Haier Biomedical

Pharmaceutical Refrigerator
Instruction Manual

Certificate of Quality

checker:

Model:
HYC-130GD
HYC-130FD

Manufacturer:
Qingdao Haier Biomedical Co., Ltd.
Address:
No. 280 Fengyuan Road, High-tech Zone, Qingdao,
266111 Shandong, P.R. China
Web:www.haiermedical.com
Revision Date:12/2024
Version:1st,2024
Dedicated code:0270500000
V13026

Haier Biomedical
Makes Life Better

- Please read this manual thoroughly before using the equipment.
- Haier Biomedical reserves the right to interpret the Operation Manual.
- The appearance of a unit may be subject to change.
- Save the manual and the proof of purchase for easy future reference.
- This product need to be operated by professionals, and there are risks for home use.

Content

Electromagnetic compatibility requirements

Guidance and manufacturer's declaration-electromagnetic emissions	
Emissions test	Compliance
RF emissions CISPR 11	Group 1
RF emissions CISPR 11	Class A

Guidance and manufacturer's declaration-electromagnetic immunity			
Port	Immunity test B	asic standardC	ompliance level
EnclosureE	lectrostatic discharge (ESD)	IEC 61000-4-2	4 kV contact discharge 8 kV air discharge
	Electromagnetic field	IEC 61000-4-3	3 V/m (80 MHz to 1 GHz) 3 V/m (1,4 GHz to 2 GHz) 1 V/m (2,0 GHz to 2,7 GHz)
AC power (including protective earth)	Voltage dip	IEC 61000-4-11	0 % during half cycle 0 % during 1 cycle 70 % during 25 cycles
	Short interruptions	IEC 61000-4-11	0 % during 250 cycles
	Burst	IEC 61000-4-4	1 kV (5/50 ns, 5 kHz)
	Surge	IEC 61000-4-5	0,5 kV)/1 kV)
	Conducted RF	IEC 61000-4-6	3 V (150 kHz to 80 MHz)

Safety Precautions

Dear Customers,

Thank you for choosing Haier pharmaceutical refrigerators. Before using the equipment, we advise that you carefully read and understood the contents and signs in this manual. This is to ensure your safety and prevent potential damage to stored products and the refrigerator.

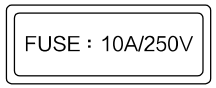
Safety labels


Warning


Flammable material


Hot surface


Grounding mark



Fuse

Safety precautions


Under all conditions marked with ⚠, it is necessary to consult the document, so as to clarify the nature of potential risks and any countermeasures that must be taken.

⚠Warning — Ignoring this warning may result in death or serious injury

⚠Caution — Ignoring this warning may result in death or serious injury,and/or damage to the freezer and property

Actions or operations which are prohibited

Actions or operations which must be followed

- In case of flammable gas leakage such as coal gas, shut off the valve of leaked gas, open windows for ventilation and exhaust; do not plug in or pull out the power plug of refrigerator to prevent explosion and fire.
- The refrigerator shall be installed by professional technical staffs or after-sale maintenance staffs to prevent electric shock or fire.
- Place the refrigerator on a solid and flat ground in a stable manner. The refrigerator will be tipped over or personal injuries will be caused if the refrigerator is placed on improper ground or place.
- Apply the dedicated power supply marked on the nameplate of refrigerator to prevent fire or electric shock.
- If the voltage being used is 10% higher or lower than the rated voltage, an automatic voltage regulator above 500W and appropriate for motor loadshall be installed.
- If the power line needs to be extended, the extended line shall be no smaller than 2mm² in sectional area and no longer than 3m in length. Otherwise, fire or electric shock may be caused.

- The power line for this refrigerator is provided with a standard three wire (grounding) plug,which complies with 10A. Do not remove or dismantle the grounding pin of power line in any case.
- Apply socket with ground wire to prevent electric shock.If the socket fails to be grounded,ground wires must be installed by professional technical staffs.
- The refrigerator shall not conduct outdoor service. Electrical leakage or shock may be caused if wet by rainwater.
- Do not place the refrigerator in humid places or places where the refrigerator may suffer splashing water, to prevent electric leakage or shock due to deterioration of insulation.
- Do not pour water on the refrigerator to prevent electric shock or short circuit.
- Do not place containers with water or heavy stuffs on the refrigerator. Personal injuries may be caused by falling articles and electrical leakage or shock may be caused by out flowed water due to deterioration of insulation.
- Do not ground the refrigerator through gas pipes, water supply pipes, telephone lines or lightning conductors as electric shock or other dangers may be caused.
- Do not touch electrical parts such as power plug or switches with wet hands to prevent electric shock.
- Hold the power plug rather than the wire when pulling the plug from the socket as electric shock or fire due to short circuit may be caused.
- Pull out the power plug when the refrigerator is under abnormal performance as electric shock or fire may be caused.
- Users are not allowed to dismantle, repair or retrofit the refrigerator by themselves as fire or personal injuries may be caused due to improper operation.
- Disconnect the refrigerator when repairs or maintenance are performed on the refrigerator to prevent electric shock or personal injuries.
- Do not inhale airborne chemicals inside and / or near the refrigerator during maintenance as health hazard may be caused.
- The refrigerator shall be used in safe regions when toxic, harmful or radioactive articles are stored inside, as improper use may pose danger to human health or environment.
- Pull out the power plug if the refrigerator has been out of service for longtime to prevent electric shock, leakage or fire caused by aging power lines.
- If the refrigerator is left unused in areas where supervision is unavailable for a long time,make sure children will not get close to the refrigerator and the door can not be completely closed.
- End-of-life disposal shall be performed by competent staffs. Remove the door to prevent accidents such as suffocation.
- Do not store explosive substances such as aerosol cans with a flammbale propellant in this appliance.
- Do not store corrosive articles such as acid or alkali in the refrigerator to prevent damage to internal components or electrical parts.
- Do not place packaging plastic bags within the reach of children to prevent suffocation accidents.

