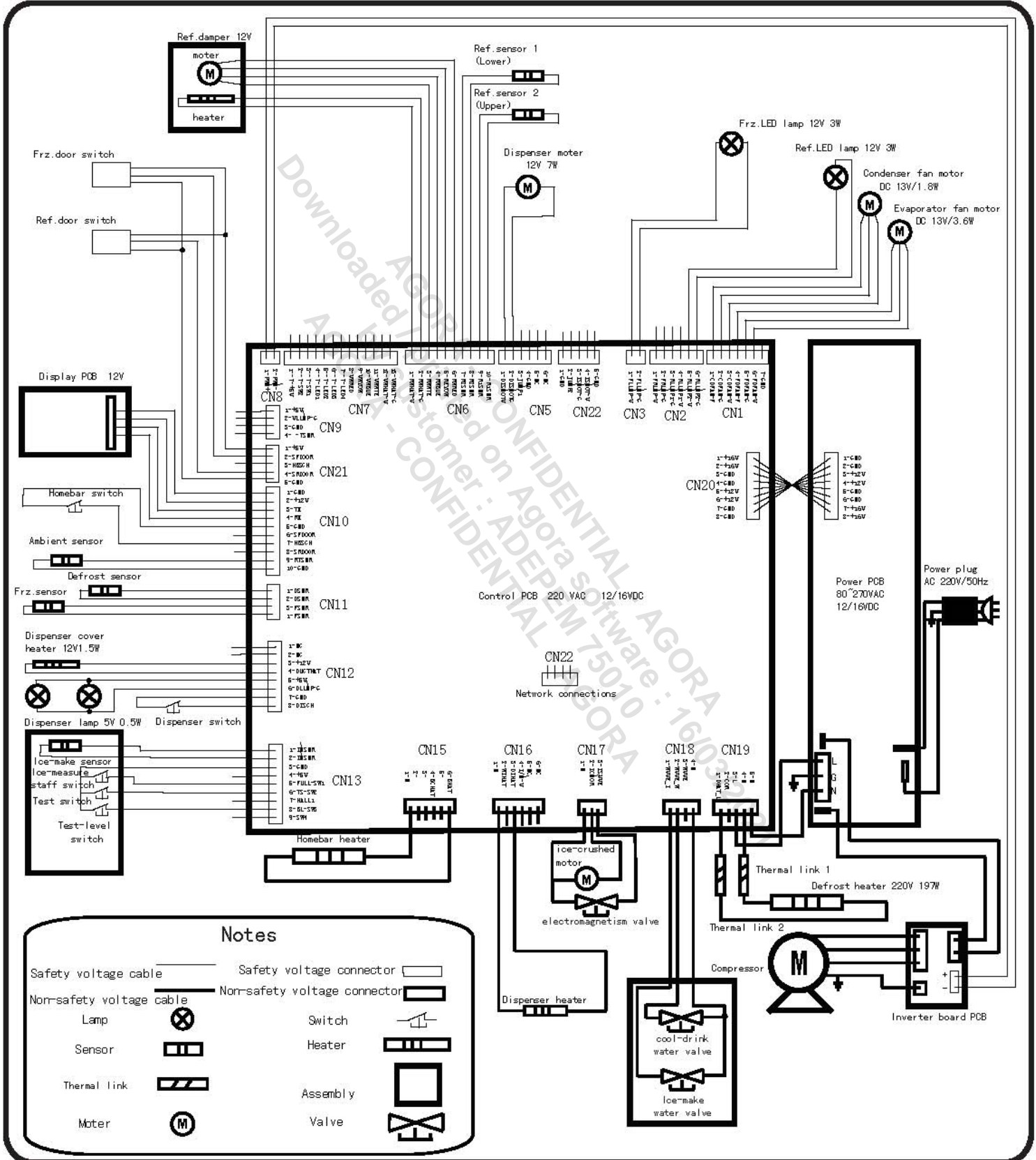
The list of system components:

- 1 Evaporator
- 2 Suction pipe
- 3 Hot connector pipe for freezer
- 4 Condenser
- 5 Condenser connector
- 6 Suction pipe connector
- 7 Drier filter
- 8 Capillary tube
- 9 Injection tube
- 10 Hot connector pipe for fridge



