



## Curved Dual Service Air Curtain Merchandisers

**Models:** \_\_\_\_\_

- #224BCAC36** 36" Black Curved Dual Service Refrigerated Air Curtain Merchandiser - 110V  
**#224BCAC48** 48" Black Curved Dual Service Refrigerated Air Curtain Merchandiser - 110V

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### Note:

You should read this manual in its entirety prior to equipment setup, operation, and maintenance.

## Warnings

**DANGER** — RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. TO BE REPAIRED ONLY BY TRAINED SERVICE PERSONNEL. DO NOT PUNCTURE REFRIGERANT TUBING.

**PELIGRO** — RIESGO DE INCENDIO O EXPLOSION. REFRIGERANTE INFLAMABLE UTILIZADO. PARA SER REPARADO SOLAMENTE POR PERSONAL DE SERVICIO CALIFICADO. NO PINCHAR LA TUBERÍA REFRIGERANTE.

**DANGER** — RISQUE DE FEU OU D'EXPLOSION. LE FRIGORIGÈNE EST INFLAMMABLE. CONFIER LES RÉPARATIONS À UN TECHNICIEN SPÉCIALISÉ. NE PAS PERFORER LA TUBULURE CONTENANT LE FRIGORIGÈNE.

**CAUTION** — RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. CONSULT REPAIR MANUAL/OWNER'S GUIDE BEFORE ATTEMPTING TO SERVICE THIS PRODUCT. ALL SAFETY PRECAUTIONS MUST BE FOLLOWED.

**ATENCIÓN** — RIESGO DE INCENDIO O EXPLOSIÓN. REFRIGERANTE INFLAMABLE UTILIZADO. CONSULTE EL MANUAL DE REPARACIÓN / GUÍA DEL PROPIETARIO ANTES DE INTENTAR DAR SERVICIO A ESTE PRODUCTO. DEBEN CUMPLIR CON TODAS LAS PRECAUCIONES DE SEGURIDAD.

**ATTENTION** — RISQUE DE FEU OU D'EXPLOSION. LE FRIGORIGÈNE EST INFLAMMABLE. CONSULTER LE MANUEL DU PROPRIÉTAIRE/GUIDE DE RÉPARATION AVANT DE TENTER UNE RÉPARATION. TOUTES LES MESURES DE SÉCURITÉ DOIVENT ÊTRE RESPECTÉES.

**CAUTION** — RISK OF FIRE OR EXPLOSION DUE TO PUNCTURE OF REFRIGERANT TUBING; FOLLOW HANDLING INSTRUCTIONS CAREFULLY. FLAMMABLE REFRIGERANT USED.

**ATENCIÓN** — RIESGO DE INCENDIO O EXPLOSIÓN DEBIDO A LA PERFORACION DE LA TUBERÍA REFRIGERANTE; SIGA LAS INSTRUCCIONES DE MANIPULACIÓN CON CUIDADO. REFRIGERANTE INFLAMABLE UTILIZADO.

**ATTENTION** — RISQUE DE FEU OU D'EXPLOSION SI LA TUBULURE CONTENANT LE FRIGORIGÈNE EST PERFORÉE; SUIVRE LES INSTRUCTIONS DE MANUTENTION AVEC SOIN. LE FRIGORIGÈNE EST INFLAMMABLE.

**CAUTION** — RISK OF FIRE OR EXPLOSION DUE TO FLAMMABLE REFRIGERANT USED. FOLLOW HANDLING INSTRUCTIONS CAREFULLY IN COMPLIANCE WITH LOCAL GOVERNMENT REGULATIONS.

**ATENCIÓN** — RIESGO DE INCENDIO O EXPLOSIÓN DEBIDO A REFRIGERANTE INFLAMABLE UTILIZADO. SIGA LAS INSTRUCCIONES DE MANIPULACIÓN CON CUIDADO CONFORME A LAS REGLAS DE LA MUNICIPALIDAD.

