USER GUIDE & SERVICE MANUAL

VIKING®

Model: VCBR552-SG01A

USER GUIDE & SERVICE MANUAL

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WELCOME TO VIKING COMMERCIAL

Congratulations on your purchase!

Viking is synonymous with decades of innovation and craftsmanship. Our industry-leading appliances set the standards. Delivering professional performance and stunning design. Our products have become the standard for elite chefs around the world.

PRODUCT INFORMATION

Looking for additional information on your product? User Guides, Spec Sheets, and Product Warranty information are available online at vikingrange.com/commercial.

PROPERTY DAMAGE / INDUSTRY CONCERNS

In the unlikely event property damage or personal injury is suspected related to a Viking Commercial product, please take the following steps:

1. Customer Care must be contacted at +1.616.754.5601
2. Service or repairs performed on the unit without prior written approval is not permitted. If the units have been altered or repaired in the field without prior written approval, claims will not be eligible.

GENERAL INQUIRIES

1260 E. Van Deinse • Greenville, MI 48838 •
+1.616.754.5601
Website: vikingrange.com/commercial
commercial@vikingrange.com

SERVICE & PARTS ASSISTANCE

Monday – Friday 8:00 am to 4:30 pm CST
+1.616.754.5601
Service Email: commercialservice@vikingrange.com

CONNECT WITH US

Safety and Warning

NOTICE
Please read all instructions before installing, operating, or servicing the appliance.

Use this appliance for its intended purpose only and follow these general precautions with those listed throughout this guide:

SAFETY ALERT DEFINITIONS

Throughout this guide are safety items labeled with a Danger, Warning, or Caution based on the risk type:

⚠ DANGER

Danger means that failure to follow this safety statement will result in severe personal injury or death.

⚠ WARNING

Warning means that failure to follow this safety statement could result in serious personal injury or death.

⚠ CAUTION

Caution means that failure to follow this safety statement may result in minor or moderate personal injury, property, or equipment damage.

Caution: risk of fire, flammable refrigerant and blowing gas used.

GENERAL PRECAUTIONS

Use this appliance for its intended purpose only and follow these general precautions with those listed throughout this guide.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience or knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with this appliance.

⚠ WARNING

Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.

Please accord to local regulations regarding disposal of the appliance for its flammable refrigerant and blowing gas. Before you scrap the appliance, please remove the doors to prevent child entrapment.

Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.

⚠ WARNING

Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.

⚠ WARNING

Do not damage the refrigerating circuit.

⚠ WARNING

Do not use electrical appliances inside the food/ ice storage compartments unless they are of the type recommended by the manufacturer.

DO NOT use medical devices or other means to accelerate the defrosting process other than those recommended by the manufacturer. DO NOT use an ice pick or other sharp instrument to help speed up defrosting. These instruments can puncture the inner lining or damage the cooling unit. DO NOT use any type of heater to defrost. Using a heater to speed up defrosting can cause personal injury and damage to the inner lining.

NOTICE

Do not lift unit by door handle.

Never install or operate the unit behind closed doors. Be sure front grille is free of obstruction. Obstructing free airflow can cause the unit to malfunction and will void the warranty.

Failure to clean the condenser every six months can cause the unit to malfunction. This could void the warranty.

Allow unit temperature to stabilize for 24 hours before use.

Do not block any internal fans.

Use only genuine factory replacement parts. Imitation parts can damage the unit, affect its operation or performance and may void the warranty.

This appliance is intended to be used in household and similar applications such as:

- Staff kitchen areas in shops, offices and other working environments.
- Farm houses and by clients in hotels, motels and other residential type environments.
- Bed and breakfast type environments.
- Catering and similar non-retail applications.

Disposal and Recycling

⚠ DANGER

RISK OF CHILD ENTRAPMENT. Before you throw away your old refrigerator or freezer, take off the doors and leave shelves in place so children may not easily climb inside.

If the unit is being removed from service for disposal, check and obey all federal, state, and local regulations regarding the disposal and recycling of refrigeration appliances, and follow these steps completely:

1. Remove all consumable contents from the unit.

2. Unplug the electrical cord from its socket.

3. Remove the door(s)/drawer(s).

Environmental Requirements

This unit is designed to operate between 50°F (10°C) and 100°F (38°C). Higher ambient temperatures may reduce the unit's ability to reach low temperatures and/or reduce ice production on applicable models.

For best performance, keep the unit out of direct sunlight and away from heat generating equipment.

In climates where high humidity and dew points are present, condensation may appear on outside surfaces. This is considered normal. The condensation will evaporate when the humidity drops.

⚠ CAUTION

Damages caused by ambient temperatures of 40°F (4°C) or below are not covered by the warranty.

Electrical

⚠ WARNING

SHOCK HAZARD — Electrical Grounding Required. Never attempt to repair or perform maintenance on the unit until the electricity has been disconnected.

Never remove the round grounding prong from the plug and never use a two-prong grounding adapter.

Altering, cutting or removing power cord, removing power plug, or direct wiring can cause serious injury, fire, loss of property and/or life, and will void the warranty.

Never use an extension cord to connect power to the unit.

Always keep your working area dry.

NOTICE

Electrical installation must observe all state and local codes. This unit requires connection to a grounded (three-prong), polarized receptacle that has been placed by a qualified electrician.

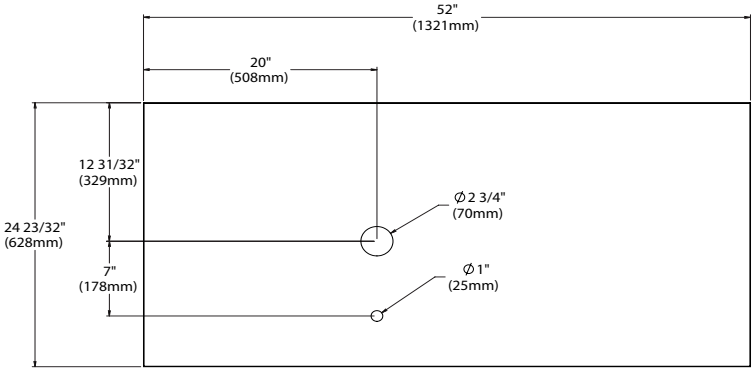
The unit requires a grounded and polarized 115 VAC, 60 Hz, 15A power supply (normal household current). An individual, properly grounded branch circuit or circuit breaker is recommended. A GFCI (ground fault circuit interrupter) is usually not required for fixed location appliances and is not recommended for your unit because it could be prone to nuisance tripping. However, be sure to consult your local codes.

See CUTOUT & PRODUCT DIMENSIONS for recommended receptacle location.

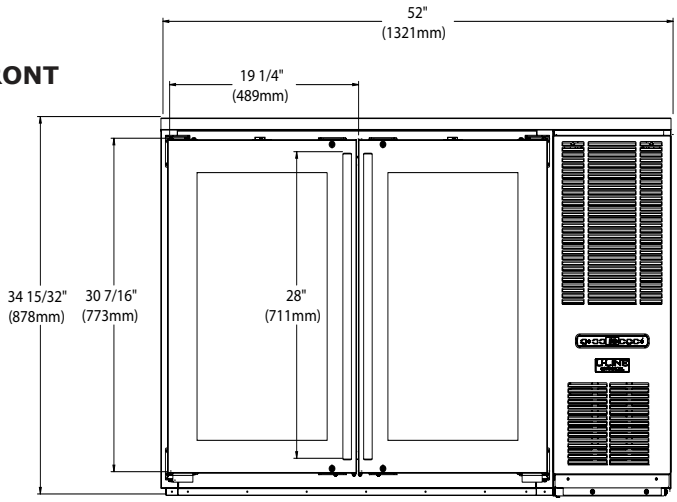
Cutout & Product Dimensions

CUTOUT & PRODUCT DIMENSIONS - UCBR552/UCBR652

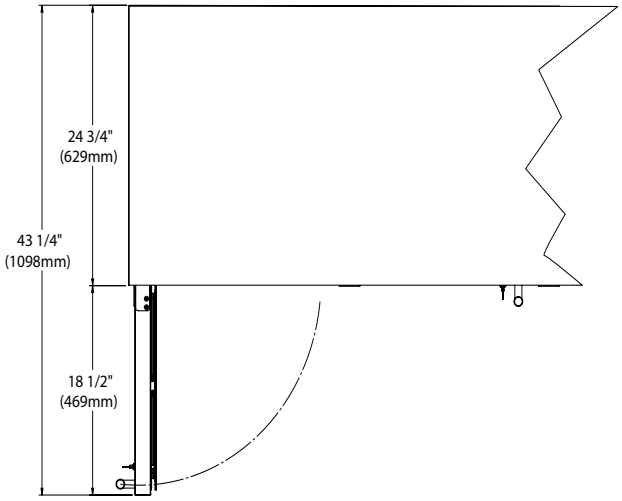
NOTE:
THE HOLE CUTOUTS ON TOP SURFACE APPLY TO THE UCBR652 ONLY AND ARE CUTOUT AT THE FACTORY.

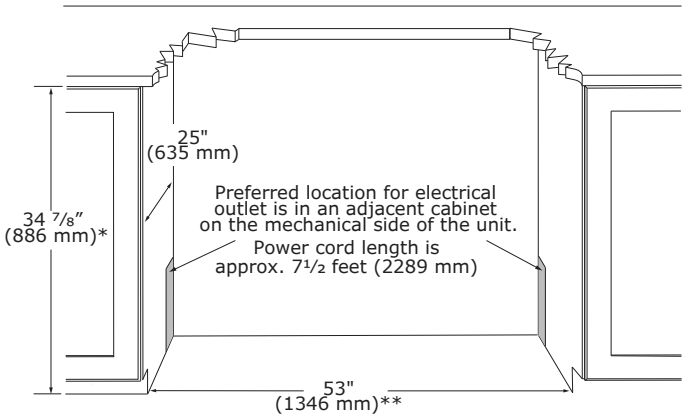


FRONT

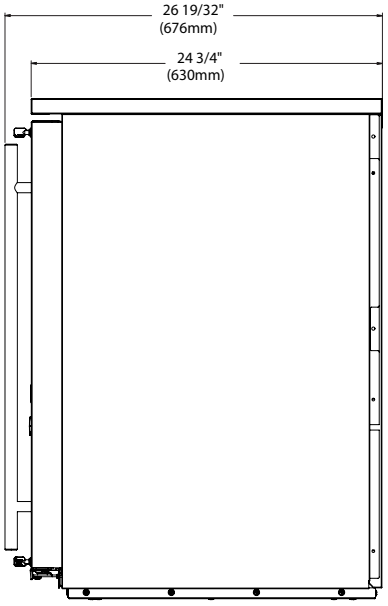


TOP





SIDE



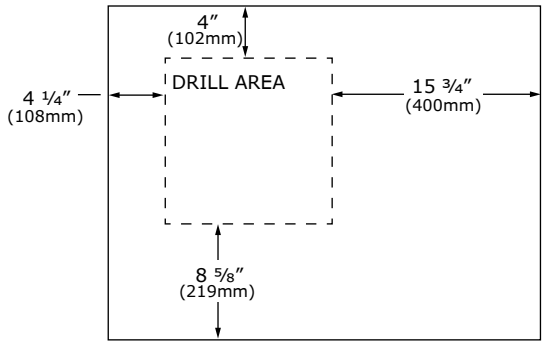
*** If Unit has Legs, Add 6" - 6 ¾", if Casters Add 5"**

**** For Proper Airflow, 1" Clearance Required on Mechanical Side**

Cutout & Product Dimensions

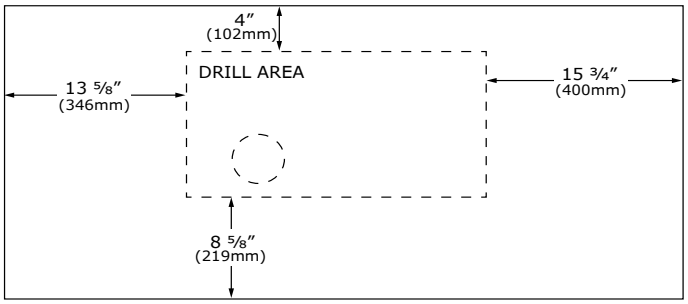
TAP TOWER KITS

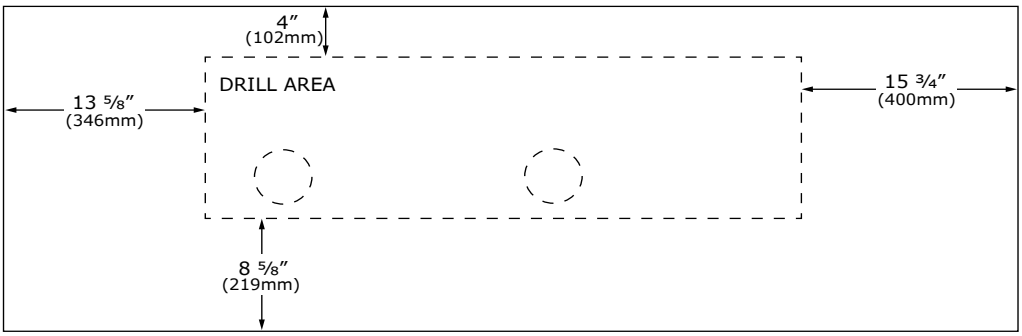
This template is to be used as reference if you want to add your own tap tower kit.

