

# Haier



## Icelined Refrigerator Operation Manual



Model :  
HBC - 80  
HBC - 150  
HBC - 260

English

Français

El español

Русский

中文

پښتو

- Please read this instruction carefully before using.
- Our company reserves the right to interpret the Operation Manual.
- The appearance of refrigerator please prevail in kind.
- Please keep it properly with the invoice after reading.
- Any upgrade of refrigerator or software is carried out without notice.



## Haier quality, it merits your trust from beginning to end.

This refrigerator is suitable for pharmacies, pharmaceutical factories, epidemic prevention stations, health centres and hospitals to store Biological products and items which shall be kept under at a temperature of between 2 and 8°C .

### Temperature Control

- Computer-controlled, digital display of temperature, the temperature display accuracy is at 0.1°C , and the temperature control range is between 2°C ~ 8°C .
- The solar temperature display system can use the natural light source to drive the system to display the temperature inside the box.

### Safety System

- Various fault alarm (high and low temperature alarm, power failure alarm and sensor fault alarm) two alarm modes (buzzer alarm and flicker light alarm).
- All independent components are safety gounded.
- High performance key components (compressor and fan, etc.) are safe and reliable.

### Excellent performance

- International Health Organization certification (PQS certification).
- It can meet the performance guarantee for only 8 hours powering per day.
- Wide environmental temperature design with outstanding performance at 5°C ~ 43°C environmental temperature.
- Wide voltage design, within  $\pm 20\%$  voltage range, it still runs stably.

### User-Friendly Design

- Humanized design computer control mode, smart without worry, no need to adjust.
- High-performance insulation layer, good heat insulation effect.
- Safety door lock and other humanized design.

The Haier refrigerator you obtained is probably not exactly the same as illustrated in the Operation Manual due to continuous improvement of product, and we sincerely apologize for this. The contents of the specification are subject to change without notice.

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# Safety Precautions

Dear user's:














Thank you for using Haier Icelined Refrigerator. For your better reading this specification and using this refrigerator, and to prevent from personal injury and damage to the goods, please read carefully and comply with the contents which has the following identifiers in this manual.























Actions or operations which are prohibited



Actions or operations which must be followed

-  In case of leakage of flammable gas such as coal gas, it is necessary to close the valve of leaking gas, open the door and window, ventilate and exhaust, and do not plug in or out the refrigerator, or it might cause an explosion or fire hazard.
-  Never cut or remove the earthing pin of the power cord in any case. Please make sure the plug and socket is connected firmly, or it might cause a fire hazard.
-  Please use an earthed power supply socket for fear of electric shock. If the socket is not grounded, make sure to install grounding line by professional personnel.
-  Do not use the refrigerator in the open air. When the refrigerator gets wet in the rainwater, it may cause leakage of electricity or electric shock.
-  Do not place the refrigerator in a damp site or a place where it may easily suffer from spraying water. Otherwise it will be possible by reducing the degree of insulation to cause electric shock or leakage.
-  Do not pour water onto the refrigerator in a direct inclined way, otherwise it may cause an electric shock or a short circuit.
-  Do not place any vessel containing water or any heavy object on the refrigerator. Avoid electric shock or electric leakage caused by water.
-  Do not make the refrigerator earthed via a gas-pipe, power supply conduit, telephone line or lightning rod. The above stated grounding will cause electric shock or other hazards.
-  Do not contact any electrical part or any switch, such as a power plug, with a wet hand, otherwise it may cause electric shock.
-  No inflammable or explosive dangerous goods or volatile items shall be stored in refrigerator, nor shall inflammable spray be stored near the refrigerator, otherwise it may cause explosion or fire.
-  Do not store corrosive articles such as acid, alkali etc. in the refrigerator. Otherwise, it may spoil the internal units or electric parts of the refrigerator.
-  It is not allowed to open holes on the refrigerator without permission, otherwise it will affect the heat insulation and refrigeration performance of the refrigerator.
-  It is not allowed to insert any items such as nail, iron wire or stick into holes or gaps of the refrigerator, otherwise it will cause machine damage or personal injury.

