Owner's Guide

MFB-0920 –20^{O}C Manual Defrost Freezer (Upright)
MFB-2020 –20^{O}C Manual Defrost Freezer (Upright)
MFB-2920 –20^{O}C Manual Defrost Freezer (Upright)
MFB-2030 –30^{O}C Manual Defrost Freezer (Upright)
MCFB-2020 –20^{O}C Manual Defrost Freezer (Chest)

OWNER'S INSTRUCTIONS
How to operate and care for your appliance and how to get the best, as well as the lowest cost, performance.

READ THIS BOOK!

Note to Customer:

This merchandise was carefully packed and thoroughly inspected before leaving our plant. Responsibility for its safe delivery was assumed by the carrier, upon acceptance of the shipment. As directed on the side of your packing carton, claims for loss or damage sustained in transit must be made on the carrier as follows:

A.) **Exterior Damage:** Make thorough damage notation on your delivery receipt and have driver acknowledge by signature and date. Send a written request asking for an inspection report from carrier. Include the name of carrier representative and the date the inspection was requested. Retain inspection report and receipt for filing of a claim.

B.) **Concealed Damage:** This must be reported to carrier within fifteen days. Obtain inspection report from the carrier. Retain the inspection report for filing of the claim. DO NOT RETURN DAMAGED MERCHANDISE TO MANUFACTURER - - FILE THE CLAIM WITH THE CARRIER.

Lab Research Products
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Summerville, SC 29483
Phone: 800-648-4041
Fax: 843-821-8051

Warranty:
Two-Year Parts and Labor
5 Years Compressor Parts

Revision Date
06/04

Specifications

General

MFB/MCFB-2030 (-30 Models Only)

SPECIFICATIONS:

General

Cubic Feet	Temp	Defrost	Shelves/Drawers
9	-20°	Manual	6 Fixed w/Door or Drawer
20	-20° (MFB/MCFB-2020) -30° (MFB/MCFB-2030)	Manual	4 Fixed (n/a for MCFB)
29	-20°	Manual	4 Fixed

RECEIVING

A. LRP ships by carriers that we have used for many years and have selected for their good service, but accidents in shipping occur regardless of how much care is taken. Therefore the following is very important:

B. Inspect unit at once for any shipping damage, including concealed damage.

C. You should check for any shipping damage **immediately**, preferably before the carrier leaves your receiving dock, as nearly all shipments are FOB ship point.

D. If there is any damage, note it on the carrier's receiving documents and notify the office of the carrier immediately.

E. The responsibility of the shipper and the delivering carrier ends five days after goods are received. It becomes the responsibility of YOU, the customer, to unpack the unit and check for concealed damage caused during shipping. Immediate attention should be given to this.

F. Retain all packing materials if damage is found.

INSTALLATION AND STARTING INSTRUCTIONS

LOCATION – This unit requires a minimum of 4 inches of air flow in back and 1 to 2 inches on the sides and top. Leveling legs are required in front only. Unit may have a slight tilt from front to back after legs are installed. This is acceptable and is recommended on this unit.

POWER SOURCE – The supply circuit to this cabinet must conform to all National and Local Electrical Codes. Consult the cabinet Serial-Data plate for voltage, cycle, phase, and ampere requirements before making connection. VOLTAGE SHOULD NOT VARY MORE THAN 5% FROM SERIAL PLATE RATINGS. A separate circuit is recommended to prevent possible loss of product due to over-loading or failure of other equipment on the same circuit. PROTECT THE CIRCUIT WITH A 20 AMP DELAY-TYPE FUSE.

STARTING – There are no compressor shipping bolts to loosen or valves to open. All that is necessary after the freezer has been properly leveled is to plug the service cord into an electrical outlet. Do not use an extension cord. Be sure your freezer is properly grounded. Use the 3-prong plug provided into a 3-prong grounded outlet. (Only this method complies with national electrical codes, local codes and ordinances.) Unless the above grounding method is followed, you are not protected against severe or lethal shock in the event of a short circuit of an electrical component or wiring of the freezer. When starting this new appliance, allow the cabinet to operate a minimum of three hours or until it has started cycling normally before placing product in the cabinet. The motor compressor may start and stop several times when the unit is first started or after defrosting, especially if the weather is very hot. This is only normal functioning of the motor overload protector. The motor compressor will cycle normally as soon as the excess heat has been removed.

OPERATING INSTRUCTIONS

AUTOMATIC TEMPERATURE CONTROL – ***The control is pre-set to maintain the ideal temperature of this appliance.*** If necessary, temperature can be adjusted using minimal increments.

