

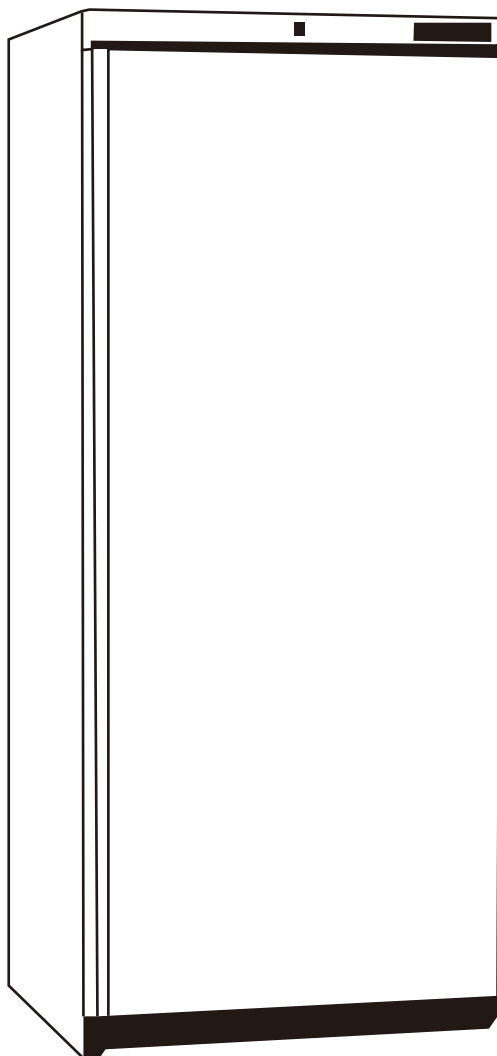
OPERATION MANUAL

-25 °C Biomedical Freezer

STF-135A

STF-350A

STF-550A

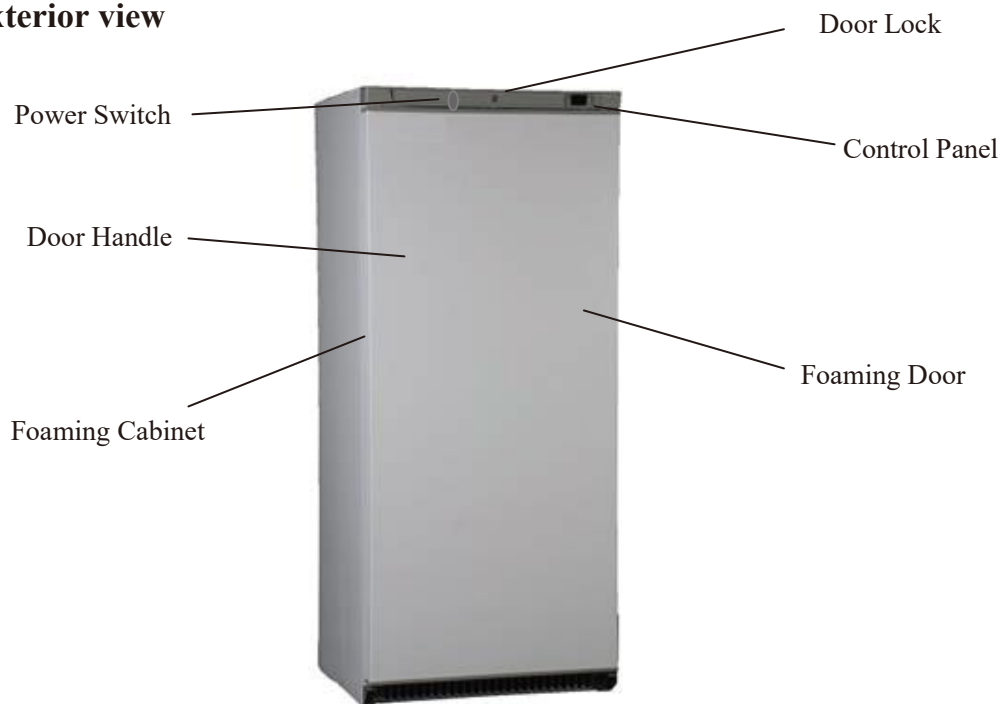


Thank you for buying this -25 °C Biomedical Freezer. It has been designed and manufactured for many years of trouble-free service. Although operation is very simple, please take a few minutes to read this manual, as it contains safety information, and tips to ensure you receive trouble free usage.