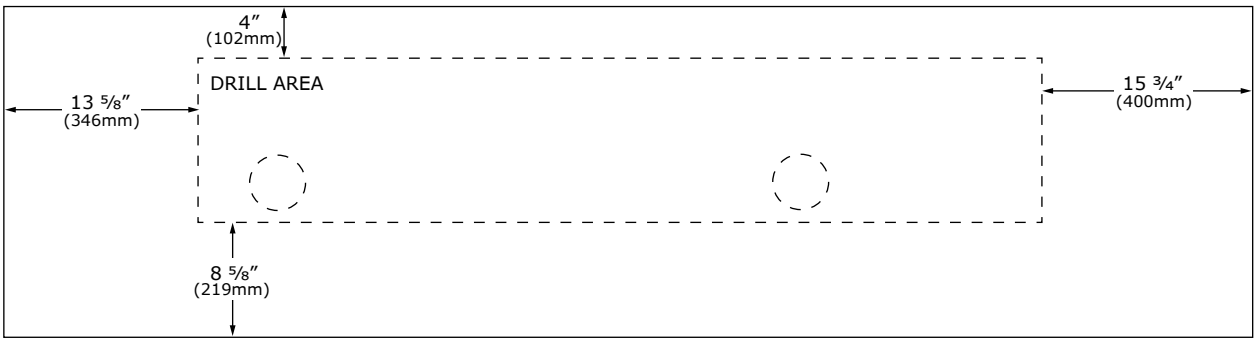


NOTES

- Dotted box shows safe drill area.
- Dotted holes show reference tap holes in air duct below lid.
- It is recommended to insulate any tubing inside of the air duct to avoid freezing.
- Left-hand units are dimensionally opposite left-to-right.



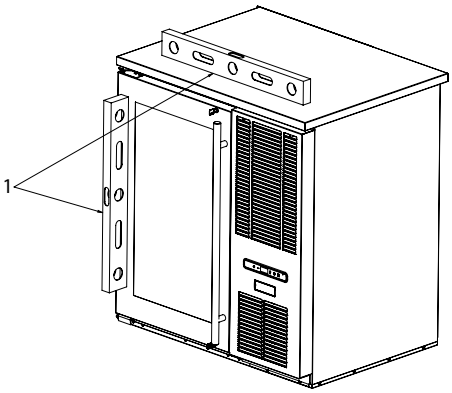




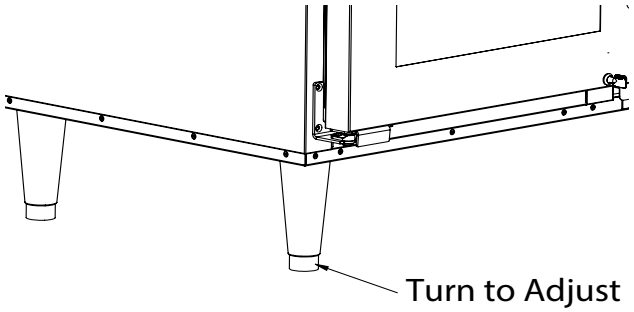
General Installation

LEVELING INFORMATION

1. Use a level to confirm the unit is level. Level should be placed along top edge and side edge as shown.



2. If the unit is not level shim under the wheels, or, if equipt, adjust the legs on the corners of the unit as necessary.



3. Confirm the unit is level after each adjustment and repeat the previous steps as needed.

INSTALLATION TIP

If the room floor is higher than the floor in the cutout opening, adjust the rear legs to achieve a total unit rear height of 1⁄8" (3 mm) less than opening's rear height. Shorten the unit height in the front by adjusting the front legs. This allows the unit to be gently tipped into the opening. Readjust the front legs to level the unit after it is correctly positioned in the opening.

⚠ CAUTION

To comply with applicable federal, state and local codes, this equipment may need to be caulked to the floor.

INSTALLATION

1. Plug in the power/electrical cord.
2. Gently push the unit into position.
3. Re-check the leveling, from front to back and side to side. Make any necessary adjustments. The unit's top surface should be approximately 1⁄8" (3 mm) below the countertop.
4. Install the anti-tip bracket.
5. Remove interior packing material and wipe out the inside of the unit with a clean, water-dampened cloth.

Grille Installation

REMOVING AND INSTALLING GRILLE

⚠ WARNING

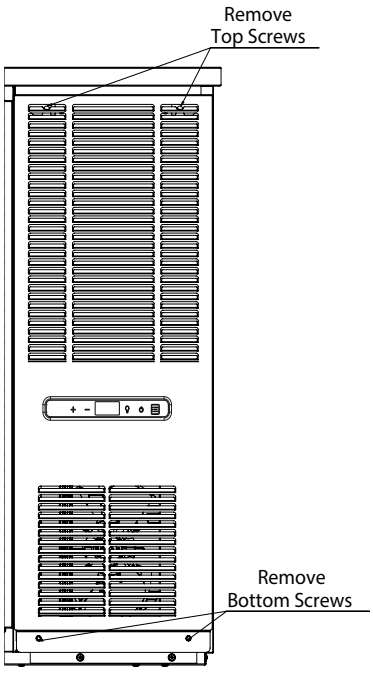
Disconnect electric power to the unit before removing the grille.

When using the unit, the grille must be installed.

Removing the grille

1. Disconnect power to the unit.

2. Remove two top screws and two bottom screws.



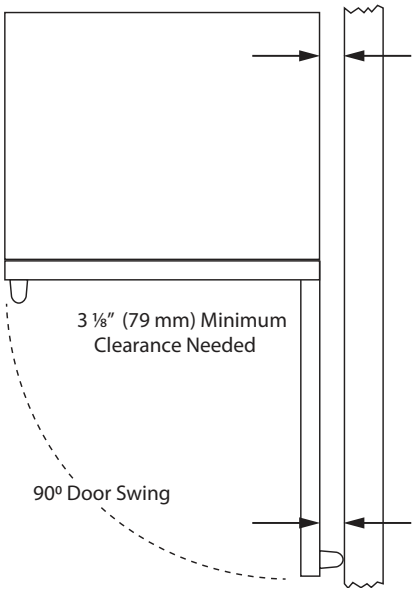
3. Remove grille and set aside

Installing the grille

1. Align cabinet and grille holes and secure top and bottom. Do not over tighten grille screws.

2. Connect power to the unit.

Door Swing



Stainless steel models require 3 ⅛" (79 mm) door clearance to accommodate the handle if installed next to a wall.

Door Adjustments

REVERSING THE DOOR

Location of the unit may make it desirable to mount the door on the opposite side of the cabinet.

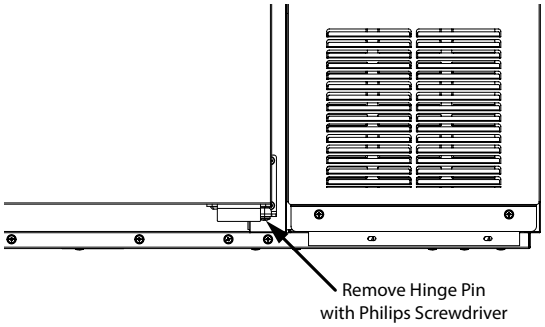
The hinge hardware will be removed and reinstalled on the opposite side of the cabinet.

TO REVERSE THE DOOR

Note: When reversing the door, the top hinge becomes the bottom hinge on the opposite side of the unit - likewise, the bottom hinge becomes the top on the other side.

REMOVE DOOR

1. With door closed, remove hinge pin from bottom hinge using a Philips screwdriver.

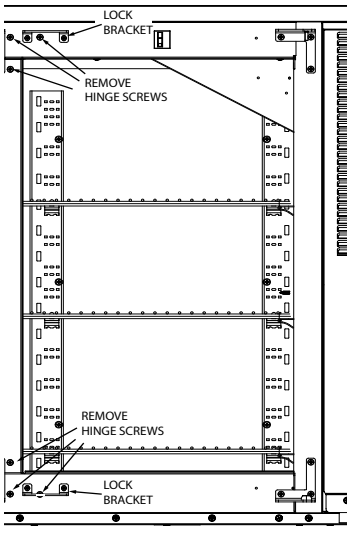


2. Remove the door by lifting it slightly and pulling bottom of door toward you until clear of the bottom hinge.

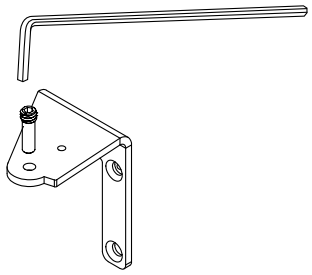
MOVE HINGES TO OPPOSITE SIDES

Note: When removing hardware from the unit, keep all screws and parts handy, they will all be needed.

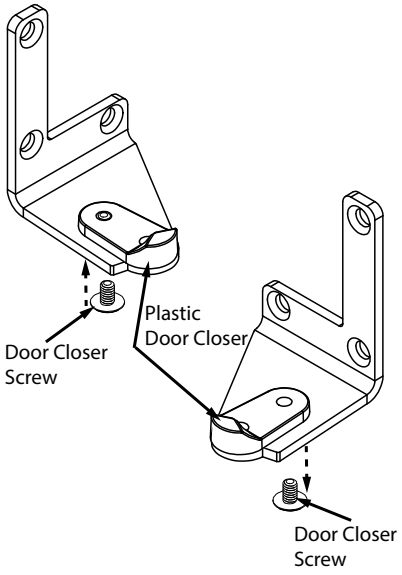
1. Using a Phillips screwdriver, remove both hinges by taking out 6 screws. Also remove 6 screws from the other side.
2. With the same Philips screwdriver, remove 4 screws holding the lock brackets. The lock brackets will be installed on the opposite side.



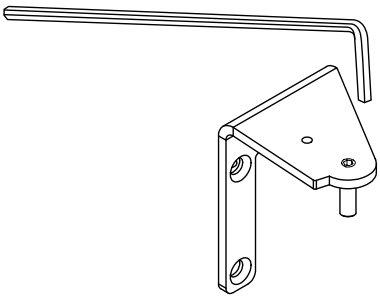
3. Remove hinge pin from top hinge using a 1/8" hex key tool. Rotate hinge pin clockwise to remove. Set aside.



4. On the bottom hinge use a Philips screwdriver to remove screw holding the plastic door closer.
5. Reinstall plastic door closer on the other hinge (formerly the top hinge).



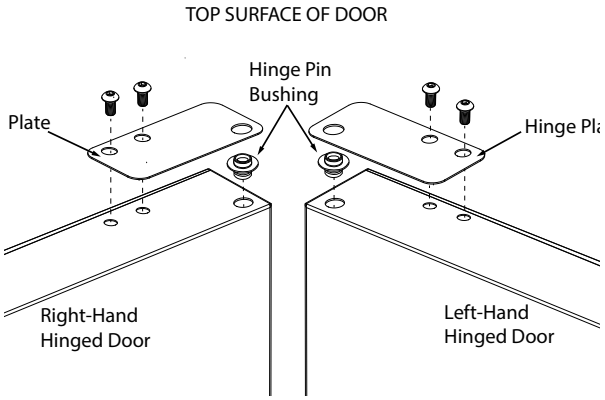
6. With 1/8" hex key install hinge pin onto top hinge (formerly the bottom hinge) until even with surface of hinge.



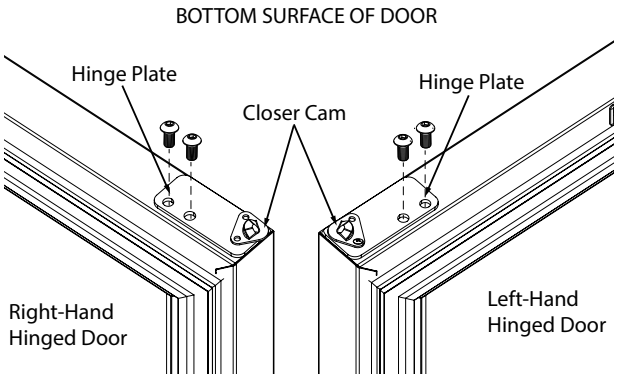
7. Install top and bottom hinges on opposite side of cabinet. Install 3 leftover screws into the open holes.
8. Install top and bottom lock brackets.

