



U-LINE
CORPORATION

SERVICE AND PARTS MANUAL

For Product Manufactured With
HFC-134A Freon

Models

95 Ice maker
98 Ice maker
BI15 Ice maker
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

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Service and Parts Manual

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

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 must not be used on brazed joints.

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LIMITED WARRANTY

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 **only to units shipped after 11-1-98**. 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.

Warranty Statement

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 Registration Card included with the product should be promptly completed by you and mailed back to U-Line.

The following are excluded from this limited warranty: 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/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.

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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

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

CAUTION

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

WARNING

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.

WARNING

- 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.

CAUTION

- 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.

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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 COMPLAINT

The unit is not cold enough!

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 COMPLAINT

The ice cubes are sticking together!

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.

CUSTOMER COMPLAINT **No ice or not enough ice!**

Questions to ask before scheduling a service call —

- Are you aware of the factory specifications for ice production?

Model #	Approx. Daily Ice Rate	Approx. Ice Storage
Combo 75A	22.5 lbs.	13 lbs. bucket
Combo 75FF	8 lbs.	13 lbs. bucket
Combo 29A	22 lbs.	13 lbs. bucket
Combo 29FF	8 lbs.	13 lbs. bucket
Model 95	23 lbs.	12 lbs. bucket
Model 98	25 lbs.	25 lbs. bucket
BI15	25 lbs.	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 COMPLAINT **The unit is frosting up!**

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 COMPLAINT **Water is leaking out of the back of the unit!**

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 COMPLAINT **The light on my Wine Captain never shuts off!**

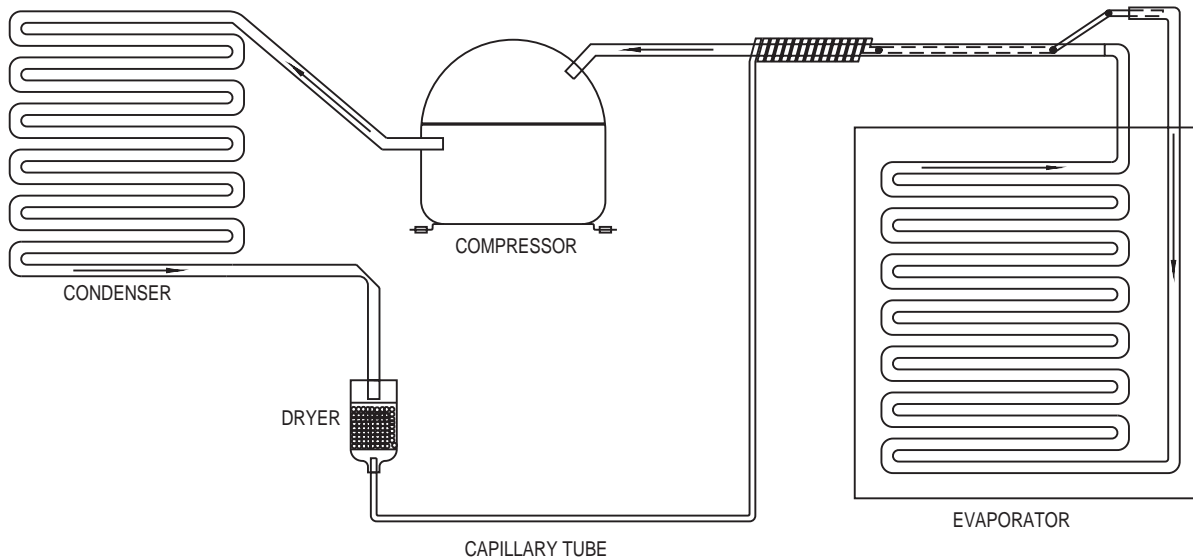
Questions to ask before scheduling a service call —

- 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.
- The liquid then flows to the dryer where it is strained and filtered.



UL183-1

- 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.

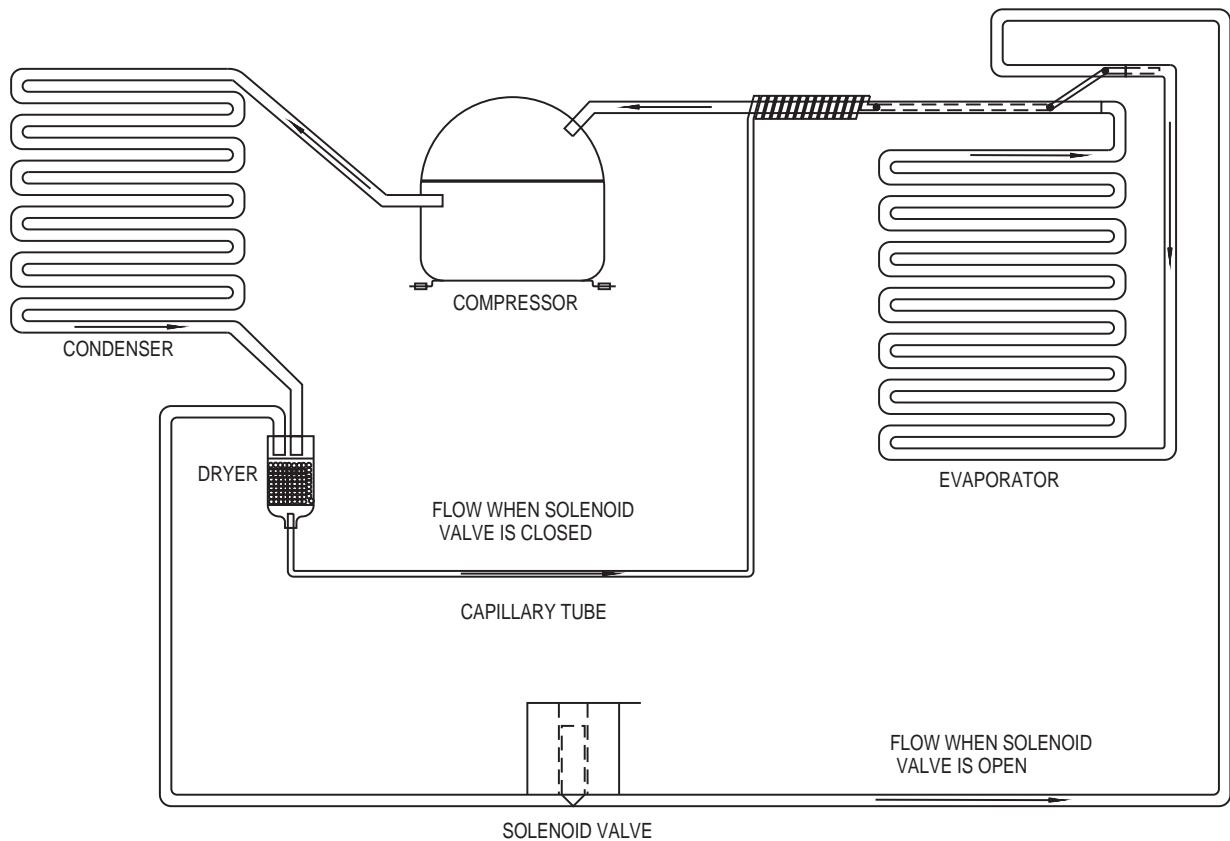
U-Line Frost Free Refrigeration System

Cooling Mode:

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

Defrost Mode:

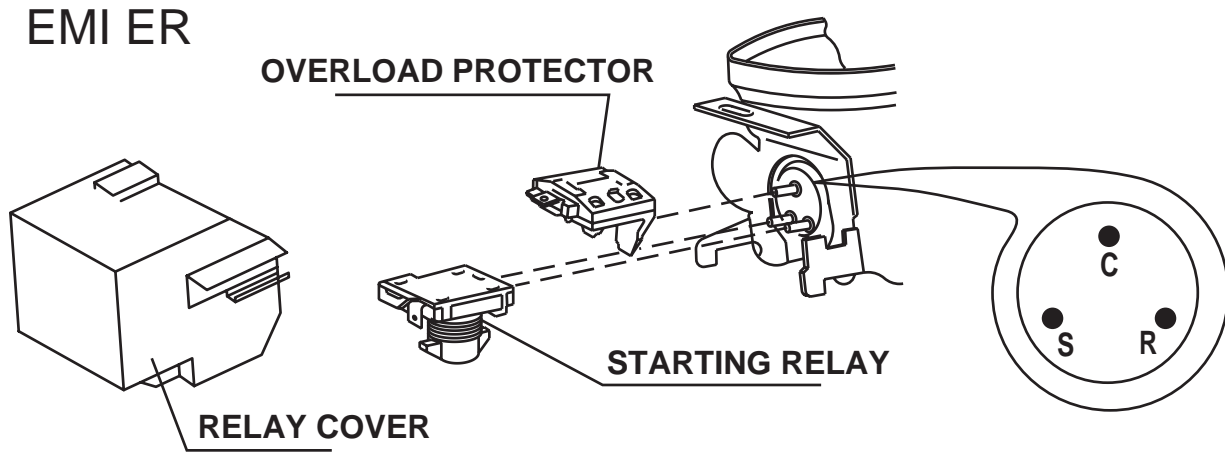
- Bypass solenoid valve open
- Refrigerant flows through bypass system
- Vapor flows from condenser to evaporator without a phase change



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Compressor/Electrical Specifications



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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: 28 OHMS
EMI30HER Run Winding Resistance: 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 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

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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

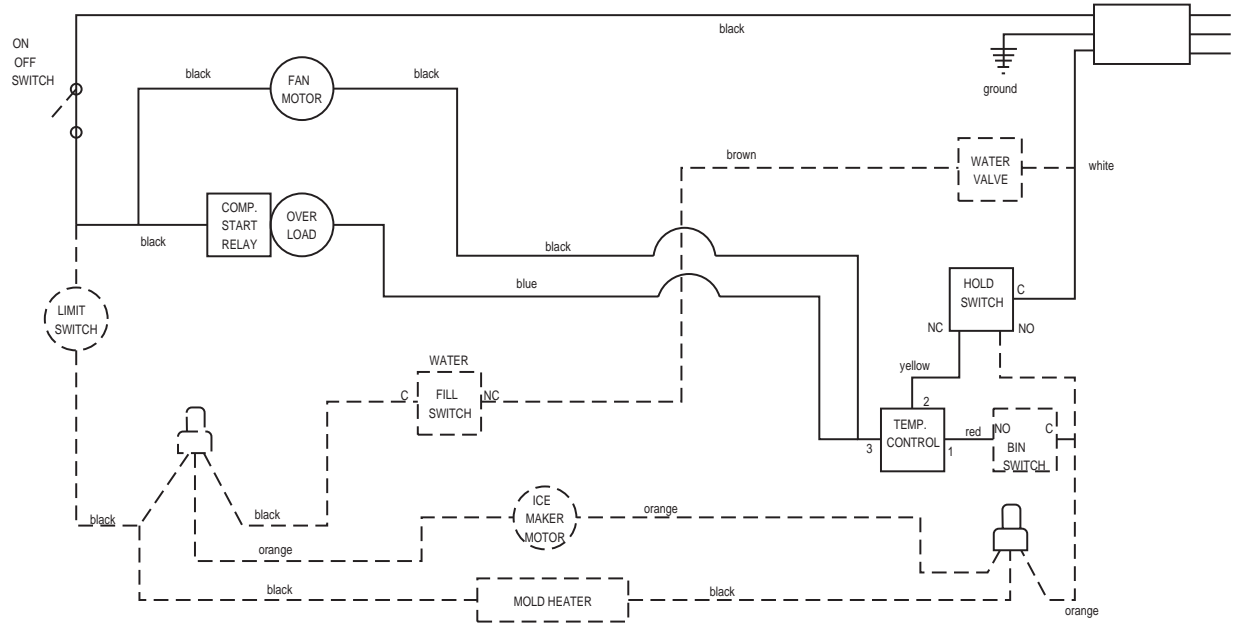
- A. Ice maker ejector blades reach approximately 10:00 position and cam depresses the water fill switch.
- B. Power to the water valve. Ice maker mold fills.

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.

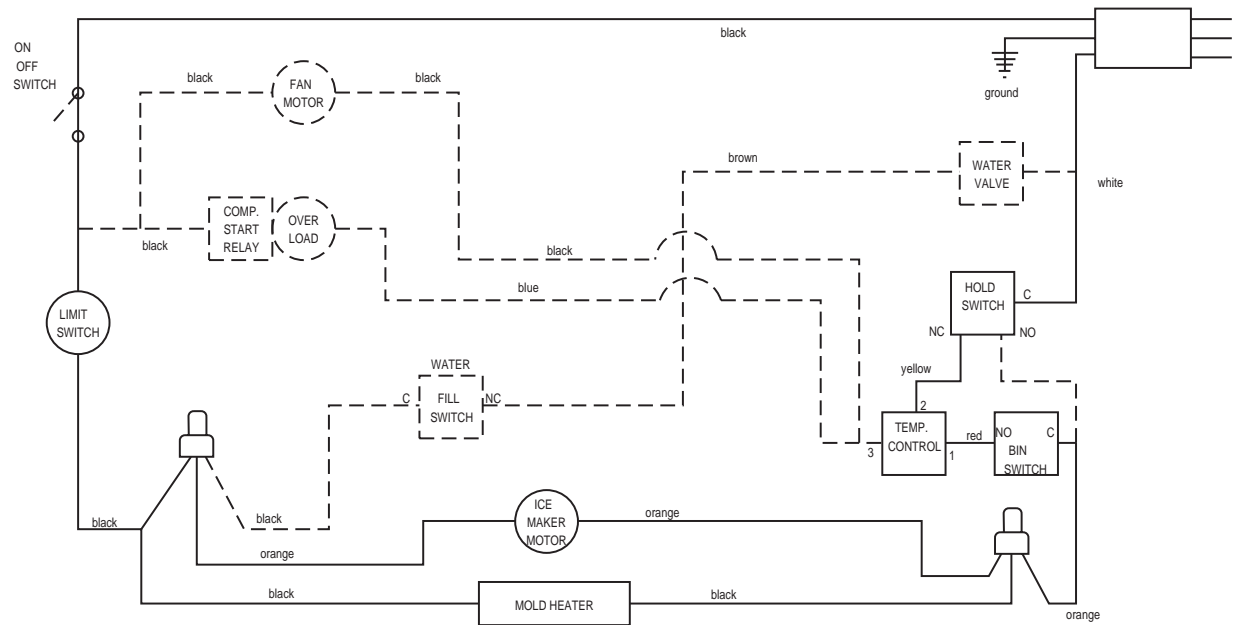
Cycle Schematics

FREEZE CYCLE



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HARVEST-1 CYCLE (Hold Switch In Normal Position)

