USER GUIDE & SERVICE MANUAL



Model: UMRI121-SS01A

USER GUIDE & SERVICE MANUAL

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WELCOME TO U-LINE

Congratulations on your U-Line purchase! Our products are focused on functionality, style, and inspired innovations — paying close attention to even the smallest details. Applications include residential, outdoor, ADA height compliant, marine, and commercial. Product categories include Beverage Centers, Wine Refrigerators, Ice Machines, Refrigerators, Freezers, and Dispensers. Our advanced refrigeration systems, large and flexible capacities, and clean integrated look are what makes our products Built-In to Stand Out®. Since 2014, U-Line has been part of the Middleby family of brands.

U-Line — RIGHT PRODUCT. RIGHT PLACE. RIGHT TEMPERATURE.®

PRODUCT INFORMATION

Looking for additional information on your product? User Guides, Spec Sheets, CAD Drawings, and Product Warranty information are available digitally on 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 +1.414.354.0300.
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
Email: sales@u-line.com
u-line.com

SERVICE & PARTS ASSISTANCE

Monday - Friday 8:00 am to 4:30 pm CST
T: +1.414.354.0300
Service Email: onlineservice@u-line.com
Parts Email: onlineparts@u-line.com

CONNECT WITH US AT MIDDLEBY REFRIGERATION

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.

⚠ WARNING

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.

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.

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

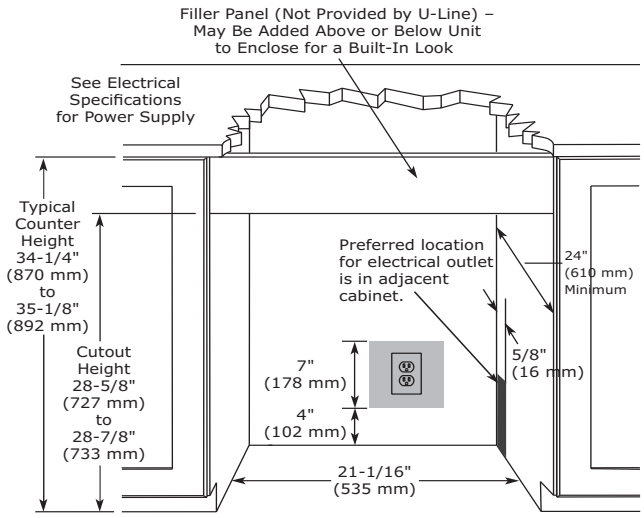
PREPARE SITE

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.

⚠ CAUTION

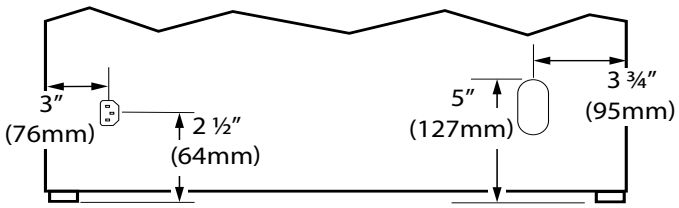
Unit can NOT be installed behind a closed cabinet door.

CUTOUT DIMENSIONS

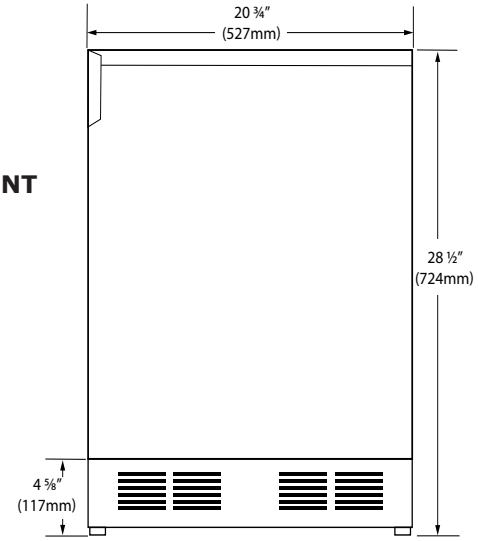


PRODUCT DIMENSIONS

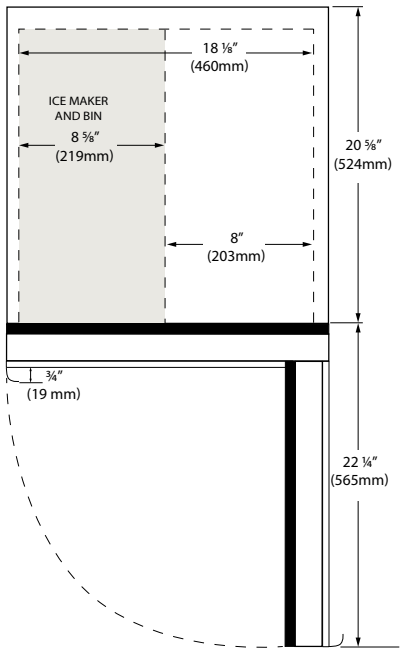
REAR



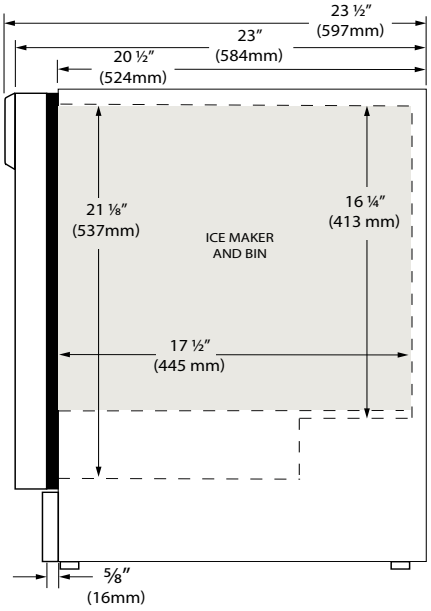
FRONT



TOP



SIDE



Water Hookup

PREPARE PLUMBING

The water valve uses a standard 1/4" (6.35 mm) compression fitting. U-Line recommends using accessory water hook up kit – part # ULAWATERHOOKUP. The kit includes a 10' (3 m) braided flexible water supply line and a brass hose fitting.

⚠ CAUTION

Plumbing installation must observe all state and local codes. All water and drain connections MUST BE made by a licensed/qualified plumbing contractor. Failure to follow recommendations and instructions may result in damage and/or harm.

Water Supply Connection

When connecting the water supply, please note the following:

- Before installing the unit and connecting to the cold water supply, review the local plumbing codes.
- The water pressure should be between 20 and 120 psi (138 and 827 kPa).
- The water line MUST have a shut-off valve in the supply line.
- The water line should be looped into 2 coils. This will allow the unit to be removed for cleaning and servicing. Make certain that the tubing is not pinched or damaged during installation.

⚠ WARNING

Connect to potable water supply only.

⚠ CAUTION

Do not use any plastic water supply line. The line is under pressure at all times. Plastic may crack or rupture with age and cause damage to your home.

Do not use tape or joint compound when attaching a braided flexible water supply line that includes a rubber gasket. The gasket provides an adequate seal – other materials could cause blockage of the valve.

Failure to follow recommendations and instructions may result in damage and/or harm, flooding or void the product warranty.

Use new hose set. Do not reuse old hose set.

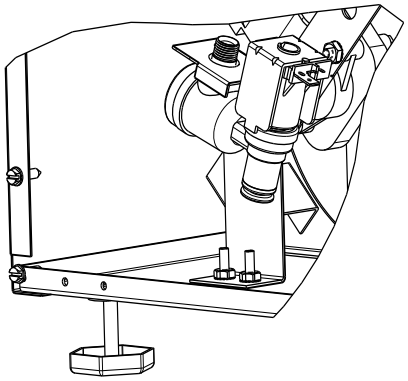
⚠ CAUTION

Turn off water supply and disconnect electrical supply to unit prior to installation.

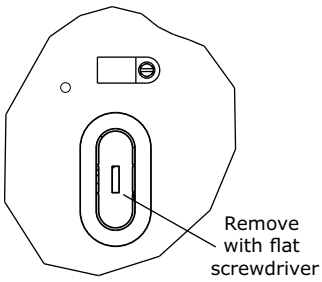
Use caution when handling back panel. The edges could be sharp.

1. Turn off water supply and disconnect electrical supply to product prior to attempting installation.
2. Remove the back panel.

3. Locate water valve inlet.

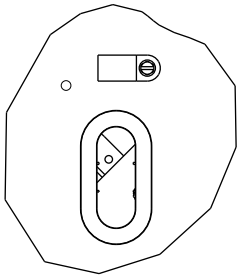


4. Break away filler feature in bushing with flat screwdriver.



5. Thread water line through back panel hole (with bushing).

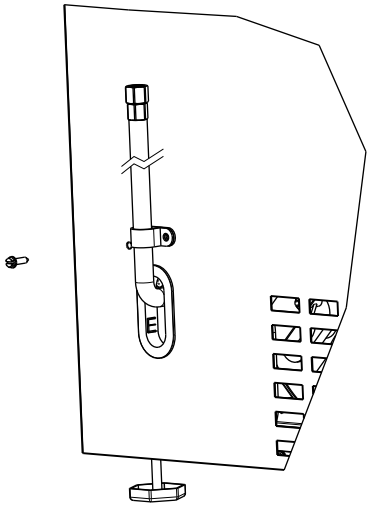
6. Locate water valve inlet and connect to valve.



7. Turn on water supply and check for leaks.

8. Reinstall back panel.

9. Install retaining clip.



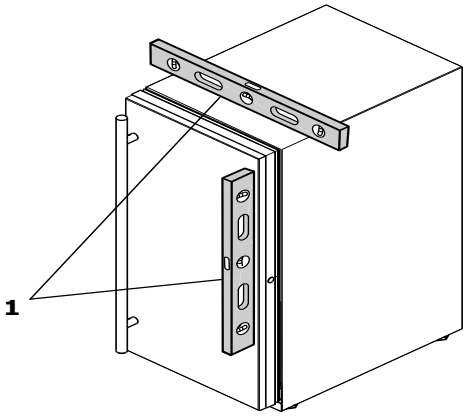
General Installation

LEVELING INFORMATION

NOTICE

Because these units do not have leveling legs, it is extremely important that they sit on a level surface. If they are not level, the ice mold will not fill evenly.

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 or water line.
3. Re-check the leveling, from front to back and side to side. Make any necessary adjustments.
4. Remove interior packing material and wipe out the inside of the unit with a clean, water-dampened cloth.

Grille Installation

REMOVING AND INSTALLING GRILLE

⚠ WARNING

Disconnect electric power to the unit before removing the grille.

When using the unit, the grille must be installed.

⚠ WARNING

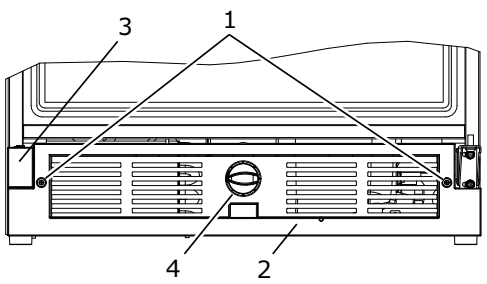
DO NOT touch the condenser fins. The condenser fins are SHARP and can be easily damaged.

Removing the grille

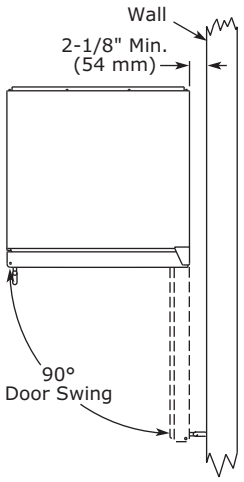
1. Disconnect power to the unit.
2. Remove control knob (4).
3. Loosen the two screws (1).
4. Remove grille (2) and grille cap (3) from unit.

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



Units have a zero clearance for the door to open 90°, when installed adjacent to cabinets.

