



MIRALAB
Lab Equipment

Freezer Operation Manual

REF-700



Model:REF-700
Freezer -20

•About this product:

- REF -700 Freezers are very practical as they are made of stainless steel anti-bacterial and anti-rust and have the ability to work in different climatic conditions and have been designed to suit the Egyptian climate and are characterized by ease of use and mobility.

Quality Certificate: CE mark to Product and ISO9001/2015



Model	FRE-700
Capacity	1200 Liter
Drawers	10 Drawers
Door No.	2
Type.:	Stand Alone with 4 castors with two lock.
Description	Solid doors
Door Sealing system	Doors Sealing system with magnetic gasket
Door lock	2Lock with 2 key
Tempering	From (-10 C to -22 ^o C) +1 ^o C
Drawer	10 drawers stainless steel
Interior	Stainless steel
Exterior	Stainless steel
Voltage	220-240 V AC, 50Hz
Temperature Control With color LCD touch screen	Microprocessor control with software Temperature graph.
Alarm System	Audio & Visual and LCD message for: - High/ Low temp. - Compressor one or two failure. - Power failure. - Door open.
Failure Alarms	Self diagnostics
Temp indicator	LCD touch screen display Temperature graph.
Sensor	6 sensors (4 Pt and 2 Ds sensor for monitor and ambient)
temp Record	Digital temp record graph (Data logger)
Foam Insulation	High Density CFC (urethane free)
Compressors	French Compressors (Two COMPRESSORS working interchangeably, In the event that one of the compressors fails, an alarm is given, and the other compressor is inserted until the malfunction is resolved)
Refrigerant	CFC
Exterior Dimensions (cm) (WxDxH)	150W×80D×200H
Interior Dimensions (cm) (WxDxH)	140W×70D×140H
Freezing system	No frost and automatic defrost.
Remote monitoring system	yes
Quality Certificate	CE. & ISO 9001/2015

MiraLab Remote system model -:

It is an integrated smart system that diagnoses malfunctions and monitors the temperature inside the freezer continuously (24/7) with sound and written warnings of the type and position of the malfunction and also monitors the performance of the freezer's internal evaporators (24/7) , it continuously calibrates the temperature sensors every five minutes and shows an alarm when the door is left open or not closed properly.

The temperatures and the display of the outside air temperature on the system's computer screen with the ability to control the high temperature alarm, its rate and the lower temperature as well and its ratio as the system deals with the required temperatures previously stored in it. The system communicates with all the components of the freezer where it continues to stop its components and run continuously with a statement to the efficiency of its work on the main screen for your computer device and give an alarm in the event of a malfunction in the freezer and can be Called up all the data at any time.

•Avoiding Injury :

- Review safety instructions before installing, using, or maintaining the equipment.
- Do not open multiple, loaded drawers at the same time.
- Do not move a unit (single-door units).
- Before moving unit, ensure casters are unlocked and free of debris.
- Never physically restrict any moving component.
- Avoid removing electrical service panels and access panels unless so instructed.
- Use manufacturer supplied power cords only.

• CAUTION:

- Decontaminate parts prior to sending for service or repair. Contact MiraLab or our distributor for decontamination instructions and a Return model and serial Number.
- MiraLab freezers are intended for the storage of plasma products and other medical and scientific products.
- General Use.
- Allow Freezer to come to room temperature before switching power on.
- During initial startup, high temperature alarm may sound while Freezer reaches operating temperature.
- CAUTION: Do not remove the cover from the condensate evaporator tray.

• Initial Loading:

- Allow the Freezer to reach room temperature before powering on. Allow chamber temperature to stabilize at the set point before storing product.

• Product Loading Guidelines:

- When loading your Freezer, take care to observe the following guidelines.
- Never load freezers beyond capacity.
- Always store items within shelves, drawers or baskets.
- Temperature uniformity is maintained by air circulation, which could be impeded if unit is overfilled, particularly at the top or back. Ensure proper clearance is provided below the fan.

• Note

- Products stacked against back wall may obstruct air flow and affect performance of unit.

• Installation

Location:

- Has a grounded outlet meeting the electrical requirements listed on the product specification label.
- Is clear of direct sunlight, high temperature sources, and heating and air conditioning vents.
- Meets limits specified for ambient temperature (5°C to 55°C) and relative humidity.

• Placement and Leveling:

CAUTIONS :

- The evaporation tray located on the rear of the Freezer may be hot. Do not use the tray as a handle.
- To prevent tipping, ensure the casters are unlocked, leveling feet (if installed) are lifted, and the doors are closed before moving the Freezer.
- Roll Freezer into place and lock casters.
- Ensure Freezer is level.