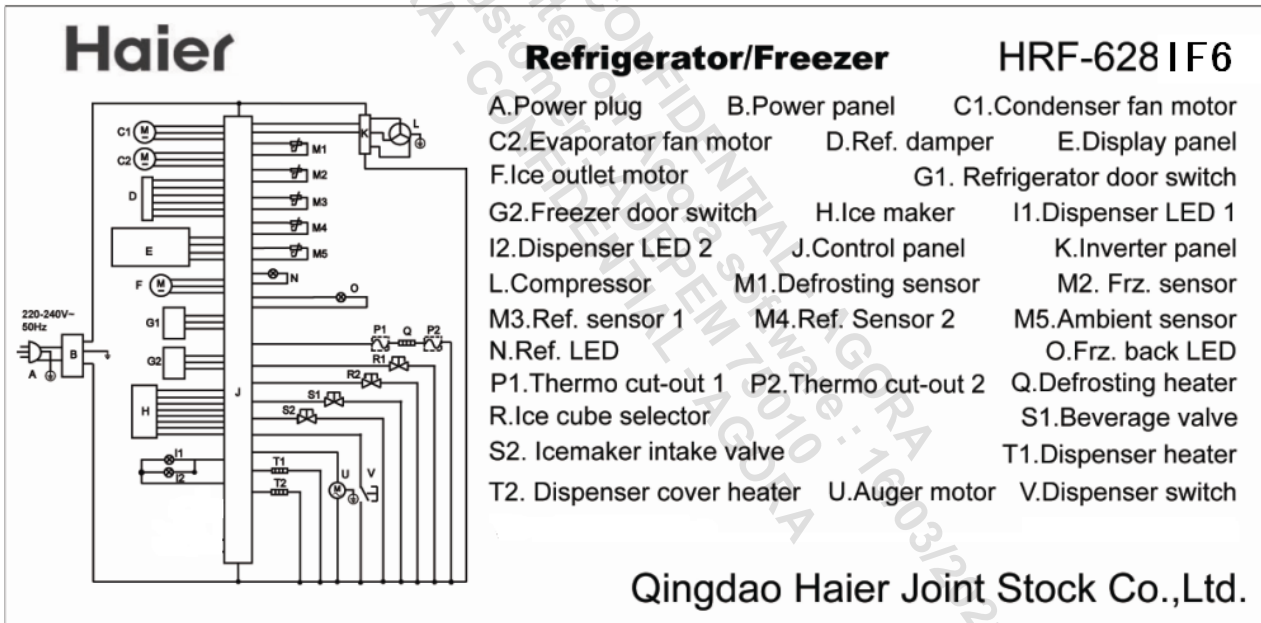
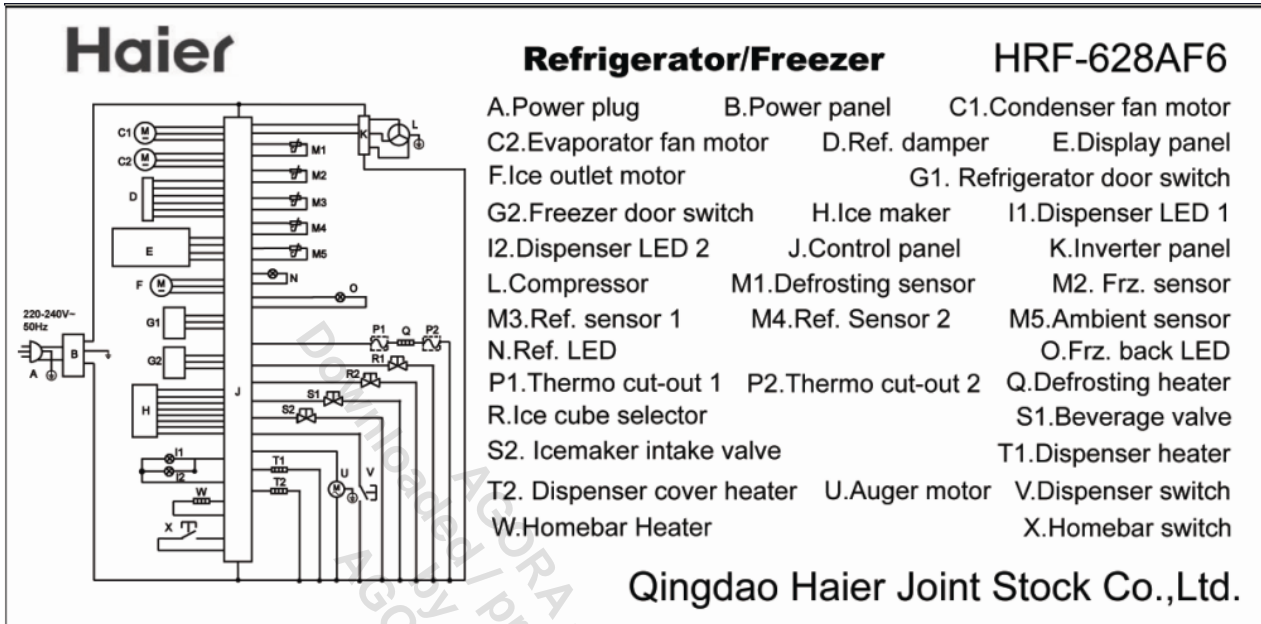
## Chapter 7 Circuit diagram

