SERVICE MANUAL

U-LINE

MODULAR 3000 SERIES

Models Covered

- U-3036BVWCOL-00
- U-3036BVWCS-00
- U-3036RRGLOL-00
- U-3036RRGLS-00
- U-3036RROL-00
- U-3036RRS-00
- U-3036WCWCOL-00
- U-3036WCWCS-00

THE MODULAR 3000 SERIES ARE INTENDED FOR BUILT IN INSTALLATIONS ONLY

U-LINE CORPORATION LIMITED WARRANTY FOR MODULAR 3000 SERIES PRODUCTS

1.U-Line Corporation ("U-Line") warrants each U-Line Modular 3000 Series product to be free from defects in materials and workmanship for a period of two years from the date of purchase. U-Line further warrants the sealed system (consisting of the compressor, the condenser, the evaporator, the hot gas bypass valve, the dryer and the connecting tube) in each U-Line product to be free from defects in materials and workmanship for a period of five years from the date of purchase.

2.During the initial two year warranty period for all U-Line Modular 3000 Series products U-Line shall: (1) repair any product or replace any part of a product; and (2) for all Domestic U-Line Modular 3000 Series products sold and serviced in the United States (including Alaska and Hawaii) and Canada, U-Line shall be responsible for the labor costs performed by a U-Line authorized service company, incurred in connection with the replacement of any defective part. During years two through five of the warranty period for the sealed system, U-Line shall: (1) at U-Line's option repair or replace any part of the sealed system; and (2) for all Domestic U-Line Modular 3000 Series products sold and serviced in the United States (including Alaska and Hawaii) and Canada, U-Line shall be responsible for the labor costs incurred in connection with the replacement of any defective part of the sealed system. All other charges, including transportation charges for replacements under this warranty and labor costs not specifically covered by this warranty, shall be the responsibility of the purchaser. This warranty extends only to the original purchaser of the U-Line product. The registration Card included with the product should be promptly completed by you and mailed back to U-Line or you can register on-line at www.u-lineservice.com.

3.The following conditions are excluded from this limited warranty: damage caused by outdoor use; use of cleaners other than the recommended stainless steel cleaners and U-Line Clear Ice Maker cleaner; installation charges; damages caused by disasters or acts of God, such as fire, floods, wind and lightning; damages incurred or resulting from shipping, improper installation, unauthorized modification, or misuse/abuse of the product; customer education calls; food loss and spoilage; door and water level adjustments (except during the first 30 days from the date of installation); defrosting the product; adjusting the controls; door reversal; and cleaning the condenser.

4.U-Lines' Outdoor Limited Warranty, set forth in this Paragraph 4, shall apply to U-Line models deemed suitable for outdoor use by Underwriters Laboratory ("UL") as noted in the U-Line Product Catalog, U-Line's website and/or on the serial tag located inside the product. Exposure to temperatures below freezing may cause damage to the product. Damage resulting to the product (and/or the surroundings) caused by this exposure is not covered under this warranty. Such models shall continue to be covered by the warranty terms set forth in Paragraphs 1 and 2 above, to the extent such models:

A.Are subjected to temperatures between 50 and 100 degrees Fahrenheit. Although these products will function in ambient temperatures below 50 degrees and above 100 degrees Fahrenheit, performance may decline. Performance degradation due to operating above or below the designated ambient temperature range is not a manufacturing defect and any issues resulting from exposure to higher temperatures, such as spoiled food or low ice production, are not covered under this warranty policy; and/or

B.Come into contact with rain by virtue of outdoor use. Exposure to other sources of water shall also cause this warranty to be void, including flooding of the area in proximity of the unit greater than 1/8" deep in water, hurricanes, splashing of pool water, or directing a spray from a hose or similar device into and around the unit.

5.If a product defect is discovered during the applicable warranty period, you must promptly notify either U-Line at P.O. Box 245040, Milwaukee, Wisconsin 53224 or at 800-779-2547 or the dealer from whom you purchased the product. In no event shall such notification be received later than 30 days after the expiration of the applicable warranty period. U-Line may require that defective parts be returned, at your expense, to U-Line's factory in Milwaukee, Wisconsin, for inspection. Any action by you for breach of warranty must be commenced within two years after the applicable warranty period.

6.THIS LIMITED WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH ARE DISCLAIMED. U-Line's sole liability and your exclusive remedy under this warranty is set forth in the paragraphs above. U-Line shall have no liability whatsoever for any incidental, consequential or special damages arising from the sale, use or installation of the product or from any other cause whatsoever, whether based on warranty (express or implied) or otherwise based on contract, tort or any other theory of liability.

7.Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

PRODUCT LIABILITY POLICY

Field service technicians are authorized to make an initial assessment. If in the servicer's judgment the damage is the result of a product defect, the product would be removed and returned to U-Line in an unaltered condition. The dealer would then be authorized to permanently replace the end-user's product at no cost to the end-user. Please call U-Line immediately at 800-779-2547 to initiate the RA and product exchange process.

If in the servicer's judgment the damage is the result of installation issues (water connection/drain, etc.), the consumer would be so notified and the correction would be made by the servicer or installer without requiring removal of the product. Any claim for damages should be directed to the original installer.

Any U-Line unit involved in an alleged property damage claim must remain **unaltered and unrepaired,** for evaluation. No service or repairs should be performed on any unit suspected to be involved in a property damage situation. If a unit has been altered or repaired in the field prior to U-Line's evaluation, any claim for damage may be declined.

If the unit in question is a U-Line CLR or CLRCO **with a drain pump**, both the unit **and** the drain pump (regardless of the manufacturer) must be returned to U-Line Corporation.

To complete the damage claim process for the customer, please obtain the following and forward to U-Line at onlineservice@U-Line.com, fax to 414-354-5696 or mail to the address below.

Pictures of the unit, installation and any alleged property damage.

Inquire when the problem first appeared, any prior problems with the product and provide a brief description of the alleged damages.

To expedite the claim process, U-Line will need two damage repair estimates.

Reference the RA number and customer name when providing this information.

If a unit is returned to U-Line, this evaluation will take approximately ten business days. **No field service company is authorized to perform this evaluation.** When a Return Authorization Number is issued, and the unit has been boxed in a U-Line carton, U-Line should be contacted and then will make arrangements for shipping, or designate a truck line to have the unit shipped freight collect.

If U-Line's evaluation finds the unit, (or U-Line P60 pump) to be defective, causing the property damage, the damage claim will be reviewed by the U-Line Customer Assurance Department.

If U-Line's evaluation finds the unit not to be defective, does not repeat a failure or does not leak any water from the U-Line unit or U-Line P60 pump, all claims for damage will be declined.

When a product evaluation is needed, it is the customer's responsibility to assure that the unit is returned for evaluation. If the customer fails to do so, or has the unit repaired in the field prior to U-Line's evaluation, any claim for damage will be declined.

8900 N. 55th St. • P.O. Box 245040
Milwaukee, WI 53224-9540
414/354-0300 • Fax: 414/354-7905

Website: www.u-line.com

Leaders In Quality Undercounter Refrigeration

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General Information

IMPORTANT

- **PLEASE READ all instructions before installing, operating, or servicing the appliance.**
- **Proper installation procedures must be followed when completing an installation or relocation of a unit. An INSTALLATION GUIDE for the unit, providing complete installation information is available from U-Line Corporation direct. Consult the installation guide before any installation begins. U-Line contact information appears on the rear cover of this guide.**
- **This unit requires connection to a dedicated 15 Amp grounded (three-prong), polarized receptacle, installed by a qualified electrician, compliant with applicable electrical codes.**

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, property or equipment damage. or death.

⚠CAUTION

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

General Precautions

Use this appliance for its intended purpose only. **The 3000 model series is intended for <u>BUILT IN</u> installation only. Anti tip brackets <u>MUST</u> be installed.** Follow these general precautions with those listed throughout this guide:

⚠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.

⚠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 adaptor.**
- **Altering, cutting of power cord, removal of power cord, removal of power plug, or direct wiring can cause serious injury, fire and or 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.**

⚠WARNING

Install provided Anti-Tip kit on all models. Units may <u>NOT</u> be installed as free standing. Serious personal injury could occur.

⚠CAUTION

- **Use care when moving and handling the unit. Use gloves to prevent personal injury from sharp edges.**
- **If your model requires defrosting, 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.**

IMPORTANT

- **Do not lift unit by door handle.**
- **Never install or operate the unit behind closed doors. Be sure front grille is free of obstruction. Obstructing free airflow can cause the unit to malfunction and will void the warranty.**
- **Failure to clean the condenser every six months can cause the unit to malfunction. This could void the warranty.**
- **Allow unit temperature to stabilize for 24 hours before use.**
- **Do not Block any internal Fans**

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

Models Covered

This guide covers the following models:

		Cabinet Configuration	
Model	**Door Configuration**	**Left Zone**	**Right Zone**
U-3036BVWCOL-00	Overlay Glass Doors	Wine Racks	Glass Shelves
U-3036BVWCS-00	Stainless Steel Glass Doors	Wine Racks	Glass Shelves
U-3036RRGLOL-00	Overlay Glass Doors	Glass Shelves	Glass Shelves
U-3036RRGLS-00	Stainless Steel Glass Door	Glass Shelves	Glass Shelves
U-3036RROL-00	Solid Overlay Doors	Bins	Bins
U-3036RRS-00	Solid Stainless Steel Doors	Bins	Bins
U-3036WCWCOL-00	Overlay Glass Doors	Wine Racks	Wine Racks
U-3036WCWCS-00	Stainless Steel Glass Doors	Wine Racks	Wine Racks

System Default Values

	Available Modes		Default Mode		Offset				
Model	**Left Zone**	**Right Zone**	**Left Zone**	**Right Zone**	**Left Zone**	**Left Evap**	**Right Zone**	**Right Evap**	**Ambient**
U-3036BVWCOL-00	Red Wine, Sparkling, White Wine	Deli, Beverage, Market, Root, Pantry	Red Wine	Beverage	1	0	-2	0	0
U-3036BVWCS-00	Red Wine, Sparkling, White Wine	Deli, Beverage, Market, Root, Pantry	Red Wine	Beverage	1	0	-2	0	0
U-3036RRGLOL-00	Deli, Beverage, Market, Root, Pantry	Deli, Beverage, Market, Root, Pantry	Deli	Deli	1	0	3	0	0
U-3036RRGLS-00	Deli, Beverage, Market, Root, Pantry	Deli, Beverage, Market, Root, Pantry	Deli	Deli	1	0	3	0	0
U-3036RROL-00	Deli, Beverage, Market, Root, Pantry	Deli, Beverage, Market, Root, Pantry	Deli	Deli	1	0	3	0	0
U-3036RRS-00	Deli, Beverage, Market, Root, Pantry	Deli, Beverage, Market, Root, Pantry	Deli	Deli	1	0	3	0	0
U-3036WCWCOL-00	Red Wine, Sparkling, White Wine	Red Wine, Sparkling, White Wine	Red Wine	White Wine	5	0	0	0	0
U-3036WCWCS-00	Red Wine, Sparkling, White Wine	Red Wine, Sparkling, White Wine	Red Wine	White Wine	5	0	0	0	0

	Differential		Set Points				Fan Delay			
Model	**Left**	**Right**	**Left Zone**	**Left Evap**	**Right Zone**	**Right Evap**	**Fan 1 On**	**Fan 1 Off**	**Fan 2 On**	**Fan 2 Off**
U-3036BVWCOL-00	2	2	55	45	38	42	1	2	1	2
U-3036BVWCS-00	2	2	55	45	38	42	1	2	1	2
U-3036RRGLOL-00	2	2	36	42	36	42	1	2	1	2
U-3036RRGLS-00	2	2	36	42	36	423	1	2	1	2
U-3036RROL-00	2	2	36	42	36	42	1	2	1	2
U-3036RRS-00	2	2	36	42	36	42	1	2	1	2
U-3036WCWCOL-00	2	2	55	45	50	45	1	2	1	2
U-3036WCWCS-00	2	2	55	45	50	45	1	2	1	2

Warranty Claims Procedure

IMPORTANT

Warranty claims must be filed within 60 days after the completion of the service call

When submitting claims for warranty payment, please follow these guidelines.

You can use any form you would normally use to bill your customer (your own computer generated form, Narda, USA, etc.). Claims can also be filed on-line at www.u-lineservice.com.

The model and serial number **MUST** be on the claims. Claims will not be paid without a model and serial number.

If you used a part in your repair, you **MUST** put the part number, the invoice number and where the part was purchased from on your submittal form. Claims will be rejected without this information.

If you work on more than one unit per service call please submit a separate claim for each unit.

We track all defects through warranty claims, so please be specific on what the repair was. If it is a system leak, please specify where the leak was.

Please be sure the claim is legible. If the claim form cannot be read, it will be returned, unpaid.

Remember: Door and water level adjustments are 30 day warranties only.

If you are replacing a unit please supply the model and serial number of both units (the unit being replaced and the new unit) and the R.A. number.

Occasionally the customer does not return their warranty card. In this case we use the date the unit was shipped to our distributor for a beginning warranty date. This may cause the claim to be rejected for a proof of purchase. If you want to check on a purchase date, you may contact the U-Line Corporation Customer Assurance Department at 1-800-779-2547. This will allow you to get a proof of purchase, if needed, before you submit the claim.

At U-Line, parts and labor claims are paid separately. Included in labor are freon and recovery charges, all other parts are handled by the parts department. We require that some parts be returned to us, so we may return them to our vendor. It will be noted on your packing list if we require you to return the part. If a part is to be returned please include a copy of the packing list and a copy of your claim. If the part was purchased at one of our part distributors, you must handle the part warranty with that company. For labor payment please send a readable copy of your claim to U-Line Corporation, P.O. Box 245040, Milwaukee WI, 53224-9540, or fax it to 414-354-5696. Claims can also be filed on-line at www.u-lineservice.com.

Proof of Purchase

Proof of Purchase and/or Proof of Install is an important part of the warranty claim process. Sometimes it is difficult to obtain a proper Proof of Purchase/Proof of Install for a number of different reasons:

- The customer does not have a copy (only the original).
- The customer has only their copy of the final Walk Through or sign-off of new construction.
- Other valid reasons that prevent your technician from leaving the job site with a suitable Proof of Purchase/ Proof of Install.

We understand the problem and have modified our Proof of Purchase policy to help you in these situations.

Effective immediately, if a copy of the Proof of Purchase/Proof of Install is not available at the site, the technician should record the following information on the Labor Invoice:

- The name of the selling Dealer
- The date of purchase/installation
- The Order or Invoice number (if available)
- The type of document they saw, i.e. Store Receipt, Closing Papers, Sign-Off of Building Permit, Final Walk Through, etc.

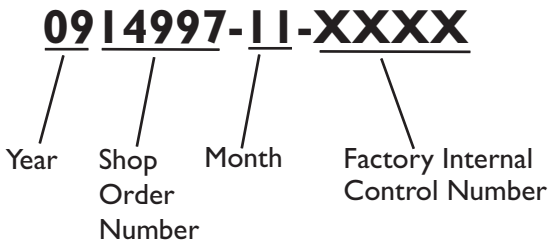
If we have this information on the Labor Invoice, and we have the other information that is needed **(correct Serial Number, type of repair, time spent on repairs, parts used in the repair, invoice number for the part, etc.)**, we will be able to process the invoice for you in a timely manner.

Serial Number

IMPORTANT

Starting October 2009, U-Line Corporation went to a 13 digit serial number. Anything before that date will have 12 digits.

