



ICE LINED REFRIGERATOR OPERATION MANUAL

YC-150EW

WHO/PQS certificate report No.1911-16528-WB-19-331

PQS Independent type-testing protocol: WHO/PQS/E003/RF03-VP.3

PQS performance specification: WHO/PQS/E003/RF03.4

Issuing date: 2020.3.25 Version: C

Trufrost Cooling Pvt. Ltd.



Better science, Better life!

www.trufrostbiomedical.com
info@trufrost.com

Content

1. Introduction.....	4
2. Precautions for Safe Operation	5
3. Precautions for Use.....	7
4. Installation	7
4.1 Installation environment:	7
4.2 Installation site:	8
4.3 Preparation before use	8
4.4 First initial starting.....	8
4.5 Operation after power failure.....	9
5. Refrigerator Components	10
6. Display panel function description.....	10
6.1 Function introduction.....	10
6.2 Function setting:.....	12
7. Maintenance.....	13
7.1 Maintenance	13
7.2 Out of use.....	13
7.3 Maintenance	13
7.4 Disposal.....	14
7.5 Scrap and process management of the equipment.....	14
7.6 Condensation Draining.....	15
7.7 Steps to replace the fuse.....	15
8. After-sale Service.....	16
9. Specifications	17
10. Packing list.....	17
11. Wiring diagram.....	18
12.Directions for safe transportation.....	18
Warranty certificate.....	20

1. Introduction

Dear Customer:

Thank you for choosing Trufrostbiomedical products! For your personal safety and better performance of this unit, please read this Operation Manual thoroughly and save it properly for future reference.

User can copy some chapters of this operation manual, such as instructing users how to deal with emergencies, but only for internal use. These chapters are clearly indicated in the contents of the manual.

If the user does not use the equipment according to the manual or the method specified by the manufacturer, Trufrostbiomedical has no obligation and responsibility for any instrument damage caused.

Because of our quick product update, this manual may not comply with our products fully, please refer to the final product.

PLEASE NOTICE:













- ◆ During transportation or use, it is not allowed to vibrate or collide violently or get wet. Please store in a well ventilated and clean room with humidity less than 95%, no corrosive gas.
- ◆ Ice lined refrigerators (hereinafter as equipment) can only be operated by trained and authorized personnel.
- ◆ Equipment maintenance can only be operated by Trufrostbiomedical or our authorized agent.
- ◆ If the user encounters a situation not mentioned in this manual, please contact Trufrostbiomedical or our authorized agent for correct treatment.
- ◆ The equipment may be damaged if it is not used according to this operation manual.
- ◆ Please use the accessories provided by Trufrostbiomedical. If users want to use other accessories, Trufrostbiomedical will not be responsible for the adverse consequences.
- ◆ The equipment must be inspected and maintained regularly to ensure the good operation.









Warm Tips:














- I. Please use proper protective equipment.
- II. Please keep good health habits.
- III. Everyone is bound to be responsible for his/her safety.








2. Precautions for Safe Operation



For the first time to use this device, please read the following warning labels very carefully, to use the equipment safely and correctly.

	CAUTION: failure to observe the precautions may result in serious personal injury or death.		CAUTION. Failure to observe the precautions may result in personal injury, equipment failure and property damage.
	GROUNDING		Flammable and explosive refrigerants Attention: keep away from fire!
	NO TILTING		STAY OUT OF SUN
	RECYCLED Package		PLAVCE UP
	HANDLE WITH CARE		KEEP DRY
	NO STACKING		DANGER ELECTIRC SHOCK

	CAUTION: Failure to observe the precautions may result in personal injury, equipment failure and property damage.
	Do not touch any electrical parts such as the power supply plug or any switches with a wet hand.This may cause electric shock.
	Only qualified engineers or service personnel should install the equipment . The installation by unqualified personnel may cause electric shock or fire.
	Be sure to install the unit on a sturdy floor. If the floor is not strong enough or the installation site is not adequate, this may result in injury from the unit falling or tipping over
	Carefully with the power cord to avoid short circuit or open circuit.When removing the plug from the power supply outlet, grip the power supply plug, not the cord.Pulling the cord may result in electric shock or fire by short circuit. Don't make the power line pack and pressed by furnish or heavy goods.Also please don't close to the compressor and heat source.
	Please insert the power plug firmly to avoid leakage. After installation, the power plug must be within reach, so that the power cord can be pulled out in time in case of emergency.
	A separate special socket must be used and reliably grounded. The cross-sectional area of copper conductor in the wall connected with the power socket must be more than 4mm ² . The length of power cable shall not be lengthened to avoid heating or fire.
	Please do not use the power supply beyond the design requirements of the equipment, so as to avoid overheating, short circuit and other faults. If 110V rated voltage products are connected to the 220 V power supply, overheating and burning of the equipment may occur. This machine uses the AC power supply with voltage of 220 V and frequency of 50 / 60 Hz. If the voltage is too low or too high, it is necessary to install an appropriate automatic voltage regulator.

