



MICF-1C

4 cu. ft.



MICF-2C

6.7 cu. ft.



MICF-3C

9 cu. ft.



MICF-4C

11 cu. ft.

Commercial Ice Cream Freezer Instruction Manual

This manual contains important information regarding your unit. Please read this manual thoroughly prior to equipment set-up, operation, and maintenance. Failure to comply with regular maintenance guidelines outlined in this manual may void the warranty.

MOTAK

IMPORTANT SAFEGUARDS

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.



WARNING

DANGER:

- Risk of fire or explosion.
- Flammable refrigerant R290 used.
- To be repaired only by trained service personnel.
- **DO NOT** use mechanical devices to defrost refrigerator.
- **DO NOT** puncture refrigerant tubing.
- **DO NOT** pierce or burn.
- **DO NOT** store in a room with continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).

ATTENTION

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- **DO NOT** use this unit for anything other than intended use
- **DO NOT** overload outlet, to minimize shock and fire hazards
- **DO NOT** spray the unit with water
- **DO NOT** attempt to remove or repair any component.
- **DO NOT** attempt to alter or tamper with the electrical cord.
- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.
- **DO NOT** rest unit on or against the electrical cord or plug.
- **DO NOT** damage the refrigerant circuit.
- **DO NOT** store any flammable and explosive gas or liquids inside the unit.
- Keep children and animals away from unit.
- **DO NOT** install in public corridors or lobbies.
- Be aware that refrigerants may not contain an odor.
- The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
- The appliance shall be stored so as to prevent mechanical damage from occurring.
- Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges, or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.
- The maximum loading of each basket is 17.64 lbs (8 kg)

UNPLUG UNIT

- **DO NOT** plug or unplug the cord with wet hands, to minimize shock and fire hazards
- **UNPLUG UNIT BEFORE** maintenance and cleaning.
- 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 re-plugging it. Failure to do so could cause damage to the compressor.

PROPER GROUNDING REQUIRED

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

DISPOSAL

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- Dispose of properly in accordance with Federal or local regulations.
- Refer to local regulations regarding disposal of the appliance for its flammable gas.
- Before you scrap the appliance, please take off the doors to prevent children from being trapped.
- Before carrying out decommissioning procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of recovered refrigerant. It is essential that electrical power is available before the task is commenced.
- When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely. The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of all appropriate refrigerants including, when applicable, FLAMMABLE REFRIGERANTS The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant waste transfer note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.

INSTALLATION WARNINGS:

- The appliance shall be installed in accordance with national wiring regulations
- The appliance is to be installed in accordance with the Safety Standard for Refrigeration Systems, ANSI/ASHRAE 15.

Notice:

- * Any person who is involved with working on or breaking into 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.
- * 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.
- * Component parts shall be replaced with like components so as to minimize the risk of possible ignition due to incorrect parts.

INSTALLATION:

1. Unpack and remove all packaging before using the freezer.
2. Don't tip over the freezer more than 60° while moving it.
3. Install in a cool, dry environment with good ventilation, and without corrosive gas.
4. Do not install unit close to heat sources or directly under the sunlight.
5. Allow 4" (10 cm) of space between the wall and the front and the back of the unit.
6. When installing, the universal wheels should be padded well to keep it level and stable, otherwise it will cause vibration and too much noise.
7. On the initial startup operation, the refrigerator should run empty for one (1) hour before storing food in it.
8. Before placing food into the freezer, adjust the temperature control to the lowest point (highest number) and let it run until the temperature of inner cabinet decreases to 0° Fahrenheit.
9. Put the food in, and after 12 hours adjust the temperature control to the normal point.
10. Turning the thermostat knob clockwise adjusts the temperature inside the freezer.
 - * The bigger the figure, the lower the temperature.
 - * '4' is the recommended position for freezing
 - * Press 'Switch' button to stop operation.
 - * 'Max' position will be operates continually as compressor won't stop (no cycle).
 - * Turn the temperature control to the "4" or "5" when temperature inside is stable for ice cream and similar products.

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11. If power is cut off, wait at least 5 minutes before turning on again to avoid damage to the compressor.
12. To save energy, the door should not be frequently opened or left open for a long time.
13. The surface and the inside of the freezer should be dry and clean. Long term moisture will cause the freezer to rust slowly. (There will be some stains on the surface.)

TEMPERATURE & HUMIDITY

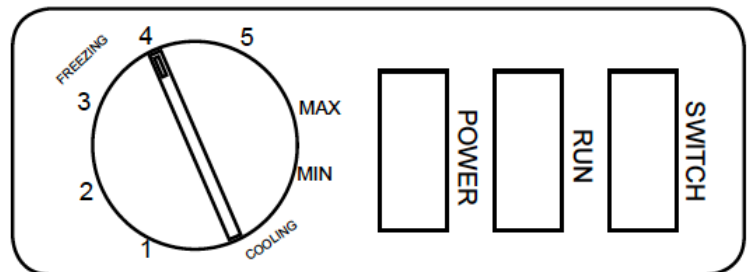
The ambient temperature and humidity conditions of the freezer's climate class:

TEST ROOM CLIMATE CLASS	DRY BULB TEMPERATURE	RELATIVE HUMIDITY (%)	DEW POINT	WATER VAPOR MASS IN DRY AIR (G/KG)
0	68°F (20°C)	50	48.74°F (9.3°C)	7.3
1	60.8°F (16°C)	80	54.68°F (12.6°C)	9.1
8	75°F (23.9°C)	55	57.74°F (14.3°C)	10.2
2	71.6°F (22°C)	65	59.36°F (15.2°C)	10.8
3	77°F (25°C)	60	62.06°F (16.7°C)	12
4	86°F (30°C)	55	68°F (20°C)	14.8
6	80.6°F (27°C)	70	70°F (21.1°C)	15.8
5	104°F (40°C)	40	75°F (23.9°C)	18.8
7	95°F (35°C)	75	86°F (30°C)	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. The order of the climate class in the table is based on the water vapor mass column.

TEMPERATURE CONTROLS

1. These freezers have a manual control system to regulate the temperature inside the freezer.
2. Before placing any food in the freezer set the freezer to the highest setting and let it run until the temperature inside the freezer reaches 0°F (-17.8°C).
3. Once the internal temperature reaches 0°F (-17.8°C) you can start loading the product into the freezer.
4. Once the product is inside the freezer it is suggested to wait 12 hours before you adjust the temperature to the normal desired setting.
5. Setting "4" is the recommended setting for the freezer.
6. The temperature settings for the chest freezers range from MIN to MAX.



- * This will give you an internal operating temperature range of -15°F (-26°C) to 10°F (-12°C).
- * When you turn the thermostat control knob clockwise to a higher number this will lower the internal temperature of the freezer.
- * Turning the knob counterclockwise will raise the internal temperature of the freezer.
- * NOTE: Setting the temperature control to the coldest setting may cause the evaporator coil to freeze and ice up, resulting in non-optimal operating conditions over time.

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FOOD STORAGE

- **DO NOT** fill the freezer full of products. You should leave space between items and the inner surface of the cabinet, so as to keep good ventilation of cold air and freeze evenly.
- **DO NOT** put in any bottled or canned beverage with a 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 hermetical food bags or fresh films before putting in the cabinet for the sake of avoiding smell-mixing and reducing frosting.
- **DO NOT** store volatile and combustible gases, liquids such as strong alkaline, strong acids, petrol, etc.
- 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.

CLEANING

- The freezer should be cleaned regularly, every 30-45 days is suggested.
- **WARNING:** Disconnect power cord before cleaning any parts of the unit.
- Keep the power supply and lower part of connect wires away from water to avoid electricity leakage.
- **DO NOT** use boiling water, acid, chemicals, petrol and oil, or dirt-removing powder.
- **DO NOT** use steel wool, caustic soap, abrasive cleaners, or bleach.

Cleaning the Interior of the Unit:

- Take out the foods from inside the cabinet.
- Use a soft cloth and solvent of warm water and mild soap.
- Periodically remove the baskets and clean them with mild soap and warm water.
- Use light soap water when cleaning the door seal, apply a little of talcum powder on it after natural drying to extend its service life.

Cleaning the Exterior of the Unit:

- Use soft cloth with water or a little detergent to clean the out surface.
- Dry inside and outside after cleaning.

MAINTENANCE

- Except common breakdowns, those who are not service technician should not take apart and repair the freezer on their own so as to avoid worsening the trouble.
- Unauthorized repair of electrical part such as compressor, 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.
- Avoid working in confined spaces.
- 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 or breaking into 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.

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- All 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, to 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 in the open or that it is adequately ventilated before breaking into 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 into the atmosphere.
- Where electrical components are being changed, 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.
- Do not use a halide torch (or anything using a flame).

DEFROSTING

- **WARNING: DO NOT** use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- Defrost for better freezing efficiency when the frost film in the cabinet is .16" - .2" (4-5 mm) 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 steel brush to clean the frost film when defrosting so as to avoid evaporator damage.



TROUBLE SHOOTING

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

ISSUE	POSSIBLE CAUSE	SOLUTION
The indicator is not on but the compressor does not start.	The plug isn't connected to the socket well.	Replug it.
	No power.	Connect the unit to the power outlet.
The indicator is on, but the compressor doesn't work and only buzzes .	The power voltage is <98V.	Put a power-regulator more than 1000W power together.
The compressor stops a minute after start, and restart after a few minutes, and so repeatedly.	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 the unit.
	There is too much food in the cabinet, and placed improperly.	Reorganize foods to keep space between them for ventilation of cold air.
	The frost film is too thick.	Take out foods, unplug unit and clean the condenser.
	The surface of the condenser is too dirty.	
	The door isn't fully closing.	Adjust the door seal.
Unit makes too much noise.	The freezer is placed unstably.	Level the feet.
	There's contact between baskets.	Separate them.

The following are not faults:

- When the freezer is working or after stopping for a while, the refrigerant in the pipes is cycling and gives out "running water" sounds.
- The surface temperature of the compressor may reach up to 158°F (70°C) ~ 176°F (80°C) when it is working.
- The back side of step freezer gives out heat.
- In rainy season, the outer surface of the cabinet may have dew, which has no affect during use. Just dry it with a piece of cloth.
- The protective film on the inner tank is to avoid damage during production purpose, it can be removed.