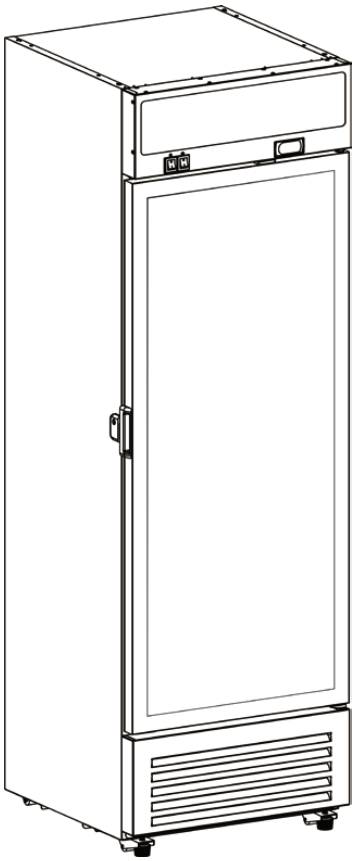
KoolMore

USER MANUAL

MERCHANDISER FREEZER

KoolMore No Frost Commercial Upright Merchandiser Freezer With LED lights

Model: KM-MDF-1GD-12C



Before using, please read the operating instructions carefully to ensure proper application and achieve satisfactory results.

For any service-related issues, please contact us:

718-576-6342 support@koolmore.com

Stay informed with the latest information for your KoolMore Appliance.

If you need any assistance or have questions, our customer support team is here to help.

SAFETY

Dear Valued Customer,

This guide is your go-to resource for understanding your new Single Glass Door Display Freezer, which is designed for non-hazardous packaged food products only. Here's a summary of critical information for the safe operation and troubleshooting of the product:

Key Safety Guidelines

- Voltage Requirements: Use within 97V-130V to prevent compressor damage. A voltage stabilizer is recommended if voltage fluctuates beyond this range.
- Power Connection: Connect only to a grounded single-phase socket with proper voltage rating. Avoid water pipes and gas lines for grounding.
- Prohibited Items: Do not store strong acids, organic solvents, or corrosive materials in the freezer to prevent damage and accidents.
- Maintenance of Insulation: Keep the cooler's body and electrical parts clean to maintain insulation quality.
- Long-Term Shutdown: If not in use for extended periods, disconnect from power and clean before storing. Inspect and ensure dryness before reusing.
- Power Cord Care: If damaged, the power cord should only be replaced by a professional or the manufacturer's service center.
- Cleaning Safety: Cut off power when performing cleaning or maintenance to avoid electrical hazards.
- Noise Control: Ensure the freezer operates below 70dB(A) to maintain a comfortable noise level.
- Chemical Storage: Do not store explosive chemicals, like aerosol cans with flammable propellants, inside the freezer.
- Safe Disposal: Follow local regulations for disposal and remove doors to prevent child entrapment.

Additional Cautions:

- Fire Safety: Be vigilant of flammable materials and open flames around the freezer to prevent fires.
- Ventilation: Keep all vents unobstructed for proper airflow.
- Defrosting: Use only manufacturer-approved methods for defrosting and cleaning.
- Refrigerant Circuit: Avoid damaging the circuit which could lead to leaks or malfunction.
- Internal Appliances: Only use manufacturer-recommended electrical appliances inside the freezer.
- Environmental Conditions: Operate the freezer within the recommended temperature and humidity levels as specified in the climate class section below.

1. The appliance is designed for use by individuals without physical, sensory, or mental impairments, or those lacking experience and knowledge, only under the supervision of a responsible person who can ensure their safety.
2. Always supervise children to prevent them from playing with the appliance. Children must not perform cleaning or maintenance tasks without adult supervision.
3. Do not store items like aerosol cans with flammable propellants in the appliance.
4. If the power cord is damaged, it should be replaced by the manufacturer, service agent, or a similarly qualified person to prevent any risk.
5. Dispose of the appliance according to local regulations concerning flammable refrigerants. Remove doors before disposal to avoid entrapment hazards for children.
6. Ensure that the appliance's ventilation openings are not blocked.
7. Avoid using mechanical devices or other means to speed up the defrosting process, except those recommended by the manufacturer.
8. Do not damage the refrigerant circuit.
9. The use of electrical appliances inside the appliance's food storage compartments is not recommended unless approved by the manufacturer.
10. Installation of the appliance in public corridors or lobbies is prohibited.
11. Installation must comply with national wiring regulations and the Safety Standard for Refrigeration Systems (ANSI/ASHRAE 15).
12. Individuals working on or with the appliance's refrigerant circuit should be certified and follow industry-recognized safety protocols.
13. Maintenance and repairs should be performed according to the manufacturer's recommendations, under the guidance of someone knowledgeable about flammable refrigerants.
14. Replacement parts should match original specifications to minimize ignition risks from incorrect parts.
15. Avoid accelerating the defrosting or cleaning process with unapproved methods.
16. Store the appliance in a well-ventilated area, away from continuous ignition sources such as open flames or operational heaters.