	Be sure to install the unit on a sturdy floor, no shaking and tilting.
	Please do not place the equipment in a dangerous area, do not run the equipment near flammable materials to prevent explosion or fire accidents.
	Do not place the equipment in the sun or rain area, to prevent short circuit or overheating and other dangerous accidents.
	Do not tilt or lie on the side of the equipment, and do not impact the equipment body; if the equipment is equipped with refrigeration system, it is easy to be damaged by tilting or impact.
	Please place the equipment in a dry and dust-free environment to avoid overheating, short circuit and other hazards.
	If there is unexpected sound, smell, smoke, etc. when the power is on, please pull out the power supply in time and contact the manufacturer or supplier.
	Please place the equipment in a dry and ventilated environment, and ensure the air vent and the surface of the instrument are not blocked or blocked by walls or other objects; do not use the equipment in a poorly ventilated environment to prevent damage caused by heat released from the equipment.
	It is forbidden to dismantle and transform the equipment without authorization, so as to avoid potential safety hazard. Otherwise, Trufrostbiomedical will not bear any responsibility.
	It is forbidden to put inflammable and explosive dangerous goods, strong corrosive acid, alkali and other articles not suitable in the equipment.
	When storing toxic, harmful or radioactive materials, please use this equipment in a safe area. Improper use may harm to human health or the environment
	Do not insert metal objects such as iron nails or iron wire into the holes, gaps or any outlet of the equipment, otherwise electric shock or injury may occur due to accidental contact between the above objects and moving parts.
	To ensure the normal operation and ventilation and heat dissipation of the machine, the back and left and right sides of the box shall be at least 30cm away from the wall, and the air inlet and outlet shall not be blocked by obstacles!
	The ground wire must be connected.

	Note: failure to observe the precautions may result in personal injury or equipment failure and property damage.
	It is strictly forbidden to store live animals, flowers or other items requiring highly in temperature that are not suitable for the equipment.
	When the equipment is not used for a long time, please pull out the power plug and pack it for storage.
	Please check the setting value of the equipment before you restart it after power off or power failure. Otherwise, the stored items may be damaged due to the setting change.
	This equipment is for storage , which can not be used as a production equipment!
	Hold the handle to close the door to prevent fingers from pinching the door.
	The key should be kept properly to prevent children from getting it and open door, which may cause accidents.

	Please pay attention not to turn the equipment over, when moving it, to prevent equipment damage or personal injury.
	It should be lifted from the bottom when carrying it, and the inclined surface should not be greater than 45 degrees. Please pay attention to personal safety when carrying, to avoid harm to human or surroundings.

3. Precautions for Use

- ◆ Before putting the items into, it is necessary to confirm in advance whether the temperature range conforms to the required value, so as to avoid the damage due to the inconsistent temperature setting. Please pay attention not to block the temperature sensor in the cabinet when placing the items.
- ◆ The equipment temperature display value is the temperature at the temperature sensor in the storage chamber. There is a certain gap between the displayed temperature and the actual temperature at the center of the equipment when the equipment just starts running, but as the equipment enters a stable state, the displayed temperature will gradually approach the actual temperature.
- ◆ If there is a detection hole on the equipment box, it can lead out the test line in the box during the test. After the test line is led out, it is necessary to plug the test hole with insulation material again, otherwise the temperature in the box may not reach the temperature setting value, and condensation will appear around the outside of the through-hole.
- ◆ Please use a diluted neutral cleaner to clean the equipment, and do not use brushes, acid, gasoline, soap powder, polishing agent or hot water to clean the equipment, otherwise the painted surface or plastic and rubber parts may be damaged. Be careful not to wipe plastic and rubber parts with volatile solvents such as gasoline.
- ◆ A water outlet is located at the bottom of the equipment cabinet. Please be sure to drain the water regularly, to avoid excessive moisture in the cabinet or overflow of water from the water pan which may affect the safety of the stored items or the cleanliness of the environment. When draining is not performed, ensure that the plug is reliably installed in the water outlet, otherwise the temperature in the cabinet may not reach the temperature setting, causing a large amount of condensation in the equipment to flow out of the water outlet and causing condensation near the outside of the water outlet.
- ◆ The power should be cut off while the medical refrigerator does not use for a long time.
- ◆ During the storage, please do not block the sensor box to avoid damaging the performance.

4. Installation

4.1 Installation environment:

- ◆ Ambient temperature: 10°C ~43°C.
- ◆ Relative humidity: ≤95%RH.
- ◆ There is no strong vibration and corrosive gas around.
- ◆ Avoid the existence of a large amount of dust.
- ◆ Avoid rocking or shaking the equipment.
- ◆ Elevation of the working position of the equipment: less than 2000m.
- ◆ Rated voltage: 220V-240V.

◆ There is no direct sunlight and no other cold and heat sources and strong electromagnetic interference, which will affect the normal operation of the control system and directly damage the system in severe cases.