MFB-0920: The temperature control is located in the "hood" directly above the door
MFB-2020: The temperature control is located on right side wall inside cabinet
MFB-2920: The temperature control is located behind the louvered grill at the bottom of unit
MFB-2030: The digital temperature control is factory preset and is not adjustable

A. DEFROSTING-This is a manual defrost system. If ice build up is present ¼ inch or more on the fixed shelves, defrosting is recommended. Large ice build-up will reduce cooling efficiency.

B. CLEANING
   1. Cabinet Exterior – Wash with a mild soap and water solution. Rinse with clear water and dry.
   2. Cabinet Interior – Wash with 2 tbls. of baking soda and 1 qt. warm water solution or mild soap.

   DO NOT USE STRONG CLEANERS, SCOURING POWDER OR PADS.

COMPRESSOR – CONDENSER

The compressor is hermetically sealed and will require no attention. The condenser is located between the inside and outside walls of the freezer and also requires no attention. Its natural heat keeps the exterior free of moisture; because of this, the outside may feel warm to the touch. This condition entirely normal.

SERVICE

In the event this freezer does not operate properly, check the following before calling the service man:

1. Is there adequate air circulation around the unit and in the room?
2. Is electrical power reaching the unit? (Check for blown fuse or "tripped" breaker.)
3. Is service cord connected to outlet?
4. Is door closed tightly?

If this does not correct the problem, contact a competent service technician.

Lab Research Products PRODUCT WARRANTY

Lab Research Products warrants to the original purchaser every new ***Lab Research Products*** refrigerated unit, the cabinet and all parts thereof, to be free from defects in material or workmanship, under normal use and service, for a period of two (2) years. The warranty period starts two weeks from the date of shipment from ***Lab Research Products***. This two-week period allows ample shipping time so that the warranty will go into effect at approximately the same time your equipment is delivered. Unless subject to prior written agreement with ***Lab Research Products***, this warranty does not allow for any warranty start deferment greater than two weeks from date of shipment due to a delayed installation and/or start-up.

Under this warranty, ***Lab Research Products***, through its authorized service organizations, will repair, or at its option, replace any part found to contain a manufacturing defect in material or workmanship without charge to the owner for parts, service labor or any shipping or cartage costs. Replacement or repaired parts will be warranted for only the unexpired portion of the original warranty.

ADDITIONAL FOUR YEAR COMPRESSOR WARRANTY

In addition to the two (2) year warranty stated above, ***Lab Research Products*** warrants its hermetically and semi-hermetically sealed compressors to be free from defects in both material and workmanship under normal use and service for a period of three (3) additional years from the end of the initial two (2) year warranty period, but not to exceed five (5) years after shipment from ***Lab Research Products***.

Compressors determined by ***Lab Research Products*** to have been defective within this extended time period will, at ***Lab Research Products'*** option, be either repaired or replaced with a compressor or compressor parts of similar design and capacity.

The three (3) year extended compressor warranty applies only to hermetically and semi-hermetically sealed parts of the compressor and does not apply to any other parts or components, including, but not limited to, cabinet, paint finish, temperature control, refrigerant, metering device, driers, motor starting equipment, fan assembly or any other electrical components.

Lab Research Products' sole obligation under this warranty is limited to either repair or replacement of parts, subject to the additional limitations below. This warranty neither assumes nor authorizes any person to assume obligations other than expressly covered by this warranty.

NO CONSEQUENTIAL DAMAGES. ***Lab Research Products*** is not responsible for economic loss; profit loss; or special, indirect or consequential damages, including without limitation, losses or damages arising from contents spoilage claims whether or not on account of refrigeration failure.

WARRANTY IS NOT TRANSFERABLE. This warranty is not assignable and applies only in favor of the original purchaser/user to whom delivered. Any such assignment or transfer shall void the warranties herein made and shall void all warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose.

NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. There are no other warranties, express, implied, or statutory, except the two (2) year warranty and the additional three (3) year compressor warranty as described above. These warranties are exclusive and in lieu of all other warranties, including implied warranty and merchantability or fitness for a particular purpose. There are no warranties, which extend beyond the description on the face hereof.