• Temperature Probes:

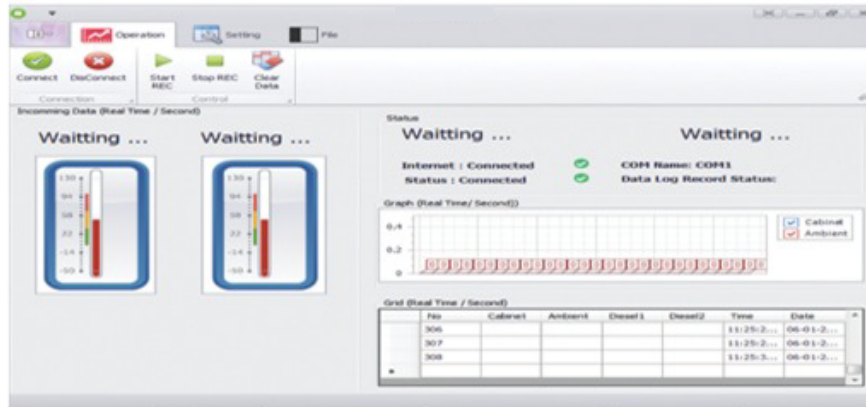
- Probe bottle(s) along with a container of glycerin have been provided with this unit. The glycerin is used to create a solution which simulates the product stored in the Freezer. The product simulation solution temperature reflects the product's temperature during normal operation.

• Primary Monitor Probe :

- The primary monitor probe is located in the top right corner of the Freezer.
- Primary monitor probe with monitoring Remote system.



• MiraLab monitoring Remote system model.: TR-CR-PC1



For refrigerators and freezers as medical applications used to store medicines, vaccines, plasma, blood samples, etc. We offer our integrated solution that measures the door opening and temperature fluctuations - Medical monitoring of the refrigerator - the refrigerator door. There are two easy-to-use connections in the refrigerator door. These contacts record every opening and closing of the door. This analog signal is converted to a digital signal and sent over a local Ethernet connection to a central computer. These are remote monitoring systems in which the user can check conditions. We can program the device for temperature alert levels and also we can specify the duration of the door opening if the door remains open for a longer period of time, the system has been programmed to give a local sound alarm. It stores this data in a central program.

- The client can create the report for any period such as every week or every month or year and the following points review the most important points of the remote monitoring system:

- It is possible to set an alarm to the allowed limit for high temperatures or Low in advance, it is also possible to know the number of times the doors are opened.

- The system can be programmed to monitor the freezer temperature or the refrigerator temperature, as the system can read and monitor any temperatures, whether negative or positive, and analyze them accurately.

- An integrated system that monitors the refrigerator's temperature 24/7 and is equipped with a computer to record and print daily or monthly reports on the refrigerator's performance throughout the year and at any time and is equipped with a program that automatically calibrates the refrigerator's internal temperature sensors every 5 minutes and draws a statement of the temperature stability and displays the temperature The outside air on the system computer screen with the ability to control the high temperature alarm, its rate, and the low temperature also and its percentage, as the system deals with the required temperatures stored in it in advance. The system communicates with all the components of the refrigerator as it is continuous and working continuously with indicating the efficiency of its work on the main screen of the computer and giving an alarm in the event of a malfunction in the refrigerator, and all data can be reviewed at any time.

• Operation :

Initial Power-Up.:

- Plug the power cord into a grounded outlet that meets the electrical requirements on the product specification label.
- Turn the AC power switch ON.
- Turn the Back Up battery switch ON.
- TOUCH SETTING ON SCREEN as shown in the figure (1).
- To enter the settings of the device, touch the settings tab and enter the password as shown in the figure (2).
- Choose the operating temperature and separation temperature via the arrows as shown in the figure(3)
- Touches the word save twice.
- Touch the back sign.

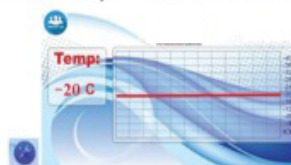


Figure (1)



Figure (2)



Figure (3)



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• Note :

- Active alarms are displayed on the Home screen. If an alarm condition other than High Temperature occurs, wait to access set point.
- After about 40 minutes have passed, the unit will reach the required degree that was set in advance, and then the system will draw a graph of the heat and the disappearance of the audio alarms and messages written on the screen as shown in the two figures.

• The compressors operated interchangeably:

The device has two compressors that work alternately, and when there is a malfunction for one of them, the system runs the other compressor to do the freezing process without any effect over the basic function of the freezer and keeps the product works in the ideal condition and the system shows a written alarm message about the failure and the number of the compressor

• Freezing and Defrost System:

- No frost and automatic defrost.
- Freezer pre-set to the process of removing snow from the evaporators automatically.

• Voice alerts and messages on the screen:

- (1) If you press it explain our Company profile.
- (2) If you press it mute voice or UN mute.
- (3) If you press it setting program.
- 4) Explain Low or High Temp.
- (5) Explain Door open or close.
- (6) Explain Compressor Failure (that's problem on you compressor check it).