Accessory Packing List

Name	HYC−130GD	HYC−130FD
Operation manual	1	1
Factory inspection report	1	1
Performance test report	1	1
Key	2	2
Shelves/Baskets	3/1	3/1
Power cord Kits	1	1
Fuse	5	5

Global Warming Potential

Model	Rated voltage(VAC)	Rated frequency (Hz)	CO_2 equivalent(Tonnes)	Certificate
HYC−130GD	115	60	0.0006	UL
HYC−130FD	115	60	0.0006	
HYC−130GD	220-240	50/60	0.0006	CE
HYC−130FD	220-240	50/60	0.0006	

This product contains fluorinated greenhouse gases covered by the Kyoto Protocol. Do not vent into the atmosphere.

GWP=global warming potential

Refrigerant type	GWP
R600a	20

Specification • Packing List

Specification

Name	Pharmaceutical refrigerator			
Model	HYC-130GD		HYC-130FD	
Certificate	CE	UL	CE	UL
Exterior Dimensions (W×D×H) (mm)	597 × 667 × 840			
Interior Dimensions (W×D×H) (mm)	515x455x625			
Capacity	130L			
Inner temperature(℃)	2-8			
Door	Glass door		Solid door	
Insulation material	Rigid polyurethane foams (Fluoride-Free)			
Compressor	Hermetically sealed compressor			
Shelves/Baskets	3/1			
The loading of each shelf	18kg			
Cooling Type	Forced-air cooling			
Exterior material / Interior material	Painted steel /High Impact Polystyrene (HIPS)			
Condenser / Evaporator	Bare tube type / Fin type			
Temperature Controller	Microprocessor			
Refrigerant	R600a			
Inner light	LED			
Net Weight	48kg		40kg	
Voltage, Rated frequency	220V−240V~, 50 / 60Hz	115V~ /60Hz	220V−240V~, 50 / 60Hz	115V~ /60Hz
Rated Power	180W	160W	180W	160W
Noise Level(Lp)	40dB(A)			
Anti-shock Safety Classification	I			
Climate Type	N			
Alarm	High and low temperature, high ambient temperature, door ajar, power failure, low battery, sensor error, communication failure, remote alarm			
Battery duration for alarm system	24h (when the battery is fully charged)			

- Do not climb on or place articles on the refrigerator as personal injuries or refrigerator damage may be caused due to turnover of refrigerator.
- Do not plug metal articles such as iron nails or wires into the holes and gaps or vents for internal air circulation, to prevent electric shock or personal injuries due to contact of articles above with moving parts.
- Check refrigerator settings when restarting the refrigerator after power failure or the power is shutoff. Changes of settings may damage the articles stored.
- The refrigerator shall be reconnected after more than 5 minutes once it is shut off, to prevent damage to compressor or system.
- Wear gloves when performing maintenance to prevent personal injuries due to sharp edges or corners.
- Hold the knob when closing the door to prevent finger pinching.
- The angle of inclinationshall not be greater than 45°when handling the refrigerator.
- Be careful not to be tripped up by the refrigerator during handling, to prevent refrigerator damage or personal injuries.
- Do not lift or handle equipment with door knob to prevent refrigerator damage or personal injuries.
- Do not use any electrical appliances inside the appliance, unless it is approved by the manufacturer.
- The appliance must be positioned so that the plug is accessible.
- The appliance must be placed on a solid and flat surface, or excessive vibration and noise may be produced when the appliance in operation.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction.
- If your cabinet is to be discard, you must remove the door and leave the shelves in place. This will reduce the posibility of danger to children. And the flammable foaming needs to be disposed by professional persons.
- Keep all ventilation openings in the enclosure or, in the structure for building-in, clear of obstruction.
- Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- Do not damage the refrigerant circuit.
- In order to reduce flammability HAZARDS the installation of this equipment shall only be carried out by a suitably qualified person.

