# USER GUIDE & SERVICE MANUAL



VIKING®

Model: VCWD630-SG41A

# USER GUIDE & SERVICE MANUAL

**Click on any section below to jump directly there**

## Table of Contents


Intro

Safety

- Safety and Warning
- Disposal And Recycling

Installation

- Environmental Requirements
- Electrical
- Cutout & Product Dimensions
- Anti-Tip Bracket
- General Installation
- Grille Installation
- Door Swing
- Interior Adjustments

Maintenance

- Cleaning
- Cleaning Condenser

Operating Instructions

- First Use
- Control Operation
- Recommended Wine Storage

Service

- Troubleshooting
- Wire Diagram
- Product Liability
- Parts
- R600a Specifications
- System Diagnosis Guide
- Compressor Specifications
- Troubleshooting Extended
- Control Operation - Service
- Thermistor
- Defrost
- Warranty

**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.**

**⚠ DANGER**

**This unit contains R600a (Isobutane) which is a flammable hydrocarbon. It is safe for regular use. Do not use sharp objects to expedite defrosting. Do not service without consulting the "R600a specifications" section included in the User Guide. Do not damage the refrigerant circuit.**

**⚠ DANGER**

**Service must be done by factory authorized service personnel. Any parts shall be replaced with like components. Failure to comply could increase the risk of possible ignition due to incorrect parts or improper service.**

**⚠ WARNING**

**CALIFORNIA PROPOSITION 65**

**This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.**

**www.P65warnings.CA.gov**

**⚠ CAUTION**

**This equipment is to be installed with adequate backflow protection to comply with applicable federal, state and local codes.**

**⚠ CAUTION**

**This equipment is intended for the storage and display of packaged products only.**

If this refrigerator has a glass door, it is a display refrigerator. Please see caution statement below:

**⚠ CAUTION**

**This display refrigerator is not for the display of potentially hazardous foods.**

## 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 model is intended for indoor/interior applications only and is not to be used in installations that are open/ exposed to natural elements.

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

**PREPARE SITE**

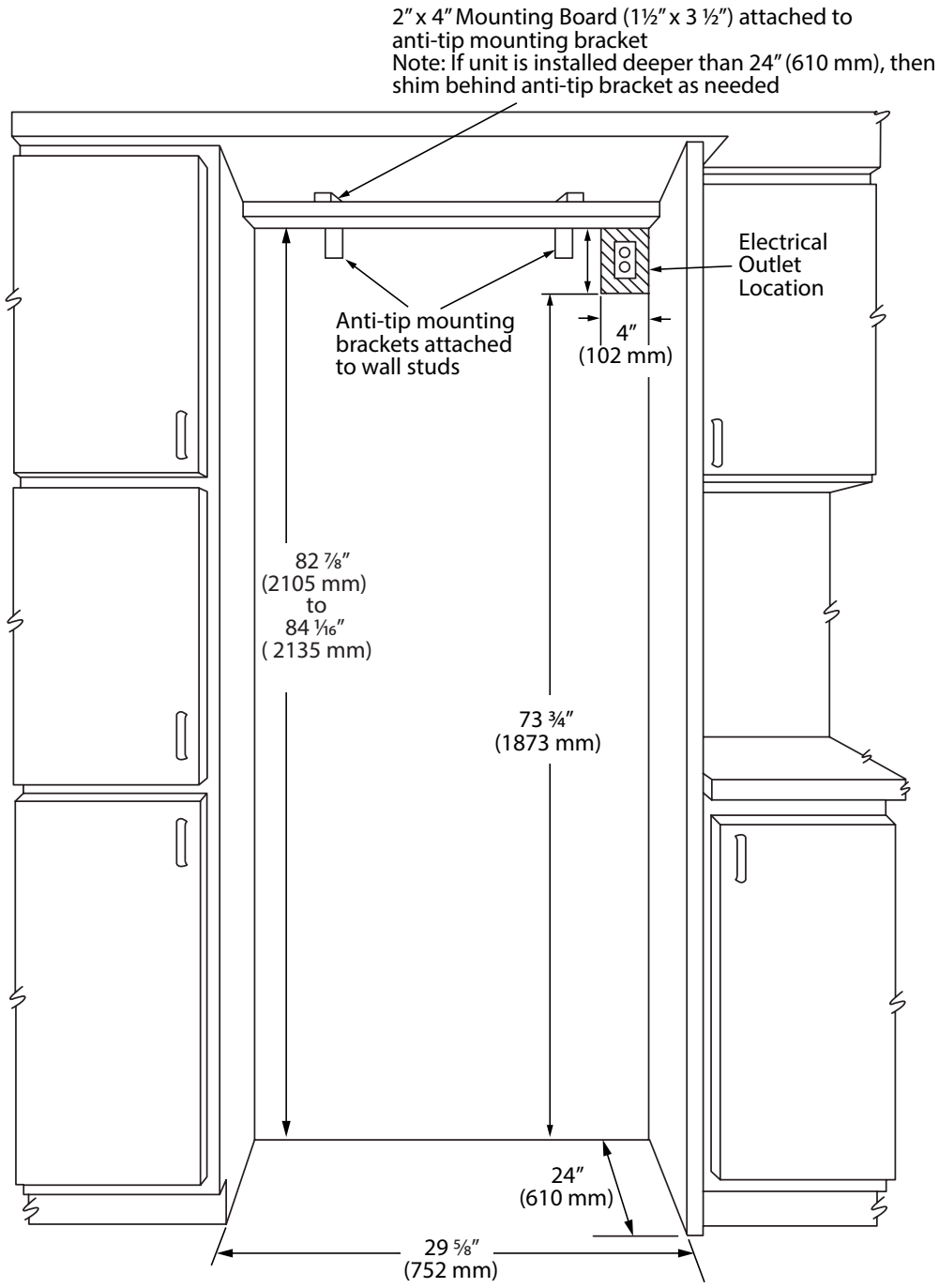
This product has been designed for built-in installation only and does not require additional air space for top, sides, or rear. However, the front grille must NOT be obstructed, and clearance is required for an electrical connection in the rear.

**⚠ CAUTION**

**Unit can NOT be installed behind a closed cabinet door.**

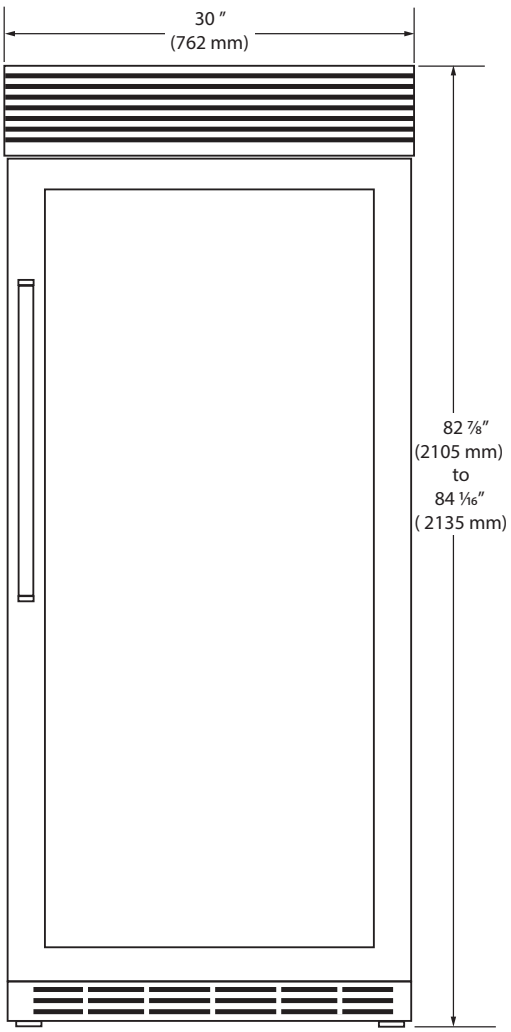
**If you would like to align the face of the unit with other adjacent cabinet doors, you may need to alter the wall behind the wine column.**