4.2 Installation site:

This unit is a precision machine. When select a location to install this unit, keep the following conditions for perfect performance:

- ◆ It should not be installed in a small confined space, the door of the room should not be less than height of the present equipment.
- ◆ Install the unit on a sturdy floor to avoid excessive vibration and noise.
- ◆ Installing the unit in direct sunlight may cause malfunctioning and may shorten the life of the unit. Keep good ventilation is necessary.
- ◆ Each equipment needs to use an independent socket. Please ensure that the current should be $\geq 10A$, and the plug and socket are firmly connected;
- ◆ Checking the working voltage of the place before start the freezer. A voltage stabilizer is suggested to be used at the place where the voltage is not stable. And the power of voltage stabilizer should be more than 4KW, to ensure reach the input voltage requirements.
- ◆ Be sure to ground the unit; If the power cord socket is equipped with grounding wire, check the connection before use. If the power supply outlet is not grounded, it will be necessary to install a ground by qualified engineers.



Note:

Due to the great impact of ambient temperature on the equipment, if the above environmental requirements cannot be met, the equipment may not work normally. Please improve the environment before using the equipment. The equipment is with intermittent operation system.

4.3 Preparation before use

- a. Remove all package components (include the protection foam inside the package)
- b. Check the device, accessories and document with the device as per list of packing
- c. Clean: make a clean of the device before use it.



Caution:

Do not put the packing plastic bag within reach of children as suffocation may result

4.4 First initial starting

Operate as follows for the first start:

1. After the equipment is placed stably and and cleaned, it needs to stand for more than 24 hours, and then turn on the power, to ensure the normal operation.
2. Under no-load condition, connect the power cord to a special socket with appropriate specifications.
3. After power on, turn on the power switch of the equipment.

4. Check whether the temperature reaches the required value, and then observe the equipment for more than 24 hours. After confirming the normal performance, a small amount of items can be placed in the storage room.

5. Try not to open the door in the cooling process, otherwise the temperature will rise.

4.5 Operation after power failure

1. The equipment has memory function for the setting value. When power is restored after power failure, the equipment will continue the operation.

2. Once the power is interrupted, it is necessary to wait for 5 minutes before switching on again, to avoid damaging the compressor.

3. Our company guarantees the normal operation of the equipment under certain conditions, but will not be responsible for any loss or damage of stored items after power failure.



Caution:

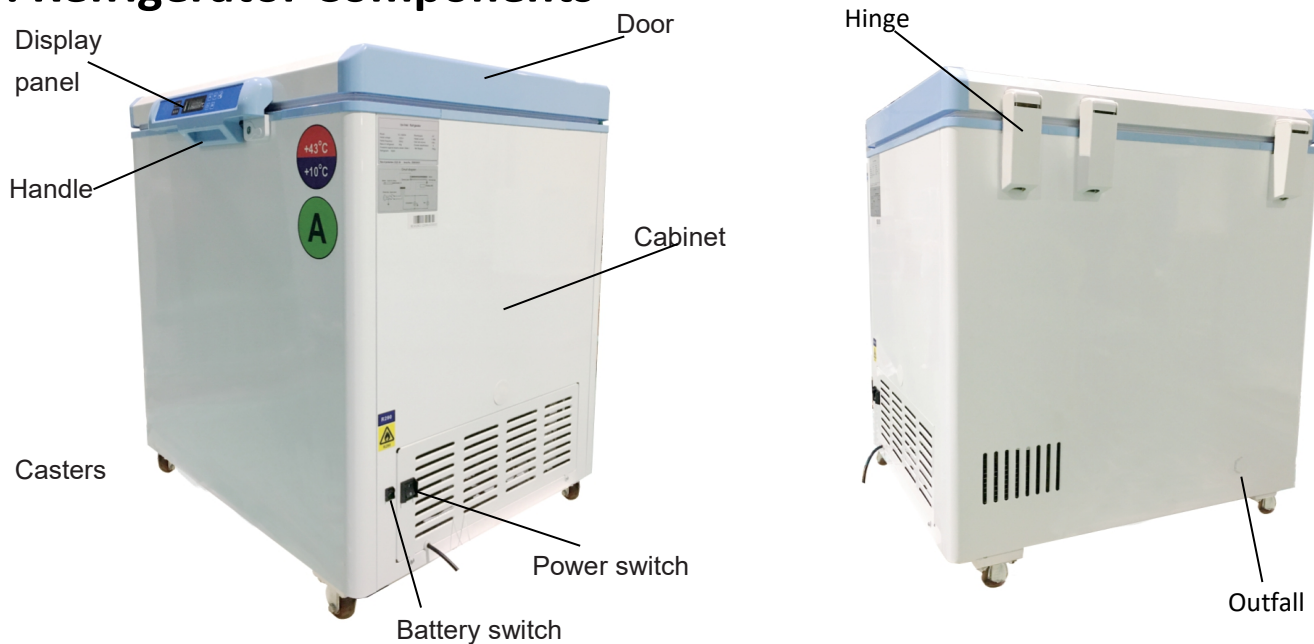
- ◆ The equipment can be moved by casters.
- ◆ The equipment shall be in charge of special personnel, and the operation status shall be checked and recorded every day (once every 2-4 hours). The temperature of the storage room will rise in case of failure or shutdown, and if it can not be repaired in a short period of time, please take out the stored items and transfer them to suitable place, to avoid damage.
- ◆ Due to the refrigeration inertia, there is a certain difference between the actual display temperature and the set temperature of the equipment, which is a normal.
- ◆ The equipment is for storage, which can not be used for routine production. It is strictly prohibited to put too many relatively hot items at one time, otherwise the compressor will burn out after running for a long time. Items must be put in batches to ensure that the temperature of the cabinet is stepped down until it meets the storage temperature.
- ◆ Do not use unauthorized electrical appliances inside the equipment.
- ◆ Do not change the set temperature frequently in a short time, otherwise, due to the large inertia of cold and hot, the expected setting effect may not be achieved. When placing the items, make sure that there is a certain air circulation flow space around the cabinet, especially do not block the temperature sensor in the box (for collecting the temperature), otherwise the stability and accurate control of the temperature will be affected.
- ◆ Do not put the articles directly at the bottom of the cabinet, but on the shelf, otherwise the refrigeration effect will be affected.
- ◆ If the items too damp or too dry, it will affect the humidity in the cabinet, it is best to keep the items sealed. The humidity of the working environment will affect the humidity change in the cabinet, especially when the door is opened frequently or not closed properly.