### 7-1. Main control PCB diagram



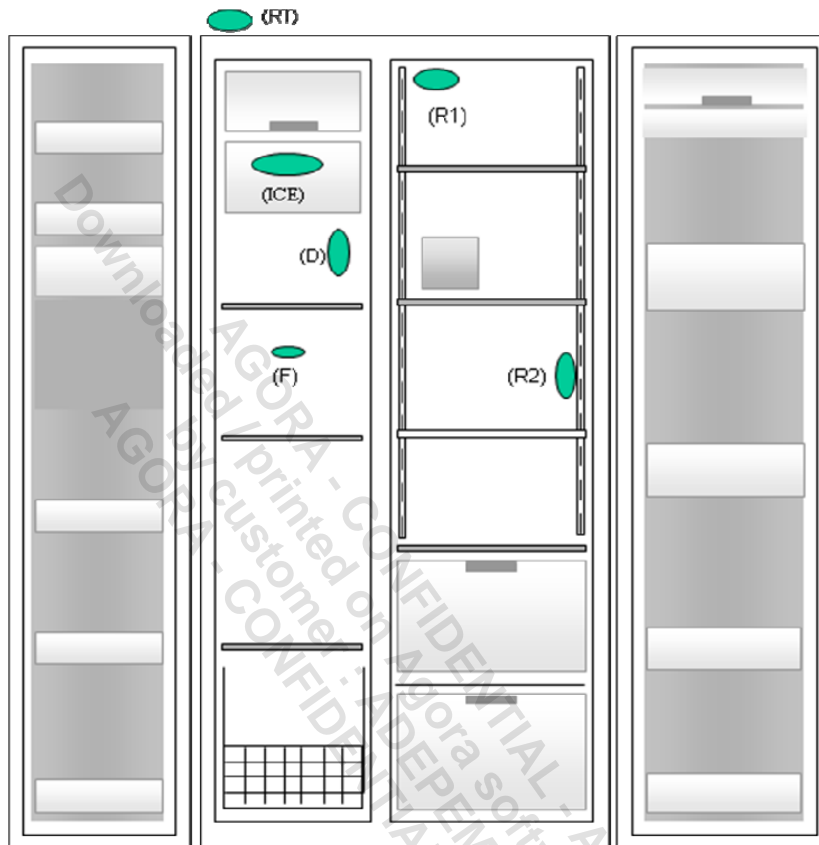


## 7-2. Brief principle diagram



## 7-3. Sensors and error codes

### Sensor Location:



Sensor name	Sensor marker	Sensor location	Function
RT sensor	RT SNR	under the right hinge box	measure the temp. of the circumstance
Refrigerator sensor 1	R1 SNR	beside the air-vent in REF	measure the temp. of the air
Refrigerator sensor 2	R2 SNR	on the right side of the REF cabinet	measure the temp. of the REF compartment
Icemaker sensor	ICE SNR	under the ice box in FRZ	measure the temp. of the ice box
Defrosting sensor	D SNR	on the top of the evaporator in FRZ	measure the temp. of the evaporator
Freezer sensor	F SNR	middle of freezer compartment	measure the temp. of the FRZ compartment

