

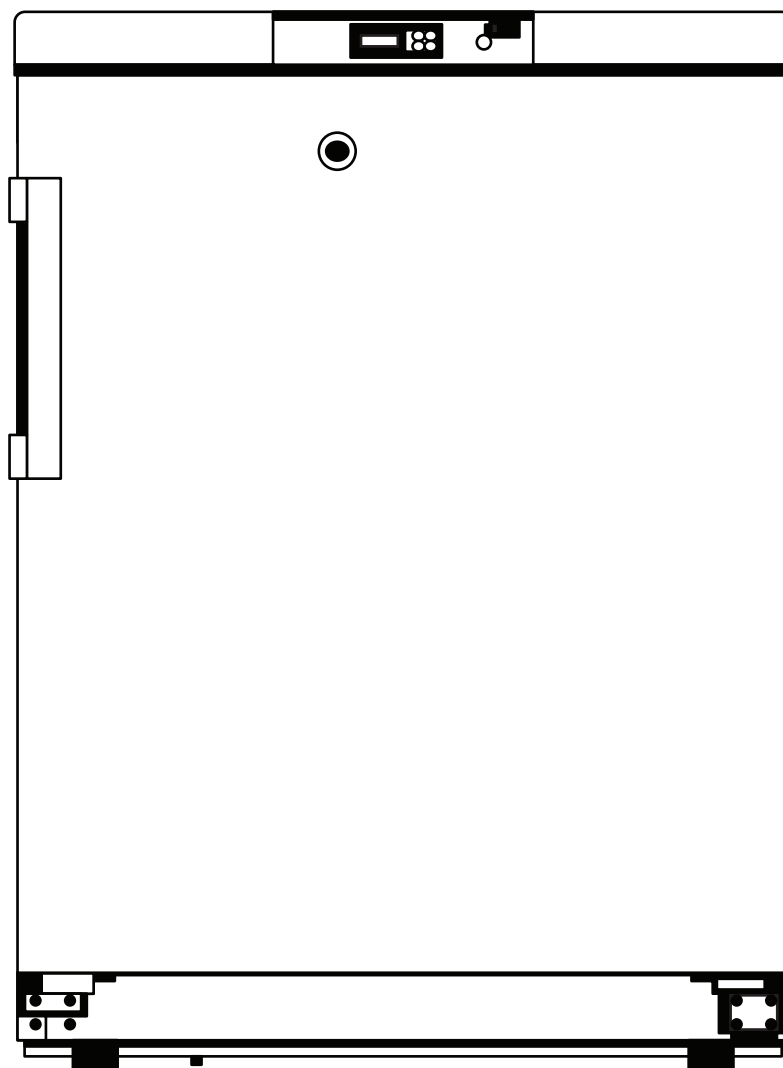


USER MANUAL

MEDICAL REFRIGERATOR

Countertop Medical Pharmacy Refrigerator with Multi-Level Emergency Alarms

Model: KM-PHR-45CS



*Before use, please read this manual carefully to
ensure proper installation and operation.*

For any service related issues, please contact us:

☎ 718-576-6342 ✉ support@koolmore.com

Stay informed with the latest information for your KoolMore appliance.

Scan the QR code below to access the most up-to-date user manual on our website.



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

Phone: 718-576-6342 Email: support@koolmore.com

Please write down the model number and serial number below for future reference. Both numbers are located on the rating label on the back of your unit or inside of the unit and are needed to obtain warranty service. You may also want to staple your receipt to this manual as it is your proof of purchase and may also be needed for service under warranty.

Model Number: _____

Serial Number: _____

Date of Purchase: _____

To better serve you, please do the following before contacting customer service:

If you received a damaged product, immediately contact the retailer or dealer that sold you the product.

Read and follow this User Manual carefully to help you install, use, and maintain your unit.

Refer to the Troubleshooting section of this manual as it will help you diagnose and solve many common issues.

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Safety

READ AND SAVE THESE INSTRUCTIONS



WARNING – Flammable Refrigerant

This appliance uses a **flammable refrigerant**. Improper installation, servicing, or disposal may result in fire or explosion.

- Keep all ventilation openings in the appliance enclosure free from obstruction.
- Do not use mechanical devices or other means to accelerate the defrosting process unless recommended by the manufacturer.
- Do not damage the refrigerant circuit.
- Do not use electrical appliances inside the storage compartment unless they are of the type recommended by the manufacturer.
- Installation, servicing, and repairs involving the refrigeration system must be performed only by qualified service personnel.
- Dispose of the appliance in accordance with all applicable local, state, and federal regulations governing flammable refrigerants.



WARNING

Intended Use

This appliance is intended for **commercial, industrial, or institutional applications**, as defined by **ANSI/ASHRAE 15**, and is designed to store temperature-sensitive medical and laboratory products within the specified operating temperature range.

Do not use this appliance for any purpose other than its intended application.