-  Do not climb up to the refrigerator or place articles on the refrigerator, otherwise it may cause personal injury or damage of refrigerator due to overturn of the refrigerator.
-  The plastic packaging bag should not be placed where the child is easy to get, because the plastic bag may cause suffocation.
-  Children shall stay away from the refrigerator to prevent from electric shock or other unknown injuries.
-  When pulling out a plug from the power socket, hold the power plug firmly but do not pull the wire of the power plug. Pulling the wire with hand may cause an electric shock or lead to a fire due to short circuit.
-  If the refrigerator runs out of order, please pull out the power plug. Continuous running in an abnormal condition may cause an electric shock or fire.
-  Before conducting any repair or maintenance of the refrigerator, be sure to disconnect the power of the refrigerator for fear of electric shock or personal injury .
-  Do not pull or carry the equipment by the door handle, preventing damage to the refrigerator or personal injury.
-  Do not spoil the refrigerating circuit.
-  Do not use any electric appliance in the store-room of the refrigerator except for the types that the manufacturer recommended for use.
-  If not used for a long time, the connection with the power supply shall be disconnected to prevent such events due to aging of the power line as electric shock and leakage of Electricity or fire.
-  If the refrigerator is left unused for a long time in an unattended area, make sure that children will not approach the refrigerator and the refrigerator door will not be closed completely.
-  Only qualified staff or post-sale service staff are allowed to install this container. Installation by non-professional staff might cause fire or damage.
-  Disposal of discarded refrigerator shall be conducted by the relevant personnel. When scrapped, the door body should be removed to prevent the occurrence of such things as suffocation.
-  The refrigerator shall be placed on even ground. Uneven ground might cause damage by container tilting and abnormal noise.
-  For circumstances of storing poisonous, harmful or radioactive items, please use this container in safe place. Improper use might cause damages to human health or environment.
-  Make sure that the drug or suspended substance inside or around the equipment is not sucked into the equipment during maintenance, otherwise it may cause harm to health.
-  After moving the refrigerator, it shall be kept still for 10 minutes without power, otherwise it might damage the refrigerating system.
-  Please close the refrigerator door by holding door handle to prevent fingers from pinching.
-  Put on your gloves at time of maintenance so as not to bump the sharp edges or corners, resulting in personal injury.
-  The inclination angle shall be no greater than 45 ° when handling the refrigerator.

- ❗ Only the professional technicians or after-sale service men can install this refrigerator. Failure to do so may result in electric shock or fire.
- ❗ Make sure to place the refrigerator firmly on a solid and flat ground. If the ground is not stable or it is not properly placed, it will cause overturn of the refrigerator or personnel injury.
- ❗ Please use the dedicated power supply indicated on the nameplate of the refrigerator, or otherwise, it may cause a fire or electric shock.
- ❗ If the voltage is unstable, add an over-1000W automatic voltage stabilizer suitable for motor load.
- ❗ If it is required to lengthen the power cord, the section area of the lengthen cord must not be less than  $1\text{mm}^2$  and the length shall not be longer than 3m. No It is possible to cause a fire or electric shock.
- ❗ The power cord of this refrigerator is provided with a three-wire (earthing) plug, complying with the standard 10A three-wire (earthing) socket.

# Precautions for use

- Please check if the inner temperature reaches the setting value before placing the goods into the refrigerator. Then, place a few items into the former in batches.
- The displayed temperature value of the refrigerator refers to the temperature of the temperature sensing probe in the display box. Although the displayed temperature may be different to the actual temperature of the refrigerator center, but it will gradually reaches the actual one.
- Clean this refrigerator with the diluted neutral detergent. Do not clean this refrigerator with the brush, the acid, the gasoline, the soap power, the polishing power or the hot water. This is because such materials may damage the painting surface and the plastic and rubber parts. Be sure not to wipe the plastic and rubber parts with any volatile solvent, as the gasoline.
- Please disconnect the power supply when the refrigerator will not be used for a long period.
- Please reduce the opening time of door for each access of the storage, to avoid the great fluctuation of inner temperature.
- When the door is opened, the inner temperature of the box will be increased sharply in a short time, which is normal. This phenomenon will be resumed within 1h after closing the door.
- The ambient temperature for using the refrigerator of this series is  $+5^{\circ}\text{C}$  to  $+43^{\circ}\text{C}$  . The temperature of the vaccine storage area in the box may be  $+2$  to  $+8^{\circ}\text{C}$  higher in case the ambient temperature is lower or higher than the specified range.
- A storage basket is provided to this refrigerator. Please keep the items in the basket as much as possible.
- The displayed temperature/humidity of this refrigerator may be different to the actual temperature humidity inside the box due to the refrigerating inertia. This is normal.
- The refrigerator cabinet might condense in high temperature and high humidity environment. it is normal and do not affect the storage temperature in the refrigerator.



## Installation environment

- Ambient temperature: 5 °C to 43 °C . Good ventilation. Air conditioning system shall be used if necessary.
- Ambient humidity: 15%~90%
- Avoid large quantities of dust.
- Avoid mechanical sway or vibration.
- The working position altitude of the refrigerator: below 2000m.
- Rated power: 220V ~ 240V/ 50Hz, please refer to each model specification table.



Caution

It is prohibited to install the refrigerator under the open sky. When the refrigerator gets wet in the rainwater, it may cause leakage of electricity or electric shock.

