Biomedical freezer

User Manual

Model: MD-25L308 MD-25L106
MD-40L106 MD-40L308

for after sales use

Please read this manual carefully before using the device, and keep it properly.

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Warning: Flammable refrigerant is adopted for the product

WARNING: Ensure all ventilation openings are not obstructed.
WARNING: Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
WARNING: Do not damage the refrigerant circuit.

WARNING: The packaging base at the bottom of this series of products must be removed before use.
WARNING: When moving this series of products, take care that the bottom foot does not touch the power cord.
WARNING: The bottom front wheel brake of this series of products need to be locked after moving to the designated position.
WARNING: This series of products need to be left to stand for 12 hours before initial power-up.
WARNING: When this series of products are just connected to the power supply, do not immediately put the items in to it. After running for a period of time, when the temperature inside the product drops to the set temperature, then put the items in batches.

Refrigerant and cyclopentane foaming material used for the appliance are flammable.
Therefore, when the appliance is scrapped, it shall be kept away from any fire source and be recovered by a special recovering company with corresponding a qualification other than being disposed of by combustion, so as to prevent damage to the environment or any other harm.

The safety of any system incorporating the equipment is the responsibility of the assembler of the system

IMPORTANT:
Flammable gas and refrigerant used. It is the consumer's responsibility to comply with Federal and Local regulations when disposing of this product.
Suggestion: Cut off the pipe line and drain the refrigerant without any open fire around

WARNING: If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired

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Warning; flammable material



Warning; low temperature/freezing conditions, frostbite HAZARD(MOD)



Warning; crushing of hands



The product with the symbol reads "warning terms"

CYCLOPENTANE

The product with this symbol reads "cyclopentane blowing'

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Product Features

Scope of application: It applies to low-temperature storage: drugs, vaccines, biological products, reagents, etc.

Product Function

Accurate temperature control Data can be traced back

- High-precision temperature control with a display accuracy of 0.1 °C
- The temperature inside the freezer is uniform and controllable, the temperature range is -10 ~ -25 °C (MD-25L106/308) and -20 °C ~ -40 °C (MD-40L106/308) can be adjusted, and the temperature control is accurate.
- The USB interface is configured, and the temperature data can be traced back to the source, which can realize the function of data query and temperature data storage.

Efficient refrigeration system Good heat preservation effect

- Renowned compressor, optimized refrigeration system, strong refrigeration capacity, safe and reliable refrigeration system
- High-performance thermal insulation layer for good thermal insulation effect
- Multi-layer three-dimensional sealing design effectively reduces cold loss and reduces frost formation

Multiple alarms Safe and stable operation

- With perfect sound and light alarms, it can realize high and low temperature alarms, power failure alarm, sensor fault alarm and other functions. Alarm temperature value can be set based on demand.
- Safety door lock design ensures safety

Other function introduction

- The temperature inside the freezer and the ambient temperature can be displayed. The user can set the high temperature, low temperature alarm value and set the temperature value according to the requirements.
- With remote alarm function to ensure real-time and controllable equipment, safe and stable operation

Note:
The above features are not available for all models. Please refer to the specific functions of each model for detailed configuration.
Due to the continuous product optimization, the product you get may not be exactly the same as the illustration in this manual, we apologize for any inconvenience this may cause.

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Precautions and Safety Measures

Dear User:

Hi! Thank you for using biomedical freezer. For your convenience to understand this manual, use the product, and prevent personal injuries and goods damages, please read the following instructions thoroughly.

Precautions and safety measures

⚠ Documents need to be consulted in all cases of marking ⚠ in order to ascertain the nature of the hazard beforehand and any countermeasures that must be taken

⚠ Warning — Failure in complying matters highlighted in warning signs may cause serious casualties.

⚠ Warning — Failure in complying matters highlighted in caution signs may cause casualties, or damages to the freezer and related property losses

⚠ Warning

⃠ Actions or operations that must be prohibited.

❗ Behavior or operation that must be observed.

- ❗ Please use a power socket with a ground wire to prevent electric shock. If the power socket is not grounded, the grounding wire must be installed by professional technicians.
- ❗ Always place the freezer firmly on a flat floor of the chamber with due care to prevent overturning. If the ground is not stable or the place is not suitable, the freezer might be overturned or people will be injured.
- ❗ If the power cord needs to be lengthened, the sectional area of the lengthened cord shall not be less than 2.5 mm^2 . At the same time, the length is not longer than 3 m. Otherwise, it may cause a fire or electric shock.
- ❗ In case flammable gas leakage, it is necessary to close the gas leakage valve, open the doors and windows, ventilate and exhaust, and do not plug in or pull out the power plug of the freezer, otherwise it may cause explosion and fire.
- ❗ Only professional technicians or after-sales maintenance personnel can maintain the freezer. Otherwise, electric shock and fire may be caused
- ❗ Please use the special power supply indicated on the nameplate of the freezer, otherwise it may cause fire or electric shock.
- ❗ If the voltage is lower than 198 V or higher than 264 V, it is necessary to install a more than 4000 W automatic voltage regulator suitable for motor load.
- ❗ The power cord of this freezer is equipped with a three-wire (grounded) plug, which meets the standard three-wire (grounded) socket of 10 A. Under no circumstances should the grounding pin of the power cord be removed. Make sure that the power plug and socket are plugged firmly and reliably, otherwise it may lead to fires.
- ❗ When unplugging from the power socket, hold the power plug firmly and remove it. Do not pull the wires of the power plug directly. If you pull the wire by hand, it may cause electric shock or fires due to short circuit.
- ❗ If the freezer is not working properly, please unplug the power plug. It may cause electric shock or fires if it continues to operate under abnormal conditions.
- ❗ When the freezer is not used for a long time, unplug the power plug to prevent electric shock, leakage or fire caused by aging of the power cord.
- ❗ If the freezer is idle for a long time in an unsupervised area, make sure that the child does not approach the freezer and that the disposal of the freezer is to be carried out by the appropriate personnel. The door should be removed to prevent accidents such as suffocation.