ALTERATION, NEGLECT, ABUSE, MISUSE, ACCIDENT, DAMAGE DURING TRANSIT OR INSTALLATION, FIRE, FLOOD OR OTHER EXTERNAL CAUSES.
Lab Research Products is not responsible for the repair or replacement of any parts that ***Lab Research Products*** determines have been subjected after the date of manufacture to alteration, neglect, abuse, misuse, accident, damage during transit or installation, fire, flood or other external causes. It does not apply to defects resulting from failure to properly install, operate or maintain the product in accordance with the printed instructions provided, or damage caused by the storage of any corrosive material that comes in contact with the interior or exterior portions of the cabinet, or the use of spark producing equipment or containers (such as galvanized or carbonized steel containers) that come in contact with any interior portion of the cabinet.

TRANSPORTATION COSTS. ***Lab Research Products*** will accept parts covered under this warranty freight collect, provided that shipment has received prior approval.

OUTSIDE U.S./CANADA. This warranty does not apply to, and ***Lab Research Products*** is not responsible for, any warranty claims made on products sold or used outside the United States and Canada.

WARRANTY CLAIMS. To obtain prompt warranty service, simply contact ***Lab Research Products*** at 800-648-4041. ***Lab Research Products'*** shipping records showing date of shipment shall be conclusive in establishing the warranty period. All claims should include: model number of the refrigerator, the serial number of the cabinet, proof of purchase, date of installation, and all pertinent information supporting the existence of the alleged defect. Any action or breach of these warranty provisions must be commenced within one (1) year after that cause of action has accrued.

MFB/MCFB-2030
This section pertains to -30°C FREEZER ONLY

This freezer has been factory set to run at -30°C. The external thermostat may require adjustment depending on the final ambient operating condition. The freezer has reserve range and can operate to -35°C, **depending on load and ambient temperature.** Plug into a standard 110-120 volt electrical outlet. The unit will start to operate. It will require 5 amps. The freezer's operation will be extremely quiet due to the unique design of the compressor system.

As with the –20 models, pre-cool unit before placing any product into the chamber. The temperature will reach -30°C in less than four hours; however, let the chamber cool for 8 hours minimum to allow for total heat removal from the cabinet.

Again, this is a manual defrost system. If ice build up is present ¼ inch or more on the fixed shelves, defrosting is recommended. Large ice build up will reduce cooling efficiency.

If this system is equipped with a temperature display or alarm system it is not uncommon to observe a rise in temperature on the display following a door opening. Unless the door is left open for long periods of time this should not affect product temperature. The temperature display is independent of the thermostat that is actually controlling the off/on cycling of the compressor. Door opening will greatly affect air temperature but generally does not affect product temperature.

ETC Single Stage Electronic Temperature
(-30 Models Only)

Operation

Liquid Crystal Display (LCD)
The LCD display provides a constant readout of the sensor temperature and indicates if the output rely is energized. When the **S1** annunciator is constantly illuminated during operation, the relay is energized. The display is also used in conjunction with the keypad to allow the user to adjust the setpoint temperature, differential and heating/cooling modes.

Control Setup
The temperature setpoint refers to the temperature at which the normally open (NO) contacts of the output relay will open. Determine the load(s) to be controlled and the operating mode required, cooling or heating.

- When the cooling mode is chosen, the differential is above the setpoint. The relay will de-energize as the temperature falls to the setpoint.

- When the heating mode is chosen, the differential is below the setpoint. The relay will de-energize as the temperature rises to the setpoint.

Programming Steps and Display

The ETC can be programmed in four simple steps using the LCD display and the three keys on the face of the control.

Step 1 - To start programming, press the **SET** key once to access the Fahrenheit/Celsius mode. The display will show the current status, either **F** for degrees Fahrenheit or **C** for degrees Celsius. Then press either the up ⇑ or down ⇓ arrow key to toggle between the **F** or **C** designation

Step 2 - Press the **SET** key again to access the setpoint. The LCD will display the current setpoint and the **S1** annunciator will be blinking on and off to indicate that the control is in the setpoint mode. Then press either the up ⇑ key to increase or the down ⇓ key to decrease the differential to the desired temperature.

Step 3 - Press the **SET** key again to access the differential. The LCD will display the current differential and the **DIF1** annunciator will be blinking on and off to indicate that the control is in the differential mode. Then press either the up ⇑ or the down ⇓ key to decrease the differential to the desired setting.

Step 4 - Press the **SET** key again to access the cooling or heating mode. The LCD will display the current mode, either **C1** for cooling or **H1** for heating. Then either press the up ⇑ or down ⇓ key to toggle between the **C1** or **H1** designation. Press the **SET** key once more and programming is complete**.**

Note: The ETC will automatically end programming if no keys are depressed for a period of thirty seconds. Any settings that have been input to the control will be accepted at that point.