General Safety

- Read and follow all instructions before operating the appliance.
- Install the refrigerator indoors on a level, stable surface.
- Do not block or cover the ventilation openings.
- Do not modify the appliance or any of its components.
- Do not use the appliance if it has been damaged during shipping or installation.
- Keep children away from the appliance and do not allow them to climb, hang, or play on the door.
- Keep packaging materials away from children to prevent suffocation hazards.

Electrical Safety

- Connect the refrigerator only to a properly grounded electrical outlet that matches the voltage shown on the rating label.
- Use a dedicated electrical circuit. Do not use extension cords, power strips, or ungrounded adapters.
- Never remove or bypass the grounding prong on the power cord.
- Do not operate the appliance if the power cord or plug is damaged.
- Always unplug the refrigerator before cleaning, maintenance, or servicing.

- Do not plug in or unplug the appliance with wet hands.
- Keep the power cord away from heat, moisture, and sharp edges.
- Ensure the power plug is fully inserted into the outlet.

Installation Safety

- Install the refrigerator in a clean, dry, well-ventilated indoor location.
- Keep the appliance away from direct sunlight, heat sources, and open flames.
- Do not install the appliance where it may be exposed to rain or standing water.
- Do not install the appliance in an area containing flammable or explosive vapors.
- If a flammable gas leak is suspected, ventilate the area immediately. Do not operate electrical switches or connect/disconnect the power plug until the area has been made safe.
- Keep the appliance upright during transportation. Do not tilt the refrigerator more than 45°.
- After moving the appliance, allow it to stand upright for the period specified in the Installation section before connecting power.



CAUTION

Safe Operation

- Allow the cabinet to reach the set temperature before loading products.
- Load products gradually to minimize temperature fluctuations.
- Do not exceed the recommended storage capacity.
- Minimize door openings to maintain stable internal temperatures.
- Do not place heavy objects on top of the refrigerator.
- Do not insert metal objects into air vents or openings.
- Hold the door handle when closing the door to avoid pinching fingers.
- Do not use the door handle to lift or move the appliance.

Maintenance

- Disconnect power before cleaning or performing maintenance.
- Clean the cabinet using a soft cloth and a mild neutral detergent.
- Do not use abrasive cleaners, gasoline, solvents, acids, alkalis, or high-pressure water.
- Do not spray or pour water directly onto the appliance.
- Repairs and replacement of electrical or refrigeration components must be performed only by qualified service personnel.

NOTICE

- The displayed temperature is measured by the cabinet sensor and may differ slightly from the temperature of stored products, particularly during startup, after door openings, or after loading warm products.
- The cabinet temperature may temporarily increase after the door is opened. Normal operation will restore the set temperature.
- Frequent door openings or overloading the cabinet may increase temperature recovery time.
- Due to continuous product improvements, the appearance and specifications of this appliance may change without prior notice.

Technical Data

Item	Specification
Product Type	Pharmacy Refrigerator
Model	KM-PHR-45CS
Power Supply	115 V~, 60 Hz
Temperature Range	36°F to 46°F (2°C to 8°C)
Refrigerant	R600a
Capacity	4.45 cu. ft. (126 L)
Door Type	Solid Foamed Door
Rated Current	2.0 A
Net Weight	94.8 lb (43 kg)
Shelf Dimensions	Upper/Lower Shelves: 19.0 × 14.2 × 1.1 in. (482 × 360 × 28 mm) Bottom Shelf: 19.5 × 10.0 × 1.2 in. (495 × 255 × 29.5 mm)
Maximum Shelf Load	53 lb (24 kg) per shelf
Noise Level	≤45 dB(A)
Product Dimensions (W × D × H)	23.4 × 24.2 × 31.9 in. (595 × 615 × 810 mm)
Heat Dissipation	256 BTU/h

Technical Specifications:

All technical specifications were measured under standard test conditions. Product specifications are subject to change without notice as part of our continuous product improvement program. Refer to the product nameplate for the most current electrical ratings and specifications.