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Warning: please abandon the refrigerator according to local regulators for it use flammable blowing gas and refrigerant

Make sure all vents are not blocked.

- No flammable, explosive dangerous goods or volatile goods should be discharged in freezer, and do not use combustible sprays near the freezer, otherwise it may cause an explosion or fire.
- Do not store corrosive items such as acids and alkalis in the freezer. Otherwise, the internal components or electrical parts of the freezer may be damaged.
- Packaging plastic bags should not be placed where children can reach them, because plastic bags may cause suffocation.
- Do not climb on the freezer or put the articles on the freezer, otherwise the freezer will fall over and cause personal injury or damage to the freezer.
- Don't use the freezer in the open air. When the freezer is wet by rain, it may cause electric leakage or electric shock.
- Freezers should not be placed in damp places or places vulnerable to splashing water. Otherwise, electric leakage or electric shock will be caused due to insulation reduction.
- Do not pour water directly on the freezer, otherwise it may cause electric shock or short circuit.
- Users are not allowed to disassemble, repair or modify the freezer by themselves. Otherwise, it may cause fires or personal injuries due to improper operations.
- Do not ground the freezer through gas pipe, power supply pipe, telephone line or lightning rod. The above grounding may cause electric shock or other hazards.
- Do not touch any electrical parts such as power plug or any switch with wet hands, otherwise electric shock may be caused.
- Do not put containers or heavy objects containing water on the freezer. If the object falls, it may cause personal injuries, and the outflow of water will reduce the insulation and cause leakage or electric shock.
- Do not insert metal objects such as nails or wires into any openings and gaps of the freezer or into any vent used for internal air circulation, otherwise electric shock or injury may be caused by the above objects contacting with moving parts.
- Do not drag, wind, bundle power cord, and do not damage the power cord plug. Damaged power cords or plugs may cause fire or electric shock
- Do not use a loose plug power cord, which may cause fire or electric shock.
- Do not put glass bottles or canned items in boxes that may crack and cause injury to people

Warning

- There should be no obstruction around the freezer, and the ventilation should be smooth.
- It is necessary to check the freezer setting when restarting the freezer after power failure or power off. Changes in settings may damage stored items.
- Once the power of the freezer is cut off the power, it will take more than five minutes to turn it on again to avoid damage to the compressor or system.
- Be careful to check the condenser in time and clean it regularly. A condenser filled with dust can cause the temperature of the storage box to rise or malfunction (suitable for models with bottom condenser)
- If there is dust in the power plug, it should be cleaned up in time. Dusty plugs or improper plugs

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may cause heat or ignition.

- Gloves should be worn during maintenance to no to touch the sharp edges or corners and avoid the injuries to personnel.
- Do not take storage items directly by hand, direct hand contact with frozen items or the inside of storage boxes may cause frostbite.
- Hold the handle to close the door so that the door will not catch your fingers.
- When moving freezers, the inclination angle should not be more than 30 degrees
- When transporting the freezer, be careful not to trip over freezer to prevent damage to freezer or personal injury.
- Please do not use the door handle to lift or carry the equipment, in case of injury to the freezer or personal injury.
- The refrigeration circuit must not be damaged.
- Do not use electrical appliances in the freezers except for the type recommended by the manufacturer.

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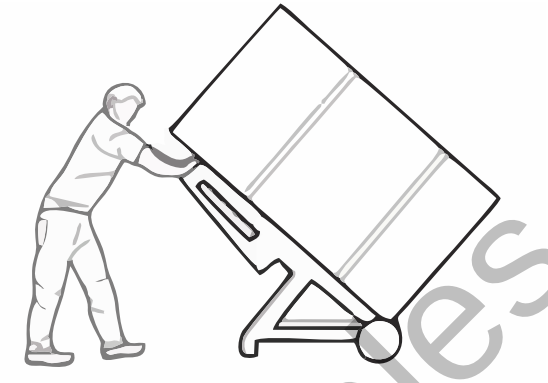
Precautions for Use