Stainless Steel models require 2-1/8" (54 mm) door clearance to accommodate the handle if installed next to a wall.

Door Adjustments

DOOR ALIGNMENT AND ADJUSTMENT

Align and adjust the door if it is not level or is not sealing properly. If the door is not sealed, the unit may not cool properly, or excessive frost may form in the interior.

NOTICE

Properly aligned, the door's gasket should be firmly in contact with the cabinet all the way around the door (no gaps). Carefully examine the door's gasket to ensure that it is firmly in contact with the cabinet. Also make sure the door gasket is not pinched on the hinge side of the door.

To align and adjust the door:

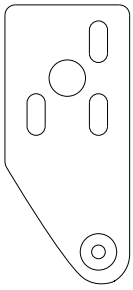
1. Loosen (do not remove) top and bottom hinge screws using a Philips screwdriver on the top and a 1/4" socket on the bottom.
2. Align door squarely with cabinet.
3. Make sure gasket is firmly in contact with cabinet all the way around the door (no gaps).
4. Tighten bottom hinge screws.
5. Tighten top hinge screws.

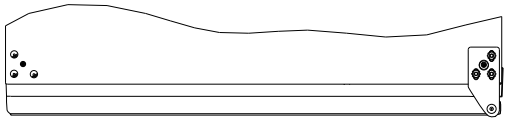
REVERSING THE DOOR

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



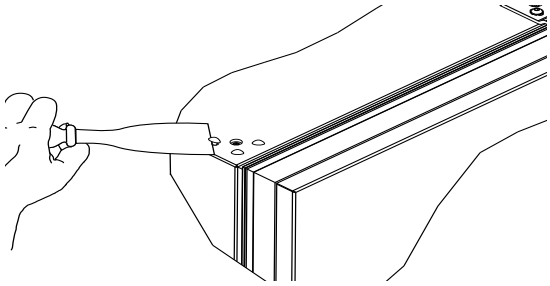


Remove grille:

Remove the grille (see GRILLE INSTALLATION section of this guide).

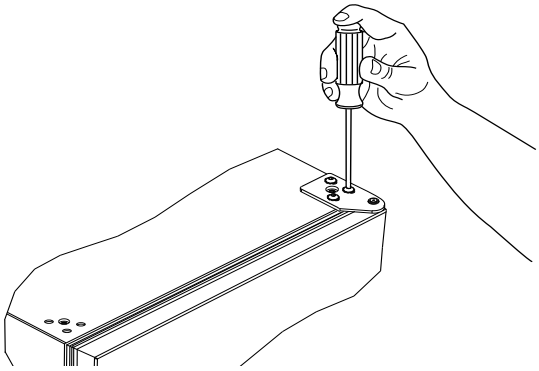
Remove arrow clips:

1. With a puddy knife or other flat tool, gently pry each arrow clip from hinge mounting holes.
2. Set aside arrow clips to be reused on the opposite side.

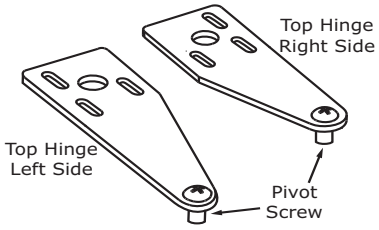


Remove top hinge and door:

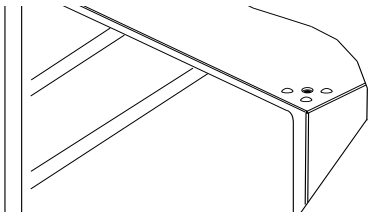
1. Hold door to keep it from falling.
2. Remove top hinge from cabinet using a Philips screwdriver to remove three screws.



3. Remove door by tilting forward and lifting door off bottom hinge. Retain shoulder washers; they will be reused.
4. Use a Philips screwdriver to remove pivot screw and reinstall on the opposite surface of the hinge.

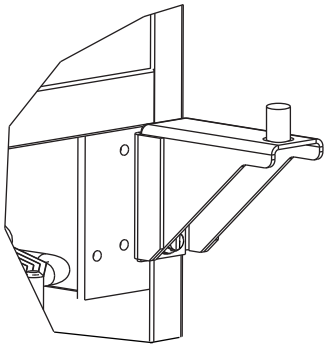


5. Install arrow clips in holes.



Remove bottom hinge:

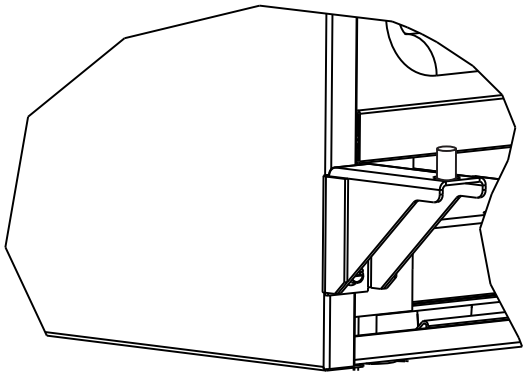
1. Remove bottom hinge from cabinet using a 1/4" socket.



2. Remove corresponding screws on opposite side of cabinet. On some models there may be a nut behind one or both screws on either side.

Install bottom hinge:

Install two or three screws, depending on model. Replace nuts if used.



Install top hinge and door:

1. Rotate door 180° and lift the door on to the bottom hinge.
2. Install hinge that was used on the opposite side of the unit.
3. Align edge of the hinge with the outer edge of the unit while inserting hinge pin into top of door.
4. Tighten three screws.

Align and adjust the door:

Align and adjust the door (see DOOR ALIGNMENT AND ADJUSTMENT)

Install grille

Door Latch

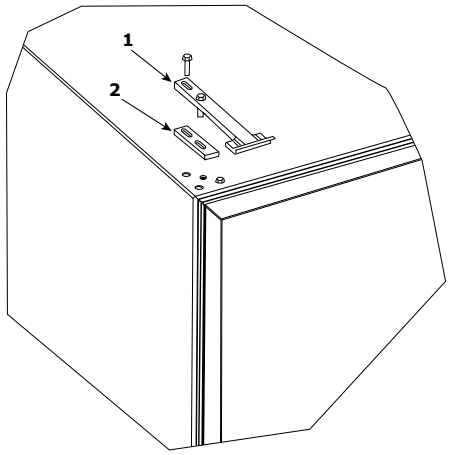
The door latch assembly included with your unit can be installed to prevent the door from opening when the vehicle is in motion.

To install, perform the following:

1. Remove the two outer most screws from the non-hinge side.
2. Place spacer (2) over mounting holes. Place latch (1) on top of spacer (2).

Note: Spacer (2) only required if included with unit.

3. Re-install the screws, but do not tighten all the way.
4. Verify door latch engagement and adjust as necessary.
5. Tighten screws.



Door latch can be used to prop door open approximately 1/2" (13 mm) when unit is not in use.

First Use

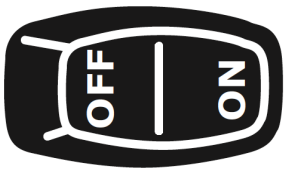
All U-Line controls are preset at the factory. Initial startup requires no adjustments.

NOTICE

U-Line recommends allowing the unit to run overnight before loading with product.

U-Line recommends discarding the ice produced during the first two or three hours of operation to avoid possible dirt or scale that may dislodge from the water line.

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.

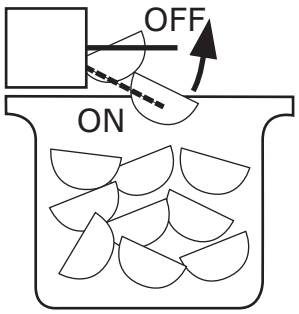
Ice

ICE MAKER OPERATION

When the ice bucket is full, the ice making mechanism will shut off. However, the refrigeration system will continue to cool and maintain the ice supply.

NOTICE

Do not place cans or bottles in the ice compartment because they will freeze.



To turn off ice production: Raise the bin arm into an upright and locked position. The unit will preserve temperature for ice storage.

NOTICE

If not intending to use the ice maker, turn the water supply valve off. It is also important to raise the bin arm of the ice maker (see above). Failure to raise the bin arm may result in damage to the water valve.

Certain sounds are normal during the unit's operation. You may hear the compressor or fan motor, the water valve, or ice dropping into the ice bucket.

⚠ CAUTION

NEVER use an ice pick, knife or other sharp instrument to separate cubes. Shake the ice bucket instead.

During periods of limited use or high ambient temperatures, it is common for cubes to fuse together. Gently shake the bucket to break apart cubes. If not using the ice maker regularly, empty the ice bucket periodically to ensure fresh cubes.

It is normal for cubes to appear cloudy. The cause is air trapped in the water because of fast freezing. It is not caused by the health, taste or chemical make up of the water. It is the same air that is in every glass of water you drink.

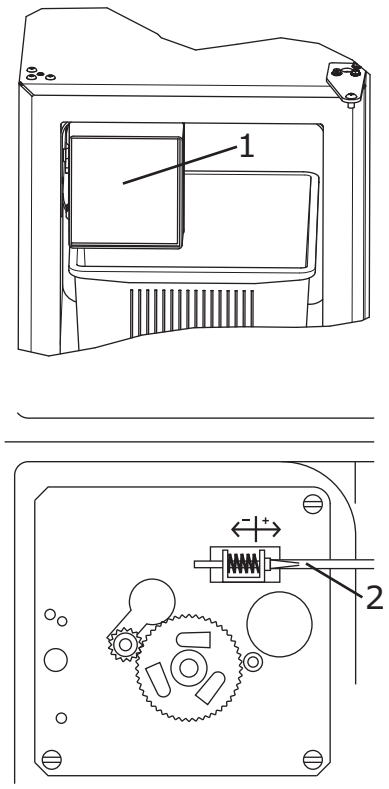
Remove the ice bucket for emptying and cleaning. To remove the ice bucket, raise the bin arm and remove the bucket from the ice compartment. Use the ice bucket for ice storage only.

ICE MAKER ADJUSTMENT

Ice Cube Thickness Adjustment

Interval - As Required

On ice maker equipped models, adjust the cube size by changing water amount injected into the ice maker assembly as follows:



1. Remove the ice maker assembly cover (1).

2. Find the adjusting screw on the ice maker assembly control box (2). The adjusting screw is just below the minus (-) and plus (+) signs on the control box.

⚠ CAUTION

Too large of an adjustment to the screw can cause the water to overflow the ice maker and can cause property damage.

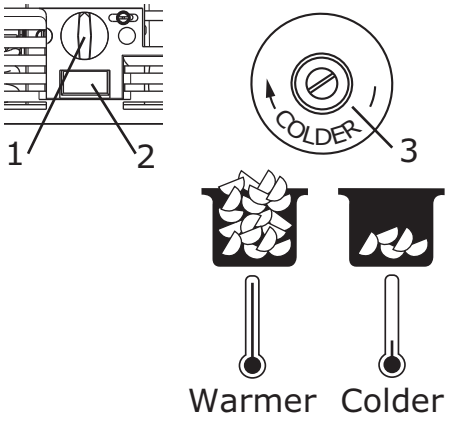
3. Turn the adjusting screw toward the minus (-) sign (clockwise) for smaller cubes or toward the plus (+) sign (counterclockwise) for larger cubes.

4. Install the ice maker assembly cover.

ADJUSTING ICE HARVEST

1. Remove the front grille (see GRILLE INSTALLATION).

2. Using a flat tip screwdriver, turn the adjusting screw (3) a small increment clockwise for a COLDER setting (slower ice production) or counterclockwise for a WARMER setting (faster ice production).