- DANGER – Risk Of Fire Or Explosion. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Puncture Refrigerant Tubing.
- CAUTION – Risk Of Fire Or Explosion. Flammable Refrigerant Used. Consult Repair Manual / Owner's Guide Before Attempting To Install Or Service This Equipment. 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 Flammable Refrigerant Used. Follow Handling Instructions Carefully in Compliance with U.S. Government Regulations.

  This unit is intended for use in commercial, industrial, or institutional occupancies as defi ned in the Safety Standard for Refrigeration Systems, ANSI/ASHRAE 15.
- DANGER – Risk Of Fire Or Explosion. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Puncture Refrigerant Tubing.
- CAUTION – Risk Of Fire Or Explosion. Flammable Refrigerant Used. Consult Repair Manual /

  Owner's Guide Before Attempting To Install Or Service This Equipment. 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 Flammable Refrigerant Used. Follow Handling Instructions Carefully in Compliance with U.S. Government Regulations.

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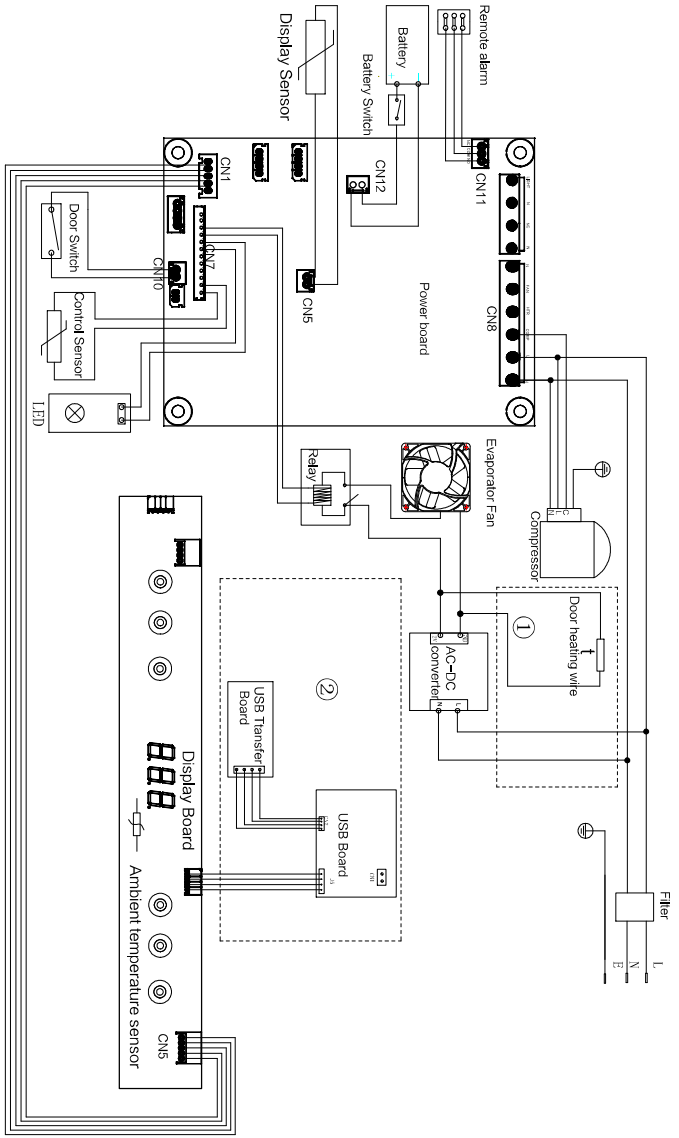
- Caution – RISK Of Fire Or Explosion due to FLAMMABLE REFRIGERANT Used. Follow Handling Instructions Carefully in Compliance with U.S. Government Regulations.