- When the freezer is running, the left side, right side, and rear side of the freezer may heat up. This is not a fault, it is to prevent condensation around the shell of the freezer, and the condensation pipe is installed.
- Before putting articles into the equipment, please make sure that the temperature in the storage room has reached the set temperature, and then put the articles in batches. The volume of the articles in the freezer should not exceed 1/3 of its volume at a time to prevent the temperature from rising too much.
- The temperature display value of the equipment is to show the temperature at the temperature sensor in the storage room. There is a certain gap between the displayed temperature and the actual temperature at the center of the equipment when the equipment just runs, but as the equipment enters a stable state, the displayed temperature will gradually approach the actual temperature.
- The freezer body is provided with a detection hole so as to lead out the test line in the freezer during the test. After the test line is led out, it is necessary to plug the test hole with insulating material again, otherwise the temperature in the freezer may not reach the set temperature value, and condensation will appear around the outside of the through hole (applicable to the test hole items).
- Please use 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 and plastic rubber parts may be damaged.
  Attention: Do not use volatile solvents such as gasoline to clean plastic and rubber parts.
- When the equipment is not used for a long time, the power should be cut off and the battery switch should be turned off at the same time (for freezer with backup batteries).
- Each time you access the items, please try to reduce the time to open the door to avoid large effects in temperature inside the freezer.
- After the door is opened, the temperature inside the freezer will rise sharply for a short time. This is a normal phenomenon, and this situation will return to the set temperature after normal operation after the door is closed.
- After the freezer is operated for a period of time, a layer of frost is formed on the inner wall of the freezer and the evaporator. If the frost layer is too thick, it will affect the cooling effect of the freezer and increase the power consumption. Therefore, at intervals, when the frost layer reaches 5 mm, apply the attached shovel to defrost.
- Before defrosting, please remove the frozen items from the freezer and place them in an environment suitable for storage, so as not to raise the temperature and damage the items.
- There are many refrigeration coils in the freezer, do not use sharp instruments such as knives, ice chisels or screwdrivers to remove the frost on the inner wall. When defrosting, be careful not to scratch the inner wall, otherwise it will cause the freezer to fail.

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Handling

1) Protect the product in moving it, Same as shown as photo, please move it by handcart with cushion
2) Remove all packing materials and bottom cushion, the move into house for placement
3) After moving it to appropriate location, wait for 24 hours before power on.

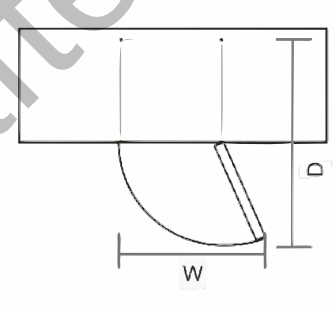


Door Space Requirements

The unit's door must be able to open fully as shown.

W×D≥1220mm*1205mm (MD-25/40L106)

W×D≥1380mm*1385mm (MD-25/40L308)



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Product Installation

Installation environment

- The freezer is designed to use indoors, it is prohibited to install the freezer in an open environment.
- Ambient temperature: 10 °C to 32 °C, the most ideal temperature is 18 °C to 25 °C, and air conditioning system should be used when necessary.
- Environmental humidity: lower than 80%Rh. If the maximum ambient temperature is 32 °C, the humidity should be below 60% Rh.
- Pollution degree: (2), a large amount of dust environment should be avoided.
- Avoid mechanical sway or vibration.
- The altitude of working position of freezer is lower than 2000 m.
- Input voltage: within 220-240 V ± 10%/50 Hz.
- Product overvoltage level: 2
- Product waterproof grade: IPX0
- The freezer is sensitive to ambient temperature. When installed in other environments than the one aforesaid, the freezer can't operate normally. Please improve the environment before use.

Installation site

- Freezer cannot be installed in a narrow and confined space, and the door body of the room where it is placed cannot be smaller and lower than this equipment. At least the normal entry and exit of the equipment should be ensured to avoid difficulties in maintenance when the equipment fails. If the equipment cannot be repaired in time, it may cause damage to the stored items.
- The installation floor must be solid, flat, non-combustible and able to bear the weight of the equipment during operation.
- Provide the good ventilation condition and avoid direct sunlight.
- Each device needs to use a separate power outlet, please ensure that the power outlet should withstand a current of ≥10 A, and the plug and socket are firmly connected.
- Check the working voltage before use. In areas with unstable voltage, a voltage stabilizer suitable for device load should be considered for voltage stabilization, and the power of the voltage stabilizer should be greater than 4000 W to ensure that the input voltage requirements in the installation environment can be met.
- Equipment shall be reliably grounded. If the power cord socket is equipped with grounding wire, check whether the grounding is good before use. If the socket is not equipped with grounding wire, it must be installed by professional engineers and technicians.

Warning

- Do not ground the freezer through gas pipe, water supply pipe, telephone line or lightning rod.
- After installation, the power plug must be accessible, so that the power cord can be unplugged in time in case of emergency. Nothing should cover the vent of the freezer.

