REFRIGERATION AVANTCO™

User Manual

03/2024

189VAC28HC

Vertical Open Air Merchandisers

Base Models:

#189BVAC28HC **#189BVAC36HC** **#189BVAC46HC**
#189WVAC28HC **#189WVAC36HC** **#189WVAC46HC**

Note:

Please read the manual thoroughly prior to equipment setup, operation, and maintenance.

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Vertical Open Air Merchandisers

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Intertek 5012324

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NEMA 5-15P

Warnings

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

PELIGRO – RRIESGO 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 FRIGORIGENE.

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.

ATENCION – 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 LE 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.

ATENCION – 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 CONTENTANT 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.

ATENCION – 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 less than 75 degrees Fahrenheit and 55% relative humidity.

IMPORTANT – Please read before installation:

- If the shelf has a raised lip, the lip needs to be installed facing up towards the rear of the cabinet to promote proper airflow. 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 the 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 stand inside unit.
- Please read through the manual in its entirety.
- This unit is designed to perform in a temperature-controlled environment at 55% relative humidity. The unit should be located away from doors, air ducts, and fans that could disrupt airflow and negatively impact performance.

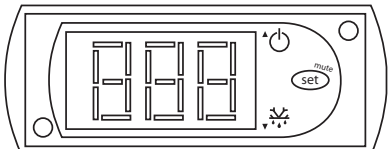
Cabinet Location Guidelines

- Install the unit on a strong and leveled surface.
  - If the surface is uneven, the unit may be noisy.
  - The unit may malfunction if the surface is uneven.
  - Uneven floors may cause leakage.
- Install the unit in an indoor, well-ventilated area.
  - For best performance, please maintain a 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 the condenser coil will cause the unit to malfunction.
  - Malfunctions 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.
  - The unit should not be used in areas over 90 degrees Fahrenheit.
  - Malfunctions due to ambient temperatures above 75 degrees Fahrenheit will void the warranty.
  - Do not install the unit inside a closet or alcove.

Electrical

- Please 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. NEVER USE AN ADAPTER PLUG! Please refer to the electrical requirements on the unit's nameplate.
- This unit should have its own dedicated outlet.
- Do not use extention cords.
- Do not unplug your cooler by pulling on the power cord. Grip the plug firmly and pull straight out from the outlet.
- 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, please unplug the unit 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.

Adjusting 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 degrees Fahrenheit and a maximum temperature of 40 degrees Fahrenheit.

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

- Hold "SET" for 1 sec. The display will flash the current minimum temperature.
- Use the arrow buttons to adjust the minimum temperature.
- 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 +4 degrees 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.

Running a Manual Defrost Cycle

This unit is pre-programmed to run automatic defrost cycles at preset intervals. However, if you would like to run a manual defrost cycle at any time, please follow the steps below:

1. Press and hold the defrost button (snowflake symbol and down arrow) for approximately 3 seconds.
2. Repeat to stop the defrost cycle.

Defrost System:

Refrigerator coils are kept below the freezing point (32 degrees Fahrenheit). 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 automatically initiate at pre-set intervals and for a pre-determined duration.

- If drainage pipe is available, lower the condensation drainage pipe and connect to a drain or condensation pump. Verify the pipe is unobstructed and it is lower than the water reciever 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.
- **WARNING:** High humidity enviroments 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.

Safety / Warning

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

ATTENTION

- To minimize shock and fire hazards, be sure not to overload outlet. Please designate one outlet for your unit.
- 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, please 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.

UNPLUG CORD

- To minimize shock and fire hazards, please do not plug in or unplug the cord with wet hands.
- During maintenance and cleaning, please unplug the unit.

PROPER GROUNDING REQUIRED

To minimize shock and fire hazards, make sure that the unit is properly grounded.

WARNING

- Do not attempt to remove or repair any component unless instructed by the factory.
- Make sure that the unit is not resting on or against the electrical cord or plug.
- To minimize personal injury, do not hang on the doors.
- Do not store any flammable and explosive gas or liquids inside the unit.
- Do not attempt to alter or tamper with the electrical cord.

Operation / Maintenance

WARNING: DISCONNECT THE POWER CORD BEFORE CLEANING ANY PARTS OF THE UNIT.

NOTE: We strongly recommend that any servicing be performed by an authorized service technician.

Loading Product

- Do not block the air duct/fan at the top of the unit. Maintain a minimum of 4” of clearance between products and the fan at all times.
- Ensure all shelves are sitting level and properly secured before loading products.
- Do not store flammable and explosive gas or liquids inside the unit.

Cleaning the Condenser Coil

- For efficient operation, keep the condenser surface free of dust, dirt, and lint.
- We recommend cleaning the condenser coil at least once per month.

Cleaning the Fan Blades and Motor

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

Cleaning the Interior of the Unit

- When cleaning the cabinet interior, use a solvent of warm water and mild soap.
- Do not use steel wool, caustic soap, abrasive cleaners, or bleach that may damage the interior finish.
- 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.

Condenser Coil Cleaning Instructions:

A dusty condenser may lead to high energy consumption, less cooling effectiveness, and compressor damage.

The condenser coil is located at the bottom behind the panel.

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
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 is 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.
Unit is leaking water.	Condensate evaporator is overflowing.	Use drainage pipe to drain excess water to nearby drain or pump.
	High relative humidity.	This refrigerator is designed to perform in temperature-controlled enviroments up to 75˚F and 55% relative humidity.
	Drainage tube is clogged.	Verify the drainage tube is clear and obstructed.
	Temperature controller failed.	Contact licensed service technician.
	Condensate evaporator has failed.	Contact licensed service technician.
	Unit is not on level ground.	Adjust the unit to make sure it is level for condensate flow to the pan.
Unit is making noise under bottom shelf.	Fan blade is broken.	Replace fan blade.
Unit is not cooling.	Unit is turned off.	Turn unit on.
	Defrost cycle is running.	End defrost cycle.
	Refrigerant is leaking.	Contact licensed service technician.
High cabinet temperature caused by weak air flow.	Evaporator coil is frosted over.	Run a manual defrost cycle.
	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.

Problem	Possible Cause	Possible Solution
High cabinet temperature with normal air flow.	Refrigerant is leaking.	Contact licensed service technician.
	The set point on the controller is too high.	Set the controller to a lower temperature. The set temperature is the lowesr temperature the refrigerator will reach.
	Expansion valve failed.	Contact 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 enviroments 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 failed.	Contact licensed service technician.
	Temperature control failed.	Contact licensed service technician.
	Low refrigerant levels.	Contact licensed service technician.
	Gasket is not sealing properly.	Clean, repair, or replace the gasket as necessary.
	Relative humidity is above 55%.	Move unit to area below relative humidity or lower humidity level.