# COMMERCIAL REACH-IN REFRIGERATORS AND FREEZERS

## *Service, Installation and Care Manual*

Refrigerator Models:

MSD-3DR-BAL-80-G-A, MSD-3DR-BAL-A, MSD-2HDR-BAL-A, MSD-2DR-BAL-A, MSD-1DR-BAL-27-G-A, MSD-2DR-BAL-54-G-A, MSD-1DR-BAL-A, MSD-4HDR-BAL-A, MSD-1DR-BAL-19-A, MSD-2DR-BAL-35-A, MSD-1DR-BAL-12-A

Freezer Models:

MSD-3DF-BAL-A, MSD-2DF-BAL-A, MSD-2HDF-BAL-A, MSD-4HDF-BAL-A, MSD-1DF-BAL-A, MSD-1DF-BAL-12-A, MSD-1DF-BAL-19-A, MSD-2DF-BAL-35-A

***Not suitable for installation in a non-commercial or residential application.**

**Important information - read before use. Please save these instructions!**

***Please read this manual completely before attempting to install or operate this equipment. Notify carrier of damage! Inspect all components immediately.***

# INSTALLATION

## IMPORTANT!!! PLEASE READ BEFORE INSTALLATION

- If the unit has recently been transported, please let unit stand still for a minimum of 24 hours before plugging it in.
- Make sure that the unit drops down to desired temperature before loading the unit with product.
- 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.
- Please read the manual in its entirety.

## CABINET LOCATION GUIDELINES

- Install the unit on a strong and level surface.
  - -unit may make unpleasant noises if surface is uneven
  - -unit may malfunction if surface is uneven
- Install the unit in an indoor, well-ventilated area.
  - -unit performs more efficiently in a well-ventilated area
  - -for best performance, maintain a clearance of 4" on the back of the unit
  - -outdoor use may cause decreased efficiency and damage to the unit
- Avoid installation in a high humidity and/or dusty area.
  - -humidity may cause the unit to rust and may decrease efficiency of the unit.
  - -dust collected on condenser coil will cause the unit to malfunction. Clean the condenser at least once a month with a brush or a clean cloth.
- Select a location away from heat and moisture-generating equipment.
  - -high ambient temperatures will cause the compressor to overwork, leading to higher energy bills and gradual breakdown of the unit.

## ELECTRICAL

Ensure that the required voltage of the compressor is being supplied at all times. Low or high voltage can detrimentally affect the refrigeration unit.

Plug the unit into a grounded and properly rated electrical outlet with appropriate overcurrent protection. Refer to the electrical requirements on the nameplate. Make sure that your unit has its own dedicated outlet. Do not use an extension cord.

# SAFETY / WARNINGS

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

## ATTENTION

- To minimize shock and fire hazards, be sure not to overload the outlet. Designate one outlet for your unit.
- Do not use extension cords.
- Do not put your hands under the unit when it is being moved.
- When the unit is not in use for an extended period, unplug it from the outlet.
- After unplugging the unit, wait at least 10 minutes before re-plugging it 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.
- During maintenance and cleaning, unplug the unit.

## PROPER GROUDING REQUIRED

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

## RESTRICITIONS

- 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 and plug.
- To minimize personal injury, do not hang on the doors.
- Do not store any flammable or explosive gas or liquids inside the unit.
- Do not attempt to alter or tamper with the electrical cord.

## CAUTION FOR SAFETY.

- Leave enough space from the wall and ceiling to the cabinet. Do not position the back part of the cabinet against the wall. If necessary, prepare an air vent to the outside.
- **Allow more than 20 cm from the cabinet to the wall.**
- Remove all materials and packaging from bottom of the unit to allow air circulation and to avoid a fire.
- It is prohibited to store flammable and volatile chemicals in or around the unit.
- Use an Individual, single-phase socket connected to a grounding wire.
- **Caution: Do not connect ground wire to a water or gas pipe.**
- Be careful when handling this equipment. It should not experience severe impact or vibration during transport. Do not tilt the cabinet more than 45°.
- Refer to the Trouble Shooting references when experiencing problems. Do no attempt to solve problems on your own. Consult with a certified technician only.
- **DANGER** - Risk of fire or explosion. Flammable refrigerant used. Do not use mechanical devices to defrost the unit. Do not puncture refrigerant tubing. Only trained service personnel should repair the unit.
- **CAUTION** - Risk of fire or explosion. Flammable refrigerant used. Consult repair manual/owner's guide before attempting to service this product. Follow all safety precautions.
- **CAUTION** - Risk of fire or explosion. Dispose of properly in accordance with federal or local regulations. Flammable refrigerant used.
- **CAUTION** - Risk of fire or explosion due to puncture of refrigerant tubing; follow handling instructions carefully. Flammable refrigerant used.
- **CAUTION -** Keep all ventilation openings clear of obstruction at the appliance enclosure or in the structure for building-in.
- **CAUTION** - servicing shall be performed by factory authorized service personnel to minimize the safety risks due to use of incorrect parts or improper service.

# REGULAR MAINTENANCE

## CLEANING THE CONDENSER COIL

- For efficient operation, it is important that the condenser surface be kept free of dust, dirt, and lint.
- We recommend cleaning the condenser coil and fins at least once per month.
- Clean with a commercial condenser coil cleaner, available from a commercial kitchen equipment retailer. Brush the condenser fins from top to bottom, not side to side.
- After cleaning, straighten any bent condenser fins with a fin comb.

## 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 which may damage the stainless steel surface.
- 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 replacing them.
- 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.

***WARNING***

Disconnect the power cord before cleaning any parts of the unit.

# TROUBLE SHOOTING

Before requesting any service on your unit, please check points on the following page. Note that this guide serves only as a reference for solutions to common problems.

| SYMPTOM | POSSIBLE CAUSE | CORRECTIVE ACTION |
|---|---|---|
| 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 unit runs for extended periods of time. | Excessive amount of warm product placed 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 doors for extended periods of time. |
| | Door gasket(s) are not sealing properly. | Ensure gaskets are snapped in place completely. Remove gasket and wash with soap and water.<br>Check condition of gasket and replace it if necessary. |
| | Dirty condenser coil. | Clean the condenser coil. |
| | Evaporator coil is 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 is set too warm. | Set thermostat to lower temperature. |
| | Air flow blocked. | Re-arrange product to allow for proper air flow. Make sure there is at least four inches of clearance from the evaporator. |
| | Excessive amount of warm product placed in the cabinet. | Allow adequate time for the product to cool down. |
| | Fuse blown or circuit breaker tripped. | Replace fuse or reset circuit breaker. |
| | Dirty condenser coil. | Clean the condenser coil. |
| | Prolonged door opening or door ajar. | Ensure doors are closed when not in use. Avoid opening doors for extended periods of time. |
| | Evaporator coil is iced over. | (see above) |
| Cabinet is noisy. | Loose part(s). | Locate and tighten loose part(s). |
| | Tubing vibration. | Ensure tubing is free from contact with other tubing or components. |