

Order No.

Refrigerator



This service information is designed for experienced repair technicians only and is not designed for use by the general public. It dose not contain warnings and cautions to advice non-technical individuals of potential dangers in attempting to service a product. Product powered by electricity should by 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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Model: HRF450B*2 HRF450BH*2

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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.
- 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.



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



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

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Chapter 2 Product Feature

2-1. Specifications

Picture	I	I TI	
Model		HRF450BW2 HRF450BS2	HRF450BHS2 HRF450BSC2
Basic features			
Energy efficiency class		****	****
Climate class		Т	Т
Freezer compartment star rating		*/***	*/***
Gross capacity	I	454L	454L
Total Storage capacity	I	388L	388L
Net capacity refrigerator compartment	Ι	311L	311L
Net capacity freezer compartment (total)	I	77L	77L
Chill compartment	Ι	40L	40L
Freezing capacity / 24 hours	kg/24 h	1	1
Energy consumption / year	kWh/ year	336	336
Energy consumption (EN153) per 24 h	kWh/ 24 h	0.92	0.92
Max noise level	dB(A)	38	38
Max storage time by power failure Freezer	h	1	/
Kind of coolant and weight (R134a/R600a)		R600a (70g)	R600a (70g)
Approvals (VDE / TÜV / IMQ / NF / ÖVE / DEMKO etc.)		SGS	SGS
Certifications (CE / ISO 9001/2 / LGA)		CE	CE
Key features			
Cooling system: (K = Compressor / A = Absorbtion)		К	к
Number of compressor(s)	n°	1	1
Defrosting Fridge / Freezer (M=manual A=automatic)		A/A	A/A
Control system (E=Electronic/M = Mechanical)		E	E

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NO FROST	(Fridge/Freezer)		Y	Y
Ventilated	(Fridge only)		Y	Y
Antibacteria system			Y	Y
Basics datas				
Unit dimensions with-ou	ut handle (<i>H / W / D</i>)	mm	1725/700/676	1725/700/676
Depth with open door		mm	1323	1323
Net weight		kg	80	80
Voltage / frequency			220-240 V~/ 50Hz	220-240 V~/ 50Hz
Input power / mains fuse	(intensity)	W /A	200W/15A	200W/15A

2-2. External views



(HRF450BW2 HRF450BS2)

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(HRF450BHS2 HRF450BHC2)

2-3. Major features

1. Fully closed freezing system and drawer storage can avoid food tainting, keep cold and are energy-saving. As warm air can't easily enter into the storage area when opening the door.

2. Cool wind but no frost: adopting fully air cooled refrigeration system, deep cooling and quick freezing.

3. Holiday function: when you are out for holiday, refrigerator will run at the low energy consumption to make sure there's no odor in the refrigerating chamber and guarantee soft freezing and the normal storage of frozen food.

4、 LED display: adopting dynamic LED to display the operational situation of refrigerator.

5. LED light guide plate illumination: adopting the technique of light guide plate illumination, the light is soft, even, bright and no illumination dead angle.

6. Adjusting shelf height: The shelf can be relocated to accommodate food size or height.

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2-4. Explanation of The Models

 H
 RF
 450
 B
 W/S
 2

 Image: Second-generation refrigerator
 second-generation refrigerator
 White/Sliver

 B:BM
 B:BM
 Refrigerating and freezing volume of the refrigerator

 Image: Main
 Refrigerator type

 Haier
 Haier



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Chapter 3 Disassembly and Installation

3-1 Disassembly of refrigerator/freezer air duct, freezer fan, lamps and

other relative components

3-1-1 Disassembly of refrigerator air duct



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	The small terminal is a cold storage sensor, and the big terminal is a variable temperature sensor.
3	

3-1-2 Disassembly of top lamp

	① Follow the arrow direction in the figure and gently unscrew the lampshade of the top lamp with a screwdriver;
1	
	② The whole lamp is fixed by snap joint, and its location is shown in the figure. Pull out the terminal of the left lamp and remove the lamp.