The serial number is divided into four segments. A typical serial number is 0914997-11-0005. **(Figure 1)**



The first two digits of the first segment, 09, represents the year the unit was made.

The next four/five digits of the first segment, 14997, represent the shop order number. Order number 14997 is assigned for the Model CLRCO2175B-40 units.

The next two digit segment, 11, represents the month the unit was made.

The last four digit segment, XXXX, is a factory internal control number used at U-Line Corporation.

Serial Number (Electronic)

The 3000 series contains an electronic serial number assigned to the main control board. The electronic control serial number and the unit serial number are tied together at the factory. To obtain the electronic serial number, access "Help" in the customer service menu. See "Help" on page **10**.

Model Number Format

U - 3036 WCWC S - 00
U-LINE | PRODUCT SERIES | FAMILY | COLOR | SPECIAL ORDER

U - CO 1175 S - 01
U-LINE | FAMILY | PRODUCT SERIES | COLOR | SPECIAL ORDER

ULN - BI 2115 S - 00
U-LINE | FAMILY | PRODUCT SERIES | COLOR | SPECIAL ORDER

U - 2175 RC GOL - 00
U-LINE | PRODUCT SERIES | FAMILY | COLOR | SPECIAL ORDER

U - CLRCO 2175 S - 41
U-LINE | FAMILY | PRODUCT SERIES | COLOR | SPECIAL ORDER

A typical model number would be, U-2175RCGOL-00. The model number is broken into 5 segments. **(Figure 2)**

- **U- or ULN-**
  This signifies a U-Line Product.
- **Family**
  Family indicates the type of unit. Currently there are nine families. Refrigerators, Wine Captains, Beverage Centers, Combo Ice Makers, Clear Ice Makers, Manual Defrost Ice Makers, ADA Units, Outdoor Units and Freezers.
- **Product Series:**
  U-Lines current product series includes 95, 98, SP18, 1095, 29, 10xx, 11xx, 21xx, 22xx, and 30xx.
- **Color:**
  The color segment includes color along with information that is important to the unit and the way it is used. For example, the model U-2175RCGOL-00, is part of the family of refrigerators, product series 2175. The "C" following the "R" indicates this is a convection cool unit with an evaporator fan motor. The "GOL" indicates the unit is black with a glass door an may accept an overlay panel.
- **Special Order:**
  Special order indicates door hinge arrangement, operating voltage, or pump inclusion.

Replacement Parts

How to Order Replacement Parts

1. Refer to Service Parts and locate the illustration(s) for the model you are servicing.
2. Locate the desired part to be serviced and reference the part's item number in the parts list.
3. When ordering parts, it will be necessary to supply model number, serial number, part number, part description, and in some cases color or voltage.

All warranty parts will be shipped at no charge as long as warranty status has been confirmed. If we require that a part be returned to U-line, you will be informed at the time the order is placed. It will be noted on your packing list if we require you to return a part or if you may field scrap it. If U-Line requires a defective part to be returned, a prepaid shipping label will be included with your new replacement part. When returning parts, enclose a copy of your packing list and a copy of your labor claim showing the model and serial number. Tag or label the part with the nature of the defect.

Our warranty records may not match the customer's information. In this case, a proof of purchase will be required. If you do not have the proof of purchase at the time the order is placed, the part will be sent net 15 days and charged to a Visa or Master Card if you don't have an open account with U-Line Corporation. When the proof of purchase is provided, we will credit your account.

4. Parts may be ordered on-line, by FAX or phone:

www.U-LineService.com

onlineparts@u-line.com

FAX Number (414) 354-7905

Phone Number (414) 354-0300 or (800) 779-2547;

REPLACEMENT PARTS: Use only genuine U-Line replacement parts. The use of non-U-Line parts can damage the unit and may void the warranty.

Thermistor Info

There are 5 thermistors used with the 3036 models.

- Left Zone Thermistor - Located on the right hand wall in the left zone and is used to maintain temperature.
- Right Zone Thermistor - Located on the right hand wall in the right zone and is used to maintain temperature.
- Left Evaporator Thermistor - Located on the back of the evaporator plate in the left zone and is used during defrost.
- Right Evaporator Thermistor - Located on the back of the evaporator plate in the right zone and is used during defrost.
- Ambient Thermistor - Located in the base of the unit on the condenser and is used to monitor ambient air temperatures.

Viewing Temperature

Note: The display shows set point **NOT** the actual temperature.

The 3000 series is equipped with an advanced electronic display and control. Thermistor readings can be obtained through both the customer and service menu. The customer menu will display readings while using offset calculations. It is important to note that the system will use these adjusted readings when determining cooling and defrost cycles. The service menu will display the actual thermistor reading while disregarding offsets.

Customer Menu:

To view the adjusted temperature of each available thermistor, follow the steps below.

1. Initiate the customer menu by holding Select for 5 seconds.
2. Use Down to scroll to "Actual Temperatures".
3. Press select.
4. Use Up or Down to scroll through available information.

Service Menu

To view the actual temperature without having the offsets taken into consideration, follow the steps below.

1. Initiate the service menu by holding both up and Zone Toggle.
2. Use Up or Down to scroll to "Actual Temperatures".
3. Press select.

Use Up or Down to scroll through available information.

Thermistor Calibration

While thermistors generally do not require calibration, over time contact corrosion and or element wear may make calibration necessary.

Calibration

To calibrate a thermistor one must first prepare an ice-bath of crushed ice and water in a suitable container. Allow the ice bath temperature to stabilize for at least 5 minutes before beginning.

IMPORTANT

Offsets are preset at the factory to efficiently maintain product temperature. If modifying offset, existing values must be taken into consideration.

⚠WARNING

Customer Care must be notified before any changes are made to factory set offsets. Failure to notify Customer Care will void the warranty.

1. Enter the service menu and record existing offset values for each thermistor to be calibrated. See page **13**. Some models have a factory offset setting of 0.
2. Change offset of each thermistor to be calibrated to 0.
3. Enter "Actual Temps" through the **Customer Menu**. See "Viewing Temperature".
4. Submerge the thermistor in the ice bath. The temperature read out through the menu should be 32°F. If different, record difference.
5. Enter "Offsets" through the service menu and set the value recorded in step 4 to the thermistor to be calibrated.
6. Enter "Actual Temps" through the **Customer Menu**, the temperature readout should now be 32°F. If the readout is still incorrect reset the offset to 0 and preform steps 4 & 5 again.
7. Enter the "Offsets" menu and add the value recorded in step 1 to the new offset setting. For example, if after the ice bath an offset of 1 was needed and the existing offset value recorded in step 1 was -2 the new offset value would be -1. If the calculated value is outside the maximum range capable in the offset menu the thermistor must be replaced. The offset menu has a maximum range of -10 through 10.

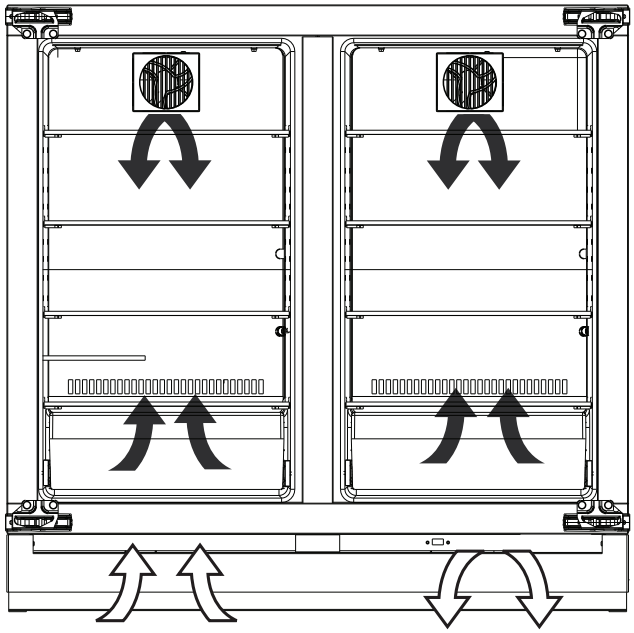
Note: If a mistake is made in the calibration process a Factory Reset will restore offsets to their factory pre-set values. See "Factory Default" on page **14**.

Air Flow

IMPORTANT

The unit requires proper air flow to perform at its highest efficiency. Do not block the front grille, internal fans or vents at any time, or the unit will not perform as expected. Do not install the unit behind a door.

Door Removed For Illustration Purposes



Internal Air Flow And Unit Ventilation Diagram

Initial Startup

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

IMPORTANT

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

To power the unit on simply press POWER ⏻ and the unit will immediately switch on.

To power the unit down, press and hold POWER ⏻ for 5 seconds and release. The display will show a countdown to switching the unit off. OLED Electronic Control Display

Digital Display.

The 3000 Series units are controlled by a feature rich, advanced OLED display control unit. The control panel allows adjustment to temperature set point, access to Energy Saver Mode, internal temperature readings, and many other features.

Adjusting Temperature Settings

Each zone has a Series of Mode Settings with a default value for each setting. Each Mode Setting can be further customized by fine tuning the temperature set point. See the table below for a description of each Mode and temperature ranges. Mode selection will vary by model.

Mode Settings Chart

Setting	Default (°F)	Range (°F)
Red Wine	55°	55° - 65°
White Wine	50°	45° - 55°
Sparkling Wine	45°	38° - 50°
Beverage	38°	34° - 65°
Market	38°	34° - 40°
Root	50°	45° - 55°
Pantry	42°	34° - 70°
Deli	36°	34° - 40°

The 3036 Models have two independently controlled zones. Each zone may have its own Mode and set point.

1. In order to adjust set points you must first select a Zone to adjust. To select, press Zone Toggle. The left side Zone Setting will flash. Pressing Zone Toggle again will select the right side and the right side Zone Setting will flash.
2. Pressing Select will cycle through each available mode. Reference the Mode Settings Chart above for each Setting's default set point and range.

Once you have selected your desired Mode the default set temperature will display. You may further fine tune the temperature by pressing Up or Down.

Quick Chill

⚠CAUTION

Quick chill is designed to quickly pull warm beverages and foods down to optimum storage temperature. It is important to only initiate quick chill modes when the zone has been fully loaded with warm product. Failure to follow this notice could result in food or beverages that are cooled to a point below optimum or frozen.

The following table lists modes which include the quick chill feature and the time which quick chill will run.

Mode	Run Time	Mode	Run Time
Beverage	4 Hours	Red Wine	Not Available
Deli	5 Hours	Root	1 Hour
Market	4 Hours	Sparkling	1 Hour
Pantry	4 Hours	White Wine	1 Hour

To Initiate quick chill.

1. Use Zone Select to select the desired zone, left or right.
2. Press Select to select the desired mode setting.
3. Press Down until the temperature set point reads "Quick"

The quick chill feature will then begin for the period of time dictated by the mode type. To cancel quick chill simply select a set point other then "quick".

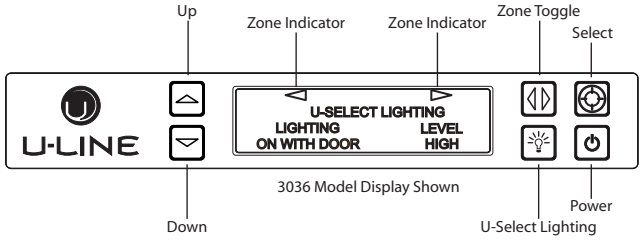
Note: There may be a delay before quick chill is activated. If the opposite zone is currently in a cooling cycle and quick chill is selected, the cooling cycle on the opposite side will first be completed before beginning quick chill.

Note: When quick chill is activated, the zone opposite the active quick chill zone will not return to a cooling cycle until quick chill is complete. If storing product in the opposite zone, it is important to limit the number of times the door is opened in the zone not currently under quick chill.

Interior Lighting

U-Line 3000 Series unit uses a state of the art theatre style LED lighting system.

Note: Lighting system is designed to fade in and out when switching states.



1. To begin, press U-Select Lighting to enter the lighting menu.
2. The unit initially defaults to control the lighting in both Zones simultaneously. To select a single zone press Zone Toggle. Notice the arrows on top of the display changing state. Pressing Zone Toggle once will select the left side zone, pressing it again will select the right side zone, pressing it a third time will select both zones again.
3. Use Up or Down to cycle through each available brightness setting; Low, Medium, or High.
4. Use U-Select Lighting to cycle through each available timer setting. Selections include "On With Door", "On 3 Hours", "On 6 Hours", or "On 24 Hours".

1. To exit, press Select or simply wait for the menu to time out.

Error Notification

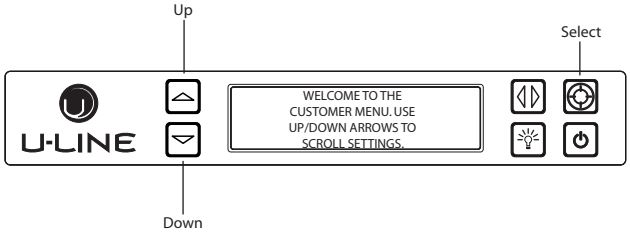
The 3000 model series continuously monitors a series of inputs and parameters to ensure proper and efficient operation of your unit. Should the system detect a fault an error notification will be displayed on the user interface. See below for a list of errors.

ID	Description	Solution
No Comm	Unit lost communication to the display	Check display cable. Replace if necessary.
(L) (R) Zone T Open	Left or right zone thermistor circuit open.	Check connection. Replace if necessary
Amb Thrm Open	Ambient thermistor circuit open.	Check connection. Replace if necessary
(L) (R) Zone T Short	Left or right zone thermistor circuit shorted.	Check connection. Replace if necessary
Amb Thrm Short	Ambient thermistor circuit shorted	Check connection. Replace if necessary
(L) (R) Temp Hi 6H+	Left or right Zone temperature +10° over set point for over 6 hours.	Verify door is closed and sealing. Contact customer care if persistent.
(L) (R) Temp Hi 12H+	Zone temperature +10° over set point for over 12 hours.	Check compressor, evaporator fan and related relays and DC outputs.
(L) (R) Temp Lo 6H+	Zone temperature -10° under set point for over 6 hours.	Check compressor, evaporator fan and related relays and DC outputs.
(L) (R) Temp Lo 12H+	Zone temperature -10° under set point for over 12 hours.	Check compressor, evaporator fan and related relays and DC outputs.
(L) (R) Door Open 5M	Door switch open for more then 5 minutes.	Verify door is closed and sealing. Check reed switch and related connections.

Customer Menu

The 3000 Series of U-Line undercounter refrigeration appliances contain a feature rich customer menu. The Customer Menu allows access to a series of advanced features including Energy Saver Mode, Sabbath mode, Actual Tempera true readings as well as a method to restore factory defaults.

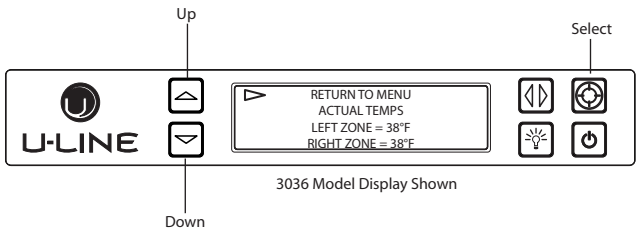
1. To access the Customer Menu hold down Select for 5 seconds.
2. Use Up or Down to scroll through available selections.



3. Use Select to enter selected sub-menu.
4. To exit Customer menu, Use Down to scroll to the bottom of the display and use Select to Select "Exit."