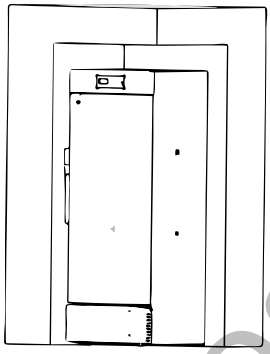
Warning

- As the environmental temperature has a great impact on the equipment, if the above environmental requirements cannot be met, the equipment may not be able to operate normally. Please improve the environment before using the equipment.

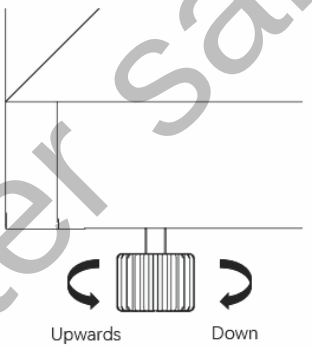
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Preparation before use

1. Remove the outer packaging of all products (including the protective foam in the packing box).
2. Check the random accessories; please check the contents in the freezer according to the packing list. If there is any discrepancy, please contact the after-sales service in time.
3. Placement conditions: a gap of at least 30 cm should be left around the freezer to facilitate ventilation and heat dissipation.

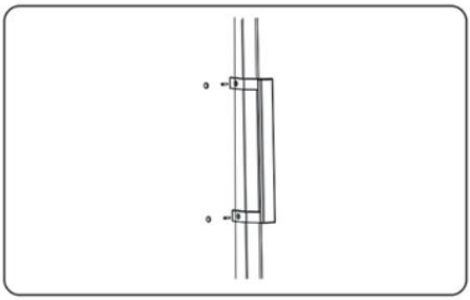


4. Use a wrench or manually rotate the horizontal support foot clockwise to extend the horizontal support foot downward to support it on the ground, ensuring that the storage box does not move while in use (applicable with the support foot item).

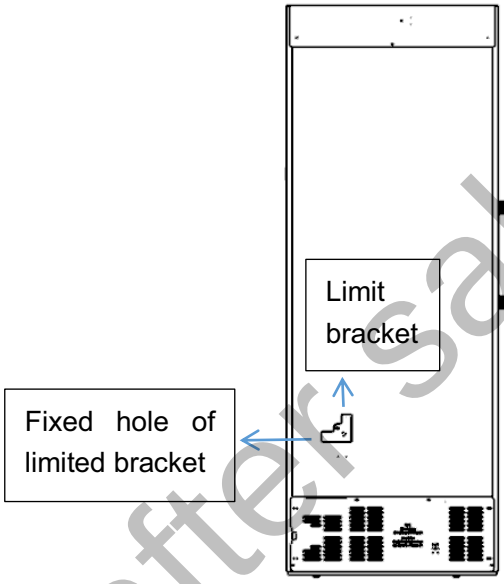


5. Remove the handle, align the handle with the hole on the right side of the door, secure the door handle to the door with a screwdriver, and fasten the handle trim cover to the upper and lower ends of the handle.

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6. Remove the rear stop in the freezer and screw the stop to the rear back plate (suitable for items with rear stops).



Warning

Don't put the plastic bags in the place where child come into contact, so as to prevent suffocation accidents.

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First power on

When using the device for the first time, please follow these steps:

After the device is placed, leveled and cleaned, it needs to be left for more than 24 hours before it is connected to the power supply to ensure the normal operation of the device

Under no-load condition, connect the power cord to a special socket with appropriate specifications

After powering on, see if the display lights up

Set the required temperature, do not put items in the empty freezer, turn on the power, check whether the operating temperature of the equipment can reach the set temperature, and observe the normal operation of the equipment for more than 24 hours to ensure that the performance of the freezer is normal

Please store items in batches, which is not exceeding 1/3 of the box volume at a time. The next batch of goods can only be put in after the device can be shut down normally for more than 8 hours

Try not to open the door during the cooling process, otherwise it will cause the temperature to rise

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Operation after power failure

The device has the memory function for the set value. When the power is restored after the power failure, the device will continue the operation according to the parameters set before the last power failure.