PREPARE DOOR FOR INSTALLATION

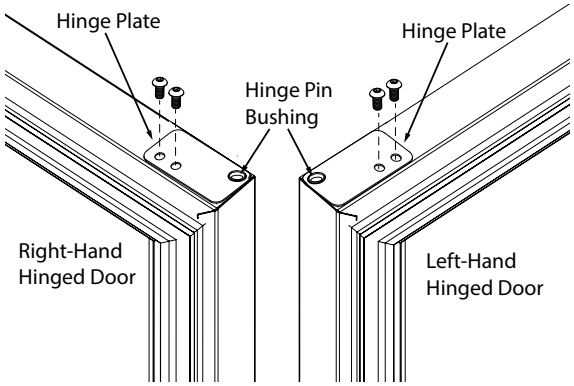
1. Stand door up on bottom edge, handle side facing you.
2. Remove top hinge plate by using a 5/32" hex tool to take out two screws. Hinge plate, two hex screws, and bushing will be used on opposite surface.
3. Pry out hinge pin busing.



4. Flip door over so gasket side is facing you.
5. Take out two 5/32" screws to remove bottom hinge plate. Set aside.

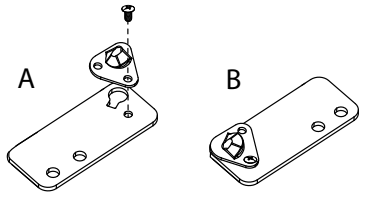


6. Install hinge pin bushing into door.
7. Install the top hinge plate (the one just removed from the opposite surface) over installed hinge pin bushing.

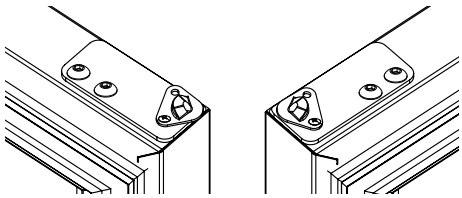


8. Take bottom hinge plate and remove closer cam with a Philips screwdriver, and reinstall closer cam on opposite surface of bottom hinge plate.

A. Remove Closer Cam
& Flip Hinge Plate over
B. Install Hinge Plate



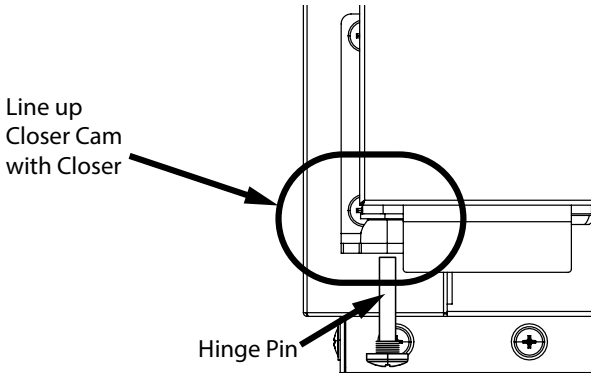
9. Flip door over and install bottom bottom hinge plate.



INSTALL DOOR ONTO UNIT

Note: To prevent damage and to have two hands free, it may be beneficial to have someone hold the door during the installation.

1. Lift door at a slight angle upward to allow the hinge pin to slide into the hinge hole on the door.
2. Position bottom of door to line up the door closer with the door closer cam.
3. Insert lower hinge pin through hinge. Use a Philips screwdriver to tighten.



4. Test door to make sure it opens and closes correctly.
5. Test lock.

First Use

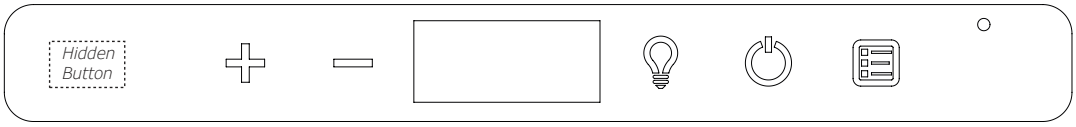
Initial startup requires no adjustments. If the unit was turned off, press ⏻ to turn unit on. See “Control Operation” section for more details.

NOTICE

Temperature displayed reflects actual temperature inside unit.

If the temperature displayed is different than selected, the unit is progressing towards the selected temperature. Time to reach set point varies based upon ambient temperature, temperature of product loaded, door openings, etc. U-Line recommends allowing the unit to reach set points before loading.

Control Operation



CONTROL FUNCTION GUIDE

FUNCTION	COMMAND	NOTES
ON/OFF	Press ⏻ and release	Unit will immediately turn On or OFF
Adjust Temperature	Press ✚ or ▬ and release	When the display is flashing, press ✚ or ▬ to adjust the set point temperature. Note: temperature displayed is the actual temperature inside unit
Toggle between °F / °C	Hold ✚ and ▬ for 5 seconds	The display will change units
Leave interior light on	Press 💡 and release to leave interior light on for 12 hours; press again to deactivate	After 12 hours, factory default is restored; light will turn on when door is open
Hide Display	Hold hidden button and press 💡	Display will turn off when door is closed. Unit will continue to operate. Repeat command to turn on display
Adjust light color	While holding ▬ press and release 💡 to scroll through lighting options	Option / Open Door / Closed Door 00 / White / White 01 / Blue / Blue 02 / White / Blue Light will be set at full intensity when door is open, and 50% intensity when door is closed.
Enable Sabbath Mode	Press and hold 💡 for 5 seconds and release	The °F / °C symbol will flash briefly after 5 seconds. Interior light and display will go dark and remain so until user resets mode - unit continues to operate
Disable Sabbath Mode	Press and hold 💡 for 5 seconds and release	Display and interior light return to normal operation
Showroom Mode	Hold 💡 and ⏻ for 5 seconds	The °F / °C symbol will flash. Display will be lit and interior light will function. Unit will not cool. Repeat command to return to normal operation

DOOR ALERT NOTIFICATION

When the door is left open for more than 5 minutes:

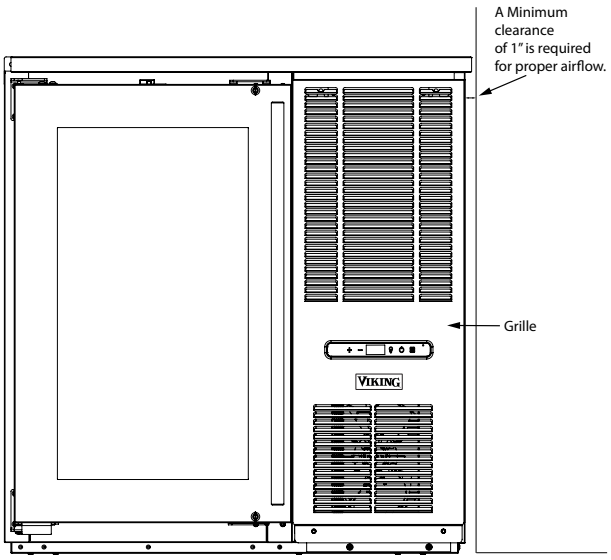
- A tone will sound for several seconds every minute
- dr will appear in display
- Closed door to silence alert and reset

Airflow and Product Loading

AIRFLOW

External

- Do not block the front grille
- A minimum of 1" clearance is required on the grille-side of the unit.



- Do not install behind a closed door

Internal

- When loading, leave space between internal fans, vents, and side walls to allow air to circulate freely

NOTICE

Restricting airflow may result in poor product performance, product failure, and uneven internal temperatures and may freeze contents.

Interior Adjustments

REMOVING AND INSTALLING SHELVES

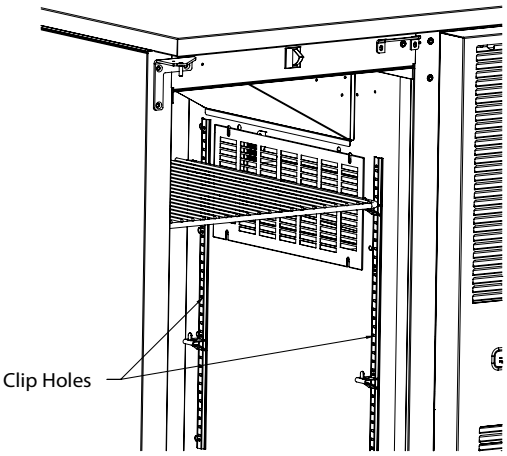
Adjusting Interior Shelves

Models equipped with wire rack or glass cantilever shelves have an adjustable mounting system. To adjust or simply remove shelves for cleaning, follow the instructions below.

1. Remove all product from shelf.
2. Coming from underneath the shelf, lift both the front and rear of the shelf.
3. Carefully slide shelf out of unit being careful not to scratch the interior liner.
4. Installation is the reverse of removal.**Adjusting Shelf Height**

Shelf height may be adjusted to accommodate a broad range of product. To alter your shelf spacing follow the instructions below.

1. Remove the 4 Shelf clips from the shelf clip holes.
2. Move shelf clips as a group to the desired shelf height.
3. Insert shelf clips into the holes of the desired shelf height. Be certain shelf clip is fully seated into shelf clip hole.



Clips MUST be installed with the ribbed side down. Failure to do so may result in shelf or unit damage.

NOTICE
All 4 shelf clips for each shelf must be installed at the same height for shelf stability.

4. Reinstall shelf.

Cleaning Shelves

Shelves may be cleaned in a soapy warm water solution. A general household disinfectant may be used if necessary. Be sure to completely dry your shelf before reinstalling.

Door Locking/Unlocking

Models equipped with locking doors can be set to the lock position by inserting the included keys into the lock plugs and rotating clockwise. To unlock, use the key to turn the lock plug counter-clockwise.

Cleaning

CLEANING VS. SANITIZING

This guide will address both the cleaning and the sanitizing of the unit.

Clean the unit to remove dried food and spills, to prevent build-up of grime, and to maintain the natural luster stainless steel surfaces.

Sanitize the unit when exposed to raw meat juice or human germs such as from a sneeze or being touched by someone who is ill. Sanitizing the unit can also be part of regular cleaning routine.

Stainless Surfaces

Stainless door panels, handles and frames can discolor when exposed to chlorine gas, pool chemicals, saltwater or cleaners with bleach.

Keep your stainless unit looking new by cleaning with a good quality all-in-one stainless steel cleaner and polish monthly. For best results use Claire® Stainless Steel Polish and Cleaner. Comparable products are acceptable. Frequent cleaning will remove surface contamination that could lead to rust. Some installations may require cleaning weekly.

Do not clean with steel wool pads.

Do not use stainless steel cleaners or polishes on any glass surfaces.

Clean any glass surfaces with a non-chlorine glass cleaner.

Do not use cleaners not specifically intended for stainless steel on stainless steel surfaces (this includes glass, tile, and counter cleaners).

If any surface discoloring or rusting appears, clean it quickly with Bon-Ami® or Barkeepers Friend Cleanser® and a nonabrasive cloth. Always clean with the grain. Always finish with Claire® Stainless Steel Polish and Cleaner or comparable product to prevent further problems.

Using abrasive pads such as ScotchBrite™ will cause the graining in the stainless steel to become blurred.

Rust not cleaned up promptly can penetrate the surface of the stainless steel and complete removal of the rust may not be possible.

CLEAN INTERIOR COMPONENTS

Use warm or hot water with dish soap to clean all removed components and interior surfaces. You may use a vinegar and water solution in place of soap. Proceed to sanitizing.

Note: Cleaning soaps and vinegar solutions are not sanitizers.

SANITIZE INTERIOR COMPONENTS AND SURFACES

Choose a Commercial Sanitizer Safe for Stainless Steel

- Read the directions for proper use to ensure that the surface will actually be sanitized
- Many products require rinsing with water after use, especially when food will be touching the surface
- Some products require a wait time before rinsing
- Verify the sanitizer you are using is safe for stainless steel.

Mix Your Own Sanitizer

Isopropyl Alcohol (rubbing alcohol)

1. Fill a clean, empty spray bottle with isopropyl alcohol
2. Spray surface
3. Wait 20 minutes
4. Dampen a non-abrasive cloth with isopropyl alcohol and wipe down surface
5. Dry surface with a clean dry non-abrasive cloth

Unscented Bleach and Water

1. Create a solution of 1 tablespoon of unscented bleach with one gallon of water.
2. Submerse small parts for no more than 3 minutes - rinse immediately and allow to air dry or dry with a disposable paper towel.
3. Fill a clean, empty spray bottle with bleach solution.
4. Spray surface.
5. After 2-3 minutes, use clean potable water to thoroughly rinse off surface. Allow to air dry or dry with a disposable paper towel.
6. Sanitize the door and all holes where the hinges attach to the unit and the brackets attach to the door as well as all the screws.