## Parameter of the sensors

T(°C)	The resistance(±5%K)		T(°C)	The resistance(±5%K)		T(°C)	The resistance(±5%K)	
	R type	F type		R type	F type		R type	F type
-30	33.070	33.84	1	6.038	6.162	32	1.452	1.478
-29	31.160	31.88	2	5.743	5.861	33	1.392	1.418
-28	29.370	30.04	3	5.464	6.576	34	1.336	1.360
-27	27.690	28.32	4	5.201	5.306	35	1.281	1.304
-26	26.120	26.70	5	4.950	5.051	36	1.230	1.252
-25	24.640	25.19	6	4.714	4.810	37	1.181	1.201
-24	23.250	23.77	7	4.491	4.581	38	1.134	1.153
-23	21.950	22.43	8	4.279	4.365	39	1.089	1.108
-22	20.730	21.18	9	4.078	4.160	40	1.046	1.064
-21	19.580	20.00	10	3.887	3.965	41	1.005	1.022
-20	18.500	18.90	11	3.707	3.781	42	0.966	0.982
-19	17.490	17.86	12	3.536	3.606	43	0.928	0.944
-18	16.540	16.89	13	3.373	3.440	44	0.892	0.908
-17	15.640	15.97	14	3.219	3.283	45	0.858	0.873
-16	14.800	15.11	15	3.073	3.134	46	0.826	0.839
-15	14.000	14.30	16	2.935	2.922	47	0.794	0.808
-14	13.250	13.53	17	2.803	2.858	48	0.764	0.777
-13	12.550	12.81	18	2.678	2.730	49	0.736	0.748
-12	11.890	12.14	19	2.559	2.609	50	0.708	0.720
-11	11.270	11.51	20	2.446	2.493	70	0.346	0.351
-10	10.680	10.906	21	2.339	2.384			
-9	10.120	10.341	22	2.237	2.280			
-8	9.600	9.8067	23	2.140	2.180			
-7	9.108	9.3031	24	2.047	2.086			
-6	8.643	8.821	25	1.960	1.977			
-5	8.204	8.373	26	1.876	1.911			
-4	7.790	7.95	27	1.796	1.830			
-3	7.398	7.551	28	1.721	1.753			
-2	7.029	7.173	29	1.649	1.679			
-1	6.680	6.817	30	1.580	1.609			
0	6.350	6.48	31	1.514	1.542			