**ATTENTION** — RISQUE DE FEU OU D'EXPLOSION SI LE FRIGORIGÈNE EST INFLAMMABLE. SUIVRE LES INSTRUCTIONS DE MANUTENTION AVEC SOIN CONFORMÉMENT AUX RÈGLEMENTATION GOUVERNEMENTALE LOCAUX.

## Installation

**This unit is intended for use in a temperature-controlled environment of less than 75°F and 55% relative humidity. Malfunction due to improper conditions is not covered under warranty.**

### Before Installation

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- If the shelf has a raised lip, the lip needs to be installed facing up towards the rear of the cabinet to promote proper air flow. Failure to install the shelves properly is considered user error and is not covered by warranty.
- If the unit has recently been transported on its side, please let unit stand upright for a minimum of 24 hours before plugging it in.
- Make sure that the unit has reached the desired temperature before loading the unit with products. This unit is meant for keeping cold products cold, not chilling warm products.
- Make sure that there is proper ventilation around the unit in the area where it will operate.
- Make sure all accessories are installed (i.e., shelves, shelf clips, casters) before plugging in the unit.
- Do not attempt to remove or repair any component of the unit. Consult an authorized service technician for servicing/repair.
- Do not hang on doors or stand inside the unit.
- Please read through the manual in its entirety.

### Cabinet Location Guidelines

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- Install the unit on strong and leveled surfaces.
  - If the surface is uneven, the unit may be noisy.
  - The unit may malfunction if the surface is uneven.
- Install the unit in an indoor, well-ventilated area.
  - For best performance, please maintain clearance of 6" on the back of the unit.
  - Brackets should be attached on the back of the unit.
  - Do not use outdoors. For indoor use only.
  - Avoid direct sunlight.
- Avoid installation in a high humidity and/or dusty area.
  - Humidity above 55% can cause the unit to rust, collect condensation, and may decrease efficiency.
  - Dust collected on condenser coil will cause unit to malfunction.
  - Malfunction due to temperatures above 75 degrees Fahrenheit, humidity above 55%, or improperly maintained condenser coil will void the warranty.
- Select a location away from heat and moisture-generating equipment.
  - Ambient temperatures above 75 degrees Fahrenheit may cause the compressor to malfunction.
  - Malfunction due to ambient temperatures above 75 degrees Fahrenheit will void warranty.
  - Do not install the unit inside a closet or alcove.

## Electrical

- Ensure that the required voltage is being supplied at all times.
- The unit should be plugged into a grounded and properly-sized electrical outlet with appropriate over-current protection. Refer to the electrical requirements on the unit's nameplate.
- The unit should have its own dedicated outlet.
- DO NOT use extension cords.
- Ensure the unit is not resting on or against the electrical cord.
- If the unit is not in use for a long period of time, unplug from the outlet.
- To avoid shock and fire hazards, DO NOT plug in or unplug the unit with wet hands.
- After unplugging the unit, wait at least 10 minutes before plugging it back in. Failure to do so could cause damage to the compressor.

## Temperature Controls

### Adjusting the Temperature

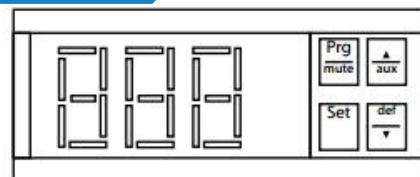
- Your new refrigerator is already factory-set to run at optimum temperatures for food safety and should require no adjustments.
- Refrigerators are set to cycle between a minimum temperature of 33°F and a maximum temperature of 40°F.
- Adjusting the temperature changes the minimum temperature at which your unit will run. Your unit will not run constantly at this setting. To change it, follow these instructions:

#### Digital Control Units

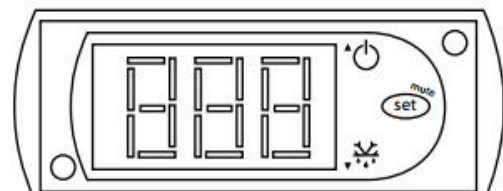
1. Hold "SET" for 1 second. The display will flash the current minimum temperature.
2. Use the arrow buttons to adjust the minimum temperature you'd like the unit to run at.
3. Press "SET" again to save your settings.