Actual Temps

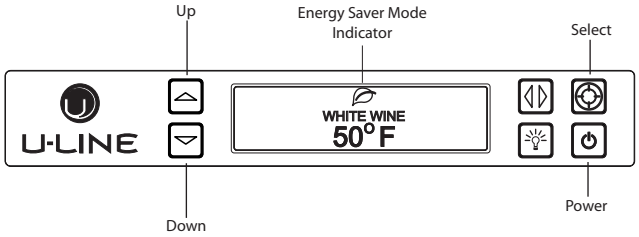
The "Actual Temps" option displays the offset corrected temperature of each zone, evaporator, as well as ambient temperature.



3036 Model Display Shown

1. To view actual temperatures first select "Actual Temps" from the customer menu.
2. Use Up or Down to scroll through available information.
3. To exit, Select Return to Menu.

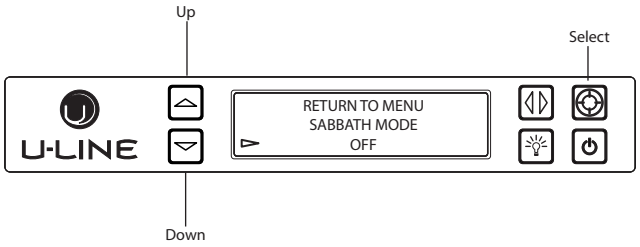
Energy Saver



Energy Saver mode reduces overall energy consumption by altering user set point, differential, lighting and tone settings. When in Energy Saver mode a small leaf icon will be displayed on the main screen.

1. To enter Energy Saver first select Energy Saver from the Customer Menu.
2. Use Down to select "Off" in the menu.
3. Press Select.
4. Use Up or Down to change the selection from Off to On.
5. Press Select to confirm your selection.
6. To exit Energy Saver mode simply return to the Customer Menu, Select Energy Saver mode and change "On" to "Off".

Sabbath Mode

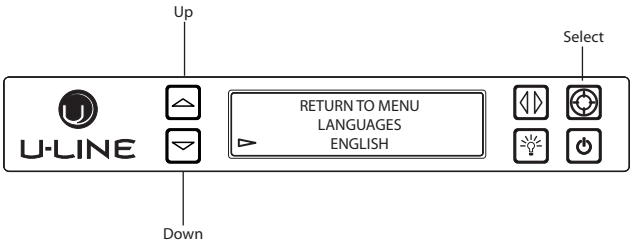


The U-line 3000 Series of models offer a Sabbath mode for users who celebrate certain Sabbaths. Sabbath mode disables system responses to user initiated activities and all external functions; including lighting, display and audible alarms. The unit will still maintain internal temperatures and set points.

1. To enter Sabbath Mode, select Sabbath Mode from the Customer Menu.
2. Use Down to select "Off".
3. Press Select, "Off" will begin to flash.
4. Use Up or Down to change "Off" to "On".
5. Press Select to Confirm your selection.

The Display will fade out as the unit enters Sabbath Mode. Sabbath remains active until Power is pushed.

Languages

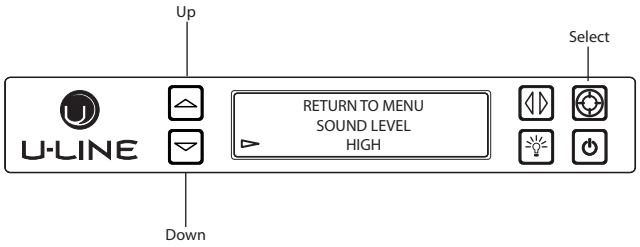


The U-Line 3000 Series of models supports a number of Display Languages including English, Spanish, French and German.

To Change Display Language select Languages from the Customer Menu.

1. Use Down to select "English".
2. Press Select, "English" will begin to flash.
3. Use Up or Down to cycle through the available Languages.
4. Press Select to confirm your choice.

Sound Level

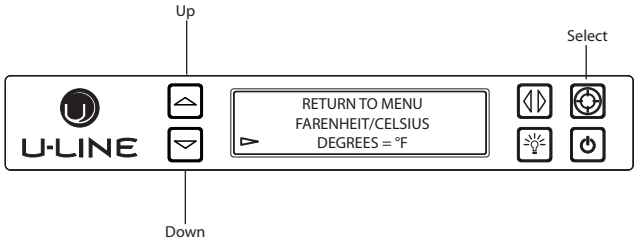


Audible alarms and alert tones support four different Sound Level settings, High, Medium, Low, and Off.

To select a new sound level, enter the Sound Level menu from the Customer Menu.

1. Use Down to select the current sound level.
2. Press Select, the current setting will begin to flash.
3. Use Up or Down to select a different level.
4. Use Select to confirm your choice.

Fahrenheit / Celsius

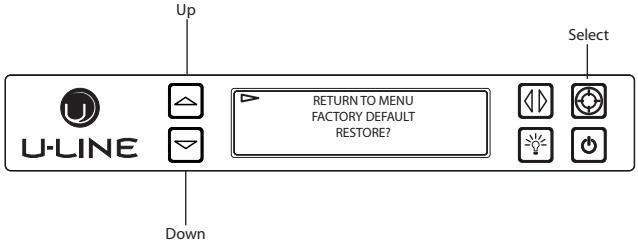


Temperature and set point information can be displayed in either Fahrenheit or Celsius.

To change from Fahrenheit to Celsius enter the Fahrenheit / Celsius menu from within the Customer Menu.

1. Use Down to select “Degrees”.
2. Press Select. The selection will begin to flash.
3. Use Up or Down to select between °F (Fahrenheit) or °C (Celsius).
4. Press Select to confirm your choice.

Factory Default



Factory Default will restore all settings to their factory default.

To access Factory Default

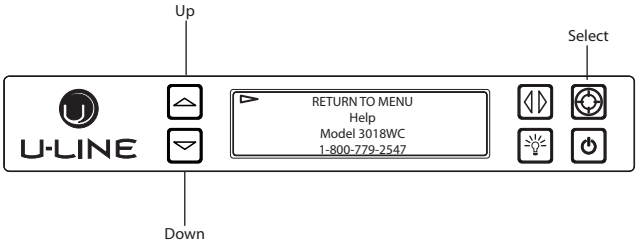
1. Use Down to select “Factory Default”.
2. Press Select.

To restore settings to their factory default.

3. Use Down to select “Restore?” and press Select
4. “Restore?” will change to “Restoring...” while settings are restored. When restoration is complete, “Restoring...” will return to “Restore?”.

To exit Factory Default use Up to select “Return to Menu” and press Select to confirm.

Help



To access the Help menu select Help from the Customer Menu. Use the Up or Down to scroll through available information. The Help screen displays the following.

- Model.
- U-Line contact information.
- Software version.
- Serial Number.

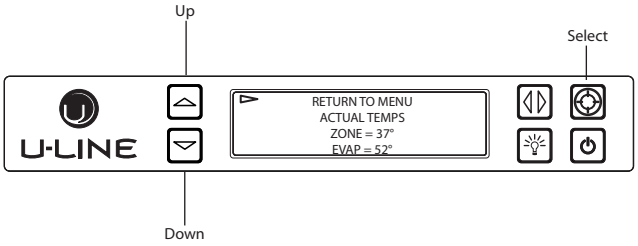
To exit the Help menu use Up to select “Return to Menu” and press Select to confirm.

Service Menu

In addition to a feature rich customer menu, the 3000 series also offers a service menu with the ability to fine tune and monitor unit operation.

To initiate the Service menu hold both Up and Zone Toggle for 5 seconds.

Actual Temps



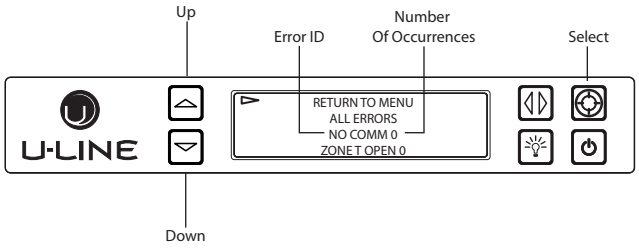
The Actual Temp option in the service menu will display raw thermistor readings without calculating offsets.

1. Use Down to select “Actual Temps”.
2. Press Select.

3. Use Up and Down to scroll through available thermistor readings.

To exit the Actual Temps menu use Up to select "Return to Menu" and press Select to confirm.

All Errors



The All Errors option keeps record of any system errors. When an error occurs it is recorded to all errors. The number next to the error indicates the number of recorded instances. Errors in the log may not be currently active. The error log memory is non volatile and is persistent should power be lost and restored to the unit. See below for a list of logged errors and their respective descriptions.

ID	Description	Solution
No Comm	Unit lost communication to the display	Check display cable. Replace if necessary.
L Zone T Open	Left Zone thermistor circuit open.	Check connection. Replace if necessary.
R Zone T Open	Right Zone thermistor circuit open.	Check connection. Replace if necessary.
L Evap T Open	Left evaporator thermistor circuit open.	Check connection. Replace if necessary.
R Evap T Open	Right evaporator thermistor circuit open.	Check connection. Replace if necessary.
Amb Thrm Open	Ambient thermistor circuit open.	Check connection. Replace if necessary.
L Zone T Short	Left Zone thermistor circuit shorted.	Check connection. Replace if necessary.
R Zone T Short	Right Zone thermistor circuit shorted.	Check display cable. Replace if necessary.
L Evap T Short	Left evaporator thermistor circuit short.	Check connection. Replace if necessary.
R Evap T Short	Right evaporator thermistor circuit short.	Check connection. Replace if necessary.
Amb Thrm Short	Ambient thermistor circuit shorted	Check connection. Replace if necessary.
L Temp Hi 6H+	Left Zone temperature +10° over set point for over 6 hours.	Check compressor, evaporator fan and related relays and DC outputs.
R Temp Hi 6H+	Right Zone temperature +10° over set point for over 6 hours.	Check compressor, evaporator fan and related relays and DC outputs.
L Temp Hi 12H+	Left Zone temperature +10° over set point for over 12 hours.	Check compressor, evaporator fan and related relays and DC outputs.
R Temp Hi 12H+	Right Zone temperature +10° over set point for over 12 hours.	Check compressor, evaporator fan and related relays and DC outputs.
L Temp Lo 6H+	Left Zone temperature -10° under set point for over 6 hours.	Check compressor, evaporator fan and related relays and DC outputs.
R Temp Lo 6H+	Right Zone temperature -10° under set point for over 6 hours.	Check compressor, evaporator fan and related relays and DC outputs.
L Temp Lo 12H+	Left Zone temperature 10° under set point for over 12 hours.	Check compressor, evaporator fan and related relays and DC outputs.
R Temp Lo 12H+	Right Zone temperature 10° under set point for over 12 hours.	Check compressor, evaporator fan and related relays and DC outputs.
L Door Open 5M	Left door switch open for more then 5 minutes.	Check compressor, evaporator fan and related relays and DC outputs.
R Door Open 5M	Right door switch open for more then 5 minutes.	Check compressor, evaporator fan and related relays and DC outputs.

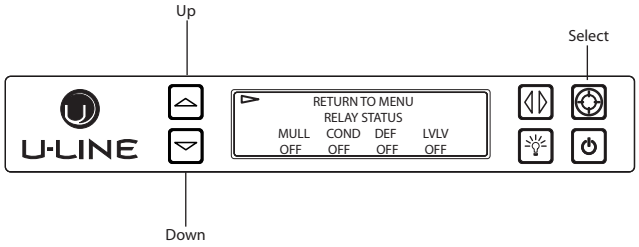
To access All Errors follow the steps below.

1. Use Down to select "All Errors".
2. Press Select.
3. Use Up and Down to scroll through available information.

To clear the error log use Down to select "Clear Errors" and press Select to confirm.

To exit the Actual Temps menu use Up to select "Return to Menu" and press Select to confirm.

Relay Status



Relay status displays the current state of each relay. While all available relays are displayed, only a portion are used.

ID	Description	Status
Mull	Mullion Heater	Not Used
Cond	Condenser Fan	Not Used
Def	Defrost Valve	Not Used
LVLV	Left Vale	Used
RVLV	Right Valve	Used
Pan	Pan heater	Not Used
Comp	Compressor	Used

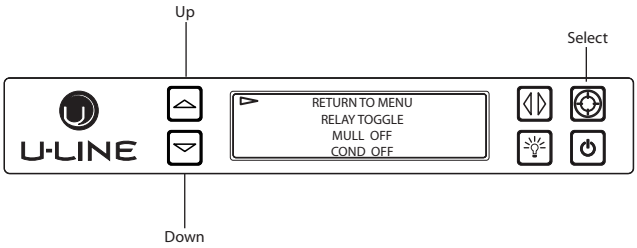
Note: The Cond (Condenser Fan) will switch state with the compressor relay, however the condenser fan is actually powered through a DC output. Condenser fan status can be viewed through the "Output" service menu option.

To access Relay Status

1. Use Down to select "Relay Status".
2. Press Select.
3. Use Up and Down to scroll through available information.

To exit the Relay Status simply press Select to exit.

Relay Toggle



Relay toggle is used to manually switch the state of each relay to test for proper operation. In addition to the AC relays, DC switches may also be toggled. Relay toggle can also be used to force the unit into a particular state. For example, to force a 3036 into a cooling cycle activate LVLV, Comp, F1, and F3.

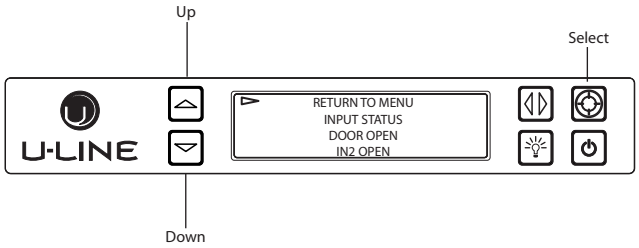
ID	Description	Type
Mull	Mullion Heater (Not Used)	AC
Cond	Fan (Not Used)	AC
Def	Defrost Valve (Not Used)	AC
LVLV	Left Valve	AC
RVLV	Right Valve	AC
Pan	Pan heater (Not Used)	AC
Comp	Compressor	AC
F1	Left Evaporator Fan	DC
F2	Right Evaporator Fan	DC
F3	Condenser Fan	DC
L1	Left Zone Lighting	DC
L2	Right Zone Lighting	DC

To access Relay Toggle

4. Use Down to select "Relay Toggle".
5. Press Select.
6. Use Up and Down to scroll through each relay and DC output.
7. Press Select to toggle.

To exit the Actual Temps menu use Up to select "Return to Menu" and press Select to confirm.

Input Status



Input status displays the current state of each available input as well as the current USB connection state.

ID	Description	States
Left Door	Left Door Switch	Open - Closed
Right Door	Right Door Switch	Open - Closed
Test Input	Factory Test Input	Open
USB	USB Connection State	Flash - Com Port

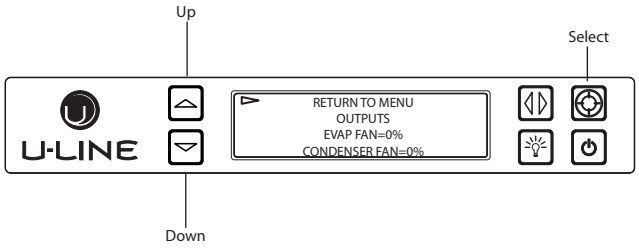
Note: USB status show current connection state. In order to make a successful connection USB connection type must be properly set in "USB Port" under the service menu.

To access Input Status

1. Use Down to select "Input Status".
2. Press Select.
3. Use Up and Down to scroll through available information.

To exit the Input Status menu use Up to select "Return to Menu" and press Select to confirm.