3. Reinstall the front grille (two screws).

Airflow and Product Loading

AIRFLOW

External

- Do not block the front grille - no additional clearance around sides, top or rear of unit is needed for ventilation
- Do not install behind a closed door

Internal

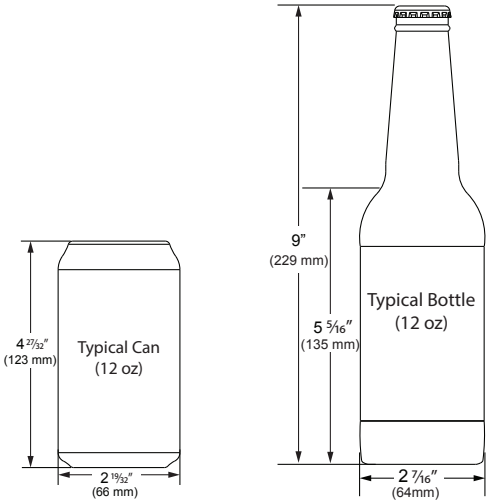
- When loading, leave space between internal fans, vents, and side walls to allow air to circulate freely

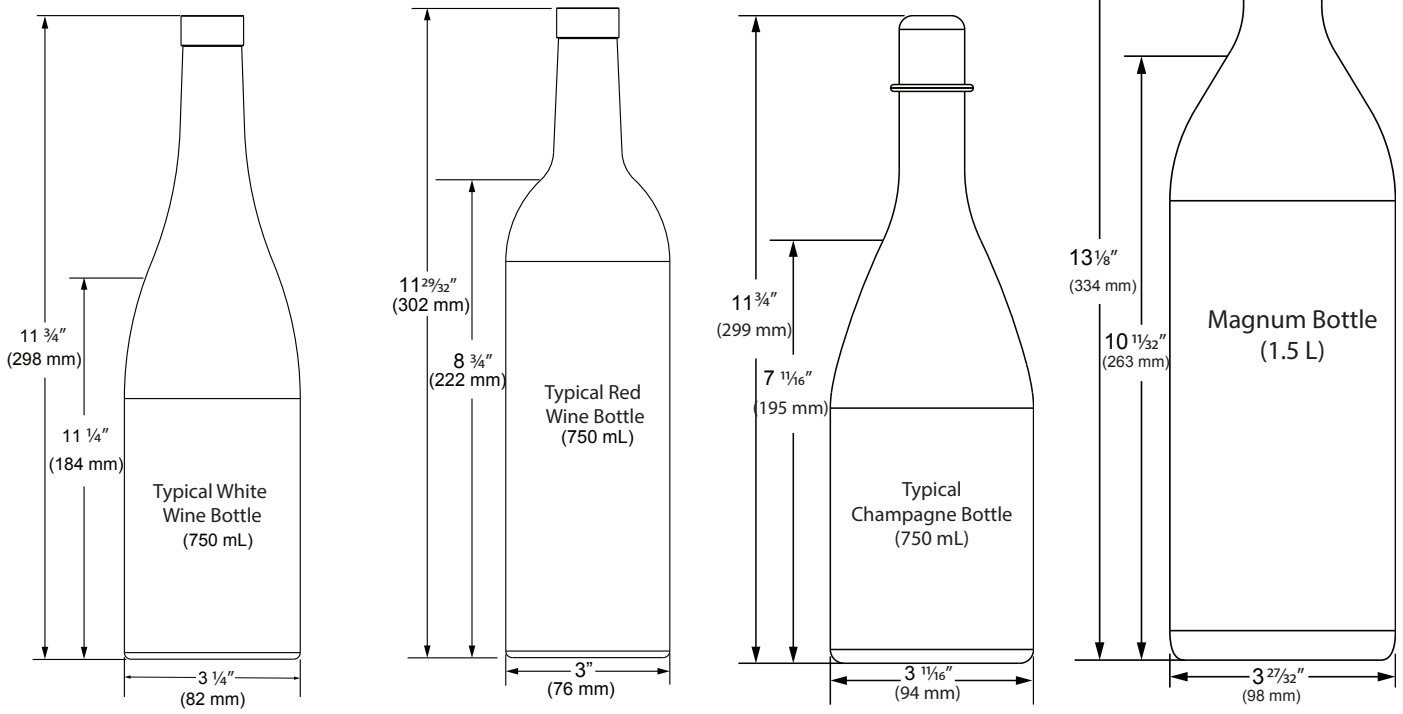
PRODUCT LOADING

Bottles and cans come in many shapes and sizes. Not all bottles and cans will fit on every shelf and wine rack. Larger diameter champagne and Magnum bottles only fit on wine racks when noted on the product specifications. When determining capacities U-Line uses typical 12 oz. cans, 12 oz. bottles, 750 mL white wine and red wine bottles shown below.

NOTICE

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

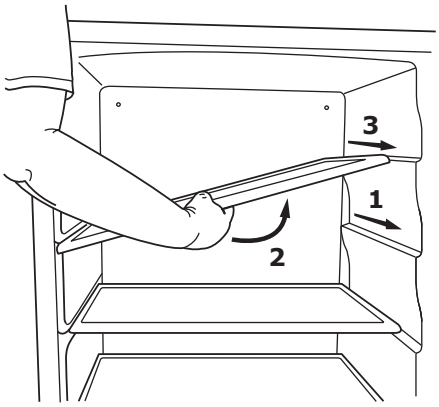




Interior Adjustments

INTERIOR SHELVES

Removing and Installing Interior Shelves



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

1. Pull shelf out about 6" (1), until back of shelf clears the "hump" on the right-hand side.
2. Tilt up right-hand edge of shelf (2).
3. Remove shelf from unit by pulling out (3).

Insert the shelves as follows:

1. To move to a different position in the unit, insert shelf at an angle, approximately 15-20°, over the rib in the side of the unit where you want to place the shelf. Place the shelf into the unit at an angle to clear the door.
2. Continue to slide the shelf into the unit at an angle until it clears the door.

   Lower the shelf and push it in completely. Ensure the raised edge strip is toward the rear of the unit.

NOTICE

Make sure the shelves are inserted fully into the unit.

Cleaning

Stainless Models

Stainless door panels and handles 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.

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 lining.

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.

⚠ CAUTION

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

NOTICE

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

To defrost:

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

Cleaning Condenser

INTERVAL - EVERY SIX MONTHS

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

⚠ WARNING

Disconnect electric power to the unit before cleaning the condenser.

⚠ WARNING

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

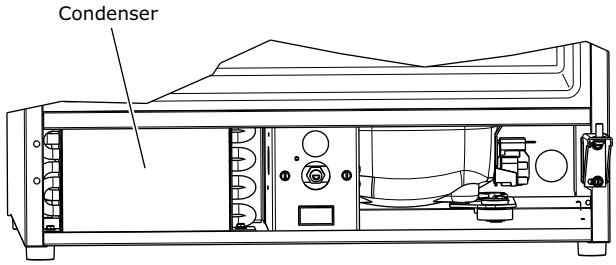
NOTICE

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. Turn off the water supply.

4. If ice is on the evaporator, allow ice to thaw naturally.

5. Clean and dry the interior of the cabinet. Ensure all water has been removed from the unit.

6. Disconnect the water and drain line (if applicable) making sure all water is removed from the lines.

7. 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. In addition, drain pumps in clear ice machines must be drained according to the following procedure:

1. Remove the drain pump from the ice machine.

2. Drain the water in the pump's reservoir by turning the pump upside down and allowing the water to drain through the pump's inlet and vent tube fittings.

3. After water is drained, reinstall the drain pump and reattach all connections.

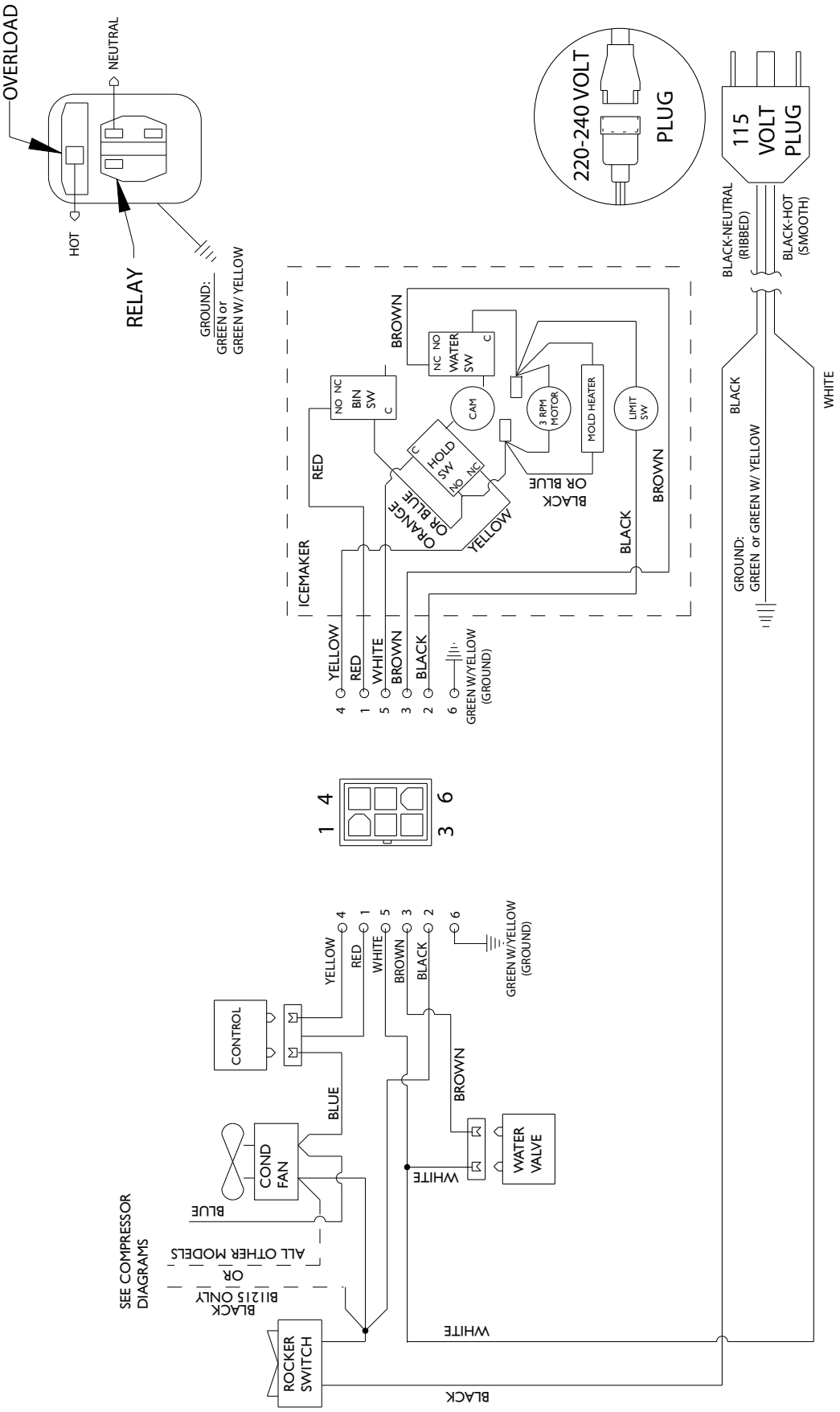
For questions regarding winterization, please call U-Line at 414.354.0300.

⚠ CAUTION

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

Do not put anti-freeze in your unit.

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 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.