Warning

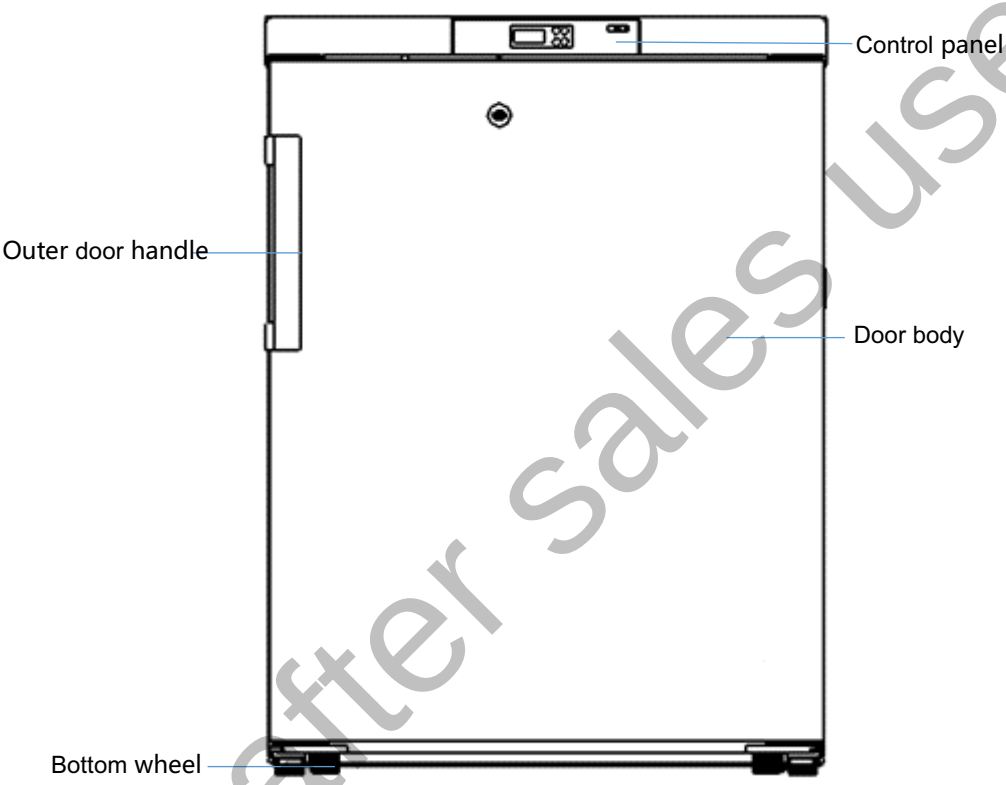
Once the power of the freezer is cut off, it will take more than five minutes to turn it on again to avoid damage to the compressor or system.
When the freezer is not used for a long time, unplug the power plug and turn off the battery switch (applicable to battery items) to prevent electric shock, leakage or fire caused by aging of the power cord.
If the freezer is left idle for a long time in an unsupervised area, please ensure that child do not approach the freezer and the door cannot be completely closed.

- This product should be handled by a special person. Check the operation every day and record it. In case of failure or shutdown, the temperature in the storage box will rise. If it cannot be repaired in a short time, the item should be transferred to other places that meet the temperature requirements and stored to avoid damage to the item.
- This product is a medical low-temperature freezer. Please make sure that the required temperature of the stored items is consistent with the temperature range inside the freezer, so as to avoid damage to the items and economic losses.
- Due to the refrigeration inertia, the display temperature and humidity of this product are different from the actual temperature and humidity in the box, which is a normal phenomenon.
- All freezers are for preservation. Hence, it is strictly forbidden to put too many relatively hot items at one time, which will cause the compressor not to stop for a long time, the temperature drops slowly and affects the service life of the compressor. Stuff must be put in batches, and the temperature should be lowered step by step until it falls to the required temperature!
- The refrigeration circuit shall not be damaged.
- Unlicensed electrical appliances are not allowed to use inside the freezer.
- Do not use any mechanical tools or other means not approved by the manufacturer to accelerate the defrosting process

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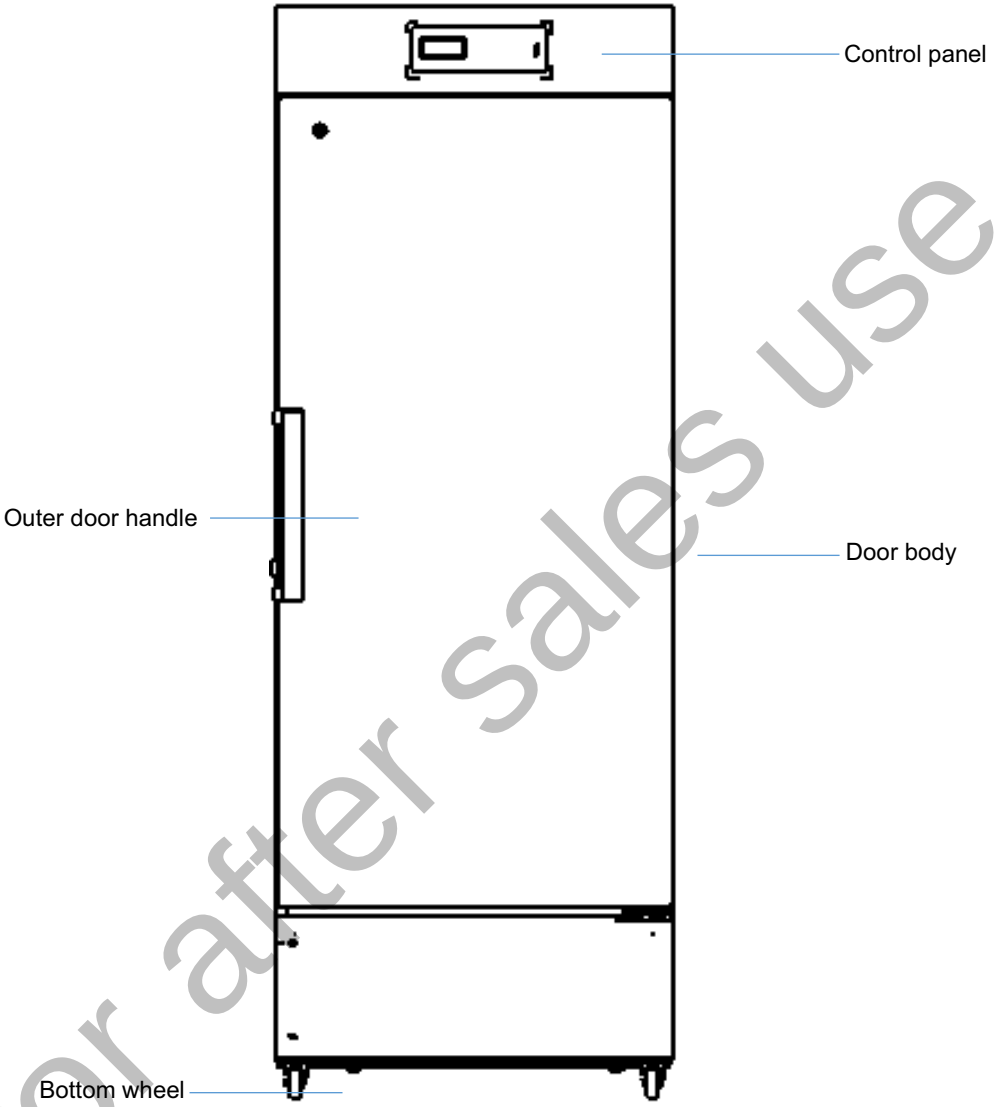
Product Composition and Overview