Warning:

Children are not allowed to play with this equipment as game props, otherwise, the consequences of injury or loss will be borne by themselves.

5. Refrigerator Components



* Due to the improvement of the products and different models, the actual products may be different from the schematic diagram. The figure above is for reference only!

* Structure and composition: the product is composed of box body, door body, refrigeration system and control system.

* Scope of application: the product is suitable for hospitals, pharmacies, epidemic prevention stations, research institutions, bio-pharmaceuticals and other units refrigerated goods.

PS: The refrigerators with battery, excluding Lead, mercury, chromium, benzene, ether

6. Display panel function description

6.1 Function introduction

The electronic digital display can display the actual temperature in cabinet.

Indicator light	State	Significance
Refrigeration indicator light	dark	Compressor stop
	blink	Compressor delay
	light	Compressor working
Precooling indicator light	light	Precooling mode on
	dark	Precooling mode off
Battery indicator light	light	Low power
	dark	Normal power
Mute indicator light	light	Mute on
	dark	Mute off
Power indicator light	light	Power on
	dark	Power off, power failure alarm

Keyboard lock indicator light	light	Locked
	dark	Unlocked



1. Control instruction

- ① is a digital temperature display window. Under normal operating conditions, it will display the real-time temperature inside the cabinet, the unit is °C; in the setting state, different prompt characters can be displayed (see below for details);
- ② “✓”: Under normal operating conditions, when the system alarms (the digital tube shows that the internal temperature of the cabinet and the alarm code flash alternately), the user can press this button to mute (temporarily turn off the buzzer), press this button again, the buzzer is turned back on;
- ③ “❄️”: this light is on during system operation (flashing in alarm state).





2. Function settings

- ① Power on/off: Under normal operation, press and hold the power button for more than 3 seconds after unlocking, the controller enters the shutdown state, the panel displays OFF, press the power button again, the controller enters the normal running state;
- ② Mute operation: When the buzzer alarms (including over-temperature alarm inside the cabinet, sensor fault alarm, etc.), press the mute button for the first time when the key is locked, and the buzzer will stop. Press the mute button again, and the buzzer will restore the temperature and alarm status in the display panel and continue to alarm;
- ③ Battery switch: The battery switch is located on the back left of the cabinet: “ ” means off, “ • ” means on; The power switch is located on the left of the cabinet: “0” means off, “1” means on .

3. Operation of user menu parameters:

Unlock operation: Under normal operation, press the ▼ and ▲ for 2 seconds at the same time, you can unlock the locked keyboard (the digital tube display is ON), or lock the unlocked keyboard (the digital tube displays LoC); when the keyboard is locked, you cannot Operation, must be unlocked before the keyboard can be operated. If there is no operation on the keyboard for more than one minute, the keyboard is automatically locked.

- ① In the normal running state, press the function key for more than 3 seconds after the keyboard is unlocked; and the digital tube displays the parameter code “F01”;

- ② Use the  and  to roll the parameters (F01 refers to the compressor start delay, F02 refers to the time left before the power is turned off);
- ③ Press the function key to confirm the parameter. The value of this parameter will be displayed;
- ④ Use the  or  to increase or decrease the value of the parameter;
- ⑤ Press the function key to temporarily store the modified parameter value and return to the parameter display page;
- ⑥ If you modify the values of other parameters, repeat steps 3~5;
- ⑦ Press the function key for more than 3 seconds to store the modified parameter value and exit the parameter setting program;
- ⑧ If you need to enable the precooling function, please press the precooling function button for 3 seconds, the precooling function indicator lights up, and the product enters the precooling mode (please ensure that the F02 parameter ≥ 3 can successfully open the precooling mode).