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3-1-3 Disassembly of freezer air duct



3-1-4 Disassembly of freezer fan



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3-1-5 Disassembly of refrigerator air door



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3-1-6 Disassembly of compartment components Diagram of components in compressor compartment



Parts list:

No.	Parts designation	Qty.	No.	Parts designation	Qty
1	Fixings of heating	1	6	Assembly of	1
	tube			compressor support	
				plate	
2	Pan head screw	1	7	Evaporating pan	1
3	Compressor	1	8	Heating tube of	1
				evaporating pan	
4	Compressor clip	4	9	Rubber ring	1
5	Cushion	4			

3-1-7 Disassembly methods of defrosting heater strip



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<image/> <text><image/><image/></text>	 Gently spread two cards fixing the defrosting heater strip, as shown in the red circle in Fig. (2). Pull the defrosting heater strip through the right fixing card;
	(2) Pull out the defrosting heater strip through the left fixing card.

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3-2 Door Reversibility

Before connecting the appliance to the power supply you should check, whether the door swing must changed from right (as delivered) to left, if this is required by the installation location and the usability.

- ► The appliance is heavy. You need two persons to carry out the door reversibility.
- ► Before any operation, first unplug the appliance from the mains .
- ► Do not tilt the appliance more than 45 ° to prevent damage of the cooling system.
 - 1. Provide necessary tool. Ð 2. Unplug the appliance. 4. 3. Remove the fixation of the cover 4. Remove the faceplate of the body 5. Remove the topplate of the upper door. 6. Remove the hinge cover. 8. 7. Unplug the connection cable 8. Unscrew the upper hinge. 9. Lift the loose upper door carefully off the lower 10. hinge. 10. Turn the upper door upside down and change the position of the hinge barrel on the lower side of the door. 12. 11. 11. Change the door stop from the current position to opposite side 12. Unscrew the lower hinge of the upper door.

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After the change of the door check that the door seals are located properly on the housing and all screws are tightened well.

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Chapter 4 The Preparation Before Use

4-1 Space requirement

Required space when door is opened:

Appliance width:1100cm;

Appliance depth:1323cm.



4-2 Ventilation cross-section



B

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Chapter 5 System flow principle

5-1 Refrigerating cycle plan



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5-2 Sensor layout plan



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Chapter 6 Circuit diagram

6-1. Brief principle diagram



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6-2. Main control Chart

6-2-1 Main control Chart



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6-2-2 Sensor r	esistance table	9					
	Refrigera				Refrigera		Tampana
	tion		Tempera		tion		Tempera
tempera	sensor /	tempera	ture	tempera	sensor /	tempera	ture
ture	ambient	ture	sensor /	ture	ambient	ture	freedin
(°C)	temperatu	(°C)	freezin	(°C)	temperatu	(°C)	rreezin g. concor
	re sensor		g sensor		re sensor		g Selisor
	(K)				(K)		
-40	63.42	-40	64.11	6	4.714	6	4.810
-39	59.45	-39	60.10	7	4.491	7	4.581
-38	55.74	-38	56.35	8	4.279	8	4.365
-37	52.29	-37	52.86	9	4.078	9	4.160
-36	49.08	-36	49.61	10	3.887	10	3.965
-35	46.07	-35	46.58	11	3.707	11	3. 781
-34	43.27	-34	43.74	12	3.536	12	3.606
-33	40.65	-33	41.10	13	3.373	13	3.440
-32	38.21	-32	38.63	14	3.219	14	3.283
-31	35.93	-31	36.32	15	3.073	15	3.134
-30	33.07	-30	33.84	16	2.935	16	2.922
-29	31.16	-29	31.88	17	2.803	17	2.858
-28	29.37	-28	30.04	18	2.678	18	2.730
-27	27.69	-27	28.32	19	2.559	19	2.609
-26	26.12	-26	26.70	20	2.446	20	2.493
-25	24.64	-25	25.19	21	2.339	21	2.384
-24	23.25	-24	23.77	22	2.237	22	2.280
-23	21.95	-23	22.43	23	2.140	23	2.180
-22	20.73	-22	21.18	24	2.047	24	2.086
-21	19.58	-21	20.00	25	1.960	25	1.977
-20	18.50	-20	18.90	26	1.876	26	1.911
-19	17.49	-19	17.86	27	1.796	27	1.830
-18	16.54	-18	16.89	28	1.721	28	1.753
-17	15.64	-17	15.97	29	1.649	29	1.679
-16	14.80	-16	15.11	30	1.580	30	1.609
-15	14.00	-15	14.30	31	1.514	31	1.542
-14	13.25	-14	13.53	32	1.452	32	1.478
-13	12.55	-13	12.81	33	1.392	33	1.418
-12	11.89	-12	12.14	34	1.339	34	1.360
-11	11.27	-11	11.50	35	1.281	35	1.304
-10	10.68	-10	10.90	36	1.230	36	1.252
-9	10.12	-9	10.33	37	1.181	37	1.201
-8	9.600	-8	9.800	38	1.134	38	1.153
-7	9.108	-7	9.296	39	1.089	39	1.108
-6	8.643	-6	8.821	40	1.046	40	1.064