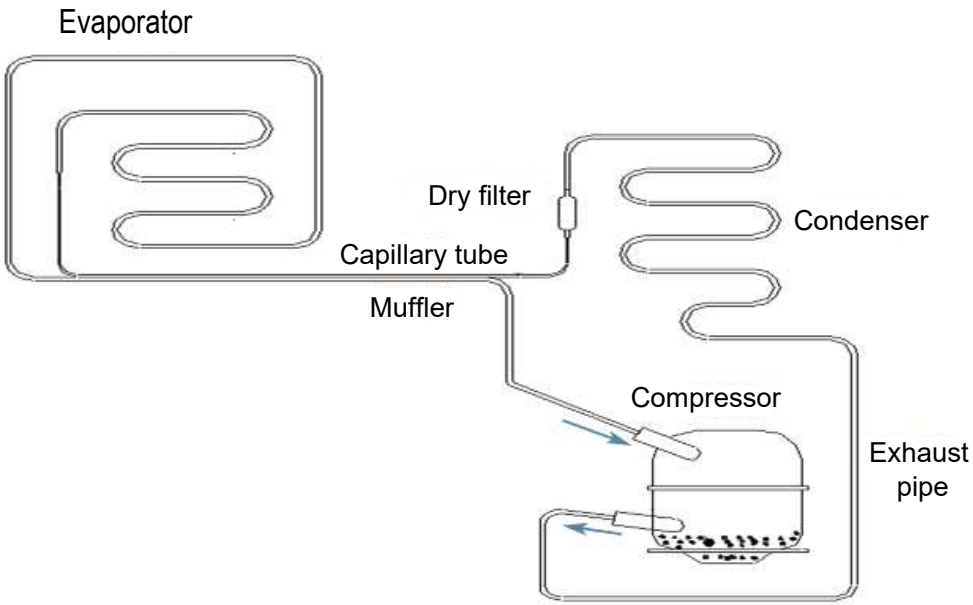
Circuit diagram



※1、Note ① is only for HYC-130GD
2、Note ② are optional

Refrigeration Schematic • Wiring Diagram

Refrigeration Schematic



Usage Precautions

The product is applicable to pharmacies, pharmaceutical factories, quarantine stations, health centers and hospitals, used to store biological products and those need to be stored at a temperature between 2℃ ~ 8℃ .

• Make sure the temperature inside the refrigerator has reached the set value and put articles in the refrigerator by batch. Volumes accounted by articles shall not be greater than 1/3 of refrigerator to prevent rise of temperature.

• The temperature display value of refrigerator refers to the temperature value at the temperature sensing probe inside the refrigerator. Though the temperature displayed is different from the actual one at the center of refrigerator, it will approach to the real temperature gradually.

• Clean the refrigerator with mild detergent water. Brushes, acids, gasoline, soap powders,polishing powders or hot water are prohibited to clean refrigerator as these materials may damage the painting surface and plastic & rubber components and parts. Never wipe the plastic & rubber components and parts with volatile solvent such as gasoline.

• Shut off the power if the refrigerator will be out-of-service for a long time.

• Reduce the time of keeping door open when storing or taking articles each time, to prevent great fluctuation to the temperature and humidity inside the refrigerator.

• The refrigerator will see a sharp temperature increase in a short time when the door is opened,which is normal, and the temperature will resume 1h after the door is closed.

• The refrigerator shall operate with ambient temperature as 16 ℃ ~32 ℃ ; if the humidity is higher than 80%RH,condensation will occur on the glass door in high temperature and high humidity condition, which is normal and will not affect the storage temperature inside the refrigerator; in the event of condensation, please improve ventilation conditions as soon as possible and reduce ambient temperature simultaneously.

• Please keep the article inside at least 20mm away from the cabinet back wall!

• The maintenance should be supplied by professional after-sales service people once the equipment is faulty.

Meaning of crossed –out wheeled dustbin:

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact you local government for information regarding the collection systems available.If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

Product Installation

Installation Environment

- Ambient temperature: 16℃ to 32℃ ; optimal range is 16℃ to 25℃
- Humidity: below 80%RH
- Avoid excessive dust.
- Solid and stable ground
- Installation altitude lower than 2000m.
- Voltage: nominal voltage ±10%.
- Overvoltage category:The transient state is Category II facility.
- Pollution Degree:2

⚠Caution

- When installed in a condition deviated from the specification, refrigerators can't achieve its designed optimal performance.
- Do not install a refrigerator outdoors. Electric shock or leakage is possible if the unit is rained on.

Installation Site

The following requirements should be met to ensure the optimal performance of a refrigerator: • Do not install a refrigerator in a narrow and confined space. The door dimensions of the installation space must be larger enough to allow the unit to be moved freely in and out of the space as needed.

- Floor area for the installation must be solid and flat.
- Installation space must be sufficiently ventilated and there is no direct sunshine.
- Use a dedicated power outlet. Power plugs must be plugged into the outlet securely.
- Voltage to a unit should be within the range of nominal voltage +/- 10%.
- Do not twist or compress the power line.
- If the power line needs to be extended, the extended line shall be no smaller than 2mm² in sectional area and no longer than 3m in length.
- Check the operating voltage before operation and voltage regulator appropriate for motor load may be applied in regions with unstable voltage.Ensure the normal input voltage stands at rated voltage ± 10% and the power of voltage regulator is greater than 500W.
- The refrigerator shall be grounded in a reliable manner.
- If the socket is provided with grounding wire, check if it is well grounded before operation.
- If the socket is not provided with grounding wire, a new one shall be installed by professional engineers.

⚠Warning

- Do not connect a refrigerator's ground via gas pipes, water supply pipes, telephone lines, or lighting conductors. The improper connection can cause electrical shock and damage.
- The power plug should be easily accessed and pulled should there be an emergency. Air vents should be free from any obstruction.