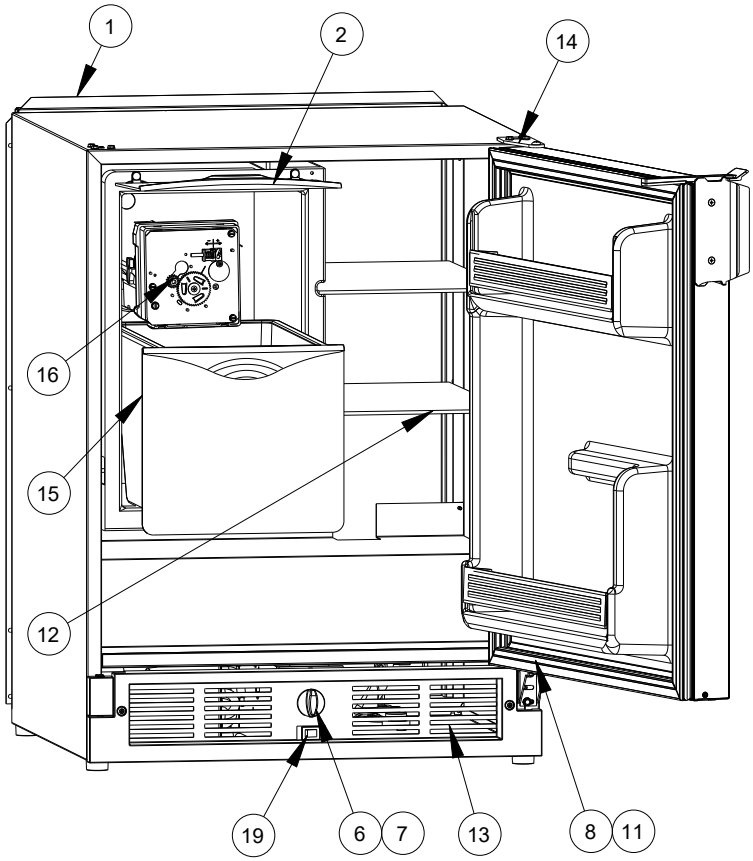
If the service technician determines the damage is the result of installation issues (water connection/drain, etc.), the consumer would be notified and the issues shall be resolved at the direction of the consumer.

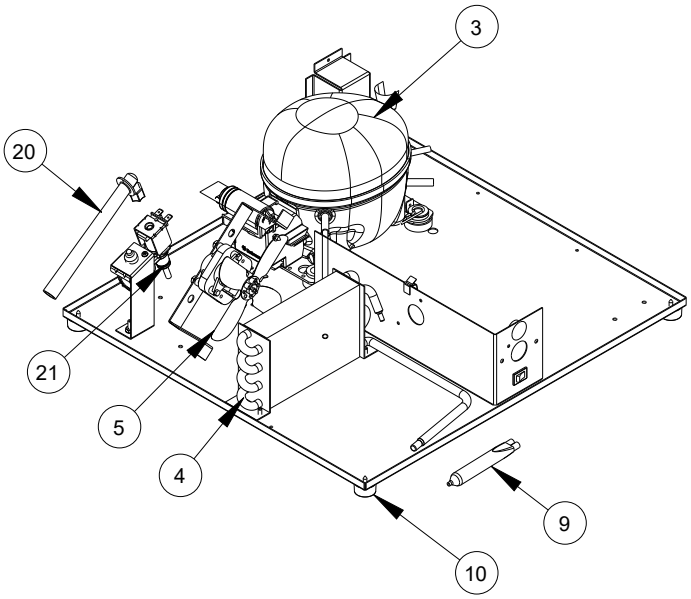
If damage is evident and the service technician is unable to find the source, U-Line must be contacted at +1.414.354.0300 for further direction.

8900 N. 55th Street • Milwaukee, WI 53223
T: +1.414.354.0300 • F: +1.414.354.5696
Website: www.u-line.com

Right product. Right place.
Right temperature Since 1962.

Parts





	UMRI121-SS01A	
Item	Description	U-Line P/N
1	BACK PANEL RI121	80-55660-02
2	BIN DOOR ASSEMBLY	80-54578-00
3	COMPRESSOR,EM2C46CLC,115V, R600	80-55658-11
4	CONDENSER ASSEMBLY	80-55660-03
5	CONDENSER FAN ASSEMBLY	80-54378-00
6	CONTROL ASSEMBLY, MRI121	80-55638-10
7	CONTROL KNOB, BLACK	80-54135-01
8	DOOR, UMRI121, SS	80-55638-05
9	DRIER	80-54055-00
10	FEET (4)	80-54529-00
11	GASKET, DOOR, UMRI121 BLK	80-55638-09
12	GLASS SHELF (1)	80-54559-00
13	GRILLE W/SCREWS	80-54522-00
14	HINGE ASSEMBLY, SS BLK BTM	80-55638-08
15	ICE BUCKET	80-54577-00
16	ICEMAKER, 115V, R600, MANUAL	80-55669-00
17	PACKAGING *	80-54517-00
18	POWER CORD, EXTERNAL *	80-55519-00
19	ROCKER SWITCH	80-55603-00
20	WATER LINE ASSEMBLY	80-54357-00
21	WATER VALVE ASSEMBLY	80-54356-01
22	WIRE ASSEMBLY, CONTROL *	80-55638-11
23	WIRE HARNESS, MAIN *	80-55638-12

* 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.

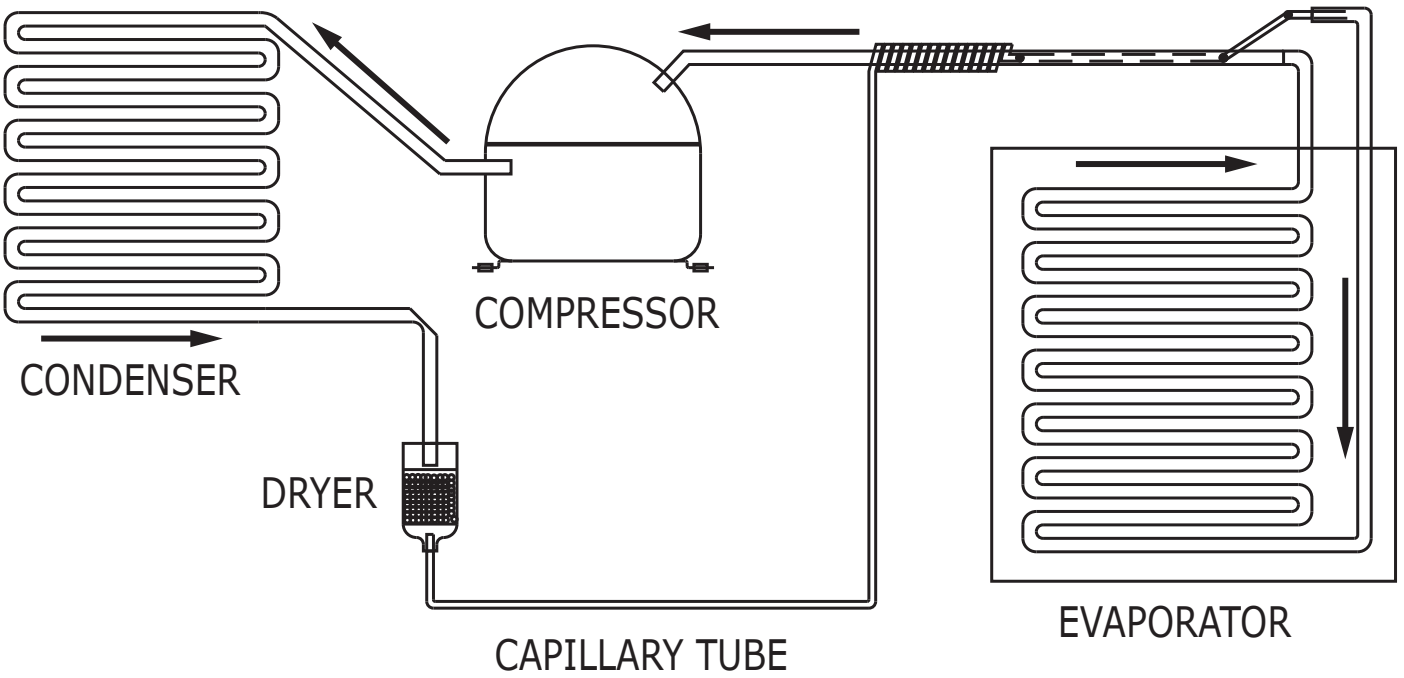
Never apply a torch to a charged R-600a refrigeration system.

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.

	EM2C46CLC-115V
REFRIGERANT	R600a
VOLTAGE	115V – 127V
FREQUENCY	50Hz
START WINDING	5.20 +/- 8% Q at 25 °C (77°F)
RUN WINDING	7.19 +/- 8% Q at 25 °C (77°F)
LRA	8.0A
FLA	2.50A
STARTING DEVICE	PTC 8EA5B1
OVERLOAD	302KFBYY-53

*All resistance readings are ± 10%

	EMC46CLT-220V
REFRIGERANT	R600a
VOLTAGE	220-240V
FREQUENCY	50Hz
START WINDING	20.20 +/- 8% Q at 25 °C (77°F)
RUN WINDING	30.80 +/- 8% Q at 25 °C (77°F)
LRA	-
FLA	-
STARTING DEVICE	TSD2-220VT
OVERLOAD	197JDBYY-73