Outputs



Outputs is used to monitor the state of DC outputs.

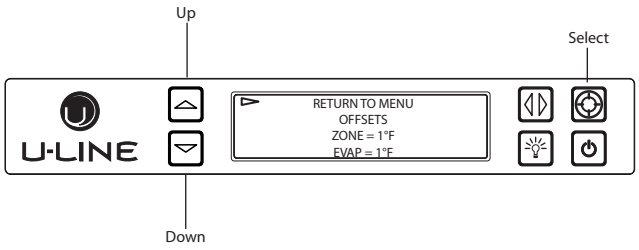
ID	Description	States
L Evap Fan	Left Evaporator Fan	0 - 100%
R Evap Fan	Right Evaporator Fan	0 - 100%
Condenser Fan	Condenser Fan	0 - 100%
L Light	Left Zone Lighting	Off - Low - Med - High
R Light	Right Zone Lighting	Off - Low - Med - High

To access Outputs

1. Use Down to select "Outputs".
2. Press Select.
3. Use Up and Down to scroll through available information.

To exit the Input Status menu use Up to select "Return to Menu" and press Select to confirm.

Offsets.



IMPORTANT

Customer care MUST be notified and approve of any changes to the differential before they are made. Failure to notify customer care will void the warranty.

Offsets are used to adjust or correct thermistor readings. Offset values are added to the current thermistor reading and are then used by the control board to determine cooling and defrost cycle times. Offsets have a range of +/- 10°F. Corrected values may be viewed through the customer "All Temps" menu or TTY output.

To access Offsets

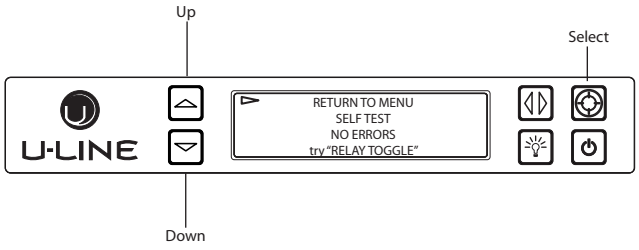
1. Use Down to select "Offsets".
2. Press Select.
3. Use Up and Down to scroll through available thermistors.

To change offset

4. Press Select, the selected thermistor will begin to flash.
5. use Up or Down to modify offset value.
6. Press Select to confirm setting.

To exit the Offset menu use Up to select "Return to Menu" and press Select to confirm.

Self Test



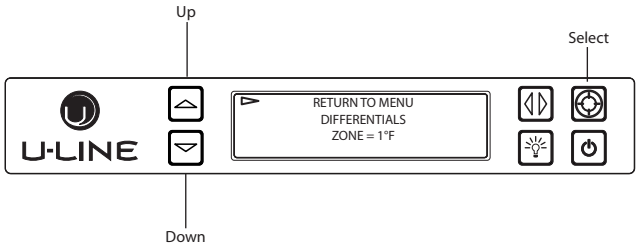
Self test is used to initiate a self diagnostic report. Any system faults will be displayed under Self test. If no errors are present "no errors" will be displayed and the main control board is functioning properly. The main control board is extremely robust and should rarely require service. Most issues are external to the control. Reference troubleshooting for more information.

To access Self Test

1. Use Down to select "Self Test".
2. Press Select.
3. Use Up and Down to scroll through available information.

To exit the Self Test use Up to select "Return to Menu" and press Select to confirm.

Differentials

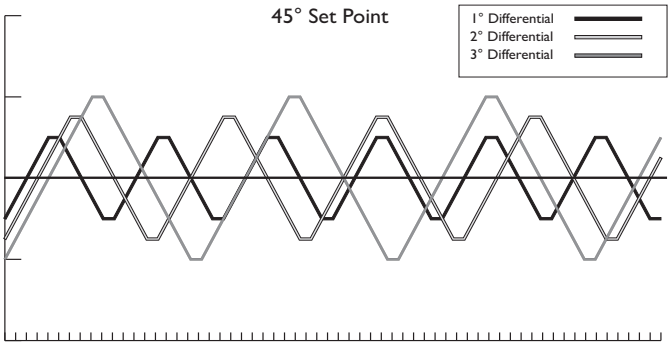


Differentials are used to determine the maximum variation from set point and have a range of 0 through 10. The table below shows the effect of differentials on cooling cycles with a set point of 45°.

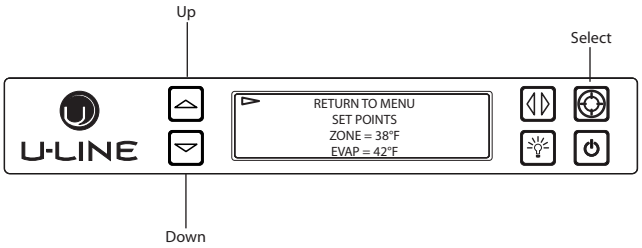
Note: Air temperature does not reflect product temperatures. .

Differential	Cycle Start	Cycle End
0	46°	44°
1	47°	43°
2	48°	42°
3	49°	41°
4	50°	40°
5	51°	39°

The graph below shows a unit's cooling cycle over time with various differentials.



Set Points



The Set points menu contains options to modify both the Zone and Evap set points. Changes to the zone set point will be reflected on the main screen. Changes to the evap set point alter the temperature the evaporator needs to meet during a defrost cycle.

To access Set Points

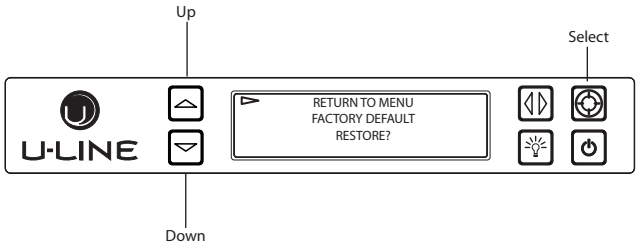
1. Use Down to select "Set Points".
2. Press Select.
3. Use Up and Down to scroll through available set points.

To change set point

4. Press Select, the selected set point will begin to flash.
5. use Up or Down to modify the value.
6. Press Select to confirm setting.

To exit the Set Points menu use Up to select "Return to Menu" and press Select to confirm.

Factory Default



Factory Default will restore all settings to their factory default.

To access Factory Default

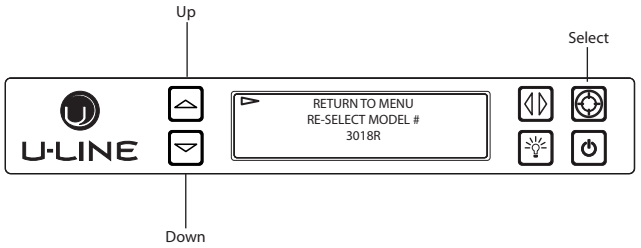
1. Use Down to select "Factory Default".
2. Press Select.

To restore settings to their factory default.

3. Use Down to select "Restore?" and press Select
4. "Restore?" will change to "Restoring..." while settings are restored. When restoration is complete, "Restoring..." will return to "Restore?".

To exit Factory Default use Up to select "Return to Menu" and press Select to confirm.

Re-Select Model



⚠CAUTION

Before altering model selection U-Line customer service must be notified. Failure to notify customer service will result in voiding of the manufacturer warranty.

Re-Select Model allows the units model information to be modified. Changing the units model completely reprograms available zones, relay assignments, DC output assignments etc.

To access Re-Select Model

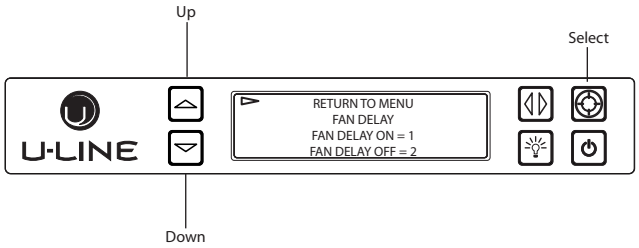
1. Use Down to select "Re-Select Model".
2. Press Select.

To alter model setting.

3. Use Down to select "Model=" and press Select. "Model" will begin to flash.
4. Press Up or Down to scroll through each available model.
5. Press Select to confirm.

To exit Re-Select Model use Up to select "Return to Menu" and press Select to confirm.

Fan Delay



The Fan Delay menu option allows the modification of fan run times during and after a cooling cycle. In order to allow time for the evaporator to properly cool, the evaporator fan is delayed from starting with the cooling cycle for a given amount of time. In order to remove as much warmth as possible from the cabinet the evaporator will continue to run at the end of the cooling cycle for a given amount of time.

Fan Delay 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.

Fan Delay Off=

"Fan Delay Off" is the amount of time in minutes the fan will continue to run at the end of a cooling cycle.

To access Fan Delay

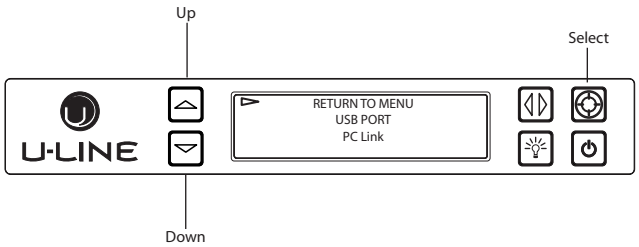
1. Use Down to select "Fan Delay".
2. Press Select.

To alter fan settings.

3. Use Down to select either "Fan Delay On" or "Fan Delay Off" and press Select. The chosen option will begin to flash.
4. Press Up or Down to change settings.
5. Press Select to confirm.

To exit Fan Delay use Up to select "Return to Menu" and press Select to confirm.

USB Port



The USB Port menu option allows the selection of a communication mode. The 3000 Series can communicate either via TTY to a PC or log diagnostic information directly to a USB flash disk.

ID	Communication
PC Link	PC TTY
Flash	USB Flash Drive

To access USB Port

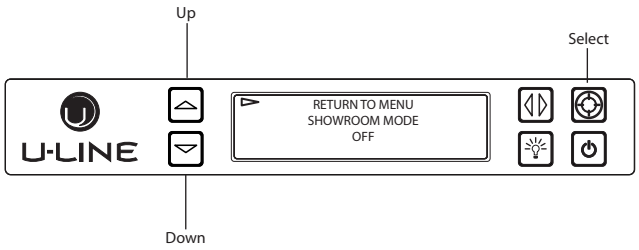
1. Use Down to select "USB Port".
2. Press Select.

To alter communication settings.

3. Use Down to select the current setting and press Select.
4. Press Up or Down to change settings.
5. Press Select to confirm.

To exit "USB Port" use Up to select "Return to Menu" and press Select to confirm.

Showroom Mode



Showroom displays a number of features and allows the unit to be powered on without running the cooling system.

To toggle showroom mode

1. Use Down to select "Showroom Mode".
2. Press Select.
3. Use Down to select "Off" and press Select. "Off" will begin to flash.
4. Press Up or Down to toggle between off and on.
5. Press Select to confirm.

If set to "on" showroom mode will begin immediately. To exit showroom mode press and release Power.

To exit the showroom mode menu use Up to select "Return to Menu" and press Select to confirm.

USB Communication

The 3000 series uses an advanced USB logging feature for system logging and diagnostics. The controller outputs 41 separate data points per second to either a USB flash disk or transmits over USB via TTY to a client PC. To prepare the unit for logging, first verify the USB port is set to the proper configuration. See "USB Port" on page **15** for information on configuring the USB port.

Flash Mode:
Suitable for logging directly to a USB flash disk.

PC Link Mode:
Suitable for communicating directly with another PC via USB.

USB Communication (Flash)

The main control can host a wide range of flash disks up to a max capacity of 8GB. After verifying the USB port is set to "Flash", simply insert a flash disk in to the USB port located above the grille. The flash disk activity light (located on the flash disk) will begin flashing immediately as data is recorded to the drive. Data is recorded in one second increments and is only limited by the capacity of the flash disk.

The system will create a file named "uline.csv" on the flash disk. In the event the file already exists, new data will automatically be appended to the end of the existing file. The file is output in a comma delineated text format and may be viewed in a wide variety of simple text readers or spreadsheet programs.

For information on identifying each data point, see the "Communication Data" table on page **17**.

USB Communication (PC Link)

Data can be transmitted directly to a client PC via a serial connection. Verify the USB port is set to "PC Link". Use a Type A to Type A male to male USB cable to connect the system to a Windows® compatible PC. It is necessary to install communication drivers to the client PC. Drivers may be downloaded at www.u-lineservice.com. Establish a connection using a Telnet / TTY terminal application. U-Line recommends PuTTY. PuTTY is available for download at www.u-lineservice.com. Once the connection is established, the controller will output a series of 36 data points in 1 second increments. For information on identifying each data point, see the "Communication Data" table on page **17**.

Communication Data ID Table

Field	1	2	3	4	5	6	7	8	9	10
ID	Time Live	Left Zone Temp	Right Zone Temp	Left Evap Temp	Right Evap Temp	Ambient Temp	Proc Temp	Left Zone ID	Left Set Point	Left Differential
Sample Data	1525	36	40	5	25	85	111	Beverage	34	1

Field	11	12	13	14	15	16	17	18	19	20
ID	Left Zone Offset	Left Evap Offset	Right Zone ID	Right Set Point	Right Zone Differential	Right Zone Offset	Right Evap Offset	L Door Indicator	R Door Indicator	Relay 1 Indicator
Sample Data	0	0	Beverage	34	1	0	0	---	---	---

Field	21	22	23	24	25	26	27	28	29	30
ID	Relay 2 Indicator	Relay 3 Indicator	Relay 4 Indicator	Relay 5 Indicator	Relay 6 Indicator	Relay 7 Indicator	Fan 1 Indicator	Fan 2 Indicator	Fan 3 Indicator	Left Lamp Power
Sample Data	2	---	4	---	---	7	1	---	3	0

Field	31	32	33	34	35	36	37	38	39	40
ID	Right Lamp Power	Energy Saver	Sabbath Indicator	Power Indicator	Comp Timer	Comp Cum Time	Defrost Timer	Fan 1 Timer	Fan 2 Timer	Left Limp Timer
Sample Data	0	---	---	---	32	1523	0	0	0	0

Field	41
ID	Right Limp Timer
Sample Data	0

Field Descriptions:

Field	Value
1	Time in seconds since unit plugged in.
2	Temperature of Left Zone in °F/°C.
3	Temperature of Right Zone in °F/°C.
4	Left evaporator temperature in °F/°C.
5	Right evaporator temperature in °F/°C.
6	Ambient temperature in base of unit °F/°C.
7	Board processor temperature.
8	Left Zone identification tag.
9	Left Zone set point in °F/°C.
10	Left Zone Differential value in °F/°C.
11	Left Zone offset value in °F/°C.
12	Left evaporator offset value in °F/C.
13	Right Zone identification tag.
14	Right Zone set point in °F/°C.
15	Right Zone Differential value in °F/°C.
16	Right Zone offset value in °F/°C.
17	Right evaporator offset value in °F/C.
18	Left door indicator. “L” = Open, “---”, = closed.
19	Right door indicator. “R” = Open, “---”, = closed.
20	Relay 1 (unassigned). “1” = “active”, “---” = inactive.
21	Relay 2 (unassigned). “2” = “active”, “---” = inactive.
22	Relay 3 (unassigned). “3” = active, “---” = inactive.
23	Left Valve Relay “4” = active, “---” = inactive.
24	Right Valve Relay 5. “5” = active, “---” = inactive.
25	Relay 6 (unassigned). “6” = active, “---” = inactive.
26	Compressor relay. “7” = active, “---” = inactive.
27	Left evaporator fan. “1” = active, “---” = inactive.
28	Right evaporator fan. “2” = active, “---” = inactive.
29	Condensor fan. “3” = active, “---” = inactive.
30	Left LED intensity, provided in %.
31	Right LED intensity, provided in %.
32	Energy Saver mode indicator. “E” = active.
33	Sabbath mode indicator. “S” = active.
34	Soft power indicator. “P” = unit in “On” mode.
35	Compressor state change timer, in seconds.
36	Compressor cumulative run time, in seconds.
37	Max remaining defrost time, in seconds.
38	Left Evaporator fan state change timer, in seconds.
39	Right Evaporator fan state change timer, in sec.
40	L Cumulative time spent in limp mode, in seconds.
41	R Cumulative time spent in limp mode, in seconds.