Note:

The "high temperature" alarm will be triggered when the machine is started for the first time. Please put in the items after the temperature is stable and the "high temperature" alarm removed automatically. If the item is too damp or too dry, it will affect the humidity change in the cabinet. It is better to keep the articles sealed.

6.2 Function setting:

1. Parameters setting:

No.	Item	Value range	Suggestion value YC-150EW	Remarks
1	F01	0~50	3	Compressor start delay (min)
2	F02	0~24	8	Time to power failure (hours)
3	F05	0~10	0.1	Temperature setting (°C)
4	F06	1~25	1.7	Return difference setting (°C)
5	F11	-10~10	-1	Display sensor calibration
6	F07	F05~120	10	Maximum temperature setting
7	F08	-80~F05	0	Minimum temperature setting
8	F15	0~99	15	Alarm delay(min)

2. Alarm display:

Alarm code	Fault description
E1	Display sensor short circuit or open circuit
AH	The temperature exceeds the set maximum temperature value
AL	The temperature is lower than the set minimum temperature value

E2	Control sensor short circuit or open circuit
HH3	Ambient temperature sensor out of range
LL3	Ambient temperature sensor below lower range limit
PL	Low battery

7. Maintenance



Caution:

- ◆ For personal safety, please cut off the power supply before any maintenance!
- ◆ Don't inhale medications or aerosols around the device while maintaining the equipment, or it will endanger your health.

7.1 Maintenance

Maintenance: Once in a while, the ice-lined refrigerator should be cleaned and maintained. (For the safety, remove the power plug firstly) and wipe the inner and outer surfaces of the refrigerator with a soft cloth.



Caution:

- ◆ DO NOT sprinkle water on the faces of cabinets, which may decrease insulating property of electric parts and rust metal parts.
- ◆ DO NOT use hot water, corrosive cleanser and organic solvent!
- ◆ DO NOT place heavy objects on the top of the equipment to avoid deformation under pressure.

7.2 Out of use

Out of use: If the equipment is stored in an unsupervised area for a long time and is not used, the power should be cut off and the inner and outer surfaces should be cleaned with a warm and soft cloth, and then dried and sealed. The equipment must be locked to ensure that children cannot open the door, in case of accidents such as surveillance.

Disuse: When the equipment has reached its service life, it shall be scraped by professional qualified recycling institutions under local laws and regulations. Non-professional personnel shall not dismantle and decompose the equipment by themselves. Disused equipment should be placed in a designated area inaccessible to children to avoid hazards.

7.3 Maintenance

Battery installation location: inside the electrical appliance box.

Battery maintenance

- ① Regarding to the units which are not in the operation for a long time. It is better to make products running for more than 24 hours per month to charge to prolong the service life of the battery.
- ② If the equipment is not used for a long time, it should be regularly (usually once a month) turned on power and opened the power supply switch lock to run and charge, with not less than 24 hours each time.
- ③ When the power supply is interrupted, turn off the power lock switch of the equipment in time, otherwise the battery will lose power and cause permanent damage to the battery;
- ④ The main power switch must be turned off when there is long-term power failure or in transportation, otherwise the battery will lose power or even permanent damage due to a long time of discharge, and the display will be not normal after power is on again:
- ⑤ The battery is consumable and has a life of about 2 years. If the battery is not properly used, such as loss of power or reach the service life, it will cause low battery power alarm (it does not affect the refrigeration but there is an alarm fault and impact the power failure alarms, please contact our after-sales service personnel for replacement).

Battery replacement

- ① Turn off the power switch and pull the power plug from the socket;
- ② Remove the electrical box screws with a screwdriver; (**Note:** There are high-voltage electrical components in the electrical box. Before opening, the power supply must be turned off, the power plug must be unplugged and the power lock switch of the equipment must be turned off. The electrical box must be opened by qualified engineers or maintenance personnel.)
- ③ Unplug the battery connect wire; (Note: Before unplugging the battery fixed wire, please record the wiring order of battery positive and negative. When change new battery, pay attention to the correct wiring order in case of burning out control system due to wrong connecting. Generally, the red wire is connected to the battery positive, and the black wire is connected to the negative.
- ④ Remove the fixing screw from the battery fixing plate with a screwdriver and remove the battery;
- ⑤ Battery model: DC-2600mAh-AG(3.7V).

7.4 Disposal

Dumped Battery should be recycled and turn to local relevant administration department. Follow the relevant laws and regulations of the host country and 2002/ 96/ EC.