## Installation site

For normal operation and optimum performance level of the refrigerator, its installation place shall conform to the following conditions:

- It is only used for stand-alone installation, and shall not be installed in the recess or in the embedded installation, and cannot be installed in a narrow and closed place. The size of the door body of the room shall not be less than and lower than the size of the product. At least it shall make sure the product can get in and out the room normally to prevent from stored items damage caused by difficult or late repairing if there are failures of the stored goods.
- The ground at the installation place shall be solid and flat.
- It shall be well-ventilated without direct sunshine.
- Do not share a socket with other equipment, the plug and socket shall be well connected.
- Do not distort nor stress the power cord.
- If it is required to lengthen the power cord, the section area of the lengthen cord must not be less than 1mm<sup>2</sup> and the length shall not be longer than 3m.
- Check the operating voltage before use, and in the area where the voltage is unstable should consider using a voltage regulator suitable for motor load voltage stabilization. In order to ensure that the normal input voltage is stable at 20% of the rated voltage, the power of the refrigerator is greater than 1000W.
- The refrigerator shall ensure reliable earthing and in any case the third power cord(earthing) shall not be cut or removed Plug.
- If the power socket has earth wire, check if the earthing is good before use.
- If the socket is not furnished with an earth wire, be sure to install one by the professional engineering and technical personnel.
- Each 8g of R600a refrigerant shall have a space of  $\geq 1\text{m}^3$  to prevent the refrigerant from becoming flammable in case of accidental leakage gas mixture.



Warning

- Do not make refrigerator earthing via gas piping, water supply pipe, telephone line or lightning rod that may easily cause or safety accident.
- After installation, the total power supply wiring or plug must be accessible for convenience in case of emergency Disconnect the power. Do not cover the ventilation of refrigerator with any item.

## Preparation before use

### 1. Remove the packing materials and the packing straps

Take down all the packing material and packing straps used for transportation.

#### Caution

- Before unpacking the package, the refrigerator can be transported with forklift or clip charter. If using forklift, It shall insert under the wood support plate of the refrigerator from front or back side and move the refrigerator. If using clip charter, It shall clip from under the wood support plate and only clip the side face of the refrigerator.
- After removing the package, please strengthen the protection to avoid from hurting the foot when carrying the refrigerator or needing to change the position.
- The inclination angle of the refrigerator shall not be greater than 45 ° during transporting.
- Put the package plastic bag away from the children.

### 2. Check the appendix with the refrigerator

According to the packing list contents to check items in the package box. If there is any discrepancy, please contact the after-sales service in time.

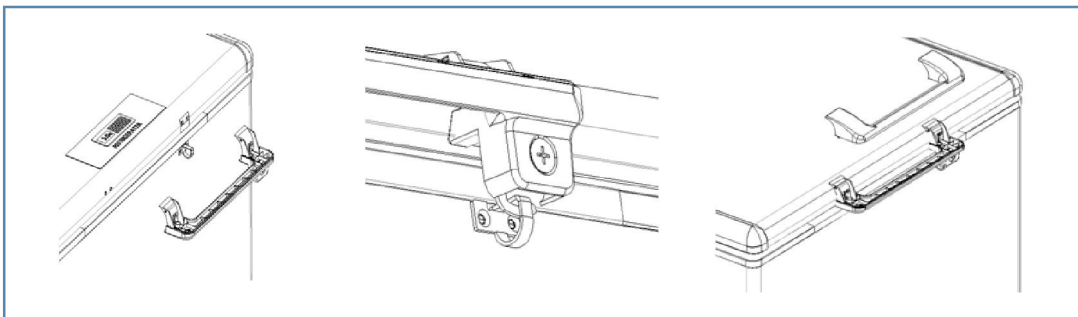
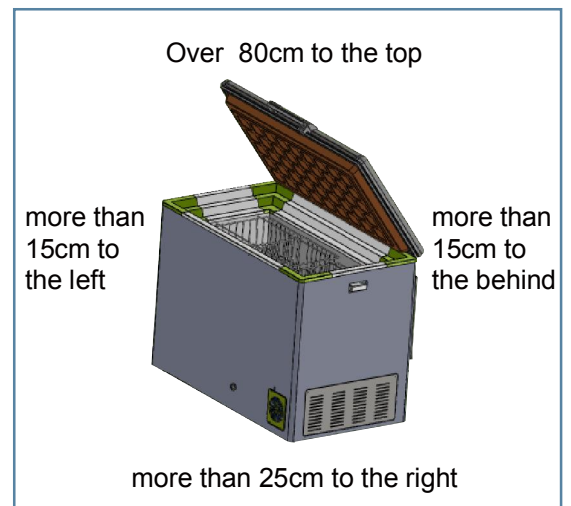
### 3. Placement condition

- Leave a gap of at least 10cm around the storage box to ensure good circulation of the surrounding air and facilitate the removal of heat.
- In order to ensure the normal opening of the door, a space of 80cm shall be left above the top.