17. Protect the appliance from mechanical damage.
18. Regularly inspect the power cable for wear, corrosion, and other environmental hazards.
19. Before decommissioning, ensure familiarity with the appliance and that all refrigerants are safely recovered, following best practices and ensuring electrical power is available.
20. Use appropriate recovery equipment for refrigerants, including flammable types, and return recovered refrigerants to suppliers with proper documentation. Avoid mixing refrigerants.
21. Inform maintenance staff and others nearby of the nature of the work to prevent fires and explosions. Avoid work in confined spaces and ensure fire extinguishing equipment is readily available.
22. Only certified individuals should perform work on the refrigerant circuit, and all ignition sources should be kept away from refrigerant handling areas.
23. Check for refrigerant leaks with appropriate detection equipment and ensure the area is well-ventilated during work.
24. Follow the manufacturer's maintenance and service guidelines closely, consulting their technical department if necessary.
25. Do not use potential ignition sources, such as a halide torch, to detect refrigerant leaks.
26. Ensure that any activities involving the refrigeration system, including exposure of pipework, do not use ignition sources in a manner that risks fire or explosion. Prohibit smoking and manage ignition risks by keeping the area clear of flammable materials.
27. Before initiating work on the appliance, survey the area for flammable hazards or ignition sources. Display "No Smoking" signs prominently to prevent accidents.
28. When checking for the presence of refrigerant, use an appropriate detector to identify potentially toxic or flammable atmospheres. Ensure leak detection equipment is suitable for the specific refrigerants, including features like non-sparking, adequate sealing, or intrinsic safety.
29. Prioritize open or well-ventilated areas for work involving the system. Maintain ventilation throughout the work process to disperse any released refrigerant safely.
30. When replacing electrical components, ensure they are specifically designed for the task and conform to the required specifications. Adhere strictly to the manufacturer's maintenance and service guidelines. If there's any uncertainty, consult the manufacturer's technical support for advice.
31. The detection of flammable refrigerants must be conducted without any potential sources of ignition. Specifically, a halide torch or any other detector that uses a naked flame is strictly prohibited.
32. It is essential to handle all refrigerants, particularly those classified as A3 per ANSI/ASHRAE 34, with caution. This classification indicates a higher level of flammability, underscoring the need for specialized handling and storage protocols to prevent accidents.
33. Comprehensive safety measures and procedures are crucial for the prevention of accidents and injuries. This encompasses a thorough understanding of the equipment, adherence to safety standards, and the use of proper tools and techniques.
34. Training and certification in handling refrigerants, understanding refrigeration systems, and awareness of the specific risks associated with different refrigerant types are paramount for anyone involved in servicing or maintaining refrigeration equipment.
35. Finally, always prioritize environmental safety and compliance with local regulations regarding refrigerant handling, disposal, and appliance decommissioning. This ensures not only the safety of individuals but also the protection of the environment.

INSTALLATION

Climate Class	Dry Bulb Temperature (°F)	Relative Humidity (%)	Dew Point (°F)	Water Vapor Mass in Dry Air (g/kg)
3	77	60	62.1	12
4	86	55	68	14.8

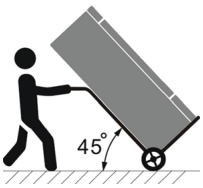
Note: The mass of water vapor in dry air is a critical factor that affects the performance and energy efficiency of the coolers. The ranking of the climate classes in the table is determined based on the water vapor mass values.

Safety Warning

Risk of Fire/Flammable Materials: Exercise caution due to the potential fire hazard presented by flammable materials.
II. Transportation and Installation Guidelines

Transportation:

- Avoid tilting the cooler more than a 45-degree angle during relocation.
- Ensure the cooler remains vertical for at least 4 hours before activation if it has been transported in a non-upright position.



Installation Site Selection

Indoor Use: This appliance is exclusively for indoor usage.