*All resistance readings are ± 10%

Troubleshooting - Extended

SPECIFIC ERRORS & ISSUES

⚠ CAUTION

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

TROUBLESHOOTING GUIDE

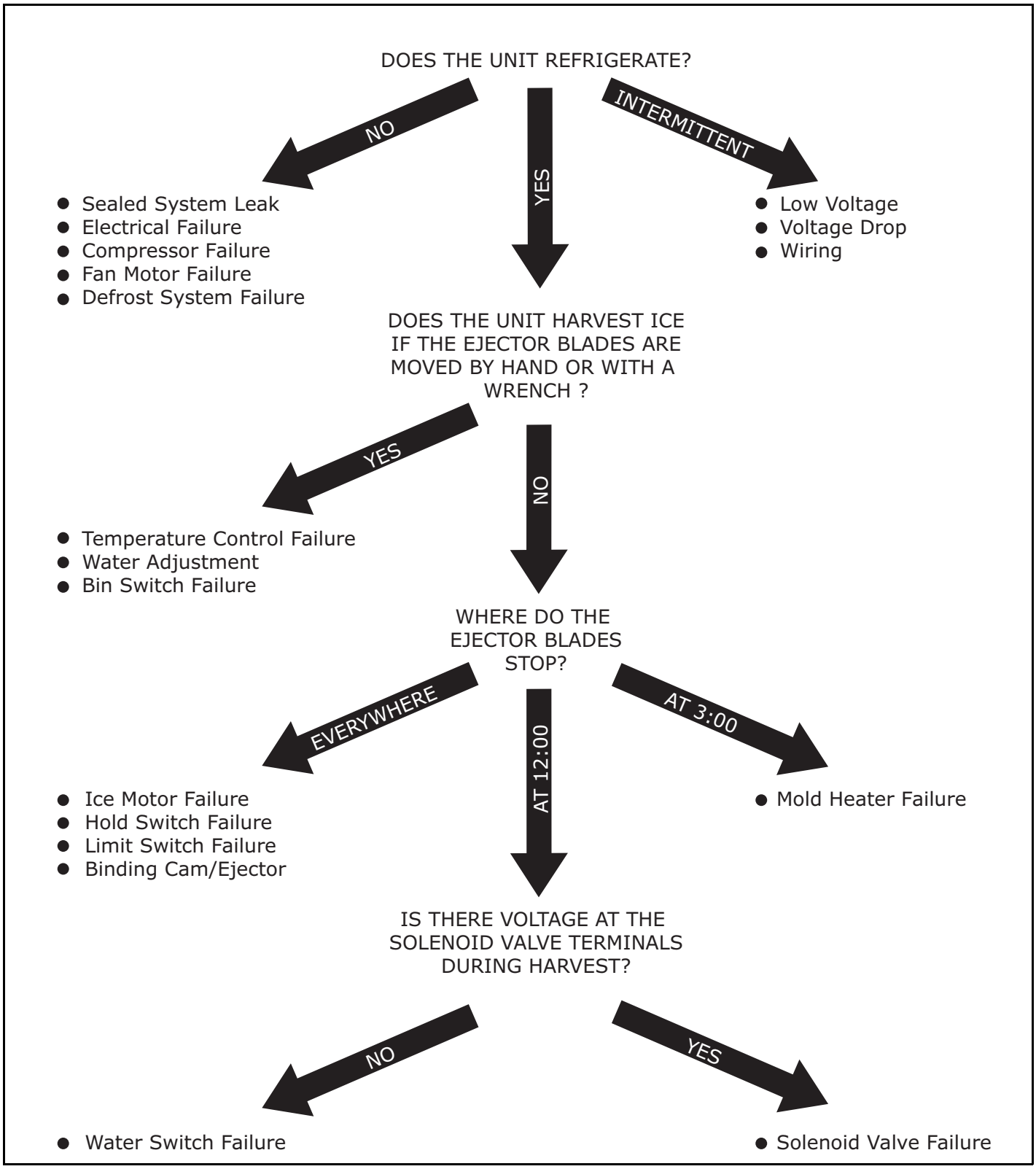
Concern	Potential Causes	Suggested Remedy
Will not eject ice (water frozen).	Control setting too cold.	Adjust control warmer (counterclockwise).
	Control inoperable (1-2 contacts open)	Replace control.
	Bin switch inoperable.	Replace bin switch.
	Limit switch defective (open).	Replace limit switch.
	Ice maker assembly motor stalled.	Replace motor.
	Broken wire in ice maker circuit.	Repair or replace wiring.
	Water soaked cabinet insulation.	Replace foamed cabinet assembly.
	Dirty condenser.	Clean condenser.
Will not fill with water.	Water supply valve closed.	Open water supply valve.
	Water switch inoperable (open).	Replace water switch.
	Solenoid valve inoperable.	Replace solenoid valve.
	Fill tube outlet frozen.	Defrost fill tube.
	Broken wire in water fill circuit.	Repair or replace wiring.
Will not stop making ice.	Bin switch inoperable (closed).	Replace bin switch.
	Bin arm binding.	Lubricate bin arm pivot points or loosen bin arm lever screw.
Water will not stop filling.	Water switch inoperable (closed).	Replace water switch.
	Solenoid valve inoperable.	Replace solenoid valve.
	Stalled ice maker motor.	Replace motor.
	Temperature control inoperable. Ice maker is in continuous harvest cycle (contacts 1-2 closed).	Replace temperature control.
Ejector blades will not stop turning.	Control inoperable (1-2 contacts will not open).	Replace control.
	Hold switch inoperable.	Replace hold switch.
	Broken wiring.	Repair or replace wiring.
	Short in mold heater.	Replace heater.
Low ice production.	Control set too cold.	Adjust control warmer (counterclockwise).
	Fan motor stalled.	Replace fan motor.
	Ice cubes too large.	Lower water fill adjustment.
	Dirty condenser.	Clean condenser.
	Bypass valve stuck open (Frost Free units only).	Replace bypass valve (Frost Free units only).
Not freezing (compressor and fan motors operating).	Little or no frost pattern on evaporator.	Check for sealed system leak or restriction.
	Bypass valve stuck open (Frost Free units only).	Replace bypass valve (Frost Free units only).
Not freezing (compressor not operating - fans operating).	Relay inoperable.	Replace relay.
	Overload inoperable (open).	Replace overload.
	Compressor inoperable.	Replace compressor.

Concern	Potential Causes	Suggested Remedy
Not freezing (compressor and fans not operating).	Power cord not plugged in.	Plug in power cord.
	On/Off switch in off position.	Turn switch to on position.
	On/Off switch inoperable (open).	Replace On/Off switch.
	Hold switch inoperable (open).	Replace hold switch.
	Control inoperable (2-3 contacts open).	Replace control.
	Broken wire in freeze circuit.	Repair or replace wiring.
	Ejector blades not in freeze position (12:00)	Manually advance ejector blades to the 12:00 position (test ice maker and limit switch).
Compressor overheating.	Condenser air flow restricted.	Remove restriction (clean condenser and grille).
	Condenser fan blade obstructed.	Remove blade restriction.
	Condenser fan motor stalled.	Replace fan motor.
	Compressor inoperable.	Replace compressor.
Compressor will not stop operating.	Control set too cold.	Adjust control warmer (counterclockwise).
	Control inoperable (2-3 contacts will not open).	Replace control.
	Control sensing bulb not sensing mold temperature.	Fully insert bulb into ice maker tube. Rout bulb away from compressor discharge tube.
	Evaporator fan stalled (Frost Free units only).	Remove obstruction or replace motor.
Water leak (under unit).	Water supply line leaking at solenoid valve inlet.	Tighten fitting or replace fitting gasket and/or fitting.
	Water line leaking at solenoid valve outlet.	Replace water line and fitting.
	Water line leaking at fill tube.	Tighten clamp or replace fill tube assembly.
	Defrost drain line not in drain pan.	Position drain line in drain pan.
	Crack in water line.	Replace water line.
Water leak (inside unit).	Ice maker assembly fill cup obstructed.	Remove obstruction.
	Fill ice cup and fill tube out of alignment.	Align fill tube and fill cup.
	Water level too high.	Adjust water level.
	Defrost drain plugged (Frost Free units only).	Ice in drain trough (Frost Free units only) (see below).
Excessive frost buildup.	Door gasket not sealing properly.	Adjust door hinges or replace door gasket.
	Door out of alignment.	Adjust door hinges.
	Water soaked cabinet insulation.	Replace foamed cabinet assembly.
	Light stays on when door is closed.	Repair or adjust light bracket.
Noisy.	Copper refrigeration tube touching cabinet.	Carefully adjust tubing.
	Fan blade touching shroud.	Adjust fan mounting or shroud.
	Fan blade obstruction (wiring, foam insulation, packaging material).	Remove obstruction.
Ice buildup in drain trough or drainage problem.	Obstructed drain cup or tube.	Clear obstruction.
	Drain trough heater failed (Frost Free units only).	Replace drain trough heater (Frost Free units only).
	Kinked drain tube.	Align drain trough and drain cup.
	Drain trough spout and drain cup not aligned.	Reroute drain tube.
Unit will not defrost (Frost Free units only).	Bypass coil inoperable.	Replace bypass valve.
	Defrost timer inoperable.	Replace defrost timer.
	Bypass valve inoperable.	Replace bypass valve.
Fresh food temperature too cold.	Temperature control set too cold.	Adjust control to warmer setting (counterclockwise).
	Bin/Freezer door not closing.	Adjust or replace door.
	Ice bucket not fully inserted.	Check for ice behind bucket and push ice bucket in place.

REFRIGERATION SYSTEM DIAGNOSIS GUIDE

System Condition	Suction Pressure	Suction Line	Compressor Discharge	Condenser	Capillary Tube	Evaporator	Wattage
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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 DIAGNOSIS FLOW CHART



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.

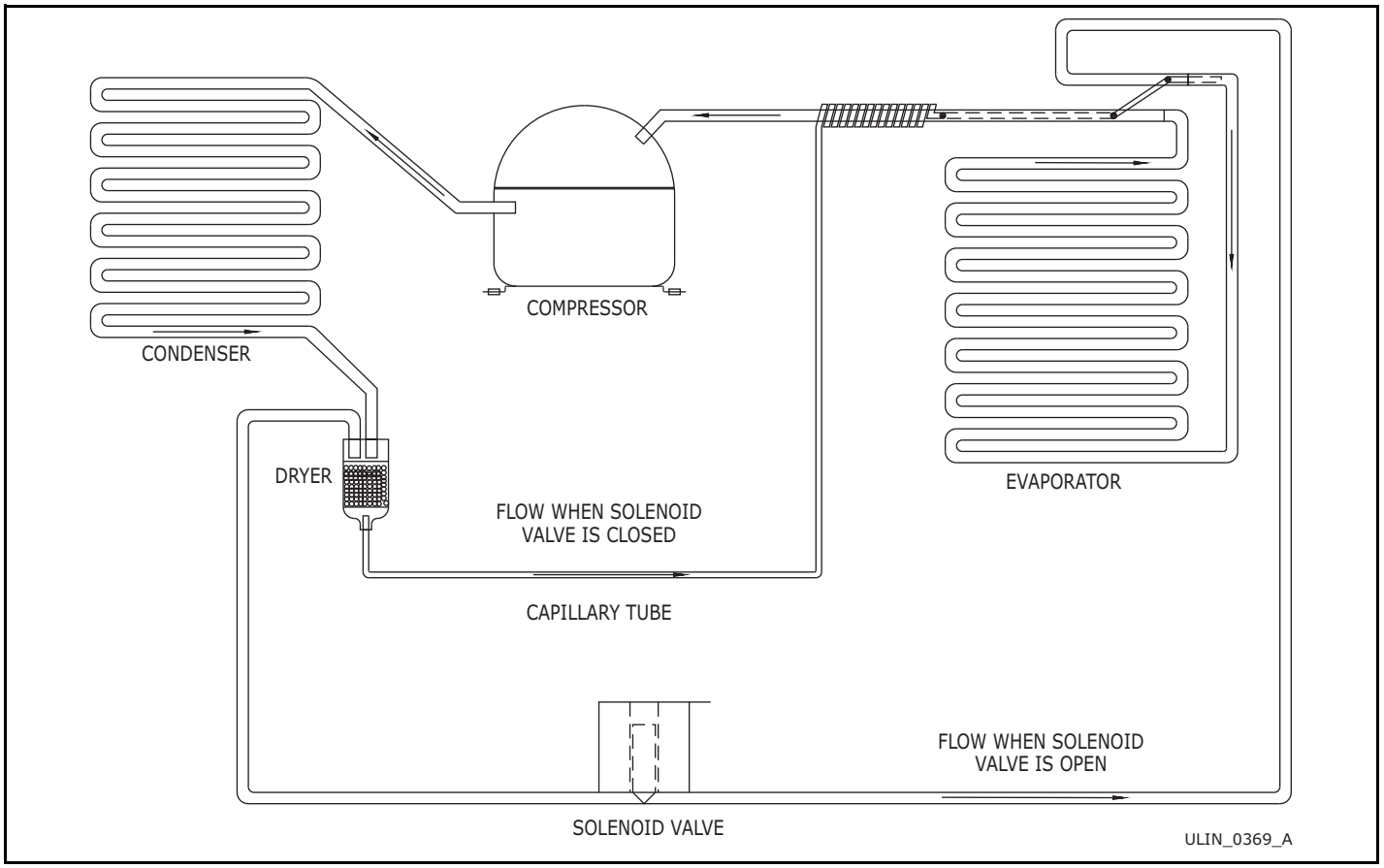


Figure 1. Frost Free Refrigeration System.

ICE MAKER OPERATING CYCLES

Freeze Cycle

- Temperature control terminals 2 and 3 are closed.
- Power to the compressor.
- Power to the condenser fan.

