

For Product Manufactured With HFC-134A Freon

Models

95 Icemaker 98 Icemaker BI15 Icemaker 15R 15 Wine Captain Combo 75 Frost Free Combo 75A 75AD 75 Wine Captain 75 Freezer 75R 75RF Combo 29 Frost Free Combo 29A 29AD 29R 29 Wine Captain SP18

U-Line Corporation

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INTRODUCTION

Three generations of pride and quality manufacturing and design improvements are built into all U-Line products.

This manual contains specific instructions for servicing the entire line of U-Line Products which includes these models:

95 Icemaker 98 Icemaker BI15 Icemaker 15R 15 Wine Captain

- Combo 75 Frost Free Combo 75A 75AD 75R 75 Wine Captain 75 Freezer 75RF
- Combo 29 Frost Free Combo 29A 29AD 29R 29 Wine Captain SP18

This Service Manual has been written to cover product manufactured with HFC-134a. Units previously manufactured with CFC-12 will, however, be in service for many years.

SERVICING CFC-12 SYSTEMS

U-Line Corporation has not approved the use of any "drop in" replacements for CFC-12. U-Line has also not approved the process of converting a CFC-12 system to any other type of refrigerant.

POTENTIAL PROBLEMS WITH HFC-134A

HFC-134A compressors will be received with a synthetic based ester oil charge. The hygroscopic (water attraction) property of ester oil is many times greater than that of the mineral oils previously used with CFC-12. High system moisture causes the formation of acids and alcohol which can damage the compressor. Systems should not be left open for more than fifteen (15) minutes at any time as humidity from the air will enter system. To assure system dehydration, the system should be pulled down to 100 microns and vacuum pump oil (mineral oil) must not be allowed to enter then system.

Cleanliness of the system will be extremely important. The presence of residues (chlorinated or greasy residues, mineral oil, or impurities) can lead to capillary tube restrictions, oil return problems and compressor damage. Flux <u>must not</u> be used on brazed joints.

TABLE OF CONTENTS

Introduction
Limited Warranty
Safety Precautions
Warranty Claims Procedure
Guide for Screening Customer Calls
Refrigeration Systems 10 Normal Vapor/Compression Cycle Refrigeration 10 U-Line Frost Free Refrigeration System 11 Compressor/Electrical Specifications 12 Refrigeration System Diagnosis Guide 13
Ice Maker Operation14Ice Maker Operating Cycles14Cycle Schematics15Freeze Cycle15Harvest-1 Cycle (Hold switch in normal position)15Harvest-2 Cycle (Hold switch in switched position)16Water Fill Cycle16Temperature Control Specifications17Limit Switch Specifications18Ice Maker Diagnosis Flow Chart19
Frost Free Units.20Redesign Differentiation.20Typical Frost Free Airflow Configuration.21Disassembly Procedures.22Combo 75FF.22Combo 29FF.2375RF.24
Troubleshooting
Wiring Diagrams
Parts Listing .72 Model 402 Ice Maker Assembly Parts Breakdown .39 Parts Breakdown by Models .40 How to Order Replacement Parts .72 Fax Parts Order Form .73

Warranty Statement

On 11-1-98, U-Line Corporation modified the warranty provided with our units. We have significantly improved the coverage of the sealed system in years two through five of the unit's life. The new warranty covers parts and labor for one year from the date of purchase. In years two through five, from the date of purchase, the warranty covers parts and labor for the entire sealed system. The sealed system consists of the compressor, condenser, evaporator, heat exchanger, dryer, hot gas bypass-valve and all connecting tubing.

This decision reflects our continuing commitment to strive to maintain the leadership position within the under counter refrigeration and ice making industry whether that be through design, product innovation, or enhanced consumer warranties. This decision reinforces the confidence that U-Line has in the performance and reliability of our products.

Our previous warranty covered parts and labor for one year from the date of purchase plus four additional years for the compressor, part only.

The new, modified warranty applies <u>only to units shipped after 11-1-98</u>. All units shipped before 11-1-98 have the previous warranty.

PRODUCTS SHIPPED BEFORE 11-1-98 - Warranty covers parts and labor for one year from the date of purchase, plus four additional years for the compressor (part only).

PRODUCTS SHIPPED AFTER 11-1-98 - Warranty covers parts and labor for one year from the date of purchase and covers parts and labor for the entire sealed system for five years.

DETERMINING SHIP DATES

In order to assure that U-Line is Y2K compliant, we have recently completed a major computer system modification. The new computer system has lead to changes in the way we operate in most areas of the company. You'll soon notice that our packing lists are different, our invoices are different, our checks are different, and more. The change that will impact you the most is the change in serial numbers.

With the new computer system, our serial number format has changed. There are some definite advantages that go with the new format, such as being able to tell the month and year in which the unit was produced.

The new serial number format breaks the number down into four segments. A typical serial number is 99 918-06-9351. The first segment –99, represents the year that the unit was made. The second segment – 918, represents the shop order number. This can be a three or four digit number. Order number 918 is assigned for Model 29 Black –00 units made in June. The third segment – 06 represents the month that the unit was made. The forth segment – 9351 represents a sequence of numbers that is used internally at U-Line Corporation.

LIMITED WARRANTY

U-Line Corporation warrants each U-Line product to be free from defects in materials and workmanship for a period of one year from the date of purchase; and warrants the sealed system (consisting of the compressor, the condenser, the evaporator, the hot gas bypass valve, the dryer and the connecting tubing) 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. During the initial one-year warranty period for all U-Line products U-Line shall: (1) at U-Line's option, repair any product or replace any part of a product that breaches this warranty; and (2) for all Marine, RV and Domestic U-Line products sold and serviced in the United States (including Alaska and Hawaii)and Canada, U-Line shall cover the labor costs 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) repair or replace any part of the sealed system that breaches this warranty; and (2) for all Marine, RV and Domestic U-Line products sold and serviced in the United States (including Alaska and Hawaii)and Canada, U-Line shall cover 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 borne by you. This warranty is extended only to the original purchaser of the U-Line product. The Product 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.

The following are excluded from this limited warranty: installation charges; damages caused by disasters or acts of God, such as fire, floods, wind and lightening; damages incurred or resulting from shipping, improper installation, unauthorized modification, or misuse/abuse of the product; customer education calls; food loss/spoilage; door and water level adjustments (except during the first 90 days from the date of purchase); defrosting the product; adjusting the controls; door reversal; or cleaning the condenser.

If a product defect is discovered during the applicable warranty period, you must promptly notify either the dealer from whom you purchased the product or U-Line at P.O. Box 23220, Milwaukee, Wisconsin 53223 or at 414-354-0300. 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 one year after the expiration of the applicable warranty period.

This limited warranty is in lieu of any other warranty, express or implied, including, but not limited to any implied warranty of merchantability or fitness for a particular purpose; provided however, that to the extent required by law, implied warranties are included but do not extend beyond the duration of the express warranty first set forth above. U-Line's sole liability and your exclusive remedy under this warranty is set forth in the initial paragraph 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.

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.

SAFETY PRECAUTIONS

Do not attempt to service or repair the unit until you have read the entire procedure. Safety items throughout this manual are labeled with Warning or Caution.



Warning means that failure to follow this safety statement may result in extensive product damage, serious personal injury, or death.

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

\triangle WARNING \triangle

DANGER: Risk of child entrapment. Before you throw away an old refrigerator or freezer: Take off the doors, leave shelves in place so that children may not easily climb inside.



- Never attempt to repair or perform maintenance on the unit until the electricity has been disconnected.
- 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.



- Do not lift unit by door handle.
- Never 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.
- Failure to clean the condenser every three months can cause the unit to malfunction. This could void the warranty.
- Never install the unit behind closed doors. Be sure front grille is free of obstruction. Obstructing free air flow can cause the unit to malfunction, and may void the warranty.

WARRANTY CLAIMS PROCEDURE

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.).

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

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.

U-Line will **not** cover part or labor claims for the replacement of a complete ice maker assembly. All ice maker parts are available as replacement parts and are stocked in our inventory. **Remember:** we do not pay customer education calls. Door and water level adjustments are 90 day warranties only.

If you are changing out 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 cards. 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 Corp. 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 would be 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, for warranty payment.

GUIDE FOR SCREENING CALLS

U-line's warranty does not cover customer education calls. It has been reported that as high as 50% of all service calls performed, are customer education calls.

The following guide has been developed to help screen calls on the most common customer education issues. It can be used by persons scheduling service calls.

CUSTOMER The unit is not cold enough!

COMPLAINT Questions to ask before scheduling a service call —

• Are you familiar with the factory specifications for this unit? (many factors can cause these figures to vary. Ambient temperature, application, amount of use etc.)

Model Numbers 15WC, 29WC, 75WC 15R, 29R, 75R 75AD, 75, 29AD C75A, C75FF, C29A, C29FF Approximate Temperatures 60° top rack /55° middle/ 45° bottom 38° 38° fresh food, 15° freezer 38° fresh food

- Is the door sealing properly? If the door is not sealed properly, it allows heat into the unit. U-Line's warranty is 90 days for door adjustments.
- Is the condenser clean? U-Line's warranty does not cover cleaning the condenser.
- Is the unit behind closed doors? The unit must have free air flow to the front grille.
- Did you try turning the temperature control colder? Turning the control knob clockwise is colder. Be sure to allow 24 hrs. between temperature control adjustments.
- For model 29AD only. Is the defrost timer set to the time of day? When set properly, the unit will be off, defrosting, between midnight and 3:30 a.m.
- For Wine Captain Units only. Is the light on constantly to display the wine? If the light is on constantly, this could cause the unit to run warmer.

CUSTOMER The ice cubes are sticking together!

COMPLAINT Questions to ask before scheduling a service call —

- Does the unit need to be defrosted?
- Is the door sealing properly? This could cause the ice cubes to stick together.
- Have you tried to ruffle the the ice bucket? If the ice sits without being used, it will tend to stick together. Shaking the bucket will usually break apart the ice cubes. If the ice has been sitting for a long time, we recommend dumping the bucket and making fresh ice.



Are you aware of the factory specifications for ice production?

Model #
Combo 75A
Combo 75FF
Combo 29A
Combo 29FF
Model 95
Model 98
BI15

Approx. Daily Ice Rate 22.5 lbs. 8 lbs. 22 lbs. 8 lbs. 23 lbs 25 lbs. 25 lbs.

Approx. Ice Storage 13 lbs. bucket 13 lbs. bucket 13 lbs. bucket 13 lbs. bucket 12 lbs. bucket 25 lbs. bucket 25 lbs. bucket

- Is the temperature control set to the warmest setting? The unit will produce the most ice when set at the warmest setting. Let the unit run overnight.
- Is the ice maker bin arm down? When the arm is up, it will not make ice.
- Is the door sealing properly? U-Line's warranty is 90 days for door adjustments.
- Does the water level need to be adjusted? U-Line's warranty is 90 days for water level adjustments.



customer. The unit is frosting up!

COMPLAINT Questions to ask before scheduling a service call —

Are you familiar with the defrost technology of the unit?

Defrost Technology	Model Numbers
Manual Defrost	Combo 75A, Combo 29A, 95, 98, 75, BI15
Cycle Defrost	75R, 29R, 15R, 75WC, 29WC, 15WC, BC85DT
Auto Defrost	29AD, 75AD (periodic manual defrost may be needed)
Frost Free	Combo 75FF, Combo 29FF

- Is the door sealing properly? U-Line's warranty is 90 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.



CUSTOMER Water is leaking out of the back of the unit!

COMPLAINT Questions to ask before scheduling a service call —

 Have you checked the connection at the water solenoid valve? U-Line's warranty does not cover installation adjustments.



CUSTOMER The light on my Wine Captain never shuts off!

COMPLAINT Questions to ask before scheduling a service call —

• Did you turn the on/off switch near the base of the unit? The on/off switch is for the light operation only. When the switch is in the off position, the light will turn on only when the door is open. When the switch is in the on position, the light will be on constantly to display the wine. To shut the unit off, turn the temperature control all the way counterclockwise.

REFRIGERATION SYSTEMS

Normal Vapor/Compression Cycle Refrigeration

- 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.
- CONDENSER DYER CONDENSER CAPILLARY TUBE
- The liquid then flows 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 change 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.

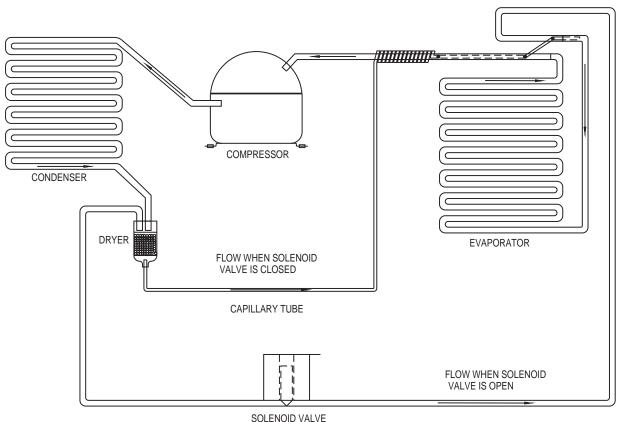
U-Line Frost Free Refrigeration System

Cooling Mode:

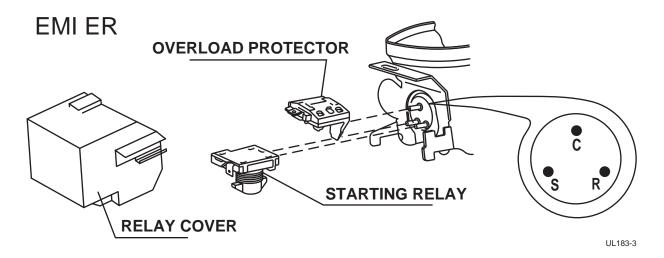
- Bypass solenoid valve closed
- Evaporator fan operating
- Refrigerant flows through capillary tube
- Normal vapor/compression cycle refrigeration

Defrost Mode:

- Bypass solenoid valve open
- Refrigerant flows through bypass system
- Vapor flows from condenser to evaporator without a phase change



Compressor/Electrical Specifications



Compressor Pins

To measure start winding resistance, measure across the C-S pins. To measure run winding resistance, measure across the C-R pins. These pins should never measure any resistance to ground. This would indicate a shorted compressor.