NOTE: Sufficient space shall be reserved at the grid of the engine room (at least 20 cm to the wall surface) to make it more convenient for maintenance And ventilation.

### 4. Installation of handle

- a. Take out the handle;
- b. The lower part of the handle is aligned with the threaded hole on the door cover;
- c. Make sure the hook on the lock nose and the box body can correctly fit;
- d. Tighten the fastening screws in turn;
- e. Tighten the handle cover and tighten the bottom screw .



## 5. Set aside

Do not power on the refrigerator firstly after leveling and cleaning.

Let it stand for over 24 hours before powering it on so as to ensure normal running of the refrigerator.

## 6. Before the main power switch is energized, confirm the following matters:

1. Verify that the voltage is 220V-240V, 50Hz AC;
2. When it is initially energized, stand for more than 24 hours.
3. Turn on the power switch on the side of the electric cabinet after making sure the above matters are correctly done.

## 7. Equipment operation

When the machine is running, check whether the compressor and fan in the engine room are in normal operation. Due to the different use environments, each The cooling time of the refrigerator is different. Generally after being energized for 24 hours, the temperature in the refrigerator can be reduced to a range from (+ 2°C to +8°C ), only at this time shall the vaccine be loaded in the vaccine basket on the rack).



Caution

- Do not connect non-compliant power supplies.
- The display screen on the door cover is also powered by solar energy, and there is no other methods of power supply. in the case of weak light, There may be no temperature display or screen flashing. Shine with a flashlight or other light source for about 3 seconds, the screen shows inner real-time temperature normally. After the light source leaves, the screen returns to its original state.

## Initial Power-on

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Please observe the following rules when conducting initial start-up and continuous running:

In the case of empty container, connect the refrigerator to the power supply of appropriate specification.



When the power is turned on, the temperature controller display will light on.



Before leaving the factory, the corresponding parameters have been set. No manual setting is required.

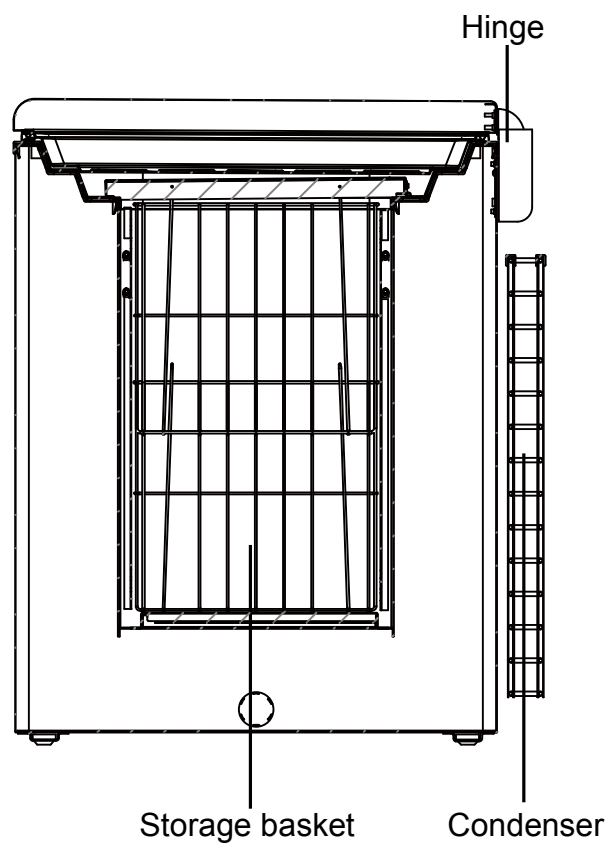
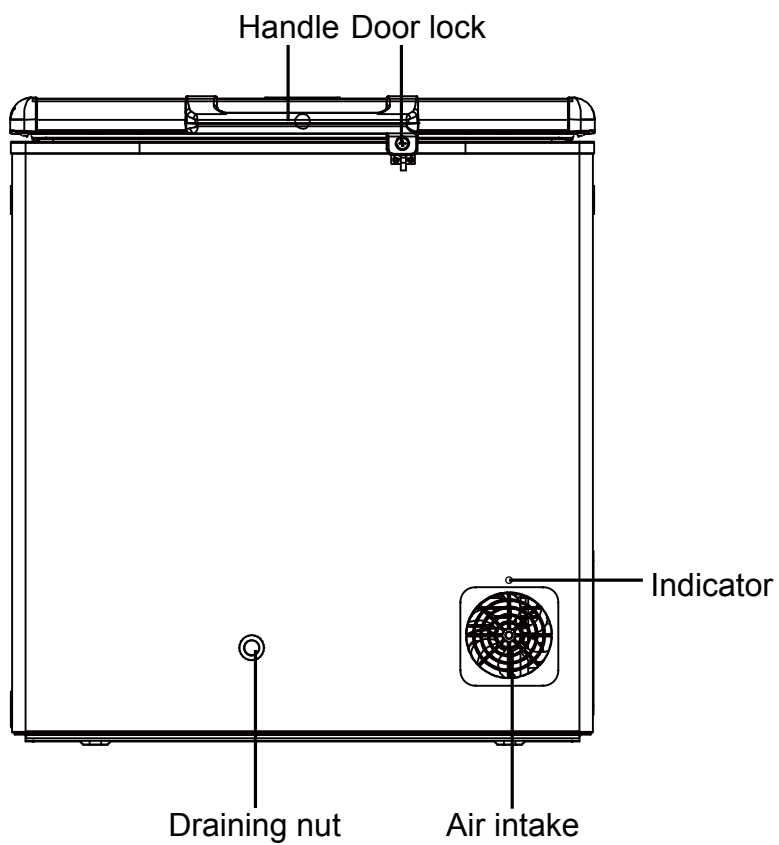