Packing List

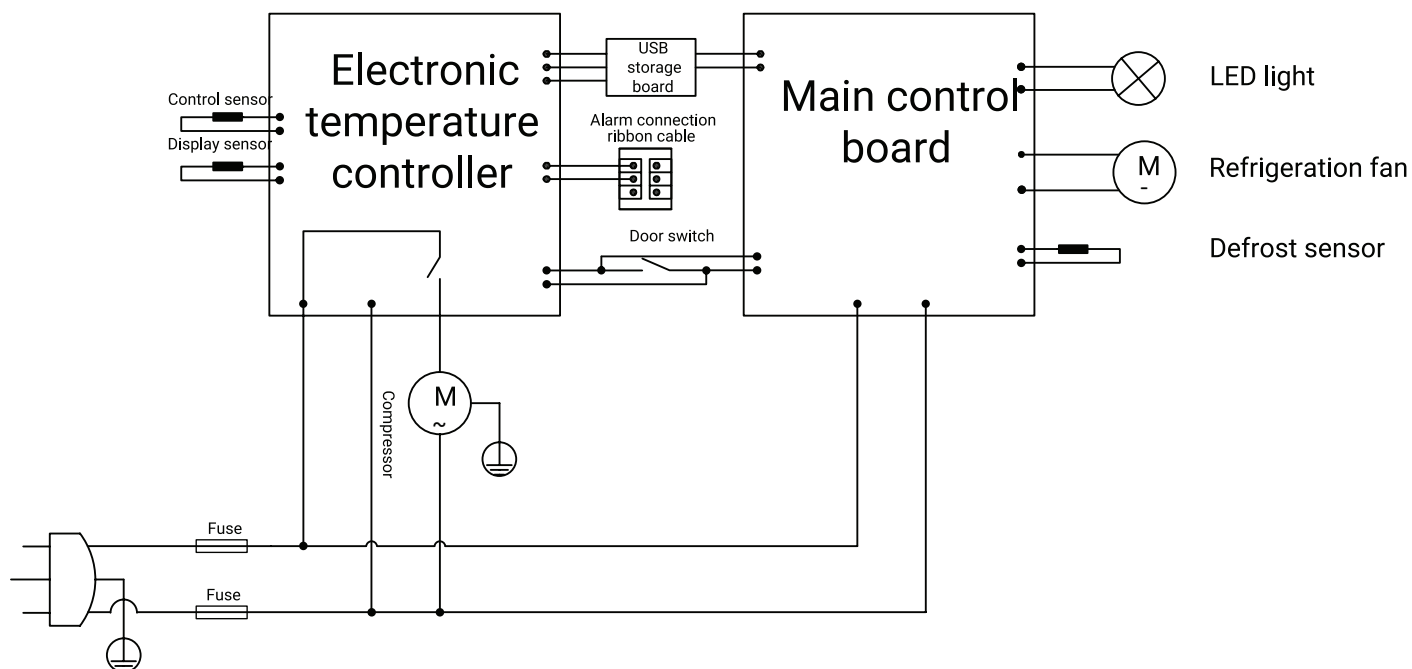
Item	Quantity
User Manual	1
Keys	2
Accessory Bag	1
Wire Shelf with Mounting Clips	3
Door Handle	1
Upper Hinge	1
Rear Spacer Bracket	1

NOTE:

Included accessories and optional components may vary by model.

Electrical Schematic**NOTE:**

Some models are not equipped with a run capacitor or condenser fan. Refer to the actual product configuration.



Installation

Installation Requirements

Install the refrigerator indoors in a clean, dry, and well-ventilated location.

Environmental Requirements

The installation site should meet the following conditions:

Requirement	Specification
Ambient Temperature	61°F–90°F (16°C–32°C) (Recommended: 64°F–77°F (18°C–25°C))
Relative Humidity	≤80% RH
Operating Altitude	≤6,560 ft (2,000 m)
Waterproof Rating	IPX0 (Indoor Use Only)
Electrical Supply	115V ±10%, 60 Hz.

For Optimal Performance:

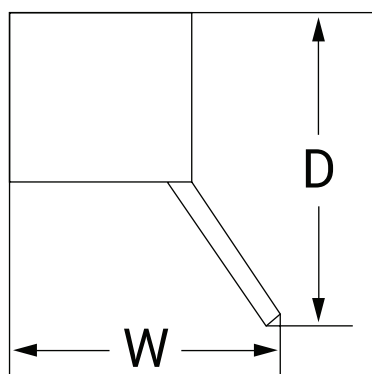
- Install the refrigerator indoors only.
- Avoid direct sunlight and heat sources.
- Avoid excessive dust, vibration, and moisture.
- Do not install the refrigerator outdoors or where it may be exposed to rain or standing water.

Installation Location

- Install the refrigerator on a solid, level floor capable of supporting the fully loaded appliance.
- Allow sufficient space around the cabinet for ventilation and future service.
- Maintain at least 4 in. (100 mm) of clearance on all sides of the refrigerator.
- Ensure the ventilation openings remain unobstructed.
- Install the refrigerator near a properly grounded electrical outlet that remains easily accessible.
- Do not install the appliance in a confined enclosure or near combustible materials.

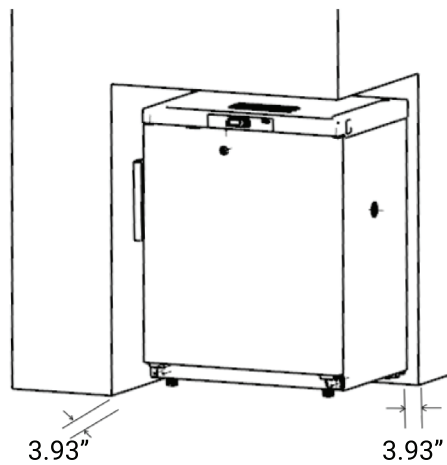
Door Clearance

Ensure there is sufficient space for the door to open fully. A minimum clearance of 38.4 in. (W) × 42.3 in. (D) is required.