Environmental Considerations: Given that the appliance has a glass door, external conditions can significantly affect its performance. To optimize efficiency, please adhere to the following guidelines:

- Avoid situating the appliance near any heat sources.
- Do not place the unit in the path of airflows from fans, open doors, or windows.
- Position the appliance away from systems that may restrict ventilation, such as roof-mounted units.
- Ensure the appliance has enough room to 'breathe' — maintain clear space at the rear for adequate airflow.
- Protect the unit from direct exposure to sunlight.
- Keep the appliance’s ventilation openings unobstructed.
- The appliance must be installed by a qualified individual to mitigate fire risks.

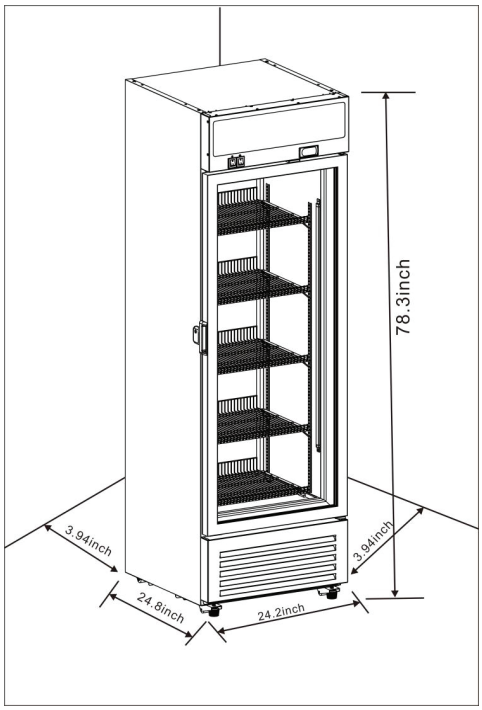
Installation Instructions

Open all packaging and wash the unit using lukewarm water mixed with a mild, neutral detergent at a 5% concentration. Dry with a soft towel. For cleaning the glass components, opt for glass-specific cleaning solutions to prevent any watermarks or lime deposits.

Ensure at least a 10 cm clearance from any wall or adjacent cabinets for proper airflow. Use the adjustable feet to level the unit.

The unit should be positioned on a stable, level surface, distanced from any sources of heat, including direct sunlight.

The unit is not designed for outdoor use; avoid exposure to rain and outdoor elements.



Adjusting the Unit for Stability

Position your appliance at the preferred spot. Ensure it's perfectly horizontal by using a spirit level. You can place the level on any shelf within the unit for accuracy. Proper leveling is crucial to prevent ice build-up on the evaporator fins due to poor condensate drainage. Adjust the unit to have a slight 2-degree tilt forward to facilitate the door's closure and effective drainage.

Please note the following:

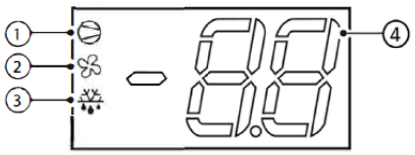
- Avoid placing containers such as cream or spray bottles that could potentially disrupt the cooling mechanism inside the cooler.
- It's important to not store any explosive materials, like aerosol cans with flammable propellants, inside the cooler for safety reasons.

OPERATION

Interface and Controls

The control panel readily shows the current interior temperature during standard operation. It's also equipped with LED indicators that signal the activation of various control functions, detailed in Table 1. Additionally, three buttons are available to toggle certain features on or off, as outlined in Table 2.

Refer to the associated tables for detailed LED indicators and their corresponding functions.



Index	Function	Normal operation			Start up
		ON	OFF	Blink	
1	Compressor	ON	OFF	Request	ON
2	Fan	ON	OFF	Request	ON
3	Defrost	ON	OFF	Request	ON
4	Digit	2 digit LED display with sign (-99 to 99) and decimal point			

Table.1

Index	Button	Normal Operation	Start Up
1	Power Button	Pressing the button alone: nothing	Pressed together: ---
	Holding for more than 3 seconds: toggle ON/OFF		
2	Set Button	Pressing once: display/set the set point	Pressed together: start parameter reset procedure
3	Defrost Button	Holding for more than 3 seconds: start/stop defrost	Pressed together: display defrost probe temp.

Product Troubleshooting

1. Display Area Alarm Code

If a component of the product fails, an error code will appear on the control panel. Below are the common error codes and their meanings.