Note: Relay 2 will cycle with relay 7, this is considered normal.

Convection Cooling

All 3000 series units are equipped with an advanced convection cooling system. Convection cooling stabilizes cabinet temperature, cools product faster and increases energy efficiency.

Evaporator Fan

The evaporator fan is responsible for circulating warm air from the refrigeration zone, past the evaporator and back into the refrigerated zone,

The evaporator fan is factory set to have a 1 minute delay at the beginning of a cooling cycle. This delay gives the evaporator time to cool properly before warm air is passed over it. The fan will continue to run for an additional 2 minutes at the end of a cooling cycle. Fan delay times can be modified through the service menu. See "Fan Delay" on page **15**.

Evaporator fan operation is also determined by door switch state. If the door switch circuit opens the fan will stop. When the door switch circuit is closed the fan will either continue running with the cooling cycle, or if not currently cooling the fan will run for 1 minute to circulate air and clear any condensation that may have appeared on glass doors and shelves.

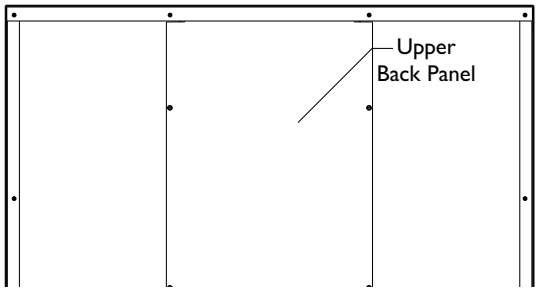
Note: If the unit is set to sabbath mode the evaporator fan will no longer respond to the state of the door switch.

In order to operate efficiently the evaporator fan blade and vents should be unobstructed and free of any dust build up.

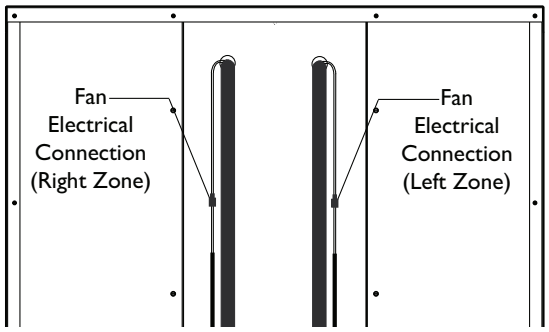
Evaporator Fan Replacement

Should the evaporator fan need to be replaced follow the steps below.

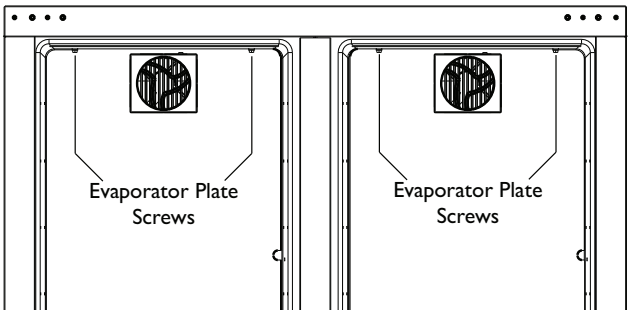
1. Remove any product from the unit.
2. Disconnect power to the unit.
3. Remove upper back panel.



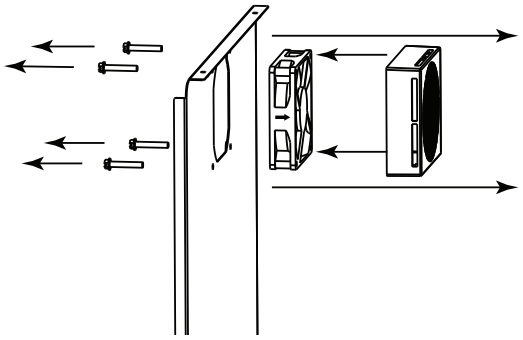
4. Disconnect fan electrical connection



5. Remove insulating foam from refrigerant line pass-through hole.
6. Remove internal shelving, bins, or wine racks.
7. Remove shelf clips, rack, or bin mounting rails.
8. Remove thermistor cover.
9. Remove two evaporator plate screws from top of evaporator plate.



10. Grasp evaporator fan shroud and gently pull plate away from the rear of the unit.
11. While pulling the evaporator plate clear of the unit, it may be necessary to use your free hand to manipulate the fan plug end through the pass-through hole.
12. Remove the 4 screws mounting the fan shroud to the evaporator plate.



13. Remove and replace fan. Take special care to properly route fan wire.

IMPORTANT

Fan must be oriented to pull air in through lower evaporator plate vents and push air out at fan mounting location.

14. Installation is the reverse of removal. Before replacing back panel fill refrigerant line pass-through hole with sealant gum.

3000 Series Doors

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 or condensation may form in the interior.

IMPORTANT

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 assure 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.

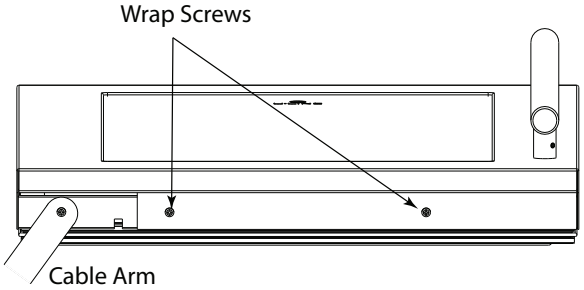
⚠WARNING

Do not attempt to use the door to raise or pivot your unit. This would put excessive stress on the hinge system.

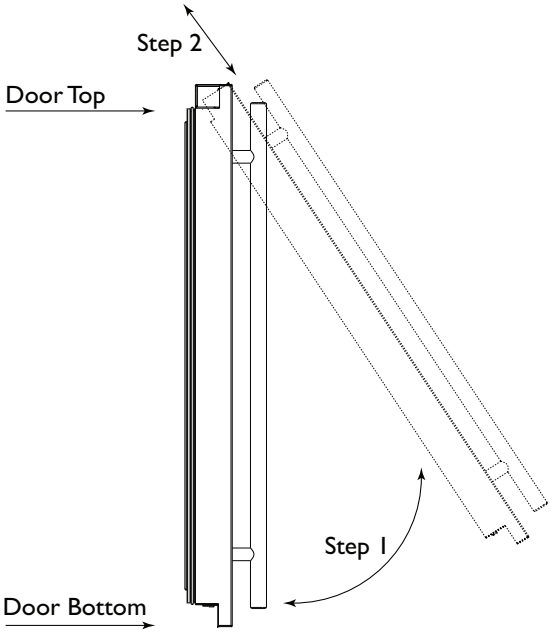
- **Pay special attention to the Cable Arm. Make sure not to over extend or damage it during door alignment**

Stainless Models (Removing Wrap)

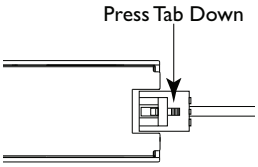
15. Open door completely.
16. Remove the two wrap screws from the bottom of the stainless steel door wrap.



17. Gently pull bottom of wrap away from door.
18. The Wrap hinges on top of the door. Carefully pull wrap away and then up**. See Below.**

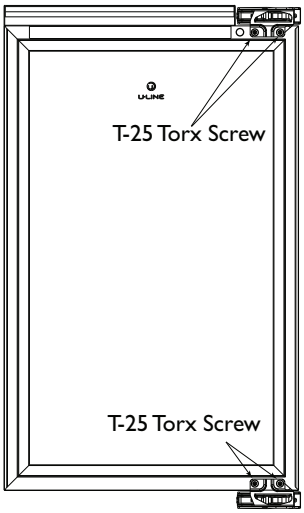


19. If door being adjusted houses the display unit, remove cable form display by pressing in the release tab on the cable connector.



Alignment and Adjustment

1. Using a T-25 Torx Bit, loosen each pair of torx head screws on both the upper and lower hinge plate.
2. Square and align door as necessary
3. Tighten Torx head screws on hinge
4. If necessary re-connect display and re-install Stainless steel wrap.



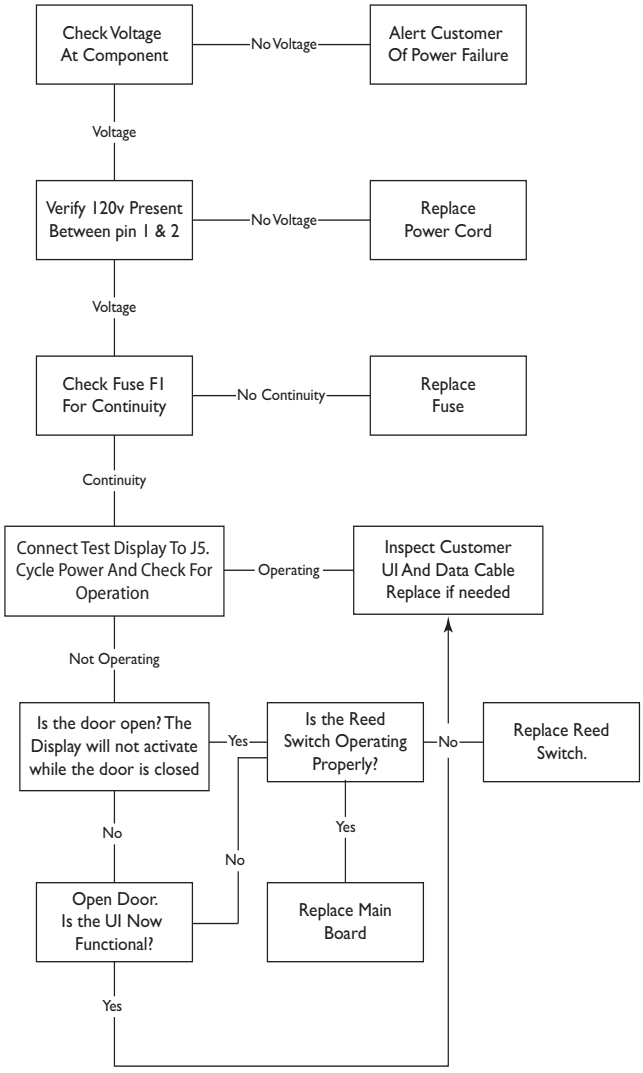
Troubleshooting

Main Control

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

Power Fault

f the unit does not power on, follow the flow chart below to help diagnose the issue. It is important to first verify the unit is not simply set to sabbath mode.



Testing The Main Control

If the main control is suspected of being faulty the following procedure should be performed to verify main control for functionality.

Relay & DC Outputs

One of the primary function of the main control is to operate the multiple relay and dc outputs during each cycle. Verify proper operation of these relays using the following procedure.

1. Enter "Relay Toggle" through the service menu.

IMPORTANT

Frequently toggling the compressor relay could force the compressor into overload. The compressor will automatically deactivate during an overload and will remain deactivated until the overload switch cools. This could take some time. It is important to allow the compressor at least 5 minutes off time between relay cycles.

2. Toggle the relay, it's related component should activate / deactivate with the switching of the relay. If it does not see "Component Testing" on page **22**.

Inputs

The main control monitors a number of thermistor inputs and switch states during operation. It would be unlikely that an error in reading an input would be at the board level. Always attempt to replace the faulty switch or thermistor input with a known working sample to verify proper board operation.

Other Suspected Main Control Faults

If other components have been ruled out as being faulty but the unit continues to have operating issues, it is most likely due to a configuration error. Configuration errors can be cleared by restoring the unit to its factory default setting. Factory defaults may be restored through the service menu. See page **14**.

⚠CAUTION

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

Component Testing

IMPORTANT

Frequently toggling the compressor relay could force the compressor into overload. The compressor will automatically deactivate during an overload and will remain deactivated until the overload switch cools, regardless of relay and voltage state.

IMPORTANT

If the compressor is suspected of being faulty it is important to verify all copper tubing, dryers, capillary lines, evaporators and condensers are free from kinks, excessive bends or blockages. A restriction in any of these components would force the compressor to overload, making it appear as if it is faulty.

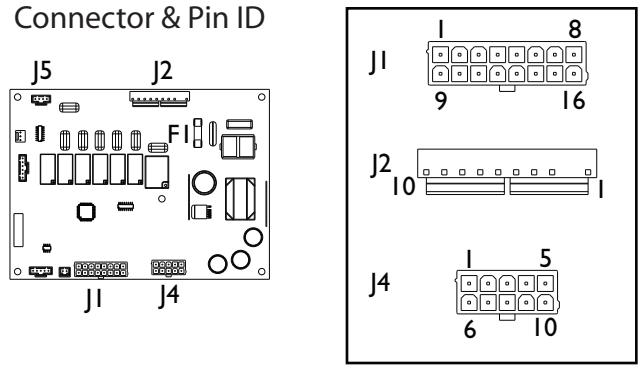
If a component is suspected as being faulty, follow the troubleshooting steps below to help isolate the cause.

1. Initiate Self Test Mode, address any current errors before beginning component testing.
2. Activate the component's relay or DC output through "Relay Toggle" under the service menu.
3. Test for voltage at the component.

Voltage Present

If voltage is present and the component does not function, suspect a faulty component. If the component being tested is the compressor make certain it is not overloaded by disconnecting power to the unit for at least 15 minutes and re-testing.

No Voltage Present



Relay Output ID	Test Point 1	Test Point 2	Voltage On	Voltage Off
LVLV	Pin J2-1	Pin J2-7	120 AC	0
RVLV	Pin J2-1	Pin J2-6	120 AC	0
Comp	Pin J2-1	Pin J2-4	120 AC	0
F1	Pin J4-1	Pin J4-6	12 DC	< 3 DC
F2	Pin J4-2	Pin J4-7	12 DC	< 3 DC
F3	Pin J4-3	Pin J4-8	12 DC	< 3 DC
L1	Pin J4-4	Pin J4-9	8-12 DC	< 7 DC
L2	Pin J4-5	Pin J4-10	8-12 DC	< 7 DC

If no voltage is present check for voltage at the relay / DC output. Reference the diagram for component relay / DC output pins. If voltage is present, suspect a faulty component cable. If voltage is not present at the relay / DC output, cycle the power to the unit and re-test. If voltage is still not present, suspect the main control of being faulty.

Component Testing Example

Below is an example of how to properly test a component for functionality. The left zone evaporator fan is used.

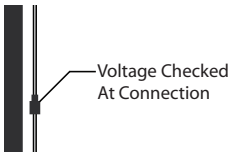
Condition

Customer complains of the unit not cooling properly. The main screen of the display lists an error "L Temp Hi 12H+". The compressor seems to be functioning properly, however the left zone evaporator fan does not activate after a door cycle.

