

# USER GUIDE & SERVICE MANUAL

SAFETY • INSTALLATION & INTEGRATION • OPERATING INSTRUCTIONS • MAINTENANCE • SERVICE



 **U-LINE**  
RIGHT PRODUCT. RIGHT PLACE. RIGHT TEMPERATURE. SINCE 1962.

ADA Series • 29R • 21" Solid Door Refrigerator

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

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## WELCOME TO U-LINE

Congratulations on your U-Line purchase. Your product comes from a company with over five decades of premium modular ice making, refrigeration, and wine preservation experience. U-Line continues to be the American leader, delivering versatility and flexibility for multiple applications including residential, light commercial, outdoor and marine use. U-Line's complete product collection includes Wine Captain® Models, Beverage Centers, Clear Ice Machines, Crescent Ice Makers, Glass & Solid Door Refrigerators, Drawer Models, Freezers, Combo® Models, and more.

U-Line has captivated those with an appreciation for the finer things with exceptional functionality, style, inspired innovations and attention to even the smallest details. We are known and respected for our unwavering dedication to product design, quality and selection. U-Line is headquartered in Milwaukee, Wisconsin and has shipped product to five continents for over two decades and is proud to have the opportunity to ship to you.

## PRODUCT INFORMATION

Looking for additional information on your product? User Guides, Spec Sheets, CAD Drawings, Compliance Documentation, and Product Warranty information are all available for reference and download at [u-line.com](http://u-line.com).

## PROPERTY DAMAGE / INJURY CONCERNS

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

1. U-Line Customer Care must be contacted immediately at +1.800.779.2547.
2. Service or repairs performed on the unit without prior written approval from U-Line is not permitted. If the unit has been altered or repaired in the field without prior written approval from U-Line, claims will not be eligible.

## GENERAL INQUIRIES

U-Line Corporation  
8900 N. 55th Street  
Milwaukee, Wisconsin 53223 USA  
Monday - Friday 8:00 am to 4:30 pm CST  
T: +1.414.354.0300  
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Monday - Friday 8:00 am to 4:30 pm CST  
T: +1.800.779.2547  
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Service Email: [onlineservice@u-line.com](mailto:onlineservice@u-line.com)  
Parts Email: [onlineparts@u-line.com](mailto:onlineparts@u-line.com)

## CONNECT WITH US



Designed, engineered and assembled in WI, USA

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



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



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



**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.**



**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.**

## 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.



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

## Electrical



**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 DIMENSIONS for recommended receptacle location.

## Cutout Dimensions

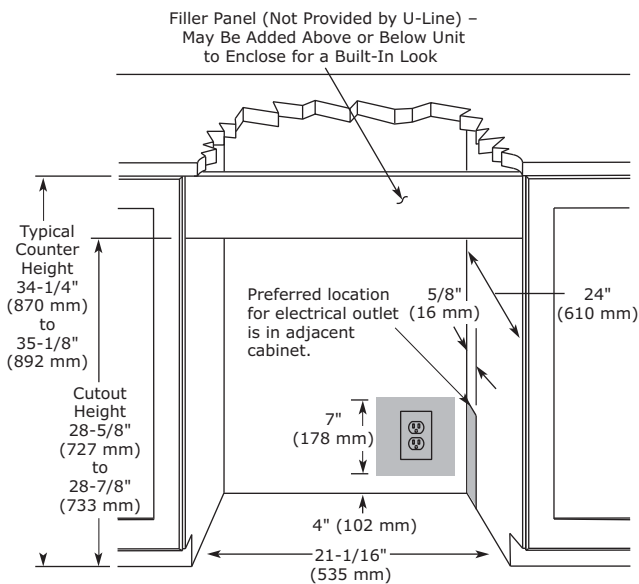
### PREPARE SITE

Your U-Line product has been designed for either free-standing or built-in installation. When built-in, your unit 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.



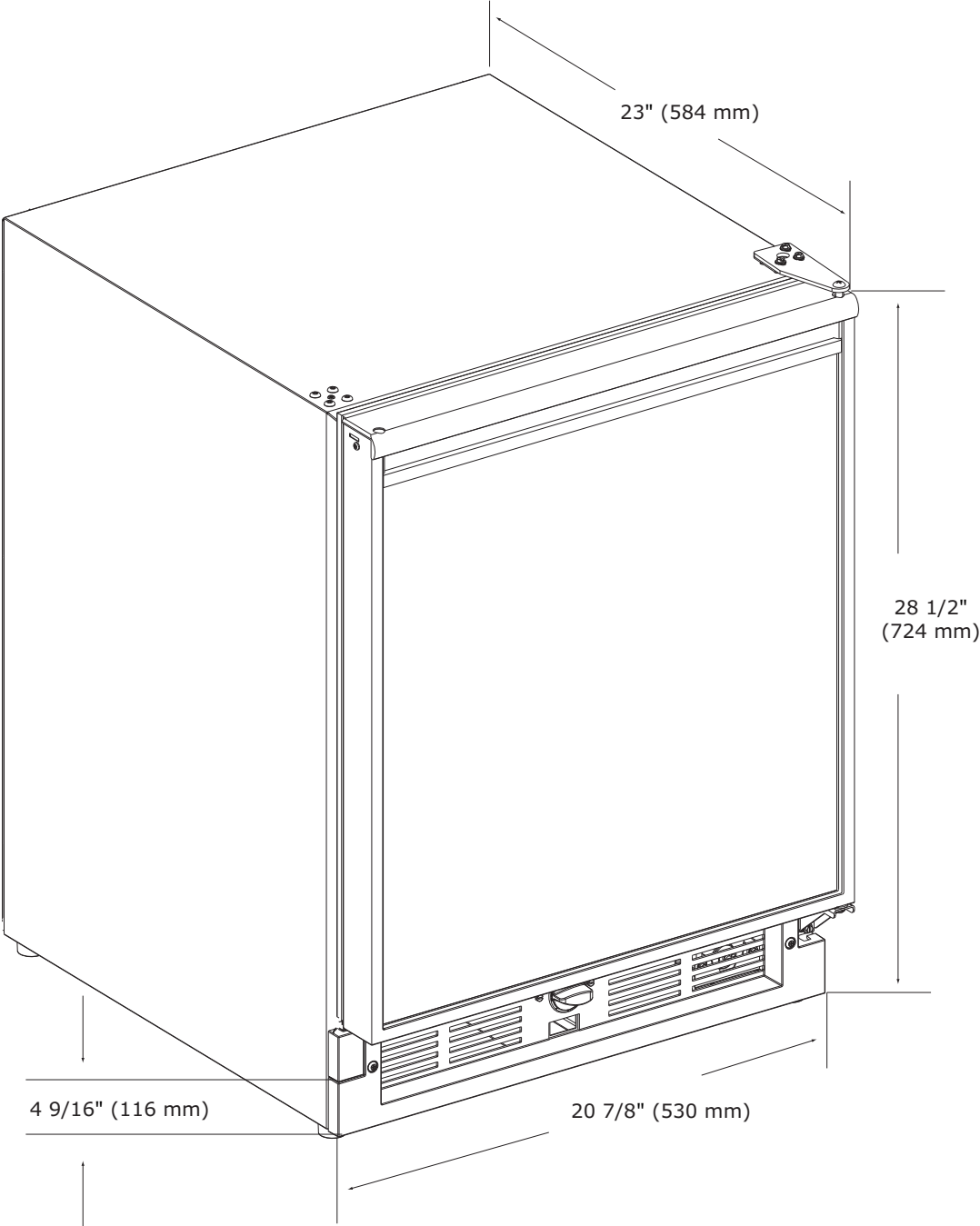
**Unit can NOT be installed behind a closed cabinet door.**

### CUTOUT DIMENSIONS





Product Dimensions



## Side-by-Side Installation

Two units may be installed side-by-side.

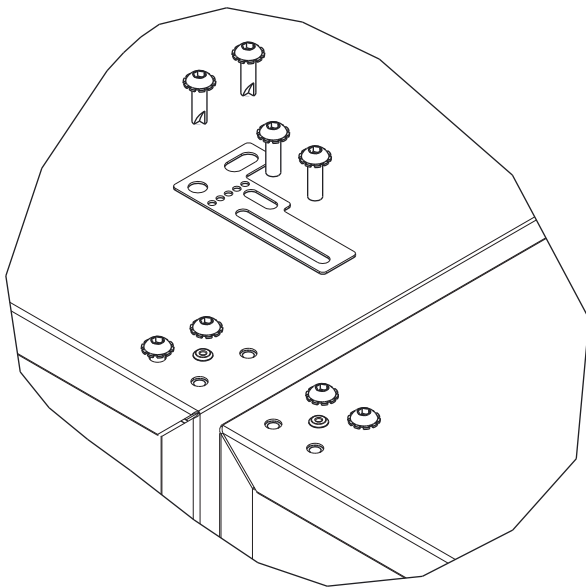
Cutout width for a side-by-side installation is the cutout dimension of a single unit times two.

No trim kit is required. However, 1/4" (6 mm) of space needs to be maintained between the units to ensure unobstructed door swing.

Units must operate from separate, properly grounded electrical receptacles placed according to each unit's electrical specifications requirements.

### Side-by-Side Installation with Bracket

1. Slide both units out so screws on top of units are easily accessible.
2. Remove screws as shown below.



3. Place bracket over holes and attach to unit with two screws removed in step 2 using a T-25 Torx driver. Tighten screws fully.
4. Gently push units into position. Be careful not to entangle the electrical cord or water line, if applicable.
5. 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.