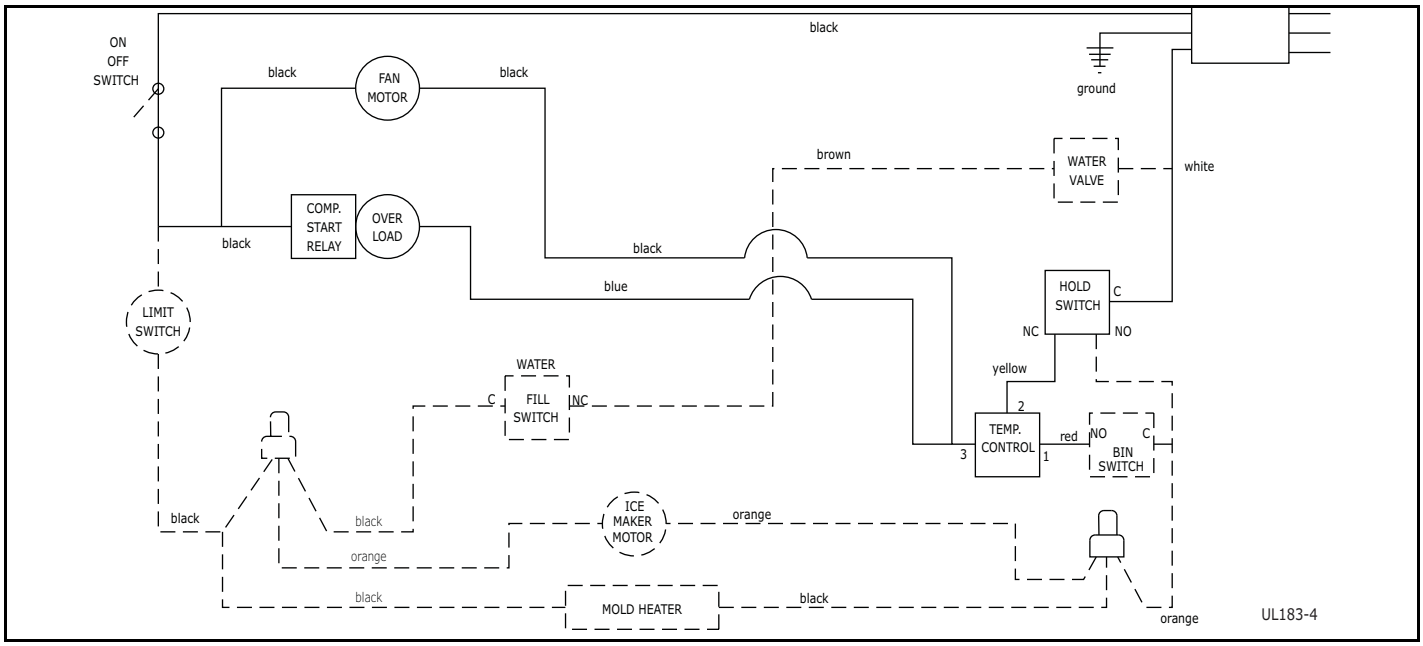


Figure 2. Freeze Cycle

Harvest-1 Cycle

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

- No power to the compressor or condenser fan.

- 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.

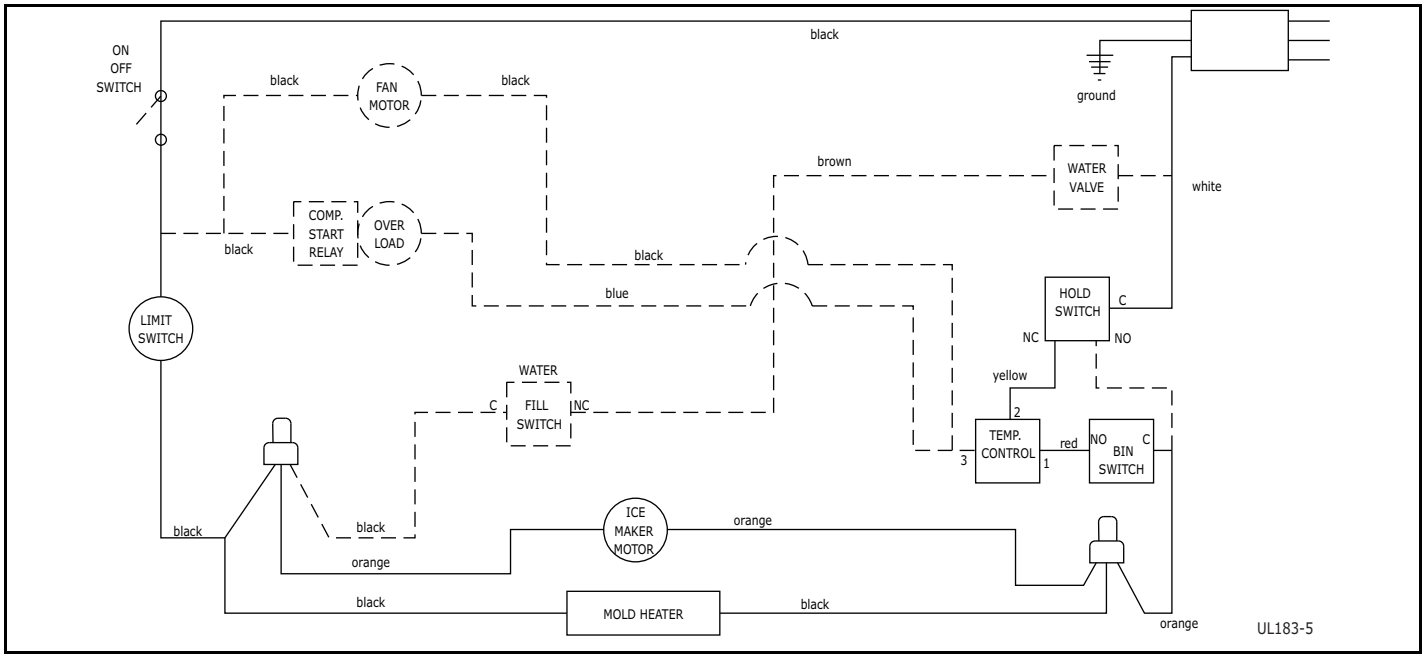


Figure 3. Harvest-1 Cycle (Hold Switch in Normal Position)

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.

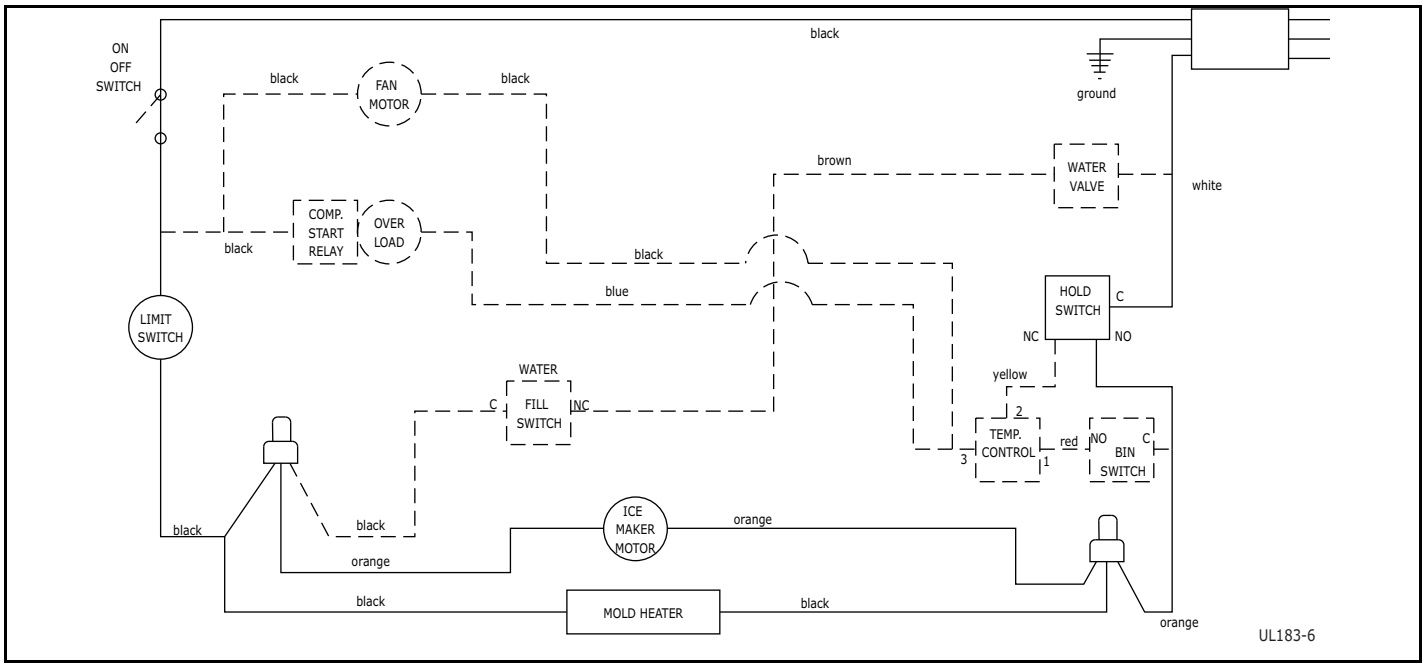


Figure 4. Harvest-2 Cycle (Hold Switch in Switched Position)

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.

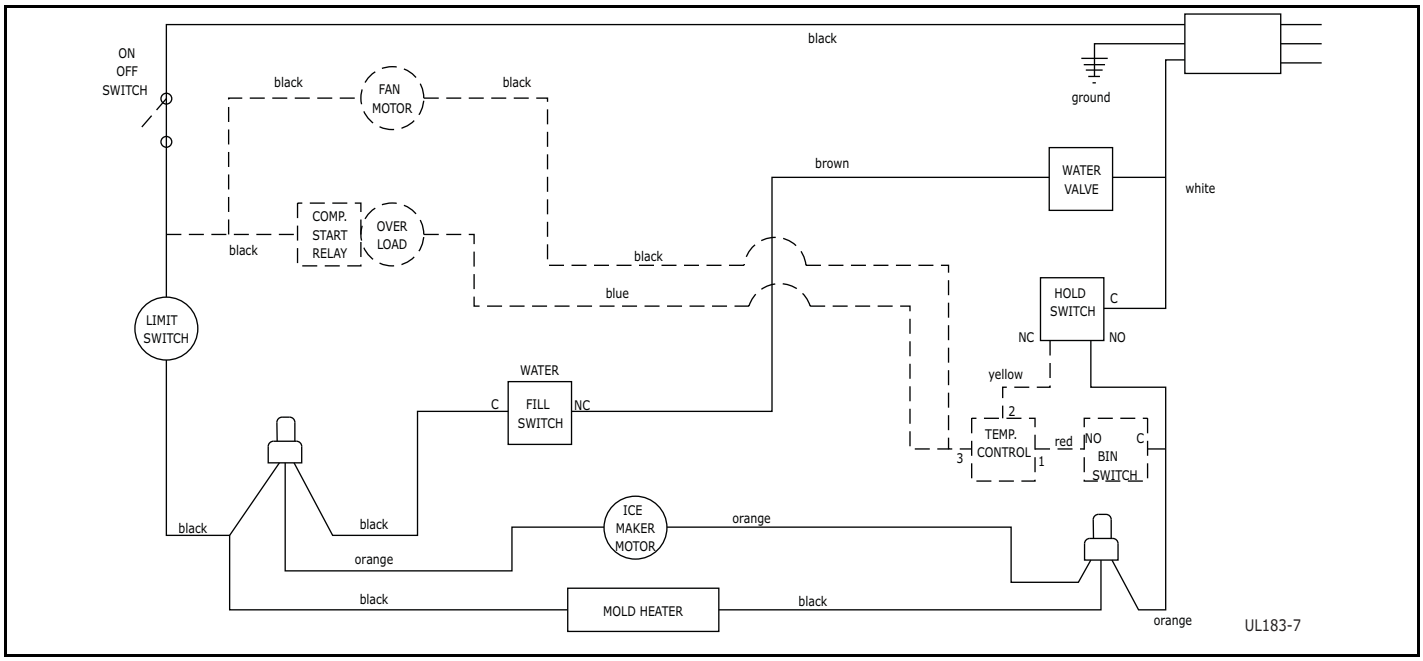


Figure 5. Water Fill Cycle

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.

ICE MAKER OPERATING CYCLES (U-CO29F MODEL)

NOTE: The refrigeration system operates independently of the ice maker. This is a new design for U-Line. All other U-Line ice makers use a double throw control system where the unit is either in a freeze mode or harvest mode. In the U-CO29F, the refrigeration system will cycle on and off depending on the temperature of the freezer. In most cases, this means the refrigeration system will be operating during the ice making and harvest modes. If the freezer control is set too warm, the refrigeration system may cycle off during ice making mode, slowing the ice production rate. If this happens, adjust the freezer control colder.

Freeze Cycle

- Ice maker thermostat (located behind grille) open.
- Freezer control closed and refrigeration system is operating.