Appearance diagram



MD-25L/40L106 diagram

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MD-25L/40L308 diagram

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Due to the improvement of products and different models, the actual products may be different from the schematic drawings. Please refer to the real objects!
The sketch is only used for a brief illustration of the functional parts

Operating Instructions

Display panel



Operating Instructions

Key symbols	Function
SET	SET button, in the unlocked state, after long press for 3 seconds, display the current control temperature St set value; in the set state, after long press for 3 seconds, save to exit;
▲	Up-adjustment key to switch parameters or adjust parameter values upwards;
▼	Down-adjustment key to switch parameters or adjust parameter values downwards;
SET+FN	Long press for 3 seconds to unlock the locked controller or to lock the controller;
Long press ▲+▼ for 3 seconds	Access to the recorder's time setting interface;
Long press ▲ for 3 seconds	Export USB data manually
Long press ▼ for 3 seconds	Data printing;

Display symbols	Meaning
	Refrigeration indicator flashing: refrigeration on delay;
	Refrigeration indicator always on: compressor open, start refrigeration;
	Power indicator always on: external power supply to the controller is on;
	Lock indicator always on: controller is locked;
	Alarm indicator flashing: controller is in alarm status;

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Controller parameters and operation:

Controller displays and controls the measured cabinet temperature under normal conditions, and displays "E01" when the cabinet temperature sensor fails. When the cabinet temperature is above 85 C, it displays "EHi". When the cabinet temperature is below -50 °C, it displays "ELo".

Setting of control temperature

In the unlocked status, press SET key for more than 3 seconds, the display shows the current set temperature St set value; use ▲ key or ▼ key to increase or decrease the value, press SET key for more than 3 seconds to confirm the parameter value, if the parameter is changed, it will flash for 2 seconds, store successfully and exit.

Setting of general menu parameters

a. Under normal operation, after unlocking, press SET + ▲ simultaneously for more than 3 seconds, the display shows the parameter code "H";
b. Tumbling parameters (H, L, Mod) with the ▲ and ▼ keys;
c. Press SET to confirm the parameter and the value of this parameter is displayed;
d. Increase or decrease the value of the parameter with the ▲ or ▼ keys;
e. Press SET to temporarily store the modified parameter values and return to the display parameters;
f. If you need to modify other parameters, repeat steps b ~ e;
g. Press the SET key for more than 3 seconds to store the modified parameter value and exit the parameter setting program.

Warning The Mod parameter of this product is defaulted to 2, please do not change this parameter to avoid abnormal operation of the low-temperature freezer

Setting time

Under normal operation, after unlocking, press the ▲ key + ▼ key simultaneously for 3 seconds to enter the setting time interface;
Under normal circumstances, it will show "yer" character, switch "yer", "mtH", "day", "HH", "MM" by the up and down keys, press the SET key, set the corresponding time, long press SET key for 3 seconds, save and exit; 10 seconds without key operation will not save and exit; when inserting or pulling out the USB flash disk, the controller will beep for 0.5 seconds.
If there is an abnormality in the USB data recorder, it will prompt the character "nDR".