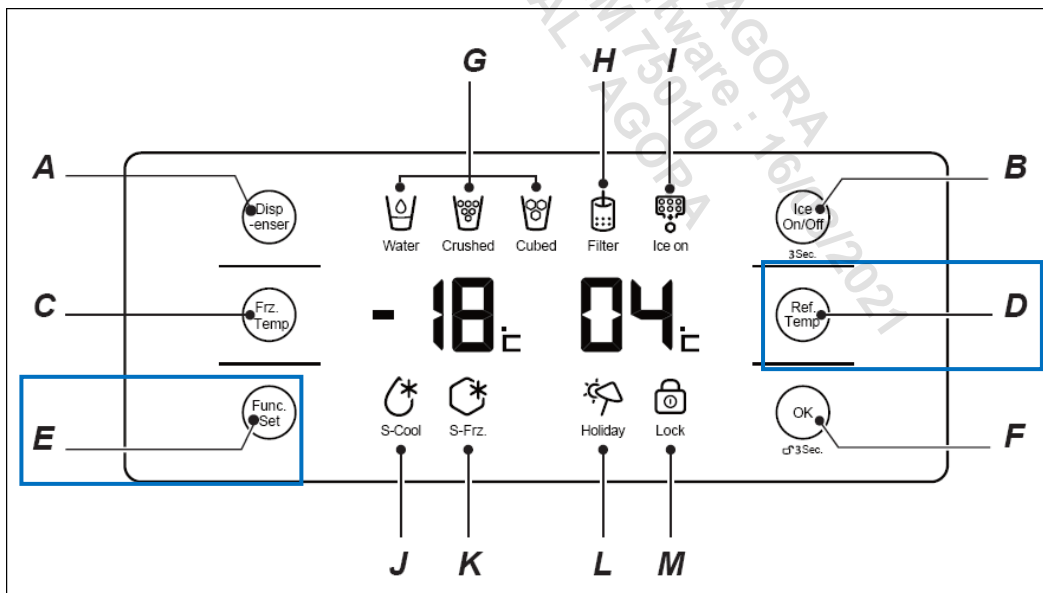
**Error code list:**

NO	Malfunction	Error Indicator		Error code meaning
		F SET	R SET	
1	F SNR failure	F4	normal	F SNR is short circuit or open circuit
2	RT SNR failure	normal	F2	RT SNR is short circuit or open circuit
3	R1 SNR failure	normal	F3	R1 SNR is short circuit or open circuit
4	R2 SNR failure	normal	F8	R2 SNR is short circuit or open circuit
5	D SNR failure	normal	F6	D SNR is short circuit or open circuit
6	ICE SNR failure	normal	FC	ICE SNR is short circuit or open circuit
7	Freezer fan motor failure	normal	E1	more than 30 seconds without signal
8	Cooling fan motor failure	normal	E2	more than 30 seconds without signal
9	failure communication	normal	E0	No reflect when setting ,between display PCB and Power PCB no signal transmitted over 2 min
10	Defrosting system failure	normal	Ed	can not reach -12°C within 2 hours
11	Icemaker failure	normal	Er	icemaker defective

**Error code display:**

Attention: These error codes cannot be displayed automatically)

**Checking method:**



Under LOCK status, press “Func.Set” (E)+ “Ref. Temp” (D) for 3 seconds, then display “--” with one buzzer sound. If there is error codes, the error will be display after another 3 seconds. If no error codes, it will exit after another 3 seconds.

## Chapter 8 Water Line Principle

### Water line scenograph



The water is divided into two ways from water valve, one way to ice-maker, and another way to water tank, then flow to dispenser for get cold water.

#### 1) Cold water principle:

Water enters into water tank of fridge compartment, then water getting to cold in fridge compartment for drink use from dispenser.

#### 2) Ice-maker principle:

Water enter into ice-maker from water valve which at the back of cabinet, then after some time, the ice-maker test if the ice box if full, and pushing ice. Then let water into ice-maker again to continue a new ice-making process.

## Chapter 9 Trouble shooting

### 9.1. Frequently problem

<b>Water/moisture/frost in the refrigerator</b>		
Moisture accumulates on the refrigerators inner walls	<ul style="list-style-type: none"> <li>● Hot and moist climate.</li> <li>● The door is not closed tightly</li> <li>● The door is opened too frequently or for too long time</li> </ul>	<ul style="list-style-type: none"> <li>● Accumulation of frost and moisture accelerate in such climate.</li> <li>● Make sure the refrigerator is level and there is no food or container interfering with the door</li> <li>● Do not open the door so frequently</li> </ul>
<b>Water/moisture/frost on outside surface of the refrigerator</b>		
Moisture accumulates on the refrigerator's outside surface or between two doors	<ul style="list-style-type: none"> <li>● Damp climate</li> <li>● The refrigerator door is not closed tightly. This causes mixing of the cold air in the refrigerator with the warm air outside it</li> </ul>	<ul style="list-style-type: none"> <li>● It is normal in damp climate. The moisture will decrease when the humidity drops.</li> <li>● Make sure the refrigerator is level and there is no food or container interfering with the door</li> </ul>
<b>Refrigerator operation</b>		
The compressor does not work	<ul style="list-style-type: none"> <li>● The refrigerator is in defrosting cycle.</li> <li>● The refrigerator is not plugged into a power outlet.</li> <li>● The refrigerator is in OFF state.</li> </ul>	<ul style="list-style-type: none"> <li>● It is normal for an automatic defrosting refrigerator.</li> <li>● Verify the plug is plugged in the socket firmly.</li> <li>● Restart the refrigerator.</li> </ul>
The fridge storage compartment does not work	<ul style="list-style-type: none"> <li>● The air door cable is not connected properly.</li> <li>● The fan does not work</li> <li>● The fridge storage compartment is turned off</li> </ul>	<ul style="list-style-type: none"> <li>● Check if the air door cable is not connected properly and install it correctly if not so. Verify that the air door acts normally with the Fridge ON/OFF key on the display panel</li> <li>● The fan does not work while the refrigeration air door is open. Please check if the door on-off behind the front decoration strip is installed properly. Reinstall it correctly if not so.</li> <li>● Turn on the fridge storage compartment manually</li> </ul>
The refrigerator runs frequently or runs for too long period	<ul style="list-style-type: none"> <li>● The indoor or outdoor temperature is high</li> <li>● The refrigerator has been powered off for a period of time.</li> <li>● The automatic icemaker is operating.</li> <li>● The door is opened too frequently or for long periods.</li> <li>● The door of the fridge / freezer storage compartment is not tightly closed.</li> <li>● The temperature setting for the freezer storage compartment is too low</li> <li>● The door gasket of the</li> </ul>	<ul style="list-style-type: none"> <li>● In this case, it is normal for the refrigerator to run longer.</li> <li>● Normally, it takes 8 to 12 hours for the refrigerator to totally cool down.</li> <li>● Icemaking process makes the refrigerator to run longer.</li> <li>● Warm air enters the refrigerator and causes it to start frequently. Please do not open the door so frequently.</li> <li>● Make sure the refrigerator is level place and there is no food or container interfering with the door.</li> <li>● Set the temperature higher until satisfactory refrigerator temperature is obtained. It takes 24 hours for the refrigerator temperature to become stable.</li> <li>● Clean or replace the door gasket. Leakage gap of door gasket can cause longer</li> </ul>

