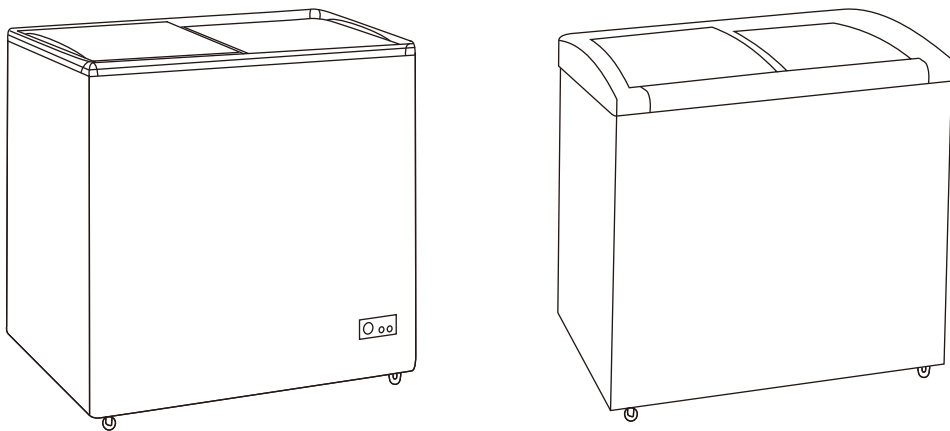




DISPLAY FREEZER USER'S MANUAL



Freezer Models:

MSD-142-A, MSD-180-A, MSD-302A,
MSD-400-A, MSD-500-A, MCA-166A-A, MCA-266A-A,
MCA-296A-A, MCA-366A-A

Please read this user's manual thoroughly before using this product. Keep this manual handy for further reference.

Dear Consumers:

Thank you very much for purchasing our products. To ensure your safety and achieve the best out of this freezer, pls read this instruction carefully.

Details of Product

1. This unit features a high-quality, efficient, and hermetically sealed compressor with a wide starting voltage range. It is designed to operate in ambient temperatures up to 100°F (38°C). The optimized system design ensures strong refrigeration performance while maintaining energy efficiency.
2. Stored items are clearly visible through the door, which is made of premium insulated glass.

Caution

1. Remove all packaging materials before using the showcase freezer. Do not tilt the unit more than 60° during transport or handling.
2. Install the showcase in a well-ventilated, cool, and dry environment, free from corrosive gases. Avoid placing it near heat sources or in direct sunlight. Maintain at least 10 cm of clearance from surrounding walls. Ensure the unit is positioned on a stable, level surface with the casters properly installed to minimize vibration and noise.
3. Before first use, allow the freezer to run empty for approximately one hour.
4. Before loading food, set the temperature control to the coldest setting (highest number) and allow the interior temperature to reach 0°F. Once achieved, add the contents and, after 12 hours, adjust the temperature control to a normal operating setting.
5. The thermostat regulates the internal temperature. Turning the control knob clockwise lowers the temperature; higher numbers indicate colder settings. A setting of “4” is generally recommended. The “0” position turns the unit off. The “Max” setting causes continuous operation without cycling. For ice cream and similar products, use a setting of “4” or “5” once the temperature has stabilized.
6. Do not store flammable, explosive, or corrosive substances in the freezer, and keep such materials away from the unit.
7. If the power supply is interrupted, wait at least 5 minutes before restarting to prevent damage to the compressor.
8. To conserve energy, avoid opening the door frequently or leaving it open for extended periods.
9. Keep both the interior and exterior surfaces clean and dry. Prolonged moisture exposure may lead to rust or surface staining over time. Clean the unit regularly. A cleaning interval of every 30–45 days is recommended. Use a soft cloth with a mild, neutral detergent to wipe both the interior and exterior surfaces.

Safety Instructions and Warnings

Attention:

To ensure safety, always unplug the unit before cleaning. Follow all safety precautions carefully. Dispose of the appliance in accordance with federal and local regulations. Be aware that puncturing the refrigerant tubing may result in a fire or explosion hazard. Always handle the unit with care.

DANGER:

Risk of fire or explosion. This appliance uses flammable refrigerants (R290/R600a). Repairs must only be carried out by qualified service personnel. Do not use mechanical devices to defrost the unit, and do not puncture the refrigerant tubing.