Exporting data

Manual: Under normal operation, after unlocking, press and hold the up key for 3 seconds to enter the export data interface;
If there is an abnormality in the USB data recorder, the character "nDR" is displayed; if the USB flash disk is not connected, the character "nUS" is displayed;
Select M1 to M12 by the up and down keys, press and hold SET key for 3 seconds to confirm the exported data, M1 to M12 represents the exported current time, push forward 1 to 12 months, if more data are exported, when you exit the operation interface and still exporting data, "ULD" is displayed at this time until the data export is completed; 3 seconds without key operation is not saved to exit;

Remote alarm function

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This product has a remote alarm function. When the product has an alarm, it can output an alarm signal through the remote alarm connector.
The connector is located in the back top area of the product and has a carrying capacity of DC 30V/2A.
The remote alarm connector has normally open NO, common COM and other contacts. It is recommended that the length of the remote alarm cable should not exceed 3 meters.
Note 1: The remote alarm function requires the user to install the alarm device by himself, which is used in conjunction with the remote alarm interface;
Note 2: Pressing the mute button on the display can only cancel the alarm sound, and the remote alarm status remains unchanged.

Remote communication function (and remote alarm function can not be realized at the same time)

This product can optionally be equipped with RS485 remote communication function, which can output temperature data, alarm information and other signals in the cryogenic chamber to the user monitoring software terminal through the remote communication connector terminal. The RS485 connector terminal is located in the back top cover area of the product.
The telecommunication connector has RS485_A, RS485_B, GND and other contacts. Where RS485_A and RS485_B are a pair of differential signals, the user can use twisted pair cable to connect the above signals.

Warm reminder: Due to product improvement or contract agreement, there may be differences in the actual functional configuration of the freezer product you receive.

Alarm description

Code	Malfunction cause	Alarm mode
E01	Sensor fault inside the freezer	Report E01 code, alarm flashing and buzzer alarm
E02	Ambient temperature sensor fault	Report E02 code, alarm flashing and buzzer alarm
AH	High temperature alarm inside the freezer	Report AH code, alarm icon flashing, buzzer alarm with a 15-min delay
AL	Low temperature alarm inside the freezer	Report AL code, alarm icon flashing, buzzer alarm with a 15-min delay
dor	Door open or door not closed tight	Alarm icon flashing, dor and temperature are displayed alternately and buzzer alarm starts
	When the ambient temperature ≥ 35 °C	Alarm icon flashing, the temperature inside the freezer and the ambient temperature are displayed alternately
	Power-off	Backlight of the display screen goes out Alarm icon flashing, buzzer intermittently beeping for 2 minutes, intermittent display of temperature for 20 hours

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Maintenance and Care

Warning

- To prevent electric shock or injury to personnel, be sure to disconnect power before doing any repairs or maintenance on the equipment.
- Ensure that you do not inhale surrounding medications or suspended particles that could endanger your health when maintaining the equipment.

Warning

- Do not directly sprinkle water on the box, so as to avoid the decline of insulation performance of electrical components and rust of metal parts.
- Do not use hot water, corrosive detergent or organic solvent to clean the cabinet.
- Do not put heavy objects on the top of the equipment to avoid deformation of the equipment under pressure.

Device maintenance

Observe whether the temperature of the equipment is normal, whether there is an alarm phenomenon

Observe whether the door seal is fully fitted, open the box door, and remove the frost around the mouth frame

Use a dry cloth to wipe off a small amount of dust on the outer shell of the freezer as well as that on all accessories. If the freezer is dirty, use a cleaning cloth soaked with neutral detergent to remove the dirt, wipe off the residual detergent with a wet cloth, and then wipe it again with a dry cloth

Remove frost or ice from inner walls and clean the condenser once a month

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Defrosting inside the freezer

Frosting can be a gap between the freezer and the door seal, which can lead to poor cooling. Defrost the inner door with the ice shovel supplied with the freezer, using the natural defrosting method in the following steps.

Turn off the power supply of the equipment

↓

Take out the contents inside the freezer and transfer them to an environment suitable for their storage

↓

Pull out all drawers (if any) and allow the freezer to open naturally for some time to defrost

↓

Dry the bottom of the freezer with a dry cloth

↓

After cleaning the freezer, restart the freezer

↓

Return the item to the adequately cooled freezer



Do not use sharp-edged tools such as knives or screwdrivers to defrost.

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Device deactivation

Discontinuation: If the equipment is stored in an unsupervised area for a long time and is not used, the power supply should be cut off and the inner and outer surfaces of the box should be wiped clean with a warm and wet soft cloth, and then dried and sealed; It is necessary to ensure that the equipment is locked, and that child cannot open the door to prevent accidents such as suffocation.

End-of-life: When the equipment reaches the end of its service life, it should be scrapped and must be handed over to qualified professional recycling organizations for scrapping and disposal in accordance with local regulations and ordinances; non-professionals should not disassemble or disassemble the equipment without authorization; Scrapped equipment should be placed in designated areas that are inaccessible to child to avoid danger.

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Troubleshooting and Maintenance Services

Any product has the possibility of failure. Please observe the operation of the equipment in time during use. If there is any abnormality, please check and deal with it according to the table below. If you still can't change the situation, you should inform our service center in time, we will serve you wholeheartedly so as not to cause any loss to you.