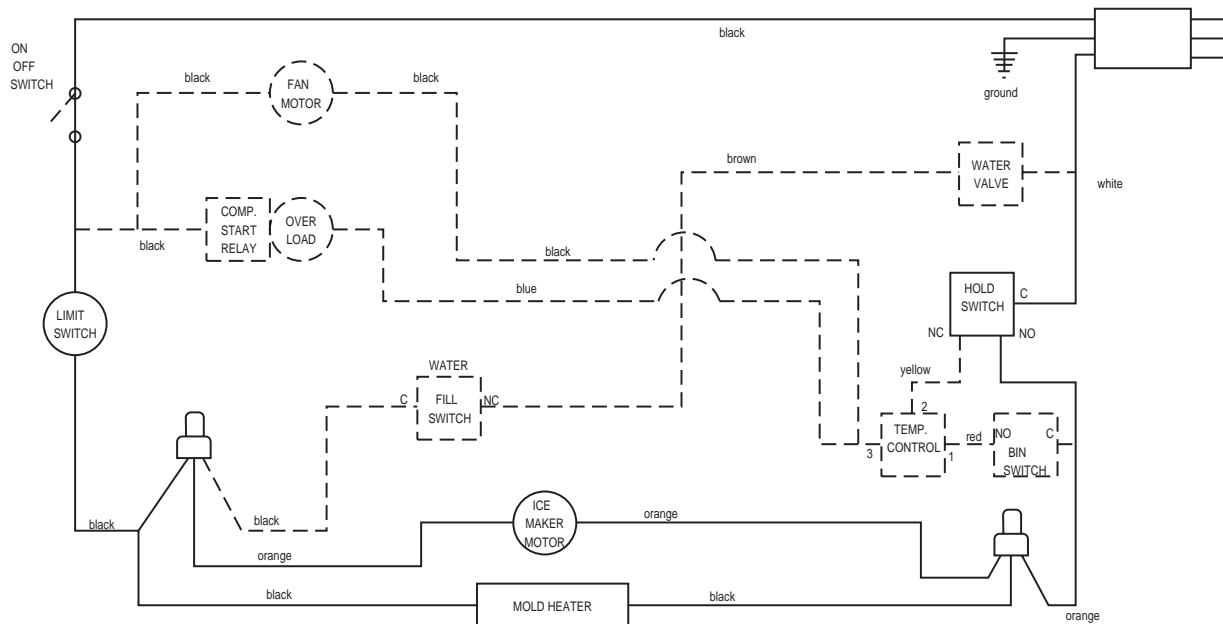


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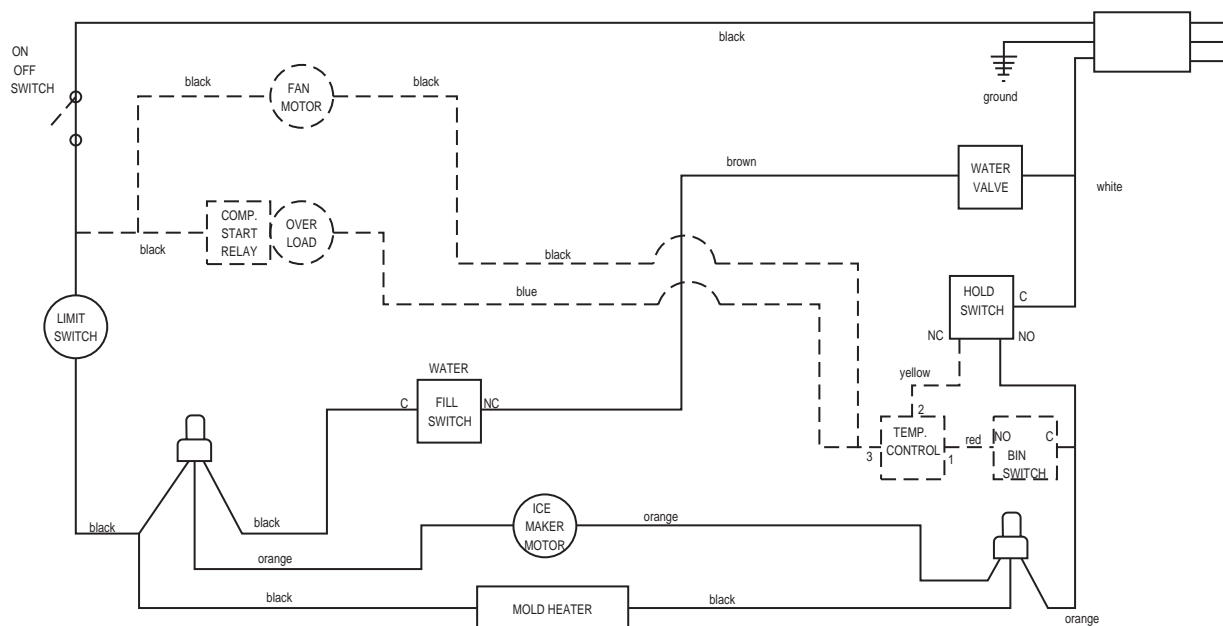
Cycle Schematics

HARVEST-2 CYCLE
(Hold Switch In Switched Position)



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WATER FILL CYCLE

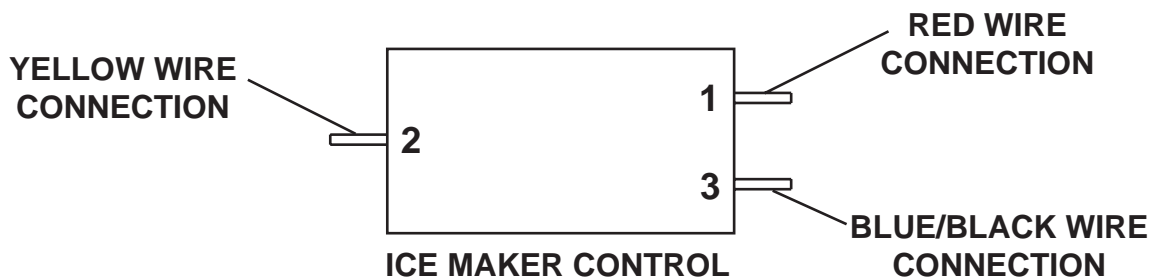


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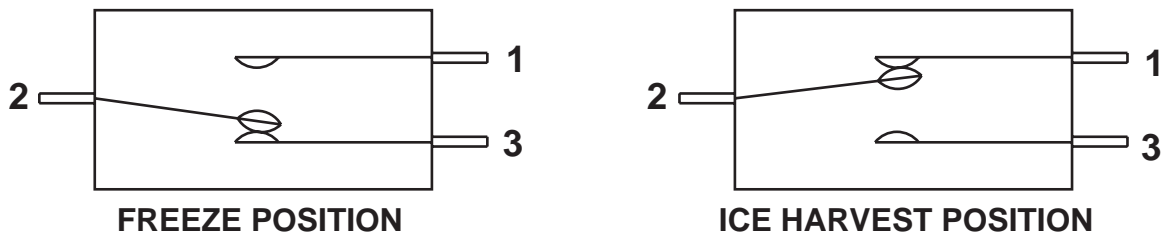
Temperature Control Specifications

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. This prepares the control for the next cycle.