Tips: In order to ensure that the battery replacement meets the requirements of the control system and avoid the influence of improper operation on the system, please contact our after-sales personnel for replacement or guidance.

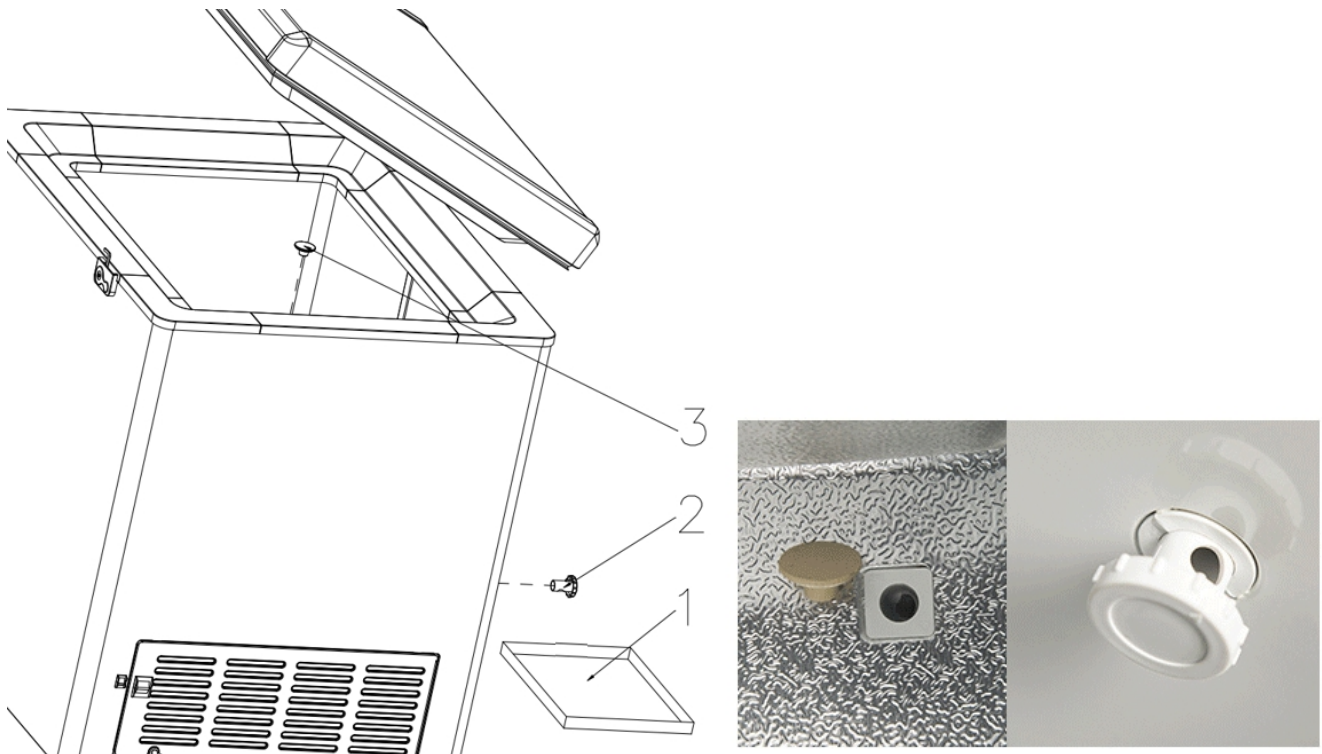
7.5 Scrap and process management of the equipment



Caution:

If the equipment is stored in an unsupervised area for a long time and is not used, it should be ensured that children will not get close to the equipment and the door cannot be completely closed.

7.6 Condensation Draining



After using the product for a period of time, there may be condensed water formed at the bottom of the chamber, please drain away the condensed water in time to avoid damaging the storage items such as vaccines.

- ① As shown in the picture, the drain has an external plug "2" and an internal plug "3".
- ② Before the draining, pls prepare a water box "1". Taking out the plugs "2" and "3" to discharge the condensed water.
- ③ Install the plugs back after the draining, otherwise the performance will be damaged.

7.7 Steps to replace the fuse

- ① Find the fuse seat from the bundling wire harness of the wiring row and unscrew the fuse seat.



- ② Take out the fuse: the fuse is showed on the picture as below.



- ③ Put in the new fuse and tighten the fuse seat.
- ④ Ten spare fuses are placed in the enclosure bag inside the equipment.

No.	Special No.	Size
1	890041897	5*20 5A/250V

8. After-sale Service

Any product has the possibility of failure. Please observe the operation of the medical refrigerator in the process of use. If there is any abnormality, please check and compare the errors with the following table. If you can't fix the issue, Please inform our service center in time. We will serve you wholeheartedly to avoid any losses.

Replacement time of fan motor: about 6 years;

Replacement time of temperature monitoring equipment: about 2 years;

Service life of this product: 10 years.