**CUTOUT DIMENSIONS**

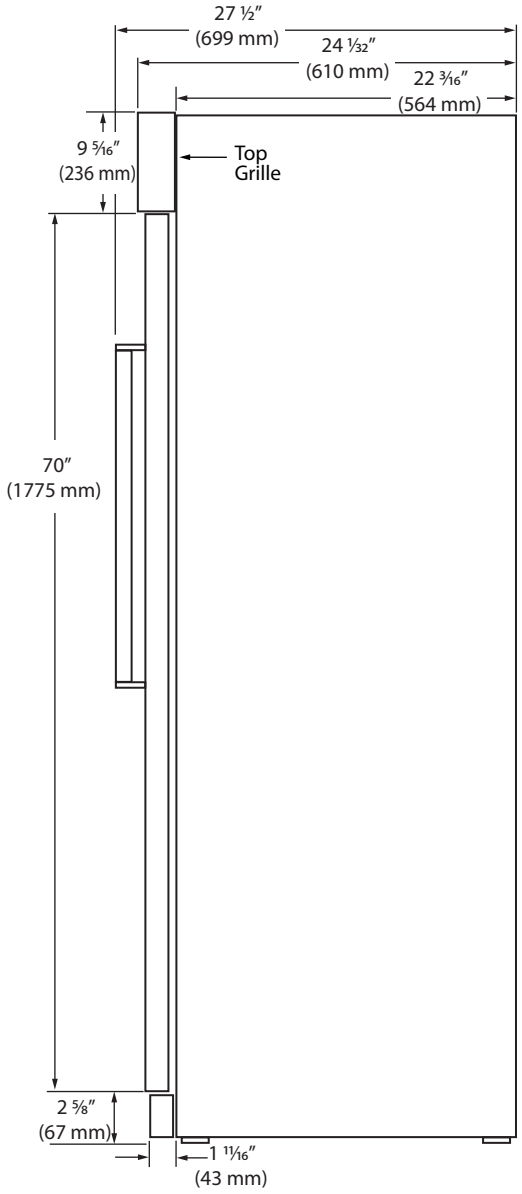


## PRODUCT DIMENSIONS

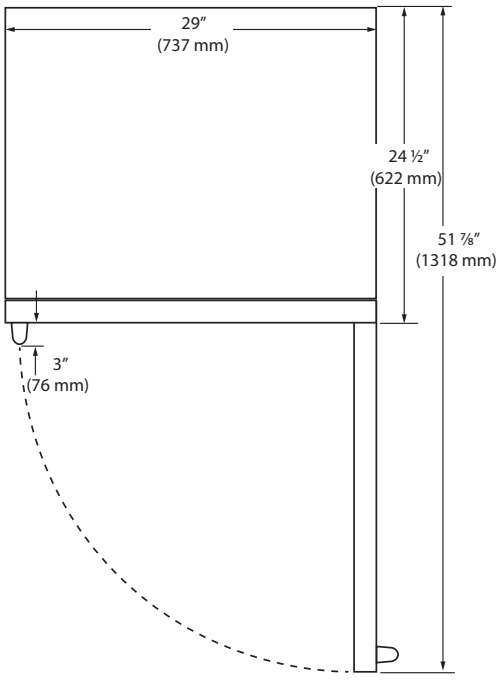
### FRONT




### SIDE




### TOP



## Anti-Tip Bracket

**⚠ WARNING**

**Unit is top heavy and tips easily when not completely installed. Keep doors closed until appliance is completely installed and secured per installation instructions.**

**Use two or more people to move and install appliance. Failure to do so can result in death or serious injury.**

### OPTION 1

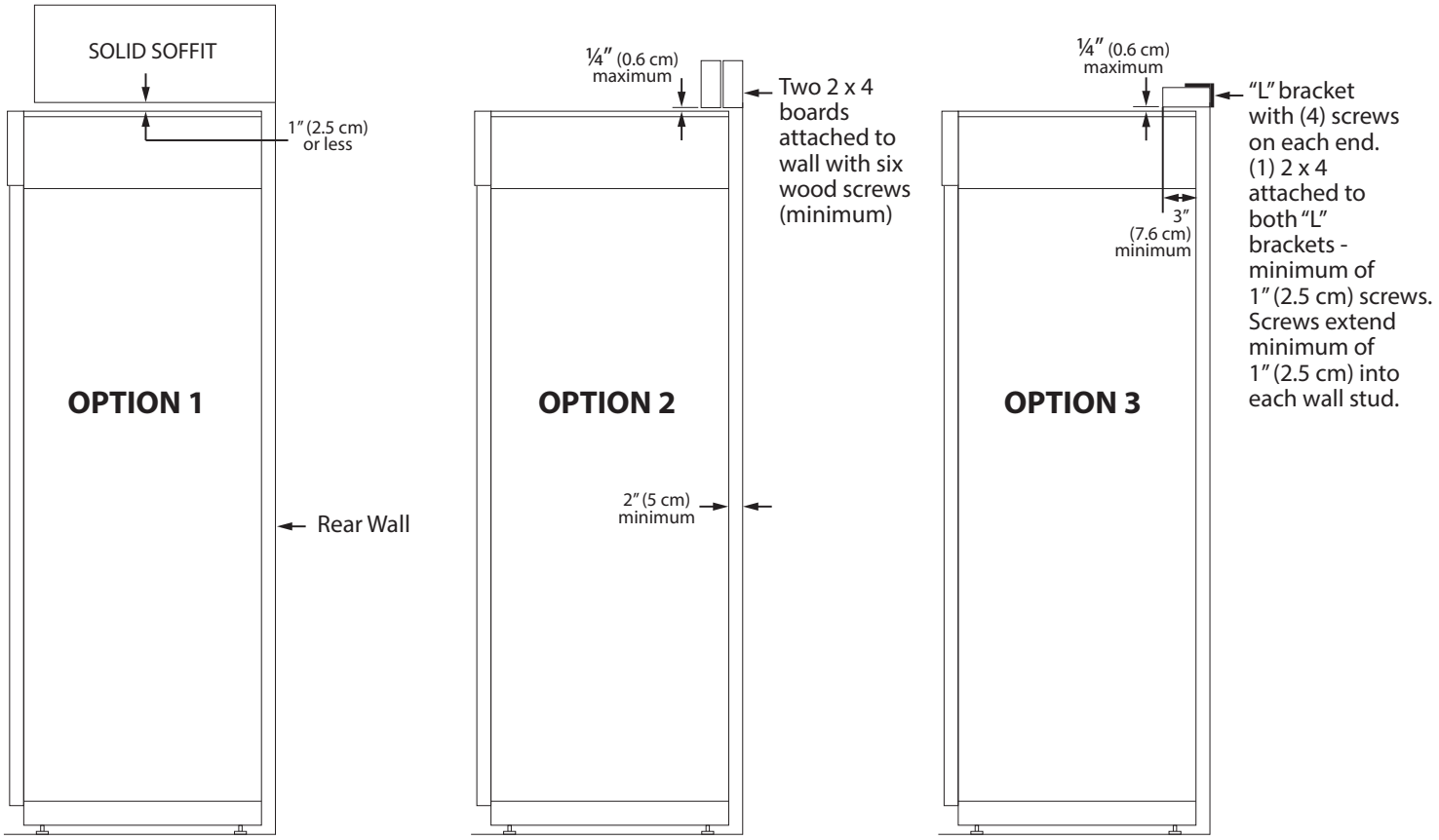
If a solid soffit is 1" (2.5cm) or less above the unit, anti-tip boards are not required. To secure the unit raise it until it is firmly seated under the soffit.