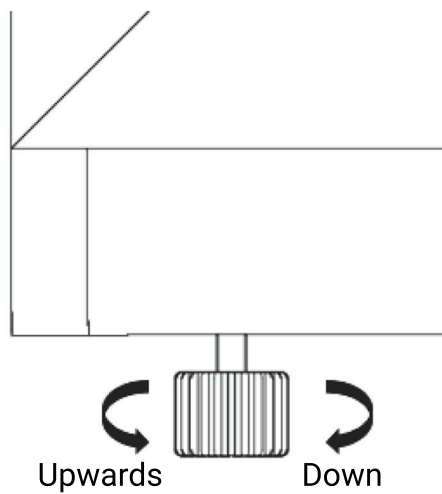


Before First Use

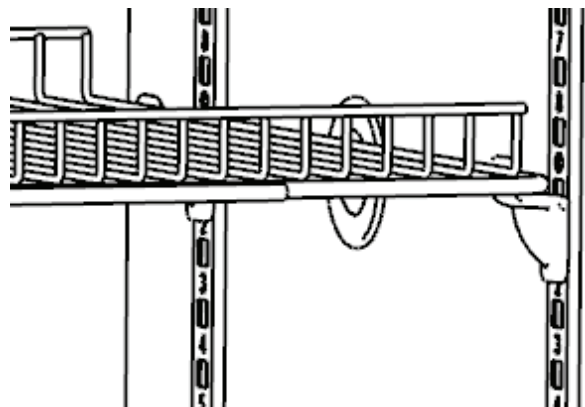
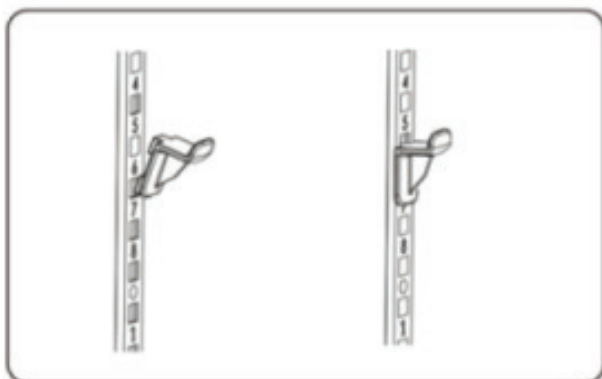
1. Remove all packing materials and protective film.
2. Verify that all accessories are included.
3. Position the refrigerator in its final installation location.



4. Adjust the leveling feet until the cabinet is level and stable.

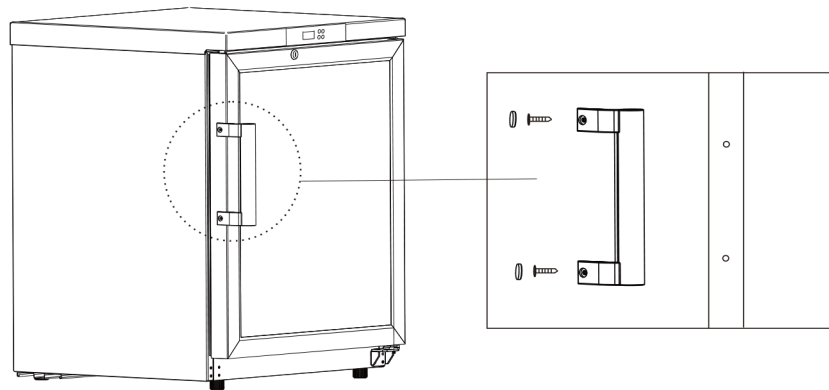


5. Install the wire shelves at the desired heights.

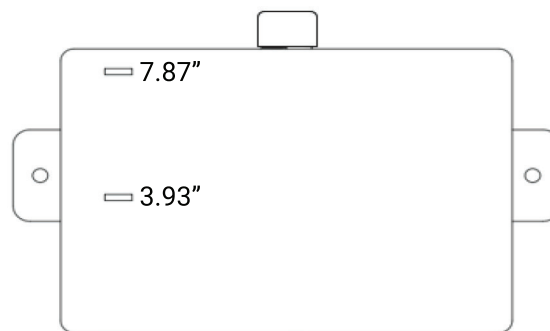


6. Install the Door Handle

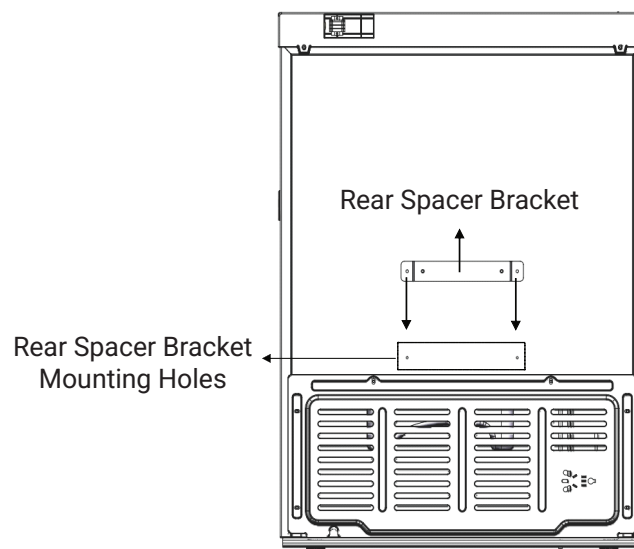
Align the door handle with the mounting studs on the door and slide it into position. Tighten the mounting screws until the handle is secure. Verify that the handle is firmly attached before operating the refrigerator.