Always remember to calculate the differential if you change the minimum temperature setting. The cabinet temperature will fluctuate up to 7°F over your set minimum temperature as the compressor runs and shuts off. Setting the temperature too high will result in unsafe maximum temperatures and possible health code violations.

#### Controller #1



#### Controller #2



## Operation

### Defrost System

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#### Automatic Defrost Cycle

- Refrigerator coils are kept below the freezing point (32°F).
- During compressor downtime, the evaporator fan continues to circulate air through the evaporator coil. This air circulation raises the coil temperature above the freezing point, melting any accumulated frost.
- Run-off water is drained into the evaporator pan and evaporated.
- Automatic defrost timers initiate at pre-set intervals and for a pre-determined duration.
- If a drainage pipe is available, lower the condensation drainage pipe and connect to a drain or condensate pump. Verify the pipe is unobstructed and it is lower than water receiver indicated by the line on the sticker.
- If no drain is available, the condensation drainage pipe can be hung up. The excess water will be evaporated with the condensate evaporator pan. Note that the use of this option will increase the energy consumption of the unit.
- If your cooler utilizes wicking pads for absorption of condensation, it is recommended that the pads (22477146) be replaced every 4-6 months depending on the ambient temperature and relative humidity of the environment.
- If water is leaking from the cabinet, check that the wicking pads have recently been changed and/or the drainage pipe is connected properly.
- **WARNING:** High humidity environments can cause increased amounts of condensation that can overflow the evaporator pan. Connecting the drainage pipe to a nearby drain is necessary for environments exceeding 55% relative humidity.

#### Running a Manual Defrost Cycle

- Units are pre-programmed to run automatic defrost cycles at preset intervals. However, if you would like to run a manual defrost cycle at any time, follow the steps below. Only models with digital controls can run a manual defrost cycle. Units with mechanical controls cannot run a manual defrost cycle.
- **Controller #1:** Press the defrost button ("DEF" and ▼) for approximately 5 seconds. Repeat to stop the defrost cycle.
- **Controller #2:** Press the defrost button (Snowflake and ▼) for approximately 3 seconds. Repeat to stop the defrost cycle.

### Loading Product

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- Ensure there is at least 4" of clearance from the evaporator.
- Ensure all shelves are sitting level and properly secured before loading products.
- **DO NOT** store flammable/explosive gas or liquids inside the unit.

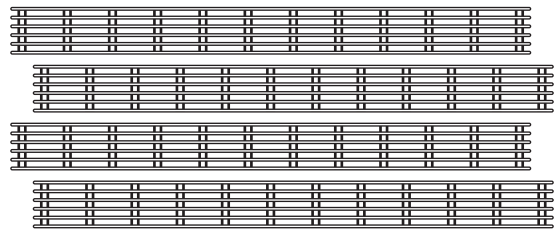


## Operation

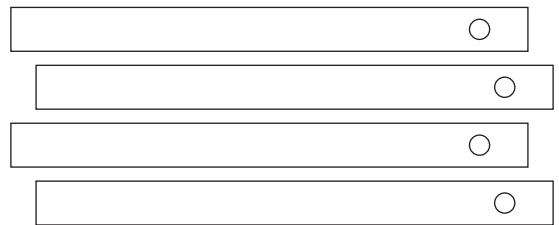
### Adjusting the Temperature of the Top Bakery Case Section

- Four perforated baffles come installed on the unit for the unit to operate with a fully refrigerated top section.
  - Four solid baffles are included for altering the temperature of the top bakery case section.
  - The baffle will prevent (solid) or allow (perforated) refrigerated air from circulating through the display area and returning through the air return grille.
  - The top bakery case section of the equipment can be ambient, refrigerated, or 50/50 ambient and refrigerated:
1. For 100% ambient (non-refrigerated) conditions, two solid baffles must be positioned in each section of the cabinet to block the air flow and the air return grille.
  2. For 100% refrigerated conditions, two perforated baffles must be positioned in each section of the cabinet to allow air to circulate through the display area and return through the air return grille.
  3. For 50/50 ambient and refrigerated, position two solid baffles in the half of the case intended to be ambient to block airflow. For the half intended to be refrigerated, position two perforated baffles to allow air to enter and return through the air return grille.