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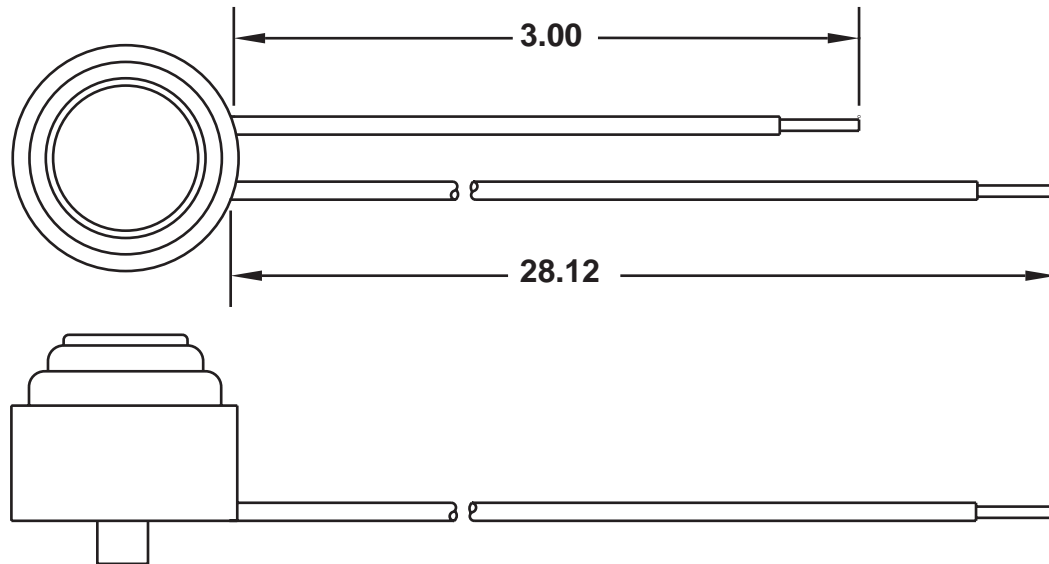
CYCLE	OPEN CIRCUIT	CLOSED CIRCUIT
FREEZE	2 - 1	2 - 3
HARVEST	2 - 3	2 - 1

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Limit Switch Specifications

Number 109 Limit Switch

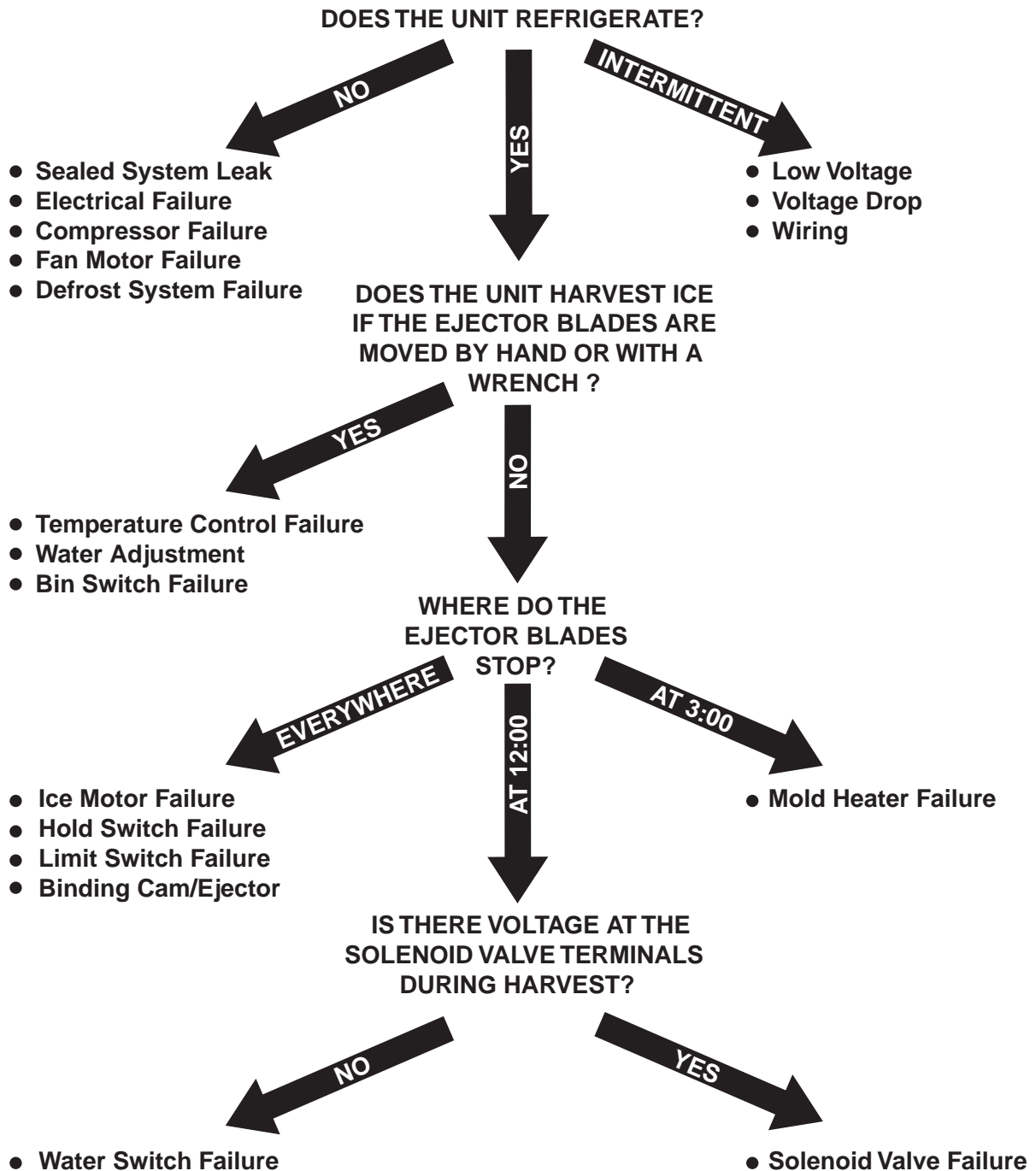


183-10

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



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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.)

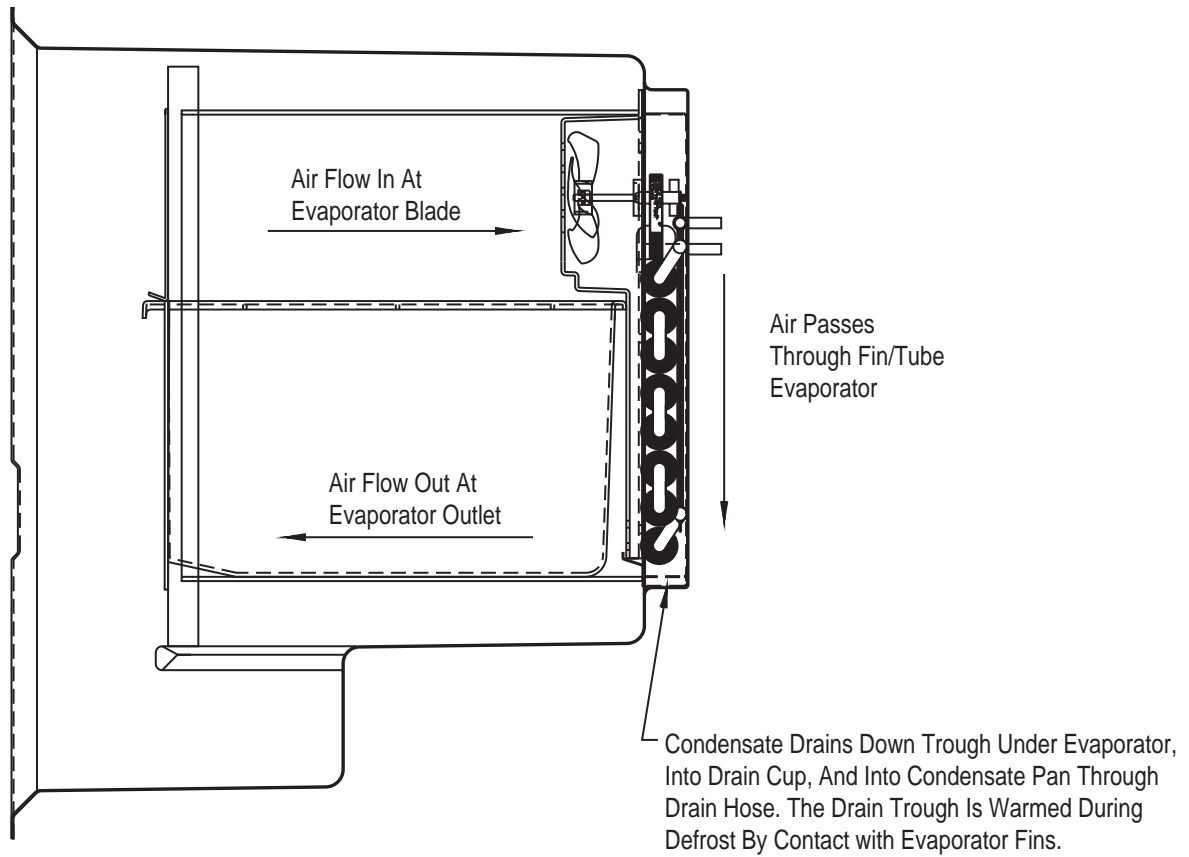
Pages 44-45 show the parts breakdown for the previous design of the Combo 29FF. The parts replaced with the kit are denoted. The wiring diagram for this model is on page 35.