Specifications EMI30HER Start Winding Resistance: EMI30HER Run Winding Resistance:	28 OHMS 8 OHMS
SD39 Start Winding Resistance:	11 OHMS
SD39 Run Winding Resistance:	5 OHMS
EMI50HER Start Winding Resistance:	12 OHMS
EMI50HER Run Winding Resistance:	4 OHMS
SD51 Start Winding Resistance:	5 OHMS
SD51 Run Winding Resistance:	5 OHMS
115 VOLT Ice Maker Heater Resistance:	80 OHMS
115 VOLT Water Valve Coil Resistance:	335 OHMS

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 Iower 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	O PSIG to 25"	Room temperature (cool)	Cool to hot	Room temperature (cool)	Room temperature (cool)	No refrigeration	Lower than normal

ICE MAKER OPERATION

Ice Maker Operating Cycles

1. FREEZE CYCLE

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

2. HARVEST-1 CYCLE

- A. Temperature control terminals 2 and 3 are open 2 and 1 close
- B. No power to the compressor or condenser fan

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

3. HARVEST-2 CYCLE

- A. Ice maker ejector blades reach approximately 2:00 position and cam depresses the hold switch. Power goes through the hold switch to the ice maker motor and mold heater.
- B. Ejector blades stall on ice and ice maker motor pulsates until mold heater warms and ice releases.

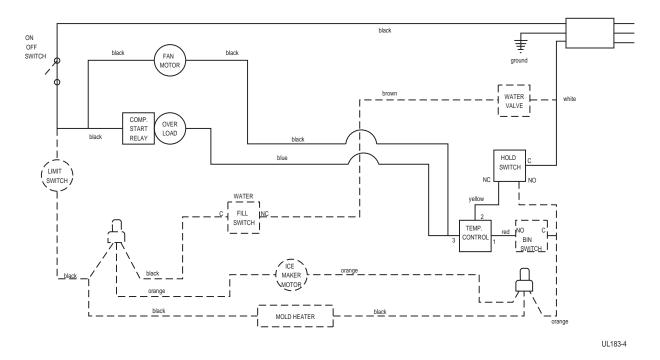
4. WATER FILL CYCLE

- A. Ice maker ejector blades reach approximately 10:00 position and cam depresses the water fill switch.
- B. Power to the water valve. Ice maker mold fills.

5. EJECT CYCLE

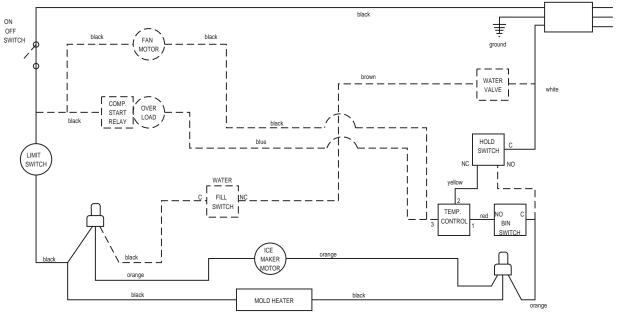
- A. Ejector blades push ice into bucket and stop at 12:00 position.
- B. Temperature control terminals 2 and 3 have closed during harvest cycle.
- C. Next freeze cycle begins with power to the compressor and condenser fan.

Cycle Schematics

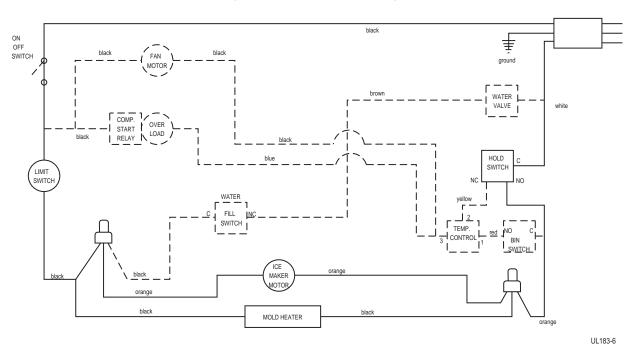


FREEZE CYCLE

HARVEST-1 CYCLE (Hold Switch In Normal Position)

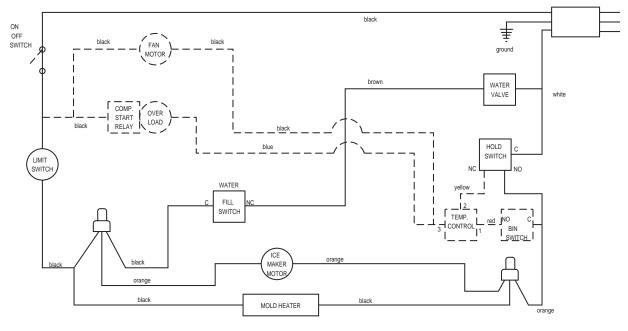


Cycle Schematics



HARVEST-2 CYCLE (Hold Switch In Switched Position)

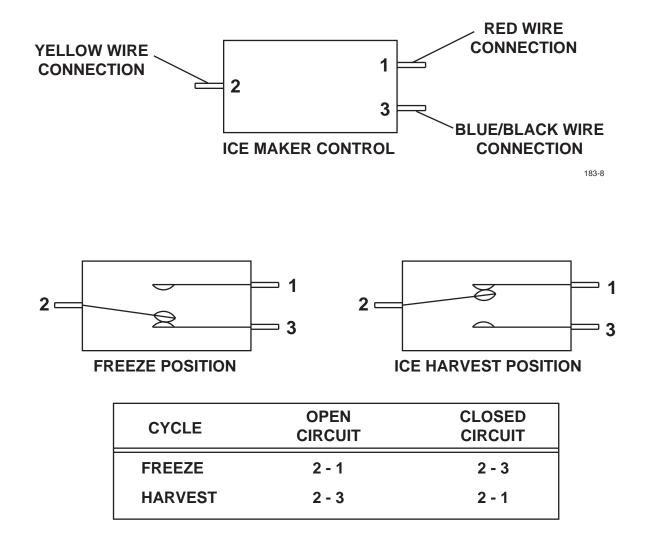
WATER FILL CYCLE



Temperature Control Specifications

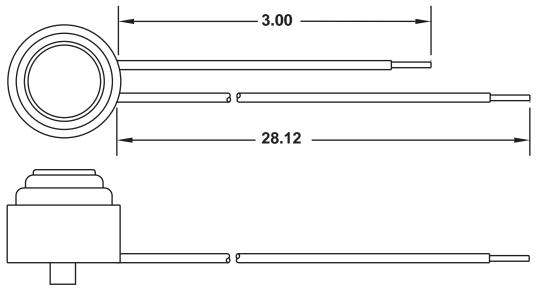
Double Throw Ice Maker Thermostat Numbers 4548, AR-19-12, 2636, 2690, 2691, 2717

These temperature controls are double throw, single pole controls. The sensing tube is inserted into the ice maker mold and senses mold temperature. After ice is sensed in the mold, the 2-3 contacts open (stopping the compressor) and the 2-1 contacts are closed (starting the ice maker motor). The 2-3 contacts close (2-1 contacts open) before the end of the ice harvest cycle.



183-9

Limit Switch Specifications

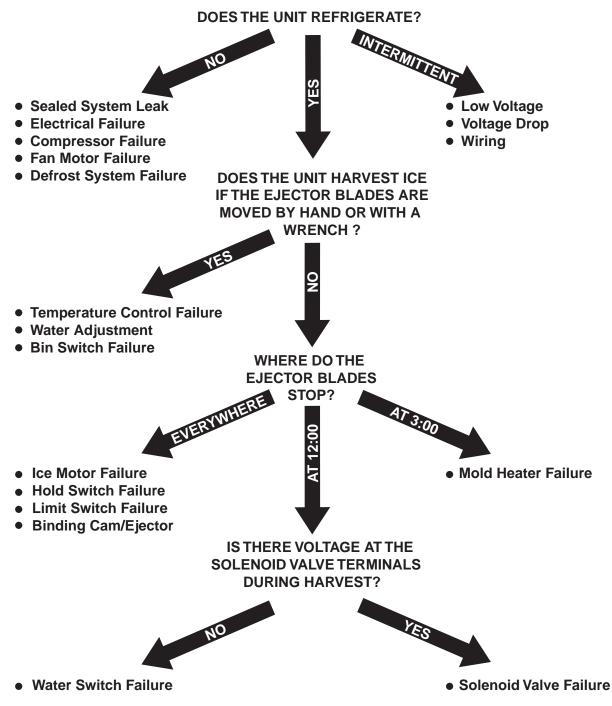


183-10

Normally Closed Bi-metal Switch Open Temperature: 104 Degrees F Close Temperature: 83 Degrees F

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

Ice Maker Diagnosis Flow Chart



FROST FREE UNITS

Redesign Differentiation

Through our continuous efforts to improve our product line, U-Line Corporation has made some changes to the design of Models Combo 29FF and Combo 75FF.

The objective of this section is to assist the service technician in differentiating between the previous design product and the new redesign.

The redesign involves a new compressor, evaporator and heat exchanger, condenser fan motor, evaporator fan motor, drain trough, timer and power cord.

To address service problems which may exist in earlier designs, we developed a "Field Fix Kit." It involves replacing the compressor, dryer, and hot gas valve. It also includes mounting a sheet of insulation to the back panel. Before installing the new compressor, hot gas bypass valve, and dryer, it is imperative that the entire refrigeration system be blown out with nitrogen to remove any excess oil. This kit is to be installed in units with R-134a only starting with serial number 7CF300000 or 2CF300000. Installation instructions are included in each kit ordered.

The new compressor, a Matsushita Model SD39C replaces the previous compressor, an Embraco EMI 50 HER.

Both the previous design and the new redesign are detailed in this manual. New design units and previous design units can be differentiated by the serial numbers. All serial numbers for the new redesigned units start with a number higher than 600000. (Example: 2CF600001 is a new redesigned Combo 29FF.) Previous design units have serial numbers which start with 300001, 400001, or 500001. (Example: 7CF400001 is a previous design Combo 75FF.)

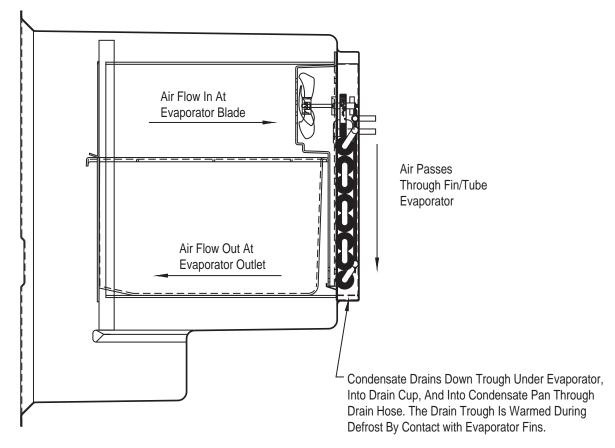
Pages 44-45 show the parts breakdown for the previous design of the Combo 29FF. The parts replaced with the kit are denoted. The wiring diagram for this model is on page 35.

Pages 40-41 show the parts breakdown for the previous design of the Combo 75FF. The parts replaced with the kit are denoted. The wiring diagram for this model is on page 35.

Pages 46-47 show the parts breakdown for the new, redesign of the Combo 29FF. The wiring diagram for this model is on page 36.

Pages 42-43 show the parts breakdown for the new, redesign of the Combo 75FF. The wiring diagram for this model is on page 36.

Typical Frost Free Airflow Configuration



Disassembly Procedures

Model Combo CO75FF

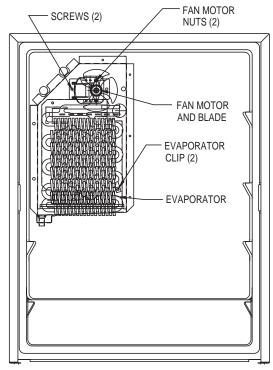
- 1. Disconnect from power source.
- 2. Disconnect ice maker wires in back of unit.
- 3. Remove screws (6) from freezer housing.
- 4. Slide out freezer housing with ice maker unit attached.
- 5. Remove screws (4) from evaporator cover.
- 6. Slide evaporator cover out of clips (2).

To remove fan blade/motor:

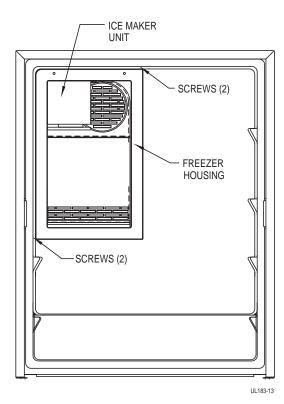
- 1. Disconnect fan wires in the back of unit.
- 2. Remove fan blade by sliding off fan motor shaft.
- 3. Remove screws (2) from fan motor mounting bracket.
- 4. Remove mounting nuts (2) from fan motor studs.

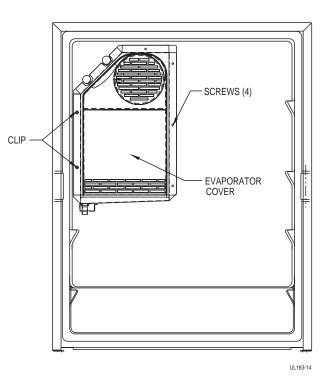
To remove evaporator:

- 1. Disconnect copper tubing. Be sure to reclaim, recycle or recover refrigerant.
- 2. Remove screw from evaporator clip (2).
- 3. Slide out evaporator.



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22

UU-LINE

Model Combo CO29FF

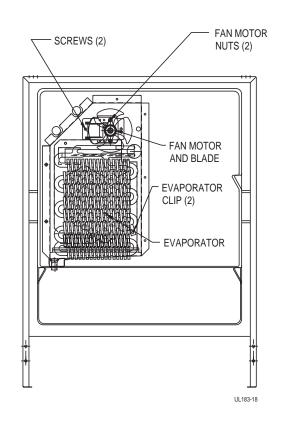
- 1. Disconnect from power source.
- 2. Disconnect ice maker wires in back of unit.
- 3. Remove screws (3) from freezer housing.
- 4. Slide out freezer housing with ice maker unit attached.
- 5. Remove screws (4) from evaporator cover.
- 6. Slide evaporator cover out of clips (2).