FAQ

Do you have questions during using? Do you doubt that the refrigerator breaks ead description here. This chapter is to give answers in respect of potential fault phenomenon as well as respective solutions.If your question is still unresolved after operation, please contact Haier after-sales service.Do not maintain and dismantle the refrigerator by yourself!

Fault	Troubleshooting
The refrigerator does not work	Whether the input power meets the requirements
	Whether the plug and socket are in loose contact
	Whether the input line and control line break down
	Whether the voltage is too low
Refrigeration effects are not apparent, temperature exceeds the standard	Whether too much or too hot articles are stored
	Whether there is certain clearance among stored articles
	Whether the refrigerator is exposed to direct sunlight or radiation of other heat sources
	Whether the door is opened too often
	Whether the ambient temperature is too high
	Whether the air duct is blocked
Noise is too significant	Whether the refrigerator is placed steadily
	Whether part of the refrigerator contact external objects or wall
	The noise noted in technical data is average data measured in standard laboratory without noise when the refrigerator with no stored articles is put on a rubber blanket and operates steadily after the door is closed, and data measured during startup & shutdown and at 1 m above the surface is not included. It is normal that actual noise differs from stated value because of loaded articles, environmental noise, no door closing, startup & shutdown of the compressor during using.
Alarm light flashes, the buzzer alarms	Whether the articles are newly put in the refrigerator and the temperature is not stabilized at 3~7℃ . The fault will be eliminated automatically after refrigeration for a while.
	Whether the door is not closed completely, which triggers alarm of door opening
	Whether the power fails, the refrigerator returns to normal condition after starting up for a while
	Whether the temperature exceeds the standard

Rechargeable battery recycling

The refrigerator has a built-in rechargeable battery, which is recyclable. When the battery reaches the end of its service life, please contact the relevant local battery recycling agency to check or dispose of the battery correctly.

Location of the battery

The battery is used for power failure alarm, and the location of the battery is in the cabin above the box.

There are high-voltage electrical components in the electric control box.

In order to prevent electric shock, the work of opening the cover needs to be completed by professional engineers or maintenance personnel.

Take out of battery

1. Turn off the power switch and pull out the power plug from the socket;
2. Use a screwdriver to remove the fixing screws of the top cover of the engine room;
3. Loosen the plug-in terminal of the battery;
4. Take out the battery from the fixing strap;
5. Recycle the battery or dispose of it properly in accordance with the regulations.

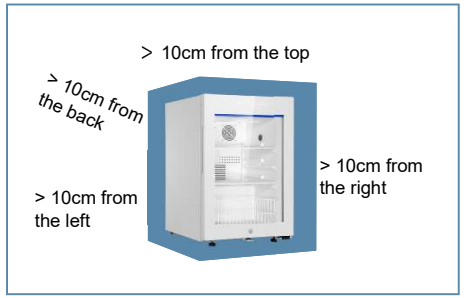
Preparation before use

1. Remove the packaging materials and strings

2. Check the accessories shipped with the unit against the packing list. Contact your supplier if there be a discrepancy.

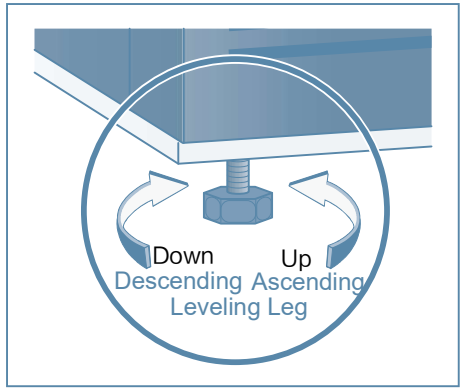
3. Spacing requirements

Install a unit in a space that has an ample space around it for proper ventilation and optimal operation of the system.



4. Adjust the leveling leg

Rotate the leveling legs with a wrench in clockwise to extend them out and secure them onto the ground. This is to make sure the refrigerator does not move during operation.

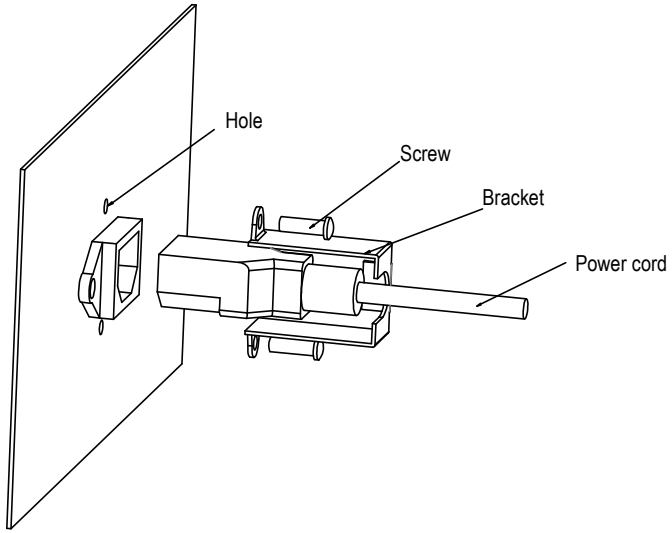


5.Standing

After leveling and cleaning the machine body, do not power on the refrigerator immediately. Allow the refrigerator to stand for more than 24 hours, and then power it on to ensure that it can operate normally.