7. Position the temperature simulation bottle ("Test Box") inside the cabinet as illustrated.



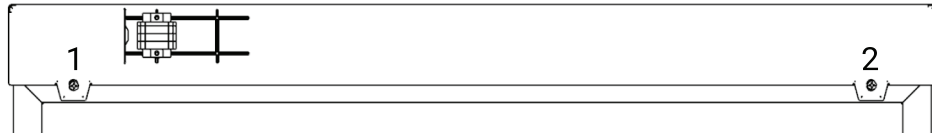
8. Install the rear spacer bracket as shown in the illustration.



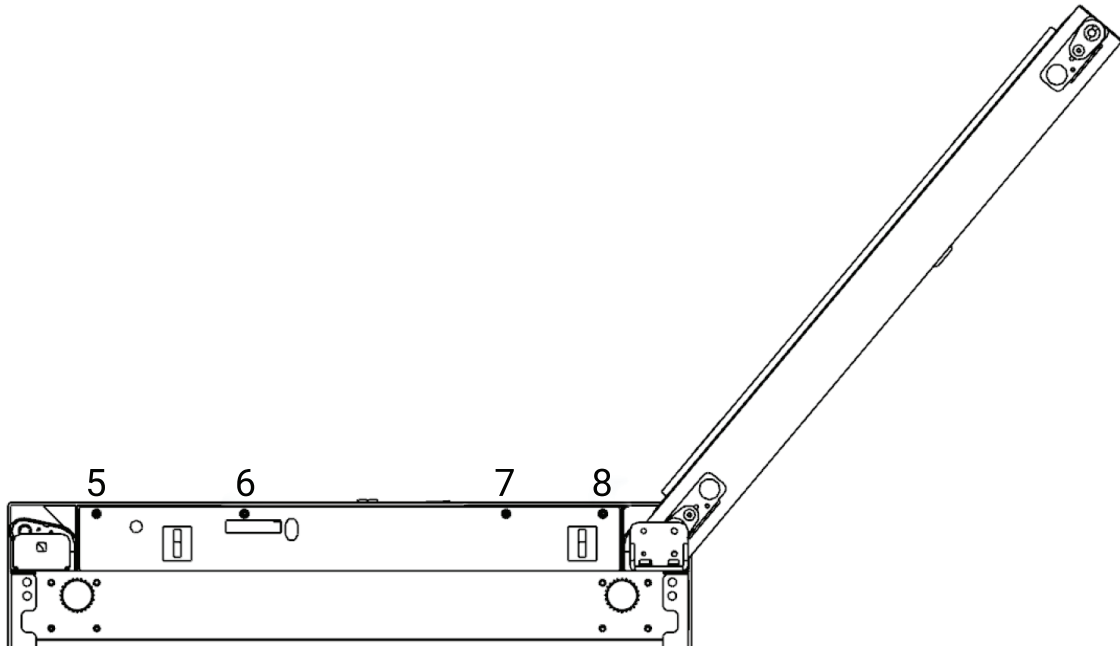
9. Door Reversal (Optional)

The door swing can be reversed to suit the installation location. Follow the step-by-step procedure shown in the illustrations to relocate the hinges and reinstall the door.

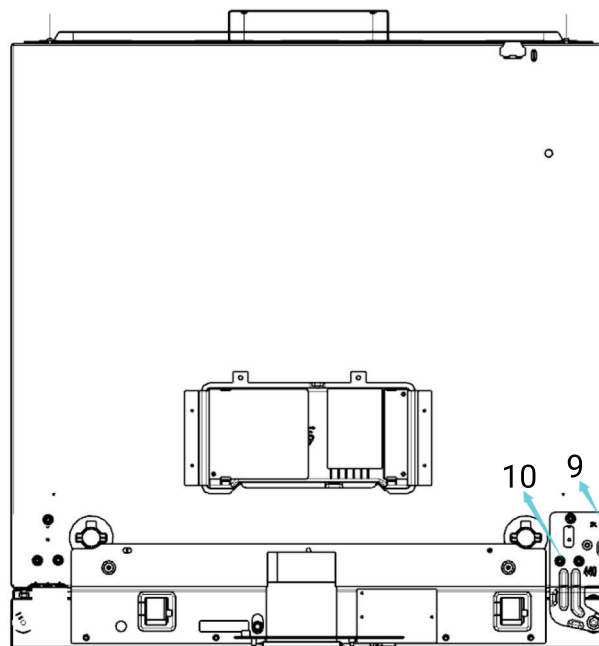
Step 1: Using a screwdriver or power driver, remove the two screws (Positions 1 and 2) securing the rear of the top cover.