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



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Disassembly Procedures

Model Combo C075FF

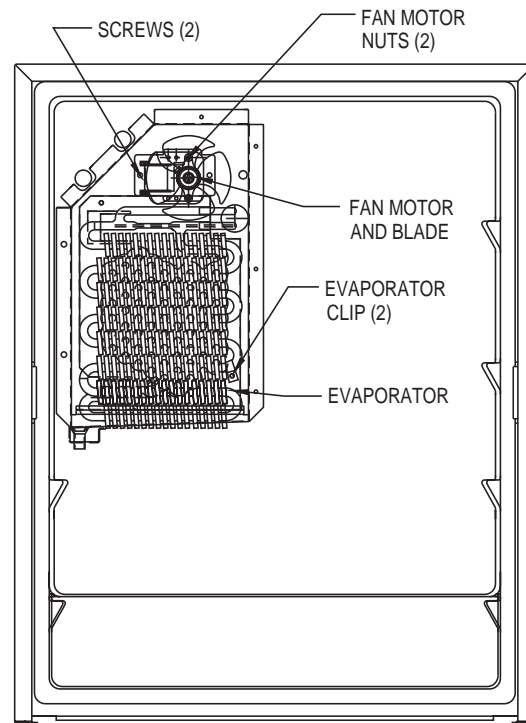
1. Disconnect from power source.
2. Disconnect ice maker wires in back of unit.
3. Remove screws (6) from freezer housing.
4. Slide out freezer housing with ice maker unit attached.
5. Remove screws (4) from evaporator cover.
6. Slide evaporator cover out of clips (2).

To remove fan blade/motor:

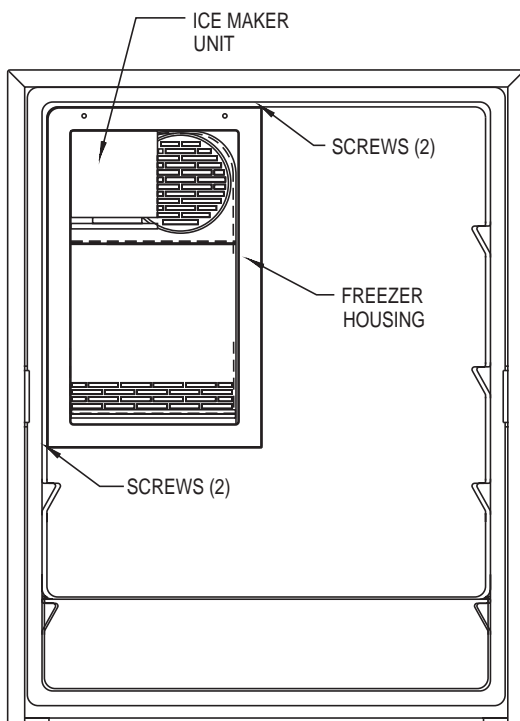
1. Disconnect fan wires in the back of unit.
2. Remove fan blade by sliding off fan motor shaft.
3. Remove screws (2) from fan motor mounting bracket.
4. Remove mounting nuts (2) from fan motor studs.

To remove evaporator:

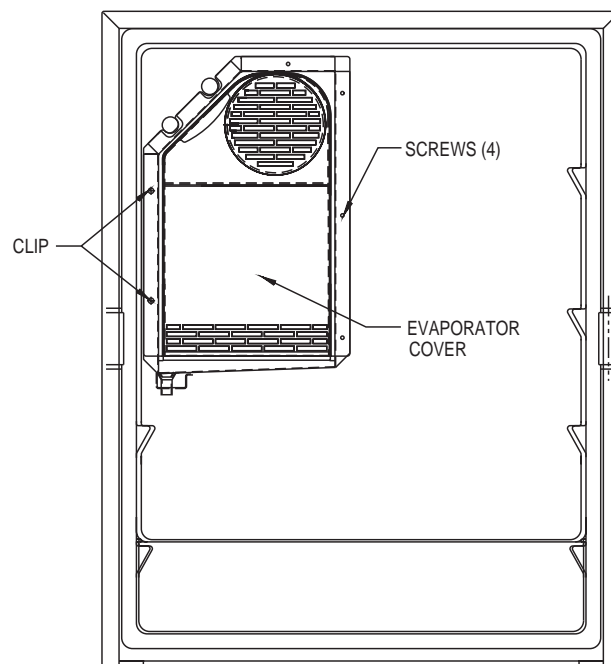
1. Disconnect copper tubing. Be sure to reclaim, recycle or recover refrigerant.
2. Remove screw from evaporator clip (2).
3. Slide out evaporator.



UL183-15



UL183-13



UL183-14

Model Combo C029FF

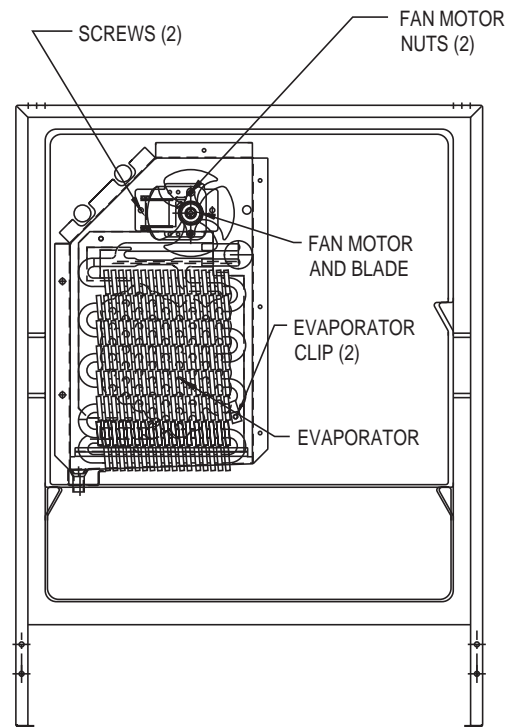
1. Disconnect from power source.
2. Disconnect ice maker wires in back of unit.
3. Remove screws (3) from freezer housing.
4. Slide out freezer housing with ice maker unit attached.
5. Remove screws (4) from evaporator cover.
6. Slide evaporator cover out of clips (2).