NO	Error Code	Error Description	Handling Method	Remarks
1	E1	Abnormal sensor in the cabinet	Contact our professional after-sales service technician	
2	E2	Abnormal defrosting sensor	Contact our professional after-sales service technician	
3	DR	Open the door alarm	Check the door if securely closed	
4	HI	High temperature warning	Contact our professional after-sales service technician	
5	LO	Low temperature warning	Contact our professional after-sales service technician	

TROUBLESHOOTING

Trouble	Reason	Check	Solution	Remark
No display on the display panel	The power plug is not properly plugged in	Plug in the power socket	Reconnect the power	
Power Outage	Check if the socket has electricity or not	Reconnect the power		
Key invalid	/	/	Contact our professional after-sales service technician	
No voltage	Fuse breaking off	Check fuse	Change fuse	Contact our professional after-sales service technician
Poor connection between the plug and socket	Check the socket	Repair or change socket		
Lamp is not lighting on	Lamp has poor contact or worn down	Check the lamp circuit and lamp	Tighten the connection or change a new lamp	Contact our professional after-sales service technician
Lamp switch has poor contact	Check the switch	Tighten the connection or change a new switch		
Condenser fan not running	Condenser fan is broken down	Check condenser fan resistance	Change condenser fan	Contact our professional after-sales service technician
Condenser fan is blocked	Check for blockage	Clear the blockage		
Condenser fan operates continuously	The door is opened too frequently	/	/	
Too much storage	/	Take out part of the storage	Contact professional after-sales personnel	
Air outlet is blocked	/	/		
Leakage of refrigerant	/	Contact professional after-sales personnel		
Noise	Cooler isn't leveled	Check if the four wheels are adjusted to the same level and touching the ground	Adjust the wheels	Contact professional after-sales personnel
Fixing screws of compressor or condenser fan are loose	Screws not tightly fixed	Tighten the screws		
Compressor or fan defective	Check the Compressor or fan	Contact professional after-sales personnel		
Condenser fan is working, but the compressor doesn't operate	The terminal of starter or OLP is loose	Check the resistance of compressor CSM terminal	Install the starter or OLP	Contact professional after-sales personnel
Compressor defective	Check the input Voltage	Change new compressor		
Voltage is lower than 97V or higher than 130V	Use a voltage stabilizer			
Evaporator fan not running	Fan switch defective	Check the switch	Change the switch	Contact professional after-sales service personnel
Fan switch terminal is not connected properly	Check the circuit of the terminal	Connect the switch terminal		
Power cord broken down	Not placed in correct position and broken during transportation	N/A	Change the power cord	Contact professional after-sales service personnel

WARRANTY

LIMITED WARRANTY

Koolmore Supply, Inc. extends a limited warranty to the original purchaser, guaranteeing that this Koolmore
product is free from manufacturing defects in material or workmanship for one year from the date of purchase.
Should you discover any such defect within the warranty period, Koolmore Supply, Inc., reserves the right to
repair or replace the product without charge, or to cover the cost of replacement parts and repair labor needed
to correct defects present at the time of purchase or resulting from regular usage, when the appliance has been
installed, operated, and maintained as per the instructions provided.
At its sole discretion, Koolmore Supply Inc. may decide to replace the product. In such an event, your replacement
appliance will carry the warranty for the remaining term of the original unit's warranty period.
This warranty is valid exclusively to the original purchaser of the product and only applicable within the United
States. The warranty commences from the date of original consumer purchase. Proof of the original purchase
date will be required to obtain service under this warranty.
Under this limited warranty, your sole and exclusive remedy will be product repair, as outlined above. All services must be provided by a Koolmore-designated service company.
To claim warranty or request repair service:
Email support@koolmore.com. Please include your name, address, phone number, warranty repair request,
and a copy of your proof of purchase receipt. Alternatively, visit koolmore.com and use the contact us page. A
Koolmore customer service representative will promptly arrange service for your appliance.
We thank you for choosing Koolmore.

WARRANTY EXCLUSIONS

This limited warranty will not cover:
1. Failure of the product to perform during power failures or interruptions,
or due to inadequate electrical service.
2. Damage incurred during transportation or handling.
3. Damage caused by accidents, vermin, lightning, winds, fire, floods, or acts of God.
4. Damage resulting from accidents, alterations, misuse, abuse, improper installation, repair, or maintenance.
This includes using any external device that alters or converts the voltage or frequency of electricity.
5. Unauthorized product modifications, repairs by unauthorized centers, or use of non-approved replacement parts.
6. Abnormal cleaning and maintenance not aligned with the user's manual.
7. Use of incompatible accessories or components.
8. Any costs associated with repairs or replacements under these excluded circumstances shall be the responsibility of the consumer.


KoolMore