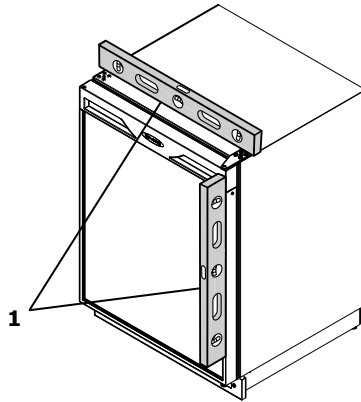
## General Installation

### LEVELING INFORMATION

#### NOTICE

**Because these units do not have leveling legs, it is extremely important that they sit on a level surface.**

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



### INSTALLATION

1. Plug in the power/electrical cord.
2. Gently push the unit into position. Be careful not to entangle the cord.
3. Re-check the leveling, from front to back and side to side. Make any necessary adjustments.
4. Remove the interior packing material and wipe out the inside of the unit with a clean, water-dampened cloth.

## Integrated Panel Dimensions

### **INSERT CUSTOM 1/4" THICK DOOR PANEL**

#### **Insert Panel Preparation**

A custom door panel may be inserted into the door frame. Custom door panels can be flat or raised, as long as the maximum panel thickness where inserted into the door reveal (channel) is no more than 1/4" thick. For raised panels, the depth of the reveal is 1/4" on all four sides.

#### **NOTICE**

**Raised panels will reduce the door's 90° swing/ zero clearance if the unit is installed next to a wall or similar type of structure.**

#### **Panel Dimensions**

The door panel must not weigh more than 5 lbs.

<b>Width</b>	<b>Height</b>
19-13/16" (503 mm)	21-13/32" (544 mm)

## Integrated Panel Installation

This model accepts a 1/4" insert panel.

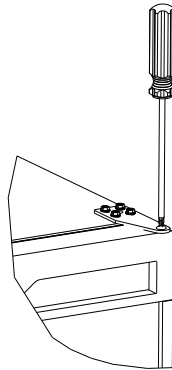
### INSERT PANEL INSTALLATION

Install the insert as follows:

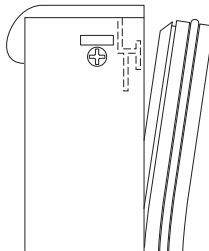


**Use care when handling the insert. Insert edges may be sharp.**

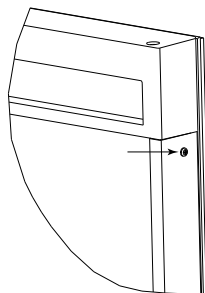
1. Remove top hinge screw pin with Phillips head screwdriver. Remove door by tilting forward and lifting off bottom hinge pin.



2. Pull door gasket out of groove (top edge of door only). Start in the middle and pull outward, moving toward the edge. This may take some force.



3. Remove two outside screws holding door handle. Slightly separate door handle from door.



4. Pull handle up and off.

5. Slide custom door panel insert into 1/4" (6 mm) channel in door front.

### NOTICE

**Use care not to damage magnet, located on door bottom when installing door insert. Do not set door on bottom edge when pushing insert into place.**

6. Holding door gasket out of the way, replace handle on door, making sure it is seated properly on insert and that screw holes line up.
7. Install two small screws removed in Step 3.
8. Starting at the corners and working inward, push door gasket into place on door.
9. Place door on bottom hinge pin and install upper hinge screw.

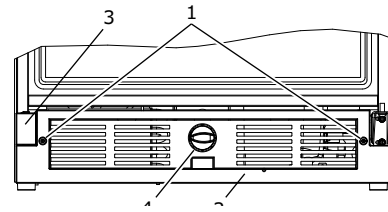
## Grille - Plinth Installation

### REMOVING AND INSTALLING GRILLE



**Disconnect electric power to the unit before removing the grille.**

**When using the unit, the grille (plinth strip/base fascia) must be installed.**



**DO NOT touch the condenser fins. The condenser fins are SHARP and can be easily damaged.**

#### Removing the grille

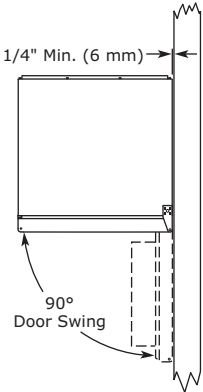
1. Disconnect power to the unit.
2. Remove control knob (4).
3. Loosen the two screws (1).
4. Remove grille (2) and grille cap (3) from unit.

#### Installing the grille

1. Make sure grille cap (3) is behind grille in slots provided in grille before attaching grille to unit.
2. Align cabinet and grille holes and secure, but do not over tighten grille screws (1).
3. Install control knob (4) if equipped.
4. Reconnect power to the unit.

## Door Swing

All units have a zero clearance for the door to open 90°. U-Line recommends a minimum door clearance of 1/4" (6 mm) to accommodate the handle if the unit is installed next to a wall.



## Door Adjustments

### CHECKING DOOR ALIGNMENT

The unit's door is aligned at the factory before shipment. However, its alignment could have been disturbed during shipment.

### NOTICE

**Properly aligned, the door's gasket should be firmly in contact with the cabinet all the way around the door (no gaps).**

1. Carefully examine the door's gasket to ensure that it is firmly in contact with the cabinet.
2. When inspecting door alignment, make sure the door gasket is not pinched on the hinge side of the door.

### ALIGNMENT AND ADJUSTMENT

1. Loosen (do not remove) top and bottom hinge screws.
2. Align door squarely with cabinet. Make sure gasket is firmly in contact with cabinet all the way around the door (no gaps).
3. Tighten bottom hinge screws.
4. Tighten top hinge screws.

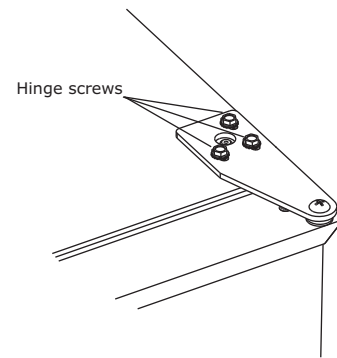
### REVERSING THE DOOR

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

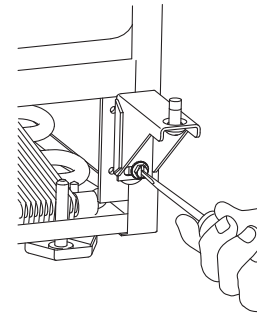
The hinge hardware will be removed and reinstalled on the opposite side of the cabinet.

To reverse the door mounting, perform the following:

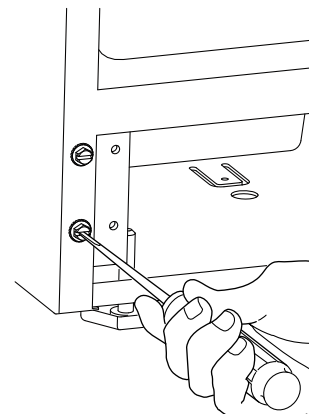
1. Remove grille (see GRILLE-PLINTH INSTALLATION).
2. Remove top hinge from cabinet (three screws). Hold door to keep it from falling.



3. Lift the door off the bottom hinge.
4. Remove bottom hinge from cabinet (two screws).

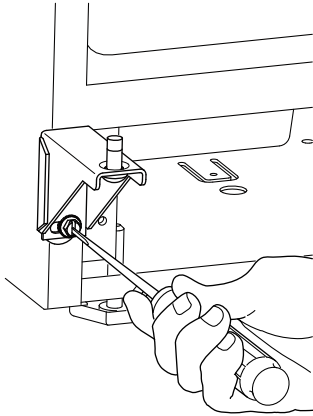


5. Remove screws on opposite side of cabinet.

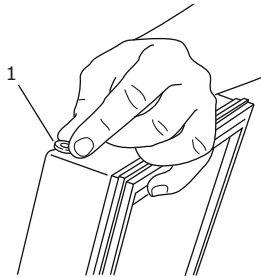




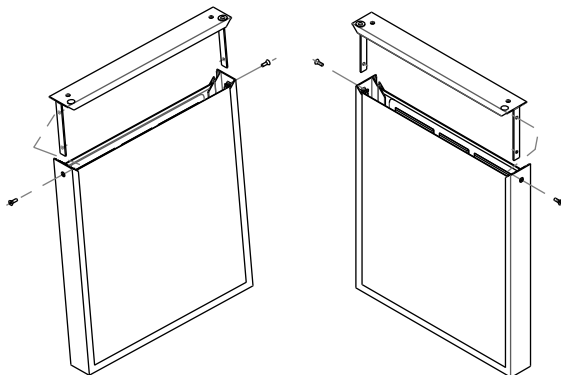
6. Install hinge on opposite side at bottom of cabinet.  
Align hinge outer edge with cabinet before tightening screws.



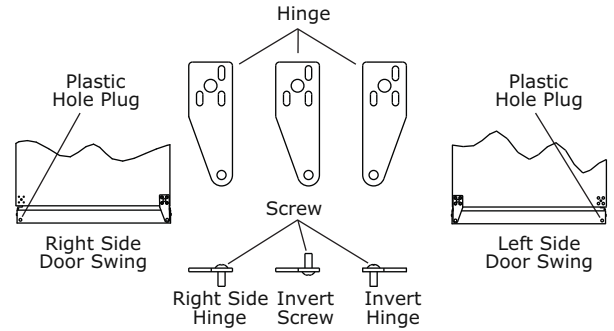
7. Relocate plastic spacer/bushing on top and bottom of door to opposite side. Clean out bushing hole in door bottom with a screwdriver if necessary.



8. Using a Phillips screwdriver, remove the two screws holding the handle.

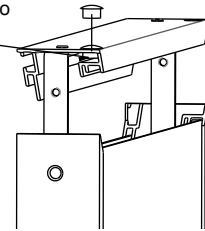


9. Remove plastic hole plug from door handle and relocate to opposite side. Lift the handle slightly and press on the locking tab, then gently pry the hole plug out of the hole, being careful not to scratch the top cap.

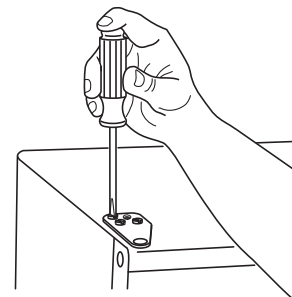


10. Remove pivot screw from top hinge, invert screw and reinstall pivot screw in top hinge.

Press in locking tab, then lightly pry up to remove hole plug and move to opposite side



11. Place door on lower hinge pin. Invert and install upper hinge on door. Fasten upper hinge to unit (three screws). Partially tighten screws.