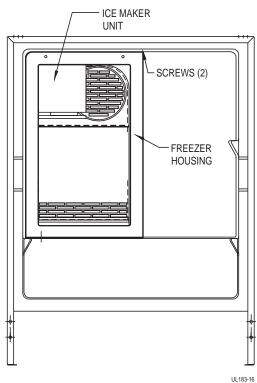
To remove fan blade/motor:

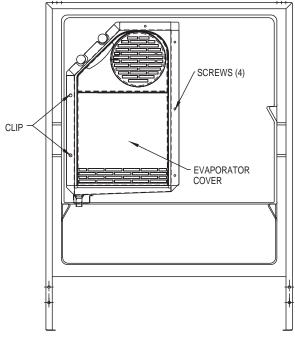
- 1. Disconnect fan wires in the back of unit.
- Remove fan blade by sliding off fan motor shaft.
- Remove screws (2) from fan motor mounting bracket.
- 4. Remove mounting nuts (2) from fan motor studs.

To remove evaporator:

- 1. Disconnect copper tubing. Be sure to reclaim, recycle or recover refrigerant.
- 2. Remove screw from evaporator clip (2).
- 3. Slide out evaporator.







16

Model Combo 75RF

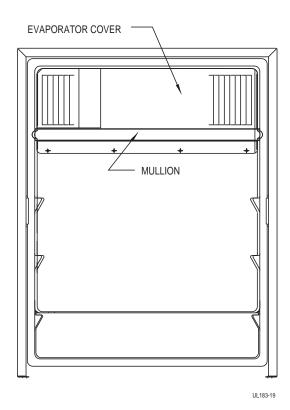
- 1. Disconnect from power source.
- 2. Remove freezer door.
- 3. Slide out mullion.
- 4. Remove screws.

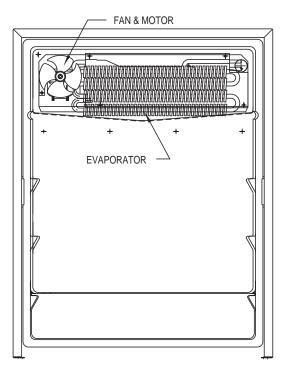
To remove fan blade/motor:

- 1. Disconnect fan wires in the back of unit.
- 2. Remove fan blade by sliding off motor shaft.
- 3. Remove screws (2) from mounting bracket.
- 4. Remove nuts from fan motor studs.

To remove evaporator:

- 1. Recover all refrigerant.
- 2. Disconnect copper tubing.
- 3. Remove mounting screws (4) from evaporator.
- 4. Slide out evaporator.





TROUBLESHOOTING

\Lambda WARNING 🖄

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

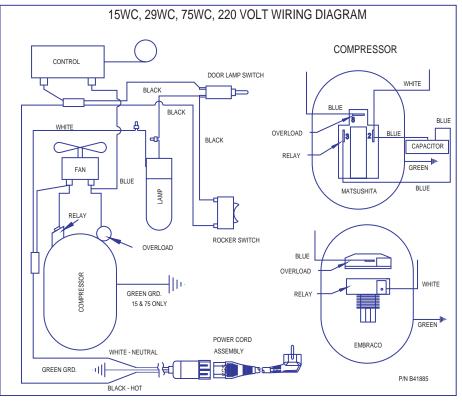
Will not eject ice (water frozen) Cause Control setting too cold Control defective (1-2 contacts open) Bin switch defective Limit switch defective (open) Ice maker assembly motor stalled Broken wire in ice maker circuit Water soaked cabinet insulation Dirty condenser	Replace limit switch Replace motor Repair or replace wiring
Will not fill with waterCauseWater supply valve closedWater switch defective (open)Solenoid valve defectiveFill tube outlet frozenBroken wire in water fill circuit	Replace water switch Replace solenoid valve
Will not stop making ice CauseBin switch defective (closed)Bin arm binding	Remedy Replace bin switch Lubricate bin arm pivot points or loosen bin arm lever screw
Water will not stop filling CauseWater switch defective (closed)Solenoid valve defectiveStalled ice maker motorTemperature control defective.Ice maker is in continuous harvest cycle (contacts 1-2 closed)	Replace solenoid valve
Ejector blades will not stop turning CauseControl defective (1-2 contacts will not open)Hold switch defectiveDefective wiringShort in mold heater	Remedy Replace control Replace hold switch Repair or replace wiring Replace heater

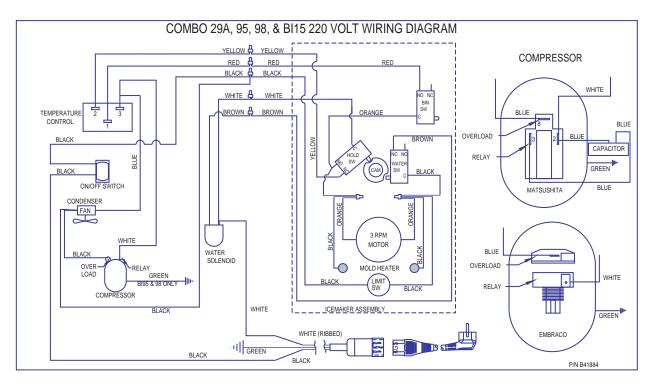
 6. Low ice production Cause Control set too cold Fan motor stalled Ice cubes too large Dirty condenser Bypass valve stuck open 	Remedy Adjust control warmer (counterclockwise) Replace fan motor Lower water fill adjustment Clean condenser Replace bypass valve
 7. Not freezing (compressor and fan motors Cause Little or no frost pattern on evaporator Bypass valve stuck open 	operating) Remedy Check for sealed system leak or restriction Replace bypass valve
 8. Not freezing (compressor not operating - Cause Relay defective Overload defective (open) Compressor defective 	fans operating) Remedy Replace relay Replace overload Replace compressor
 9. Not freezing (compressor and fans not op Cause On-Off switch defective (open) Hold switch defective (open) Control defective (2-3 contacts open) Broken wire in freeze circuit Power cord not plugged in On-Off switch in off position Ejector blades not in the freeze position (12:00) 	Remedy Replace On-Off switch Replace hold switch Replace control Repair or replace wiring Plug in power cord Put switch in on position Manually advance ejector blades to the 12:00 position (test ice maker and limit switch)
 10. Compressor overheating Cause Condenser air flow restricted Condenser fan blade obstructed Condenser fan motor stalled Defective compressor 	Remedy Remove restriction (clean condenser and grille) Remove blade restriction Replace fan motor Replace compressor
 11. Compressor will not stop operating Cause Control set too cold Control defective (2-3 contacts will not 	Remedy Adjust control warmer (counterclockwise) Replace control
 open) Control sensing bulb not sensing mold temperature Evaporator fan stalled 	Fully insert bulb into ice maker tube, routing bulb away from compressor discharge tube Remove obstruction or replace motor
 12. Water leak (under unit) Cause Water supply line leaking at solenoid valve inlet Water line leaking at solenoid valve outlet 	Remedy Tighten or replace fitting Replace water line and fitting

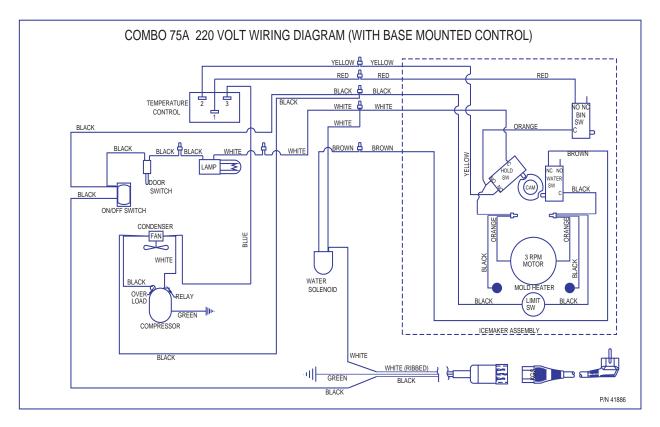
 Water line leaking at fill tube Defrost drain line not in drain pan Crack in water line 	 Tighten clamp or fill tube replace fill tube assembly Position drain line in drain pan Replace water line
 13. Water leak (inside unit) Cause Ice maker assembly fill cup obstructed Fill ice cup and fill tube out of alignment Water level too high Defrost drain plugged 	 Remedy Remove obstruction. Align fill tube and fill cup Adjust water level Ice in drain trough (refer to #16)
 14. Excessive frost build-up Cause Door gasket not sealing properly Door out of alignment Water soaked cabinet insulation Light stays on when door is closed 	 Remedy Adjust door hinges or replace door gasket Adjust door hinges Replace foamed cabinet assembly (factory repair only) Repair or adjust light bracket
 15. Noisy Cause Copper refrigeration tube touching cabinet Fan blade touching shroud Fan blade obstruction (wiring, foam insulation, packaging material) 	 Remedy Carefully adjust tubing Adjust fan mounting or shroud Remove obstruction
 16. Ice build-up in drain trough or drainage Cause Obstructed drain cup or tube Evaporator not touching drain trough Kinked drain tube Drain trough spout and drain cup not aligned 	 problem (see page 20) Remedy Clear obstruction Reposition evaporator to contact drain trough along entire length Reroute drain tube Align drain trough and drain cup
 17. Unit will not defrost Cause Bypass valve bent (will not operate) Bypass coil defective Defrost timer defective Bypass valve defective 	 Remedy Align bypass valve and coil assembly Replace bypass valve Replace defrost timer Replace bypass valve
 18. Fresh food temperature too cold Cause Ice bucket not fully inserted Temperature control set too cold Air leak at evaporator cover 	 Remedy Push ice bucket in place Adjust control to warmer setting (counterclockwise) Seal cover with RTV

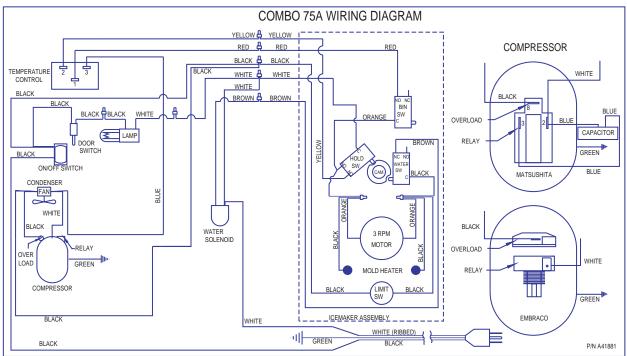
REPLACEMENT PARTS: Use only genuine U-Line replacement parts. The use of non U-Line parts can reduce ice rate, cause water to overflow from ice maker mold, damage the unit, and may void the warranty.

