



178SS1RHC  
178SS2RGHC

# SS Series Reach-In Refrigerators and Freezers

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

## Refrigerator Models

<b>#178SS1RHC</b>	29" Solid Door
<b>#178SS2RHC</b>	54" Solid Door
<b>#178SS3RHC</b>	81" Solid Door
<b>#178SS1RGHC</b>	29" Glass Door
<b>#178SS2RGHC</b>	54" Glass Door
<b>#178SS1R2HC</b>	29" Solid Half Door
<b>#178SS2R4HC</b>	54" Solid Half Door

## Freezer Models

<b>#178SS1FHC</b>	29" Solid Door
<b>#178SS2FHC</b>	54" Solid Door
<b>#178SS3FHC</b>	81" Solid Door
<b>#178SS1F2HC</b>	29" Solid Half Door
<b>#178SS2F4HC</b>	54" Solid Half Door

## Note:

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

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## 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 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 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

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

**This unit is intended for use in a temperature-controlled environment of less than 75 degrees Fahrenheit and 60% 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 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 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 hang on doors or stand inside the unit.
- 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.

### Field Convertible Doors

The Avantco 178SS1RHC and 178SS1FHC both ship with a right-hinged door design. If you would like to convert the reach-in to a left-hinged door design (solid door models), you must purchase the left hinges separately (Avantco item #178SS1KITFR) and follow the instructions:

#### Tools Needed:

- Socket Set
  - Pliers
  - Adjustable Wrench
  - Phillips Head Screwdriver
1. Remove the bottom vent, which is held on by loosening the 4 Phillips head screws that hold it on. You do not need to remove the whole way, as the vent will slide up and out.
  2. Remove the top panel next. It is held on with 2 small screws. Once the screws are out, the top panel will hinge up.
  3. Remove the small Philips head screws at the top and bottom door hinge where it attaches to the brackets. Be careful not to lose the small washers.
  4. Next take off the top bracket. It is held on with 3 bolts.

5. The door should come off at this point.  
**Note:** Do not lose the small round brass spacer on the bottom hinge!
6. Remove the bottom bracket. It is held on with 3 bolts.
7. Replace the bottom hinge with the new left hand bottom bracket. It is held on with 3 bolts.
8. At this point, you will need to adjust the top and bottom spring tensioners so the door will close properly.
9. Put the door on the bottom hinge on the left side. You will need to reuse the brass spacer from step 5.
10. Next, place the top bracket on the top of the door before bolting it to the unit with the 3 bolts.
11. Replace the small screws on the top and bottom of the bracket and door spring. Make sure the door is on properly before you do this.
12. Reattach the bottom vent and the top panel.

**\*Glass door models cannot be field converted to a left-hinged door.**

## Cabinet Location Guidelines

- 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.
  - 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 degrees Fahrenheit may cause the compressor to malfunction.
  - For optimal performance, this unit should not be used in environments with ambient temperatures exceeding 75 degrees Fahrenheit.
  - The unit should not be placed in areas with an ambient temperature over 90 degrees Fahrenheit.
  - Equipment malfunctions due to ambient temperatures above 90 degrees could void the warranty.
  - Do not install this 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. Please 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, 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.

## Temperature Controls

### 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.

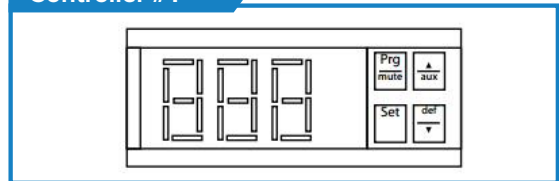
- Refrigerators are set to cycle between a minimum temperature of 33 degrees Fahrenheit and a maximum temperature of 40 degrees Fahrenheit.
- Freezers are set to cycle between a minimum temperature of -5 degrees Fahrenheit and a maximum temperature of 2 degrees Fahrenheit.
- Adjusting the temperature 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

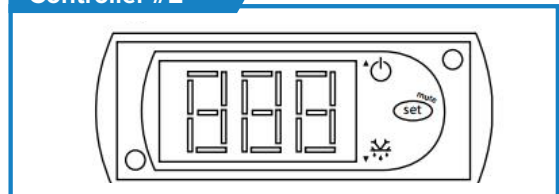
1. Hold "SET" for 1 second. The display will flash the current minimum temperature.
2. Use the arrow buttons to adjust the minimum temperature you'd like the unit to run at.
3. Press "SET" again to save your settings.

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

#### 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.

## 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

- 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.

# 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.

## Maintenance

**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

- 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

- 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 the Condenser Coil

- 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

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.
Condensing units run for long periods of time.	Excessive amount of water 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.
	Door gasket(s) not sealing properly.	Ensure gasket(s) are snapped in completely. Remove gasket and wash with soap and water. Check condition of gasket and replace if necessary.
	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.
Cabinet temperature is too warm.	Thermostat set too warm.	Set thermostat to lower temperature.
	Airflow blocked.	Re-arrange product to allow for proper air flow. 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.
Interior light is not working.	Poor switch connection.	Turn off light switch and turn it back on.
	Bulb is not connected.	Make sure the bulb is correctly inserted in the socket.
	Bulb has burned out.	Replace the bulb.
Condensation is collecting on the cabinet and/or floor.	Gasket is not sealing properly.	Clean, repair, or replace the gasket as necessary.
	Relative humidity is above 60%.	Move unit to area below relative humidity or lower humidity level.