12. Adjust door to ensure proper seal. Tighten upper and lower hinge screws securely.

13. Fill holes with remaining screws.

14. Replace the grille.

## First Use

All U-Line controls are preset at the factory. Initial startup requires no adjustments.

### NOTICE

**U-Line recommends allowing the unit to run overnight before loading with product. As warm air rises, the temperature inside the unit tends to be slightly warmer at the top and slightly cooler at the bottom.**

**To turn the unit on or off:**



Press the rocker switch located below the temperature control dial in the center of the grille.

### CONTROL DIAL

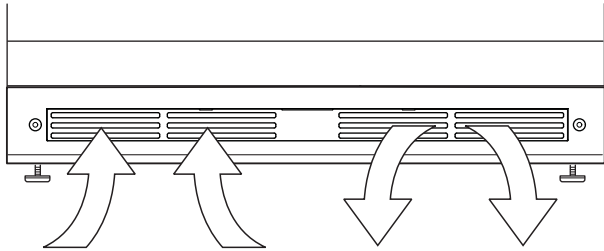
The control dial sets a single continuous temperature. This set point temperature is a base setting used by the controller to maintain the temperature zone in the unit. The factory default MID setting, number 3 or 4 set point, is approximately 38°F (3°C). The set point temperature is a gauge for further temperature adjustments.

## Airflow and Product Loading

### NOTICE

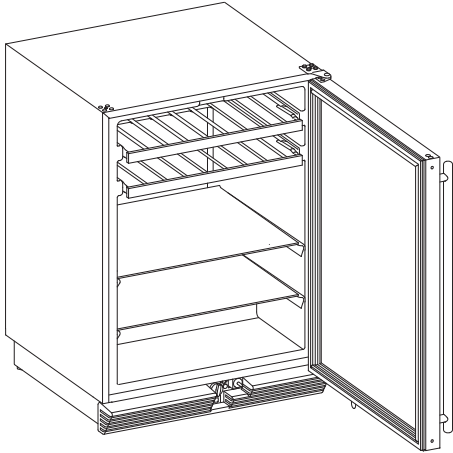
**The unit requires proper airflow to perform at its highest efficiency. Do not block the front grille, or the unit will not perform as expected. Do not install the unit behind a door. When loading your unit, leave space between the evaporator and product loaded. Anything in direct contact with the evaporator is subject to freezing.**

When properly loaded, your U-Line unit will store up to 48 (12 oz. [330 ml]) cans or 35 (12 oz. [330 ml]) bottles.



## Interior Shelves

### REMOVING AND INSTALLING INTERIOR SHELVES



For models equipped with glass shelves having shelf supports, remove the shelves as follows:

1. Open door completely.
2. Grasp the shelf edge in the center and slide the shelf from the unit.

#### **Insert the shelves as follows:**

1. With the door still fully opened, reposition the shelf as required, ensure the raised white edge strip is toward the rear of the unit and slide the shelf back into position.

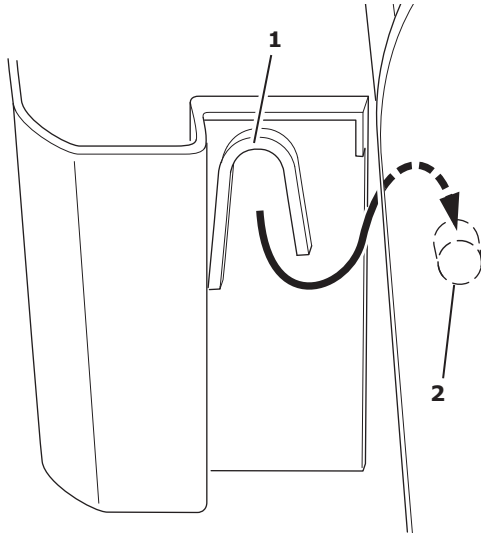
#### **NOTICE**

**Make sure the shelves are inserted fully into the unit.**

**The edge strip toward the rear prevents cans and bottles from freezing against the cold evaporator.**

## Door Shelves

### REMOVING AND INSTALLING DOOR SHELVES



To remove the door shelf:

1. Grasp shelf in center, and lift until the shelf notches (1) clear the pins (2).
2. Carefully pull the shelf away from the door.

To install the door shelf:

1. Holding the shelf in the center, center the shelf in the door at the desired location, slightly above the pins (2).
2. Lower the shelf onto the pins (2).

## Cleaning

### EXTERIOR CLEANING

#### Vinyl Clad (Black or White)

Clean surfaces with a mild detergent and warm water solution. Do not use solvent-based or abrasive cleaners. Use a soft sponge and rinse with clean water. Wipe with a soft, clean towel to prevent water spotting.

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

#### Stainless Models

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 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 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.**

#### Integrated Models

To clean integrated panels, use household cleaner per the cabinet manufacturer's recommendation.

### INTERIOR CLEANING

Disconnect power to the unit.

Clean the interior and all removed components using a mild nonabrasive detergent and warm water solution applied with a soft sponge or non-abrasive cloth.

Rinse the interior using a soft sponge and clean water.

**Do not use any solvent-based or abrasive cleaners.** These types of cleaners may transfer taste 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 off 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.



**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, place towels or other absorbent materials over the interior drain trough (under the evaporator) before defrosting.**

#### **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.



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

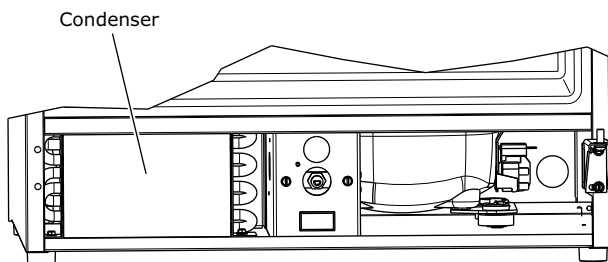


**DO NOT touch the condenser fins. The condenser fins are SHARP and can be easily damaged.**

### NOTICE

**DO NOT use any type of cleaner on the condenser unit.**

1. Remove the grille. (See GRILLE-PLINTH INSTALLATION).
2. Clean the condenser coil using a using a soft brush with a “combing” action or vacuum cleaner. Do not touch the condenser coil.
3. Install the grille.





## 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 ice is on the evaporator, allow ice to thaw naturally.
4. Clean and dry the interior of the unit. Ensure all water has been removed from the unit.
5. 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 40°F (5°C) or less, the steps above must be followed.

**For questions regarding winterization, please call U-Line at +1.800.779.2547.**



**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 +1.800.779.2547.

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



**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:

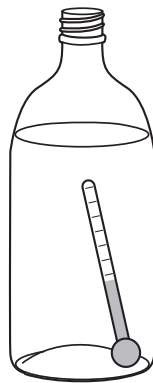
Problem	Possible Cause and Remedy
Interior Light Does Not Illuminate.	If the unit is cooling, it may be in Sabbath mode.
Light Remains on When Door Is Closed.	Turn off light switch if equipped. Adjust light actuator bracket on bottom of door.
Unit Develops Frost on Internal Surfaces.	Frost on the rear 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.
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. Adjust the temperate 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.

**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.

**CHECKING PRODUCT TEMPERATURE**

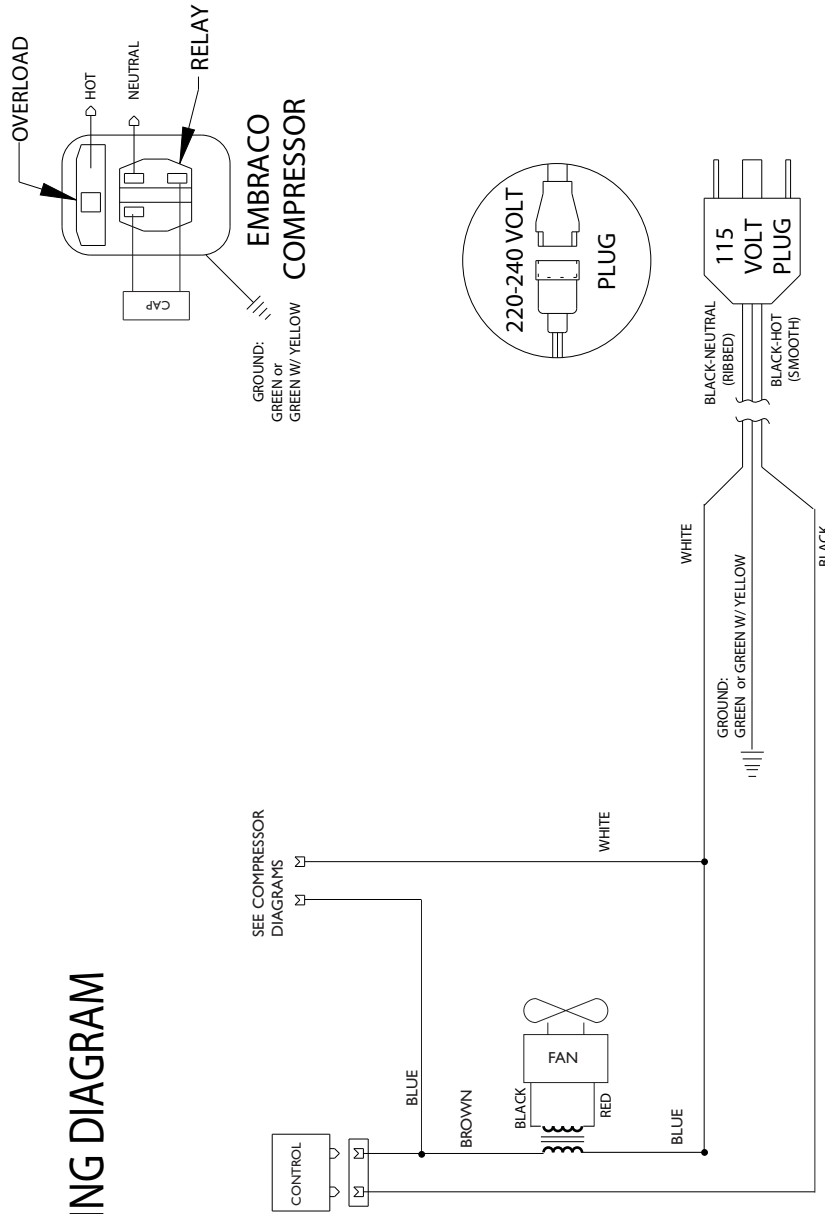


**To check the actual product temperature in the unit:**

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).