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	<p>fridge/freezer storage compartment is dirty, worn, cracked or mismatched.</p> <ul style="list-style-type: none"> <li>● The condenser is dirty.</li> </ul>	<p>running time of the refrigerator in order to maintain desired temperature.</p> <ul style="list-style-type: none"> <li>● Clean the condenser.</li> </ul>
<b>Too high temperature</b>		
Too high temperature in the fridge/freezer storage compartment	<ul style="list-style-type: none"> <li>● The door is opened too frequently or for too long periods of time</li> <li>● Temperature is set too high</li> <li>● The door is not closed tightly</li> <li>● The condenser is dirty</li> </ul>	<ul style="list-style-type: none"> <li>● Warm air will enter the refrigerator whenever the door is opened. Try to open the door as infrequently as possible.</li> <li>● Reset the temperature.</li> <li>● Make sure the refrigerator is on a level surface and there is no food or container interfering with the door.</li> <li>● Clean the condenser.</li> </ul>
The temperature in the freezer storage compartment is too high while the temperature in the fridge storage compartment is OK	<ul style="list-style-type: none"> <li>● The temperature is set too high</li> </ul>	<ul style="list-style-type: none"> <li>● Set the freezer temperature lower. It takes 24 hours for the temperature of the refrigerator to become stable.</li> </ul>
The temperature in the fridge storage compartment is too high while the temperature in the freezer storage compartment is OK	<ul style="list-style-type: none"> <li>● The temperature is set too high</li> </ul>	<ul style="list-style-type: none"> <li>● Set the fridge temperature lower. It takes 24 hours for the temperature of the refrigerator to become stable.</li> </ul>
<b>Bad odors in the refrigerator</b>		
The inside of the refrigerator is dirty	<ul style="list-style-type: none"> <li>● The inside of the refrigerator needs cleaning</li> <li>● Food with strong odor is stored in the refrigerator</li> </ul>	<ul style="list-style-type: none"> <li>● Clean the internal of the refrigerator</li> <li>● Wrap the food tightly.</li> </ul>
<b>If you hear...</b>		
Beeps	<ul style="list-style-type: none"> <li>● The fridge storage compartment door is open</li> <li>● The temperature in the freezer storage compartment is too high</li> </ul>	<ul style="list-style-type: none"> <li>● Close the door or silence the alarm manually</li> <li>● The alarm is normal when it is first started due to relatively higher temperature.</li> </ul>
Abnormal sound	<ul style="list-style-type: none"> <li>● The refrigerator is not located on a level surface</li> <li>● The refrigerator touches some object around it</li> </ul>	<ul style="list-style-type: none"> <li>● Adjust the feet to level the refrigerator.</li> <li>● Remove objects around it.</li> </ul>
Slight sound similar to that of flowing water	<ul style="list-style-type: none"> <li>● It is the sound of the refrigerating system</li> </ul>	<ul style="list-style-type: none"> <li>● Normal.</li> </ul>
Heating of cabinet	<ul style="list-style-type: none"> <li>● The de-dew tube is de-dewing</li> </ul>	<ul style="list-style-type: none"> <li>● It is a process to prevent dewing. It is a normal phenomenon.</li> </ul>