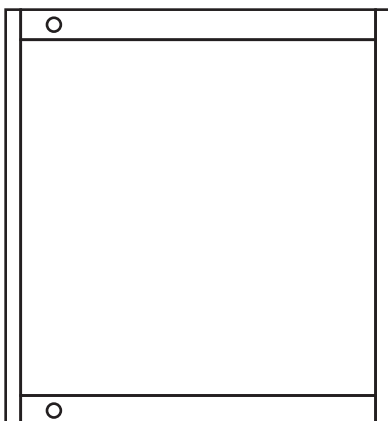
#### Perforated



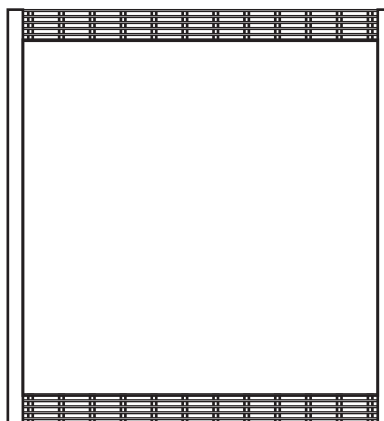
#### Solid



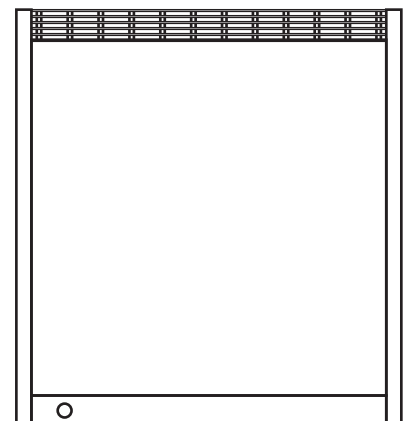
#### 100% Ambient



#### 100% Refrigerated



#### 50%/50%



## Safety Information

**Pay close attention to the safety notices in this section. Disregarding these notices may lead to serious injury and/or damage to the unit.**

- To minimize shock and fire hazards, be sure to not overload outlet. This unit should be given its own outlet.
- DO NOT use extension cords.
- DO NOT put your hands under the unit while it is being moved.
- When the unit is not in use for a long period of time, unplug the unit from the outlet.
- After unplugging the unit, wait at least 10 minutes before plugging it back in. Failure to do so could cause damage to the compressor.
- To minimize shock and fire hazards, do not plug or unplug the cord with wet hands.
- Unplug the unit before performing maintenance or cleaning.
- To minimize shock and fire hazards, make sure that the unit is properly grounded.
- DO NOT attempt to remove or repair any component unless instructed by the factory.
- DO NOT allow the unit to rest on or against the electrical cord and/or plug.
- DO NOT hang on the doors.
- DO NOT store any flammable/explosive gas or liquids inside the unit.
- DO NOT attempt to alter or tamper with the electrical cord.
- DO NOT use the unit if the power cord is damaged.

## Cleaning

**DISCONNECT POWER CORD BEFORE CLEANING ANY PARTS OF THE UNIT.**

**It is strongly recommended that any servicing of the unit be performed by an authorized service technician.**

### Fan Blades & Motor

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- If necessary, clean the fan blades and motor with a soft cloth.
- If it is necessary to wash the fan blades more thoroughly, cover the fan motor to prevent moisture damage, then use a damp cloth to clean the fan blades.