Harvest Cycle - 1

- Ice maker thermostat closed.
- Refrigeration system operating.
- If bin arm is up, the harvest will not initiate.
- Power goes through the bin switch to the ice maker motor and mold heater.

Harvest Cycle - 2

- Ice maker ejector blades reach 2:00 position and cam depresses the hold switch.
- Ejector blades stall on ice and ice maker motor pulsates until mold heater warms and ice releases.
- Refrigeration system operating.

Water Fill Cycle

- Ice maker blades reach approximately 10:00 position and cam depresses the water fill switch.
- Power to the water valve. Ice maker mold fills.
- Refrigeration system operating.

Eject Cycle

- Ejector blades push ice into bucket and stop at 12:00 position.
- Ice maker temperature control opens.
- Refrigeration system still operating.

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.

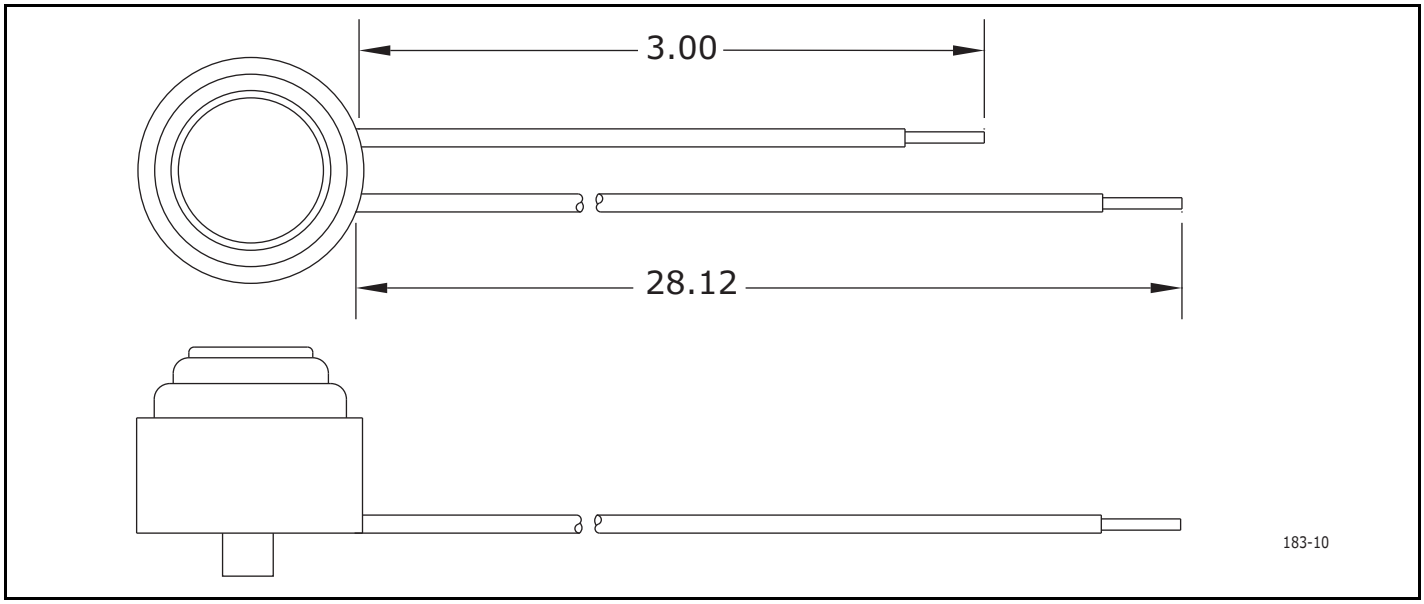


Figure 6. Limit Switch

REPLACING ICE MAKER ASSEMBLY (CO29F ONLY)

1. Unplug the unit from the main power source.
2. Disconnect ice maker wire harness at plug (1).
3. Remove control capillary tube from sensing tube on ice maker assembly (2).
4. Remove water inlet tube.
5. Remove front cover (3).
6. Advance the ejector blade to the 3 o'clock position by turning the 5/16" hex head on the small brass gear counterclockwise (4).
7. Remove three screws from wall of freezer housing (5).
8. Remove ice maker assembly.
9. Place new ice maker assembly into position and secure with three screws (5).
10. Reconnect wire harness at plug.
11. Insert control capillary tube into ice maker sensing tube.
12. Insert water inlet tube.
13. Apply Permagum® to all exit holes.
14. Install back panel.
15. Plug in unit and test.

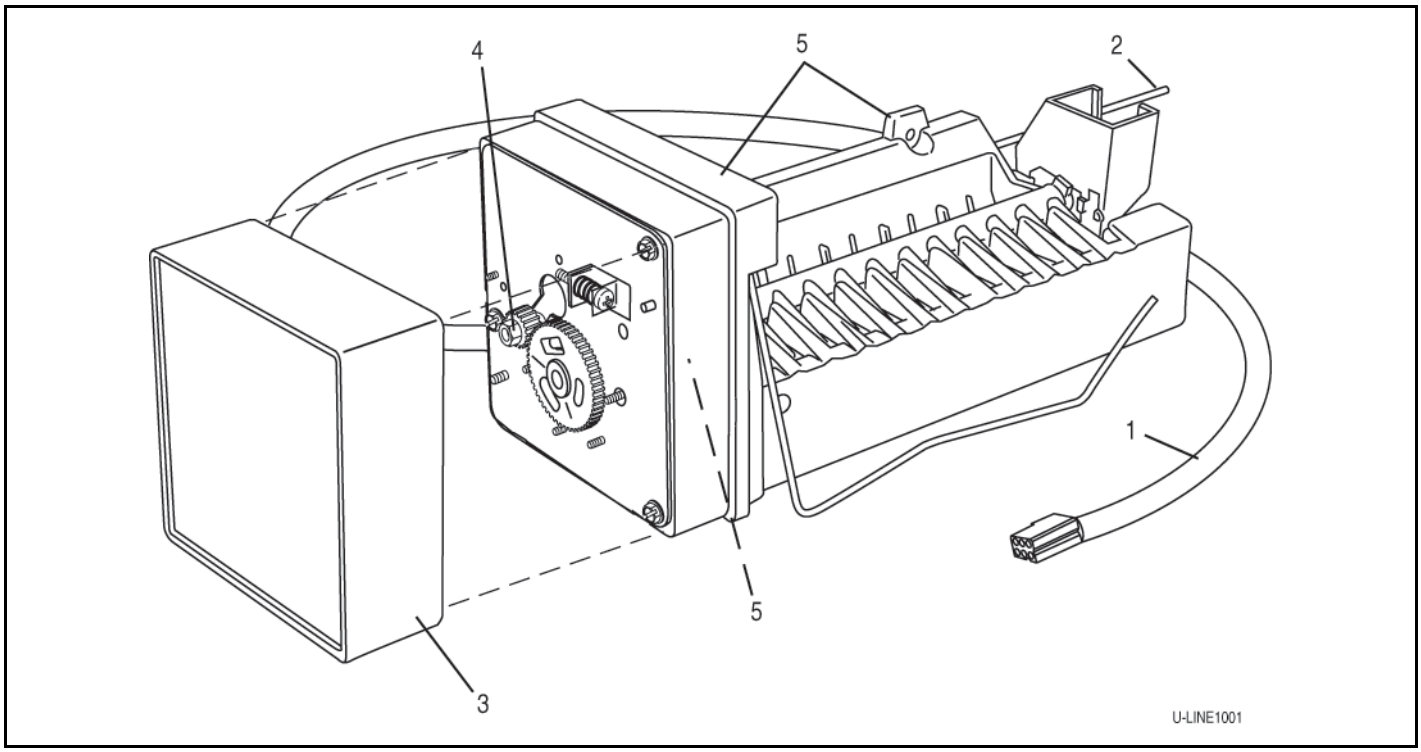


Figure 7. Ice Maker Assembly

REPLACING ICE MAKER ASSEMBLY

1. Disconnect unit from power and remove back panel.
2. Disconnect all wires at bell connectors (5 wires-Models BI95, BI98 or SP18; or Plug-Models).
3. Remove capillary tube from sensing tube on ice maker assembly (2).
4. Remove water inlet tube.
5. Remove front cover (3)
6. Advance ejector blades to the 3:00 position by turning the 5/16" hex head on the small brass gear counterclockwise (4).
7. Remove two screws from the side wall of evaporator (5).
8. Remove screws from the bottom of the evaporator plate.
9. Remove ice maker assembly from evaporator shelf.
10. Clean alumilastic from evaporator shelf.
11. Apply 1/4" layer of fresh alumilastic to heater side of new ice maker.
12. Replace parts in reverse order of removal.
13. Reconnect all wires.
14. Insert capillary tube into ice maker sensing tube.
15. Insert water inlet tube.
16. Apply permagum to all exit holes. Mount back panel.
17. Replace the back panel.
18. Plug in unit and test.

220 Volt Conversion List

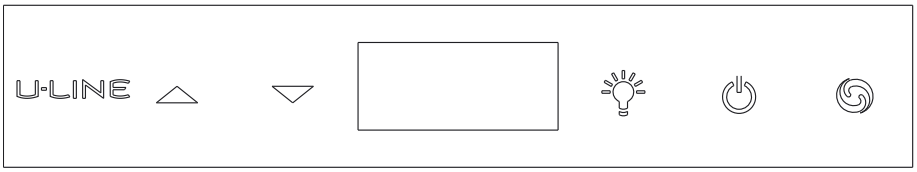
All models listed in this manual are equipped to run on 110/115 volt. This document is a conversion list for the applicable 220 volt parts for the following models:

- SP18
- BI95
- BI98
- SS1095

110V P/N	220V P/N	Description
5263-S	5195	Fan Motor
80-39015-00	628109	I.M. motor (ice makers)
402	619	Ice maker assembly - Models SP18, BI95, BI98 and model SS1095
402-29/1175	620	Ice maker assembly - Models SP18, BI95, BI98 and model SS1095
2552A	2555A	Water valve
5402-S	5404-S	Compressor (ice makers)
150	650	Faceplate assembly
5414	5418	Relay
5413	5417	Overload

Control Operation-Service

UI BUTTON LAYOUT



1. **Up Button**
   -Increases temperature
   -Navigates through service menu
   -LED activated with button activation

2. **Down Button**
   -Decreases temperature
   -Navigates through service menu
   -LED activated with button activation

3. **Light Button**
   -Activates light for 3 hours on select models
   -Used to select items in service menu
   -LED activated with button activation

CONTROL FUNCTION GUIDE

FUNCTION	COMMAND	DISPLAY/OPTIONS
ON/OFF	Press ⏻ and release	Unit will immediately turn ON or OFF
Toggle lights	Press 💡 and release to leave interior light on for 3 hours	Glass door wine captains and beverage centers only.
Adjust refrigerator temperature	Push ∧ or ∨ and release	When the "F" or "C" in the display is flashing, push ∧ or ∨ to adjust the set point temperature.
View temperature in unit	Push ∧ and ∨ and release together	The display will flash and then toggle from set point to temperature in unit.
Toggle between F/C	Hold the ∧ and ∨ for five seconds	The display will change units.

DOOR ALERT NOTIFICATION

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

- An audible tone will sound for several seconds every minute.
- "dr" will appear in display.

Close door to silence alert and reset.

VIEWING ACTUAL TEMPERATURE

In viewing temperature in these modes any offsets are taken into account. This means that if you place a thermistor in a known temperature, let's say ice water, it may not read the 32°F that you would assume. If the control offset was preset at -3°F while you placed the thermistor in an icebath, the actual thermistor reading when viewing actual temperature would read 35°F. In the unit this would cause the cabinet to push itself 3° cooler. To view pure thermistor readings you must go into the service menu and choose the correct option.

To view the thermistor temperature, push and release the up and down keys. The display will show the corrected refrigerator temperature.