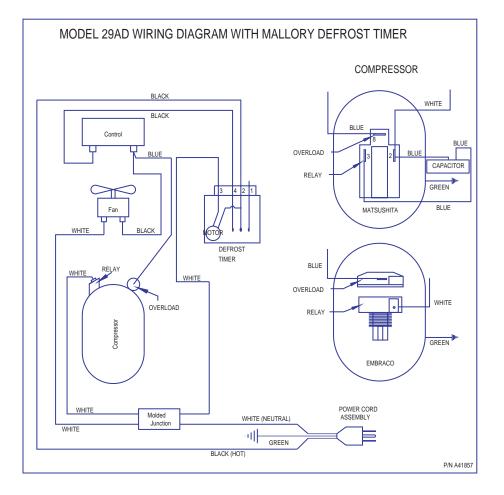
WIRING DIAGRAMS

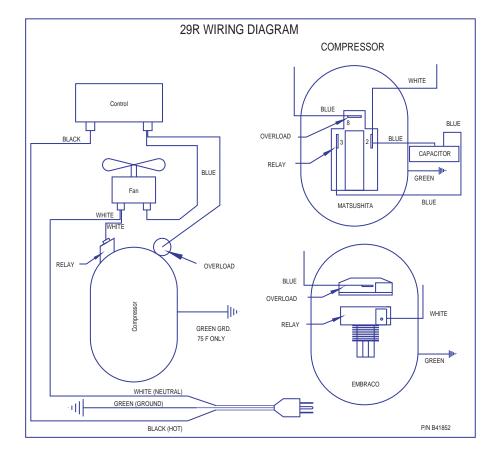


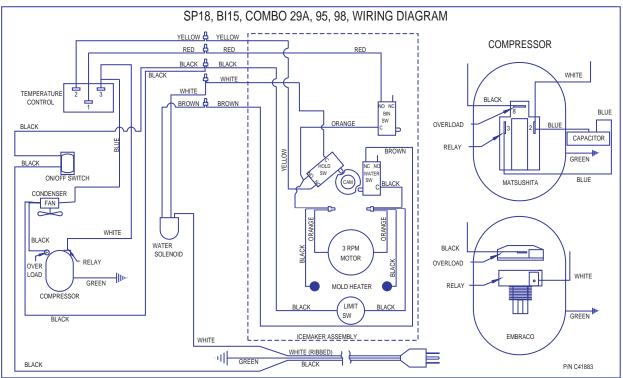


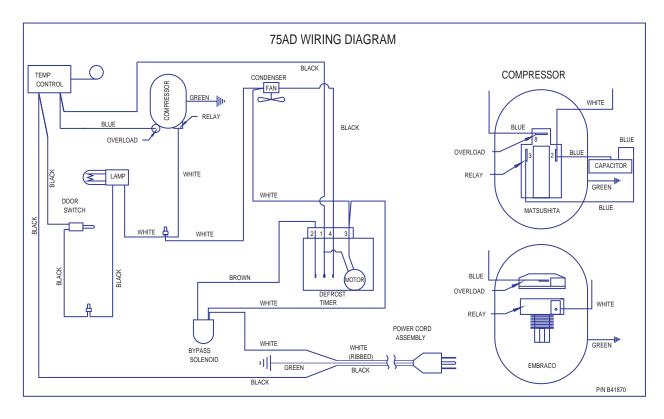


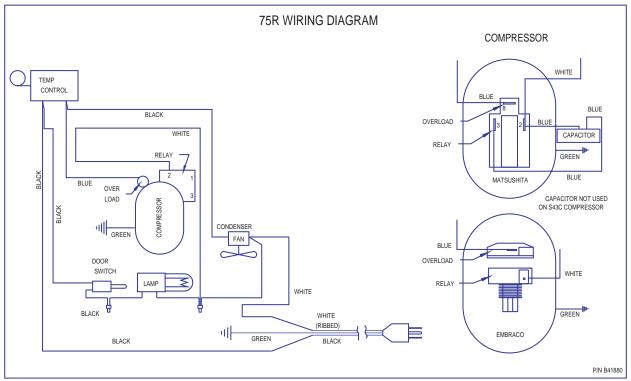




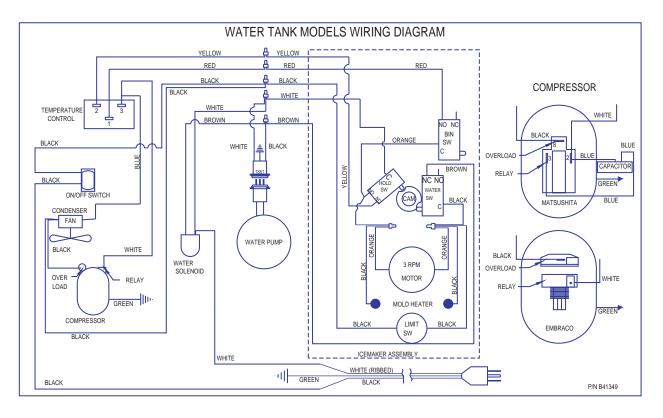


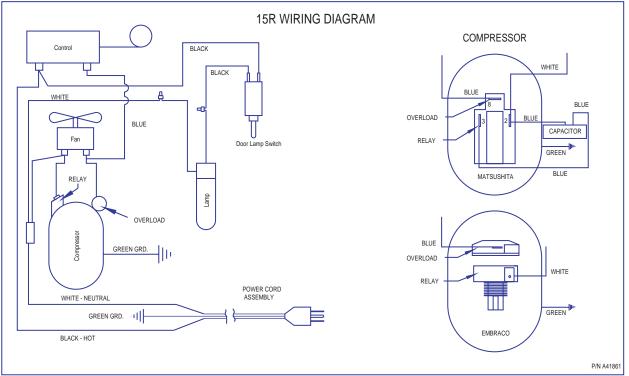


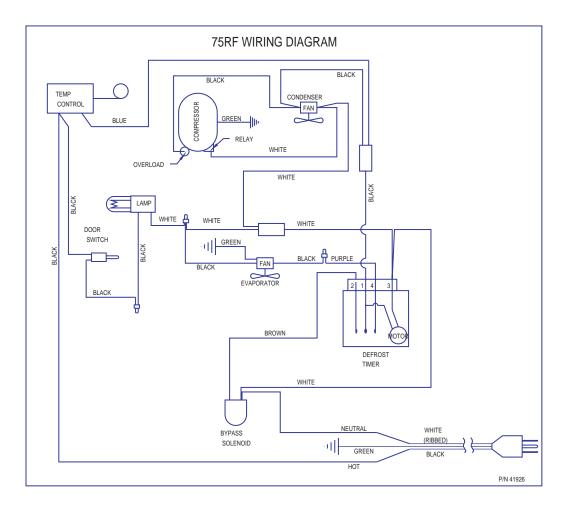




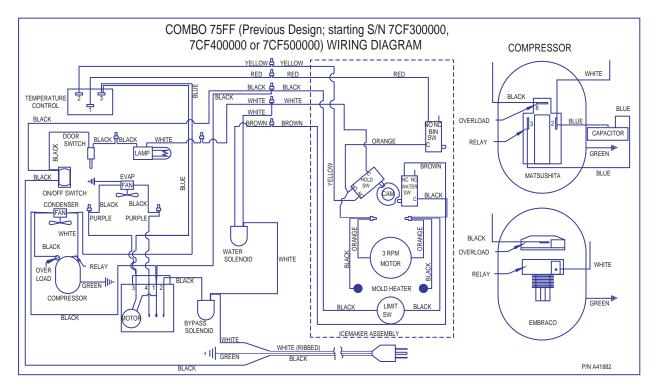
UU-LINE

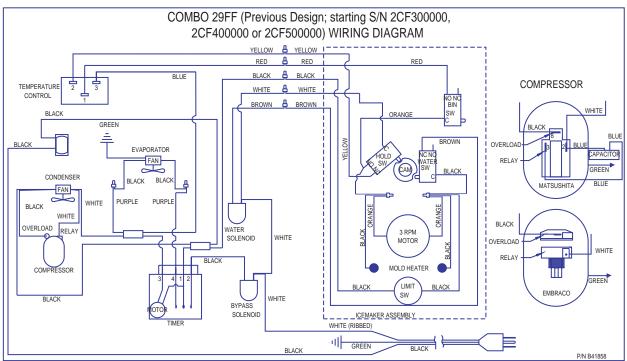


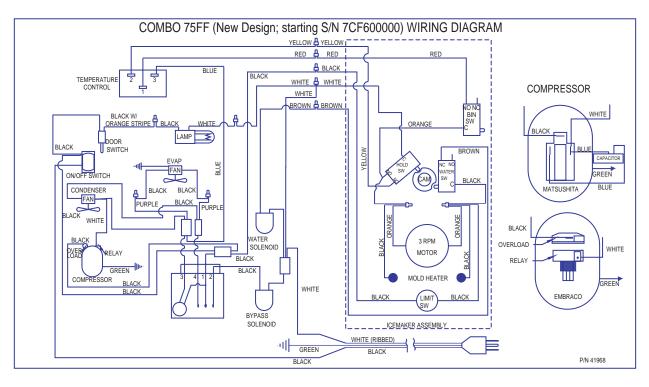


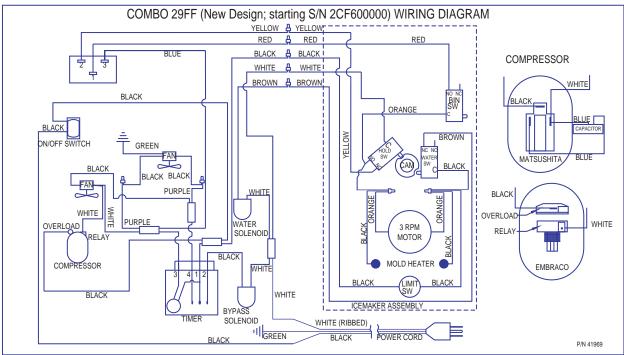


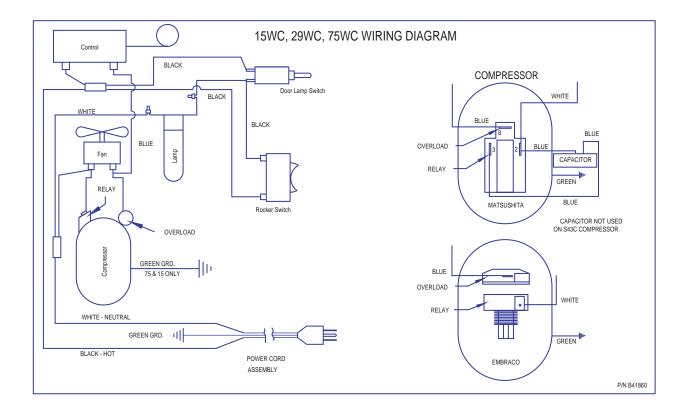
UU-LINE











220 Volt Part Conversion List

All parts listed in the SERVICE and PARTS MANUAL are 110/115 volt. This document is a conversion list for the applicable 220 volt part.

These 220 volt parts are used on the 95, 98 and BI15 lce makers, the PBCM 95/98 Tank Model Ice Makers, Combo 29A, Combo 75A plus the 75WC, 29WC, and 15WC Wine Captains.

110V PART NO.	DESCRIPTION	220V PART NO.
5263 627973 625843-S 628123-S 402 2552A 1844 31317 5402-S 5411 5402-S 5411 5412 150 5400-S 5414 5413	Fan Motor (all models) I.M. Motor (Ice Makers)* Mold Heater* Mold Heater Ass'y* Ice Maker Ass'y* Water Valve* Pump (95/98 Tank Model)* Lamp Bulb Compressor (Ice Makers)* Overload** Relay** Faceplate Ass'y* Compressor (Wine Captains)** Relay Overload*	5195 628109 626069-S 618 619 2555A 1844-1 31318 5404-S 5415 5415 5416 650 5403-S 5418 5417

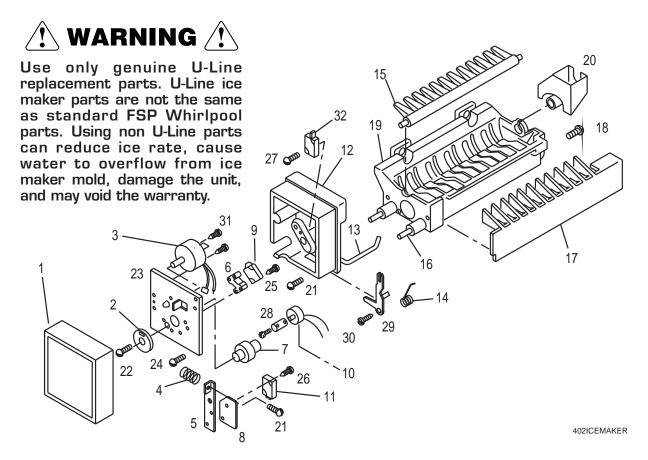
- * Parts used on models 95/98 Ice Makers, and BI15 Ice Makers, the PBCM 95/98 Tank Model Ice Makers, Combo 29A, and Combo 75A.
- ** Parts used on the 15WC, 29WC and 75WC Wine Captains.

Part No.	Model Description	75RF	75R	75WC	CO75FF	BI 15	15R	15WC
1847-1-SS	Hinge Plate Top					Х	Х	Х
1847-2-SS	Hinge Plate Bottom					Х	Х	Х
1848A-S-SS	Top Hinge					Х	Х	Х
11624-1-S-BLK*	Bottom Hinge					Х	Х	Х
42021	Handle					Х	Х	
42019	Handle	Х	Х		Х			
41995-1	Handle							Х
41995-3	Handle			Х				
242-1-SS	Top Hinge Right	Х	Х	Х	Х			
245-1-SS	Bottom Hinge Right	Х	Х	Х	Х			

Replacement Parts For Stainless Steel Doors

* The bottom hinge for these models is only available in black.

MODEL 402 ICE MAKER



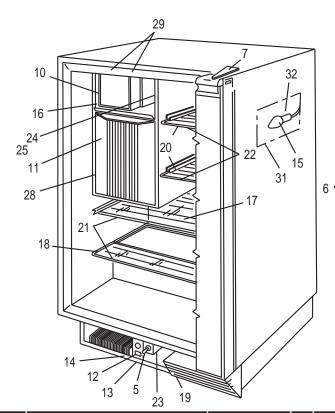
ltem	Description	Part No.		ltem	Description	Part No.
-	lce Maker Ass'y	402		19	Mold & Heater Ass'y	628123-S
-	Faceplate Ass'y	150		20	Water Cup	544304
1	Cover	627000		21	Spring & Housing Screw	488372*
2	Gear	628210*		22	Gear Screw	488957*
З	Motor	627973*		23	Face Plate	627782*
4	Spring	627163*		24	Plate Screw	41375
5	Valve Switch Plate	625836*		25	Long SW Screw	488361*
6	Switch Spacer	625834*		26	Short SW Screw	488362*
7	Cam	627302*		27	Bin SW Screw	488360
8	Insulator	627680*		28	Clamp	625829
9	Hold Switch	2506*	1	29	Arm Lever	625830
10	Limit Switch	2579	1	30	Arm Lever Screw	627199
11	Valve Switch	2506*	1	31	Motor Screw	488622*
12	Support Housing	625827		32	Bin Switch	2506
13	Bin Arm	2603			220V Motor	628109
14	Bin Arm Spring	627526			220V Mold Heater	626069-S
15	Ejector	627375			220V Mold & Heater Ass'y	618
16	Mold Heater	625843-S			220V Faceplate Ass'y	650
17	Stripper	999273			220V Ice Maker Ass'y	619
18	Stripper Screw	489128	1			

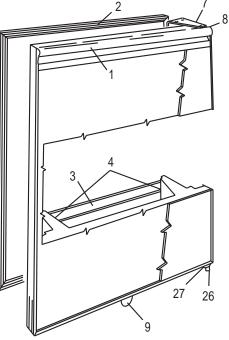
*Parts included in the 150 faceplate assembly.

COMBO 75FF (1 of 2)

Previous Design Starting With Serial Numbers 7CF300000, 7CF400000 or 7CF500000

For Item #10, see Model 402 Ice Maker (page 39) for separate breakdown,





COMBO75FFa

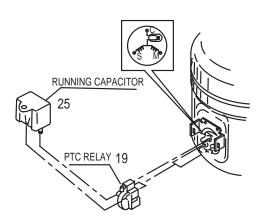
ltem	Description	Part No.	ltem	Description	Part No.
1	Handle	31489-4*	17	Glass Shelf (1)	31427-1
2	Door Gasket	31493-4*	18	Glass Half Shelf (1)	31435
З	Door Shelf Retainers (3)	31521-1	19	Grille	11664*
4	Shelf Retainer Rivet (6)	41824	20	Glass Short Shelf (2)	31423-1
5	Door Switch	1916	21	Trim Strip, Front Long (2)	31443-4
6	Door Ass'y	75-DOOR*	22	Trim Strip, Front Short (2)	31443-2
7	Hinge, Top, 3 Hole	11697-ST*	23	* *Timer	2632-1
	Hinge, Top, 4 Hole	11849-ST*	24	Fan Motor, Evaporator	5299-1
8	Pivot Screw, Top	41785-SS*	25	Fan Blade, Evaporator	31656
9	Dr Switch Brkt	11712	26	Hinge, Bottom, 3 Hole	11697-SB*
10	lce Maker Ass'y	402		Hinge, Bottom, 4 Hole	11849-SB*
11	lce Bucket	31501	27	Pivot Screw, Bottom	41747-SS*
12	Control	2717	28	Freezer Housing	11537-S
13	Control Knob	41492	29	Ice Bin Door Hinge	31463
14	Switch On-Off	2053	30	Evaporator & Heat Exchange	2631-S75
15	Lamp Bulb	31317	31	Light Cover	31314
16	Ice Bin Door	31523-S	32	Lamp Holder	31316-1

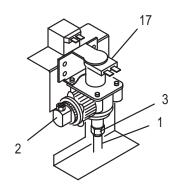
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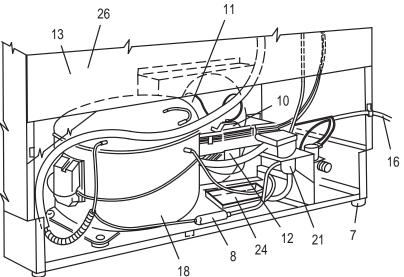
**Replaces P/N 2595 or 2632 through installation of kit.