General Safety Guidelines

- This appliance is not intended for use by individuals (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they are supervised or instructed by a responsible person.
- Children must be supervised to ensure they do not play with the appliance.
- Cleaning and maintenance must not be performed by children without supervision.
- Do not store explosive substances, such as aerosol cans with flammable propellants, inside the appliance.
- If the power cord is damaged, it must be replaced by the manufacturer, its service agent, or a similarly qualified technician.
- Follow local regulations when disposing of the appliance, especially regarding flammable insulation and refrigerant gases. Remove the doors before disposal to prevent accidental entrapment.

Installation and Operation Warnings

- Keep all ventilation openings clear of obstruction.
- Do not use mechanical devices or other methods to accelerate defrosting unless recommended by the manufacturer.
- Do not damage the refrigerant circuit.
- Do not use electrical appliances inside the storage compartments unless approved by the manufacturer.
- This appliance is intended for use in:
 - Staff kitchen areas in shops, offices, and similar environments
 - Farmhouses, hotels, motels, and other residential settings
 - Catering and similar non-retail applications
- The appliance must not be installed in public corridors or lobbies.
- Installation must comply with national wiring regulations and the **ANSI/ASHRAE 15** Safety Standard for Refrigeration Systems.

Service and Maintenance Requirements

- Only certified technicians authorized by an accredited authority may work on the refrigerant system.
 - Servicing must be performed according to the manufacturer's recommendations.
 - Maintenance involving flammable refrigerants must be supervised by qualified personnel.
 - Replacement parts must be identical to the original components to prevent ignition risks.
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Handling and Storage of the Appliance

- Do not use tools or methods for defrosting or cleaning other than those recommended by the manufacturer.
 - Store the appliance in a well-ventilated area appropriate for its specified operating conditions.
 - Keep the appliance away from open flames, gas appliances, or other ignition sources.
 - Store the unit in a way that prevents mechanical damage.
 - Ensure electrical wiring is protected from wear, corrosion, pressure, vibration, and sharp edges.
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Refrigerant Handling and Decommissioning

- Technicians must be fully familiar with the equipment before performing decommissioning procedures.
 - Refrigerants must be recovered safely and in accordance with best practices.
 - Proper recovery equipment must be used and maintained in good working condition.
 - Recovered refrigerants must be returned to the supplier in approved cylinders.
 - Do not mix different refrigerants in recovery systems or cylinders.
 - If necessary, samples of oil and refrigerant should be taken before recovery for analysis.
 - Ensure electrical power is available before starting service procedures.
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Fire Hazard Warning

Risk of fire due to flammable materials. Take care to avoid ignition sources and handle the appliance appropriately.

Additional Information

- Maximum load per shelf: 17.5 lbs. (8 kg)
- The appliance must be operated within the specified ambient temperature and humidity conditions according to its climate class



DANGER: Risk of fire or explosion. Flammable refrigerant R290/R600a used. To be repaired only by trained service personnel. Do not use mechanical devices to defrost refrigerator. Do not puncture refrigerant tubing.



Prop. 65 Warning for California Residents

WARNING

Cancer and Reproductive Harm - www.P65Warnings.ca.gov

The maximum loading of each type of shelf is 8kg.

The ambient temperature and humidity conditions of the show case climate class follow in the table below:

Test room climate class	Dry bulb temperature °C	Relative humidity %	Dew point °C	Water vapor mass in dry air g/kg
0	20	50	9.3	7.3
1	16	80	12.6	9.1
8	23.9	55	14.3	10.2
2	22	65	15.2	10.8
3	25	60	16.7	12.0
4	30	55	20.0	14.8
6	27	70	21.1	15.8
5	40	40	23.9	18.8
7	35	75	30.0	27.3

NOTE the water vapor mass dry air is one of the main points influencing the performance and the energy consumption of the cabinets. Therefore, the order of the climate class in the table is based on the water vapor mass column. See also Annex B to compare lab and store conditions.