# Wire Diagram

## 42341\_A WIRING 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 U-Line 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 U-Line 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, U-Line must be contacted at 1-800-799-2547 for further direction

8900 N. 55th Street • Milwaukee, WI 53223  
T: +1.414.354.0300 • F: +1.414.354.354.5696  
Website: [www.u-line.com](http://www.u-line.com)

**Right product. Right place.  
Right temperature Since 1962.**

## Warranty Claims

The following information defines the parameters for filing a warranty claim:

- Valid serial number needed
- Valid model number needed
- Narda (or equivalent) form or submitted online at [www.u-line.com](http://www.u-line.com)
- 60 day submittal deadline from date of completed service
- Only one repair or unit per warranty claim
- Refrigerant should be labeled and included on the labor submittal
- Door and water level adjustments are covered 30 days from install date.

Serial Number Requirements:

**14 30911 12 XXXX**  
Year Month

A typical serial number is shown above. The first two digits of the first segment, 14, represents the production year. The number between the dashes, 12, represents the production month. In most cases, warranty status can be verified by the production date information within the serial number.

- Alternatively, a Proof of Purchase (or equivalent) may be submitted with the warranty claim to document

warranty status. We also accept the following information to verify warranty status:

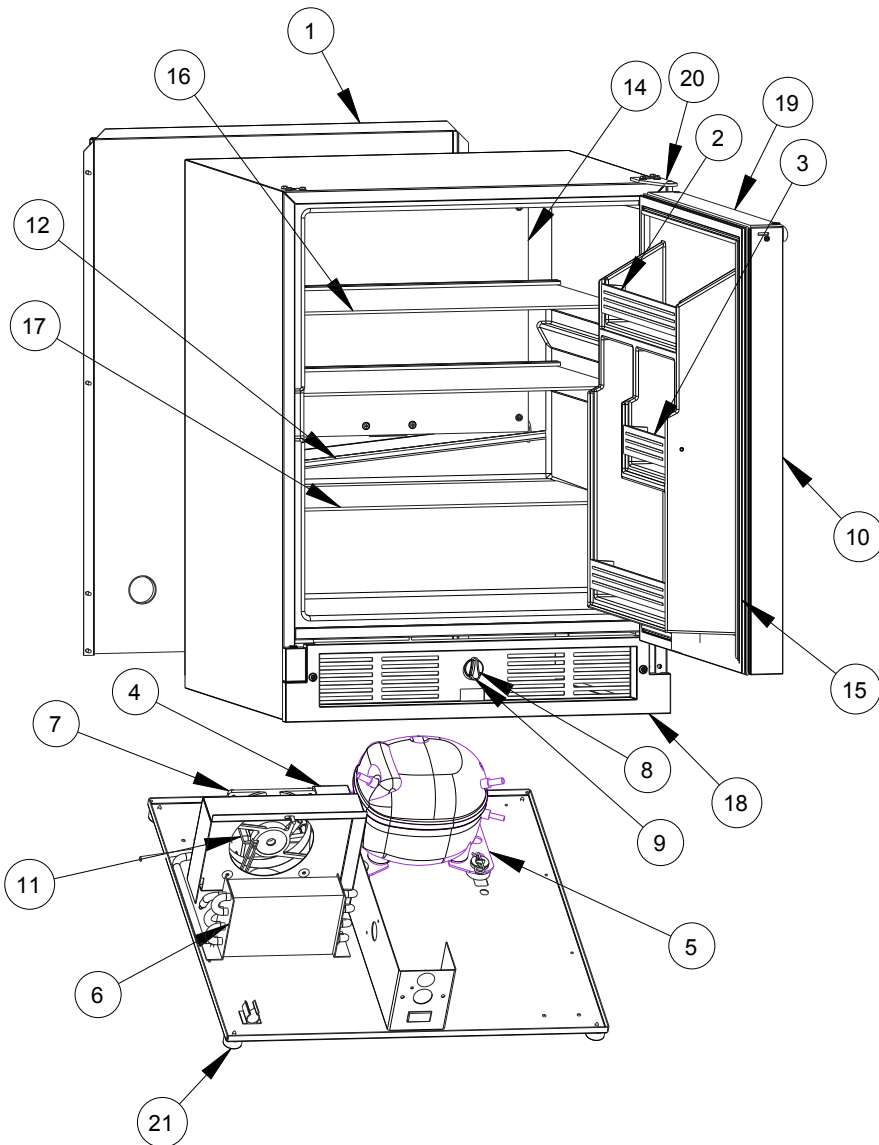
- New Construction Occupancy Documents
- Closing Paperwork
- Final Billing – Remodel

Noting all of the following on the warranty claim will be considered proof of purchase, hard copy will not be required:

- Name of the selling Dealer
- Date of purchase/installation
- Order or Invoice number (if available)
- Description of document reviewed (i.e. store receipt, closing paperwork, etc)

Parts and labor claims are paid separately. Indicate part numbers and description for parts used in the warranty repair. Include the purchase invoice and name of the parts supplier used to procure the parts.

## Parts



U-29RB-00A		
Item	Description	U-Line P/N
1	Back panel	80-54505-00
2	Bottle retainer, long	80-54530-00
3	Bottle retainer, short	80-54533-00
4	Compressor electricals only	80-54149-00
5	Compressor w/electricals	80-54150-00
6	Condenser assembly	80-54521-00
7	Condenser fan w/screws	80-54014-00
8	Control assembly	80-54192-00
9	Control knob	80-54382-00
10	Door assembly w/o hinges	80-54514-00
11	Drain pan	80-54217-00
12	Drain trough	80-54520-00
13	Drier	80-54055-00
14	Evap assembly	80-54518-00
15	Gasket, door	80-54515-00
16	Glass shelf (1)	80-54525-00
17	Glass shelf (1), btm	80-54527-00
18	Grille w/ screws	80-54522-00
19	Handle w/screws	80-54539-00
20	Hinges (2) w/screws	80-54513-00
21	Legs (4)	80-54529-00
22	Packaging	80-54517-00
23	Power cord	80-54528-00
24	Transformer	80-54203-00

## Ordering Replacement Parts

If you have a purchasing account, please utilize our service website to order parts.

Orders may also be placed by Fax or phone. See our contact information below:

[www.U-LineService.com](http://www.U-LineService.com) (with service login)

FAX Number: +1.414.354.5696

Phone Number: +1.800.779.2547

### **NOTICE**

**Use only genuine U-Line replacement parts. The use of non-U-Line parts can reduce speed of ice production, cause water to overflow from ice maker mold, damage the unit, and void the warranty.**

Warranty parts will be shipped at no charge after U-Line confirms warranty status. Please provide the model, serial number, part number and part description. Some parts will require color or voltage information.

If U-Line requires the return of original parts, we will inform you when the parts order is taken. This requirement will be noted on your packing list. A prepaid shipping label will be included with the replacement part. Please enclose a copy of the parts packing list and any labor claims with your return. Please be sure the model and serial numbers are legible on the paperwork. Tag the part with the reported defect.

When ordering a non-warranty part, you will need an open account and tax exemption on file at U-Line. Another option would be to visit [www.u-line.com](http://www.u-line.com) to locate an authorized parts distributor in your area.



## R-600A Specifications

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



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



**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

### REFRIGERATION SYSTEM DIAGNOSIS GUIDE

System Condition	Suction Pressure	Suction Line	Compressor Discharge	Condenser	Capillary Tube	Evaporator	Wattage
<b>Normal</b>	Normal	Slightly below room temperature	Very hot	Very hot	Warm	Cold	Normal
<b>Overcharge</b>	Higher than normal	Very cold may frost heavily	Slightly warm to hot	Hot to warm	Cool	Cold	Higher than normal
<b>Undercharge</b>	Lower than normal	Warm-near room temperature	Hot	Warm	Warm	Extremely cold near inlet - Outlet below room temperature	Lower than normal
<b>Partial Restriction</b>	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
<b>Complete Restriction</b>	In deep vacuum	Room temperature (cool)	Room temperature (cool)	Room temperature (cool)	Room temperature (cool)	No refrigeration	Lower than normal
<b>No Gas</b>	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.**

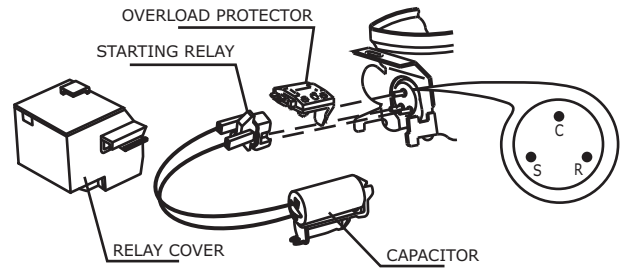
**Handle circuit boards carefully and avoid touching components.**

To measure the start winding resistance, measure across the C and S pins.

To measure the run winding resistance, measure across the C and R pins.

Also check S to R and you should get the sum of the run and start windings.

To ensure the windings are not shorted, check the S and R to ground.