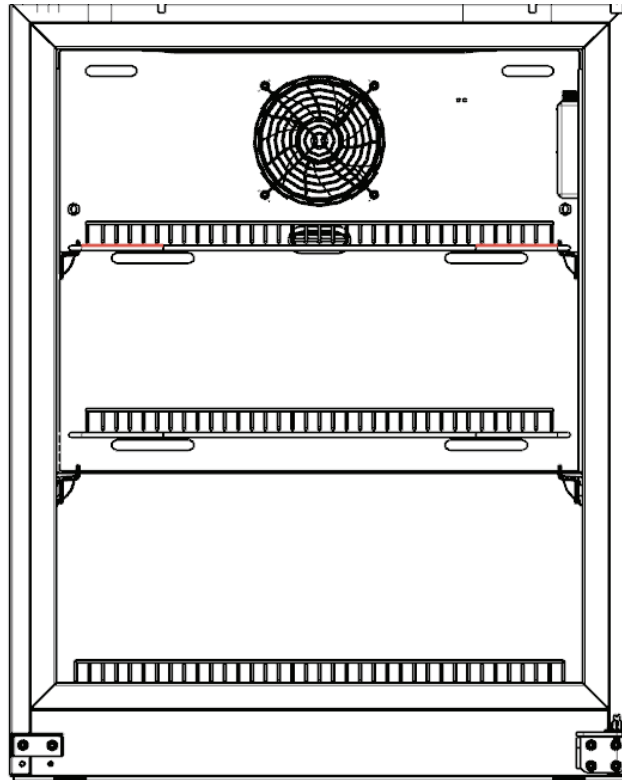
Step 2: Open the door, then remove the four screws (Positions 5, 6, 7, and 8) securing the front of the top cover.



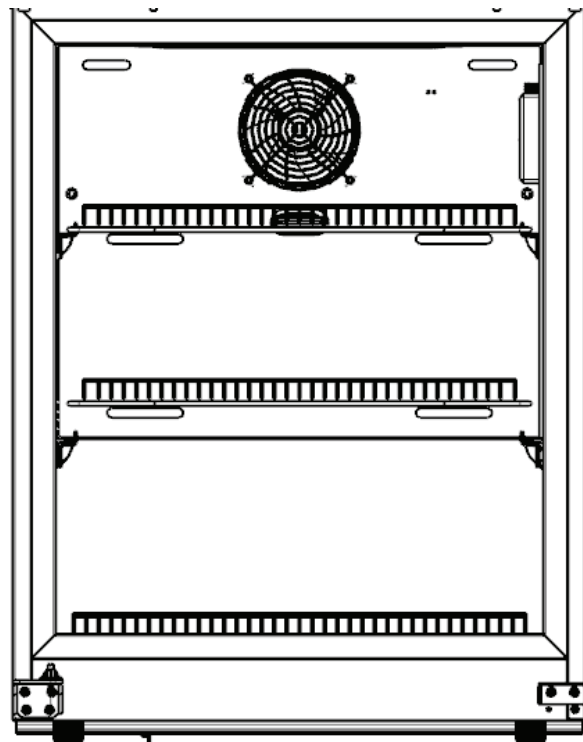
Step 3: Remove the top cover to access the upper hinge mounting screws (Positions 9 and 10).



Step 4: Remove the screws securing the upper hinge, then remove the hinge. Support the door with both hands and carefully lift it upward to remove it from the cabinet.



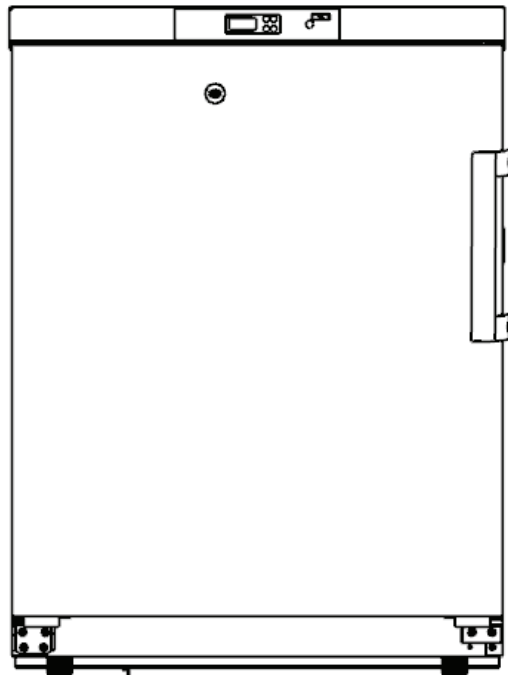
Step 5: Remove the four screws securing the lower hinge and remove the hinge from the cabinet. Next, remove the door spacer block from the opposite side of the door and install it in the original lower hinge mounting location. Finally, install the lower hinge on the opposite side of the cabinet and secure it with the four mounting screws.



Step 6: Position the door on the lower hinge, then install the corresponding upper hinge on the opposite side of the cabinet. Secure the upper hinge with the mounting screws and verify that the door opens and closes smoothly.