### OPTION 2

If a solid soffit is not available or soffit is more than 1" (2.5 cm) above the unit, center wood boards on rear wall 1/4" (0.6 cm) maximum above the unit. Attach wood boards to wall studs with six of the provided wood screws, making sure that screws are engaged in wall studs 1-1/2" (3.8 cm) minimum and that boards extend 2" (5.0 cm) minimum over the top rear of the unit's compressor cover. To secure the unit, raise it until compartment is firmly seated under the anti-tip board.

### OPTION 3

Position the wood block over the unit and secure it to wall studs using eight of the provided wood screws and "L" brackets. Make sure screws extend a minimum of 1" (2.5 cm) into each of the two wall studs. The wood block must extend a minimum of 3" (7.6 cm) over the unit. To secure the unit, raise it until firmly seated under the anti-tip boards.



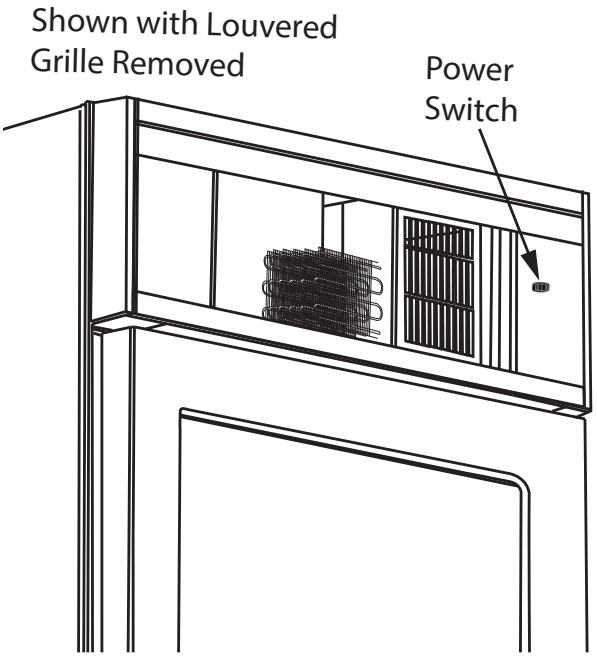
## General Installation

**INSTALLATION**

1. Position unit in front of cutout and remove upper grille.
2. Verify operation by plugging power cord in receptacle.
3. Open door. Control panel should be lit. Verify the position of the power on/off and showroom switch if there is no power to the unit.
4. Replace upper grille.

**NOTICE**

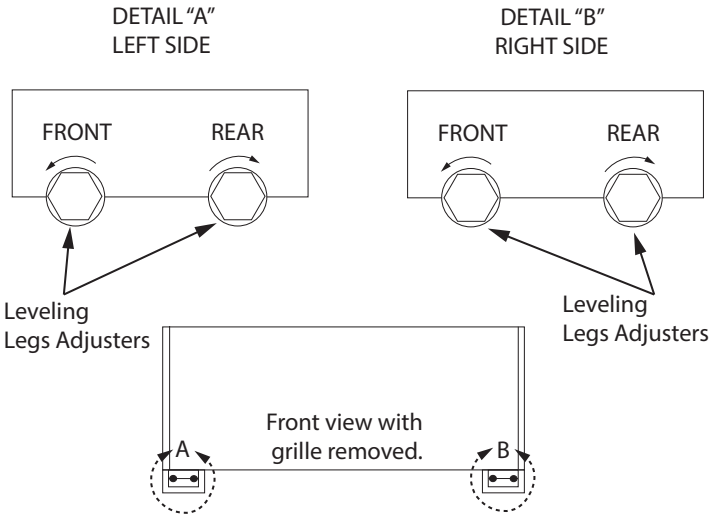
**Power switch will be shipped in the "ON" position.**




5. Roll unit into the cutout to within 3" (7.6 cm) of being flush with cabinets. To avoid kitchen cabinet damage, place cardboard between cabinets and unit. Push cardboard back with unit and remove cardboard when unit is in place.

**LEVELING**

1. Remove lower grille (See GRILLE INSTALLATION).
2. Lift the unit off its rollers, adjust to desired height and level unit by using a 5/16" hex head wrench.
   a) To raise/lower right side rear, rotate the right side rear hex rod.
   b) To raise/lower left side rear, rotate the left side rear hex rod.
   c) To raise/lower right side front, rotate the right side front hex rod.
   d) To raise/lower left side front, rotate the left side front hex rod.



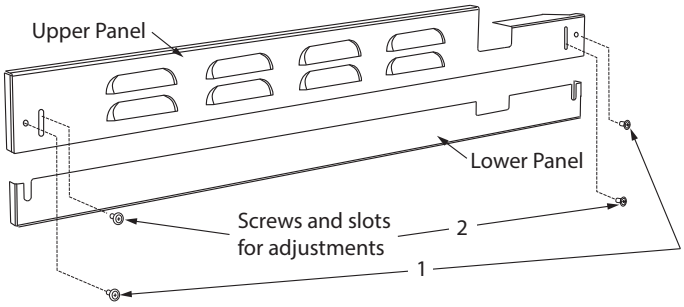

3. Align unit with sides of cabinets by adjusting leveling legs. Rotate leveling legs until firmly in place against floor.
4. To secure unit, raise unit until compartment cover is firmly seated under the soffit or anti-tip boards.
5. Replace lower grille.

# Grille Installation

**REMOVING AND INSTALLING GRILLE**

**Removing grille**

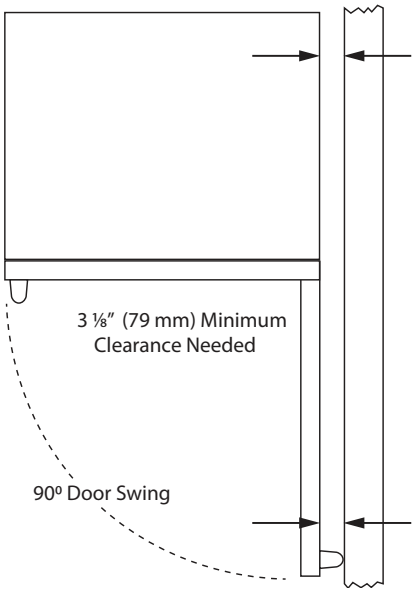
1. Loosen the two outside screws (1) enough to allow the lower grille panel (solid) to slide into the upper grille panel (louvered).
2. Slide the lower grille panel upward and tighten the two screws just enough to hold it in place.
3. Remove the two inside screws (2).
4. Remove grille assembly.