ULIN\_0368\_A

	<b>EMU30HSC</b>
Refrigerant	R134a
Voltage	115 VAC
Frequency	60 Hz
Run Cap	12 $\mu$ F/180 VAC
Start Winding	70 Ohm at 77°F
Run Winding	8.4 Ohm at 77°F
LRA	5.5 A
FLA	1.0 A
Starting Device	8EA14C
Overload	4TM197NFBYY-53

\* All resistance readings are  $\pm 10\%$

## Troubleshooting - Extended

### SPECIFIC ERRORS & ISSUES

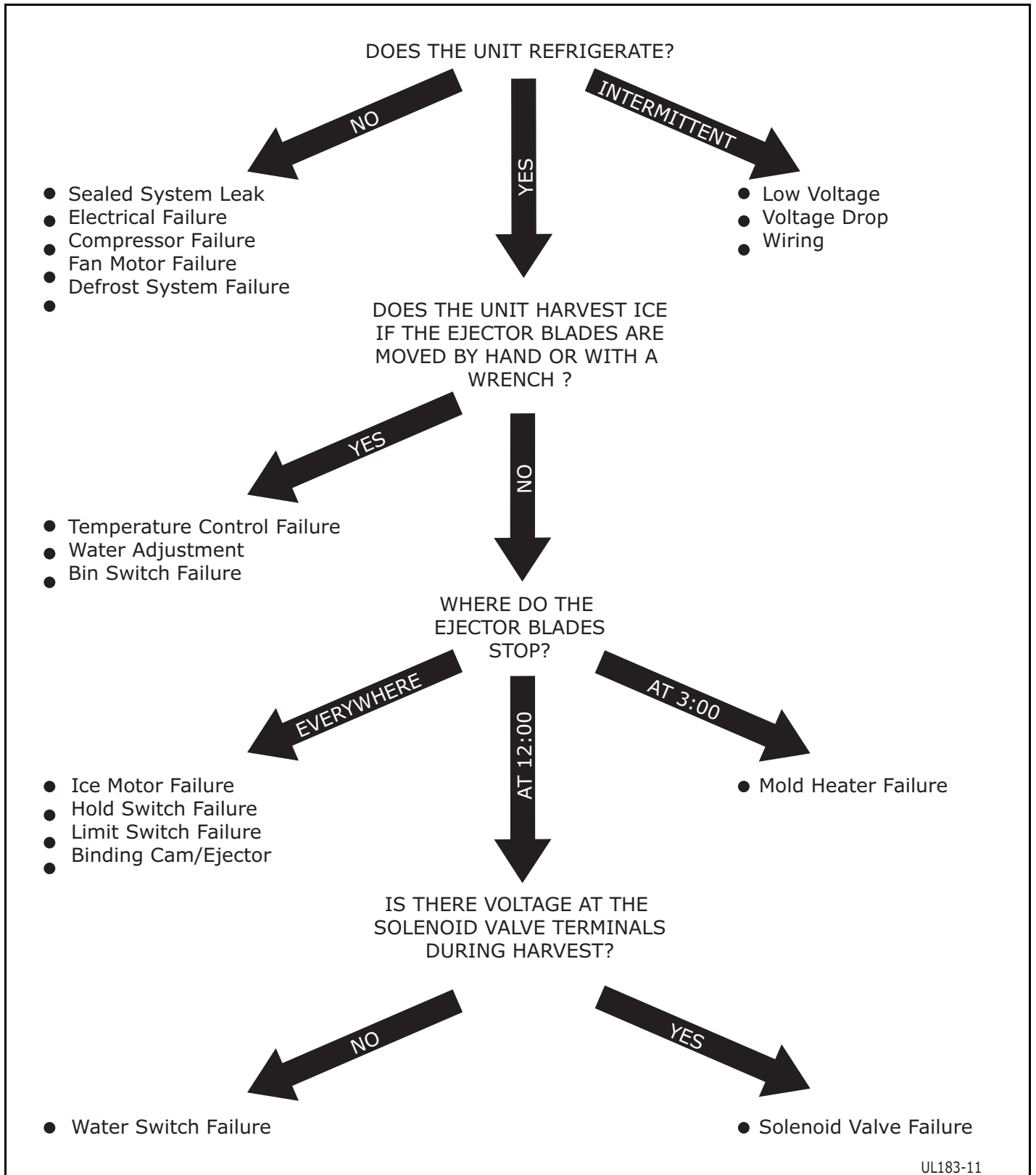


**Never attempt to repair or perform maintenance on the unit until the main electrical power has been disconnected from the unit.**

### TROUBLESHOOTING GUIDE

Concern	Potential Causes	Suggested Remedy
Not Cooling	Compressor overheating	Verify proper air flow through condenser. (Refer to Airflow/General information Section of this manual)
		Confirm condenser fan operation. (Refer to Airflow/General information Section of this manual)
	Compressor not operating	Test overload and relay, replace as needed.
	Compressor operating - no cooling	Refer to Refrigeration System Diagnosis Guide Section of this manual.
	Evaporator fan not operating, convect cool models only	Refer to Convection Cooling Section of this manual. convect cool models only
Frozen Product	Control set too cold	Refer to Adjusting Air Temperature Section of this manual.
Frost Buildup Inside Unit	Door ajar or restricted from closing	Inspect/Repair door closure, adjust as needed.
Internal Lights Not Working	Door switch misaligned or defective	Check light switch, wiring and actuator. Adjust as needed.
	Door switch misaligned or defective electronic control models only	Refer to Reed Switch Section of this manual. electronic control models only
Noisy	Refrigeration tubing touching cabinet	Carefully reposition tubing.
	Fan blade obstruction (wiring, foam insulation, packaging material)	Remove obstruction.
Ice Buildup In Drain Trough or Drain Problem	Obstructed drain cup or tube	Clear as needed, test flow.
	Kinked condensate drain line	Reroute condensate drain line and test flow.
	Drain trough and cup misaligned	Trough is slotted for adjustment. Loosen retainers and adjust as needed.

**ICE MAKER DIAGNOSIS FLOW CHART**



UL183-11



## PRODUCT TEMPERATURE

### 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.)
- The front grille or condenser are obstructed.
- 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.

## 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 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.

## REFRIGERATION 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 - in 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

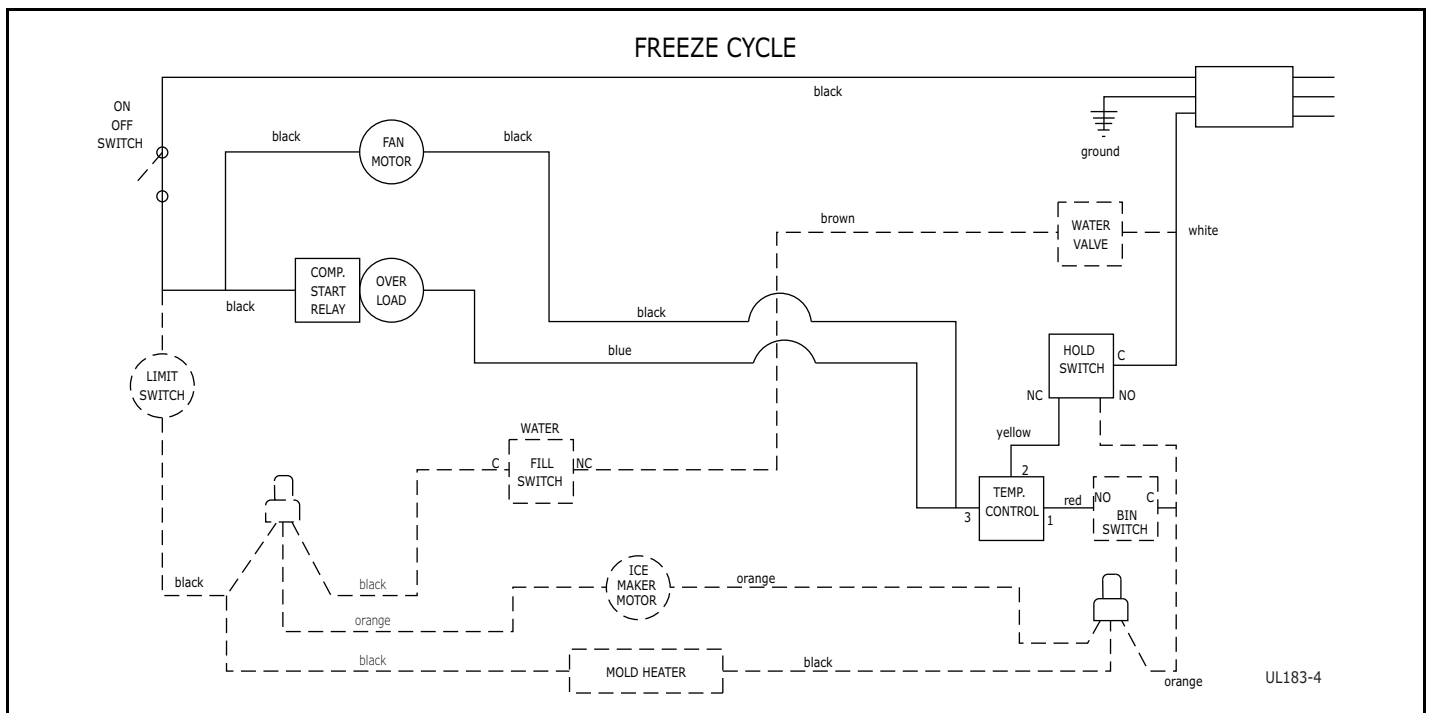
## ICE MAKER OPERATING CYCLES

Power to the compressor.

### Freeze Cycle

Temperature control terminals 2 and 3 are closed.

Power to the condenser fan.