Portage and installation

- When carrying the Freezer keep vertical the angle of inclination. The horizontal plane should not be over 50° otherwise it can cause compressor problems and effect normal operation of the Freezer.
- After unpacking the Freezer, remove the packing materials and place the Freezer on a level and sturdy floor near power socket.
- Do not place your Freezer near a direct heat source or direct sunlight and leave at least 6cm all round the unit for adequate ventilation. Failure to do so may affect the performance of your Freezer.
- Never place the Freezer in a location where water can reach or with high moisture.
- Ensure your Freezer is level by adjusting the feet at the bottom of your Freezer.

Exterior view



Power supply

The Freezer uses a three-hole socket which must be well grounded. Never ground the Freezer through a gas pipe, tap water pipe OR the grounded wire of single-phase power supply etc. Never share same circuit with other appliances. Before plugging in your Freezer for the first time, make sure the power cable is free from damage and check that your voltage corresponds to that on the serial plate.

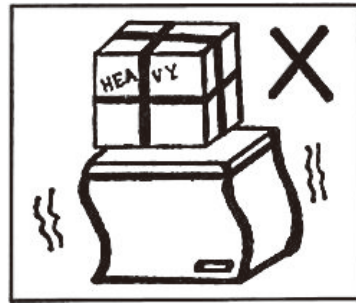
Once plugged in the display will show the temperature inside the Freezer and the compressor will run late on (the indicator light of cooling will be on at the same time). This temperature is the actual temperature recorded by the probes inside the Freezer and as the Freezer cools to the set point (factory set at -25°C) so the number on the display will descend accordingly. If power is cut off, wait for at least 5 minutes before plugging the unit in again to avoid damaging the compressor.

Storage

- The Freezer must not be overloaded and it is recommended the Freezer is only partially filled (55%) and even at maximum stock level the content should not exceed 70% of the Freezers capacity. Leave some space around the goods to allow cold air inside the cabinet to flow
 - Ensure the articles do not touch the back of the interior so as not to freezer
 - Store articles away from inner fan
 - Do not put warm goods into the Freezer directly until they are cooled to normal temperature.
 - Shelves can be adjusted according to different applications.
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Maintenance

- Do not open the door frequently and too long to save energy.
- Never leave heavy or hot stuff on the top of the freezer to avoid deforming.
- Cut off the power before cleaning.
- To clean the freezer, please use soft cloth dampened in some moderate detergent and hot water.
- Use warm water to clean oil or fruit juice stain on the gasket in order to keep its elasticity. Apply some talcum powder to it to prolong its service life.
- The freezer should not be left unused for a long time, to stop using the freezer, disconnect the main power first, then clean the inside and leave the door open for 2~3 days to dry it.



DEFROST

Defrost when the frost thickness on the wall of the cabinet reaches 5mm to optimize the freezing capacity.

- Put the stuff into other low temperature storage.
- Cut off the power, use the defrost removal, do not apply sharp tools.
- After defrosting, clean the wall with dry cloth, and then power on.

THE FOLLOWING PHENOMENA ARE NORMAL

- There will be sound of flowing water when the refrigerant is running.
- The frozen stuff does not melt even after a long time power off.
- When the environment humidity is too high, there will be dew condensed on the surface of the freezer.

- When the machine is running, the condenser and compressor will be hot.

It is recommended that your Freezer be serviced and calibrated every 12 months.