Food Storage

- Do not fill the freezer full of products. Leave space between items and the inner surface of the cabinet to keep good ventilation of cold air and to freeze evenly. Do not put in any bottled or canned beverages with freezing point above the temperature in the cabinet when it is below zero.
- For foods that should be moisture-free or lose water easily, wrap them up with hermetic food bags or fresh films before putting in the cabinet. This will help to avoid smell or flavor contamination and will reduce frost and freezer burn on foods.
- Storage of volatile and combustible gases, liquids such as strong alkalis, strong acids, gas, etc. is forbidden.
- Never put hot food directly in the freezer. Food should be cold or frozen before placing it inside.
- The cabinet is intended exclusively for the storage and/or display of packaged foods only.
- This appliance is intended solely for the storage and/or display of packaged beverage products that are not potentially hazardous foods, such as soda (pop), beer, and wine.

Maintenance

- The freezer should be cleaned regularly. When cleaning, turn off the power, take out the food in the cabinet, clean the inside using water or a little neutral detergent.
- Do not use boiling water, acid, chemical diluents, petrol and oil, or dirt-removing powder.
- Dry the surface after cleaning.
- Use light soapy water when cleaning the door seal, apply a little talcum powder on it after natural drying to extend its service life.
- Use soft cloth with water or a little detergent to clean the out surface. Note - keep the power supply and lower part of the connecting wires away from water to avoid electricity leakage and shorts.

- Except for common breakdowns, those who are not qualified service technicians should not take apart or repair the freezer. Unauthorized repair of electrical parts such as the compressor or temperature controller is forbidden.
- All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided.
- If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available on hand. A dry chemical or CO2 fire extinguisher should be adjacent to the charging area.
- Notice: Any person who is involved with working on accessing a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorizes their competence to handle refrigerants safely in accordance with an industry recognized assessment specification.
- Notice: Servicing shall only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.
- No person carrying out work in relation to a REFRIGERATING SYSTEM which involves exposing any pipe work shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. Any possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment shall be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.
- Checking for presence of refrigerant. The area shall be checked with an appropriate refrigerant detector prior to and during work. Ensure the technician is aware of potentially toxic or flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i.e., non-sparking, adequately sealed, or intrinsically safe.
 - Ensure that the area is open or that it is adequately ventilated before accessing the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally. Where electrical components are being replaced, they shall be fit for the purpose and to the correct specification. At all times, the manufacturer's maintenance and service guidelines shall be followed. If in doubt, consult the manufacturer's technical department for assistance.
- Detection of flammable refrigerants: Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.

Defrosting

- Defrost for better freezing efficiency when the frost film in the cabinet is 1/8" – 3/16" (4-5mm) thick.
- When defrosting, turn off the power, take out the frozen foods, open the door for warming and melting. Use soft cloth to absorb water and clean it up.
- Do not use sharp metal tools such as a steel brush to clean the frost film when defrosting to avoid evaporator damage.

Trouble Shooting

Breakdown	Case	Removal method
The indicator is not on. The compressor does not start.	The plug isn't connected to the socket properly.	Unplug and Re-plug it in.
	no power	Check for tripped circuit or blown fuse.
The indicator is on, but the compressor doesn't work and buzzes only	The power voltage is <98V.	Use a power-regulator with more than 1000W power.
The compressor stops a minute after starting, and restarts after a few minutes,	The power voltage is > 132V.	
The compressor works normally, but the temperature in the cabinet lowers too slowly.	The door is opened too frequently.	Reduce opening frequency.
	The cabinet is overloaded with food, or food is placed improperly.	Place foods properly & keep space between food for ventilation of cold air.
	The frost film is too thick.	Take out food and defrost.
	The surface of the condenser is dirty.	Stop and clean the condenser.
	The door seals badly.	Adjust the door seal.
The noise is too loud	The freezer is placed on an unstable surface.	Place it on a stable surface.
	The fixing of the freezer is loose.	Secure the freezer.
	There is contact between the pipes.	Separate the pipes.

The following are not faults:

- When the freezer is running or after stopping for a period, the refrigerant in the pipes is cycling and gives out "running water" sounds.
- The surface temperature of the compressor may be up to 158°F~176°F (70°C~80°C) when it is working.
- The back side of freezer gives out heat.
- During rainy season, the outer surface of the cabinet may have dew, which does not impact normal use. Simply dry it with a piece of cloth.
- The protective film on the inner tank is to avoid damage during production. It may be removed before using the product.