After approximately 72 hours of running, the refrigerator temperature can reach a reasonable temperature range.

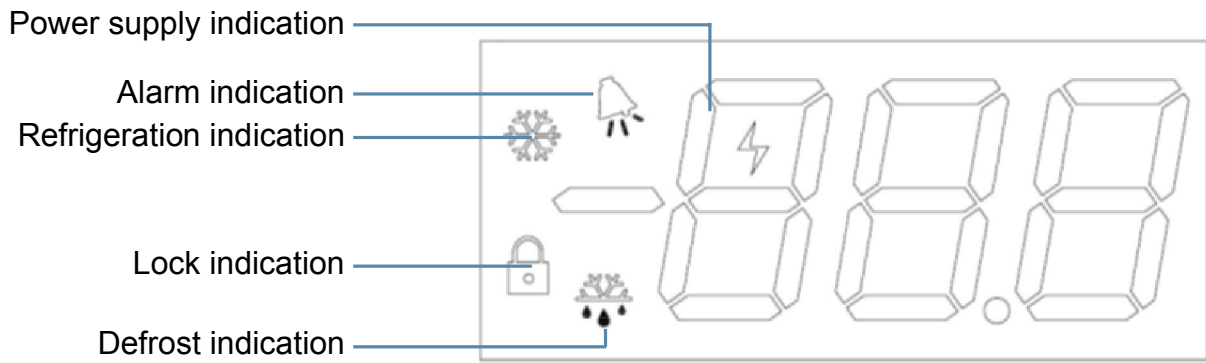
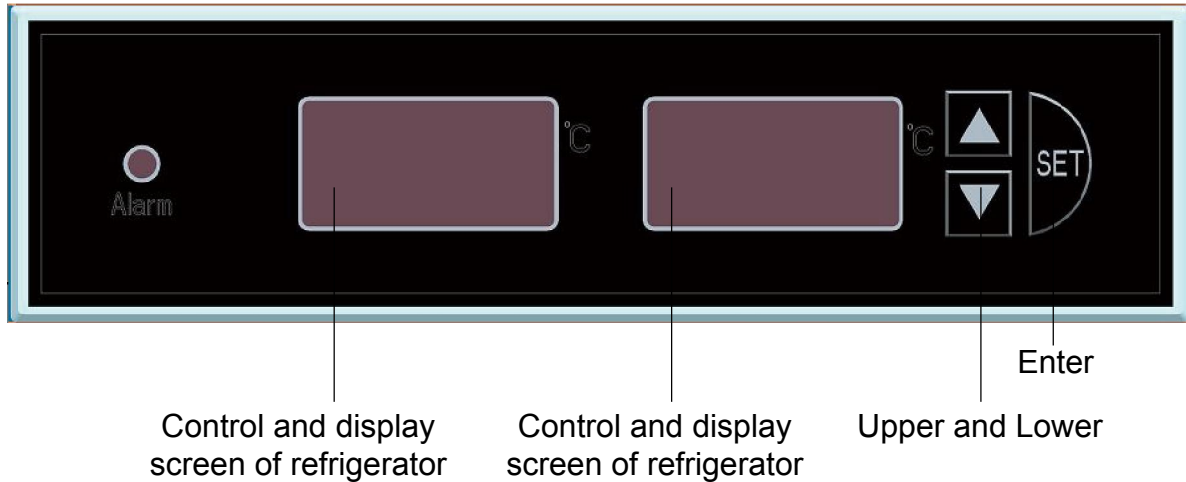


After completion of the inspection on the running of the refrigerator and after the temperature reducing to a reasonable range, add items in the refrigerator.