COMBO 75FF (2 of 2)

Previous Design Starting With Serial Numbers 7CF300000, 7CF400000 or 7CF500000







COMBO75FFb

ltem	Description	Part No.	ltem	Description	Part No.
1	Water Line	404FF	16	Power Cord	2242
2	Water Line Connection	41826	17	Solenoid Valve	2552A
З	Plastic Nut & Sleeve Ass'y	41254		*Compressor	5405-FFS
7	Cabinet Foot (4)	41319	19	* * * Relay/Overload	5421
8	Dryer	2692	21	Bypass Valve Ass'y	2749-S
10	Fan Motor, Condenser	5263	24	Drain Pan	31550-1-F
11	Fan Blade, Condenser	5188	25	* *Capacitor	5422
12	Condenser	1951-FFS	26	* * Insulation	31612
13	Back Panel	11769			

* Replaces P/N 5402-FFS through installation of kit.

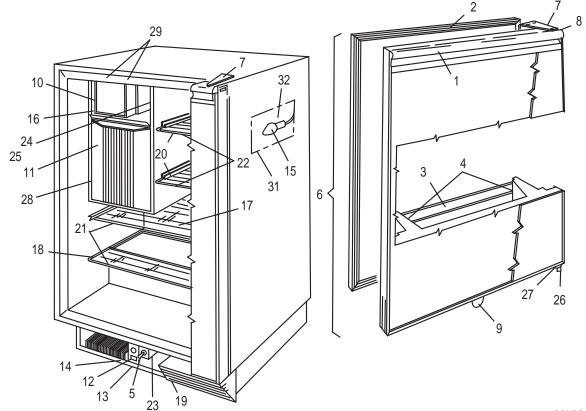
** New part added through installation of kit.

*** Replaces P/N's 5413 & 5414 through installation of kit.

COMBO 75FF (1 of 2)

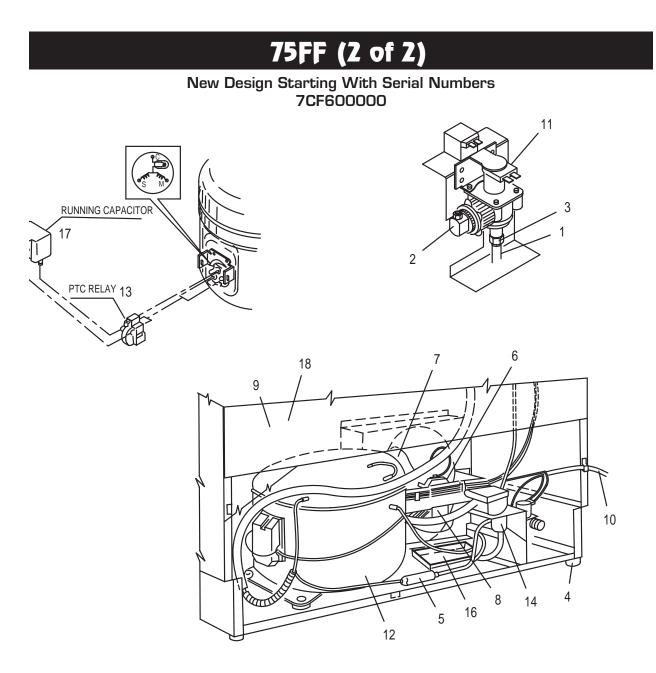
New Design Starting With Serial Numbers 7CF600000

For Item #10, see Model 402 Ice Maker (page 39) for separate breakdown. For Stainless Steel Models, see page 38 for handles and hinges.



COMBO75FFc

ltem	Description	Part No.	ltem	Description	Part No.
1	Handle	31489-4*	17	Glass Shelf (1)	31427-1
2	Door Gasket	31493-4*	18	Glass Half Shelf (1)	31435
З	Door Shelf Retainers (3)	31521-1	19	Grille	11664*
4	Shelf Retainer Rivet (6)	41824	20	Glass Short Shelf (2)	31423-1
5	Door Switch	1916	21	Trim Strip, Front Long (2)	31443-4
6	Door Ass'y	75-DOOR*	22	Trim Strip, Front Short (2)	31443-2
7	Hinge, Top	11849-ST*	23	Timer	2632-2-S
8	Pivot Screw, Top	41785-SS*	24	Fan Motor, Evaporator	5299-1
9	Dr Switch Brkt	11712	25	Fan Blade, Evaporator	31656
	lce Maker Ass'y	402	26	Hinge, Bottom	11849-SB*
11	lce Bucket	31501	27	Pivot Screw, Bottom	41747-SS*
12	Control	2717	28	Freezer Housing	11537-S
13	Control Knob	41492	29	Ice Bin Door Hinge	31463
14	Switch On-Off	2053	30	Evaporator & Heat Exchanger	2669-FFS
15	Lamp Bulb	31317	31	Light Cover	31314
16	Ice Bin Door	31523-S	32	Lamp Holder	31316-1



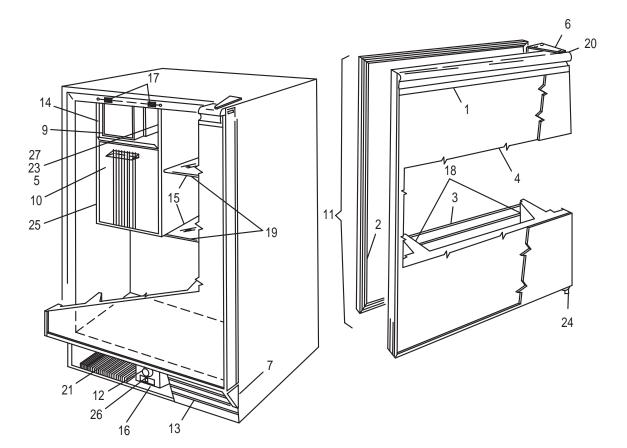
COMBO75FFd

ltem	Description	Part No.		ltem	Description	Part No.
1	Water Line	404FF		10	Power Cord	2318
2	Water Line Connection	41826	1	11	Solenoid Valve	2552A
З	Plastic Nut & Sleeve Ass'y	41254	1	12	Compressor	5405-FFS
4	Cabinet Foot (4)	41319	1	13	Relay/Overload	5421
5	Dryer	2692	1	14	Bypass Valve Ass'y	2749-S
6	Fan Motor, Condenser	5300	1	16	Drain Pan	31550-1-F
7	Fan Blade, Condenser	5428	1	17	Capacitor	5422
8	Condenser	1951-FFS		18	Insulation	31612
9	Back Panel	11769				

COMBO (ULN-CO29FF (1 of 2)

Serial Numbers 2CF300000, 2CF400000 or 2CF500000

For Item #9, see Model 402 Ice Maker (page 39) for separate breakdown.



COMBO29FFa

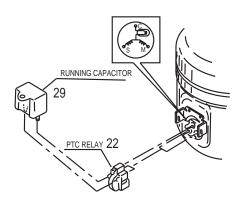
ltem	Description	Part No.	ltem	Description	Part No.
1	Handle	31489-3*	15	Glass Shelf (2) Short	31425-1
2	Door Gasket	31493-3*	16	Switch On-Off	2053
З	Door Shelf Retainer (Long)	31521-2	17	Ice Bin Door Hinge (2)	31463
4	Door Shelf Retainer (Short)	31521-3	18	Shelf Retainer Rivet (6)	41824
5	Fan Blade, Evaporator	31656	19	Trim Strip, Front Short (2)	31443-1
	Pivot Hinge, Top	11697-ST*	20	Pivot Screw, Top	41785-SS*
	Pivot Hinge, Bottom	11695-S*	21	Condenser	1893-FFS
9	Ice Maker Ass'y	402	22	* *Timer	2632-1
10	Ice Bucket	31501		Fan Motor, Evaporator	5299-1
11	Complete Door Ass'y	29-DOOR*	24	Pivot Screw, Bottom	41747-SS*
12	Control	2636	25	Freezer Housing	11471-S
13	Grille	11663*	26	Control Knob	41492
14	Ice Bin Door	31523-S	27	Evaporator & Heat Exchanger	2631-S29

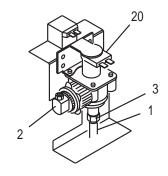
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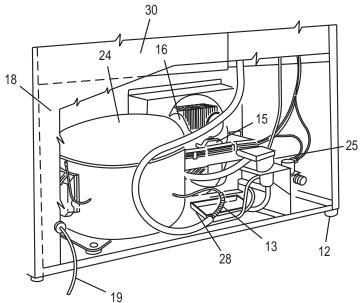
**Replaces P/N 2595 or 2632 through installation of kit.

COMBO (ILN-CO29FF (2 of 2)

Serial Numbers 2CF300000, 2CF400000 or 2CF500000







COMBO29FFb

ltem	Description	Part No.	ltem	Description	Part No.
1	Water Line	404FF	19	Power Cord	2317
2	Water Line Connection	41826	20	Solenoid Valve	2552A
3	Plastic Nut & Ass'y	41254	22	* * Relay/Overload	5421
12	Cabinet Foot (4)	41125	24	* Compressor	5405-FFS
13	Dryer	2692	25	By-Pass Valve Ass'y	2749-S
15	Fan Motor, Condenser	5263	28	Drain Pan	31550-1-F
16	Fan Blade, Condenser	5188	29	* *Capacitor	5422
18	Back Panel	11545-1	30	* * Insulation	31622

* Replaces P/N 5402-FFs through installation of kit.

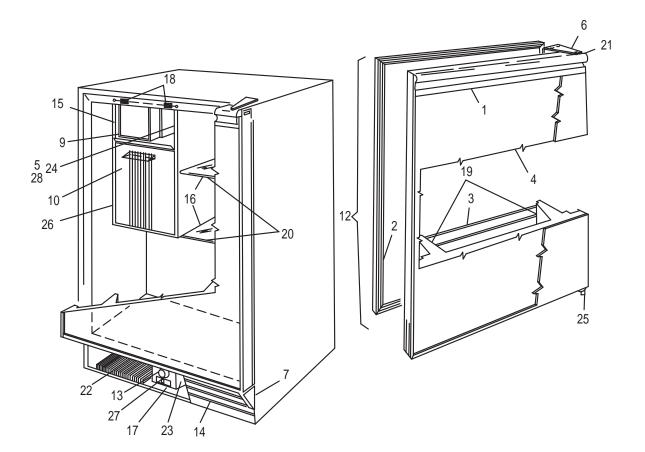
** New part added through installation of kit.

*** Replaces P/N's 5413 and 5414 through installation of kit.

COMBO ULN-CO29FF (1 of 2)

Serial Number 2CF600000

For Item #9, see Model 402 Ice Maker (page 39) for separate breakdown.

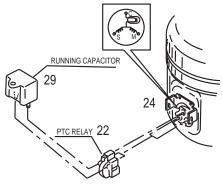


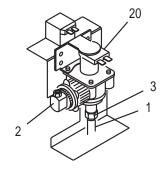
COMBO29FFc

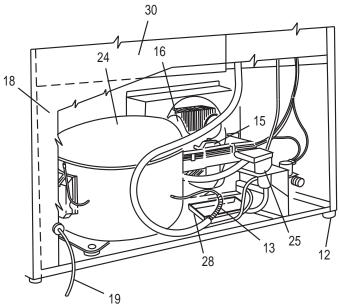
ltem	Description	Part No.		ltem	Description	Part No.
1	Handle	31489-3*		16	Glass Shelf (2) Short	31425-1
2	Door Gasket	31493-3*	1	17	Switch On-Off	2053
З	Door Shelf Retainer (Long)	31521-2	1	18	Ice Bin Door Hinge (2)	31463
4	Door Shelf Retainer (Short)	31521-3	1	19	Shelf Retainer Rivet (6)	41824
5	Fan Blade, Evaporator	31656	1	20	Trim Strip, Front Short (2)	31443-1
6	Pivot Hinge, Top	11697-ST*	1	21	Pivot Screw, Top	41785-SS*
7	Pivot Hinge, Bottom	11695-S*	1	22	Condenser	1893-FFS
9	lce Maker Ass'y	402	1	23	Timer	2632-2-S
10	lce Bucket	31501	1	24	Fan Motor, Evaporator	5299-1
12	Complete Door Ass'y	29-DOOR*	1	25	Pivot Screw, Bottom	41747-SS*
13	Control	2636	1	26	Freezer Housing	11471-S
14	Grille	11663*		27	Control Knob	41492
15	Ice Bin Door	31523-S		28	Evaporator & Heat Exchanger	2669-FFS

COMBO (ULN-CO29FF (2 of 2)

Serial Number 2CF600000





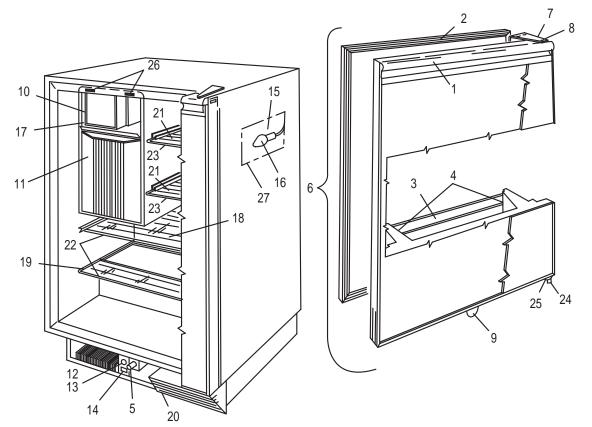


COMBO29FFd

ltem	Description	Part No.		ltem	Description	Part No.
1	Water Line	404FF		19	Power Cord	2317
2	Water Line Connection	41826			Solenoid Valve	2552A
З	Plastic Nut & Sleeve Ass'y	41254		22	Relay	5421
12	Cabinet Foot (4)	41125		24	Compressor	5405-FFS
	Dryer	2692	1	25	By-Pass Valve Ass'y	2749-S
15	Fan Motor, Condenser	5300	1	28	Drain Pan	31550-1-F
16	Fan Blade, Condenser	5428	1	29	Capacitor	5422
18	Back Panel	11545-1		30	Insulation	31622

COMBO 75A (1 of 2)

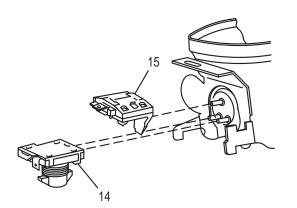
For Item #10, see Model 402 Ice Maker (page 39) for separate breakdown.