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-5	8.204	-5	8.373	41	1.005	41	1.022
-4	7.790	-4	7.950	42	0.966	42	0.982
-3	7.398	-3	7.551	43	0.928	43	0.944
-2	7.029	-2	7.173	44	0.892	44	0.908
-1	6.680	-1	6.817	45	0.858	45	0.873
0	6.350	0	6.480	46	0.826	46	0.839
1	6.038	1	6.162	47	0.794	47	0.808
2	5.743	2	5.861	48	0.764	48	0.777
3	5.464	3	5.576	49	0.736	49	0.748
4	5.201	4	5.306	50	0.708	50	0.720
5	4.951	5	5.051				

6-2-3 Side information



Control board and display board without edge process

6.3 Operating principle, parameters and testing method of sensors

(forced start, forced defrosting, ice maker testing)

- 6-3-1 Refrigerator control overview
- (1) Control of refrigerator compartment: when the temperature of refrigerator sensor is no less than that at the startup point, the refrigerator starts up (the refrigerator damper opens); when it is no greater than that at the refrigerator shutdown point, the refrigerator stops (the refrigerator damper closes).

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- (2) Control of freezer compartment: when the temperature of freezer sensor is no less than that at the startup point, the freezer starts up; when it is no greater than that at the freezer shutdown point, the freezer stops.
- (3) Control of variable temperature compartment: when the temperature of variable temperature sensor is no less than that at the startup point, the variable temperature starts up (the variable temperature damper opens); when it is no greater than that at the variable temperature shutdown point, variable temperature stops (the variable temperature damper closes)
- (4) Quick-freeze control: the quick-freeze mode will switch off 50 hours after the freezer compartment has been set at quick-freeze function.
- (5) Quick-cooling control: the freezer damper opens and the fan runs when the refrigerator enters into the quick-freeze function of the freezer compartment. In the quick-cooling status, the quick-cooling control will switch off when the temperature of refrigerator compartment reaches Gear 2 shutdown point.
- (6) Function of variable temperature compartment: the variable temperature compartment is automatically controlled under -3~5℃ when it enters into soft freezing function.
- (7) Open alarm: the buzzer sounds continuous "beep" alarm and the display and refrigerator lamp light on when the refrigerator door is not closed 180s after it opens. The open alarm will not cancel until the refrigerator door is closed or any button on the display is touched. The display and refrigerator lamps automatically light off after the door keeps open for 7 minutes.
- (8) Power failure with memory: this refrigerator is designed with power failure with memory. Specific status prior to power failure will be kept when the refrigerator goes into power failure; power failure with memory: defrosting status, refrigerating, variable temperature and freezing temperature gear setting, quick-freeze, quick-cooling, intelligent. Power failure without memory: compressor protection, quick-freeze time, quick-cooling time.
- (9) Control of refrigerator lamp: when the refrigerator door opens, its lamp lights; when it is closed, the lamp is off. The refrigerator lamp automatically lights off when the refrigerator door keeps open for more than 7 minutes.
- (10) Fan/Damper control: when refrigeration is activated in the freezer compartment, the freezer fan and compressor work at the same time. When the refrigerator door opens, the freezer fan and damper stop working immediately. The compressor is under normal control with compartment temperature until the refrigerator door is closed or the fan and damper return to normal control after 7 minutes.
- (11) Initial power-on status: the temperature of refrigerator compartment is set to be 5℃, -18℃ for the freezer compartment and 0℃ for the variable temperature compartment when the refrigerator is initially powered on. The refrigerator will not start up if the refrigerator, variable temperature and freezer temperature are between the starting temperature and the stopping temperature. It starts when the temperature returns to that at the starting point.
- (12) Display control: The display lights off if the refrigerator door is closed and the button is not activated within 30s. The display lights on when any button on the display panel is touched or