# Name of each component



# Method of Use



1. Power supply indication: The external voltage reaches a certain value, which is displayed.
2. Alarm indication: When the controller is in the alarm state, the symbol flashes to alert the user.
3. Refrigeration indication: This symbol is displayed when the refrigeration is working.
4. Lock indication: This symbol displays when the controller is locked.
5. Defrost indication: This symbol displays when the controller is defrosting. This product does not have this function.

The controller is installed in the electric cabinet and is used for controlling the operation of the compressor. The parameters of the factory are already set before leaving factory, User changing parameters are not supported.

For the three models of HBC-80, HBC-150 and HBC-260, the temperature inside the refrigerator is displayed on the left side display screen. The display screen on the right will not display at normal situation. It will display only in the case of commissioning and maintenance.

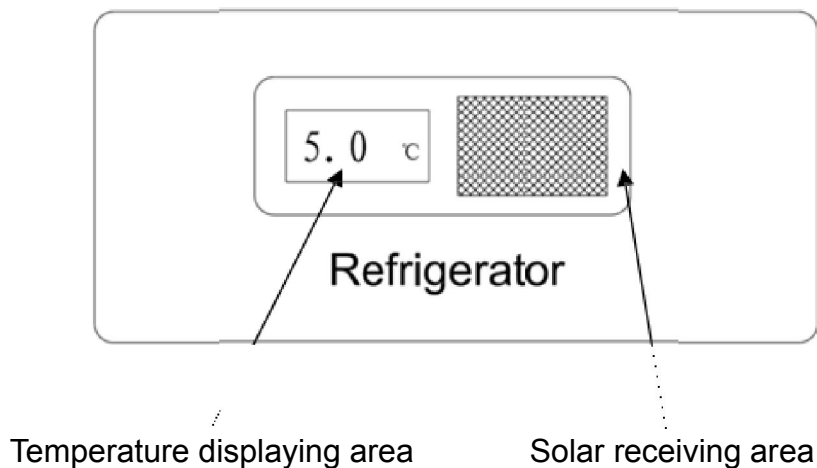
When the temperature controller is powered on, the screen of the temperature controller lights on, and at the same time the buzzer makes 2 sound; within 2 minutes, if there is no key operation, the controller will automatically turn off the display, and only the power flag flashes.

Press the "SET" button again, the screen will light again.

- Temperature controller fault code

Display symbols	Description	Remarks
Er2	Refrigerating sensor failure	
Er4	Ambient temperature sensor failure	
AH2	high temperature alarm	
AL2	low temperature alarm	

- Temperature displayer



REFREGUTOR--shows the temperature of the vaccine storage area;

The displayer is equipped with solar energy and is powered by itself, without additional circuitry. The display only shows the temperature inside the refrigerator, Do not control the refrigeration system of the product.

The solar receiving area cannot be blocked during its usage; otherwise the temperature displaying area will not display.

# Cleaning and Maintenance

## Component Cleaning

### Warning

- Before cleaning, turn off the main switch and disconnect the power supply.
- The detergent of the cleaning product must be diluted, otherwise the plastic part or the refrigerator shell might be change color.
- If the product is not used for a long time, turn off the switch, disconnect the power supply and empty the contents in the refrigerator.

### Daily maintenance

Wipe the periphery of the tank liner to prevent leaking drug or other liquid corroding liner.

### Monthly maintenance

Remove the dust of storage box cabin grid, condensation fan, compressor bottom plate to prevent from affecting heat dissipation.

- Wipe the door seal to prevent dirt from affecting the seal of the door body.
- Use dry cloth to wipe off the dust on the product shell and the interior space. If the product is very dirty, clean the dirt with cloth immersed with the neutral detergent and wipe off the residual detergent with a wet cloth, and then use using a dishtowel to wipe water off.
- Clean the condenser to prevent from accumulation of dust that influences heat dissipation.