To remove fan blade/motor:

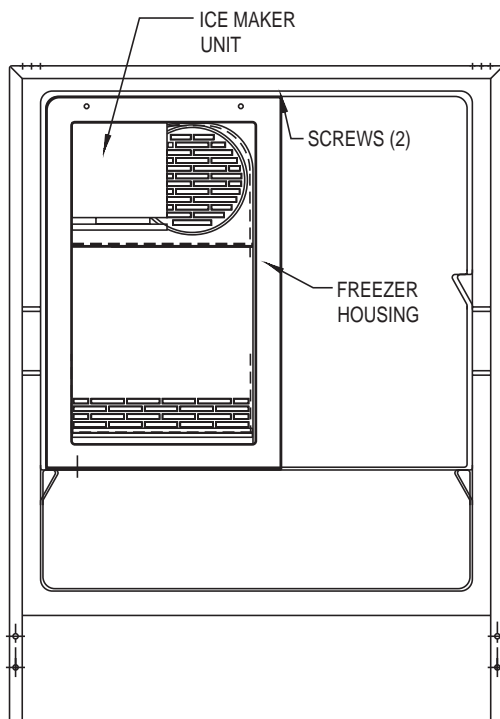
1. Disconnect fan wires in the back of unit.
2. Remove fan blade by sliding off fan motor shaft.
3. Remove screws (2) from fan motor mounting bracket.
4. Remove mounting nuts (2) from fan motor studs.

To remove evaporator:

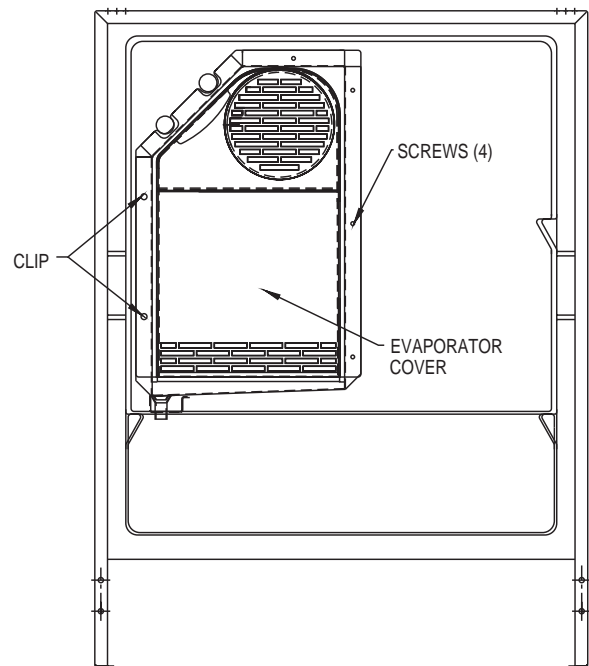
1. Disconnect copper tubing. Be sure to reclaim, recycle or recover refrigerant.
2. Remove screw from evaporator clip (2).
3. Slide out evaporator.



UL183-18



UL183-16



UL183-17

Service and Parts Manual

Model Combo 75RF

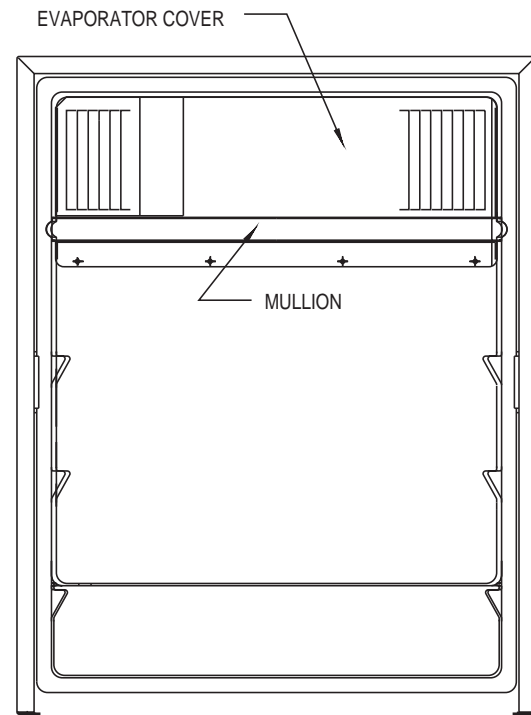
1. Disconnect from power source.
2. Remove freezer door.
3. Slide out mullion.
4. Remove screws.

To remove fan blade/motor:

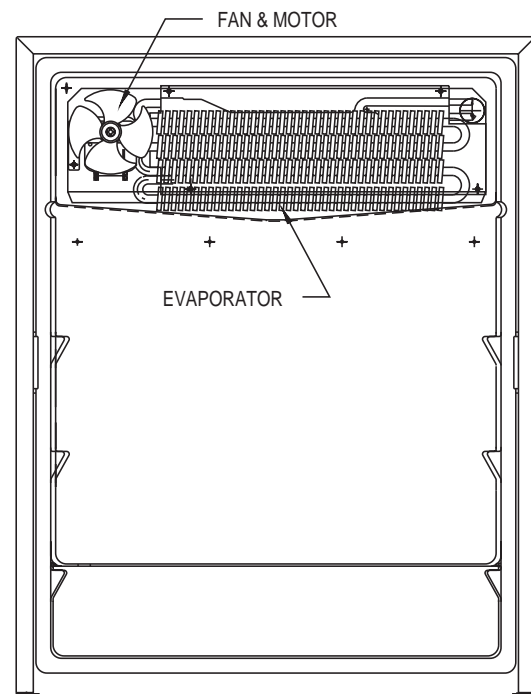
1. Disconnect fan wires in the back of unit.
2. Remove fan blade by sliding off motor shaft.
3. Remove screws (2) from mounting bracket.
4. Remove nuts from fan motor studs.

To remove evaporator:

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



UL183-19



UL183-20

TROUBLESHOOTING



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

1. Will not eject ice (water frozen)

Cause	Remedy
■ Control setting too cold	■ Adjust control warmer (counterclockwise)
■ Control defective (1-2 contacts open)	■ Replace control
■ Bin switch defective	■ Replace bin switch
■ Limit switch defective (open)	■ Replace limit switch
■ Ice maker assembly motor stalled	■ Replace motor
■ Broken wire in ice maker circuit	■ Repair or replace wiring
■ Water soaked cabinet insulation	■ Replace foamed cabinet assembly
■ Dirty condenser	■ Clean condenser

2. Will not fill with water

Cause	Remedy
■ Water supply valve closed	■ Open water supply valve
■ Water switch defective (open)	■ Replace water switch
■ Solenoid valve defective	■ Replace solenoid valve
■ Fill tube outlet frozen	■ Replace solenoid valve and defrost fill tube
■ Broken wire in water fill circuit	■ Repair or replace wiring

3. Will not stop making ice

Cause	Remedy
■ Bin switch defective (closed)	■ Replace bin switch
■ Bin arm binding	■ Lubricate bin arm pivot points or loosen bin arm lever screw

4. Water will not stop filling

Cause	Remedy
■ Water switch defective (closed)	■ Replace water switch
■ Solenoid valve defective	■ Replace solenoid valve
■ Stalled ice maker motor	■ Replace motor
■ Temperature control defective. Ice maker is in continuous harvest cycle (contacts 1-2 closed)	■ Replace temperature control

5. Ejector blades will not stop turning

Cause	Remedy
■ Control defective (1-2 contacts will not open)	■ Replace control
■ Hold switch defective	■ Replace hold switch
■ Defective wiring	■ Repair or replace wiring
■ Short in mold heater	■ Replace heater

Service and Parts Manual

6. Low ice production

Cause	Remedy
■ Control set too cold	■ Adjust control warmer (counterclockwise)
■ Fan motor stalled	■ Replace fan motor
■ Ice cubes too large	■ Lower water fill adjustment
■ Dirty condenser	■ Clean condenser
■ Bypass valve stuck open	■ Replace bypass valve

7. Not freezing (compressor and fan motors operating)

Cause	Remedy
■ Little or no frost pattern on evaporator	■ Check for sealed system leak or restriction
■ Bypass valve stuck open	■ Replace bypass valve

8. Not freezing (compressor not operating - fans operating)

Cause	Remedy
■ Relay defective	■ Replace relay
■ Overload defective (open)	■ Replace overload
■ Compressor defective	■ Replace compressor