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when the refrigerator door opens. The LED lights off when the opening time is more than 30s.

(13) Compressor protection: Startup of the compressor is permitted after it is put in shutdown for 7-minutes. It enters into normal control upon completion of the 7-minute delay.

Control principle of defrosting system

*For initial power-on, defrosting begins when the compressor accumulatively works for 7hr.

*The compressor and freezer fan stop and the dampers close during defrosting. When the temperature of defrosting sensor is no less than 12° C, the defrosting heater strip shall be disconnected.

*For entrance into defrosting, the defrosting heater strip exists defrosting after working for 10s if the temperature of defrosting sensor is no less than 12° C.

*Forced defrosting: In the unlocked state, while holding Fridge, press Holiday five times to enter the T1 refrigerator, and click the LOCK button again to enter T2 forced defrost. The defrost sensor reaches 12 ° C and exits the defrost. The defrost power is 200W (rated voltage 230V), and the deviation should be within 10W. Power off to exit test mode.

① Testing method of forced start

- 1- In the unlocked state, while holding Fridge, press Holiday five times to enter T1. The refrigerator is forced to cool. Power off to exit test mode.
- 2- List of compressor model, manufacturer, power, energy efficiency ratio (EER), refrigerating capacity, operating current and starting current

Compressor	Manufacturer	Power	EED	Refrigerating	Operating	Starting
model	Manufacturer	Power		capacity	current	current
VEMT9C	Nidec Compressor (Beijing) Co.,Ltd.	88@3000rpn	1.80	159	0.84	2.1A

6-3-2 Control of refrigerator air door

Conduct power	Conduct power-on and power-off control of air door VD (R/S room) (Myzone)						
	S1						
	R	S					
When power							
on	Power on and power off f	for one time					
Protection	No operation for 1 minute after	er the operation					
R room	R-sensor control s	witch					
(fridge)							
S room (my	S-sensor control s	switch					
zone)							

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Stop the		
operation		2
	When the R door is open	
Special		
operation	No operation for 1 hour on S1 or S2 air door, reset for one time.	
Moisturizing	onon	
function	open	
When		
pulldown	Take operations according to the condition	

6-3-3 External photo and electric parameter of main electric appliance

1. Damper (cannot be moved forcedly by hand)



This type has one air door only, the large opening relates to refrigeration, and the small one relates to myzone;

Electrical performance

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No.	Item	Value	Note
1	Voltage for use	12 \pm 1 VD.C.	At terminal voltage
2	Resistance	415 \pm 50 Ω /Phase	At 25°C (77 F)
3	Current input	60 mA or less	At standard voltage and frequency
4	Starting voltage	10 VD.C. or less	At standard frequency
5	Slew rate	400 PPS or more	At standard voltage
6	Motor coil temperature rise	65 K or less	Measured by resistance method
7	Insulation resistance	100 M Ω or more	Between live and dead part at 500VD.C.
8	Dielectric strength	500 VA.C. for 60 s or 600 VA.C. for 1 s	Between live and dead part at cut-off current 0.5 mA

2. Fan



Electrical performance

Standard current	0.24A
Maximum current	0.32A
Standard Voltage	12V
voltage range	7.0V~13.2V

6-3-4 Heater strip

1. Freezing and defrosting heater strip (0064001866)

Specification: nominal voltage: 230V, power: 200W R≈269Ω

2. Heater strips in the water outlet

Specification: 230V, Power: 5.5W R≈9.68kΩ

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Chapter 7 Control and display system

7-1 Control and display panel



Buttons:

- A Fridge selector
- B Freezer selector
- C My Zone selector
- D Holiday selector
- E Panel lock selector

Indicators:

- a1 Super-cool Function
- a2 Temperature Fridge
- b1 Super-freeze Function
- b2 Temperature Freezer
- c1 Fruit & Vegetable Cooling
- c2 Cooling
- c3 Meat&Seafood Cooling
- e Panel Lock Function

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7-2 Function adjustment

7-2-1 First, The panel is unlocked.