6.Power cord fixing bracket installation instructions

The plug-in power cord must be secured to the back of the unit with the plug fixing bracket as shown in the figure below. Plug in the power cord and secure the cord with the bracket and fasteners provided.



Cleaning and Maintenance

Warning

• To avoid electric shock or injuries, please switch off the power of the refrigerator before conducting any service or maintenance.

• Do not inhale any air borne particles when conducting maintenance on your refrigerator.

Clean the unit

1.Clean the refrigerator once a month.

2.Wipe off any dirt with a cleaning cloth with mild detergent water.

3.Do not dump water on enclosure or inner chamber of the refrigerator, otherwise electrical apparatus insulation may be damaged, causing occurrence of faults.

4.The compressor and other mechanical parts are completely sealed. No lubrication is required.

Replace the light

The refrigerator is equipped with a LED light. If it doesn't work well, please contact your supplier to replace it.

Deactivate the refrigerator

• If the refrigerator needs to be out of use for a long time, the power supply should be cut off;

• Open the door of the refrigerator and take out the inner shelf;

• Thoroughly clean up the freezer;

• Clean up the shelves;

• After the refrigerator and shelves are dry, place the shelves back into the refrigerator.

• Close the door, put a plastic bag and seal it.

Replace the fuse

The fuse is installed in the power line seat at the rear of the machine (printed with the fuse identifier), each machine is equipped with 6 fuses, one of which is pre-installed in the machine. If a fuse is blown, disconnect the power supply first, and then replace it with a backup fuse. Use a flat-head screwdriver to remove the fuse and replace it with a new one.

Fuse specification: 10A/250V.

Automatic alarm recovery

This series of refrigerators has the function of automatic alarm recovery:

• In the case of an alarm, press the buzzer cancel button on the display panel to stop the buzzer alarm (remote alarm will not be stopped).

• If the alarm condition still exists, the buzzer alarm will automatically resume after a 30-minute pause.

⚠Warning

•The remote alarm function requires the user to install an alarm device by himself and use it in conjunction with the remote alarm interface.

•The remote alarm has normally open and normally closed functions. When the external power is cut off, the remote alarm can be activated regardless of whether the battery switch is turned on or not.

•The remote alarm interface works in conjunction with the sound alarm on the refrigerated box. Therefore, pressing the buzzer cancel button can only cancel the alarm sound, and the remote alarm status remains unchanged.

Initial Power-on

Follow the rules below to start up a refrigerator.

Connect the power cord to a dedicated socket that matches the electrical requirement for the unit. The unit should be without any load.

Switch on the refrigerator and turn on the power switch on the electric control box on the right side of it. The alarm buzzer sometime operates, which is normal.

Turn on the battery switch and press the SET button to silent the alarm. The light alarm continues to operate until the chamber temperature reaches 2°C -8°C.

The refrigerator is set to operate at 5°C at the factory. There is no need to change the control settings.

The temperature in the refrigerator usually stabilizes in a few hours.

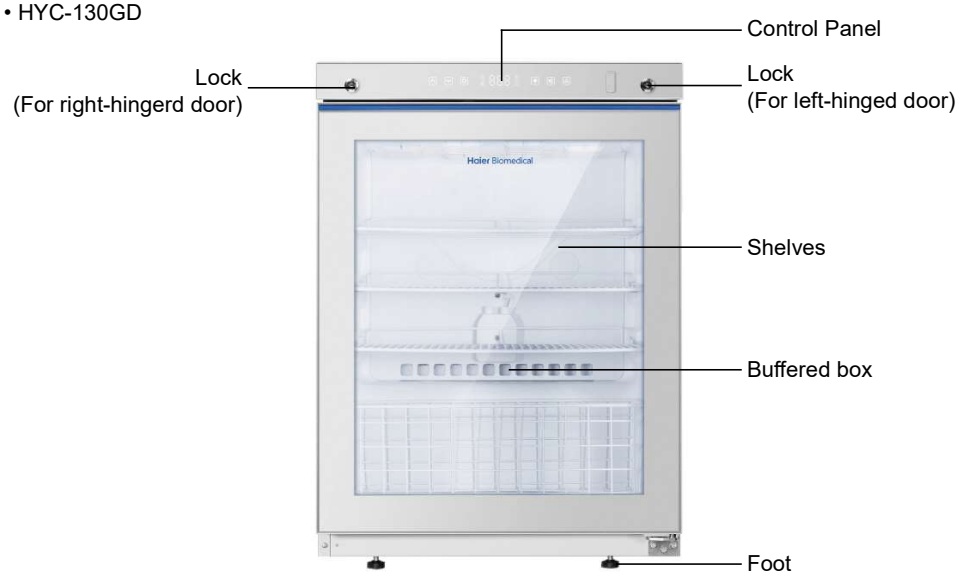
Turn on the light switch to make sure the interior light works properly.