**Installing the grille**

1. Position the grille assembly along the front edge of the unit.
2. Align the holes on both ends of the top panel with the holes in the base of the unit.
3. Attach the grille to the unit on each side with the two philips-head screws.
4. Adjust the bottom panel to the desired height and fasten in place by tightening the screws in the slots. There is approximately 1" (2.5 cm) of vertical adjustment on the grille.

## Door Swing




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

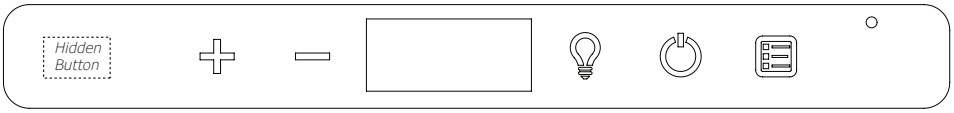
# First Use

**INITIAL STARTUP**

Initial startup requires no adjustments. When plugged in, the unit will begin operating under the factory default settings. If the unit was turned off during installation, simply press and the unit will immediately switch on. To turn the unit off, press .

Note: Temperature displayed reflects actual temperature inside the 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 of the product loaded, door openings, etc. It is recommended that the unit is allowed to reach its set points before loading product.

## Control Operation




**CONTROL FUNCTION GUIDE**

| FUNCTION | COMMAND | NOTES |
|---|---|---|
| Power on/off | Press ⏻ to turn unit on or off | Unit will immediately turn ON or OFF. |
| Adjust Temperature | Press ✚ or ▭ and release to adjust upper zone.<br>Press ▤ to change to lower zone.<br>Press ✚ or ▭ and release to adjust. | Interior lights indicates zone temperature being set:<br>Blue = Upper 38º - 65º F (3.3º - 18.3º C)<br>White = Lower 38º - 65º F (3.3º - 18.3º C)<br>Note: the set temperature of the lower zone cannot be colder than the set temperature of the upper zone.<br>Adjusting the set temperature of the upper zone may cause the lower zone to automatically adjust. The lower zone cannot be more than 20º above the set temperature of the upper zone. |
| Toggle between ºF/ºC | 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. |
| Adjust light color | While holding ▭, press and release 💡 to scroll through options. | Option / Open Door / Closed Door<br>00 — White — White<br>01 — Blue — Blue<br>02 — White — Blue<br>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. | 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 ºF/ºC 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 door is left open for more than 30 minutes:

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

**High/Low Temp Notifications**

When the compartment temperature exceeds the control setting for an extended period of time:

- "HH" will appear in display (High Temp)
- "LL" will appear in display (Low Temp) Contact service department for further instructions.

## First Use

**INITIAL STARTUP**

Initial startup requires no adjustments. When plugged in, the unit will begin operating under the factory default settings. If the unit was turned off during installation, simply press ⏻ and the unit will immediately switch on. To turn the unit off, press ⏻.

**Note:** Temperature displayed reflects actual temperature inside the 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 of the product loaded, door openings, etc. It is recommended that the unit is allowed to reach its set points before loading product.

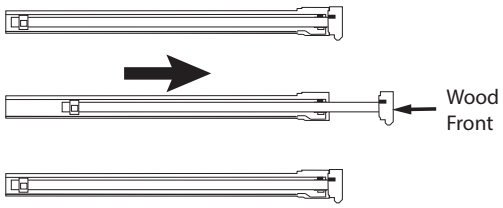
## Interior Adjustments

### SHELF REMOVAL

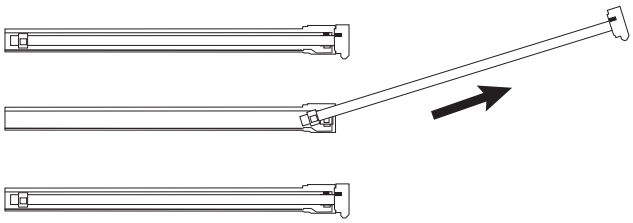
**⚠ CAUTION**

**Remove wine before removing shelves. Failure to do so could result in bottle breakage.**

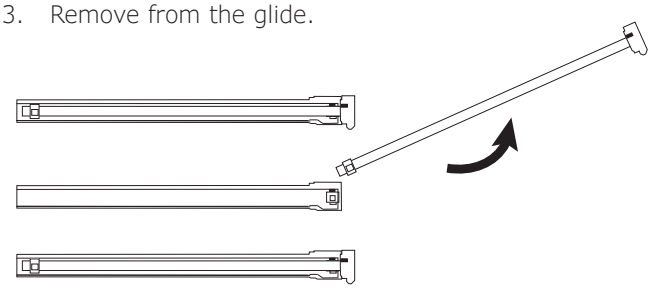
1. Pull the shelf forward until it is fully extended.




2. Lift up the front of the shelf.

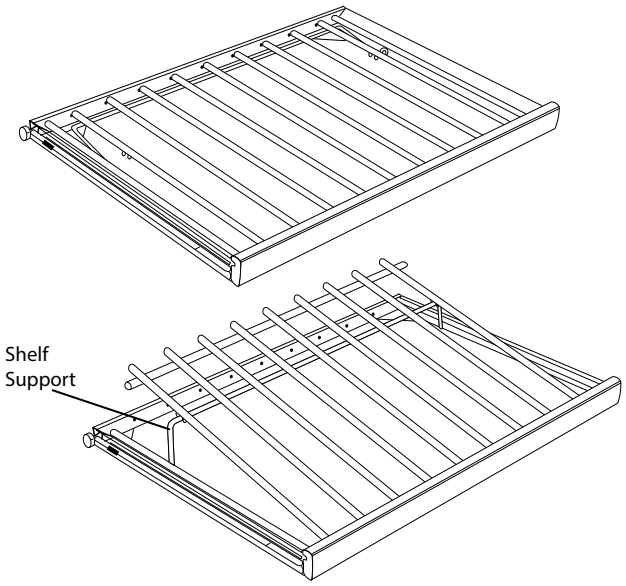


3. Remove from the glide.



### Convertible Display Shelves

This unit comes equipped with two convertible display shelves - one in each zone. To use the display shelf, first remove any wine bottles stored on the shelf. Next, remove the wine shelf directly above (see Shelf Removal section.) Lift the shelf up, rotate the shelf support up and lock shelf into place with legs.



## Recommended Wine Storage

**⚠ CAUTION**

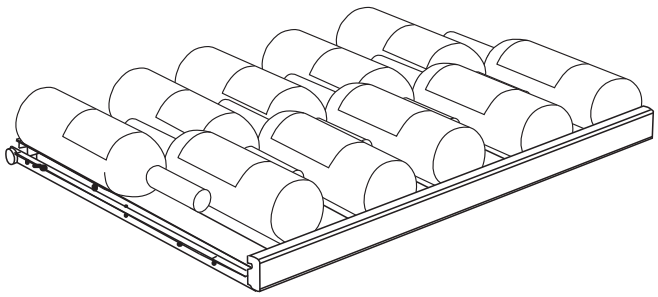
**To store magnum or oversized bottles, the shelf directly above must be removed. Failure to do so could result in bottle breakage (see Shelf Removal section for proper shelf removal.**

### Versatile Shelving System

The unit's shelving system makes it easy to store standard, magnum and half-sized bottles. There are a total of fifteen wine shelves which will each accommodate 10 standard bottles of wine, alternately displayed. Two convertible wine shelves adjust to allow bottles to be displayed.