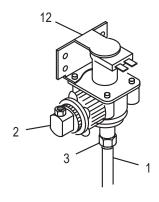


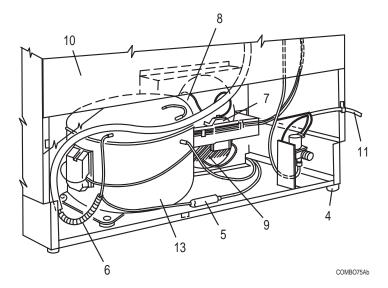
COMBO75Aa

ltem	Description	Part No.	ltem	Description	Part No.
1	Handle	31489-4*	15	Lamp Holder	31316-1
2	Door Gasket	31493-4*	16	Lamp Bulb	31317
3	Door Shelf Retainers (3)	31521-1	17	Ice Bin Door	31523-S
4	Shelf Retainer Rivet (6)	41824	18	Glass Shelf (1)	31427-1
5	Door Switch	1916	19	Glass Half Shelf	31435
6	Door Ass'y	75-DOOR*	20	Grille	11664*
7	Hinge, Top, 3 Hole	11697-ST*	21	Glass Short Shelf (2)	31423-1
	Hinge, Top, 4 Hole	11849-ST*	22	Trim Strip, Front Long (2)	31443-4
8	Pivot Screw, Top	41785-SS*	23	Trim Strip, Front Short (2)	31443-2
9	Dr Switch Brkt	11712	24	Hinge, Bottom, 3 Hole	11697-SB*
10	Ice Maker Ass'y	402		Hinge, Bottom, 4 Hole	11849-SB*
11	lce Bucket	31501	25	Pivot Screw, Bottom	41747-SS*
12	Control	2690	26	Ice Bin Door Hinge	31463
13	Control Knob	41492	27	Light Cover	31314
14	Switch On-Off	2053			

COMBO 75A (2 of 2)





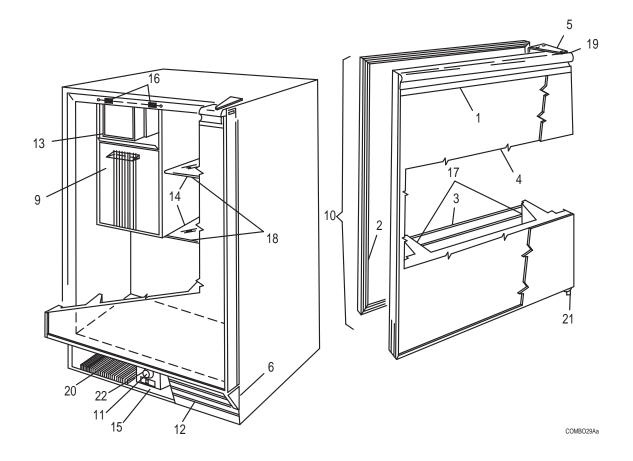


COMBO75Ab

ltem	Description	Part No.	ltem	Description	Part No.
1	Water Line	404	9	Condenser	1951-S
2	Water Line Connection	41826	10	Back Panel	11769
З	Plastic Nut & Sleeve Ass'y	41254	11	Power Cord	1855-1
4	Cabinet Feet (4)	41319	12	Solenoid Valve	2552A
5	Dryer	2694	13	Compressor	5402-S
6	Evaporator & Heat Exchanger	2189-75	14	Relay	5414
7	Fan Motor	5263	15	Overload	5413
8	Fan Blade	5188			

COMBO 29A (1 of 2)

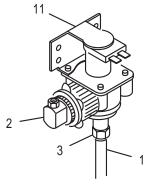
For Item #8, see Model 402 Ice Maker (page 39) for separate breakdown.



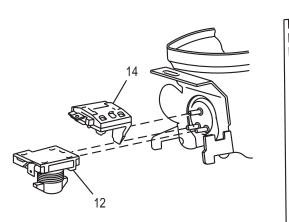
COMBO29Aa

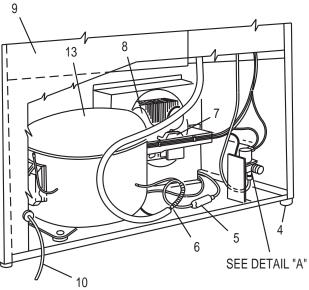
ltem	Description	Part No.	ltem	Description	Part No.
1	Handle	31489-3*	13	Ice Bin Door	31523-S
2	Door Gasket	31493-3*	14	Glass Shelf (2) Short	31425-1
З	Door Shelf Retainer (Long)	31521-2	15	Switch On-Off	2053
4	Door Shelf Retainer (Short)	31521-3		Ice Bin Door Hinge (2)	31463
	Pivot Hinge, Top	11697-ST*		Shelf Retainer Rivet (6)	41824
	Pivot Hinge, Bottom	11695-S*	18	Shelf Trim Strip Front (Short)	31443-1
8	lce Maker Ass'y	402	19	Pivot Screw, Top	41785-SS*
9	lce Bucket	31501	20	Condenser	1893-S
10	Complete Door Ass'y	29-DOOR*	21	Pivot Screw, Bottom	41747*
11	Control	AR-19-12	22	Control Knob	41492
12	Grille	11663*			

COMBO 29A (2 of 2)



DETAIL "A"



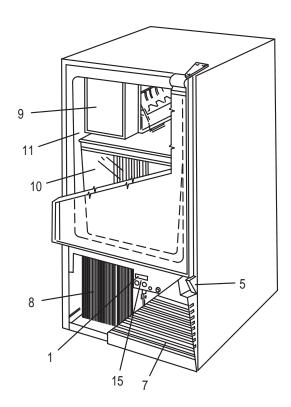


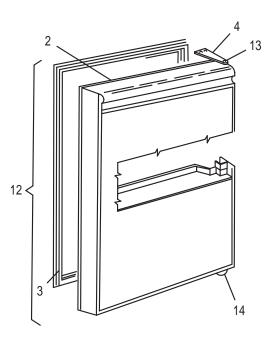
COMB029Ab COMB029Ab

ltem	Description	Part No.	ltem	Description	Part No.
1	Water Line	404	8	Fan Blade	5188
2	Water Line Connection	41826	9	Back Panel	11545-1
3	Plastic Nut & Sleeve Ass'y	41254	10	Power Cord	1855-1
4	Cabinet Foot (4)	41125	11	Solenoid Valve	2552A
	Dryer	2694	12	Relay	5414
6	Evaporator & Heat Exchanger	2189-29	13	Compressor	5402-S
7	Fan Motor	5263	14	Overload	5413

MODEL 95 (1 of 2)

For Item #9, see Model 402 Ice Maker (page 39) for separate breakdown.

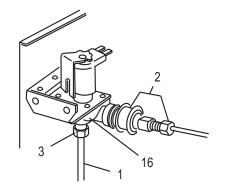


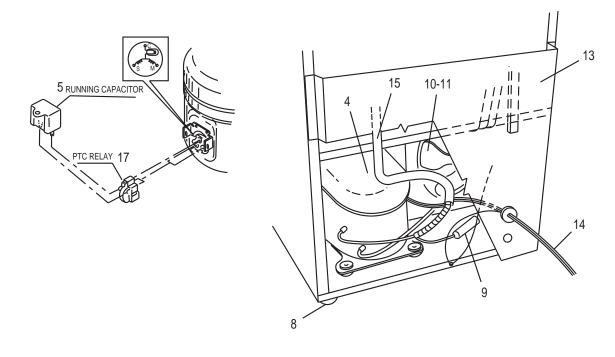


MODEL95a MODEL95a

ltem	Description	Part No.	ltem	Description	Part No.
1	Switch - On/Off	2053	9	lce Maker Ass'y	402
2	Handle	31489-1*	10	Ice Bucket	31429
З	Door Gasket	31493-1*	11	Inner Liner Ass'y/Evaporator	2182-5*
4	Pivot Hinge, Top	11697-ST*	12	Complete Door Ass'y	95-DOOR*
5	Pivot Hinge, Bottom	11695-S*	13	Pivot Screw, Top	41785*
7	Grille	11662*	14	Pivot Screw, Bottom	41747*
8	Condenser Ass'y	2628-S	15	Control	2783

MODEL 95 (2 of 2)



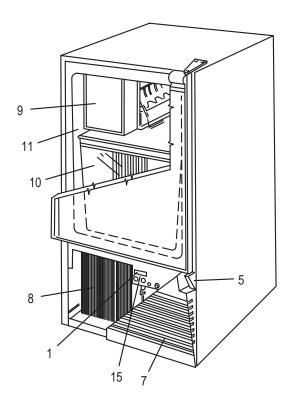


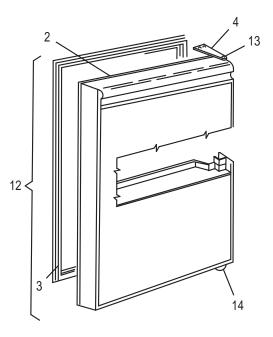
MODEL95b

						NODELOCK
ltem	Description	Part No.		ltem	Description	Part No.
1	Water Line	404		10	Fan Motor	5263
2	Water Line Connection	405		11	Fan Blade	5188
З	Plastic Nut & Sleeve Ass'y	41254	1	13	Back Panel-Formed	11444
4	Compressor	5401-S	1		Power Cord	1855-1
5	Capacitor	5420	1	15	Insulator Tube Armaflex	31154
8	Cabinet Feet (4)	41125	1	16	Solenoid Valve	2552A
9	Dryer	2694	1	17	Relay	5419

MODEL 98 (1 of 2)

For Item #9, see Model 402 Ice Maker (page 39) for separate breakdown.





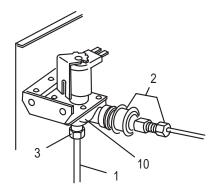
MODEL98a

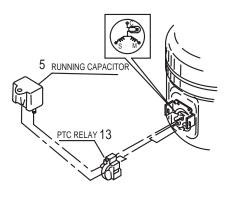
MODEL98a

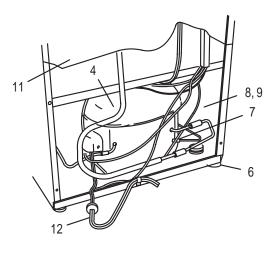
ltem	Description	Part No.	ltem	Description	Part No.
1	Switch-On/Off	2053	9	Ice Maker Ass'y	402
2	Handle	31489-2*	10	Ice Bucket	31430
З	Door Gasket	31493-2*	11	Inner Liner Ass'y/Evaporator	2183-S*
4	Pivot Hinge, Top	11697-ST*	12	Complete Door Ass'y	98-DOOR*
5	Pivot Hinge, Bottom	11695-S*	13	Pivot Screw, Top	41785*
7	Grille	11661*	14	Pivot Screw, Bottom	41747*
8	Condenser Ass'y	2628-S	15	Control	2783

UU-LINE

MODEL 98 (2 of 2)







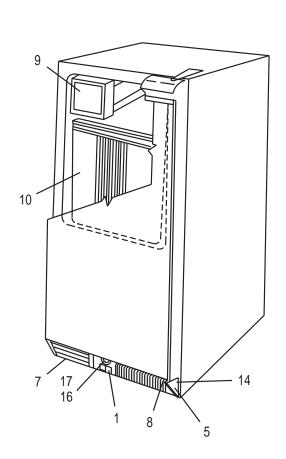
MODEL98b

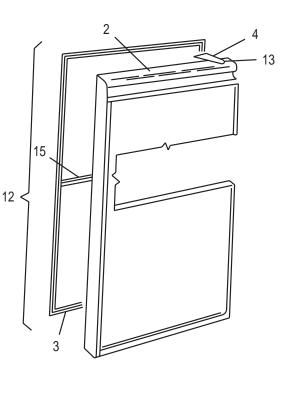
MODEL98b

ltem	Description	Part No.		ltem	Description	Part No.
1	Water Line	404		8	Fan Motor	5263
2	Water Line Connection	405	1	9	Fan Blade	5188
З	Plastic Nut & Sleeve Ass'y	41254	1	10	Solenoid Valve	2552A
4	Compressor	5401-S	1	11	Back Panel-Formed	11443
5	Capacitor	5420	1	12	Power Cord	1855-1
6	Cabinet Feet (4)	41125	1	13	Relay	5419
7	Dryer	2694	1			

MODEL BI15 (1 of 2)

For Item #9, see Model 402 Ice Maker (page 39) for separate breakdown. For Stainless Steel Models, see page 38 for handles and hinges.



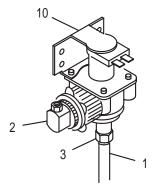


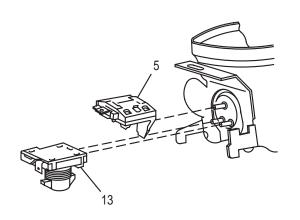
MODELBI15a

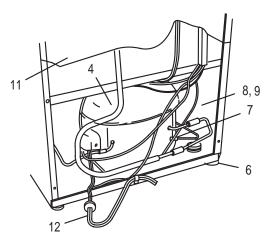
ltem	Description	Part No.		ltem	Description	Part No.
1	Switch- On/Off	2053		10	lce Bucket	31430
2	Handle	31489-2*	1	12	Complete Door Ass'y	BI15-DOOR*
З	Door Gasket, Lower	31606*		13	Pivot Screw, Top	41785-SS*
4	Pivot Hinge, Top	11697-ST*		14	Pivot Screw, Bottom	41747-SS*
5	Pivot Hinge, Bottom	11695-S*		15	Gasket, Upper	31604*
7	Grille	31543*		16	Control	2691
8	Condenser Ass'y	2223-S		17	Control Knob	41492
9	lce Maker Ass'y	402				

UU-LINE

MODEL BI15 (2 of 2)







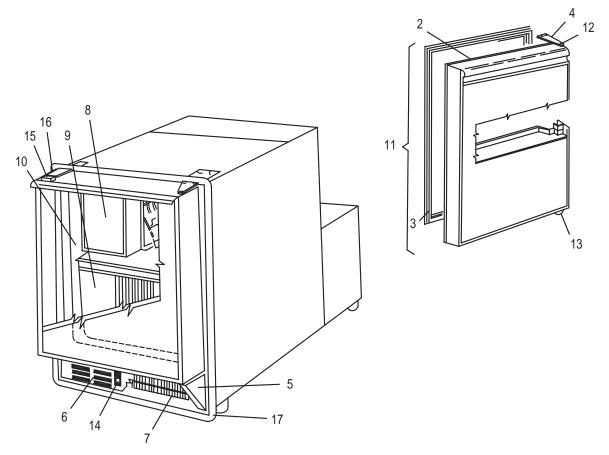
MODELBI15b

MODELBI15b

ltem	Description	Part No.		ltem	Description	Part No.
1	Water Line	404		8	Fan Motor	5263
2	Water Line Connection	41826	1	9	Fan Blade	5188
3	Plastic Nut & Sleeve Ass'y	41254	1	10	Solenoid Valve	2552A
4	Compressor	5402-S	1	11	Back Panel-Formed	41802
5	Overload	5413	1	12	Power Cord	1855-1
6	Cabinet Feet (4)	41319	1	13	Relay	5414
7	Dryer	2694	1			

MODEL SP18 (1 of 2)

For Item #8, see Model 402 Ice Maker (page 39) for separate breakdown.