CLEAN EXTERIOR SURFACES

Use Bon-Ami® or Barkeepers Friend Cleanser® and a nonabrasive cloth. Always clean with the grain. Always finish with Claire® Stainless Steel Polish and Cleaner or comparable product to prevent further problems.

INTERIOR CLEANING & SANITIZING

NOTICE

Do not use any solvent-based or abrasive cleaners. These types of cleaners may transfer taste and/or odor to the interior products and damage or discolor the interior.

DEFROSTING

Under normal conditions this unit does not require manual defrosting. Minor frost on the rear wall or visible through the evaporator plate vents is normal and will melt during each cycle.

If there is excessive build-up of 1/4" (6 mm) or more, manually defrost the unit.

Ensure the door is closing and sealing properly.

High ambient temperature and excessive humidity can also produce frost.

⚠ CAUTION

DO NOT use an ice pick or other sharp instrument to help speed up defrosting. These instruments can puncture the inner lining or damage the cooling unit. DO NOT use any type of heater to defrost. Using a heater to speed up defrosting can cause personal injury and damage to the inner lining.

NOTICE

The drain pan was not designed to capture the water created when manually defrosting. To prevent water from overflowing the drain pan and possibly damaging water sensitive flooring, the unit must be removed from cabinetry.

To defrost:

1. Disconnect power to the unit.
2. Remove all products from the interior
3. Prop the door in an open position (2 in. [50 mm] minimum).
4. Allow the frost to melt naturally.
5. After the frost melts completely, clean the interior and all removed components. (See INTERIOR CLEANING).
6. When the interior is dry, reconnect power and turn unit on.

Cleaning Condenser

INTERVAL - EVERY SIX MONTHS

To maintain operational efficiency, keep the front grille free of dust and lint, and clean the condenser when necessary. Depending on environmental conditions, more or less frequent cleaning may be necessary.

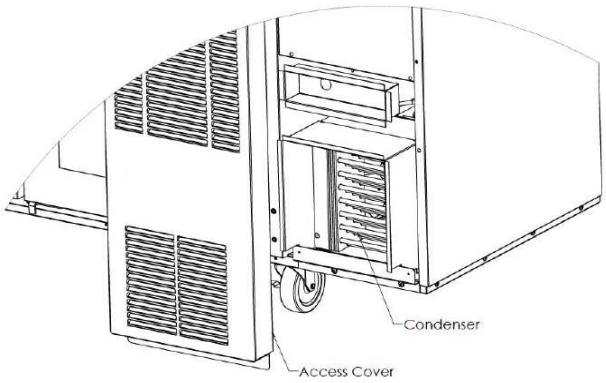
⚠ WARNING

Disconnect electric power to the unit before cleaning the condenser.

NOTICE

DO NOT use any type of cleaner on the condenser unit. Condenser may be cleaned using a vacuum, soft brush, or compressed air.

1. Remove the grille. See GRILLE INSTALLATION).
2. Clean the condenser coil using a soft brush or vacuum cleaner.
3. Install the grille.

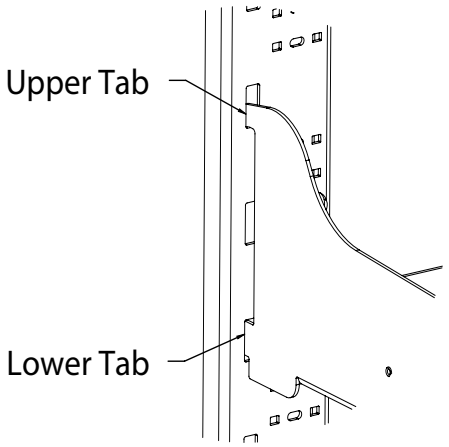


Wine Rack Installation

To remove rack from the cabinet:

NOTE: WINE RACKS ARE NOT INCLUDED WITH THIS UNIT AND ARE SOLD AS ACCESSORIES ONLY.

1. Remove any bottles stored on the rack.
2. Grasp the front end of the rack, tilt upward and lift out of the rear shelf ladder.



3. Pull the rack out until it is free of the cabinet.

To insert rack in the cabinet:

1. Grasp the front end of the rack and insert into the cabinet.
2. Tilt the front end of the rack upward and align the left and right upper tabs with the slots in the rear shelf ladder at the desired height.
3. Lower the front of the rack to seat the lower tabs into the rear shelf ladder.
4. Gently press on the top of the rack to ensure there is no movement and everything is seated properly.
5. Before reloading the rack, ensure proper movement of the travel stops in the left and right track rails by pulling the rack out gently until it stops.

Extended Non-Use

VACATION/HOLIDAY, PROLONGED SHUTDOWN

The following steps are recommended for periods of extended non-use:

1. Remove all consumable content from the unit.
2. Disconnect the power cord from its outlet/socket and leave it disconnected until the unit is returned to service.
3. If any ice is visible inside the unit, allow ice to thaw naturally.
4. Clean and dry the interior of the unit. Ensure all water has been removed from the unit.
5. Clean the system. (See CLEANING)
6. The door must remain open to prevent formation of mold and mildew. Open door a minimum of 2" (50 mm) to provide the necessary ventilation.

WINTERIZATION

If the unit will be exposed to temperatures of 40ºF (5ºC) or less, the steps above must be followed.

For questions regarding winterization, please call U-Line at 414.354.0300.

⚠ CAUTION

Damage caused by freezing temperatures is not covered by the warranty.

Troubleshooting

BEFORE CALLING FOR SERVICE

If you think your U-Line product is malfunctioning, read the CONTROL OPERATION section to clearly understand the function of the control.

If the problem persists, read the NORMAL OPERATING SOUNDS and TROUBLESHOOTING GUIDE sections below to help you quickly identify common problems and possible causes and remedies. Most often, this will resolve the problem without the need to call for service.

IF SERVICE IS REQUIRED

If you do not understand a troubleshooting remedy, or your product needs service, contact U-Line Corporation directly at +1.414.354.0300.

When you call, you will need your product Model and Serial Numbers. This information appears on the Model and Serial number plate located on the upper right or rear wall of the interior of your product.

NORMAL OPERATING SOUNDS

All models incorporate rigid foam insulated cabinets to provide high thermal efficiency and maximum sound reduction for its internal working components. Despite this technology, your model may make sounds that are unfamiliar.

Normal operating sounds may be more noticeable because of the unit's environment. Hard surfaces such as cabinets, wood, vinyl or tiled floors and paneled walls have a tendency to reflect normal appliance operating noises.

Listed below are common refrigeration components with a brief description of the normal operating sounds they make. NOTE: Your product may not contain all the components listed.

- Compressor: The compressor makes a hum or pulsing sound that may be heard when it operates.
- Evaporator: Refrigerant flowing through an evaporator may sound like boiling liquid.
- Condenser Fan: Air moving through a condenser may be heard.
- Automatic Defrost Drain Pan: Water may be heard dripping or running into the drain pan when the unit is in the defrost cycle.

TROUBLESHOOTING GUIDE

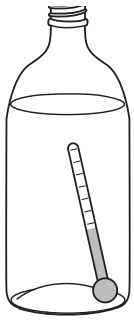
⚠ DANGER

ELECTROCUTION HAZARD. Never attempt to repair or perform maintenance on the unit before disconnecting the main electrical power.

Troubleshooting - What to check when problems occur:

Problem	Possible Cause and Remedy
Interior Light Does Not Illuminate	If the unit is cooling, it may be in Sabbath mode.
Light Remains on When Door Is Closed.	Turn off light switch if equipped. Adjust light actuator bracket on bottom of door.
Unit Develops Frost on Internal Surfaces.	Ensure the door is closing and sealing properly.
Unit Develops Condensation on External Surfaces.	The unit is exposed to excessive humidity. Moisture will dissipate as humidity levels decrease.
Product is Not Cold Enough	Air temperature does not indicate product temperature. See CHECKING PRODUCT TEMPERATURE below. Adjust the temperature to a cooler set point. Ensure unit is not located in excessive ambient temperatures or in direct sunlight. Ensure the door is closing and sealing properly. Ensure the interior light has not remained on too long. Ensure nothing is blocking the front grille, found at the bottom of the unit. Ensure the condenser coil is clean and free of any dirt or lint build-up.

CHECKING PRODUCT TEMPERATURE

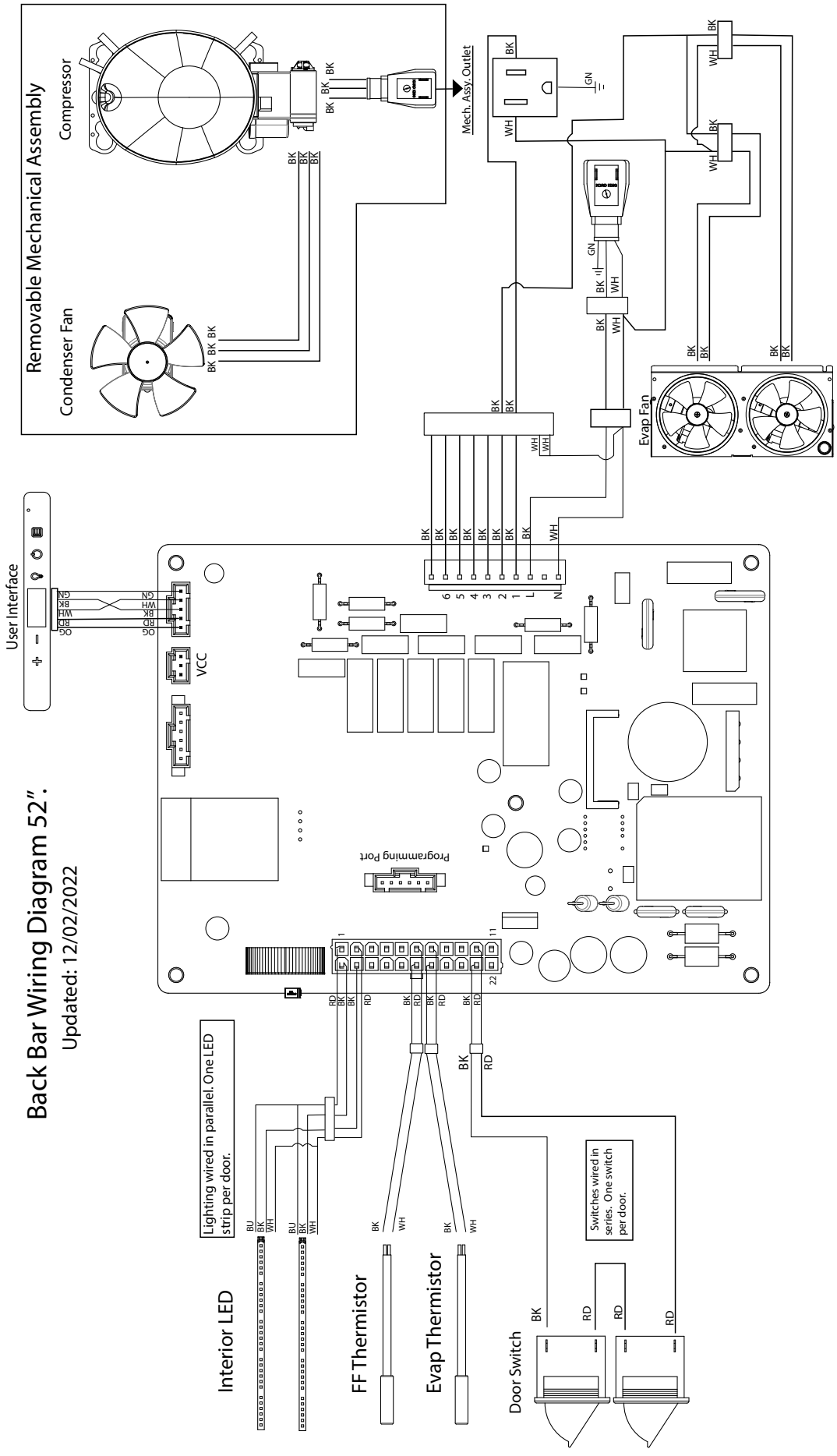


To check the actual product temperature in the unit:

1. Partially fill a plastic (nonbreakable) bottle with water.
2. Insert an accurate thermometer.
3. Tighten the bottle cap securely.
4. Place the bottle in the desired area for 24 hours.
5. Avoid opening the unit during the testing period.
6. After 24 hours, check the temperature of the water. If required, adjust the temperature control in a small increment (see CONTROL OPERATION).