### Loading the Shelves

To load a shelf, pull the shelf forward and place the bottles on the shelf with the neck in the center of the shelf. Alternate the direction of the next bottle. Shelves may need to be removed to store some bottles.



### Wine Storage Guidelines

Wines that are stored for a long period of time should be stored at a stable temperature in a dark, vibration-free environment. Wines stored for a short term (six months) can be stored at 55ºF (13ºC) and above.

The ambient temperature of the room you locate your unit in could affect the temperature in your unit if the room temperature is lower than the unit's set temperature. The unit is designed cool, not heat the stored wines. Temperatures inside the unit cannot be higher than room temperatures outside of the unit. The unit is designed to perform at room temperatures of 70ºF (21ºC) and above.

# 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 the Condenser

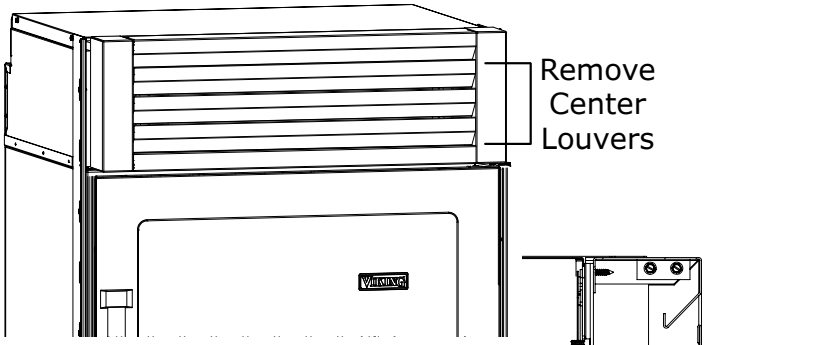
**⚠ WARNING**

**Disconnect electric power to the unit before cleaning the condenser.**

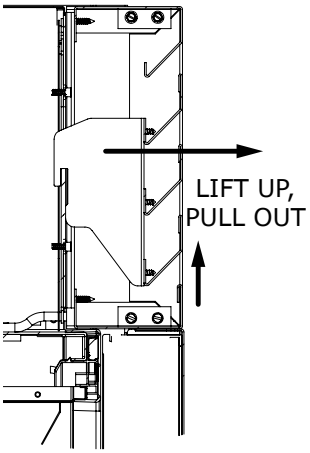
**DO NOT use any type of cleaner on the condenser unit. Condenser may be cleaned using a vacuum, soft brush, or compressed air.**

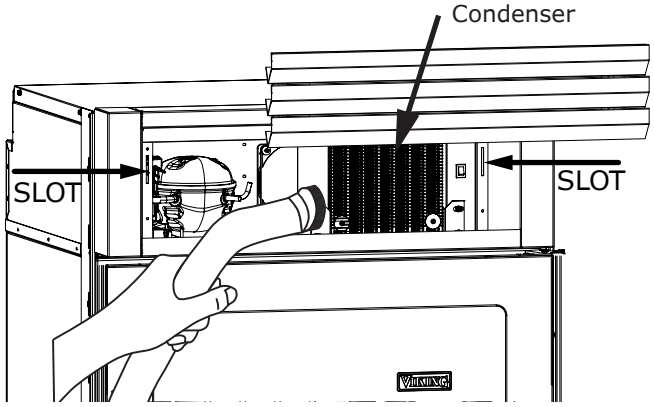
The condenser should be cleaned 2-3 times a year to remove any lint or dust.

1. Remove center louvers from grille by grasping both ends, lifting up, and pulling toward you. The center louvers come out in a single unit.




2. Use a vacuum with a soft brush to remove all dust and lint on and around the condenser.




3. To replace the center louvers, line up the tabs to the slots, push in, and pull down.

# Troubleshooting

### BEFORE CALLING FOR SERVICE

If you think your 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, call +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.**

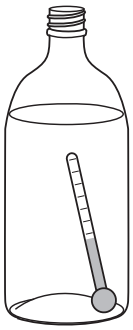
#### Troubleshooting

What to check when problems occur:

| Problem | Possible Cause and Remedy |
|---|---|
| Digital Display and Light Do Not Work. | Ensure power is connected to the unit. If the unit is cooling, it may be in Sabbath mode. |
| Interior Light Does Not Illuminate | If the unit is cooling, it may be in Sabbath mode. |
| Light Remains on When Door Is Closed. | Press the light icon and close the door. |
| Unit Develops Frost on Internal Surfaces. | Frost on the rear wall is normal and will melt during each off cycle. If there is excessive build-up of 1/4" or more, manually defrost the unit. Ensure the door is closing and sealing properly. High ambient temperature and excessive humidity can also produce frost. |
| Unit Develops Condensation on External Surfaces. | The unit is exposed to excessive humidity. Moisture will dissipate as humidity levels decrease. |
| Digital Display Functions, But Unit Does Not Cool. | Ensure the unit is not in "Showroom Mode." Momentarily unplug or interrupt power supply to the unit. |
| Digital Display Shows dr: | dr: indicates the door may be opened too long. Ensure the door is closing properly. For other error codes contact Customer Service. |
| Product is Freezing | Because product in contact with the rear wall may freeze, ensure no product is touching the rear wall. Adjust the temperature to a warmer set point. |

| Problem | Possible Cause and Remedy |
|---|---|
| Product is Not Cold Enough | Air temperature does not indicate product temperature. See CHECKING PRODUCT TEMPERATURE below.<br>• Adjust the temperature to a cooler set point.<br>• Ensure unit is not located in excessive ambient temperatures or in direct sunlight.<br>• Ensure the door is closing and sealing properly.<br>• Ensure the interior light has not remained on too long.<br>• Ensure nothing is blocking the front grille, found at the bottom of the unit.<br>• Ensure the condenser coil is clean and free of any dirt or lint build-up. |

