



178AWT48FHC  
178AU27FHC

## Commercial Refrigerators and Freezers

### Base Models:

#### Undercounter Refrigerators and Freezers

#178AU27FHC

#178AU48FHC

#178AU60FHC

#178AU72RHC

#178AU27RHC

#178AU48RHC

#178AU60RHC

#### Worktop Refrigerators and Freezers with Backsplash

#178AWT27FHC

#178AWT48FHC

#178AWT60FHC

#178AWT72RHC

#178AWT27RHC

#178AWT48RHC

#178AWT60RHC

### Note:

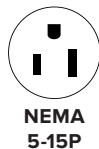
Read the manual thoroughly prior to equipment setup, operation, and maintenance.

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**Read the manual thoroughly prior to equipment set-up, operation, and maintenance.**

**NOTE:** Save these instructions for future reference.



## 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.

**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 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.

**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 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.

**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°F and 60% relative humidity.**

**IMPORTANT** – 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, 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 the unit in.
- Do not attempt to remove or repair any component of the unit. Consult an authorized service technician for servicing / repair.
- Do not sit / stand inside the unit.
- Read through the manual in its entirety.
- This unit is designed to perform in a temperature-controlled environment at 60% 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.
- Install the unit in an indoor, well-ventilated area.
  - For best performance, maintain clearance of 3" on the back and on the sides 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 60% can cause the unit to rust, collect condensation, and may decrease efficiency.
  - Dust collected on the condenser coil will cause the unit to malfunction.

- Select a location away from heat and moisture-generating equipment.
  - Ambient temperatures above 75°F may cause the compressor to malfunction.
  - For optimal performance, this unit should not be used in environments with ambient temperatures exceeding 75°F.
  - The unit should not be placed in areas with an ambient temperature over 90°F.
  - Equipment malfunctions due to ambient temperatures above 90 degrees could void the warranty.
  - Do not install this unit inside a closet or alcove.
- For optimal performance, 3" of clearance is required around all louvered or vented panels to allow for proper airflow.
  - For your convenience, a set of brackets is included to prevent this unit from being pushed up against a wall.
  - Component failure due to improper installation is not covered under warranty.

## 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 circuit.
- 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 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.

## Temperature Controls

- **Refrigerant LED - Compressor is on**
- **Fan LED - Fan is on**
- **Defrost LED - Defrost cycle is running**

## Functions

### ADJUSTING THE TEMPERATURE

**Your new refrigerator or freezer is already factory set to run at optimum temperatures for food safety and should require no adjustments.**

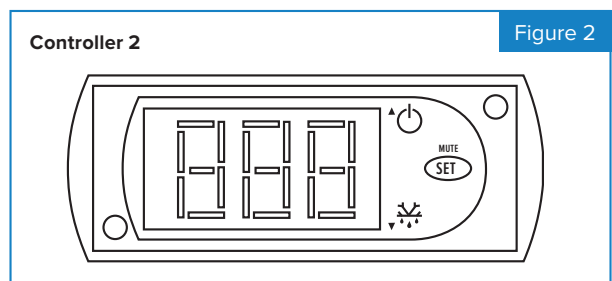
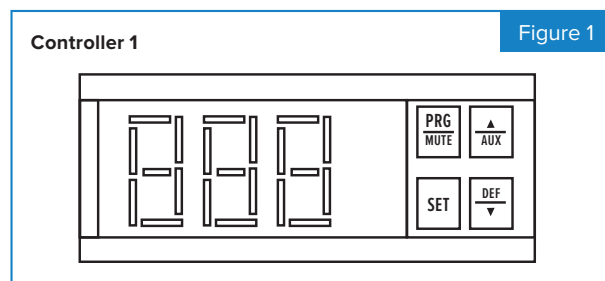
- Refrigerators are set to cycle between a minimum temperature of 33°F and a maximum temperature of 40°F.
- Freezers are set to cycle between a minimum temperature of -5°F and a maximum temperature of 2°F.

Adjusting the temperature changes the minimum temperature your unit will run at. 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 +7 degrees over your set minimum temperature as the compressor runs and shuts off. Setting the temperature too high will result in unsafe maximum temperatures.



## Defrost System

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 automatically initiate at pre-set intervals and for a pre-determined duration.

## 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, follow the steps below:

**Controller 1:** Press the defrost button (“def” and down arrow) for approximately 5 seconds. Repeat to stop the defrost cycle.

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

## Loading Product

Before loading shelves, be sure that all shelf clips are completely fastened in their correct locations. It is important that all shelves rest completely level before stocking your cabinet with product. In order to maintain correct airflow inside the unit, be sure to leave 2-4" of space between the back wall and stored product. Blocking the evaporator fans will result in a warmer cabinet temperature and ultimately compressor failure.

## Safety / Warning

**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. 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, 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, do not plug or unplug the cord with wet hands.
- Unplug the unit during maintenance and cleaning.

### 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 factory.
- Make sure that the unit is not resting on or against the electrical cord and 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

- Make sure 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 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 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.
- Wash door gasket(s) on a regular basis, preferably weekly. Simply remove door gasket(s) from the frame of the door(s), soak in warm water and soap for thirty (30) minutes, dry with soft cloth, and replace.
- Check door gasket(s) 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.

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

#### CONDENSER COIL CLEANING INSTRUCTIONS:

**NOTE:** 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. Nobel 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
<b>Compressor not running.</b>	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.
<b>Condensing units run for long periods of time.</b>	Excessive amount of warm product in cabinet.	Allow adequate time for product to cool down.
	Prolonged door opening or door ajar.	Ensure doors are closed when not in use. Avoid opening the doors for long periods of time.
	Dirty condenser coil.	Clean the condenser coil.
	Evaporator coil iced over.	Unplug unit and allow coil to defrost. Make sure thermostat is not set too cold. Ensure that door gasket(s) are sealing properly.
	Door gasket(s) not sealing properly.	Ensure gasket(s) are snapped in completely. Remove gasket(s) and wash with soap and water. Check condition of gasket and replace if necessary.
<b>Cabinet temperature is too warm.</b>	Thermostat set too warm.	Set thermostat to lower temperature.
	Airflow blocked.	Rearrange product to allow for proper airflow. Make sure there is at least 4" of clearance from evaporator.
	Excessive amount of warm product placed in cabinet.	Allow adequate time for product to cool down.
	Fuse blown or circuit breaker tripped.	Replace fuse or reset circuit breaker.
	Dirty condenser coil.	Clean the condenser coil.
	Evaporator coil iced over.	Ensure doors are closed when not in use. Avoid opening doors for long periods of time.
	Low refrigerant levels.	Contact a service technician to check refrigerant levels.
	Door is slightly ajar.	Make sure door is completely closed.
<b>Condensation is collecting on the cabinet and/or floor.</b>	Relative humidity is above 60%.	Move unit to area below relative humidity or lower humidity level.
	Gasket(s) is not sealing properly.	Clean, repair, or replace the gaske(s)t as necessary.