Step 7: Reinstall the top cover and secure it with the screws removed in Steps 1 and 2. If the door handle was removed, install it on the opposite side of the door and ensure it is securely fastened.



Initial Startup

1. After the refrigerator has been installed, leveled, and cleaned, allow it to remain upright for **24 hours** before connecting power.
2. Connect the refrigerator to a dedicated grounded electrical outlet.
3. Verify that the control panel powers on normally.
4. Allow the refrigerator to operate until the cabinet reaches the set temperature.
5. After the cabinet has stabilized, load products gradually. Do not load more than **one-third of the cabinet capacity at one time**.
6. Verify that the refrigerator cycles normally and maintains the desired temperature.

Operation

Control Panel

The control panel displays the current cabinet temperature and allows you to adjust operating settings and view system status.



Control Buttons

Button	Function
SET	Displays the current temperature setpoint. Press and hold for 3 seconds to save changes.
▲	Increases the selected value or scrolls through menu options.
▼	Decreases the selected value or scrolls through menu options.
SET + FN	Press and hold for 3 seconds to lock or unlock the control panel.

Locking/Unlocking the Control Panel

Press and hold **SET** and **FN** simultaneously for **3 seconds** to lock or unlock the control panel. When the controller is locked, settings cannot be changed.

Display Indicators

Indicator	Description
	Flashes during compressor start delay. Illuminates steadily while cooling is active.
	Indicates the refrigerator is connected to power.
	Indicates the control panel is locked.
	Flashes when an alarm condition is present.
	Flashes during drip time and remains illuminated during the defrost cycle.

Setting the Temperature

1. Unlock the control panel if necessary.
2. Press and hold **SET** for more than 3 seconds. The current temperature setpoint is displayed.
3. Press ▲ or ▼ to adjust the setpoint.
4. Press and hold **SET** for 3 seconds to save the new setting.

If no buttons are pressed, the controller exits the setting mode automatically without saving changes.

Setting the Date and Time

1. Unlock the control panel.
2. Press and hold ▲ and ▼ simultaneously for **3 seconds** to enter the date and time setting menu.
3. Use ▲ or ▼ to select the parameter you want to adjust:
 - Year (YEr)
 - Month (Mth)
 - Day (dAy)
 - Hour (HH)
 - Minute (MM)
4. Press **SET** to edit the selected value.
5. Use ▲ or ▼ to adjust the value.
6. Press **SET** to confirm the selection.
7. After all settings have been adjusted, press and hold **SET** for **3 seconds** to save the changes and exit.

NOTE:

- If no buttons are pressed for 10 seconds, the controller exits the menu without saving any changes.
- If the USB data recorder is not detected, "nDR" will be displayed instead of the date and time setting menu.

Viewing the Maximum and Minimum Temperatures

The controller records the highest (MAX) and lowest (MIN) cabinet temperatures for monitoring purposes.

View the Recorded Temperatures

While the control panel is locked, press and hold **FN** for **3 seconds**. The display alternates between the recorded **maximum** and **minimum** temperatures. A single beep confirms the operation.

Reset the Recorded Temperatures

While the control panel is locked and the normal temperature is displayed, press and hold **SET** for **10 seconds**. The current cabinet temperature becomes the new MAX and MIN reference, and the controller begins recording new maximum and minimum temperatures. A single beep confirms the reset.

Automatic Reset After Startup

After the refrigerator reaches its normal operating temperature following initial startup, the controller automatically resets the stored MAX and MIN values to remove the higher temperatures recorded during the cooling process.

Controller Parameters

Additional controller parameters are intended for qualified service personnel.

To access the parameter menu:

1. Unlock the controller.
2. Press and hold **SET** and ▲ simultaneously for more than 3 seconds.
3. Use ▲ or ▼ to scroll through available parameters.
4. Press **SET** to view or modify a parameter.
5. Press and hold **SET** for 3 seconds to save all changes and exit.

NOTICE

Changing controller parameters may affect refrigerator performance and temperature stability. Only trained personnel should modify advanced settings.

Power Failure Recovery

The controller automatically stores operating settings in memory.

Following a power interruption, the refrigerator resumes operation using the previous settings when power is restored.

If the refrigerator has been disconnected from power, wait at least **5 minutes** before reconnecting it to prevent compressor damage.

Long-Term Storage

If the refrigerator will not be used for an extended period:

1. Remove all stored contents.
2. Disconnect the power supply.
3. Clean and dry the interior.
4. Leave the door slightly open to help prevent odors and mold growth.

Data Export (If Equipped)

Some models include a USB data recording function.

Automatic Export

Insert a USB flash drive into the USB port to automatically export recorded temperature data.

Manual Export

1. Unlock the controller.
2. Press and hold ▲ for 3 seconds.
3. Select the desired export period.
4. Press and hold **SET** for 3 seconds to begin exporting.

The display remains active until the export is complete.

NOTE:

Data export functions are available only on models equipped with a USB data recorder.