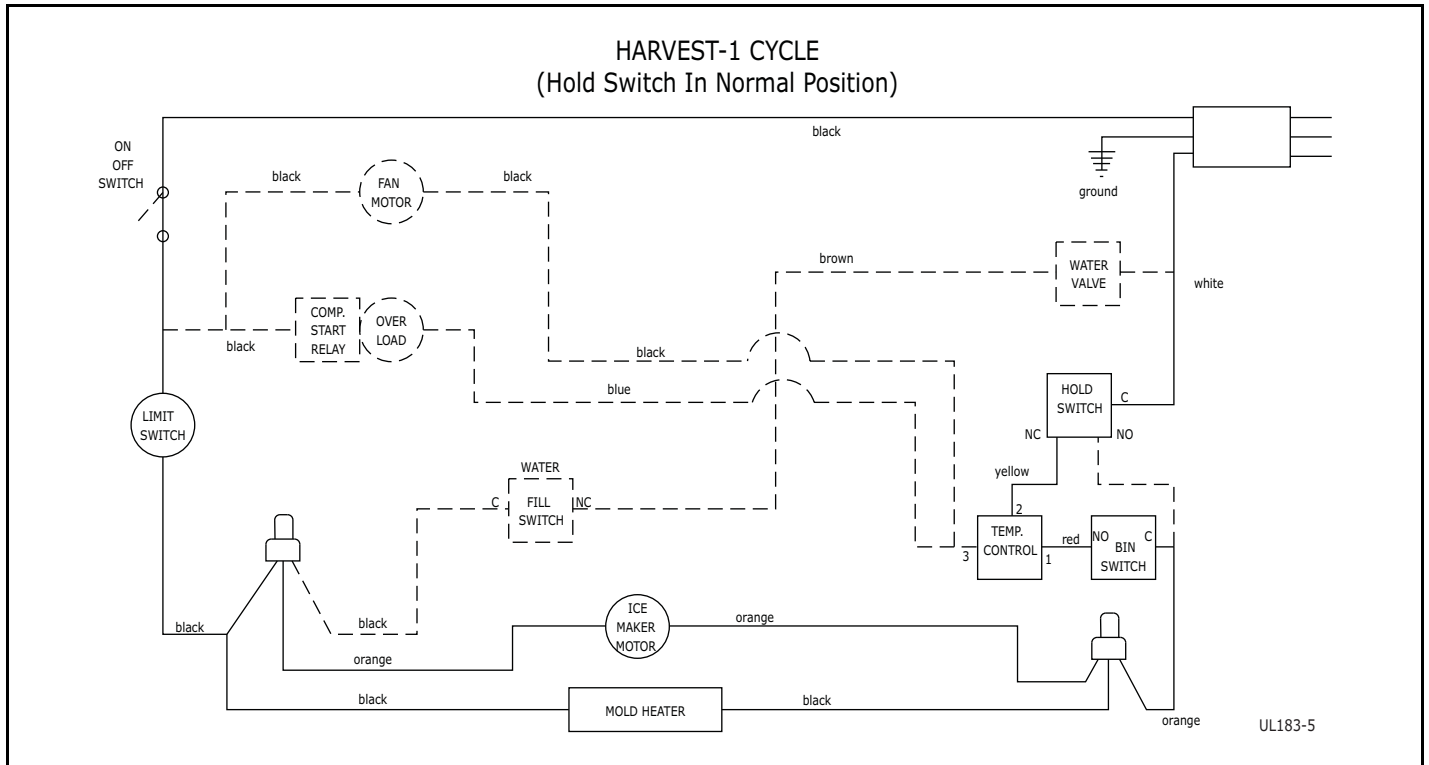


## Harvest-1 Cycle

Temperature control terminals 2 and 3 are open - 2 and 1 close.

If bin arm is down, power goes through bin arm switch to the ice maker motor. If bin arm is up, the ice maker will not harvest.

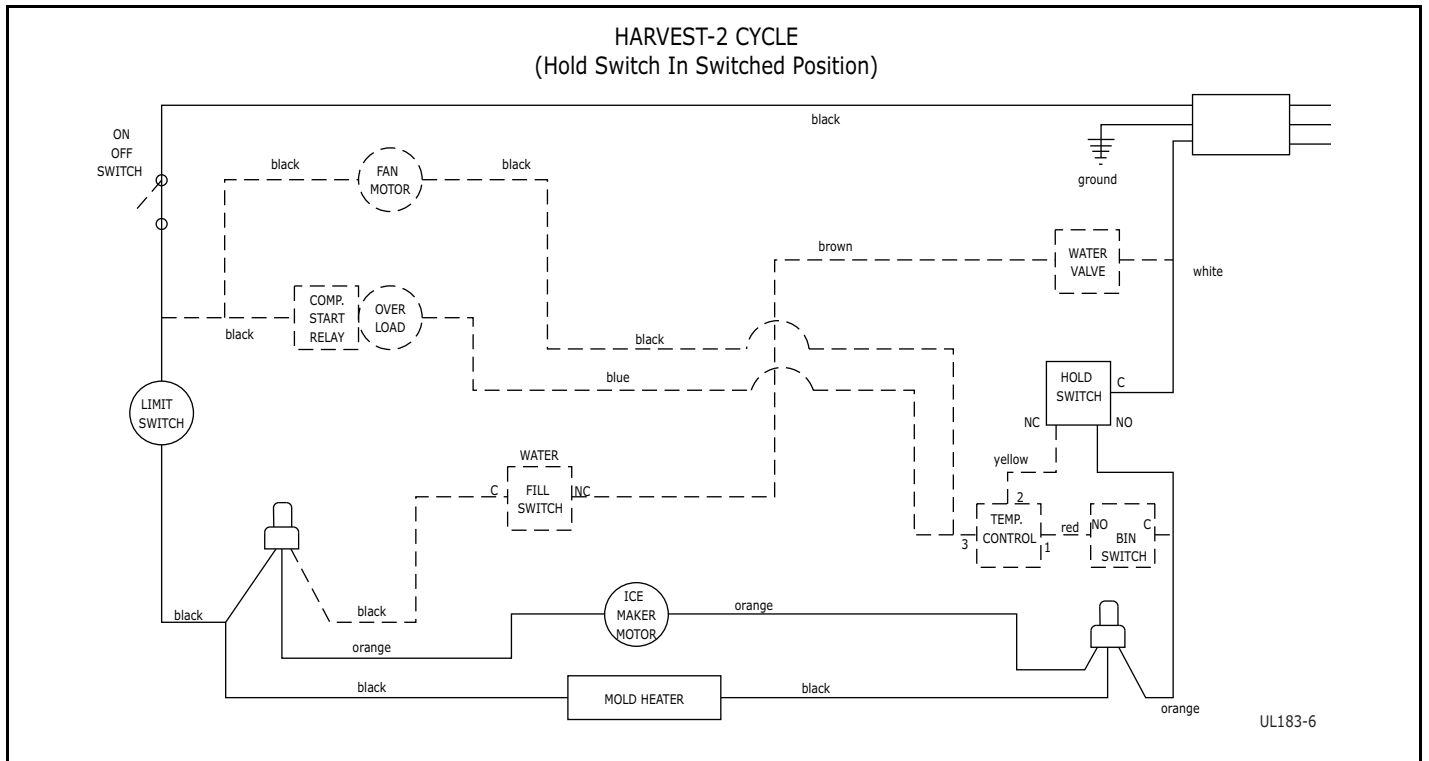
No power to the compressor or condenser fan.



## Harvest-2 Cycle

Ice maker ejector blades reach approximately 2:00 position and cam depresses the hold switch. Power goes through the hold switch to the ice maker motor and mold heater.

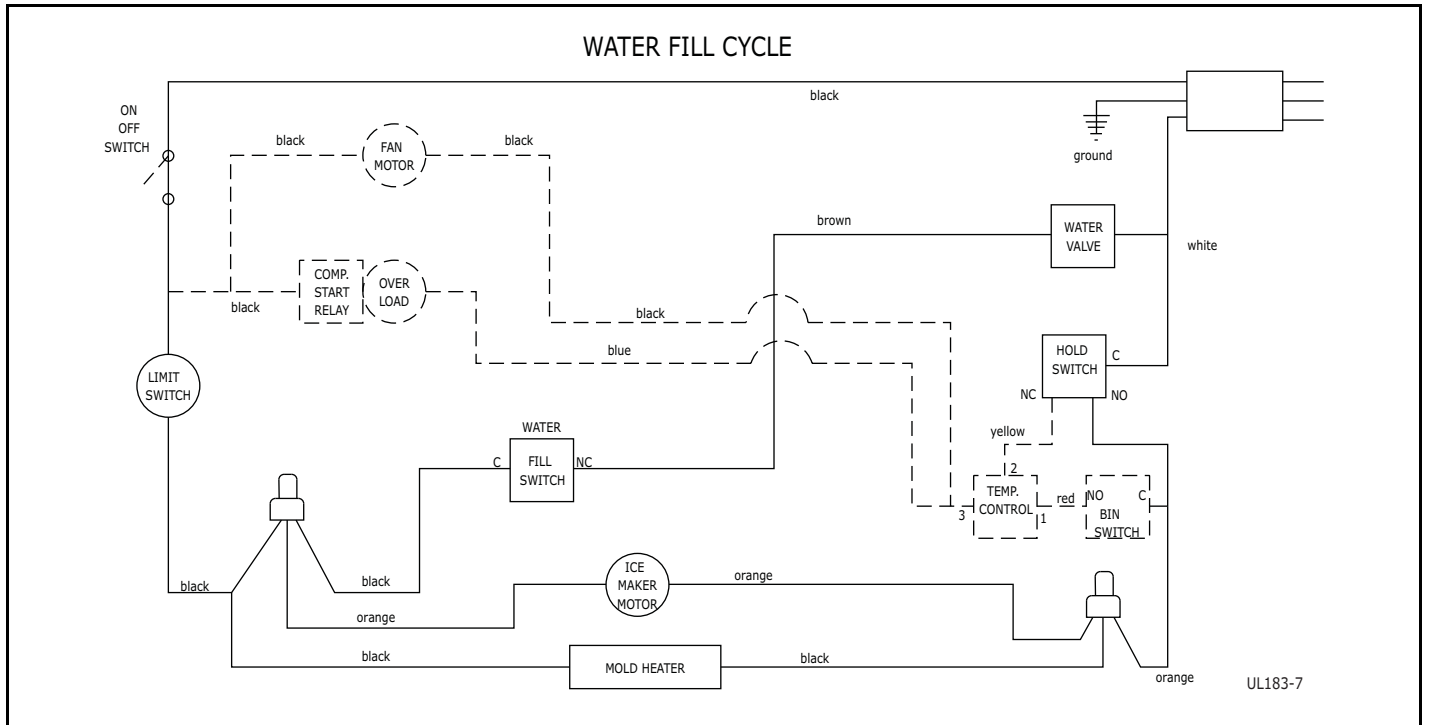
Ejector blades stall on ice and ice maker motor pulsates until mold heater warms and ice releases.