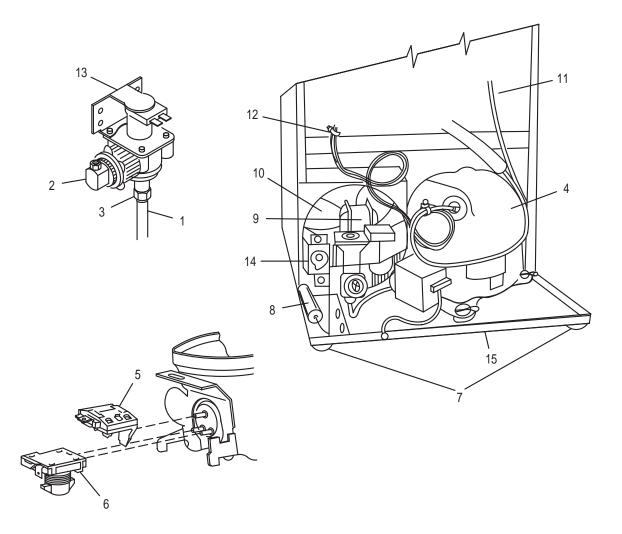
MODELSP18a

MODELSP18a

ltem	Description	Part No.	ltem	Description	
2	Handle	11777	11	Complete Door Ass'y, White	WHT95M-DR
З	Door Gasket	31493-1*		Complete Door Ass'y, Black	95-DOORBG
4	Pivot Hinge, Top	11698-SS*	12	Pivot Screw, Top	41747-SSS
5	Pivot Hinge, Bottom	11696-SS*	13	Pivot Screw, Bottom	41747-SSS
6	Grille	11870	14	On-Off Switch	2053
	Condenser Ass'y	2258-S		Travel Pin Ass'y	TP91-GRY-1
8	Ice Maker Ass'y	402	16	Travel Pin (Pin Only)	31476-SS
9	lce Bucket	31429	17	Frame	11810-KIT
10	Inner Liner Ass'y/Evaporator	2182-S18			

UU-LINE

MODEL SP18 (2 of 2)

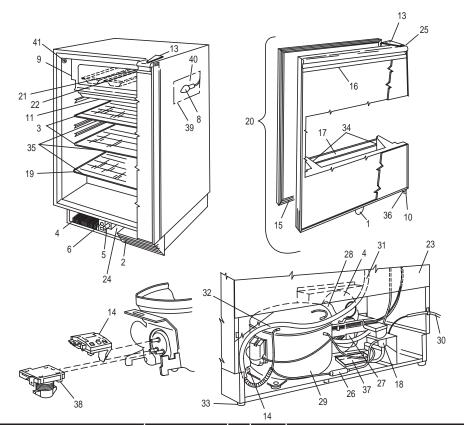


MODELSP18b

ltem	Description	Part No.		ltem	Description	Part No.
1	Water Line	404		9	Fan Motor	5263
2	Water Line Connection	41826	1	10	Fan Blade	5188
З	Plastic Nut & Sleeve Ass'y	41254	1	11	Back Panel	11811
4	Compressor	5402-S	1	12	Power Cord	2264
5	Overload	5413	1	13	Solenoid Valve	2552A
6	Relay	5414	1	14	Cold Control	2783
7	Cabinet Feet	41125	1	15	Base	2262
8	Dryer	2694	1			

MODEL 75RF

For Stainless Steel Models, see page 38 for handles and hinges.

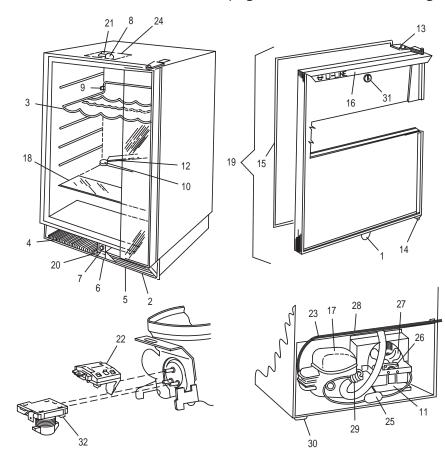


MODEL75RF

ltem	Description	Part No.	ltem	Description	Part No.
1	Dr Switch Brkt	11712	22	Evaporator Fan Blade	31656
2	Grille	11664*	23	Back Panel	11769
З	Glass Shelves (2)	31427-1	24	Timer	2595
4	Condenser	1951-FFS	25	Pivot Screw, Top	41785*
5	Door Switch	1916	26	Dryer	2692
6	Control	2302-5	27	Fan Motor, Condenser	5300
8	Lamp Bulb	31317	28	Fan Blade, Condenser	5428
9	Freezer Door Ass'y	31628	29	Compressor	5400-FFS
10	Hinge, Bottom, 3 Hole	11697-SB*	30	Power Cord	2263
	Hinge, Bottom, 4 Hole	11849-SB*	31	Evaporator & Heat Exchanger	2695-FFS
11	Mullion	31602	32	Insulator Tube	31410
13	Hinge, Top, 3 Hole	11697-ST*	33	Leveler Feet (4)	41319
	Hinge, Top, 4 Hole	11849-ST*	34	Shelf Retainer Rivets (6)	41824
14	Overload	5411	35	Trim Strip	31443-4
15	Door Gasket	31493-4*	36	Pivot Screw, Bottom	41747*
16	Door Handle	31489-4*	37	Drain Pan	31550-1-F
17	Door Shelf Retainers (3)	31521-1	38	Relay	5412
18	Solenoid Valve Ass'y	2749-S	39	Light Cover	31314
19	Glass Half Shelf (1)	31435	40	Lamp Holder	31316-1
20	Door Ass'y	75-D00R*	41	Freezer Door Bushings	41346-4
21	Evaporator Fan	5299-1			

MODEL 75WC

For Stainless Steel Models, see page 38 for handles and hinges.

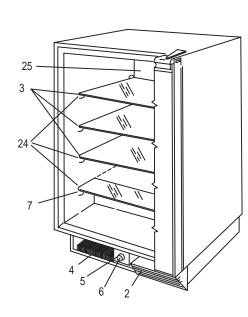


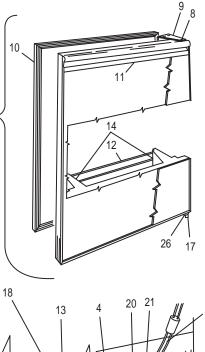
MODEL75WC

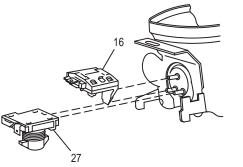
ltem	Description	Part No.		ltem	Description	Part No.
1	Dr Switch Brkt	11712		16	Door Handle	41984-3*
2	Grille	11664*		17	Compressor	5400-S
З	Wine Shelf	2300	1	18	Glass Half Shelf (1)	31435
4	Condenser	1951-S		19	Door Ass'y	75WC-DOOR*
5	Switch	1916			Light On-Off Switch	2053
6	Control	2767-S		21	Lamp Holder	31316-1
7	Control Knob-Silver	41715		22	Overload	5411
	Alternate Control Knob-Black	41492		23	Back Panel	11769
8	Lamp Bulb	31317		24	Light Cover	31314
9	Shelf Clip	31648		25	Dryer	2694
10	Drain Cup	11508		26	Fan Motor	5263
11	Drain Pan	31550-1-F		27	Fan Blade	5188
12	Drain Trough	31391-1		28	Power Cord	2315
13	Hinge, Top RH/Bottom LH	242*		29	Evaporator & Heat Exchanger	2186-S
	Hinge, Top, 4 Hole	242-1*		30	Leveler Feet (4)	41319
14	Hinge, Bottom RH/Top LH	245*		31	Lock Ass'y	41734-S
	Hinge, Bottom, 4 Hole	245-1*		32	Relay	5412
15	Door Gasket	31493-4*				

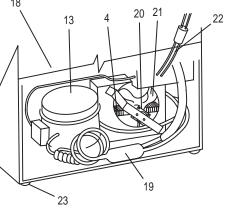
MODEL 75F

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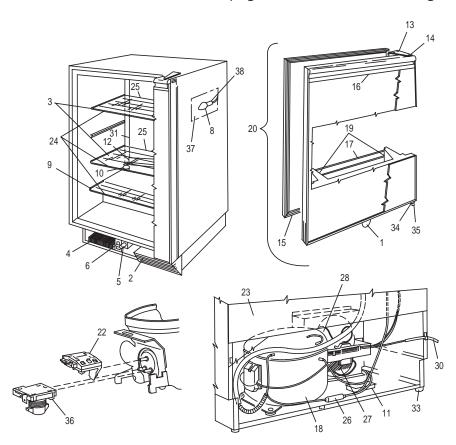


MODEL75F

ltem	Description	Part No.		ltem	Description	Part No.
2	Grille	11664*	ĺ	15	Door Ass'y	75-D00R*
З	Glass Shelves (2)	31427-1	1	16	Overload	5413
4	Condenser	1951-S	1	17	Pivot Screw, Bottom	41747-SS*
5	Control	2580	1	18	Back Panel	11769
6	Control Knob-Silver	41715	1	19	Dryer	2694
7	Glass Half Shelf (1)	31435	1	20	Fan Motor	5263
8	Pivot Screw, Top	41785-SS*	1	21	Fan Blade	5188
9	Hinge, Top	11697-ST*	1	22	Power Cord	2234
	Hinge, Top, 4 Hole	11849-ST*	1	23	Leveler Feet (4)	41319
10	Door Gasket	31493-4*	1	24	Trim Strip (4)	31443-4
11	Door Handle	31489-4*	1	25	Evaporator	2187-FS
12	Door Shelf Retainers (3)	31521-1	1	26	Hinge, Bottom	11697-SB*
13	Compressor	5402-S			Hinge, Bottom, 4 Hole	11849-SB*
14	Shelf Retainer Rivet (6)	41824]	27	Relay	5414

MODEL 75R

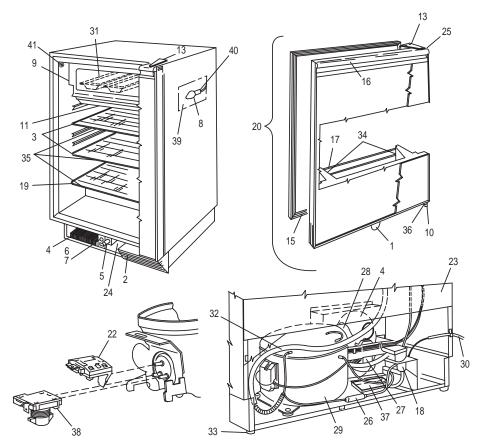
For Stainless Steel Models, see page 38 for handles and hinges.



MODEL75R

ltem	Description	Part No.		ltem	Description	Part No.
1	Dr Switch Brkt	11712		19	Shelf Retainer Rivets (6)	41824
2	Grille	11664*	1	20	Door Ass'y	75-DOOR*
З	Glass Shelves (2)	31427-1	1	22	Overload	5411
4	Condenser	1951-S	1	23	Back Panel	11769
5	Door Switch	1916	1	24	Trim Strips, Front Long (3)	31443-4
6	Control	2766-S		25	Trim Strips, Rear Long (2)	31444-4
8	Lamp Bulb	31317		26	Dryer	2694
9	Glass Half Shelf (1)	31435		27	Fan Motor	5263
10	Drain Cup	11508		28	Fan Blade	5188
11	Drain Pan	31550-1-F		30	Power Cord	2306
12	Drain Trough	31391-1		31	Evaporator & Heat Exchanger	2333-S
13	Hinge, Top, 3 Hole	11697-ST*		33	Leveler Feet (4)	41319
	Hinge, Top, 4 Hole	11849-ST*		34	Hinge, Bottom, 3 Hole	11697-SB*
14	Pivot Screw, Top	41785-SS*			Hinge, Bottom, 4 Hole	11849-SB*
15	Door Gasket	31493-4*		35	Pivot Screw, Bottom	41747-SS*
16	Door Handle	31489-4*	1	36	Relay	5412
17	Door Shelf Retainers (3)	31521-1		37	Light Cover	31314
18	Compressor	5400-S		38	Light Holder	31316-1

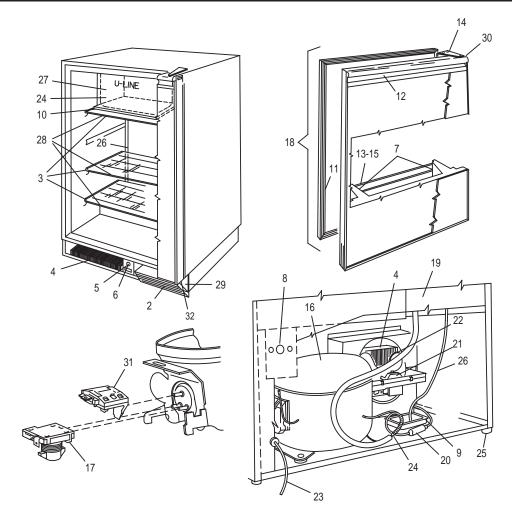




MODEL75AD

ltem	Description	Part No.		ltem	Description	Part No.
1	Dr Switch Brkt	11712		22	Overload	5411
2	Grille	11664*	1	23	Back Panel	11769
3	Glass Shelves	31427-1		24	Timer	2632-1
4	Condenser	1951-FFS			Pivot Screw, Top	41785*
5	Door Switch	1916		26	Dryer (75AD)	2692
6	Control	2697		27	Fan Motor	5263
7	Control Knob - Silver	41715		28	Fan Blade	5188
8	Lamp Bulb	31317		29	Compressor	5400-FFS
	Freezer Door Ass'y	31628		30	Power Cord	2243
10	Hinge, Bottom, 3 Hole	11697-SB*		31	Evaporator & Heat Exchanger	2188-FFS
	Hinge, Bottom, 4 Hole	11849-SB*		32	Insulator Tube	31410
11	AD Defrost Tray	31411		33	Leveler Feet (4)	41319
13	Hinge, Top, 3 Hole	11697-ST*		34	Shelf Retainer Rivets (6)	41824
	Hinge, Top, 4 Hole	11849-ST*		35	Trim Strip	31443-4
15	Door Gasket	31493-4*		36	Pivot Screw, Bottom	41747*
16	Door Handle	31489-4*		37	Drain Pan	31550-1-F
17	Door Shelf Retainers (3)	31521-1		38	Relay	5412
18	Solenoid Valve Ass'y	2749-S]	39	Light Cover	31314
19	Glass Half Shelf (1)	31435]	40	Light Holder	31316-1
20	Door Ass'y	75-D00R*		41	Freezer Door Bushings	41346-4