Once the refrigerator has reached the stable condition and all functions are normal, load in the products gradually.

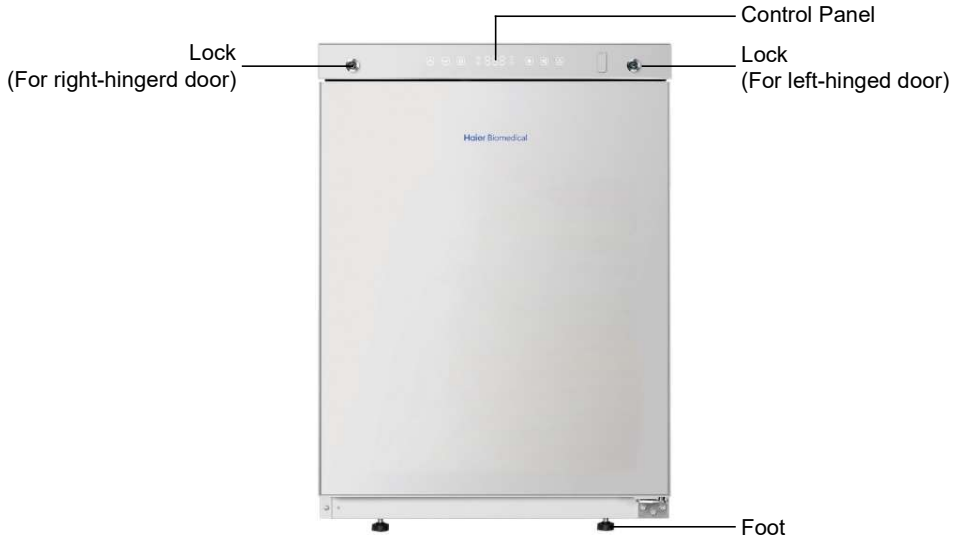
Refrigerator Components ● Control Panel

Refrigerator Components

• HYC-130GD



• HYC-130FD



Alarm

Alarm function

This refrigerator has the alarm function in the table below, and also has a self-diagnosis function.

Alarm	Code	Means	Alarm mode
E00	High temperature alarm	Temperature goes over high temp. limit	Buzzer+alarm indicator+remote
E01	Low temperature alarm	Temperature goes below low temp. limit	Buzzer+alarm indicator+remote
E02	Power failure alarm	Main power supply is cut off	Buzzer+alarm indicator+remote
E03	Communication failure alarm	Display board can't receive data from main board for 5 times	Buzzer+alarm indicator+remote
E04	Control sensor error	Something wrong with control sensor	Buzzer+alarm indicator+remote
E06	Door ajar alarm	The door is open for more than 2 minutes	Buzzer+alarm indicator+remote
E08	Display sensor error	Something wrong with display sensor	Buzzer+alarm indicator+remote

⚠Warning

•If the condition that caused the alarm within 30 minutes is not corrected, the buzzer and remote control contacts will be triggered again.

•In the event of a power failure, a fully charged backup battery can keep the alarm function working for 24 hours.

•To fully charge the battery after starting the refrigerator for the first time or after a long period of power outage, the refrigerator needs to run for 2 days.

•"Alarm test" button: press it once to test the alarm function, the buzzer will sound 3 times at 1 Hz, and the alarm indicator will flash several times simultaneously. When a fault occurs, each fault code will be displayed in turn. If it is not in the remote hardware alarm state , The remote alarm relay is disconnected and closed after 3s, and then determines the action according to whether it is necessary to alarm.

USB(Optional)

• USB interface function:

The temperature could be recorded in the USB module, and the user could export these data by using a U-disk. Temperature data is recorded every 6 minutes.

How to export the data:

When a USB flash disk is inserted, the data will be exported automatically.

To check the status during the process of data exportation:

Press "Down", if "USB" displays, it means that the data is still being exporting;

Press "Down", if "ALL" displays, it means that the data is already exported.

Date	Time	Inner Temp.	Setting Temp.
20191108	11:21	5.1	5
20191108	11:27	5.1	5
20191108	11:33	5.1	5
20191108	11:39	5.0	5
...	...	...	...

• Set the time of USB module (this process must be finished before using):

Press “ ▽ ” for about 10 seconds, “1P”(year setting) will display. Use “ ▽ ” or “ ▽ ” to choose 2P (month), 3P (day), 4P (hour), 5P (minute), 6P (seconds).