### Interior

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- Use warm water and a mild soap with a clean cloth to wipe down the interior of the unit.
- DO NOT use steel wool, caustic soap, abrasive cleaners, or bleach that may damage the interior finish.
- Wash door gaskets on a regular basis, preferably weekly. Simply remove door gasket from the frame of the door, soak in warm water and soap for thirty (30) minutes, dry with soft cloth, and replace.
- Check door gaskets for proper seal after they are replaced.
- Periodically remove the shelves and pilasters from the unit and clean them with mild soap and warm water. To remove the pilasters, first remove the shelves and shelf brackets. Then, simply lift the pilaster up and out.

## Cleaning

### Cleaning the Condenser Coil

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- A dusty condenser may lead to high energy consumption, less cooling effectiveness, and compressor damage.
- For efficient operation, keep the condenser surface free of dust, dirt, and lint.
- We recommend cleaning the condenser coil at least once per month.
- The condenser coil is located at the bottom behind the panel.

### Cleaning the Condenser Coil Instructions

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1. Disconnect the electrical power from the unit.
2. Remove the front cover and base cover with a screwdriver.
3. Using a soft brush and/or vacuum, remove the dirt, lint, etc. from the finned condenser coil in a vertical direction.
4. Clean the condenser with a commercial condenser coil cleaner, available from any kitchen equipment retailer. Ex. Noble Chemical Tech Line Coil Cleaners (148TLECCCLNR, 148TLHDCCLNR, 148TLECOILDD, 148TLFMCCLNR, 147TLEVPCLNR, or 147TLHDCCLNR).
5. After cleaning, straighten any bent condenser fins with a fin comb.
6. When finished, be sure to reinstall the front cover and base cover.
7. Reconnect the electrical power to the unit.



## Troubleshooting

Problem	Possible Cause	Possible Solution
Compressor not running.	Fuse blown or circuit breaker tripped.	Replace fuse or reset circuit breaker.
	Power cord unplugged.	Plug in power cord.
	Thermostat set too high.	Set thermostat to lower temperature.
	Cabinet in defrost cycle.	Wait for defrost cycle to finish.
The unit is making noise under the bottom shelf.	Fan blade is broken.	Replace fan blade.
The unit is not cooling.	Unit is turned off.	Turn unit on.
	Defrost cycle is running.	End defrost cycle.
	Refrigerant leaking.	Contact a licensed service technician.
High cabinet temperature caused by weak air flow.	Evaporator coil is frosted over.	Run a manual defrost cycle. (Page 5)
	Fan is damaged.	Replace the fan.
	The set point on the controller is too high.	Set the controller to a lower temperature. The set temperature is the lowest temperature the refrigerator will reach.
	Air flow is blocked by product.	Rearrange or remove product to allow for complete air flow.
High cabinet temperature with normal air flow.	Refrigerant leaking.	Contact a licensed service technician.
	The set point on the controller is too high.	Set the controller to a lower temperature. The set temperature is the lowest temperature the refrigerator will reach.
	Expansion valve failed.	Contact a licensed service technician.
	The air curtain is being disturbed by strong air flow.	Make sure the cabinet is located away from doors, windows, and other air vents.
	High ambient temperature or humidity.	This refrigerator is designed to perform in temperature-controlled environment up to 75°F and 55% relative humidity.
Cabinet temperature is fluctuating.	Condenser coil is dirty.	Clean the condenser coil.
	Unit has improper air flow.	Make sure the unit has at least 6" of clearance on the back and that the front vents are not obstructed.
	Expansion valve blocked or failed.	Contact a licensed service technician.
	Temperature controller failed.	Contact a licensed service technician.
	Low refrigerant levels.	Contact a service technician to check refrigerant levels.
Condensation is collecting on the cabinet and/or floor.	Wicking pads need changed.	Change wicking pads.
	Relative humidity is above 55%.	Move unit to area below relative humidity or lower humidity level.
	Wicking pads have been changed and/or drainage pipe is connected properly.	Contact a licensed service technician.