Touch the button E for 3 seconds.



7-2-2 Adjust the fridge temperature

Press the button A to adjust.



7-2-3 Adjust the freezer temperature

Press the button **B** to adjust.



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7-2-4 Adjust the my zone temperature

Press the button **C** to adjust.



7-2-5 Adjust the super cool function

Press the button A for 3 seconds.



7-2-5 Adjust the super freeze function

Press the button **B** for 3 seconds.



7-2-6 Adjust the holiday function

Press the button **D** to adjust.



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Chapter 8 Quick check and Self-test model



[1] Fault code

Entering mode: Under the lock-out state of display board, press and hold "Fridge" and press "My Zone" for five times to enter the fault mode.

Exit mode: Under the lock-out state of display board, press and hold "Fridge" and press "My Zone" for five times to exit the fault mode; it will exit the mode automatically after 2 minutes.

When entering the fault mode, corresponding fault code will be displayed; exit the mode if no fault exists, and the original tap position will be displayed.

Checking method: after entering this mode, display fault code in the temperature display area as per superior selection level and press "lock" button to display next code.

Exit method: exit from fault display mode after 2 minutes or as per same operation

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NO	Items	Temperature display area	Content	Control Methods
1	Normal	Display temperature value	Display current temperature value of each sensor	/
2	RT-SNR bad	F2	Short circuit or disconnection of RT-SNR	Controlaccordingtotheenvironmental temperature scope of23℃≤RT<28℃
3	R-SNR bad	F3	Short circuit or disconnection of R-SNR	In the process of regular control in the freezing room, the air door enters the circulation state under which it opens for 10 minutes and then closes for 10 minutes every 20 minutes
4	F-SNR bad	F4	Short circuit or disconnection of F-SNR	Compressor enters the circulation state under which it opens for 15 minutes and then closes for 15 minutes every 30 minutes
5	S-SNR bad	F5	Short circuit or disconnection of S-SNR	When the freezing room is under regular control, the air door enters the circulation state under which it opens for 10 minutes and then closes for 10 minutes every 20 minutes
6	D-SNR bad	F6	Short circuit or disconnection of D-SNR	Automatic defrosting procedure is carried out normally, and the defrosting time is 30 minutes.
7	Bad communication	E0	Display board and power board can not be connected for 2 minutes	/
8	Defrosting fault	Ed	Temperature of defrosting sensor can not reach 12 degrees in 90 minutes after rising	/
9	Freezing fan failure	E1	Freezing fan short circuit or open circuit	/

Priority of faults

[2] T mode

Entering mode: Under the lock-out state of display board, press and hold "Fridge" and press "Holiday" for five times to enter the TEST function mode.

Exit mode: open the refrigerator door; under the lock-out state of display board, presses and hold "Fridge" and press "Holiday" for five times to exit the TEST function mode; it will exit the mode automatically after 2 minutes.

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MODE	Operation	Content	Notes
TEST1	Press TEST for one time, entering TEST1 function after 2S	 COMP high speed; F-FAN 100%; DEF-HTR OFF; Refrigerator and MY Zone air door is fully opened; Display board displays T1. 	Under TEST1 state, TEST1 state continues unless exit through manual operation
TEST2	Press TEST for 2 times, entering forced defrosting function without precooling after 2S	 COMP OFF; F-FAN OFF; DEF-HTR ON; Refrigerator air door is closed; Air door in the variable temperature room is closed; Display board displays T2; If defrosting is cancelled in defrosting process, exit defrosting immediately. 	Start defrosting: When D-SNR < 12 $^{\circ}$ C, exit after D-HTR works for 10s; When D-SNR < 12 $^{\circ}$ C, exit after D-SNR reaching 12 $^{\circ}$ C (D-SNR will be forced to exit after working for 90 minutes; when D-SNR is in default, exit after working for 30 minutes); Exit immediately if it is forced through manual operation.
Normal reset	Press display screen for 6 times to power off	Restore normal control	Press TEST in 30S under T3 state; exit TEST function immediately