Structure of control panel

The Biomedical Freezer uses the temperature-controlled system. The figure of the control panel is shown as below:



Operation and functions

- **Set the temperature inside the cabinet**

Press SET shows the setting temperature. If need to adjust the temperature inside the cabinet, can press SET above 3 seconds, and the red indicator lamp below “❄” is flash. Press ▲ or ▼ to get required temperature, loose the key, the system will work according to new setting temperature after don’t operate to the controller for 15 seconds continuously.

- **Signal and alarm**

When the red lamp is light below “❄”, it shows the compressor is working.

When the red lamp is flash, shows the temperature controller is under parameter adjustment state.

When the red lamp is light below “❄️”, it shows process on defrosting. When the red lamp is flash, shows the temperature controller is under parameter adjustment state or process on drainage.

When the red lamp is light below “🌡️”, it shows process on temperature or shows the temperature controller is under parameter adjustment state.

TROUBLE SHOOTING

TROUBLES	REASON	SOLUTION
Unfreezing	Inner temperature set higher	Adjust temperature
	Plug and outlet not connected well	Make them connect well
Compressor cannot stop working	Inner temperature set lower	Adjust temperature
	Too much stuff stored in one time	Reduce the quantity
	Thick frost	Defrost
	Too much times of door-opening	Reduce the times of door-opening
	Too near the wall	Far from the wall
	Near the hot source or sun	Change the place
Big noise	Ambient temperature is higher	Decrease the ambient temperature
	Refrigerating tubes connected	Separate them
	Ground is not flat	Change the place

Remark: If you cannot solve the troubles according to the above-mentioned ways, please contact the after service, do not handle it yourself.

WARNING:

- Do not damage the refrigerant circuit.
 - Do not allow children to play with the appliance, or to sit on it or to hang onto the door.
- As far as possible away from the equipment to avoid damage to the child
- For safety, the appliance must be properly earthed in accordance with specifications.

- Do not damage any parts of the appliance which carry refrigerant by piercing, perforating, crushing, twisting or scraping. If the refrigerant comes into contact with the eyes, it may cause serious eye injury
- Always remember to unplug the appliance before cleaning. Never unplug your appliance by pulling on the power cable. Always grip plug firmly and pull straight out from the socket. Always check that the plug and cable are undamaged.
- Do not use electrical appliances inside the Freezer, unless they are of the type recommended by the manufacturer.
- If the supply cord is damaged; it must be replaced by a special cord or assembly available from the manufacturer or its service agent.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- All repairs must be carried out by qualified engineers. Inadequate repairs may be dangerous. Never try to repair the cooler yourself.
- Do not allow children to play with the packaging and destroy plastic bags safely.

Appendix

Controller Parameters

Temperature Control

Parameters	Description	Parameter type	Min	Max	Unit	Default
SET	Set temperature	-	r1	r2	°C/°F	-25
LS	Set Minimum temperature	A	-25	r2	°C/°F	-25
US	Set Maximum temperature	A	r1	190	°C/°F	-10
Hy	Temperature difference	A	1	18	°C/°F	1

Parameter description:

SET Set temperature

User set the shutdown point temperature.

LS The minimum set temperature

Permissible the minimum set temperature (St)

US The maximum set temperature

Permissible the maximum set temperature (St)

TECHNICAL DATA

Model No.	Total Valid Volume (L)	Inner Temperature (°C)	Rated Voltage/Frequency	External Dimension (W×D×H) (mm)
STF-135A	150	-10 ~ -25	220-250V/50Hz、 60Hz	593×620×832
STF-350A	400	-10 ~ -25	220-250V/50Hz、 60Hz	600×645×1875
STF-550A	600	-10 ~ -25	220-250V/50Hz、 60Hz	775×750×1900

Note:

1. The inner temperature of interior center can decrease to -25 °C (Empty load) at the environment temperature 32 °C.

PACKING LIST

Model	User manual	Temperature controller manual	Key	Defrost shovel
STF-135A/350A/550A	1	1	2	1