Causes which affect the internal temperatures of the cabinet include:

- Temperature setting.
- Ambient temperature where installed.
- Installation in direct sunlight or near a heat source.
- The number of door openings and the time the door is open.
- The time the internal light is illuminated. (This mainly affects product on the top rack or shelf.)
- Obstruction of front grille or condenser.


Back Bar Wiring Diagram 52".
Updated: 12/02/2022
Removable Mechanical Assembly
Compressor
Condenser Fan
Mech. Assy. Outlet
Evap Fan
User Interface
VCC
Programming Port
Interior LED
Lighting wired in parallel. One LED strip per door.
FF Thermistor
Evap Thermistor
Door Switch
Switches wired in series. One switch per door.

Product Liability

Field service technicians are authorized to make an initial assessment in the event of reported damages. If there are any questions about the process involved, the technician should call the manufacturer for further explanation.

While inspecting for defects or installation issues, photos should be taken to document any damages or issues found.

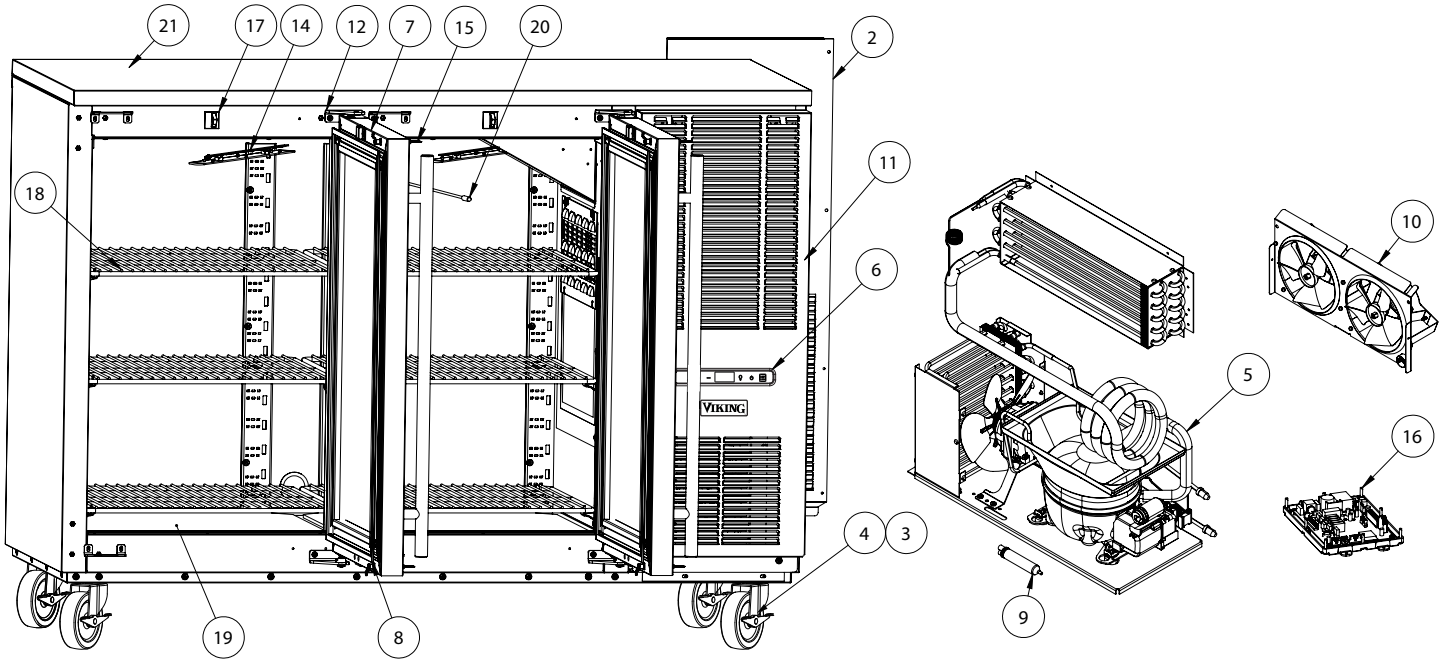
During the assessment, if the service technician is able to find the source of the damage and it can be resolved by replacement of a part, the servicer is authorized to replace the part in question. The part that caused the damage must be returned to the manufacturer in its entirety. The part must be clearly labeled with the serial number of the unit it was removed from, the date, and the servicer who removed the part.

If the service technician determines the damage is the result of installation issues (water connection/drain, etc.), the consumer would be notified and the issues shall be resolved at the direction of the consumer.

If damage is evident and the service technician is unable to find the source, the manufacturer must be contacted at +1.616.754.5601 for further direction.

1260 Van Deinse St. Greenville, MI
T: +1.616.754.5601
Website: vikingrange.com/commercial

Parts



VCBR552-SG01A		
1	ALL-IN-ONE WIRE HARNESSING, 52" *	80-55585-02
2	BACK PANEL W/ SCREWS	80-55535-02
3	CASTER W/BRAKE *	80-55672-04
4	CASTER, SWIVEL *	80-55672-05
5	COMPLETE R290 MECHANICAL SYSTEM	80-55548-03
6	DISPLAY MODULE (UI)	80-55214-06
7	DOOR ASSEMBLY, GLASS BKBR	80-55534-03
8	DOOR GASKET, BKBR	80-55534-04
9	DRIER	80-54055-00
10	EVAPORATOR FAN ASSEMBLY	80-55671-01
11	GRILLE COVER W/SCREWS	80-55555-01
12	HINGE KIT (ONE SET)	80-55012-01
13	LED LIGHT HARNESS, 52" *	80-54000-06
14	LIGHT ASM, 2 COLOR	80-55272-00
15	LOCK ASSEMBLY	80-55672-10
16	MAIN BOARD	80-55398-05
17	ROCKER SWITCH	80-55603-01
18	SHELF W/CLIPS, OUTER	80-55363-03
19	SHELF PROTECTOR	80-55535-03
20	THERMISTOR (1 PC)	80-54006-00
21	WORK TOP, SOLID 52"	80-55585-08

* Not Shown

R290/R600A Specifications

For R290/R600a refrigerant service tips and more videos, go to: www.u-line.com/videos.

⚠ WARNING

Flammability warnings for a pure-iso-butane/ propane refrigerant.

Gloves and Eye Protection must be used.

R290/R600a is considered non-toxic, but is flammable when mixed with air.

Keep a dry powder type fire extinguisher in the work area.

R290/R600a is heavier than air, do not allow any leakage/migration to low areas such as basements and stairs.

Never use a torch on a fully charged refrigeration system.

Never substitute U-Line OEM replacement parts or methods of construction.

R290/R600a must be stored and transported in approved containers.

⚠ WARNING

Only skilled and well trained service technicians permitted to service R290/R600a equipped products.

All tools and equipment must be approved for use with R290/R600a refrigerant.

Local, state and federal laws, standards must be observed along with proper certification and licensing.

Ventilation is required during servicing.

No conversions to R290/R600a from any other refrigerants. OEM R290/R600a equipped unit only.

Service area must be free of ignition sources.

No smoking is allowed in the service area.

All replacement electrical components must be OEM and installed properly (sealed and covered).

If the evaporator is cold prior to service, it must be thawed prior to service.

When using a vacuum pump, start pump before opening refrigeration system.

Vacuum pump and recovery equipment should be at least 10 feet from the work area.

It is recommended that a simple LPG gas detector is on site during service.

Ensure that all R290/R600a is removed from the system prior to brazing any part of the sealed system.

Only a clean, dry, leak-free system should be charged with R290/R600a.

R290/R600a SPECIFICATIONS/LABELING

R290/R600a equipped products are labeled (both the unit and the compressor).

R290/R600a is colorless and odorless.

R290/R600a is considered non-toxic, but is flammable when mixed with air.

Do not remove or alter any R290/R600a labeling on the product.

Use only a refrigerant grade R290/R600a from a properly labeled container.

RECOVERING/RECLAIMING R290/R600a

(R290/R600a has been exempted from recovery/reclaiming requirements by the US EPA)

Recovery/Reclaiming equipment must be approved for use with R290/R600a.

Ensure the evaporator is at room temperature prior to recovery/reclaiming R290/R600a.

Use a common piercing pliers or piercing valve to remove R290/R600a from the compressor process tube. (Note: Piercing devices must not be left on the system and must be replaced with a Schrader type valve.)

Evacuate/reclaim via the piecing pliers to ensure the system is empty of R290/R600a before any system work is performed.

The recovery cylinder must be evacuated (no air inside) prior to accepting R290/R600a.

The recovery cylinder must not be filled more than 45% safe fill level and refrigerants must not be mixed.

The recovery cylinder must be clearly marked with R290/R600a and Flammable Warning labels.

Ensure proper ventilation during recovery/reclaiming of R290/R600a.

Start vacuum pump/recovery pump prior to piercing the compressor process tube.

Follow recovery/reclaim OEM instructions for the specific equipment used.

SYSTEM REPAIR

Ensure no residual R290/R600a refrigerant is left within the system prior to repair (simple venting is not sufficient).

Evacuate and charge with dry nitrogen for leak checks.

Repair leaks or replace system parts as required.

When re-brazing, the system must be purged with dry nitrogen and at least one access point open to the atmosphere.

When re-brazing, proper ventilation is required along with constant monitoring for the presence of R290/R600a refrigerant.

The filter dryer must be replaced any time the sealed system is serviced.

No system should be open to the atmosphere for longer than 15 minutes to avoid moisture migration into the system components.

LEAK DETECTION

After removal of the R290/R600a, the unit can be charged with dry nitrogen or helium.

Electronic leak detection or soap solution can be used to check for nitrogen/helium leaks.Evacuate and charge with dry nitrogen for leak checks.

Never use a halide torch or lighted match to check the system for leaks at any time.

The high side of the refrigeration system (compressor discharge to outlet of drier) must be leak tested with the compressor running.

The low side of the refrigeration system (evaporator, compressor and suction line) must be leak tested with the compressor off (equalized pressure).

RECHARGING

No air is ever to be allowed inside the refrigeration system (R-600a refrigerant or dry nitrogen only).

Never use a torch on a fully charged refrigeration system.

Install a Schrader Type access port on the compressor process stub.

Evacuate the system to 100 microns prior to charging. Weigh in the R290/R600a charge using a refrigerant scale. (run compressor an extra two minutes to clear the charging hoses).

Seal the Schrader Type access port, a proper cap and seal must be used to close the system.

No system should be open to the atmosphere for longer than 15 minutes to avoid moisture migration into the system components.

SUMMARY

Safely handling R290/R600a requires proper procedures and training.

R290/R600a approved service tools must be used.

R290/R600a labeling must not be removed or altered.

Proper ventilation during service is required.

Never apply a torch to a charged R290/R600a refrigeration system.

Use OEM replacement service parts and do not alter the construction of the unit.

No air is ever to be allowed inside the refrigeration system (R290/R600a refrigerant or dry nitrogen only).

Never use a torch on a fully charged refrigeration system. Install a Schrader Type access port on the compressor process stub.

The filter dryer must be replaced any time the sealed system is serviced.

No system should be open to the atmosphere for longer than 15 minutes to avoid moisture migration into the system components.

LEAK DETECTION

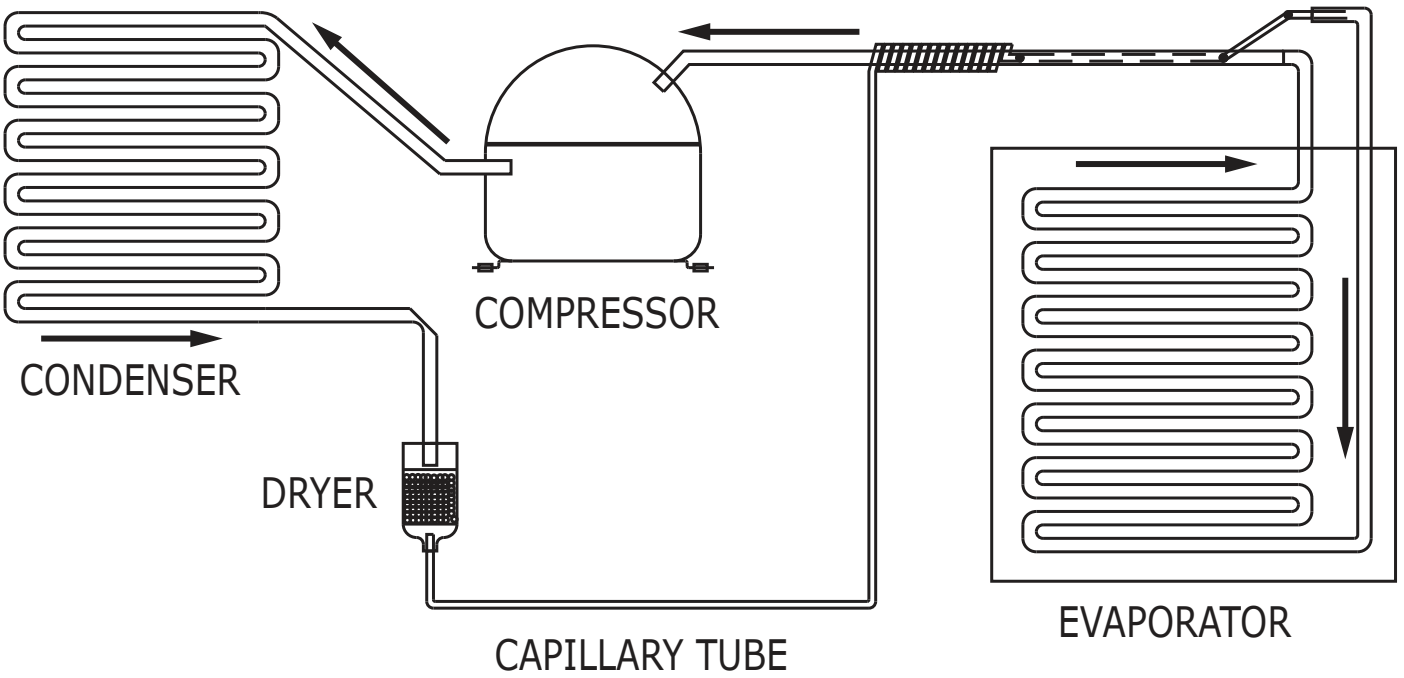
After removal of the R290/R600a, the unit can be charged with dry nitrogen or helium.