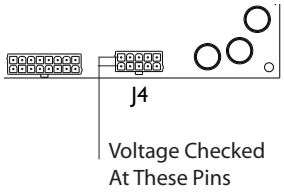
In the above case it would be wise to test the evaporator fan for functionality.

Testing

1. Check "Self Test" for any additional errors that may be current.
2. Visually examine the fan through the fan cover. Note any ice buildup. In this case no ice buildup was noticed. The fan appeared as if it could spin freely
3. Enter "Relay Toggle" and manually activate FAN1.
4. Check for fan operation. In this case the fan does not operate.
5. Remove the upper and lower back panel from the refrigeration unit.
6. Ensuring the DC output is still active, use a meter to check voltage at the fan power connection point. In this instance no voltage is present.



7. Ensuring the DC output is still active and referencing the Connector & Pin ID chart, a voltage test is performed across pins 1 and 6 of the header labeled J4. In this case a stable 12 volts DC was noted.



8. Confirming that the board is sending voltage, the cabling between the board and fan is inspected for damage. In this case some damage is noted.
9. The fan cable harness is replaced, and the fan dc output is tested again. It is noted the fan now spins freely.
10. The unit is them monitored for proper operation and any further faults.

Customer Call Guide

The following guide has been developed to help answer frequently asked questions. It can be used by persons scheduling service calls. These are things the customer should consider before scheduling a service call.

Concern	Response
The unit is not cold enough.	• **Are you familiar with the factory temperature specifications for the unit? Many factors can cause these temperatures to vary; ambient temperature, application, amount of use (number of times and length of time the door are opened and closed), etc** • **Is the door sealing properly? If the door is not sealed properly, it allows heat into the unit. U-Line's warranty is 30 days for door adjustments.** • **Has the door been left open? The unit will issues an audible tone if the door has been left open for longer than 5 minutes.** • **Is the condenser clean? U-Line's warranty does not cover cleaning the condenser.** • **Is the unit behind closed doors or the grille restricted? The front grille must be free of obstruction.** • **Is the unit in an application of heavy usage? Heavy usage or high ambient temperatures will cause a unit to frost up.** • **Did you try adjusting the temperature to a colder level? Adjust to a colder level. Be sure to allow 24 hours between temperature control adjustments.**
Temperature is too cold.	• **Check actual temperature versus set-point.** • **Did you try adjusting the temperature to a warmer level? Adjust to a warmer level and allow 24 hours between temperature control adjustments.**
Product is freezing.	• **What is the temperature set at?** • **Do not allow products to lean against the evaporator at the back wall.**
The unit is frosting up.	• **Are you familiar with the defrost technology of the unit?** • **Is the door sealing properly? If the door is not sealing properly, it allows heat/humidity into the unit. U-Line's warranty is 30 days for door adjustments.** • **Has the door been left open?** • **Is the unit in an application of heavy usage? Heavy usage or high ambient temperatures will cause a unit to frost up.**

⚠ CAUTION

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

Cause	Remedy
Compressor overheating	
1. Condenser air flow restricted.	1. Remove restriction (clean condenser and grille).
2. Condenser fan blade obstructed.	2. Remove blade restriction
3. Condenser fan motor stalled.	3. Replace fan motor
4. Compressor inoperable.	4. Replace compressor
Compressor will not stop operating.	
1. Temperature set too cold.	1. Adjust temperature warmer.
2. Control inoperable.	2. Replace control.
3. Control sensing bulb not sensing temperature.	3. Check bulb/thermistor for location and ohms.
4. Evaporator fan stalled.	4. Remove obstruction or replace motor.
Excessive frost buildup.	
1. Door gasket not sealing properly.	1. Adjust door or replace door gasket.
2. Door out of alignment	2. Adjust door hinges/pivot plates.
3. Light stays on when door is closed.	3. Repair or adjust light bracket/magnet.
4. Warm air leaking into cabinet from back.	4. Seal holes in the foam to prevent warm air entering the unit.
Noisy.	
1. Copper refrigeration tube touching cabinet.	1. Carefully adjust tubing.
2. Evaporator fan blade touching cover.	2. Adjust fan mounting or shroud.
3. Condenser fan obstruction (wiring, foam insulation, packaging material).	3. Remove obstruction.
Ice Buildup in drain trough or drain problem	
1. Obstructed drain cup or tube.	1. Check and clear drain tube.
2. Kinked drain tube.	2. Reroute drain tube.
3. Drain trough spout and drain cup not aligned	3. Align drain trough and drain cup.

Compressor Information

Cooling process

Refrigerant is pumped from the compressor to the condenser as a high pressure, high temperature vapor.

As the refrigerant cools in the high pressure condenser, the vapor condenses to liquid. During this phase change, a great amount of heat is rejected with the help of the condenser fan.

The liquid then flows through the open solenoid valve to the dryer where it is strained and filtered.

From the dryer, the refrigerant flows through the capillary tube which meters the liquid refrigerant to the evaporator.

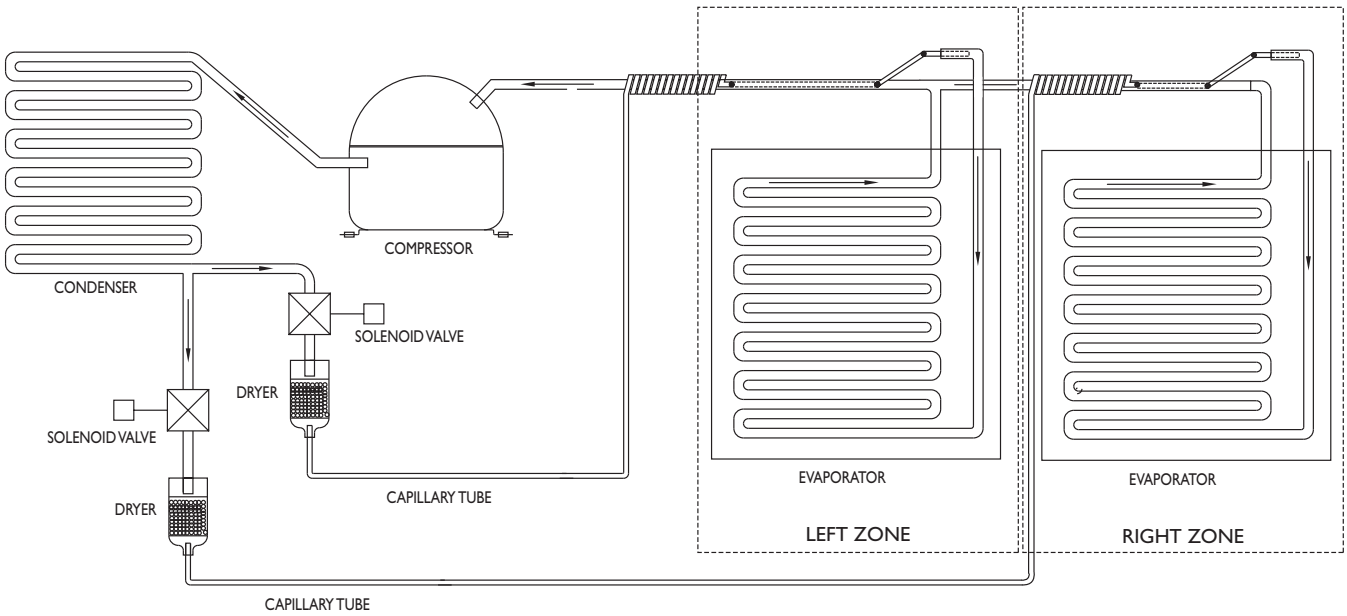
The pressure of the refrigerant is reduced to the evaporating or low side pressure.

The reduction of pressure on the liquid refrigerant causes it to boil or vaporize until it reaches saturation temperature. As the low temperature refrigerant passes through the evaporator coil, it continues to absorb a lot of heat, causing the boiling action to continue until the refrigerant is completely vaporized. It is during this phase that the most heat is absorbed (the cooling takes place) in the refrigerator.

The refrigerant vapor leaving the evaporator travels through the suction line to the compressor inlet. The compressor takes the low pressure vapor and compresses it, increasing both pressure and temperature. The hot, high pressure gas is pumped out the discharge line and into the condenser. The cycle continues

Thermistors

Thermistors are used for various temperature readings. Thermistor provide reliable temperature readings using a resistance which varies based on surrounding temperatures. If a faulty thermistor is suspected it may be tested using an accurate ohmmeter. In an ice bath (32°F) resistance should measure 16.1 kilohms,



Thermistor Failure

Zone Thermistors

If a zone thermistor fails the unit will continue to operate the zone on a preset time interval of 10 minutes on and 30 minutes off. The unit will otherwise operate normally. The error will be displayed on the main display and "Self Test" and logged in "All Errors".

Evaporator Thermistors

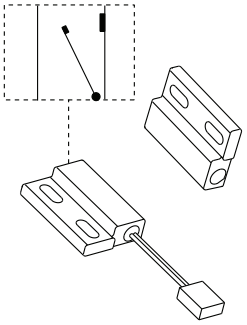
If an evaporator thermistor fails the unit will rely on a preset defrost timer during defrost cycles. The unit will otherwise operate normally. Evaporator thermistor errors are hidden from the display and recorded in "All Errors" and displayed in "Self Test" modes.

Ambient Thermistor

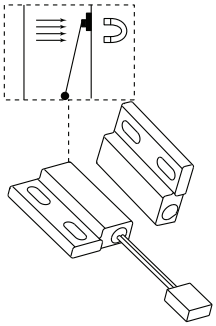
The ambient thermistor is mainly used for diagnostics. If the thermistor fails the unit will operate normally.

Reed Switch

A reed switch is used to monitor door state. The switch side for each zone is mounted under the cabinet and the magnet is mounted to the cable arm of each respective door. When the door is closed magnetic force pulls the reed to its contact and closes the circuit which turns the light and display off. When the door is open the reed pulls away from the contact and opens the circuit. If the door or drawers are left open for longer than 5 minutes, the switch will trigger an error code and set an audible warning.



Magnet Away From Switch
(Door Open)
(Switch Open)



Magnet Close To Switch
(Door Closed)
(Switch Closed)

Compressors

⚠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**

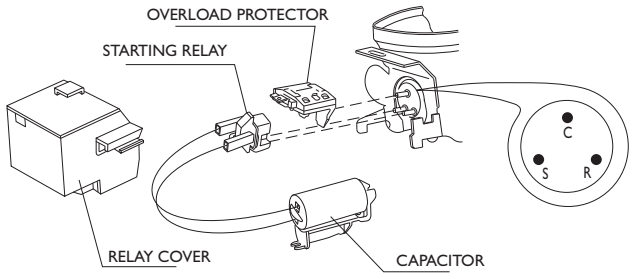
To measure the start winding resistance, measure across the C and S pins.

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.

	EMU30HSC
Voltage	115
Frequency	60
LRA	5.5
FLA	1.0
Start Winding	7.0
Run Winding	8.4

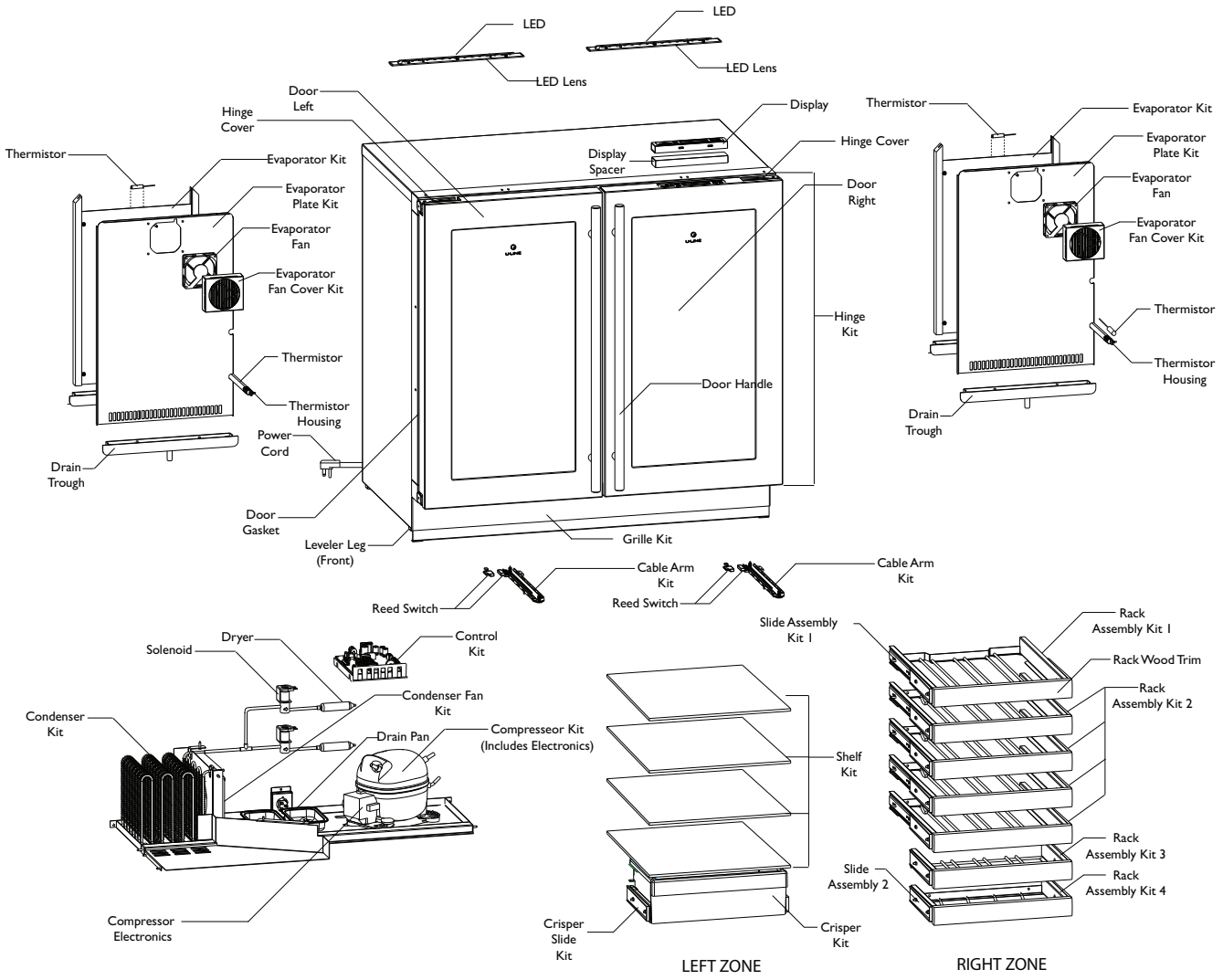


Refrigeration System Diagnosis Guide

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

Fault System Diagnosis Guide

Error	Solution 1	Solution 2	Solution 3
No Comm	Inspect the UI data cable for continuity. Replace if necessary. the main control board and UI.		
(L) (R) Zone T Open	Inspect zone thermistor connection. Replace if necessary.	Inspect main control wire harness for splits or breaks. Repair split or cut cabling.	
(L) (R) Evap T Open	Inspect evaporator thermistor connection. Replace if necessary.	Inspect main control wire harness for splits or breaks. Repair split or cut cabling.	
Amb Thrm Open	Inspect ambient thermistor connection. Replace if necessary	Inspect main control wire harness for splits or breaks. Repair split or cut cabling.	
(L) (R) Zone T Short	Inspect thermistor cable for pinch points or damage. Replace if necessary.	Inspect wire harness from main control board for pinch points or damage. Repair split or pinched cabling	
(L) (R) Evap T Short	Inspect thermistor cable for pinch points or damage. Replace if necessary	Inspect wire harness from main control board for pinch points or damage. Repair split or pinched cabling	
Amb Thrm Short	Inspect thermistor cable for pinch points or damage. Replace is necessary.	Inspect wire harness from main control board for pinch points or damage. Repair split or pinched cabling	
(L) (R) Temp Hi 6H+	If excessive frost is also noted, inspect door and door gasket for proper seal and alignment.	Inspect evaporator fan for proper operation.	Inspect refrigeration system. Reference the Refrigeration System Diagnosis Guide on page **27**.
(L) (R) Temp Hi 12H+	If excessive frost is also noted, inspect door and door gasket for proper seal and alignment.	Inspect evaporator fan for proper operation.	Inspect refrigeration system. Reference the Refrigeration System Diagnosis Guide on page **27**.
(L) (R) Temp Lo 6H+	Inspect main control for proper relay operation.	Inspect refrigeration system. Reference the Refrigeration System Diagnosis Guide on page **27**.	
(L) (R) Temp Lo 12H+	Inspect main control for proper relay operation.	Inspect refrigeration system. Reference the Refrigeration System Diagnosis Guide on page **27**.	
(L) (R) Door Open 5M	Verify door closes properly.	Inspect cable arm, verify presence of magnet, verify proper operation and movement of arm.	Inspect reed switch wiring.