## Water Fill Cycle

Ice maker ejector blades reach approximately 10:00 position and cam depresses the water fill switch.

Power to the water valve. Ice maker mold fills.



## Eject Cycle

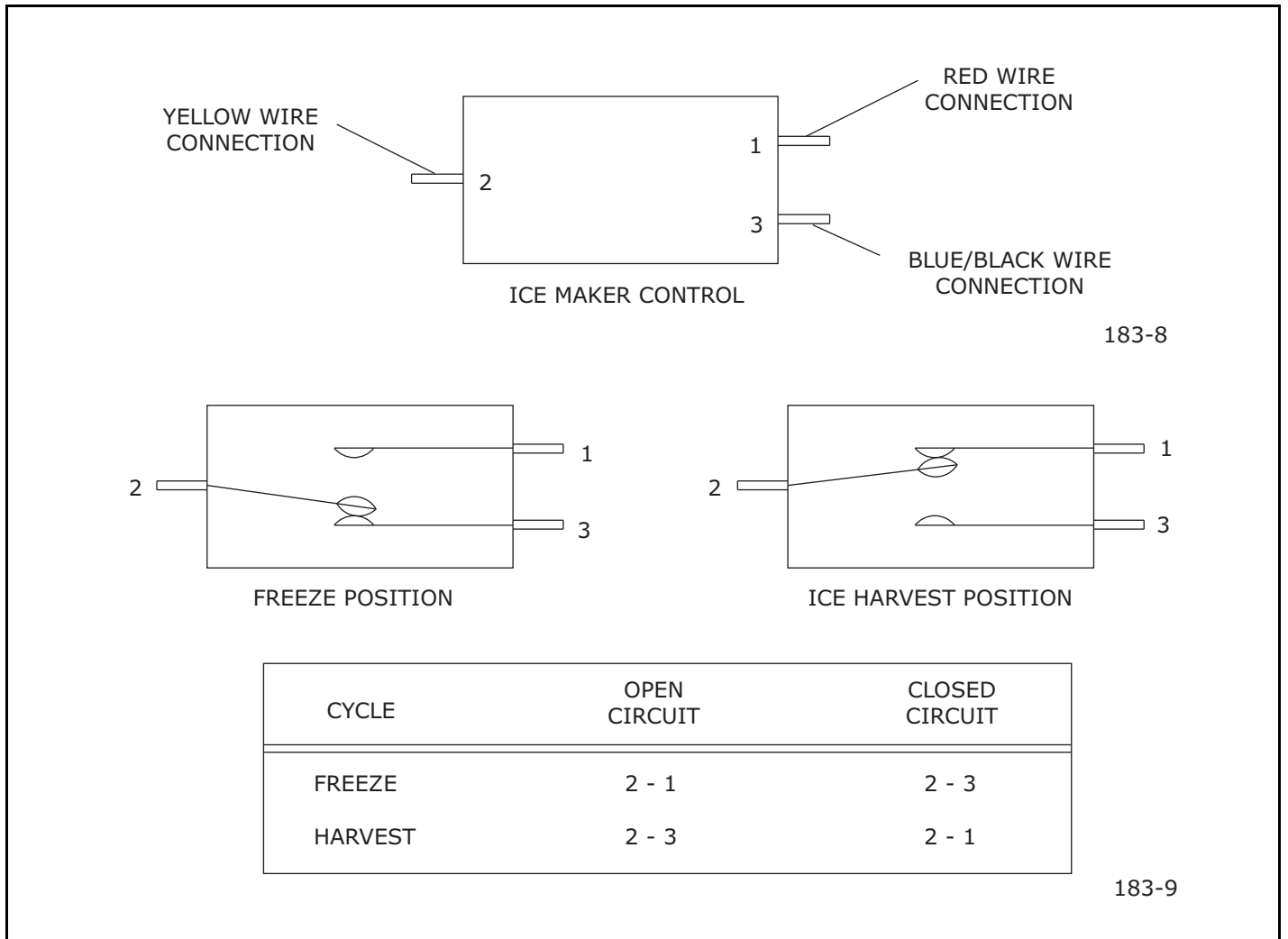
Ejector blades push ice into bucket and stop at 12:00 position.

Temperature control terminals 2 and 3 have closed during harvest cycle.

Next freeze cycle begins with power to the compressor and condenser fan.

**TEMPERATURE CONTROL SPECIFICATIONS**

These temperature controls are double throw, single pole controls. The sensing tube is inserted into the ice maker mold and senses mold temperature. After ice is sensed in the mold, the 2-3 contacts open (stopping the compressor) and the 2-1 contacts are closed (starting the ice maker motor). The 2-3 contacts close (2-1 contacts open) before the end of the ice harvest cycle. The hold switch prevents power going back to the compressor. This prepares the control for the next cycle.



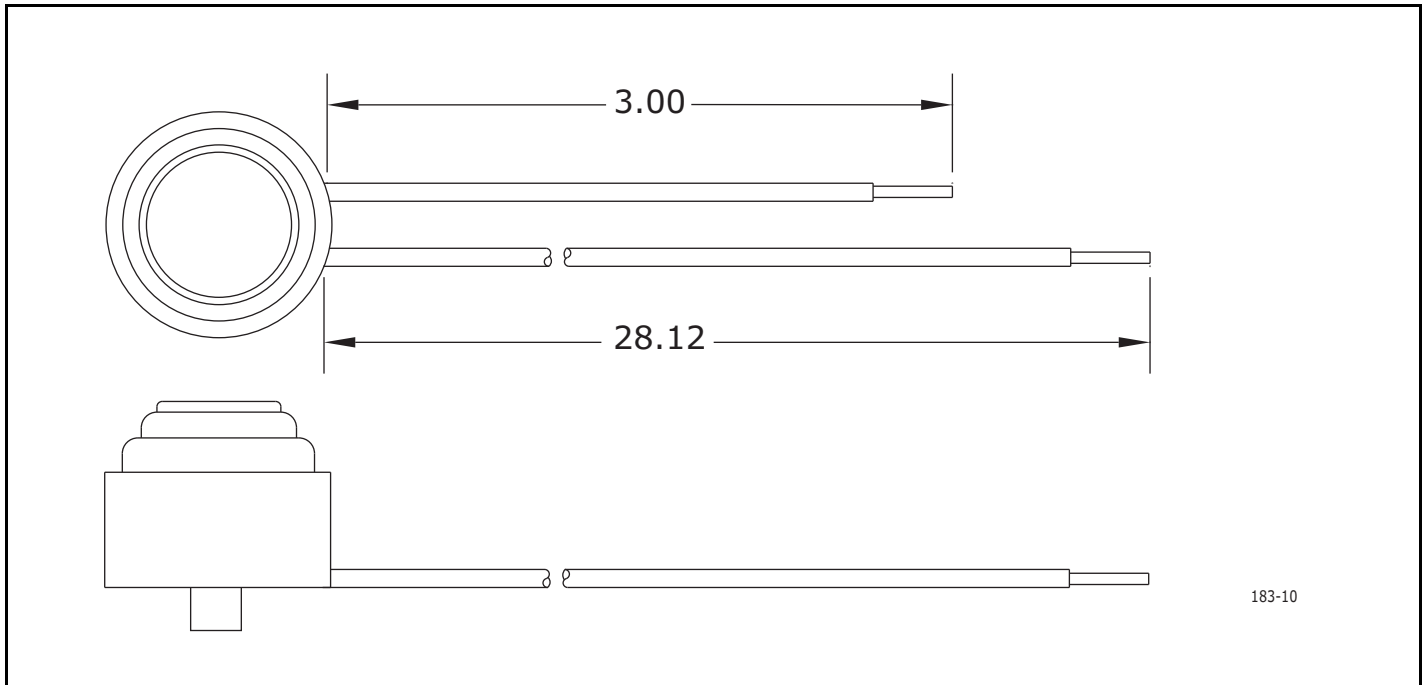
## LIMIT SWITCH SPECIFICATIONS

Normally closed Bi-metal switch

Open temperature: 104°F

Close temperature: 83°F

The function of this switch is to open in the event of an overheating condition. This bi-metal thermostat is normally closed and does not initiate the ice harvest cycle. The ice harvest cycle is initiated by a double throw, single pole temperature located remotely from the ice maker assembly.



## FROST FREE REFRIGERATION

### Cooling Mode

Bypass solenoid closed.

Evaporator fan operating.

Refrigerant flows through capillary tubes.

Normal vapor/compression cycle refrigeration.