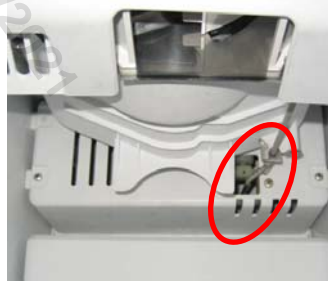
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## 9-2. Typical problem

### Problem 1: No making ice

Checking steps	Repair method	Photo description
1. Test whether the temperature of freezing room reaches the set temperature.	Check machine No Cooling problem.	/
2. Checking if the ice-maker is in OFF status.	Press the 'ICE MAKER ON/OFF' button for 3 seconds. The Ice Maker On icon will turn on and the ice maker will start working r.	
3. If the ice-maker can turn over, focus on to check the water valve	Connect the water valve to 220 voltage AC power, if the valve can open, that means the valve is ok. If not, this means the valve is defective	/
4. If the water valve is normal and the water can run into the ice-maker	Test if the icemaker sensor resistance is normal using multimeter	/
5. If no above problems, it means that motor is defective and should be replaced	replace new ice-maker motor or ice-maker assembly.	/


### Problem 2: No crushed ice

Problem phenomenon	Checking steps	Photo description
No crushed ice	1) Open the freezing door, make sure the selecting bar under the storage box is good shape or not stick into the selecting valve.	
	2) Disassemble the ice storage box, make sure the ice blade is in fine shape.	



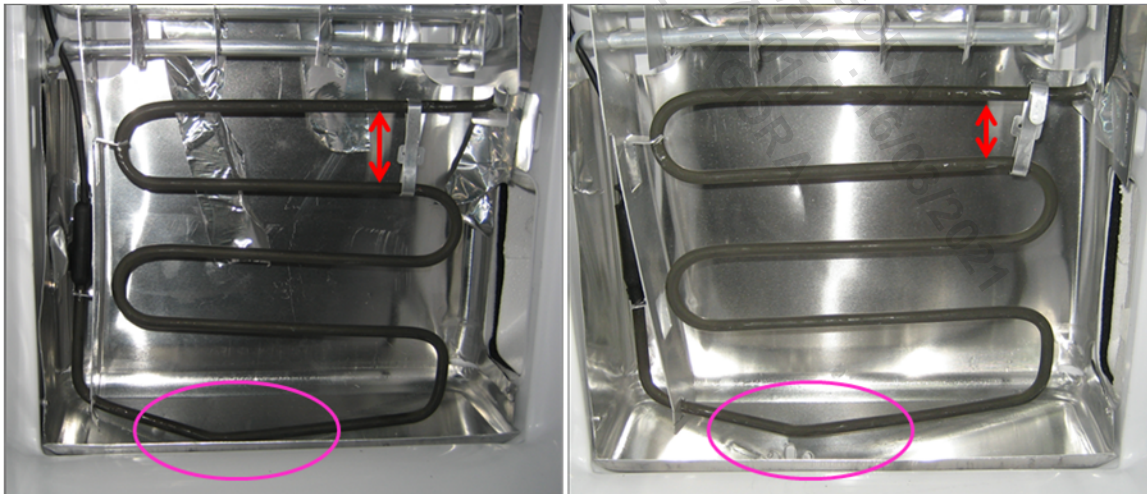
Issue	2013-04-07
REF.	Ref1304S001V0

### Problem 3: No ice cube

Problem phenomenon	Checking steps	Photo description
no ice cube	1) Open the freezing door, make sure the selecting bar under the storage box is good shape or not stick into the selecting valve.	
	2) Disassemble the ice storage box, check if the ice cubes are stick together. If so, shorten the water time.	Refer to water inlet quantity setting
	3) Set the appliance under ice cube condition, open the freezing door and press the freezing light button , press dispenser button. See if the selecting valve works or not. If not, disassemble the delivery motor to see if the plug-in of selecting valve is in place, or the wire of selecting valve is in good shape.	

### Problem4: Drain channel icing for 628 series

It has only one defrost heater for 628 series, and has no heater in drain channel, so defrost heater must close to the drain channel (<20mm, >10mm) to heat the drain channel when defrosting. Otherwise it could not heat the channel.



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