9. Not freezing (compressor and fans not operating)

Cause	Remedy
■ On-Off switch defective (open)	■ Replace On-Off switch
■ Hold switch defective (open)	■ Replace hold switch
■ Control defective (2-3 contacts open)	■ Replace control
■ Broken wire in freeze circuit	■ Repair or replace wiring
■ Power cord not plugged in	■ Plug in power cord
■ On-Off switch in off position	■ Put switch in on position
■ Ejector blades not in the freeze position (12:00)	■ Manually advance ejector blades to the 12:00 position (test ice maker and limit switch)

10. Compressor overheating

Cause	Remedy
■ Condenser air flow restricted	■ Remove restriction (clean condenser and grille)
■ Condenser fan blade obstructed	■ Remove blade restriction
■ Condenser fan motor stalled	■ Replace fan motor
■ Defective compressor	■ Replace compressor

11. Compressor will not stop operating

Cause	Remedy
■ Control set too cold	■ Adjust control warmer (counterclockwise)
■ Control defective (2-3 contacts will not open)	■ Replace control
■ Control sensing bulb not sensing mold temperature	■ Fully insert bulb into ice maker tube, routing bulb away from compressor discharge tube
■ Evaporator fan stalled	■ Remove obstruction or replace motor

12. Water leak (under unit)

Cause	Remedy
■ Water supply line leaking at solenoid valve inlet	■ Tighten or replace fitting

- Water line leaking at solenoid valve outlet ■ Replace water line and fitting
- Water line leaking at fill tube assembly ■ Tighten clamp or fill tube replace fill tube
- Defrost drain line not in drain pan ■ Position drain line in drain pan
- Crack in water line ■ Replace water line

13. Water leak (inside unit)

- | Cause | Remedy |
|---|--------------------------------------|
| ■ Ice maker assembly fill cup obstructed | ■ Remove obstruction. |
| ■ Fill ice cup and fill tube out of alignment | ■ Align fill tube and fill cup |
| ■ Water level too high | ■ Adjust water level |
| ■ Defrost drain plugged | ■ Ice in drain trough (refer to #16) |

14. Excessive frost build-up

- | Cause | Remedy |
|---|---|
| ■ Door gasket not sealing properly | ■ Adjust door hinges or replace door gasket |
| ■ Door out of alignment | ■ Adjust door hinges |
| ■ Water soaked cabinet insulation (factory repair only) | ■ Replace foamed cabinet assembly |
| ■ Light stays on when door is closed | ■ Repair or adjust light bracket |

15. Noisy

- | Cause | Remedy |
|---|---------------------------------|
| ■ Copper refrigeration tube touching cabinet | ■ Carefully adjust tubing |
| ■ Fan blade touching shroud | ■ Adjust fan mounting or shroud |
| ■ Fan blade obstruction (wiring, foam insulation, packaging material) | ■ Remove obstruction |

16. Ice build-up in drain trough or drainage problem (see page 20)

- | Cause | Remedy |
|--|---|
| ■ Obstructed drain cup or tube | ■ Clear obstruction |
| ■ Evaporator not touching drain trough | ■ Reposition evaporator to contact drain trough along entire length |
| ■ Kinked drain tube | ■ Reroute drain tube |
| ■ Drain trough spout and drain cup not aligned | ■ Align drain trough and drain cup |

17. Unit will not defrost

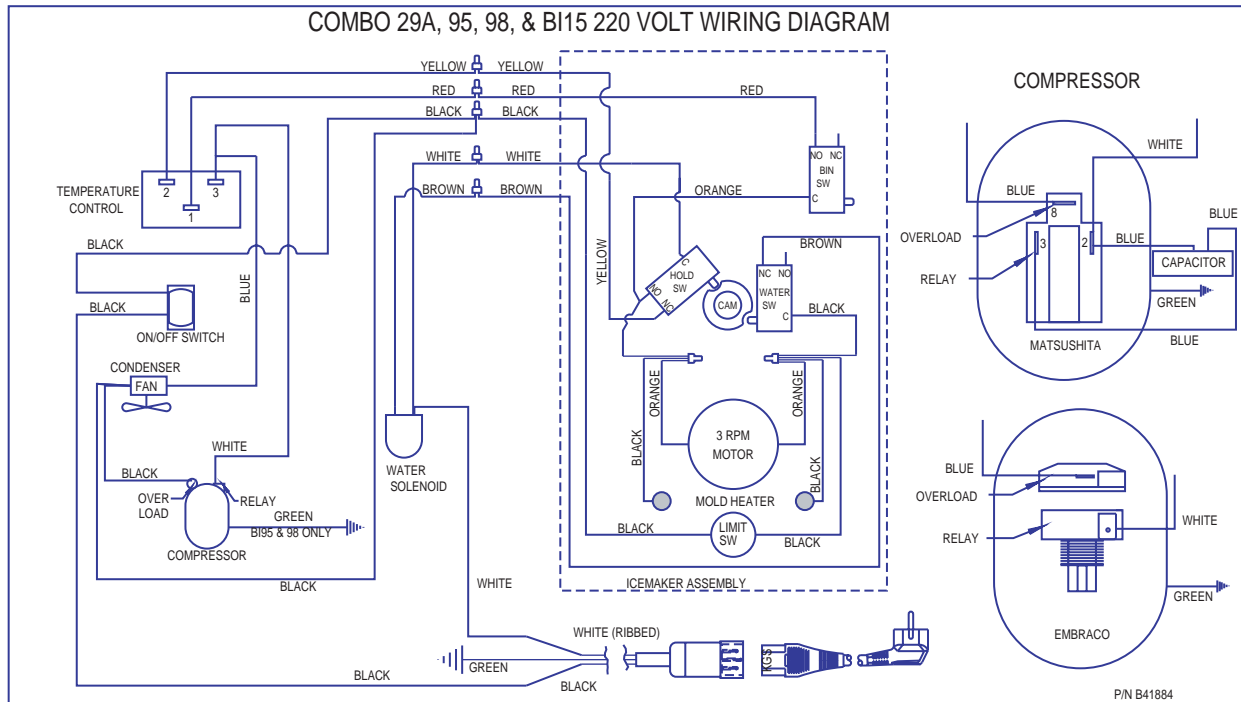
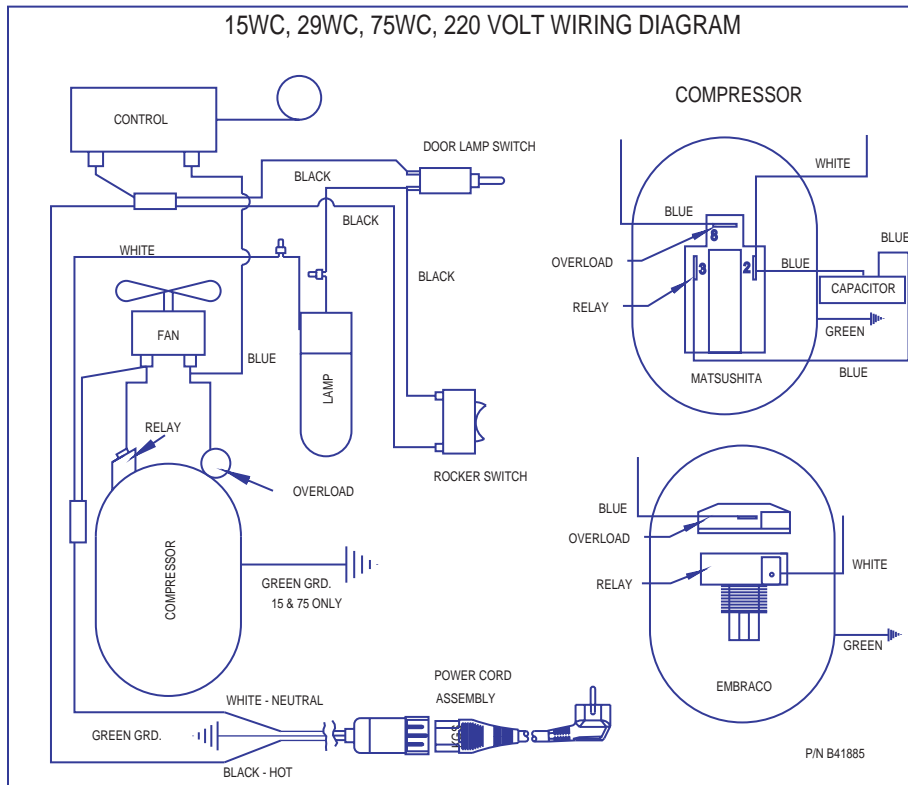
- | Cause | Remedy |
|--|--|
| ■ Bypass valve bent (will not operate) | ■ Align bypass valve and coil assembly |
| ■ Bypass coil defective | ■ Replace bypass valve |
| ■ Defrost timer defective | ■ Replace defrost timer |
| ■ Bypass valve defective | ■ Replace bypass valve |