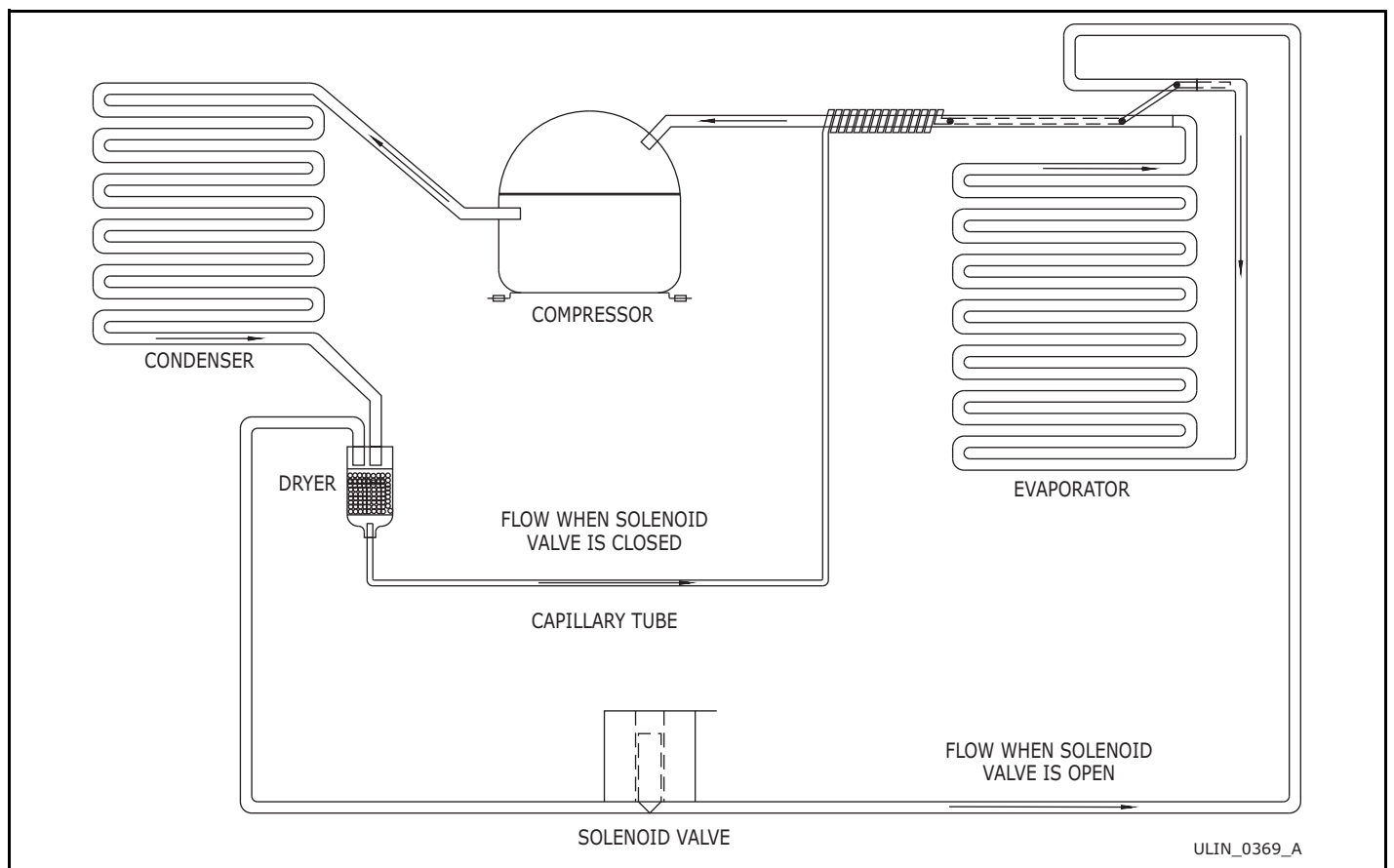
### Defrost Mode

Bypass solenoid valve open.

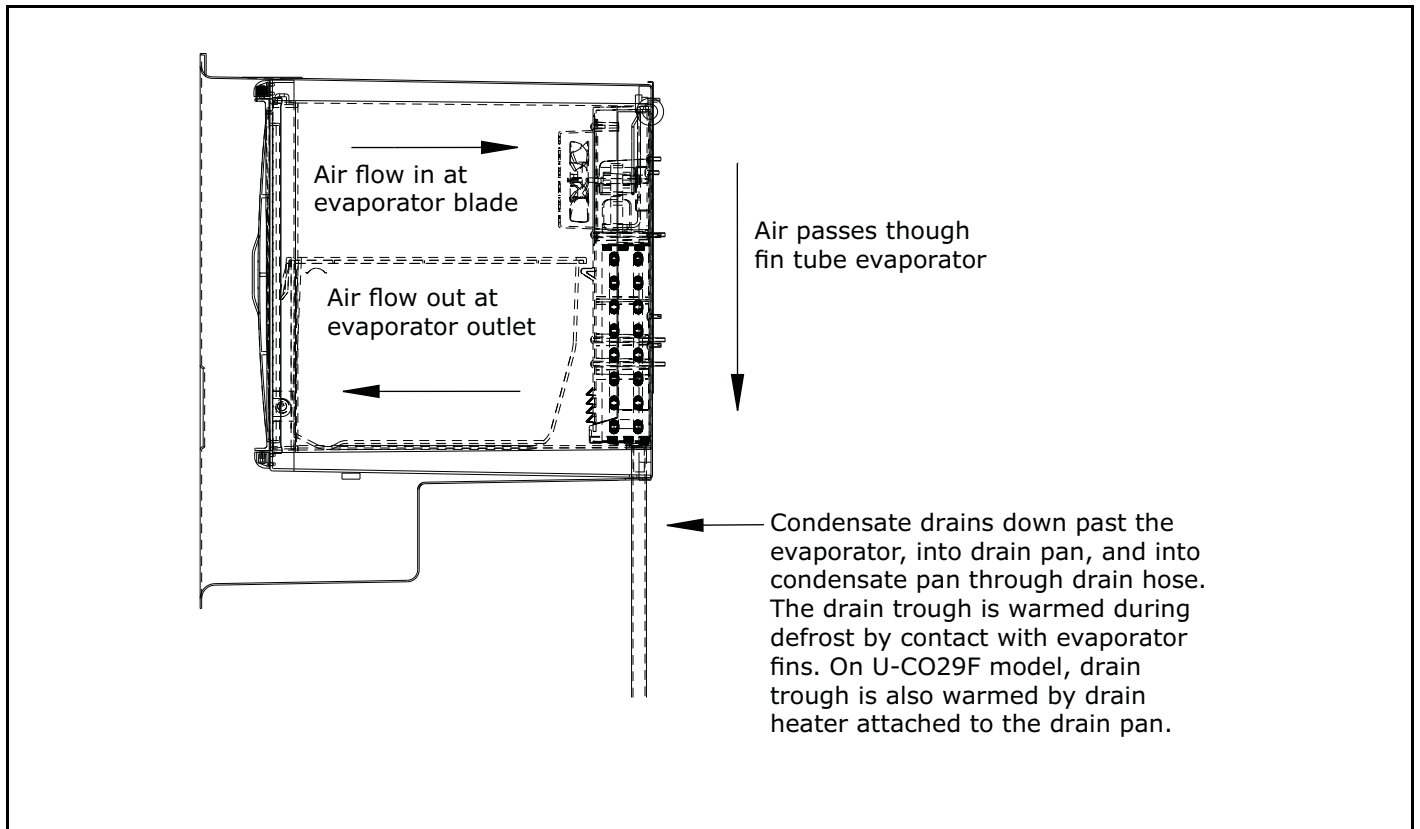
Refrigerant flows through bypass system.

Vapor flows from condenser to evaporator without a phase change.

Drain heater on (U-CO29F only).







## Defrost

These units are automatic (cycle) defrost unit will defrost itself when the control/sensor is satisfied of internal temperatures. Defrost mode ends when control/sensor asks for cooling.

## U-Line Corporation (U-Line) Limited Warranty

### One Year Limited Warranty

For one year from the date of original purchase, this U-Line product warranty covers all parts and labor to repair or replace any part of the product that proves to be defective in materials or workmanship. For products installed and used for normal residential use, material cosmetic defects are included in this warranty, with coverage limited to 60 days from the date of original purchase. All service provided by U-Line under the above warranty must be performed by U-Line factory authorized service, unless otherwise specified by U-Line. Service provided during normal business hours.

### Available Second Year Limited Warranty

Beyond the standard one year warranty outlined above, U-Line offers an extension of the one year warranty coverage for an additional second year from the date of purchase, free of charge. To take advantage of this second year warranty, you must register your product with U-Line within two months from the date of purchase at u-line.com providing proof of purchase.

### Five Year Sealed System Limited Warranty

For five years from the date of original purchase, U-Line will repair or replace the following parts, labor not included, that prove to be defective in materials or workmanship: compressor, condenser, evaporator, drier, and all connecting tubing. All service provided by U-Line under the above warranty must be performed by U-Line factory authorized service, unless otherwise specified by U-Line. Service provided during normal business hours.

### Terms

These warranties apply only to products installed in any one of the fifty states of the United States, the District of Columbia, or the ten provinces of Canada. The warranties do not cover any parts or labor to correct any defect caused by negligence, accident or improper use, maintenance, installation, service, repair, acts of God, fire, flood or other natural disasters. The product must be installed, operated, and maintained in accordance with the U-Line User Guide.

The remedies described above for each warranty are the only ones that U-Line will provide, either under these warranties or under any warranty arising by operation of law. U-Line will not be responsible for any consequential or incidental damages arising from the breach of these warranties or any other warranty, whether express, implied, or statutory. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. These warranties give you specific legal rights, and you may also have other rights which vary from state to state.

Any warranty that may be implied in connection with your purchase or use of the product, including any warranty of *merchantability* or any warranty *fit for a particular purpose* is limited to the duration of these warranties, and only extends to five years in duration for the parts described in the section related to the five year limited warranty above. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

- The warranties only apply to the original purchaser and are non-transferable.
- The second year and five year warranties cover products installed and used for normal residential or designated marine use only.
- 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.
- The start of U-Line's obligation is limited to four years after the shipment date from U-Line.
- In-home instruction on how to use your product is not covered by these warranties.
- Food, beverage, and medicine loss are not covered by these warranties.
- If the product is located in an area where U-Line factory authorized service is not available, you may be responsible for a trip charge or you may be required to bring the product to a U-Line 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.
- Signal issues related to Wi-Fi connectivity are not covered by these warranties.

For parts and service assistance, or to find U-Line factory authorized service near you, contact U-Line:  
8900 N. 55th Street, Milwaukee, WI 53223 • u-line.com • onlineservice@u-line.com • +1.800.779.2547