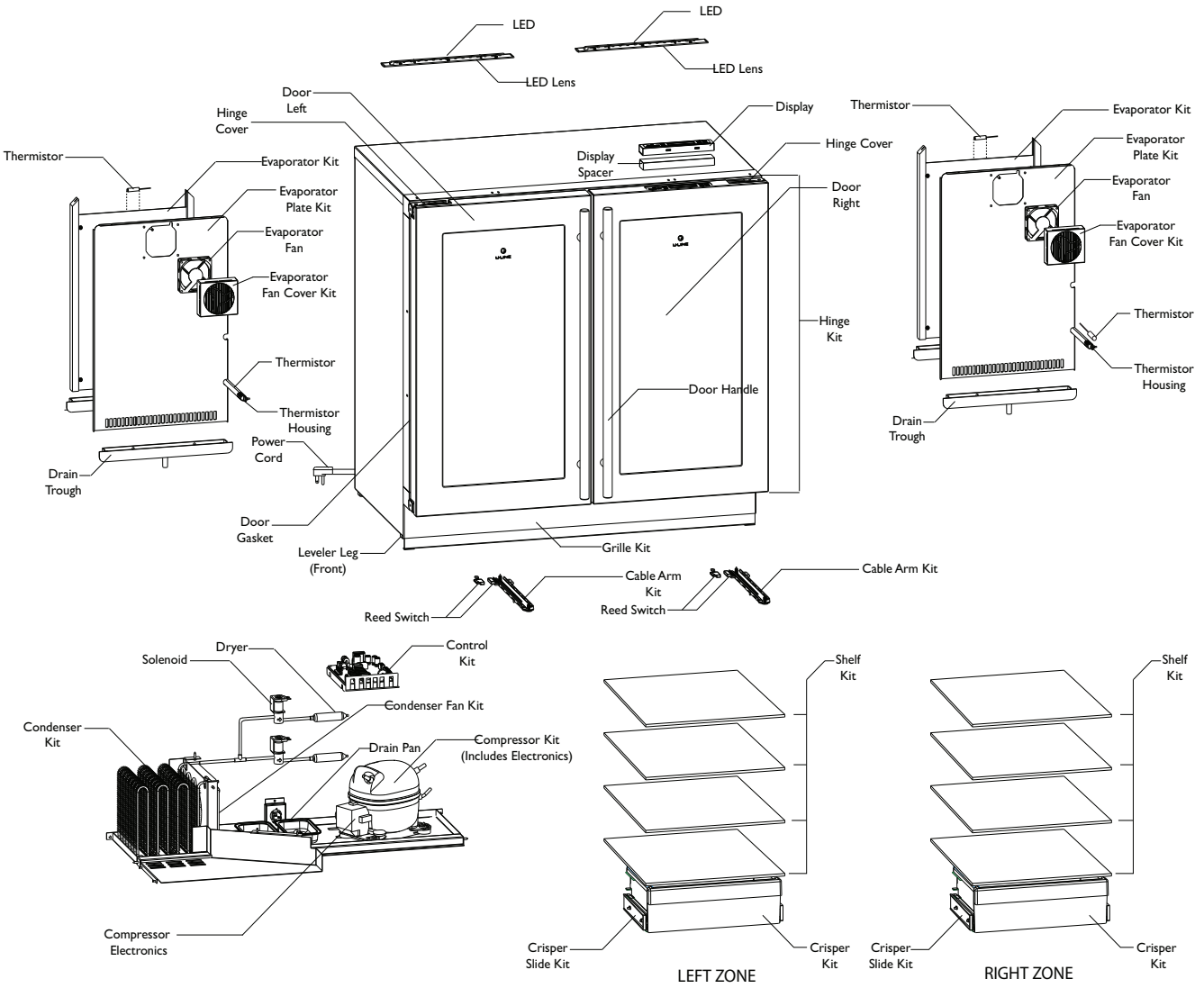
Models Covered

U-3036BVWCS-00

U-3036BVWCOL-00

Part Number Cross Reference

	U-3036BVWCOL-00	U-3036BVWCS-00
Cable Arm Kit	80-25068-00	80-25068-00
Compressor Kit	80-51026-00	80-51026-00
Compressor Electronics	80-51024-00	80-51024-00
Condenser Kit	80-21013-00	80-21013-00
Condenser Fan Kit	80-22008-00	80-22008-00
Control Kit	80-51020-00	80-51020-00
Crisper Kit	80-51033-00	80-51033-00
Crisper Slide Kit	80-51023-01	80-51023-01
Display	68099	68099
Display Spacer	38037-01	38037-01
Door Gasket	31493-21-BLK	31493-21-BLK
Door Handle	N/A	23050-01
Door Left	80-17176-11	80-17170-13
Door Right	80-17176-01	80-17170-03
Drain Pan	31385	31385
Drain Trough	26118-01	26118-01
Dryer	2694	2694
Evaporator Kit	80-51032-00	80-51032-00
Evaporator Fan	67005	67005
Evaporator Fan Cover Kit	80-51029-00	80-51029-00
Evaporator Plate Kit	80-51030-00	80-51030-00
Grille Kit	80-51037-00	80-51037-00
Hinge Kit	80-16095-01	80-16095-01
Hinge Cover	26140	26140
LED	68100	68100
LED Lens	26116	26116
Leveler Leg (Front)	18088	18088
Packaging	80-32093-01	80-32093-00
Power Cord	2992	2992
Rack Assembly Kit 1	80-51034-00	80-51034-00
Rack Assembly Kit 2	80-51034-01	80-51034-01
Rack Assembly Kit 3	80-51034-02	80-51034-02
Rack Assembly Kit 4	80-51034-03	80-51034-03
Rack Wood Trim	39014-01	39014-01
Reed Switch Kit	80-51016-00	80-51016-00
Shelf Kit	80-51017-00	80-51017-00
Slide Assembly Kit 1	80-51035-00	80-31035-00
Slide Assembly Kit 2	80-51035-01	80-51035-01
Solenoid	73000-S	73000-S
Thermistor Housing	80-51031-00	80-51031-00
Thermistor	68092	68092
Tool Kit	80-51025-00	80-51025-00



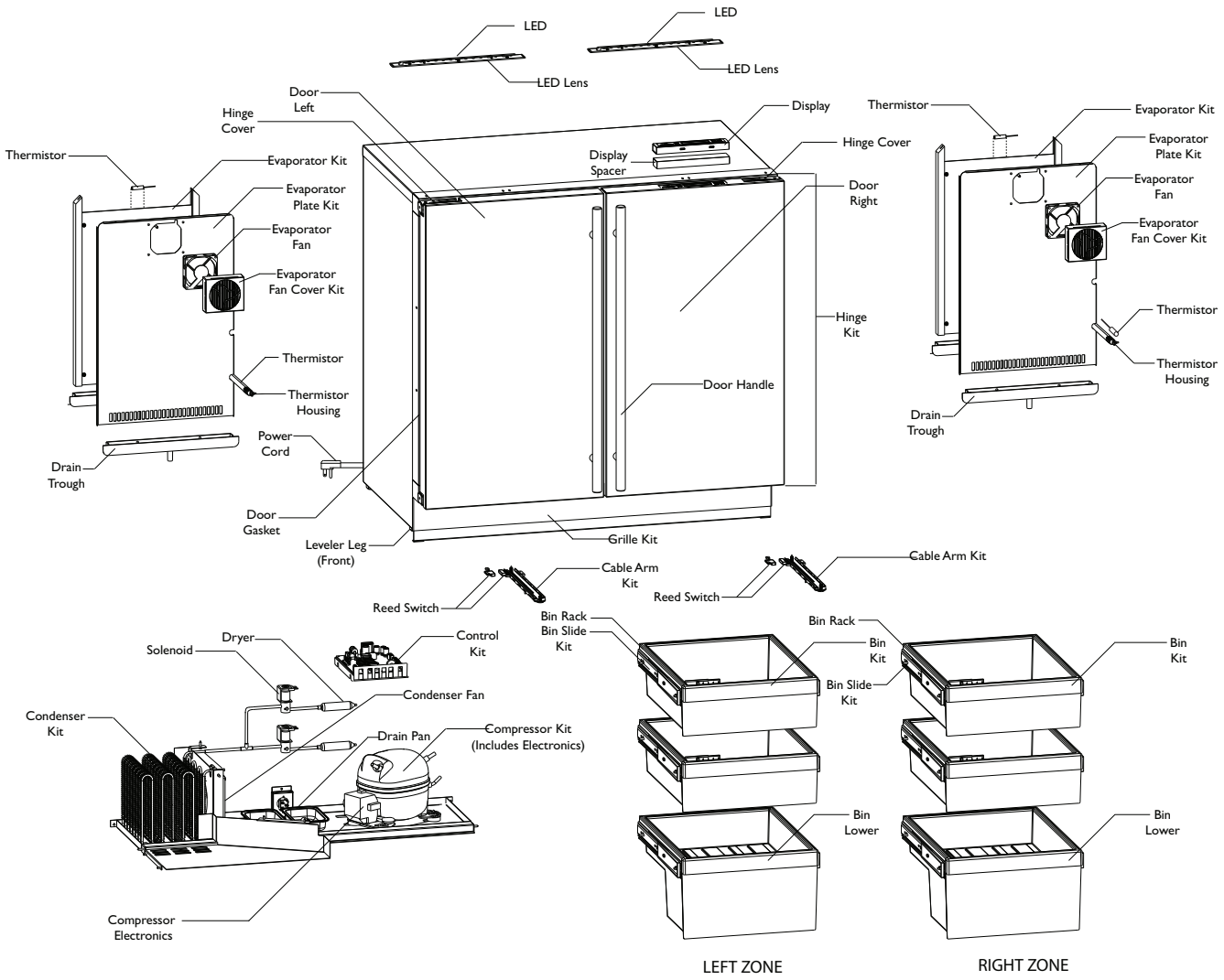
Models Covered

U-3036RRGLS-00

U-3036RRGLOL-00

Part Number Cross Reference

	U-3036RRGLOL-00	U-3036RRGLS-00
Cable Arm Kit	80-25068-00	80-25068-00
Compressor Kit	80-51026-00	80-51026-00
Compressor Electronics	80-51024-00	80-51024-00
Condenser Kit	80-21013-00	80-21013-00
Condenser Fan Kit	80-22008-00	80-22008-00
Control Kit	80-51020-00	80-51020-00
Crisper Kit	80-51033-00	80-51033-00
Crisper Slide Kit	80-51023-01	80-51023-01
Display	68099	68099
Display Spacer	38037-01	38037-01
Door Gasket	31493-21-BLK	31493-21-BLK
Door Handle	N/A	23050-01
Door Left	80-17176-11	80-17170-13
Door Right	80-17176-01	80-17170-03
Drain Pan	31385	31385
Drain Trough	26118-01	26118-01
Dryer	2694	2694
Evaporator Kit	80-51032-00	80-51032-00
Evaporator Fan	67005	67005
Evaporator Fan Cover Kit	80-51029-00	80-51029-00
Evaporator Plate Kit	80-51030-00	80-51030-00
Grille Kit	80-51037-00	80-51037-00
Hinge Kit	80-16095-01	80-16095-01
Hinge Cover	26140	26140
LED	68100	68100
LED Lens	26116	26116
Leveler Leg (Front)	18088	18088
Packaging	80-32093-01	80-32093-00
Power Cord	2992	2992
Reed Switch	80-51016-00	80-51016-00
Shelf Kit	80-51017-00	80-51017-00
Solenoid	73000-S	73000-S
Thermistor Housing	80-51031-00	80-51031-00
Thermistor	68092	68092
Tool Kit	80-51025-00	80-51025-00