Electronic leak detection or soap solution can be used to check for nitrogen/helium leaks.Evacuate and charge with dry nitrogen for leak checks.

System Diagnosis Guide

REGRIGERATION SYSTEM DIAGNOSIS GUIDE

System Condition	Suction Pressure	Suction Line	Compressor Discharge	Condenser	Capillary Tube	Evaporator	Wattage
Normal	Normal	Slightly below room temperature	Very hot	Very hot	Warm	Cold	Normal
Overcharge	Higher than normal	Very cold may frost heavily	Slightly warm to hot	Hot to warm	Cool	Cold	Higher than normal
Undercharge	Lower than normal	Warm- near room temperature	Hot	Warm	Warm	Extremely cold near inlet - Outlet below room temperature	Lower than normal
Partial Restriction	Somewhat lower than normal vacuum	Warm- near room temperature	Very hot	Top passes warm - Lower passes cool (near room temperature) due to liquid	Room temperature (cool) or colder	Extremely cold near inlet - Outlet below room temperature backing up	Lower than normal
Complete Restriction	In deep vacuum	Room temperature (cool)	Room temperature (cool)	Room temperature (cool)	Room temperature (cool)	No refrigeration	Lower than normal
No Gas	0 PSIG to 25"	Room temperature (cool)	Cool to hot	Room temperature (cool)	Room temperature (cool)	No refrigeration	Lower than normal



Compressor Specifications

DANGER

Electrocution can cause death or serious injury. Burns from hot or cold surfaces can cause serious injury. Take precautions when servicing this unit.

Disconnect the power source.

Do not stand in standing water when working around electrical appliances.

Make sure the surfaces you touch are not hot or frozen.

Do not touch a bare circuit board unless you are wearing an anti-static wrist strap that is grounded to an electrical ground or grounded water pipe.

Handle circuit boards carefully and avoid touching components.

	EM2X3125U
REFRIGERANT	R290
VOLTAGE	120 VAC
FREQUENCY	60 Hz
START WINDING	5 Ohm at 77° F
RUN WINDING	3 Ohm at 77° F
RUN TO START	8 Ohm at 77° F
LRA	16.8 A
FLA	3.8 A
STARTING DEVICE	8EA14xx/8EA21xx
OVERLOAD	CP4TM C460N61Ax

*All resistance readings are ± 10%

	FMXA9C
REFRIGERANT	R600A
VOLTAGE	230 VAC
FREQUENCY	43-134 Hz
START WINDING	20 Ohm at 77° F
RUN WINDING	20 Ohm at 77° F
RUN TO START	20 Ohm at 77° F
LRA	1.7 A
FLA	1.7 A
STARTING DEVICE	Inverter CF02C05
OVERLOAD	Inverter CF02C05

*All resistance readings are ± 10%

Troubleshooting - Extended

⚠ CAUTION

Never attempt to repair or perform maintenance on the unit until the main electrical power has been disconnected from the unit.

SPECIFIC ERRORS AND ISSUES

The advanced diagnostic capabilities of the electronic controls utilized on the 1, 3, and 5 Class units allow for easy and thorough troubleshooting.

Navigation of the control is the key and is explained in the CONTROL OPERATION section of the manual, along with control button layout, control function descriptions, a service mode menu and service menu selection explanations.

Verification of temperature and thermistor performance can be identified by directly viewing thermistor readings in the service mode.

Included in this section are some diagnostic tips and of course, if additional help is required, please contact the U-Line Corp, “Customer Care Facility” at +1.414.354.0300 for assistance.

NORMAL OPERATING SOUNDS

All models incorporate rigid foam insulated cabinets to provide high thermal efficiency and maximum sound reduction for its internal working components. Despite this technology, your model may make sounds that are unfamiliar.

Normal operating sounds may be more noticeable because of the unit’s environment. Hard surfaces such as cabinets, wood, vinyl or tiled floors and paneled walls have a tendency to reflect normal appliance operating noises.

Listed below are common refrigeration components with a brief description of the normal sounds they make. NOTE: Your product may not contain all the components listed.

- Compressor: The compressor makes a hum or pulsing sound that may be heard when it operates.
- Evaporator: Refrigerant flowing through an evaporator may sound like boiling liquid.
- Condenser Fan: Air moving through a condenser may be heard.
- Automatic Defrost Drain Pan: Water may be heard dripping or running into the drain pan when the unit is in the defrost cycle.

Solenoid Valves: An occasional clicking sound may be heard as solenoid valves are operated.

TROUBLESHOOTING GUIDE

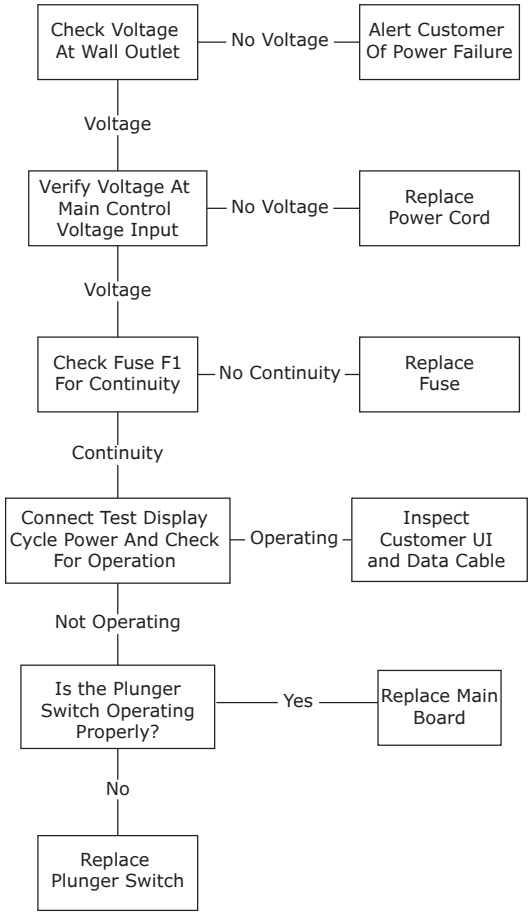
Concern	Potential Causes	Action
Not Cooling	Compressor overheating	Verify proper air flow through condenser. Is condenser clean?
		Confirm condenser fan operation.
	Compressor not operating	Test overload and relay, replace as needed.
	Compressor operating - no cooling	Refer to System Diagnosis Guide.
Frozen Product	Control set too cold	Adjust Set Point Temp accordingly.
	Thermistor failure	Check Error Log in Service Mode, OHM thermistor.
Frost Buildup Inside Unit	Door Ajar or Restricted from Closing	Check door clearance to adjoining cabinetry. Check distribution of product in unit.
	Thermistor failure	OHM thermistor
Display Not Working	Display unplugged	Verify that both ends of the display wiring are firmly connected.
	Display wiring broken or damaged	Perform continuity test of wiring and replace as needed.
Interior Lights Not Working	Door switch misaligned or defective	Check the function of reed switch and door magnet adjustment.
Noisy	Refrigeration tubing touching cabinet	Carefully reposition tubing.
	Fan blade obstruction (wiring, foam insulation, packaging material)	Remove obstruction.

MAIN CONTROL

The main control board is very robust and is rarely the cause of system issues. It is important to fully diagnose the board for any suspected failures before attempting to remove the board for replacement or service. Follow the guidelines below to fully test and diagnose the main control.

Power Fault

If the unit does not (or seems to not) power on, follow the flow chart below to help diagnose the issue. Before beginning it is important to first verify the unit is not simply set to sabbath mode.

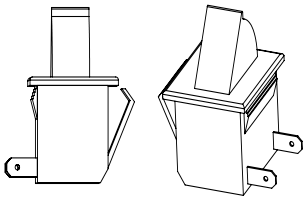


⚠ CAUTION

Precautions must be taken while working with live electrical equipment. Be sure to follow proper safety procedures while performing tests on live systems.

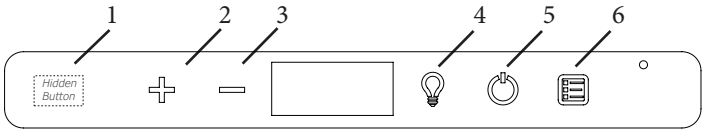
PLUNGER SWITCH

A plunger switch is used to monitor door state. When the door is closed it comes into contact with the plunger which closes a circuit which turns the light and display off. When the door is open the plunger moves outward and opens the circuit. If the door is left open for longer than 5 minutes the switch will trigger an error code and set an audible warning.



Control Operation-Service

UI BUTTON LAYOUT



1. **Hidden Button**
   -Access Service Menu
   -No LED directly above. All LEDs turn on with button

2. **Plus Button**
   -Increases temperature
   -Navigates through service menu

3. **Minus Button**
   -Decreases temperature
   -Navigates through service menu

4. **Light Button**
   -Activates light for 3 hours on select models
   -Used to select items in service menu

5. **Power Button**
   -Turns unit off/on

6. **Clean Button**
   -Toggles between zones in Dual-Zone models

CONTROL FUNCTION GUIDE

FUNCTION	COMMAND	DISPLAY/OPTIONS
ON/OFF	Press ⏻ and release	Unit will immediately turn ON or OFF
Showroom Mode	See below	
Service Mode	See below	

SHOWROOM MODE

This mode is designed to show units in a display environment. When in this mode the only functions will be the control and cabinet lights. The compressor, fans, etc. will not operate. To enter/exit this mode hold the light key and the power key for 5 seconds. The display will flash once and beep and the degree symbol will begin to flash. When the degree symbol is flashing the unit will allow the use of the control for demonstrations. The unit can be left in this mode indefinitely.

SERVICE MODE

This mode has options available for service diagnostics. To enter the mode hold the hidden key for 10 seconds. The display will show “0.” When in this mode use the up and down arrows to select the desired option. The LIGHT key is the ENTER key and will initiate the function. If changing a setting, you must press the LIGHT key again to retain the changed setting. To exit the service mode scroll to option “0” and press the LIGHT key. After five minutes of not touching any keys the mode will also exit automatically.