### Disposal of waste container

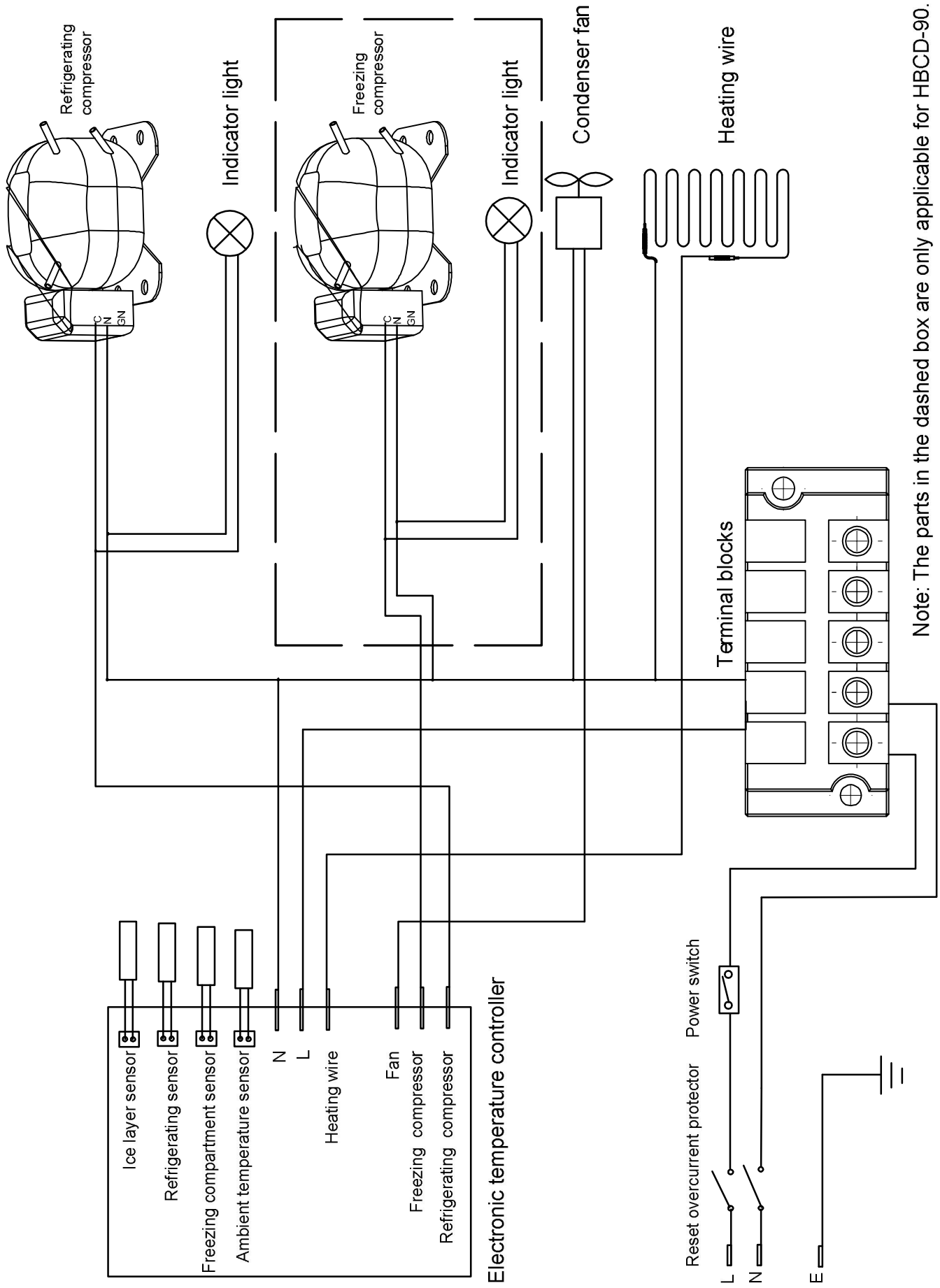


There is a symbol on the refrigerator, on the package, and in the file along with the refrigerator, indicating that the used electrical and electronic products and battery cannot mix with the general household garbage. In order to reasonably process, recycle and reuse old products, follow the relevant laws and regulations of the host country and 2002/ 96/ EC, and transport it to the designated recovery site as per Directive 2006/ 66/ EC . Dealing with these items reasonably is to preserve useful resources, prevent them from damage to human health and the environment and to avoid bad consequences caused by improper waste dealing. If more information is needed on the recycle and reuse of these items, please contact local government authorities, waste disposal centers or product points of sale. According to national regulations, improper handling of these wastes may be punished.

For commercial users of the EU, if you need to remove electrical and electronic equipment, please contact the wholesaler and provider for further information. Information of disposal of these wastes for countries out of EU, these symbols are valid only in the EU. If you need to disassemble the refrigerator, please contact the local government authority or dealer to inquire correct methods for disposal.



# Wiring Diagram



Note: The parts in the dashed box are only applicable for HBCD-90.