Malfunctions	Troubleshooting
The freezer doesn't work	Check whether the input power meets the requirements
	Whether the plug and the socket are in poor contacts
	Whether the input and control lines are faulty
	Whether the voltage is too low
The cooling effect is not obvious The temperature exceeds the standard	Whether too many or overheated items are stored
	Is the door tightly closed? (The frost between the freezer and door seal may break the sealing of the door)
	Whether there is direct sunlight or other heat source radiation
	Whether the door is open frequently
	Whether the ambient temperature is too high
	Whether the condenser or filter is hidden
	Whether temperature is set correctly
	Test whether the rubber hole cover and insulation material for the through hole are properly installed
	Whether the air duct is blocked
Excessive noise	Whether the freezer is placed stably
	Whether a part of the cabinet is in contact with external objects or walls
The alarm light flashes The buzzer alarms.	Whether the articles have just been put in, so the temperature is raised, and it will be automatically eliminated after refrigeration for a period of time
	If the door is not locked, it is an alarm for door opening
	Whether the temperature exceeds the standard

⚠ Note: If you fail to troubleshoot after checking the above items, or the fault is different from the above list, please contact the after-sales personnel

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Specifications

Name	Medical Low-Temperature Freezer	
Model	MD-25L106	MD-40L106
Electric shock resistance type	Type I	
Power supply	220 V~240 ~/50 Hz	
Temperature in the freezer	-10 °C ~ -25 °C	-20 °C ~ -40 °C
Refrigerant	R600a, 55 g	R290, 50 g
Volume	106 L	
Rated current	0.7 A	2.2 A
Weight	39 kg	43 kg
Weight (Optional dipped plastic drawer)	45kg	49kg
Shelf/drawer (load-bearing)	3 (24 kg)	3 (24 kg)
Noise	43 dB (A)	51 dB (A)
Product dimensions (W×D×H)	600 * 610 * 815 mm	

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Specifications

Name	Medical Low-Temperature Freezer	
Model	MD-25L308	MD-40L308
Electric shock resistance type	Type I	
Power supply	220 V~240 ~/50 Hz	
Temperature in the freezer	-10 °C ~ -25 °C	-20 °C ~ -40 °C
Refrigerant	R290, 110 g	R290, 118 g
Volume	308 L	
Rated current	1.18 A	2.9 A
Weight	100 kg	102 kg
Shelf/drawer (load-bearing)	7 (24 kg)	7 (24 kg)
Noise	46 dB (A)	52 dB (A)
Product dimensions (W×D×H)	700 * 690 * 1920 mm	

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Technical Parameters Description: The technical parameters in this table are measured in the standard state. Due to smaller product improvements and technology, the parameters are subject to change without notice. Please refer to the label nameplate.

Packing List

MD-25/40L106

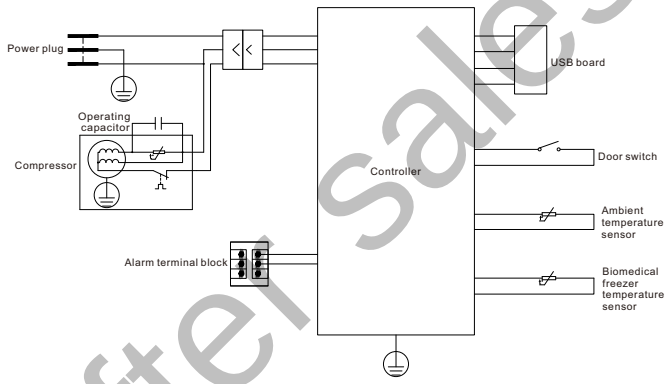
Name	Manual	Key (according to the lock)	Defroster	Handle (according to the configuration)	Stacked block
Quantity	One	Two	One	One	/

MD-25/40L308

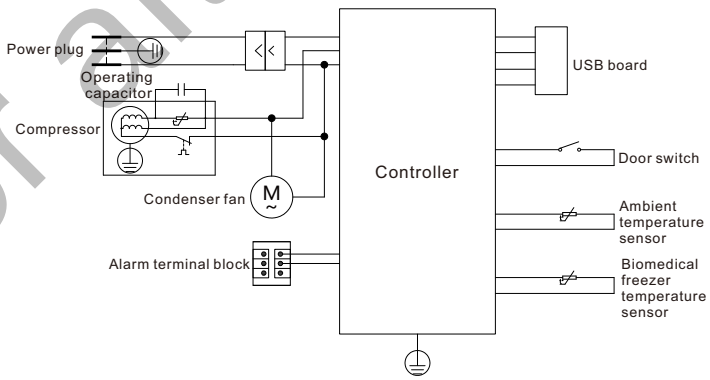
Name	Manual	Key (according to the lock)	Defroster	Handle (according to the configuration)	Stacked block
Quantity	One	Two	One	One	One

Note: For external padlocks and handle options, etc., please refer to the physical configuration.

Electrical Schematic Diagram



MD-25L106 MD-25L308



MD-40L106 MD-40L308

Note: Some models do not have running capacitors and condensing fans, please refer to the actual product.

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