SERVICE MODE GUIDE

0. Exit
1. Thermistor 1 temperature not including offsets.
2. Thermistor 2 temperature not including offsets.
3. N/A
4. N/A
5. Thermistor 1 offset. (+/- 10) SEE APPENDIX
6. Thermistor 2 offset. (+/- 10) SEE APPENDIX
7. N/A
8. N/A
9. Thermistor 2 set point
10. N/A
11. N/A
12. Defrost Interval (0 to 99 hr)
13. Defrost duration (0 to 99 min)
14. Error Log (See Appendix)
15. Clear error log (hold light key until cleared)
16. Thermistor 1 differential (+5) **FACTORY USE ONLY**
17. N/A
18. Evaporator fan on delay (0 to 99 sec) SEE APPENDIX
19. Evaporator fan off delay (0 to 99 sec) SEE APPENDIX
20. Individual component toggle
    - Option #0 – Exit
    - Option #1 – Relay 1 COMPRESSOR/CONDENSER FAN
    - Option #2 – Relay 2 EVAPORATOR FANS
    - Option #3 – Relay 3 N/A
    - Option #4 – Relay 4 N/A
    - Option #5 – Relay 5 N/A
    - Option #6 – Relay 6 N/A
    - Option #7 – DC Output 1 LIGHT #1, WHITE
    - Option #8 – DC Output 2 LIGHT #2, BLUE
    - Option #9 – DC Output 3 N/A
    - Option #10 – DC Output 4 N/A
    - Option #11 – DC Output 5 N/A
    - Option #12 – Serial output (Compressor)
21. Model number #64=CBR72-92, #66=CBR32-52
22. Light All Segments
23. Activate Defrost - press and hold for 3 seconds to activate defrost
24. Defaults- press and hold for 3 seconds to restore all values to factory defaults.
25. Main Software (Display only)
26. Live Log Period (frequency that data is output to diagnostics port) **FACTORY USE ONLY**
27. Factory test mode (0=Off, 1=On) **FACTORY USE**
28. Compressor RPM **FACTORY USE ONLY**
29. N/A
30. N/A
31. N/A
32. N/A

APPENDIX

SERVICE MODE GUIDE

1. **THERMISTOR 1**
   This shows the pure thermistor reading with no offsets taken into account.
2. **THERMISTOR 2**
   This shows the pure thermistor reading with no offsets taken into account.
3. Does not apply to this model.
4. Does not apply to this model.
5. **THERMISTOR 1 OFFSET**
   (DO NOT MAKE AN ADJUSTMENT TO THIS WITHOUT CONTACTING TECH LINE: 800-779-2547)
   This calibration is only to be used if actual temperature at thermistor #1 is off from set point. By adjusting the offset higher we can force the unit to drive the temperature down below the set point. (example: adjusting from 0 to +2 will drop the unit temperature 2 degrees)
6. **THERMISTOR 2 OFFSET**
   (DO NOT MAKE AN ADJUSTMENT TO THIS WITHOUT CONTACTING TECH LINE: 800-779-2547)
7. Does not apply to this model.
8. Does not apply to this model.
9. **THERMISTOR 2 — SET POINT MINUS OFFSET**
   This shows the thermistor reading with offsets taken into account.
10. Does not apply to this model.
11. Does not apply to this model.
12. **ADJUST DEFROST INTERVAL — 3 TO 24 HOURS**
    This will adjust the interval between defrosts from 3 to 24 hours. Adjusting from the factory settings may cause undesired temperature.
13. **ADJUST DEFROST DURATION — 0 TO 99 MINUTES**
    The length of the defrost can be adjusted 0 to 99 minutes long. The other defrost parameters still apply. Lengthening a defrost may cause higher than normal temperatures in the refrigerator section.
14. **VIEW ERROR LOG**
    A list of errors in the order they occurred will scroll on the display. All errors are logged in memory. Only door error is displayed on the display and has an audible signal.
    E0: Door 1 open.
    E1: Thermistor 1 open.
    E2: Thermistor 2 open.

E3: Thermistor 3 open (Does not apply to this model).

E4: Thermistor 4 open (Does not apply to this model).

E5: Thermistor 1 shorted.

E6: Thermistor 2 shorted.

E7: Thermistor 3 shorted. (Does not apply to this model).

E8: Thermistor 4 shorted (Does not apply to this model).

E9: Door 1 open.

E10: Door 2 open.

E11: (Does not apply to this model).

E12: (Does not apply to this model).

E13: (Does not apply to this model).

P1: Pump Circuit open (Does not apply to this model).

15: **CLEAR ERROR LOG**

To clear errors, press and hold (5 seconds) when CLR is flashing.

16: **THERMISTOR - 1 DIFFERENTIAL**

This number should not be adjusted.

17. Does not apply to this model.
18. **THIS NUMBER SHOULD NOT BE ADJUSTED**
19. **THIS NUMBER SHOULD NOT BE ADJUSTED**
20. **INDIVIDUAL COMPONENT TOGGLE SEE RELAY / OUTPUT CHART**
21. **MODEL NUMBER INDICATOR**
    Displays the two-digit model number of the specific unit. See Model list table.
22. **LIGHT ALL LED SEGMENTS**
    This will illuminate all the LEDs on the display to ensure they work properly
23. **ACTIVATE DEFROST /HARVEST**
    -Press and hold for 3 seconds to activate
24. **FACTORY DEFAULTS**
    -Press and hold for 3 seconds to restore all values to factory defaults
25. **MAIN SOFTWARE**
26. Does not apply to this model
27. **FACTORY TEST MODEL**
    0 = Off, 1 = On
28. **COMPRESSOR RPM FACTORY USE ONLY**
29. **N/A**
30. **N/A**
31. **N/A**
32. **N/A**

Display #	Relay / Output

- Option #0 – Exit
- Option #1 – Relay 1
- Option #2 – Relay 2
- Option #3 – Relay 3
- Option #4 – Relay 4
- Option #5 – Relay 5
- Option #6 – Relay 6
- Option #7 – DC Output 1
- Option #8 – DC Output 2
- Option #9 – DC Output 3
- Option #10 – DC Output 4
- Option #11 – DC Output 5
- Option #12 – Serial output (Compressor)

MODEL LIST

Model #	Back Bar Units
64	CBR572
64	CBR592
66	CBR532
66	CBR552

PROGRAMMING THE UNIT TO CORRECT MODEL NUMBER

1. Disconnect the unit from power source.
2. Push and hold the hidden button.
3. While still holding the U-Line button, plug the unit into the appropriate power source.
4. When the flashing digits appear (3-5 seconds), use the up and down arrow buttons to select the appropriate model number from the chart below.
5. Press the light bulb button once.
6. The display will blink, and then will appear as the programmed display.

Relay / Output Chart

Program	Model	Relay 1	Relay 2	Relay 3	Relay 4	Relay 5	Relay 6	DC1	DC2	DC3	DC4	DC5
07	**BV515-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
09	**BV524-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
11	Clear Ice, 3 Class	Compressor	Water Dispense	Circ Pump	Water Inlet	Hot Gas Valve	Cond Fan	Light 1	Light 2	-	-	Cond Fan
15	**FZ1224											
23	**RE515-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
25	**RE524-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
29	**KR524-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
37	**WC515-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
38	**WC524-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
43	**BD524-***1A	Compressor	Top/Left Valve	Bot/Right Valve	-	-	-	Light 1	Light 2	Evap Fan	Evap Fan 2	Cond Fan
48	**WD524-***1A	Compressor	Top/Left Valve	Bot/Right Valve	-	-	-	Light 1	Light 2	Evap Fan	Evap Fan 2	Cond Fan
50	**RF124-***1A	Compressor	-	-	Pan	Defrost Heater	Cond Fan	Light 1	Light 2	Evap Fan	-	Cond Fan
52	**RI124-***1A	Compressor	Icemaker 2	Icemaker 1	Pan	Defrost Heater	Cond Fan	Light 1	Light 2	Evap Fan	-	Cond Fan
53	Nugget Ice, R134	Comp/Fan	-	Dump Valve	Reservoir Fill	Auger	Water Main	Light 1	Light 2	-	-	Cond Fan
54												
57	Nugget Ice, R600	Water Main	Water Dispense	Dump Valve	Reservoir Fill	Auger	Cond Fan	Light 1	Light 2	-	-	Cond Fan
64	CBR572-92 BACK BAR	Compressor Condenser Fan	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	-
66	CBR532-552 BACK BAR	Compressor Condenser Fan	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	-
79	**CP115-**81A	Compressor	Water Dispense	Circ Pump	Water Inlet	Hot Gas Valve	Cond Fan	Light 1	Light 2	-	-	Cond Fan
80	**NP115-**81A	Water Main	Water Dispense	Dump Valve	Reservoir Fill	Auger	Cond Fan	Light 1	Light 2	-	-	Cond Fan

Thermistor

Thermistors are used for various temperature readings. Thermistors provide reliable temperature readings using a resistance which varies based on surrounding temperatures. If a faulty thermistor is suspected it may be tested using an accurate ohmmeter.

Both thermistors in the unit are identical. If a thermistor is suspected of being defective, the resistance can be verified. Place the thermistor in an ice water bath, the resistance should read 16.1k Ohms +/-5% on your meter.

Thermistor connections must be kept clean. A thermistor connection that has become corroded can cause resistance values from the thermistor to change as they pass through a dirty connection to the board.

It is for that reason that we apply dielectric grease to all of our thermistor connections. Dielectric grease will help to keep thermistor connections clean and dry.

If you change a thermistor in the unit please re-apply dielectric grease to the connection. If you encounter a dirty thermistor connection, you should replace the thermistor and the thermistor harness.

Thermistor error information can be found in the Control Operation - Service section.

This unit has **one** thermistor.

Thermistor one (Zone):

Located along the right hand side wall. It is used to maintain the operating temperature within that zone.

THERMISTOR FAILURE

Zone Thermistor

If the zone thermistor in the unit fails, the unit will continue to cool in a backup mode (Self Preservation Mode) to preserve the integrity of the contents. The unit will otherwise operate normally.

Thermistor Resistance Data

Temp (F)	Temp (C)	Nominal Resistance (OHMS)*
-40	-40	169157
-31	-35	121795
-22	-30	88766
-13	-25	65333
-4	-20	48614
5	-15	36503
14	-10	27681
23	-5	21166
32	0	16330
41	5	12696
50	10	9951
59	15	7855
68	20	6246
77	25	5000
86	30	4029
95	35	3266
104	40	2665
113	45	2186
122	50	1803
131	55	1495
140	60	1247
149	65	1044
158	70	879
167	75	743
176	80	631

* (+/ - 5%)

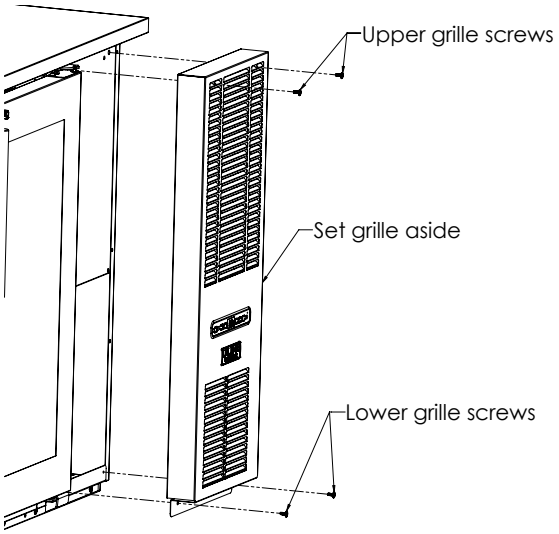
Defrost

If you have verified that the unit does not have an ambient air leak, utilize the **Control Operation - Service** section and adjust unit to defrost longer and/or more/less often as needed.

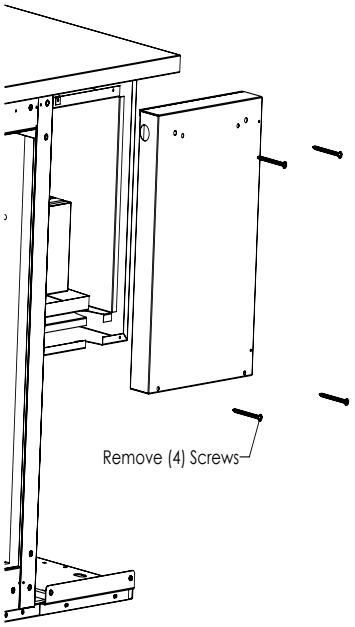
Remove Fan and Cover

Evaporator Fan Replacement

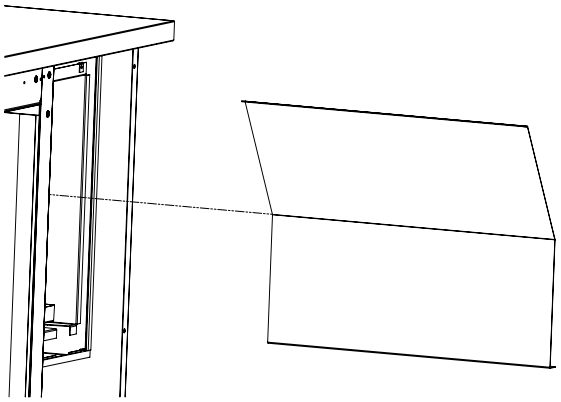
1. **Disconnect power from the unit before starting.** Remove the front cover grille. Take out the two upper and two lower screws. Disconnect the power cord from the back of the



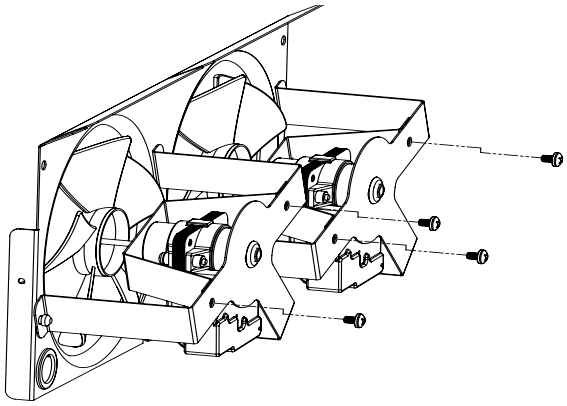
2. Remove the evaporator box cover. Take out the four long screws and set the cover aside, exposing the evaporator compartment.