# Specification&Packing Slip

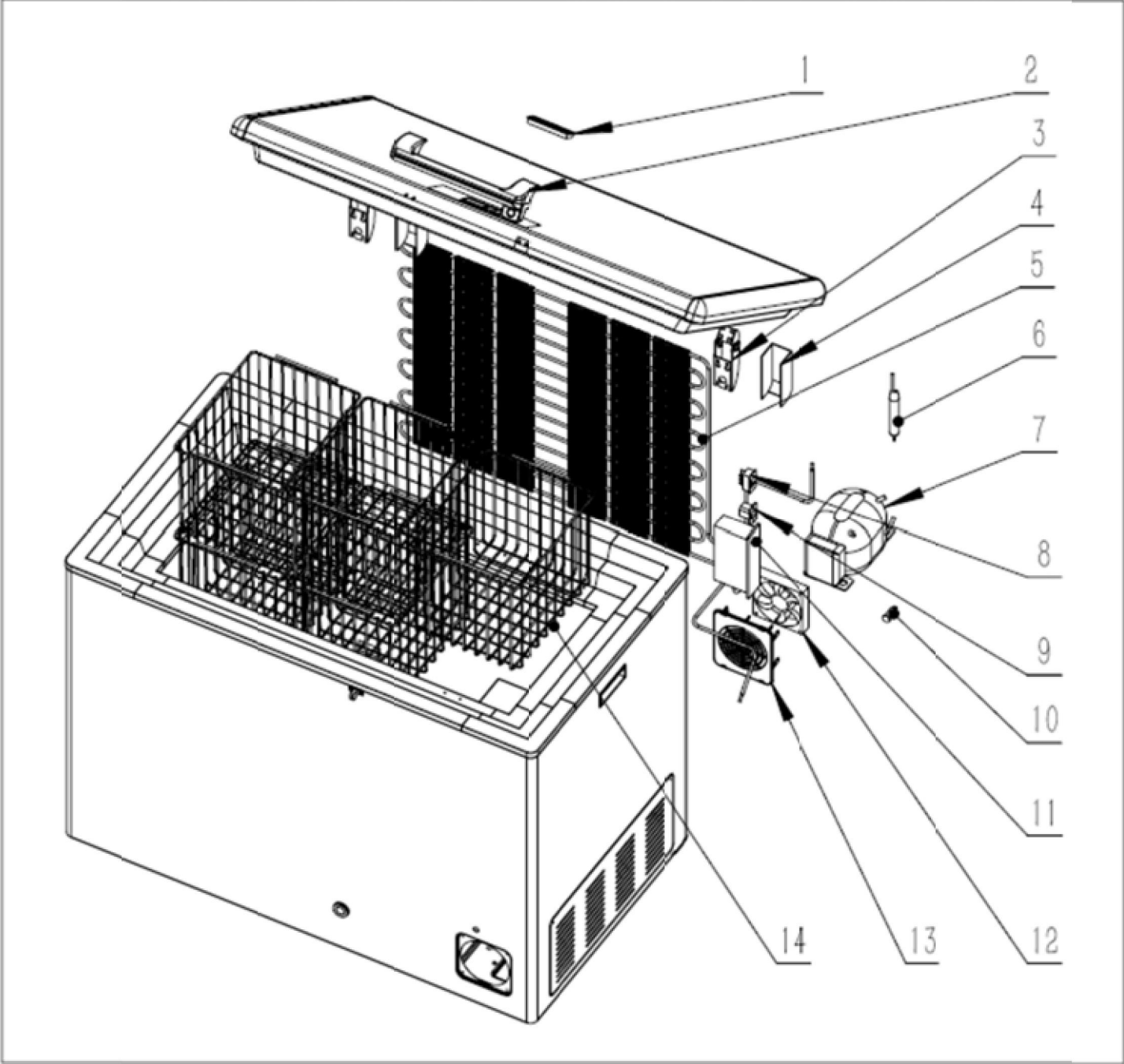
## Specification

Model No.	HBC - 80	HBC-150	HBC - 260
Ambient temperature (°C )	+5 - +43	+5 - +43	+5 - +43
Temperature range of refrigerator ( (°C )	+2 - +8	+2 - +8	+2 - +8
Gross Volume (L)	80	150	260
Vaccine Storage Capacity (L)	61	122	211
Refrigerant R600a (g)	60	70	90
Rated voltage (V)	220-240~	220-240~	220-240~
Rated frequency(Hz)	50	50	50
Rated power (W)	90	110	160
Overall dimension (W x D x H) (mm)	788×654×875	1128×654×875	1650×654×940

## Packing Slip

Model No.	HBC - 80	HBC-150	HBC - 260
Operation Manual	1	1	1
key	2	2	2
Handle assembly	1	1	1

# Explosion diagram



Details of Explosion diagram

No.	Special No.	Name	Remarks
1	0274000357	Solar display screen	
2	0070814623D	Handle Assembly	
3	0070816334	Hinge assembly-assembly	
4	0070203942B 0070204349B	Upper/ Lower Hinge Cover	
5	0270700425	HBC-80 Condenser	HBC-150 back condenser: 0270700421 HBC-260 back condenser: 0270700621
6	0074180007	The filter	
7	0274000418	Compressor	
8	0075050003	Power switch	
9	0270400390	Power cord socket	
10	0075050018	Power light	
11	0274000352A	Temperature Controller	
12	0074000172	Blower fan	
13	0270200838	Fan cover	
14	0270102688A 0270102688B	Storage basket	