**CHECKING PRODUCT TEMPERATURE**



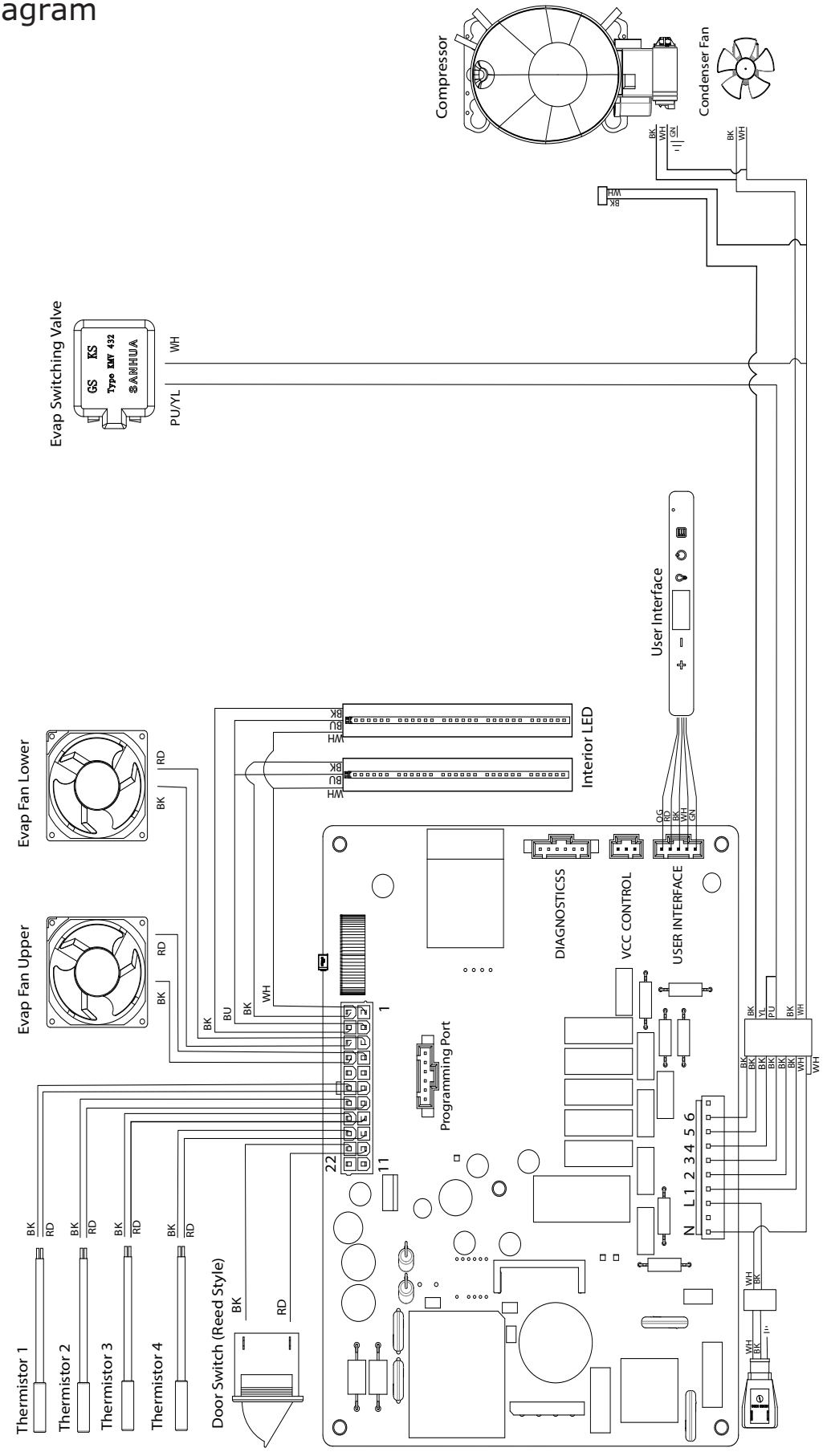
To check the actual product temperature in the unit:

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.

## Wire Diagram



## 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.

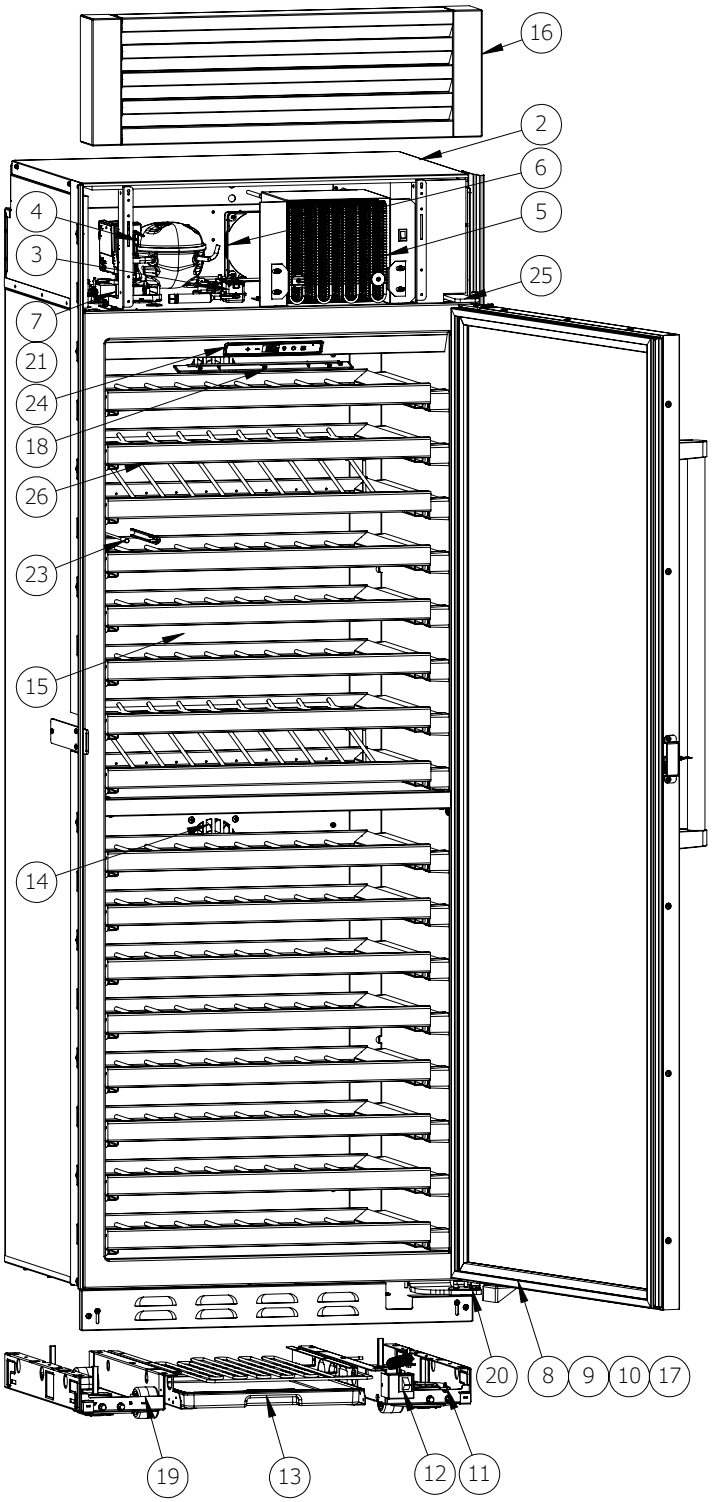
During the assessment, if the service technician is able to find the source of the damage and it can be resolved by replacement of a part, the servicer is authorized to replace the part in question. The part that caused the damage must be returned to the manufacturer in its entirety. The part must be 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




| VCWD630-SG41A | | |
|---|---|---|
| Item | Description | Service P/N |
| 1 | 115V MECHANICAL HARNESS KIT * | 90-54175-00 |
| 2 | ACCESS COVER | 90-54174-00 |
| 3 | BYPASS VALVE ASSEMBLY | 90-54178-00 |
| 4 | COMPRESSOR | 90-54177-00 |
| 5 | CONDENSOR ASSEMBLY | 90-54166-00 |
| 6 | CONDENSOR FAN MOTOR | 90-54176-00 |
| 7 | CONTROL BOARD | 90-54170-00 |
| 8 | DOOR ASSEMBLY | 90-54180-00 |
| 9 | DOOR GASKET | 90-54182-00 |
| 10 | DOOR HANDLE | 90-54190-00 |
| 11 | DOOR RETURN ASSEMBLY (RH) | 90-54188-00 |
| 12 | DOOR SWITCH (RH) | 90-54171-00 |
| 13 | DRAIN PAN | 90-54189-00 |
| 14 | EVAP FAN ASSEMBLY | 90-54181-00 |
| 15 | EVAPORATOR ASSEMBLY | 90-54179-00 |
| 16 | GRILLE (RH) | 90-54168-00 |
| 17 | KEYS (2) | 90-54185-00 |
| 18 | LED LIGHT STRIP | 90-54169-00 |
| 19 | LEVELER MODULES ASSEMBLY | 90-54187-00 |
| 20 | LOWER HINGE KIT (RH) | 90-54184-00 |
| 21 | MAIN CONTROL BOARD KIT | 90-54167-00 |
| 22 | POWER CORD * | 90-54191-00 |
| 23 | THERMISTOR ASSEMBLY | 90-54172-00 |
| 24 | UI DISPLAY KIT | 90-54173-00 |
| 25 | UPPER HINGE KIT (RH) | 90-54183-00 |
| 26 | UPPER WINE SHELF | 90-54186-00 |

* NOT PICTURED

## R-600A Specifications

For R-600a refrigerant service tips and more videos, go to: www.u-line.com/videos.