Problem	Possible Cause
Refrigerator does not running	<ul style="list-style-type: none"> ●Power outage has occurred. ●The plug is bad or not securely plugged-in. ●Fuse is blown. ●Voltage is too low or high.
Compressor does not running	<ul style="list-style-type: none"> ●Power in control panel is off. ●Temperature setting is wrong.
Temperature is lower than setting	<ul style="list-style-type: none"> ●The door is not closed properly or is opened too frequently. ●Overfull materials are put. ●Ambient temperature is too high.
Loud noise	<ul style="list-style-type: none"> ●Freezer is not leveled well. ●Freezer leans upon the wall.
Surface condensation of glass door	<ul style="list-style-type: none"> ●Wet and moisture season, the door may be condensed. It belongs to normal phenomenon, just wipe it with dry cloth.
Alarm flashing, buzz warning	<ul style="list-style-type: none"> ●If you just put in the item, the temperature is stable and will be eliminated automatically after running for a period of time. ●If the door is not closed tightly to cause the door open alarm. ●If the battery is low, it will be eliminated automatically for a period of time. ●Whether the temperature exceeds the standard.

● Below are normal operations:

① When the compressor starts and stops, the equipment parts will make a slight impact sound. There is a slight sound of running water when refrigerant flows in the pipeline.

② After opening the door and put in the hot subjects, the controlling system appears high temperature and high

humidity alarm solution: The hot subjects should be cooled by natural cooling and then put into the cooler. Do not put too many subjects at one time. After the system is stable, the high temperature and high humidity alarm will be relieved.

③ When the equipment works, the surface of the equipment, especially the back, will get hot, and the compressor even feels hotter. This is the normal condition of cooling system heat dissipation.

④ The interval between two door opening should be more than 3 minutes, otherwise it will be difficult to open the door again due to the negative pressure formed inside and outside of the equipment.



Caution:

◆To ensure the normal operation of the machine and reach the corresponding safety standards, only the engineers certified by Trufrostbiomedical can repair, maintain or improve the equipment. ◆Please clean and disinfect the machine before maintenance; during the warranty period, the company will not undertake the warranty obligation for any fault or damage caused by improper use.

◆Storing environment temperature: -30℃ ~ +70℃, Relative humidity: 5% ~ 95%.

9. Specifications

Main technical parameters:

Model	Air Temp (°C)	Climate type	Refrigeration -Qty	RV (V~)	RP (Hz)	Storage Temp (°C)	VC(L)	Input power (W)	Weight (Kg)	External Size (D×W×H)(MM)	Power connection conditions
YC-150EW	10~43	SN、N、ST、T	R290/65g	220-240	50	2~8	150	240	76	811*775*964	Y

* The foaming agent is cyclopentane.

Main performance data:

Model	Temperature Zone	Cooling performance	Power cycle	Thermal insulating performance	Energy consumption (stable running, intermittent power)
YC-150EW	Tropic (Hot)	1~3 days	8h/day	20~25h	0.934kWh/24h

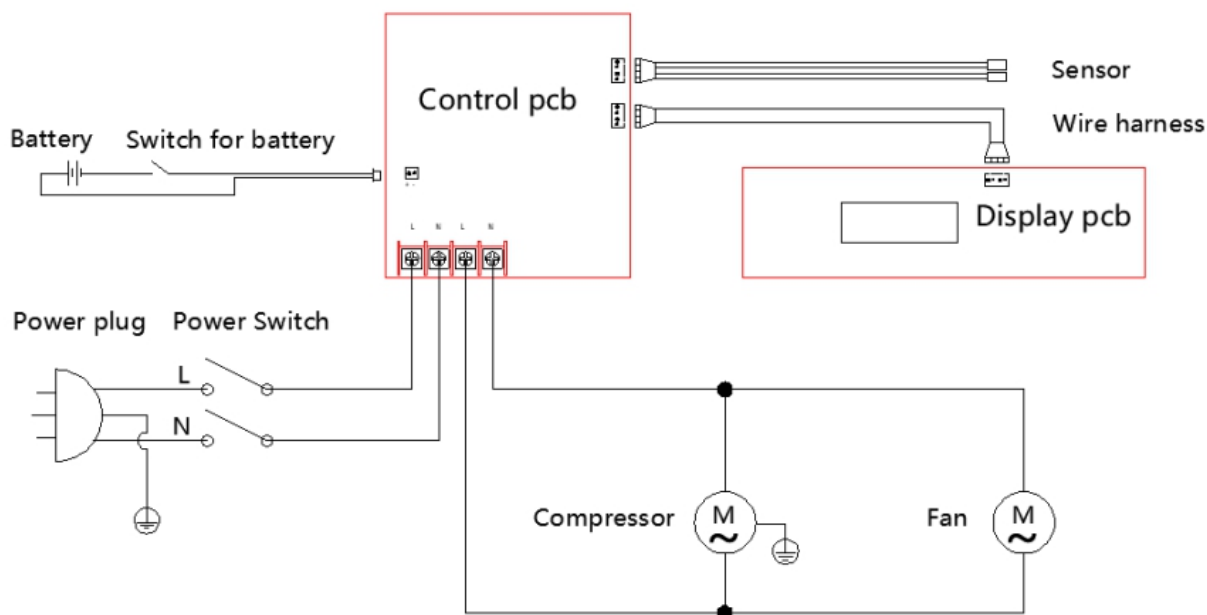
Model	Lining	Refrigerator vaccine storage capacity)(L)	Energy consumption (cool down)	Energy consumption (stable running, continuous power)
YC-150EW	Ice-Lined	120	0.897kWh/24h	0.907kWh/24h