Remote Alarm (If Equipped)

Some models include remote alarm contacts for connection to an external alarm system.

The remote alarm connector provides:

- Normally Open (NO)
- Normally Closed (NC)
- Common (COM)

The alarm contacts change state whenever an alarm condition occurs.

NOTE:

An external alarm device is required and is not included.

RS485 Communication (Optional)

Some models include an RS485 communication port for connection to building monitoring or temperature monitoring systems.

The RS485 interface provides:

- RS485 A
- RS485 B
- GND

Refer to your monitoring system documentation for connection requirements.

Alarm Messages

If an alarm cannot be cleared after correcting the cause, contact KoolMore Customer Support or an authorized service technician.

Maintenance

WARNING

- Disconnect the refrigerator from the power supply before cleaning, maintenance, or servicing to reduce the risk of electric shock or injury.
- When servicing the refrigerator, avoid exposure to stored pharmaceuticals, laboratory materials, or airborne particles that may present a health hazard.
- Do not spray or pour water directly onto the cabinet or electrical components.
- Do not use hot water, abrasive cleaners, corrosive chemicals, or organic solvents to clean the refrigerator.
- Do not place heavy objects on top of the cabinet, as this may damage the unit.

NOTICE

Before cleaning, servicing, or disconnecting power to the refrigerator, transfer all temperature-sensitive medications, vaccines, specimens, or other stored materials to another properly operating refrigerator or approved cold storage to maintain the required storage temperature.

Defrosting

This refrigerator features an automatic defrost system. Under normal operating conditions, no manual defrosting is required.

Cleaning

To maintain proper performance and sanitation, clean the refrigerator at least once each month.

- Disconnect the power before cleaning.
- Wipe the interior, exterior, shelves, and accessories with a soft cloth.
- For heavier soil, use a soft cloth dampened with warm water and a mild, non-abrasive detergent. Wipe away any detergent residue with clean water and dry thoroughly.
- Do not pour or spray water directly into or onto the refrigerator.
- Do not use steel wool, abrasive pads, bleach, strong acids, ammonia, acetone, or other harsh chemicals that may damage the finish or plastic components.
- Ensure all surfaces are completely dry before reconnecting power.

NOTICE

The compressor and sealed refrigeration system are permanently lubricated and require no routine maintenance.

Long-Term Storage

If the refrigerator will not be used for an extended period:

1. Remove all stored contents.
2. Disconnect the power cord.
3. Clean and dry the interior and exterior thoroughly.
4. Leave the door slightly open to prevent odors and mold growth.
5. Store the refrigerator in a clean, dry location.

If children may have access to the appliance during storage, secure the door to help prevent accidental entrapment.

Disposal

At the end of its service life, dispose of this refrigerator in accordance with all applicable local, state, and federal regulations.

Because this appliance contains refrigerant and electrical components, disposal should be performed by qualified personnel or an authorized recycling facility.

Do not allow children access to a discarded appliance. If the refrigerator is to be stored prior to disposal, keep it in a secure location to prevent injury or entrapment.

Troubleshooting

Many common issues can be resolved without service. Before contacting KoolMore Customer Service, review the following troubleshooting guide.

IMPORTANT:

If the refrigerator is unable to maintain the required storage temperature, immediately transfer all medications, vaccines, specimens, or other temperature-sensitive materials to another properly operating refrigerator or approved cold-storage unit.

Problem	Possible Cause / Solution
Refrigerator does not operate	• Verify that the power cord is securely plugged into a properly grounded outlet. • Confirm that the outlet has power and the circuit breaker has not tripped. • Check that the supply voltage meets the product requirements. • If the problem persists, contact qualified service personnel.
Poor cooling performance or temperature out of range	• Avoid overloading the refrigerator. • Allow warm items to cool before placing them inside. • Arrange stored items to allow proper air circulation. • Ensure the door is fully closed. • Minimize the frequency and duration of door openings. • Verify that the ambient temperature is within the specified operating range. • Ensure the air vents are not blocked.
Excessive noise	• Verify that the refrigerator is installed on a level, stable surface. • Ensure the cabinet is not touching walls or nearby objects. • Slight variations in operating noise are normal and may occur during compressor operation, refrigerant flow, or automatic defrost cycles.
Alarm indicator is illuminated or the buzzer sounds	• Recently loaded items may temporarily raise the cabinet temperature. • Verify that the door is completely closed. • Check whether the cabinet temperature is outside the set range. • Refer to the alarm or error code displayed on the controller, if applicable.

NOTE:

If the problem cannot be resolved using the troubleshooting information above, discontinue use and contact KoolMore Customer Service or an authorized service technician. Do not attempt to repair the refrigerator yourself.



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.

KoolMore shall not be responsible or liable for any loss, spoilage, or damage to food, beverages, pharmaceuticals, medical supplies, or any other contents stored in the unit resulting from failure, malfunction, defects, improper installation, improper use, power interruption, or any other cause. Any such losses are expressly excluded from coverage under this warranty.

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.