**⚠ WARNING**

**Flammability warnings for a pure-iso-butane refrigerant.**










Technician must observe all federal, state and local laws regarding refrigerants.

**Gloves and Eye Protection must be used.**





**R-600a is considered non-toxic, but is flammable when mixed with air.**

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




**R-600a 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.**

**R-600a must be stored and transported in approved containers.**

**⚠ WARNING**

**Only skilled and well trained service technicians permitted to service R-600a equipped products.**

**All tools and equipment must be approved for use with R-600a refrigerant.**

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

**Ventilation is required during servicing.**

**No conversions to R-600a from any other refrigerants. OEM R-600a 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 R-600a 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 R-600a.**

**R-600A SPECIFICATIONS/LABELING**

R-600a equipped products are labeled (both the unit and the compressor).

R-600a is colorless and odorless.

R-600a is considered non-toxic, but is flammable when mixed with air.

Do not remove or alter any R-600a labeling on the product.

Use only a refrigerant grade R-600a from a properly labeled container.

**RECOVERING/RECLAIMING R-600A**

(R-600a has been exempted from recovery/reclaiming requirements by the US EPA)

Recovery/Reclaiming equipment must be approved for use with R-600a.

Ensure the evaporator is at room temperature prior to recovery/reclaiming R-600a.

Use a common piercing pliers or piercing valve to remove R-600a 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 R-600a before any system work is performed.




The recovery cylinder must be evacuated (no air inside) prior to accepting R-600a.

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 R-600a and Flammable Warning labels.

Ensure proper ventilation during recovery/reclaiming of R-600a.

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 R-600a 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 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 R-600a, 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.




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 R-600a 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.



**SUMMARY**

Safely handling R-600a requires proper procedures and training.

R-600a approved service tools must be used.

R-600a labeling must not be removed or altered.

Proper ventilation during service is required.

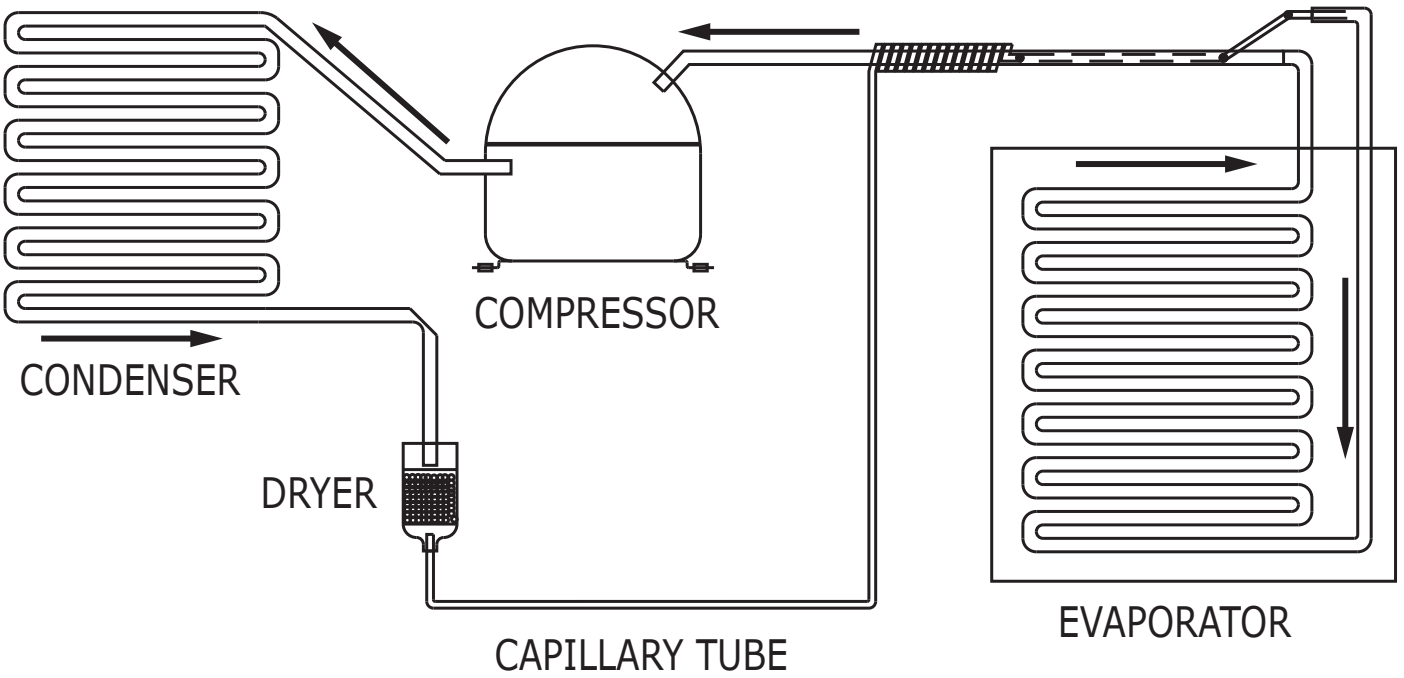
Never apply a torch to a charged R-600a refrigeration system.

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

## 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.**

| | **FMSY9C** |
|---|---|
| REFRIGERANT | R600A |
| VOLTAGE | 115 VAC |
| FREQUENCY | 50/60 HZ |
| START WINDING | 15.35 Ohm at 77⁰ F |
| RUN WINDING | 15.35 Ohm at 77⁰ F |
| RUN TO START | 15.35 Ohm at 77⁰ F |
| LRA | 17A |
| FLA | 25A |
| STARTING DEVICE | INVERTER DRIVEN |

## 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**

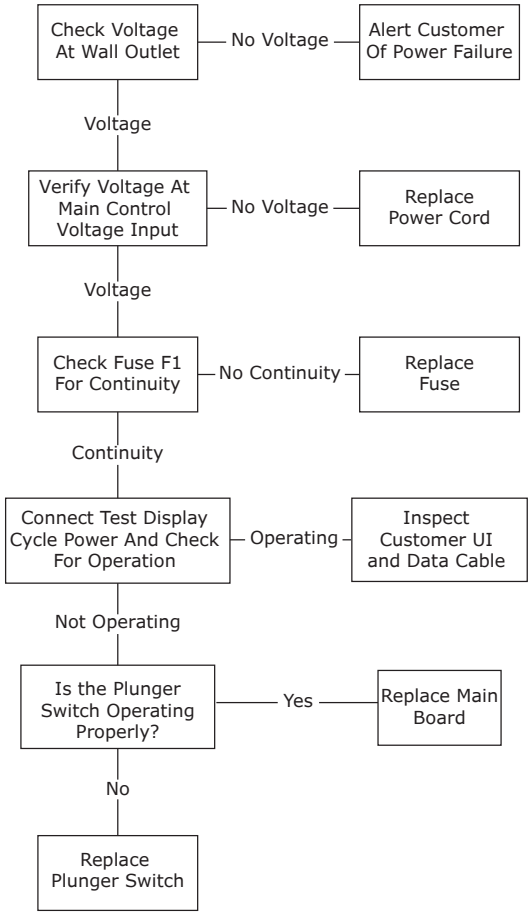
| Concern | Potential Causes | Action |
|---|---|---|
| Not Cooling | Compressor overheating | Verify proper air flow through condenser. Is condenser clean? |
| | | Confirm condenser fan operation. |
| | Compressor not operating | Test overload and relay, replace as needed. |
| | Compressor operating - 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.