10. Packing list

Item	Operation manual (with Warranty certificate)	Certificate card	Key	Defrosting tool	spare fuse

Qty	1	1	2	1	10
-----	---	---	---	---	----

11. Wiring diagram



Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Mark(s) of conformity
Fan	Jiangsu Willtron Tech Co.,Ltd	ZYD-4P-25	220-240 V, 50/60 Hz, 25/4 W, 0.19 A	VDE 40031795+ tested with appliance
Compressor	Wanbao Group Compressor Co., Ltd.	FTK55X	220-240 V, 50/60 Hz, R290	VDE 40051763
Switch for battery	Light Country Co. Ltd.	R 19 series	250 V, 6A, 10E3, T85	VDE 40006923
Power Switch	Canal Electronic Co.,Ltd	R series	250 V, 16(4)A, 10E3, T85	VDE 40000809
Battery	Dongguan Xintongtai Industrial Co., Ltd.	18650	3.7V, 2600mAh, 9.62Wh	Tested with appliance

* If the product is improved, the technical data and circuit diagram shall be subject to the final product nameplate and cabinet circuit label.

12.Directions for safe transportation

◆Products may be exposed to very high temperatures during shipping and dockside storage, please ensure that the environment temperature range will not be out of -30°C ~ +70°C and the relative humidity is between 5% and 95% during the transportation and storage. If this security

scope is exceeded, please take proper measures to mitigate this risk and ensure the safe transportation for the products.

- ◆ The packing materials of the products do not contain ozone-depleting substances under the “Montreal Protocol”.
- ◆ Product packaging is designed to comply with export regulations and to fully protect equipment for transport by air, sea or land to any area of the world, including remote areas with poor weather and storage conditions and high humidity.
- ◆ The packaging has an edge crushing resistance of not less than 17kN and maintains at least 60% edge crushing resistance at temperatures of +70° C (tropical conditions) and 90% humidity.
- ◆ The general specification of shipping containers will be subject to agreement with the individual procurement agencies.
- ◆ When products are transported and stored, the stack shall be no more than 2 layers.
- ◆ The transportation of the temperature recorder is selected according to the customer's requirements.

Warranty certificate

(Instructions)

Dear users:

Thank you for using Trufrost pharmacy refrigerators, blood bank refrigerators, ice lined refrigerators, medical freezers, ULT freezers and other medical and scientific research equipment.

Our company will comply with the relevant provisions of the "Three Guarantees Regulations" under the "Law of the PRC on the Protection of the Rights and Interests of Consumers' rights and interests".

With this warranty certificate and receipt, we will provide you with the following services:

1. Three years free warranty for the whole machine.
2. Three years free warranty for the main parts (compressor unit, filter, fan motor, temperature controller, evaporator, solenoid valve, condenser, main control panel, electronic control display, defrosting timer, temperature sensor, defrosting heater).
3. The following cases are not within the scope of free warranty service, but can be repaired at a charge:
 - ① Beyond the warranty validity;
 - ② Unable to show warranty certificate and receipt;
 - ③ Receipt is altered;
 - ④ Damage caused by accident and improper use;
 - ⑤ Damage caused by repair privately without permission of our company;
 - ⑥ No nameplate.

4. Notice to users

The user should show this warranty certificate, when our company's on-site maintenance or installation personnel is in the service.

Memo: For the convenience of checking, please copy the product model, serial number and production date on the nameplate on the back of the equipment as the following table.

Model	Serial Number	Production date

Please paste the purchase receipt on this page, so as to avoid losing it or not finding it at the moment, which will increase the trouble in the negotiation of maintenance.

Pasting receipt

Dear users

Thank you for choosing Trufrost brand products!

Please fill out this card and send it back to our company. We will establish the user file for you in time.

Thank you for your cooperation!

Model			
Serial Number		Production date	
User company name		Contacts	
Tel. number		Mob. number	
Email		Post code	
Address			
Supplier company name			
Purchase date			
Advice or recommendations			



Marketed globally by:

TRUFROST COOLING PRIVATE LIMITED

1215, 12th Floor, Tower B, Emaar Digital Greens, Golf Course Extn. Road,
Sector 61, Gurugram – 122011

T. +91-7303166766 info@trufrost.com

www.trufrostbiomedical.com