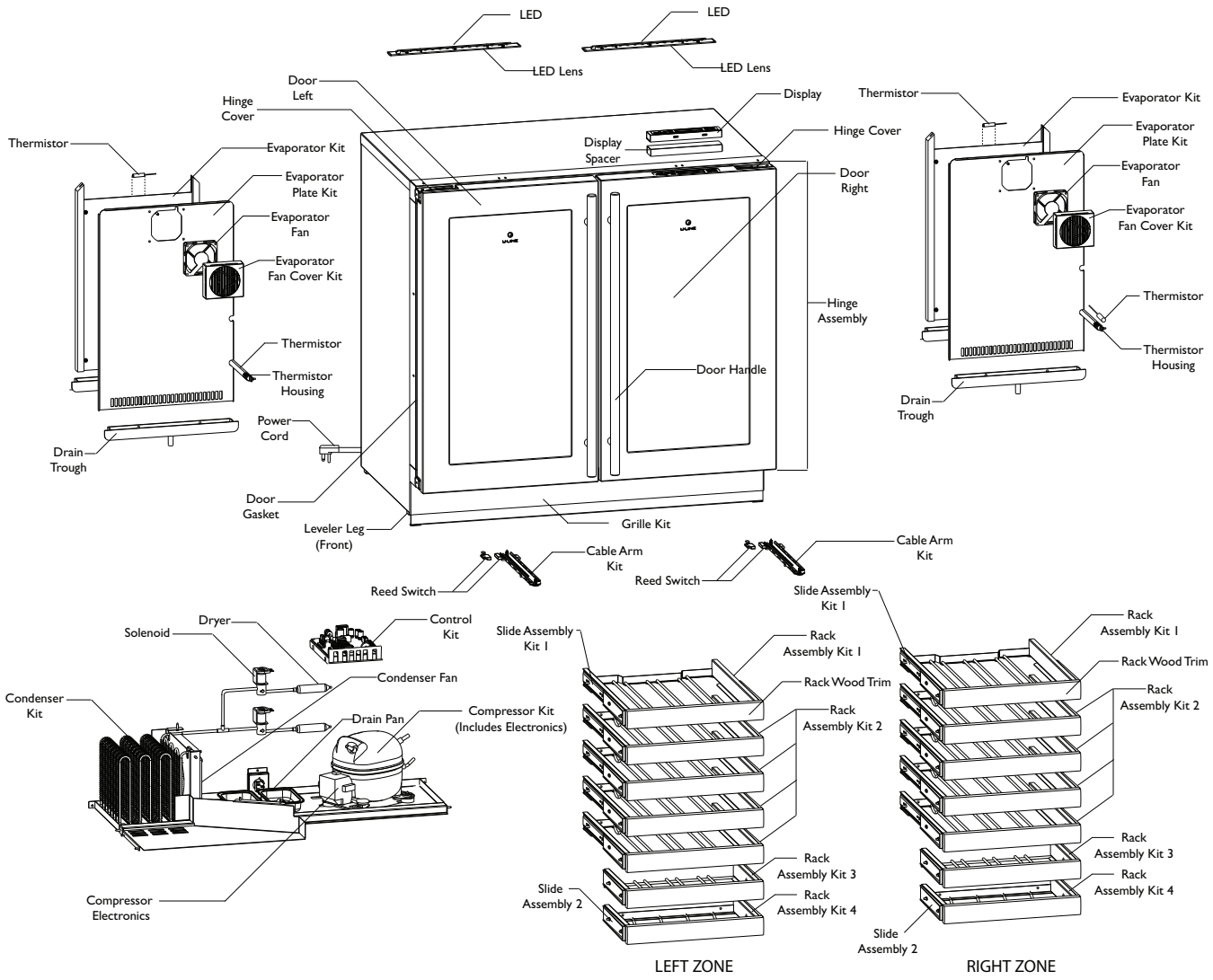
Models Covered

U-3036RRS-00

U-3036RROL-00

Part Number Cross Reference

	U-3036RROL-00	U-3036RRS-00
Bin Kit	80-51021-00	80-51021-00
Bin Lower	26113	26113
Bin Rack	18076-01	18076-01
Bin Slide Kit	80-51023-00	80-51023-00
Cable Arm Kit	80-25068-00	80-25068-00
Compressor Electronics	80-51024-00	80-51024-00
Compressor Kit	80-51026-00	80-51026-00
Condenser Fan Kit	80-22008-00	80-22008-00
Condenser Kit	80-21013-00	80-21013-00
Control	80-51020-00	80-51020-00
Display	68099	68099
Display Spacer	38037-01	38037-01
Door Gasket	31493-21-BLK	31493-21-BLK
Door Handle	N/A	23050-01
Door Left	80-17107-11	80-17107-13
Door Right	80-17107-01	80-17107-03
Drain Pan	31385	31385
Drain Trough	26118-01	26118-01
Dryer	2694	2694
Evaporator Fan	67005	67005
Evaporator Fan Cover Kit	80-51029-00	80-51029-00
Evaporator Kit	80-51032-00	80-51032-00
Evaporator Plate Kit	80-51030-00	80-51030-00
Grille Kit	80-51037-00	80-51037-00
Hinge Cover	26140	26140
Hinge Kit	80-16095-01	80-16095-01
LED	68100	68100
LED Lens	26116	26116
Leveler Leg (Front)	18088	18088
Packaging	80-32093-01	8032093-00
Power Cord	2992	2992
Reed Switch	80-51016-00	80-51016-00
Solenoid	73000-S	73000-S
Thermistor Housing	80-51031-00	80-51031-00
Thermistor	68092	68092
Tool Kit	80-51025-00	80-51025-00



Models Covered

U-3036WCWCS-00

U-3036WCWCOL-00

Part Number Cross Reference

	U-3036WCWCOL-00	U-3036WCWCS-00
Cable Arm Kit	80-25068-00	80-25068-00
Compressor Kit	80-51026-00	80-51026-00
Compressor Electronics	80-51024-00	80-51024-00
Condenser Kit	80-21013-00	80-21013-00
Condenser Fan Kit	80-22008-00	80-22008-00
Control	80-51020-00	80-51020-00
Display	68099	68099
Display Spacer	38037-01	38037-01
Door Gasket	31493-21-BLK	31493-21-BLK
Door Handle	N/A	23050-01
Door Left	80-17176-11	80-17170-13
Door Right	80-17176-01	80-17170-03
Drain Pan	31385	31385
Drain Trough	26118-01	26118-01
Dryer	2694	2694
Evaporator Kit	80-51032-00	80-51032-00
Evaporator Fan	67005	67005
Evaporator Fan Cover Kit	80-51029-00	80-51029-00
Evaporator Plate Kit	80-51030-00	80-51030-00
Grille Kit	80-51037-00	80-51037-00
Hinge Kit	80-16095-01	80-16095-01
Hinge Cover	26140	26140
LED	68100	68100
LED Lens	26116	26116
Leveler Leg (Front)	18088	18088
Packaging	80-32093-01	80-32093-00
Power Cord	2992	2992
Rack Assembly Kit 1	80-51034-00	80-51034-00
Rack Assembly Kit 2	80-51034-01	80-51034-01
Rack Assembly Kit 3	80-51034-02	80-51034-02
Rack Assembly Kit 4	80-51034-03	80-51034-03
Rack Wood Trim	39014-01	39014-01
Reed Switch	80-51016-00	80-51016-00
Slide Assembly Kit 1	80-51035-00	80-31035-00
Slide Assembly Kit 2	80-51035-01	80-51035-01
Solenoid	73000-S	73000-S
Thermistor Housing	80-51031-00	80-51031-00
Thermistor	68092	68092
Tool Kit	80-51025-00	80-51025-00

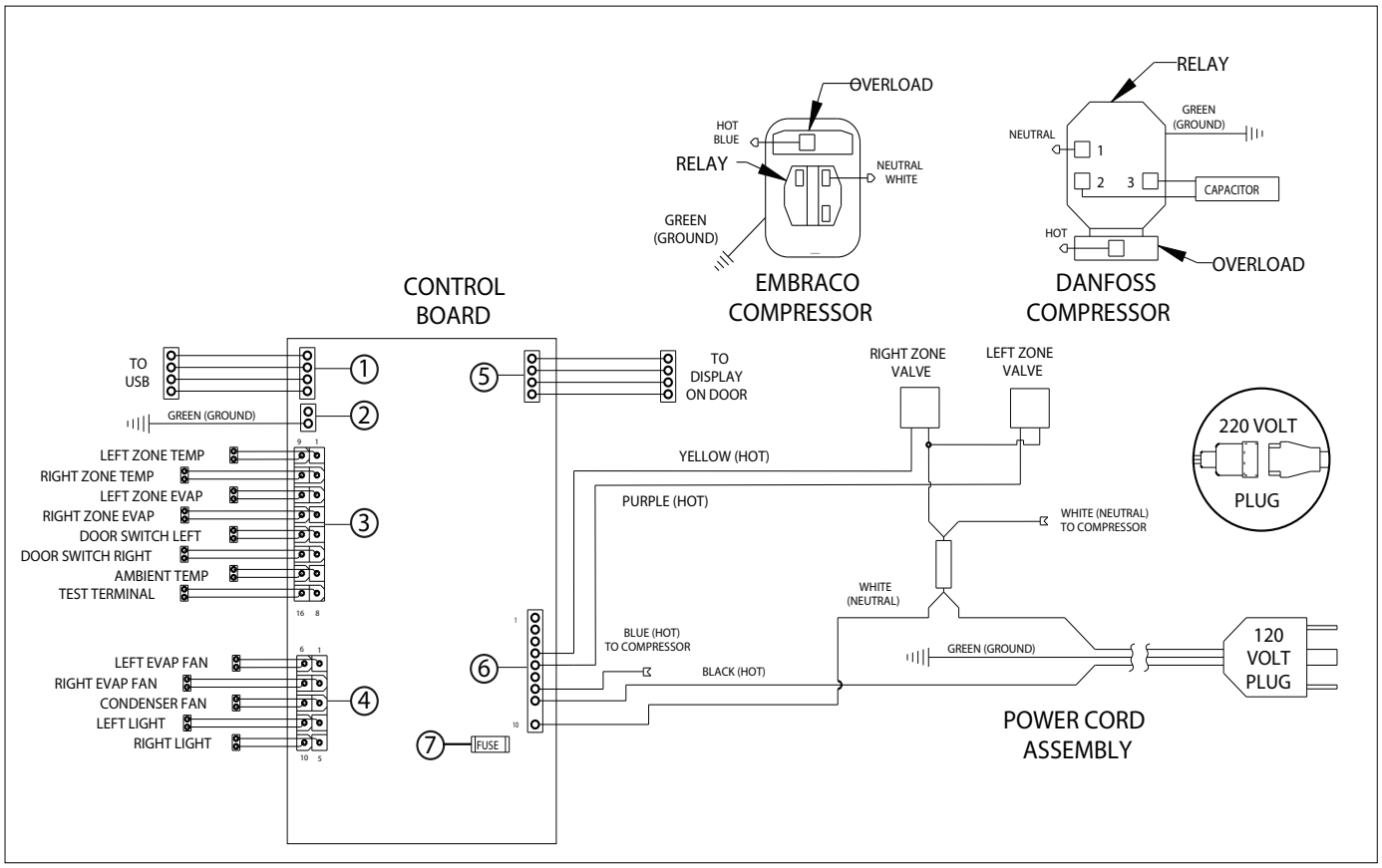
Kit Part Reference

Many components are ordered as assemblies or kits. The table below lists each part in a given kit or assembly. Please note doors include handles when applicable and do not include hinges, they must be ordered separately.

Part Number	Description	QTY
80-16095-01	**Hinge Kit**	
	Screw	8
	Hinge 45mm	1
	Hinge 45mm	1
	Hinge Cover	2
80-21012-00	**Condenser Kit**	
	Drier	1
	Discharge Tube	1
	Pin Tube Cond	1
80-22008-00	**Condenser Fan Kit**	
	Screw	4
	Neoprene Washer	4
	DC Fan.20amp	1
80-25068-00	**Cable Arm Kit**	
	Fastner	2
	Arm, Top	1
	Arm, Bottom	1
80-29099-00	**Grille Kit**	
	Grille	1
	Grille Sweep	1
	Deflector	1
	Screw	2
	Felt Strip	2
	Rivet	2
80-51016-00	**Reed Switch Kit**	
	Screw	4
	Reed Switch	1
	Magnet	1
80-51017-00	**Shelf Kit**	
	Shelf Support	4
	Edge Trim	1
	Shelf	1
80-51020-00	**Control Kit**	
	Control Tray	1
	Screw	1
	Main Board	1
80-51021-00	**Bin Kit**	
	Bin 5 x 18"	1
	Crisper Retainer	1
	Crisper Control	1
80-51023-00	**Bin Slide Kit**	
	Slide	1
	Screw	2
80-51024-00	**Compressor Elect**	
	Capacitor	1
	Overload	1
	Relay	1

Part Number	Description	QTY
80-51025-00	**Tool Kit**	
	Allen Wrench 6mm	1
	Allen Wrench 7/64	1
80-51026-00	**Compressor Kit**	
	Process Tube	1
	Relay	1
	Overload	1
	Capacitor	1
	Compressor	1
	Washer	2
	Pin	2
	Grommet	4
80-51029-00	**Evap Fan Cover**	
	Screw	1
	Fan Cover	1
80-51030-00	**Evaporator Plate Kit**	1
	Screw	1
	Evaporator Plate	2
80-51031-00	**Thermistor Housing**	2
	Rivet	4
	Sensor Housing	
80-51032-00	**Evaporator Kit**	1
	Clamp	1
	Foam Spacer	
	Screw, Clamp	4
	Nut	1
	Screw	
	Evaporator	2
80-51033-00	**Crisper Kit**	
	Retainer	1
	Crisper Control	1
	Crisper 4 x 18	
80-51034-00	**Rack Kit 1**	1
	Rack 1	2
	Screw, Slide	2
	Rivet 5/32	2
	Slide 37.2 x 400	4
	Slide Support	1
	Wood Trim	1
	Screw, Wood Trim	2
80-51034-01	**Rack Kit 2**	
	Rack 2	
	Screw, Slide	
	Rivet 5/32	1
	Slide 37.2 x 400	4
	Slide Support	2
	Wood Trim	2
	Screw, Wood Trim	2

Part Number	Description	QTY
80-51034-02	**Rack Kit 3**	1
	Rack 3	2
	Screw, Slide	
	Rivet 5/32	1
	Slide 37.2 x 200	4
	Slide Support	2
	Wood Trim	2
	Screw, Wood Trim	2
80-51034-03	**Rack Kit 4**	1
	Rack 4	2
	Screw, Slide	
	Rivet 5/32	1
	Slide 37.2 x 200	4
	Slide Support	2
	Wood Trim	2
	Screw, Wood Trim	2
	Wood Trim	1
	Screw, Wood Trim	2
80-51035-00	**Slide 1 Kit**	
	Screw, Slide	2
	Rivet 5/32	1
	Slide 37.2 x 400	1
	Slide Support	1
80-51035-01	**Slide 2 Kit**	
	Screw, Slide	2
	Rivet 5/32	1
	Slide 37.2 x 200	1
	Slide Support	1
	Rivet 5/32	1
	Slide 37.2 x 400	1
	Slide Support	1
80-51037-00	**Grille Kit**	
	Grille	1
	Screw	2
	Felt Strip	2



Models Covered

U-3036BVWCOL-00	U-3036RROL-00
U-3036BVWCS-00	U-3036RRS-00
U-3036RRGLOL-00	U-3036WCWCOL-00
U-3036RRGLS-00	U-3036WCWCS-00

Wiring Harness Part Number Reference

ID Number	Board Location	Description	Part Number
1	J6	Universal Serial Bus Harness	2974
2	J8	Signal Ground Harness	66025
3	J1	Input Harness	2970
4	J4	DC Output Harness	2971
5	J5	UI Control Harness	2973
6	J2	AC Harness	2972
7	F1	Fuse	15 Amp

SERVICE MANUAL

U-LINE

PRODUCT INFORMATION

Installation Guides with complete installation information, Custom Wood Panel Size Specifications & Installation Instructions, CAD Drawings, Use and Care Guides, Specifications & Feature Benefits are available for viewing and download on-line at www.u-line.com/specs/.

SERVICE INFORMATION

If you have a problem with this appliance, your use and care guide has troubleshooting information to help you quickly identify common problems and provide information on possible cause and remedy. Answers to Customers Frequently Asked Questions are available at www.u-line.com/customer/faq.cfm. You may contact U-Line directly:

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BUILDING ON THREE GENERATIONS OF INNOVATION

For nearly five decades and three generations, U-Line continues to be the leader in innovation, quality and value in the premium built-in undercounter ice making, refrigeration and wine preservation market. U-Line has captivated those with an appreciation for the finer things with exceptional functionality, style, inspired innovation and attention to even the smallest details. We are known and respected for our unwavering dedication to product design, quality and selection.

In 1962, Henry Uihlein founded U-Line Corporation as an outgrowth of Ben-Hur Freezer Company and was the first to develop and patent an automatic stand-alone undercounter residential ice maker. His foresight and determination to develop new ideas and to succeed when there were no clear guidelines or solutions are evident today. The newest Uihlein generation continues to build upon the family's innovative legacy at the Milwaukee, Wisconsin based business by providing continuity and vision from which new designs and technology continue to be born.

Today the complete U-Line product collection includes Ice Makers, Wine Captain® Models, Combo® Models, a Refrigerator / Freezer, Refrigerators, Drawers and Beverage Centers. The U-Line brand offers products in the 1000 Series, 2000 Series and the Modular 3000 Series. The 1000 Series offers a more targeted priced product with appropriate features, while the 2000 Series offers upscale features, advanced technology and specialized product families. U-Line's approach to its breadth of products, multiple price points and features allows a choice and product that will fit any lifestyle.

DESIGNED, ENGINEERED AND ASSEMBLED IN WISCONSIN, USA

Publication Number 30336 8/2011 Rev.A