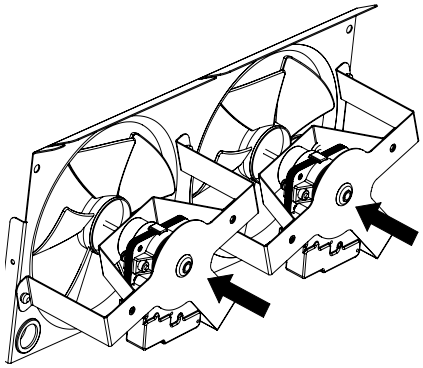
3. Remove the evaporator air deflector cooling baffle by sliding it out and set aside.



4. Remove (4) screws to detach fan assembly from assembly from mounting bracket assembly.



5. Grab ahold of each fan assembly and push toward the interior of the unit to remove the motor shaft from the rubber gasket.



6. Once the shaft is free of the gasket, rotate the fan assembly upward and out toward you and away from the mounting bracket.

7. Installation is the reverse of removal.

8. Take special care to properly route wires away from fans and copper tubing and make sure fan motor is secured in rubber gasket.

9. Use sealant gum to seal any openings at rear of unit before replacing covers.

10. Reinstall unit taking care to level, space and secure as found.

CLEANING AND MAINTENANCE

- **Clean the Condenser Every Six Months**

⚠ CAUTION

Failure to keep the condenser clean can result in permanent damage to the compressor.

The condenser coil is located near the compressor and usually at the bottom of the machine. In order for the condenser to perform efficiently, it must be cleaned about every six months to remove dust and debris and prevent overheating.

- **Deep Clean the Ice Machine Every Six Months**

⚠ CAUTION

Neglecting this cleaning will lead to mold or mildew buildup, cloudy ice, reduced water flow, reduced ice production, and damage to the machine.

⚠ CAUTION

Use only manufacturer-approved, nickel-safe ice machine cleaner and follow all label warnings and directions. Order ice machine cleaner online: www.u-line.com.

Every six months the ice machine requires a thorough cleaning to remove debris from the bin and flush out impurities that accumulates from the water supply; clear, craft, and nugget machines are equipped with a built-in cleaning cycle.

⚠ CAUTION

- **Clean Stainless Steel Surfaces**

Your machine is built with quality stainless steel, but it can still rust when not properly maintained.
- Avoid exposure to outdoor elements such as rain, snow, sprinklers or pool splash.
- Use only a non-chlorine, non-abrasive stainless steel cleaner.
- Inspect the machine for any signs of rust. When spotted early, the rust is only on the surface and can usually be scrubbed off.

SAFE INSTALLATION AND MAINTENANCE

- **Outdoor Operation**

⚠ CAUTION

Only machines designed for outdoor use may be operated outdoors.
- The machine should be installed under cover, to avoid exposure to rain, snow, and direct sun.
- The machine should not be not be exposed to chlorinated water such as from pool or hot tub splash.
- Do not operate in temperatures below 45°F (7°C) or above 100°F (38°C).

- **Indoor Operation**

- Install where the machine will not be exposed to direct sunlight - especially if the appliance a glass door.
- Do not install the machine where it will be exposed to chlorinated water such as from an indoor pool or hot tub splash.
- Do not operate in temperatures below 50°F (10°C) or above 100°F (38°C).

- **Location and Ventilation**

- Do not block the grille on the front base of the machine; proper airflow is essential to cooling.
- Do not operate the appliance inside a cabinet; it has been designed to operate under a counter or free-standing (certain models only).

- **Proper Sealing - Beverage Dispensers**

- If not sealed properly, excessive condensation, limited cooling, and damage to the machine will occur. When correctly installed, the insulation should extend from within the refrigerator, through the counter, and into the tap tower.

ELECTRICAL AND DRAINAGE REQUIREMENTS

- **Operate With a Safe Electrical Connection**

⚠ CAUTION

Only operate the appliance on a dedicated circuit to avoid power fluctuations and overloads.
- Do not use an extension cord. Only the supplied power cord directly connected to an outlet ensures that the machine will safely receive adequate power. Extension cords can become unplugged accidentally, overheat, or become damaged. Improper electrical connection will void the warranty.

- **Operate With Proper Drainage**

If your appliance requires a drain hookup consult a plumber for proper installation. Improper drainage can cause damage to the machine as well as its surroundings. Improper drainage will void the warranty.

Middleby Refrigeration Limited Warranty

THREE YEAR LIMITED PARTS & LABOR WARRANTY – Viking Commercial and U-Line Commercial

For three years from the date of shipment from the factory this warranty covers all parts and labor to repair or replace any part of the referenced Middleby Refrigeration product (the "Equipment") that under normal use proves to be defective in materials or workmanship. This warranty is conditioned upon you promptly notifying Middleby Refrigeration of any claims, and providing Middleby Refrigeration with all data and information requested by Middleby Refrigeration or its service agents in connection with such claims as well as all necessary access to your premises and the Equipment. All service provided by Middleby Refrigeration under the above warranty must be performed by a Middleby Refrigeration factory authorized servicer and dispatched from the factory, unless otherwise specified by Middleby Refrigeration. Warranty labor is provided at straight time only.

LIMITED FIVE YEAR SEALED SYSTEM PARTS WARRANTY – Viking Commercial and U-Line Commercial

For five years from the date of original purchase, Middleby Refrigeration will cover the following parts only(no labor) if they prove to be defective under normal commercial use: compressor.

WARRANTY TERMS

These warranties apply only to Equipment installed in any one of the fifty states of the United States, the District of Columbia, or the ten provinces of Canada. The Equipment must be installed, operated, and maintained in accordance with Middleby Refrigeration Brand User, Installation and Service Guides, copies of which were provided to you with the Equipment or otherwise will be furnished to you upon request. Further, this warranty applies only to Equipment shipped from the Middleby Refrigeration facility after July 1, 2025 and purchased from an authorized dealer.

Except as provided in the Limited Warranty above, the Equipment is provided "as-is". Middleby Refrigeration disclaims all other warranties, express, statutory or implied, including without limitation, the implied warranties of title, non-infringement, merchantability and fitness for a particular purpose. Middleby Refrigeration does not warrant that the Equipment will meet your specifications or needs. You acknowledge that you are solely responsible for the selection of the Equipment and determining the suitability of the Equipment for your needs.The warranties only apply to the original purchaser and are non-transferable. Service must be dispatched from Middleby Refrigeration to be eligible for warranty coverage. The warranties apply to units operated outside only if designed for outdoor use by model and serial number. Replacement water filters, light bulbs, and other consumable parts are not covered by these warranties. In-home/business instruction on how to use your product is not covered by these warranties. Food, beverage, and medicine loss are not covered by these warranties. Use of non OEM parts will void this warranty.

If the Equipment is located in an area where Middleby Refrigeration factory authorized service is not available, you may be responsible for a trip charge or you may be required to bring the Equipment to a Middleby Refrigeration factory authorized service location at your own cost and expense.

Units purchased after use as floor displays, and/or certified reconditioned units, are covered by the limited one year warranty only and no coverage is provided for cosmetic defects.

To maintain warranty coverage, all preventative maintenance procedures outlined in the Use and Care Manual must be followed.

Signal issues related to Wi-Fi connectivity are not covered by these warranties.

Equipment that is not installed, operated and maintained in accordance with Middleby Refrigeration's Use and Care Manual or other written materials provided to you by Middleby Refrigeration or available for the Equipment (as may be updated by Middleby Refrigeration from time to time, the "Manual"), a copy of which is provided to you with the Equipment or otherwise will be furnished to you upon request, is excluded from this warranty. This warranty does not apply to damage or failure which results, in

Middleby Refrigeration's or its service agent's sole opinion, from failure to provide a suitable installation and operating environment (including power and HVAC if applicable) and facilities as prescribed by the Manual, misuse, abuse, accident or improper use, neglect, power failure or power surges (over or under voltage), or to damage or failure from flood, fire, lightning or other natural or man-made disasters, or other Acts of God, or to Equipment that has missing or altered serial numbers.

Modifications and Repair: Equipment that has been modified or altered by persons other than Middleby Refrigeration's or its service agents, or Equipment that has had non-approved devices or connection items attached thereto, is excluded from coverage under this warranty. Repair of the Equipment by anyone other than Middleby Refrigeration's or its authorized service agents will void all warranties on the Equipment.

Accessories: Accessories and parts (collectively "Accessories") that are consumed in the normal course of Equipment operation or maintenance are excluded from this warranty. Failure of or damage to Equipment or components from the use of non-approved cleaning chemicals, devices or processes is also excluded from this warranty.

Warranty Service, Exclusive Remedy

Middleby Refrigeration will be solely responsible for determining whether or not the Equipment or any component thereof is defective. Defective components covered by this warranty will be repaired or replaced at Middleby Refrigeration's option without charge to you and such repaired or replacement components will be covered by this warranty for the balance of the Warranty Period. Parts used in the repair of defective components and replacement components may be new, recovered or rebuilt. At its sole option, Middleby Refrigeration may decide to replace defective Equipment covered by this warranty with new, recovered or rebuilt Equipment of equal or greater capability, and such Equipment will be covered by this Limited Warranty for the balance of the Warranty Period. Defective Equipment and components will become the property of Middleby Refrigeration. This paragraph states Middleby Refrigeration's sole and exclusive obligation and liability and your sole and exclusive remedy under this warranty. Middleby Refrigeration shall not be responsible for a failure to provide warranty services due to causes beyond Middleby Refrigeration's or its service agents' control.

Warranty Claims

Claims under this warranty must be reported to Middleby Refrigeration under such reporting service as Middleby Refrigeration may designate. Upon receipt of the claim and related information and preliminary verification that the claim is valid, Middleby Refrigeration will promptly notify an authorized service agent to contact you and arrange for an on-site repair visit during the service agent's normal working hours. Any costs incurred by Middleby Refrigeration or its service agent associated with a service agent being refused or unable to gain access to the Equipment on your premises, or a claim not covered by this warranty, will be charged to you.

Disclaimer of Damages

Middleby Refrigeration disclaims all incidental, special and consequential damages, including but not limited to loss of use, lost revenue or profits, or substitute use, suffered by you or any third party, whether arising in contract, tort (including negligence), or otherwise, resulting from any breach by Middleby Refrigeration or its service agents of this warranty, or resulting from the manufacture, use, or defects, of or in the Equipment, even if Middleby Refrigeration was apprised of the possibility of such damages.

Customer Indemnity

You agree to indemnify, defend and hold Middleby Refrigeration harmless from all third party claims, demands, judgments, fees and costs directly or indirectly arising out of or related to your use of the Equipment. You further agree to indemnify and hold Middleby Refrigeration harmless from any incidental, consequential or special damages suffered by you, including lost revenue or profits, loss of use, or substitute use, during periods of Equipment failure or loss of use.

Governing Law, Entire Warranty

This warranty shall be governed and construed in accordance with the laws of the State of Michigan, USA (except with respect to its provisions regarding conflicts of laws). The warranty described herein is the complete and only warranty for Equipment and supersedes all prior oral or written agreements and understandings that may have existed between us relating to Equipment warranties. The terms of this warranty may not be altered, amended or modified except by a signed writing from Middleby Refrigeration. Any purported alteration, amendment or modification by a service agent or anyone else will not be enforceable against Middleby Refrigeration.

Charges for Non-Warranty Service or Rejection of Service Visit

In the event that repairs, replacement or service are provided by Middleby Refrigeration's service agents for work not covered by this limited warranty, customer agrees to pay the service agent directly according to the service agent's normal scale of charges. In the event Middleby Refrigeration is invoiced by the service agent for services not covered under this extended warranty, Middleby Refrigeration will invoice customer and customer will pay such invoice based on terms of net 10 days. Customer also agrees to pay any cost incurred by Middleby Refrigeration or its service agent associated with a service agent responding to a call for service, but then being refused or unable to gain access to the Equipment on Customer's premises. Failure to submit payment may, at Middleby Refrigeration's discretion, result in Middleby Refrigeration voiding the balance of the warranty. In no event will Middleby Refrigeration authorize service to a customer with an outstanding Non-Warranty invoice.

For parts and service assistance, or to find factory authorized service near you, contact Middleby Refrigeration at 616.754.5601.