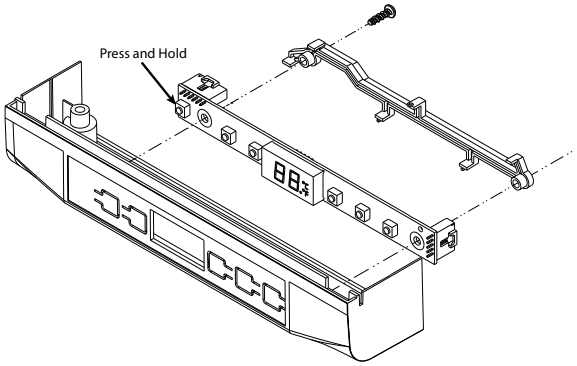
SHOWROOM MODE

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.

ACCESS SERVICE MODE

To access the service menu for this model, remove the two screws that hold the display together.
Remove display circuit board. Press and hold the far left button on the display circuit board.



SERVICE MODE GUIDE

#	Service Mode Menu Item
1	View thermistor #1 (no offsets)
2	View thermistor #2 (no offsets)
3	View thermistor #3 (no offsets)
4	View thermistor #4 (no offsets)
5	Adjust thermistor #1 offset
6	Adjust thermistor #2 offset
7	Adjust thermistor #3 offset
8	Adjust thermistor #4 offset
9	View thermistor #2 set point no offsets
10	View thermistor #3 set point no offsets
11	View thermistor #4 set point no offsets
12	Adjust defrost interval 3 to 24 hours
13	Adjust defrost duration 0 to 99 minutes
14	View error log
15	Clear error log
16	Adjust thermistor #1 differential
17	Adjust evaporator fan delay in minutes (start of cooling cycle) 0 - 99 minutes
18	Adjust evaporator fan delay in minutes (after cooling cycle stops) 0 - 99 minutes
19	Individual component toggle
20	Model number indicator
21	Light all LED segments of display
22	View defrost cycles
23	View compressor run time
24	Activate defrost/harvest
25	Restore factory defaults
26	View software version - main board
27	View software version - user interface
28	Login period
29	Factory test mode
0	Exit service mode

NAVIGATE SERVICE MODE

Use up or down arrows to scroll through the menu.

Use the light bulb key to enter or exit menu. If values have been changed, they will be saved when exiting.

SERVICE MODE GUIDE

1. **THERMISTOR 1 — ZONE**
   This shows the pure thermistor reading with no offsets taken into account.
2. **THERMISTOR 2 — EVAPORATOR**
   This shows the pure thermistor reading with no offsets taken into account.
3. Does not apply to this model.
4. Does not apply to this model.
5. **THERMISTOR 1 — ZONE OFFSET**
   (DO NOT MAKE AN ADJUSTMENT TO THIS WITHOUT CONTACTING TECH LINE: +1.414.354.0300)
   This calibration is only to be used if actual temperature at thermistor #1 is off from set point.
   By adjusting the offset higher we can force the unit to drive the temperature down below the set point. (example: adjusting from 0 to +2 will drop the unit temperature 2 degrees)
6. **THERMISTOR 2 — EVAPORATOR OFFSET**
   (DO NOT MAKE AN ADJUSTMENT TO THIS WITHOUT CONTACTING TECH LINE: +1.414.354.0300)
7. **THERMISTOR 3 — AMBIENT OFFSET** Not adjustable.
8. Does not apply to this model.
9. **THERMISTOR 2 — SET POINT MINUS OFFSET**
   This shows the thermistor reading with offsets taken into account.
10. Does not apply to this model.
11. Does not apply to this model.
12. **ADJUST DEFROST INTERVAL — 3 TO 24 HOURS**
    This will adjust the interval between defrosts from 3 to 24 hours. Adjusting from the factory settings may cause undesired temperature in the refrigerator section.
13. **ADJUST DEFROST DURATION — 0 TO 99 MINUTES**
    The length of the defrost can be adjusted 0 to 99 minutes long. The other defrost parameters still apply. Lengthening a defrost may cause higher than normal temperatures in the refrigerator section.
14. **VIEW ERROR LOG**
    A list of the errors in the order they occurred will scroll once on the display. All errors are logged in memory. Only door error is displayed on the display and has an audible signal.
    E0: Door 1 (upper) open.
    E1: Thermistor 1 open.
    E2: Thermistor 2 open.
    E3: Thermistor 3 open.
    E4: Thermistor 4 open (Does not apply to this model).
    E5: Thermistor 1 shorted.
    E6: Thermistor 2 shorted.
    E7: Thermistor 3 shorted.
    E8: Thermistor 4 shorted (Does not apply to this model).
    E9: Door 2 (lower) open.
    P1: Pump Circuit open (Does not apply to this model).
15. **CLEAR ERROR LOG**
    To clear errors, press and hold (5 seconds) when CLR is flashing.
16. **THERMISTOR — 1 DIFFERENTIAL**
    This number should not be adjusted.
17. **EVAPORATOR FAN DELAY IN MINUTES — ON**
    "Fan Delay On" is the amount of time in minutes the fan will be delayed from starting from the beginning of a cooling cycle. Adjustable 0-99 minutes.
18. **EVAPORATOR FAN DELAY IN MINUTES — OFF**
    "Fan Delay Off" is the amount of time in minutes the fan will continue to run at the end of a cooling cycle. Adjustable 0-99 minutes.
19. **INDIVIDUAL COMPONENT TOGGLE**

Display #	Relay/Output
0	Exit
2	Relay 2
3	Relay 3
4	Relay 4
5	Relay 5
6	Relay 6
7	Relay 7
8	DC Output 1
9	DC Output 2
10	DC Output 3
11	DC Output 4
12	DC Output 5

SEE RELAY/OUTPUT CHART

20. **MODEL NUMBER INDICATOR**
Displays the two-digit model number of the specific unit. See model list table.

21. **LIGHT ALL LED SEGMENTS**
This will illuminate all the LEDs on the display to ensure they work properly.

22. **VIEW DEFROST CYCLES**
Displays the number of defrosts that have occurred in the past 24 hours.

23. **VIEW COMPRESSOR RUNTIME**
This will show the number of minutes the compressor has run in the prior cycle (or current cycle if the compressor was running when service mode was entered).

24. **ACTIVATE DEFROST/HARVEST**
Turns on the hot gas bypass valve allowing hot gas to circulate through the evaporator causing frost to melt.

25. **RESTORE FACTORY DEFAULTS**
Will restore all adjustable functions to their factory settings.

26. **SOFTWARE VERSION — MAIN BOARD**
Displays software version of the main control board.

27. **SOFTWARE VERSION — USER INTERFACE**
Displays software version of the user interface.

28. **LOG IN PERIOD**
Factory use only - do not adjust.

29. **FACTORY TEST MODE**
Should be 0.

0. **EXIT SERVICE MODE**

MODEL LIST

1000	MODEL INDICATOR		2000 (120V)	MODEL INDICATOR		2000 (230V)	MODEL INDICATOR
1215R	07		2218R	05		2245R	55
1215WC	12		2218RGL	04		2245DC	54
1224BEV	13		2218WC	06		2245WC	56
1224DWR	08		2224BEV	00		2260DC	50
1224R	14		2224R	02		2260R	52
1224RF	09		2224RGL	01		2260RDC	51
1224RSOD	10		2224WC	03		2260WC	53
1224WC	15		2224ZWC	59		2260ZWC	58
CLR1215	18		ADA24R	17			
CO1224F	19						
1224FZR	11						

PROGRAMMING THE UNIT TO CORRECT MODEL NUMBER

1. Disconnect the unit from power source.
2. Push and hold the U-Line button.
3. While still holding the U-Line button, plug the unit into the appropriate power source.
4. When the flashing digits appear (3-5 seconds), use the up and down arrow buttons to select the appropriate model number*. or

*(See Above "Model List")

5. Press the light bulb button once.
6. The display will blink, and then will appear as the programmed display.

Relay / Output Chart

Program	Model	Relay 1	Relay 2	Relay 3	Relay 4	Relay 5	Relay 6	DC1	DC2	DC3	DC4	DC5
53	Nugget Ice, 1 Class	Comp/Fan	-	Dump Valve	Reservoir Fill	Auger	Water Main	Light 1	Light 2	-	-	Cond Fan
57	Nugget Ice, 3 Class	Water Main	Water Dispense	Dump Valve	Reservoir Fill	Auger	Cond Fan	Light 1	Light 2	-	-	Cond Fan
11	Clear Ice, 3 Class	Compressor	Water Dispense	Circ Pump	Water Inlet	Hot Gas Valve	Cond Fan	Light 1	Light 2	-	-	Cond Fan
01	**BV315-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
03	**BV318-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
04	**BV324-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
06	**BV336-***1A	Compressor	Top/Left Valve	Bot/Right Valve	-	-	-	Light 1	Light 2	Evap Fan	Evap Fan 2	Cond Fan
07	**BV515-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
09	**BV524-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
13	**DR324-***1A	Compressor	Mullion Heater	-	-	-	-	Light 1	Light 2	Evap Fan	Evap Fan 2	Cond Fan
15	**FZ124-***1A	Compressor	-	-	-	Heater	Cond Fan	Light 1	Light 2	Evap Fan	-	Cond Fan
17	**RE315-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
19	**RE318-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
20	**RE324-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
22	**RE336-***1A	Compressor	Top/Left Valve	Bot/Right Valve	-	-	-	Light 1	Light 2	Evap Fan	Evap Fan 2	Cond Fan
23	**RE515-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
25	**RE524-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
27	**RE324-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
29	**KR524-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
32	**WC315-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
33	**WC318-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
35	**WC324-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
37	**WC515-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
38	**WC524-***1A	Compressor	-	-	-	-	-	Light 1	Light 2	Evap Fan	-	Cond Fan
40	**WC336-***1A	Compressor	Top/Left Valve	Bot/Right Valve	-	-	-	Light 1	Light 2	Evap Fan	Evap Fan 2	Cond Fan
41	**BD324-***1A	Compressor	Top/Left Valve	Bot/Right Valve	-	-	-	Light 1	Light 2	Evap Fan	Evap Fan 2	Cond Fan
43	**BD524-***1A	Compressor	Top/Left Valve	Bot/Right Valve	-	-	-	Light 1	Light 2	Evap Fan	Evap Fan 2	Cond Fan
46	**WD324-***1A	Compressor	Top/Left Valve	Bot/Right Valve	-	-	-	Light 1	Light 2	Evap Fan	Evap Fan 2	Cond Fan
48	**WD524-***1A	Compressor	Top/Left Valve	Bot/Right Valve	-	-	-	Light 1	Light 2	Evap Fan	Evap Fan 2	Cond Fan
50	**RF124-***1A	Compressor	-	-	Pan	Defrost Heater	Cond Fan	Light 1	Light 2	Evap Fan	-	Cond Fan
52	**RI124-***1A	Compressor	Icemaker 2	Icemaker 1	Pan	Defrost Heater	Cond Fan	Light 1	Light 2	Evap Fan	-	Cond Fan

U-Line Corporation (U-Line) Limited Warranty

One Year Limited Warranty

For one year from the date of original purchase, this 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 a U-Line factory authorized servicer, unless otherwise specified by U-Line. Service provided during normal business hours.

Two Year Limited Warranty (5 Class Product)

For two years from the date of original purchase, this 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 a U-Line factory authorized servicer, unless otherwise specified by U-Line. Service provided during normal business hours.

Available Second & Third Year Limited Warranty

In addition to the standard one and two year warranties outlined above, U-Line offers a one year extension of the warranties from the date of purchase, free of charge. To take advantage of this extension, you must register your product with U-Line within 60 days from the date of purchase at u-line.com and provide 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 a U-Line factory authorized servicer, 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 your product's 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, third, 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.
- U-Line Commercial products are covered by the one year and 5 year limited warranties and are not eligible for the second and third year limited warranties.
- 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:
1260 E. Van Deinse, Greenville, MI 48838 • 616.754.5601

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