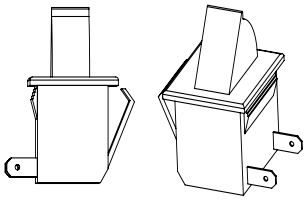



**⚠ CAUTION**

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

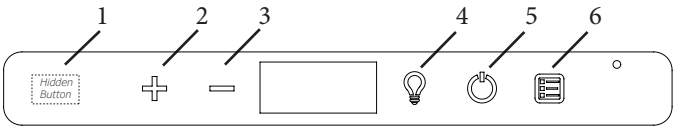
## PLUNGER SWITCH

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

### 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. **Zone Button**
   -Toggles between zones

### CONTROL FUNCTION GUIDE

| FUNCTION | COMMAND | DISPLAY/OPTIONS |
|---|---|---|
| ON/OFF | Press and release | Unit will immediately turn ON or OFF |
| Sabbath Mode | See "Sabbath Mode" section | |

### 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.

### 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 hidden button, plug the unit into the appropriate power source.
4. When the flashing digits appear (3-5 seconds), use the Plus and Minus buttons to select model number 75.
5. Press the light bulb button once.
6. The display will blink, and then will appear as the programmed display.

**SERVICE MODE GUIDE**

0. Exit
1. Thermistor 1 temperature not including offsets.
2. Thermistor 2 temperature not including offsets.
3. Thermistor 3 temperature not including offsets.
4. Thermistor 4 temperature not including offsets.
5. Thermistor 1 offset. (+/- 10)
6. Thermistor 2 offset. (+/- 10)
7. Thermistor 3 offset. (+/- 10)
8. Thermistor 4 offset. (+/- 10)
9. Thermistor 2 set point
10. Thermistor 3 set point.
11. Thermistor 4 set point.
12. Defrost Interval (0 to 99 hr)
13. Defrost duration (0 to 99 min)
14. Error Log (See Appx D)
15. Clear error log (hold light key until cleared)
16. Thermistor 1 differential (+5)
17. Thermistor 3 differential (+5)
18. Evaporator fan on delay (0 to 99 sec)
19. Evaporator fan off delay (0 to 99 sec)
20. Individual component toggle
    - 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)
21. Model number
22. Light All Segments
23. Activate Defrost/Harvest- press and hold for 3 seconds to activate defrost/harvest
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)
27. Factory test mode (0=Off, 1=On)
28. Compressor RPM
29. Freeze time adjust (Model 54 only)
30. Harvest time adjust (Model 54 only)
31. Low temp alarm limit (Model 55 only)
32. High temp alarm limit (Model 55 only)

**SERVICE MODE GUIDE**

1. **THERMISTOR 1 - TOP ZONE**
   This shows the pure thermistor reading with no offsets taken into account.
2. **THERMISTOR 2 - TOP EVAPORATOR**
   This shows the pure thermistor reading with no offsets taken into account.
3. **THERMISTOR 3 - BOTTOM ZONE**
   This shows the pure thermistor reading with no offsets taken into account.
4. **THERMISTOR 4 - BOTTOM EVAPORATOR**
   This shows the pure thermistor reading with no offsets taken into account.
5. **THERMISTOR 1 - TOP ZONE OFFSET**
   (DO NOT MAKE AN ADJUSTMENT TO THIS WITHOUT CONTACTING TECH LINE) 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 temperaturee down below the set point. (example: adjusting from 0 to +2 will drop the unit temperature 2 degrees)
6. **THERMISTOR 2 - TOP EVAPORATOR OFFSET**
   This shows the pure thermistor reading with no offsets taken into account.
7. THERMISTOR 3 - BOTTOM ZONE OFFSET
   (DO NOT MAKE AN ADJUSTMENT TO THIS WITHOUT CONTACTING TECH LINE)
8. **THERMISTOR 4 - BOT. EVAPORATOR OFFSET**
   This shows the pure thermistor reading with no offsets taken into account.
9. **THERMISTOR 2 - SET POINT MINUS OFFSET**
   This shows the pure thermistor reading with offsets taken into account.
10. **THERMISTOR 3 - SET POINT MINUS OFFSET**
    This shows the pure thermistor reading with offsets taken into account.
11. **THERMISTOR 4 - SET POINT MINUS OFFSET**
    This shows the pure thermistor reading with offsets taken into account.
12. **ADJUST DEFROST INTERVAL: 1-12 HOURS**
    This will adjust the interval between defrosts from 1-12 hours. Adjusting from the factory settings may cause undesired temperature.
13. **ADJUST DEFROST DURATION: 5-99 MINUTES**
    The length of the defrost can be adjusted 5-99 minutes long. the other defrost parameters still apply. Lengthening a defrost may cause higher than normal temperatures.

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.
    **E1:** Thermistor 1 open.
    **E2:** Thermistor 2 open.
    **E3:** Thermistor 3 open.
    **E4:** Thermistor 4 open.
    **E5:** Thermistor 1 shorted.
    **E6:** Thermistor 2 shorted.
    **E7:** Thermistor 3 shorted.
    **E8:** Thermistor 4 shorted.
    **E9:** Door open error.
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. **THERMISTOR - 3 DIFFERENTIAL**
    This number should not be adjusted
18. **SHOULD NOT BE ADJUSTED**
19. **SHOULD NOT BE ADJUSTED**
20. **INDIVIDUAL COMPONENT TOGGLE**

| 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)

**SEE RELAY / OUTPUT CHART**

21. **MODEL NUMBER INDICATOR**
    Displays the two-digit model number of the specific unit.
22. **LIGHT ALL LED SEGMENTS**
23. **ACTIVATE DEFROST / HARVEST**
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**
29. **DOES NOT APPLY TO THIS UNIT**
30. **DOES NOT APPLY TO THIS UNIT**
31. **DOES NOT APPLY TO THIS UNIT**
32. **DOES NOT APPLY TO THIS UNIT**

## 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.

All the 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 **four** thermistors.

**Thermistor One (Top Zone):**
Located along the side wall in the upper zone. It is used to maintain the operating temperature within that zone.

**Thermistor Two (Top Evaporator)**
Located on the top evaporator - used for defrost.

**Thermistor Three (Bottom Zone):**
Located along the side wall in the bottom zone. It is used to maintain the operating temperature within that zone.

**Thermistor Four (Bottom Evaporator)**
Located on the bottom evaporator - used for defrost.

**THERMISTOR FAILURE**

**Zone Thermistor**
If a 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.

**Evaporator Thermistor**
If an evaporator thermistor fails, the unit will rely on a preset defrost timer during defrost cycles. The unit will otherwise operate normally. Refer to defrost section.

**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.

## 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.