1. Year setting: when “1P” displays, press “Set” to enter, then select correct year by “ ▽ ” or “ ▽ ”; press “Set” to save.

2. Month setting: when “2P” displays, press “Set” to enter, then select correct month by “ ▽ ” or “ ▽ ”; press “Set” to save.

3. Date setting: when “3P” displays, press “Set” to enter, then select correct date by “ ▽ ” or “ ▽ ”; press “Set” to save.

4. Hour setting: when “4P” displays, press “Set” to enter, then select correct hour by “ ▽ ” or “ ▽ ”; press “Set” to save.

5. Minute setting: when “5P” displays, press “Set” to enter, then select correct minute by “ ▽ ” or “ ▽ ”; press “Set” to save.

6. Second setting: when “6P” displays, press “Set” to enter, then select correct second by “ ▽ ” or “ ▽ ”; press “Set” to save.

⚠Warning

•Before using, please confirm the data recording time of USB flash disk interface. If the time does not correspond, please adjust it according to the above method. After adjustment, it will take one minute to export the data .
•The U disk with FAT32 file formate is used to inport data;
•If FAT32 USB flash disk cannot export data, please reformat the file backup in USB flash disk or replace another FAT32 USB flash disk.

Control Panel

+ − Set Lamp Silence Alarm Test

Compressor Defrost Alarm WIFI

Application method

Temperature Controller

⚠Warning The temperature displayed represents the temperature sensed by the monitoring bottle. The temperature shown is not always at 5℃ . The temperature sensor represents the average temperature in the storage box.

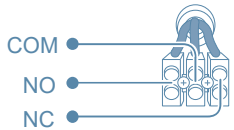
⚠Warning When the accumulated start-up time of the compressor reaches a certain value (8 hours by default), the machine will automatically enter the forced defrosting cycle. Once the forced defrosting cycle is completed, the refrigerator will return to normal operation, and the temperature in the refrigerator may rise during the defrosting cycle. refrigerator may rise during the defrosting cycle.will return to normal operation, and the temperature in the refrigerator may rise during the defrosting cycle.

1. Change Temperature Setpoint (Factory pre-set at 5℃).
   ① Press “Set” for about 5 seconds, “TS” displays
   ② Press “Set” again, the current setpoint flashes.
   ③ Change the value by "+" or "-".
   ④ Press “Set” to save and quit.
2. Change high temperature limit
   ① Press “Set” for about 5 seconds, “TS”LED dispalys
   ② Scroll to "ALH" by “+” or "-"
   ③ Press "Set" again, current high temperature limit flashes.
   ④ Change the value by "+" or "-".
   ⑤ Press “Set” to save and quit.
3. Change low temperature limit
   ① Press “Set” for about 5 seconds, “TS”LED displays
   ② Scroll to "ALL" by “+” or "-"
   ③ Press "Set" again, current high temperature limit flashes.
   ④ Change the value by "+" or "-".
   ⑤ Press “Set” to save and quit.
4 .Check recent max and min temperature:
   ① Press both “Alarm Test” and “+” to check the maximum temperature
   ② Press both “Alarm Test” and “-” to check the maximum temperature

note: the min/max temperature record could be manually reset or automatically reset (24h), please contact your supplier to choose the right mode you need.

Remote Alarm Terminal

1.Remote alarm terminal is installed on the refrigerator and the alarm signal behind the compartment is output by the terminals. The terminals are rated for 2A at 30VDC.



2.Alarm terminals are configured as NO, NC and COM. Customer can choose the proper pair of contacts to connect the refrigerator to a remote alarm system.

3.This series refrigerators are equipped with RS485/232 network interface(optional):
The interface terminal is on the electric control box cover at the back of the refrigerator. After connection, the temperature data can be transmitted to the user monitoring software.

Power failure alarm function

When the power is down, power-off alarm function is activated, buzzer with 1 Hz frequency continuously beeps,at the same time alarm indicator light of the board flashes, if alarm equipment is connected to the remote alarm port, it will alarm synchronously and last at least 24 hours. Press the "Alarm" button to cancel the power off alarm, while the remote alarm function is cancelled.

Battery Switch

1.Battery switch is installed under the front cover，with“Charge Battery Switch”label；

2.Battery switch “ON” indicates that battery is on ；

“OFF” indicates that battery is off。

Inner light

In order to see the stored goods clearly, a LED light has been installed in the cabinet. You can control light “on” or “ off ” by “ Light ” button to save energe, please turn off the light after observing the stored goods in the refrigerator.

Operation after recovery from power failure

The control system is a non-volatile system, which retains the control parameters even when there is a power outage. The unit will resume operation using the same parameters previously set.

⚠Warning
- If a unit is powered down, allow a minimum five minutes before turning the unit on again.
- If a refrigerator is left unused for a long time in a unsupervised area, make sure children can’t have access to it. The door should not be closed completely.