[3] Exhibition function

Entering mode: under the lock-out state of display board, press and hold "Freezer" and press "Holiday" for five times in the same time to enter the function of refrigerator exhibition room.

Exit mode: under the lock-out state of display board, press and hold "Freezer" and press "Holiday" for five times in the same time to enter the function of refrigerator exhibition room.

	Entry mode	under locking condition, press "Holiday" button for five times when pressing "Freezer" button to enter refrigerator exhibition function.
Exhibition function	Control mode	After entering refrigerator exhibition function, refrigerator and freezer lighting lamp, with normal control of blue lamp and bactericidal function Compressor, fan, damper and heater strip shutdown and refrigerator gear is set at 5/-20, with varying temperature 0°C, lightening icon in Q compartment.
	Exit mode	Exit from exhibition function as per same operation.

Common questions

- ① Refrigerator not working
- Power off (plug, socket, fuse, etc.)
- Low power voltage
- ② Refrigerator making abnormal sound

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- Refrigerating fluid will make a sound during flowing in pipeline, which is normal.
- Refrigerator will give out loud buzzing sound when used for the first time due to under unstable condition, which is normal.
- When refrigerator operating, evaporator and pipeline will give out "bang-bang" sound due to heat expansion and cold contraction, which is normal.
- When refrigerator starts and stops operating, relay and other components will give out "click" because of action, which is normal.

③ Temperature inside the refrigerator is not low enough

- Excessive setting temperature.
- Door is not closed tightly or refrigerator door is opened frequently, door opened for a long time.
- Place where refrigerator is located is affected from direct sunlight or too close to stove and heater, other heat source.
- Improper ventilation, panels on both sides of refrigerator steel plate on the back is blocked, or this position is too dirty.

④ Big noise

- Whether floor is flat and refrigerator is placed stably.
- Whether part of refrigerator touches external object or wall. Refrigerator gives out a sound and key operation is invalid.
- Check to see whether refrigerator is power-off.

(5) Invalid sound button operation of refrigerator

- Check to see whether refrigerator is power-off.
- Whether button operation is wrong, correctly operate as per "function introduction".
- 6 Automatic variation of temperature display value
- Temperature display value of refrigerator varies, which is normal.
- Variation of temperature display value under artificial intelligence: when environmental temperature changes, temperature of refrigerator will be adjusted automatically, which is normal.

⑦ Serious frosting on the back wall of refrigerator

- Temperature setting is improper and see "manual temperature regulation".
- Door is not closed tightly or propped by foods.
- Door is opened frequently.
- Hot weather, excessive moistening and improper ventilation.

⑧ Higher temperature of containing box of fridge

- Heat distribution through panels on both sides of containing box, partition between refrigerator compartment, temperature-variation compartment and freezer compartment, with higher temperature, which is a normal phenomenon.
- Operating for a long time and high temperature on the surface of containing box when using initially, which is a normal phenomenon.

(9) Compressor operating for a long time

- Operating for a long time when used for the first time, which is normal.
- Lots of foods are placed into the refrigerator at a time to be cooled.
- Hot weather and refrigerator is opened frequently.
- Refrigerator is not closely tightly.
- Low temperature setting and see "manual temperature setting";
- 1 Higher temperature of containing box and light is out

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• Whether lamp is damaged.

• Whether power is off.

Chapter 9 Trouble shooting

Abnormal phenomena

9-1. Symptom: No freezing



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9-2. Symptom: no shutdown



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9-3. Symptom: Poor freezing



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9-4. Symptom: No starting when powering on



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9-5. Symptom: no defrosting



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