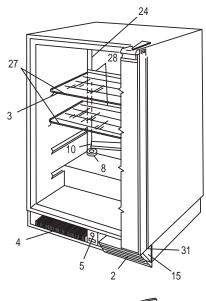
MODEL 29AD

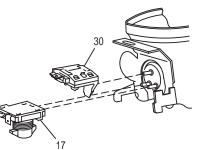


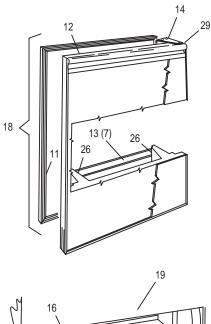
MODEL29AD

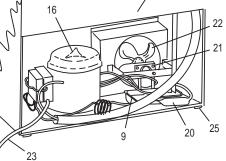
ltem	Description	Part No.	ltem	Description	Part No.
2	Grille	11663*	18	Door Ass'y	29-DOOR*
3	Glass Shelves (3)	31426-1	19	Back Panel	11545-1
4	Condenser	1893-S	20	Dryer	2693
5	Control	2696	21	Fan Motor	5263
6	Control Knob	41715	22	Fan Blade	5188
7	Shelf Retainer Rivets (6)	41824	23	Power Cord	2314
8	Auto Timer	2684	24	Evaporator & Heat Exchanger	2018-S
9	Drain Pan	31550-1-F	25	Cabinet Feet (4)	41125
10	Drip Tray	31360-F	26	Drain Tube	41615-1
11	Door Gasket	31493-3*	27	Evaporator Door	31659-S
12	Door Handle	31489-3*	28	Shelf Trim Strip Front (Long) (3)	31443-3
13	Door Shelf Retainers (Long) (2)	31521-2	29	Hinge Support, Bottom	11695-S*
14	Door Hinge, Upper	11697-ST*	30	Pivot Screw, Top	41785*
15	Door Shelf Retainer (Short) (1)		31	Overload	5411
16	Compressor	5400-S	32	Pivot Screw, Bottom	41747*
17	Relay	5412			

MODEL 29R





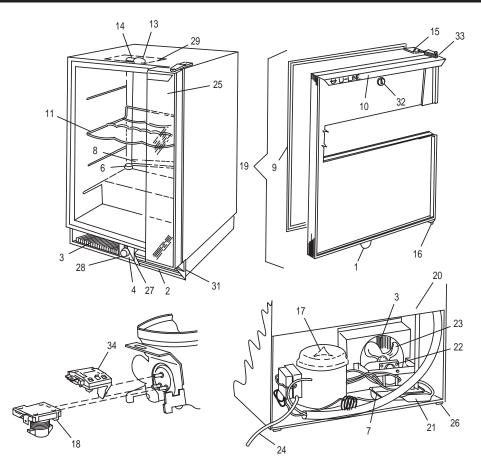




MODEL29R

ltem	Description	Part No.	ltem	Description	Part No.
2	Grille	11663*	17	Relay	5412
З	Glass Shelves (3)	31426-1	18	Door Ass'y	29-DOOR*
4	Condenser	1893-S	19	Back Panel	11545-1
5	Control	2766-S	20	Dryer	2693
7	Door Shelf Retainer (Short) (1)	31521-3	21	Fan Motor	5263
8	Drain Cup	11508	22	Fan Blade	5188
9	Drain Pan	31550-1-F	23	Power Cord	2234
10	Drain Trough	31391	24	Evaporator & Heat Exchanger	1960-S
11	Door Gasket	31493-3*	25	Cabinet Feet (4)	41125
12	Door Handle	31489-3*	26	Shelf Retainer Rivet (6)	41824
13	Door Shelf Retainers (Long) (2)	31521-2	27	Shelf Trim Strip (Long) Front (3)	31443-3
14	Door Hinge, Upper	11697-ST*	28	Shelf Trim Strip (Long) Rear (3)	31444-3
15	Door Hinge, Lower	11695-S*	29	Pivot Screw, Top	41785*
16	Compressor	5400-S	30	Overload	5411
17	Relay	5412	31	Pivot Screw, Bottom	41747*

MODEL 29WC

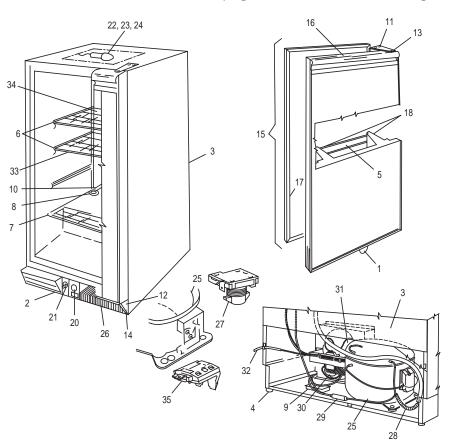


MODEL29WC

ltem	Description	Part No.	ltem	Description	Part No.
1	Dr Switch Brkt	11712	18	Relay	5412
2	Grille	11663*	19	Door Ass'y	WC29-DOOR
3	Condenser	1893-S	20	Back Panel	11545-1
4	Control	2767-S	21	Dryer	2694
6	Drain Cup	11508	22	Fan Motor	5263
7	Drain Pan	31550-1-F	23	Fan Blade	5188
8	Drain Trough	31391	24	Power Cord	2315
9	Door Gasket	31493-3*	25	Evaporator & Heat Exchanger	1960-S
10	Door Handle	41984-2-BLK	26	Cabinet Feet (4)	41125
11	Wire Wine Rack	2299	27	Light Door Switch	1916
13	Light Bulb	31317	28	Light On-Off Switch	2053
14	Light Socket	31316-1	29	Light Cover	31314
	Door Hinge, Upper	1848A-S*	31	Lower Hinge Support	11624-1-S*
16	Hinge Plate, Lower Right	1847-2-S*	32	Lock Ass'y	41734-S
17	Compressor	5400-S	33	Hinge Plate, Top Right	1847-1-S*
18	Relay	5412	34	Overload	5411

MODEL 15R

For Stainless Steel Models, see page 38 for handles and hinges.

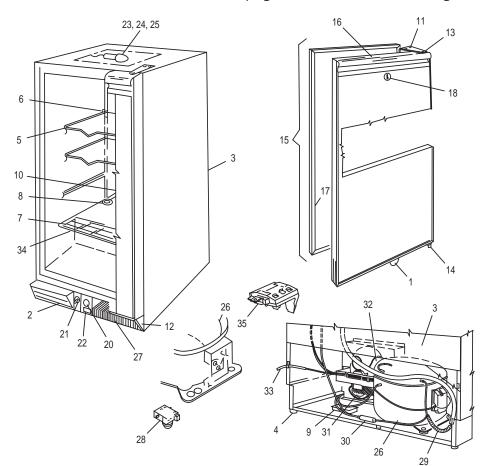


MODEL15R

ltem	Description	Part No.	ltem	Description	Part No.
1	Dr Switch Brkt	11712	18	Shelf Retainer Rivet (6)	41824
2	Grille	31543*	20	Control	2766-S
З	Back Panel	41802	21	Door Switch (Plunger)	1916
4	Feet Leveler (4)	41319	22	Lamp Cover	31314
5	Door Shelf Retainers (3)	31521-3	23	Lamp Holder	31316-1
6	Glass Shelf (3)	11771	24	Lamp Bulb	31317
7	Glass Shelf (1)	11770	25	Compressor	5400-S
8	Drain Cup	11508	26	Condenser	2223-S
9	Drain Pan	31550-1-F	27	Relay	5412
	Drain Trough	31391-2	28	Evaporator & Heat Exchanger	2878-01-S
11	Hinge Bracket, Top	11697-ST*	29	Dryer	2694
12	Hinge Bracket, Bottom	11695-S*	30	Fan Motor, Condenser	5263
	Hinge Pin, Top	41785-SS*	31	Fan Blade, Condenser	5188
14	Hinge Pin, Bottom	41747-SS*	32	Power Cord	2307
15	Door Ass'y	15R-DOOR*	33	Glass Trim Strip, Front (4)	31443-5
16	Door Handle	31489-2*	34	Glass Trim Strip, Rear (3)	31444-5
17	Door Gasket	31493-6*	35	Overload	5411

MODEL 15WC

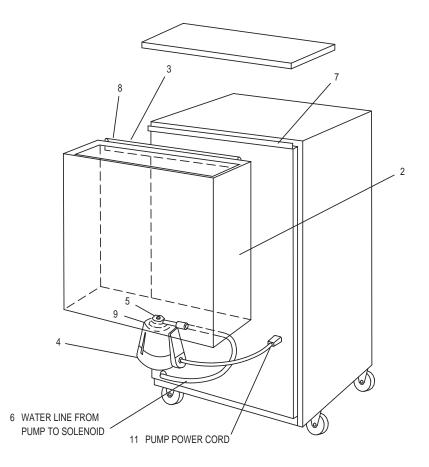
For Stainless Steel Models, see page 38 for handles and hinges.



MODEL15WC

ltem	Description	Part No.	ltem	Description	Part No.
1	Dr Switch Brkt	11712	18	Lock Ass'y	41734-S
2	Grille	31543*	20	Control	2767-S
3	Back Panel	41802	21	Door Switch - Plunger	1916
4	Feet Leveler (4)	41319	22	Lamp On-Off Switch	2053
5	Wine Rack	2301	23	Lamp Cover	31314
6	Wine Rack Clip	31648	24	Lamp Holder	31316-1
7	Glass Half Shelf (1)	11770	25	Lamp Bulb	31317
8	Drain Cup	11508	26	Compressor	5400-S
9	Drain Pan	31550-1-F	27	Condenser	2223-S
10	Drain Trough	31391-2	28	Relay	5412
11	Hinge Bracket Ass'y, Top	1848A-S*	29	Evaporator & Heat Exchanger	2649-S
12	Hinge Bracket, Bottom	11624-1-S*	30	Dryer	2694
13	Pivot Hinge, Top	1847-1-S*	31	Fan Motor, Condenser	5263
14	Pivot Hinge, Bottom	1847-2-S*	32	Fan Blade, Condenser	5188
15	Door Ass'y	15WC-DOOR*	33	Power Cord	2315
16	Door Handle	41984-1*	34	Glass Trim Strip Front	31443-5
17	Door Gasket	31493-6	35	Overload	5411

TANK MODELS



TANK MODELS

ltem	Description	Part No.	ltem	Description	Part No.
1	Built-In Cabinet Trim - Model 95	11708*	6	Water Line	41223
1	Built-In Cabinet Trim - Model 98	11709*		Tank Hanger - Model 95/98	
2	Water Tank - Plastic	1832-BLK	8	Tank Support - Model 95/98	11649
З	Water Tank Cover - Plastic	509-BLK	9	Rubber Seal	31358
4	Pump	1844	10	Caster	41590
5	Nut	41216	11	Tank Cord	1861

UU-LINE

NOTES

PARTS LISTING

How to Order Replacement Parts

1. Locate the illustration(s) for the model you are servicing.

NOTE

Some models may have more than one illustration based on Serial Number breaks.

- 2. Refer to the area where the desired part would be installed, locate the part and note the item number assigned to it.
- 3. Locate the item number in the left column of the parts listing which is below the product illustration. Note the full description and the corresponding part number. If this is for a warranty unit, please indicate so.
- 4. When ordering parts, it will be necessary to supply us with Model Number, Serial Number, Part Number, Part Description and in some cases Color or Voltage.
- 5. U-Line requires the return of the parts listed below if replaced under warranty.
 - Fan motors (condenser and evaporator)
 - Temperature controls
 - Water solenoid valves

- Ice maker motors
- Bypass solenoids
- Compressors (two years old or less lines soldered closed)

All warranty parts will be shipped at no charge as long as warranty status has been confirmed. 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 a part or if you may field scrap it. When returning parts please enclose a copy of your packing list and a copy of your labor claim, showing the model and serial number.

Our warranty records may not match the customers information. In which 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 (COD if you don't have an open account with U-Line Corporation). When the proof of purchase is provided we will credit your account (a check will be sent if the part was sent COD).

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

FAX Number (414) 354-7905 Phone Number (414) 354-0300 or (414) 354-7885; press 3 www.U-LineService.com

To expedite parts shipments, FAX all parts orders to: (414) 354-7905. Copy the FAX Parts Order Form, located in the back of this manual, when placing an order.

7. Effective immediately, U-Line will **not** pay warranty claims for the replacement of a complete icemaker assembly. Complete icemaker assembly replacement is not necessary because all icemaker parts are available as replacement parts and are stocked in our inventory.

REPLACEMENT PARTS: Use only genuine U-Line replacement parts. The use of non U-Line parts can reduce ice rate, cause water to overflow from ice maker mold, damage the unit, and may void the warranty.

220 Volt Parts

All parts listed in the SERVICE and PARTS MANUAL are 110/115 volt. Refer to the 220 Volt Part Conversion List for the applicable 220 Volt part.



FAX PARTS ORDER FORM FAX # 414-354-7905

Account#	Ship to:	
Bill to:		
	Attention:	
Date:	P.O	
Phone#	Fax#	

PART#	COLOR	QTY	DESCRIPTION	MODEL	SERIAL NUMBER	UNIT IN WARRANTY?

SPECIAL INSTRUCTIONS:

All part shipments will be sent ground delivery. We have air shipment available at an additional cost to you.

Next Day Air 2nd Day Air 3 Day Select

If you do not have an open account with us your order will be shipped C.O.D.

COMMENTS: _____

Authorized By _____



P.O. Box 245040 Milwaukee, WI 53224-9540 Phone 414.354.0300 FAX 414.354.7905