18. Fresh food temperature too cold

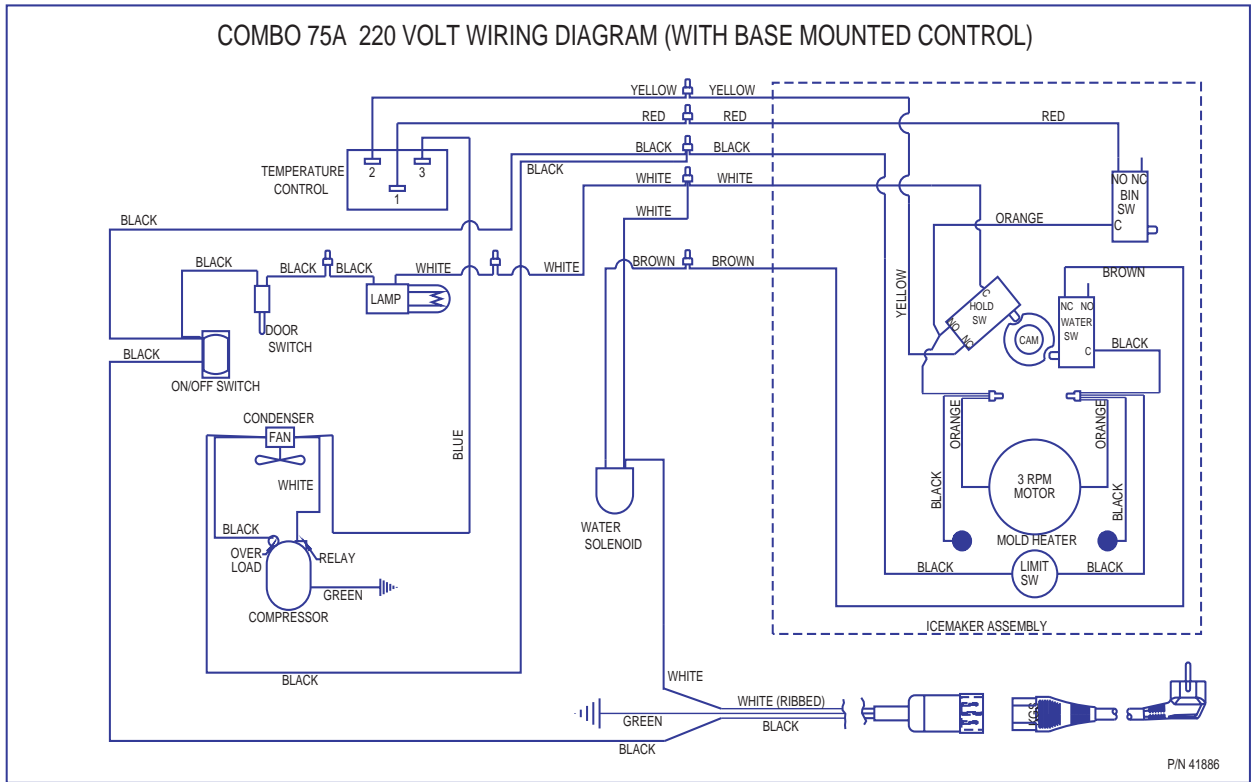
- | Cause | Remedy |
|---|------------------------------------|
| ■ Ice bucket not fully inserted | ■ Push ice bucket in place |
| ■ Temperature control set too cold (counterclockwise) | ■ Adjust control to warmer setting |
| ■ Air leak at evaporator cover | ■ Seal cover with RTV |

Service and Parts Manual

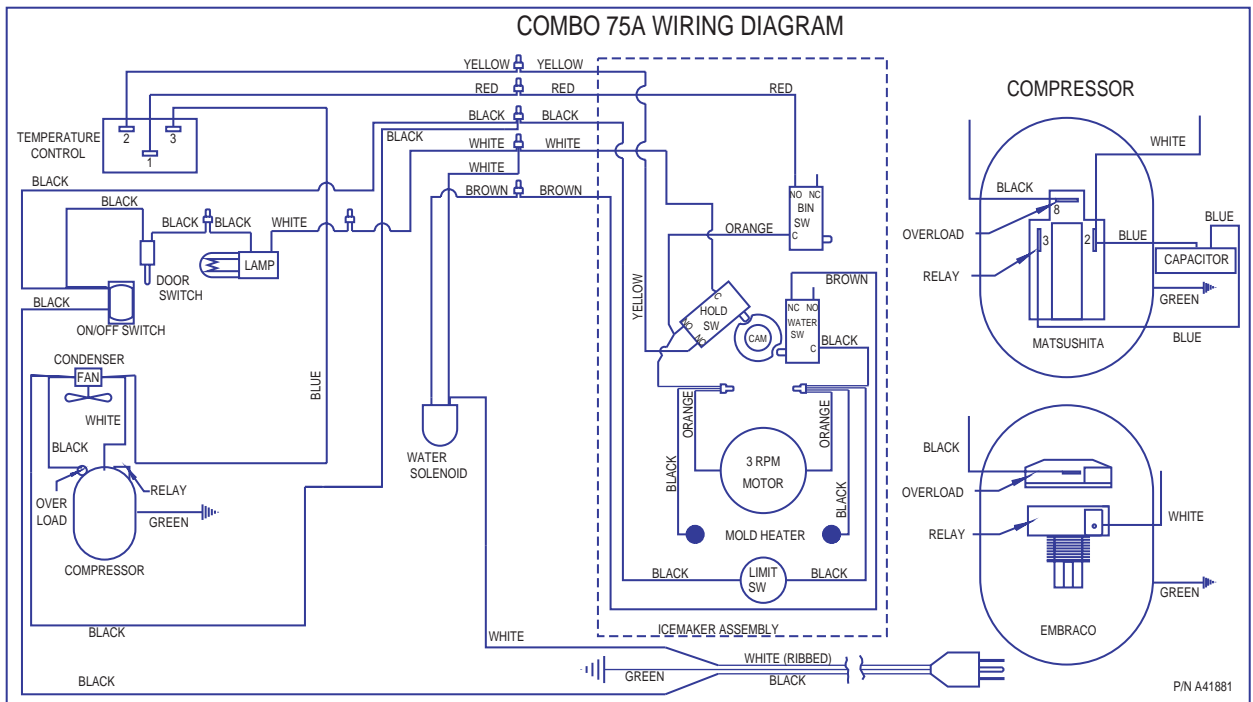
WIRING DIAGRAMS



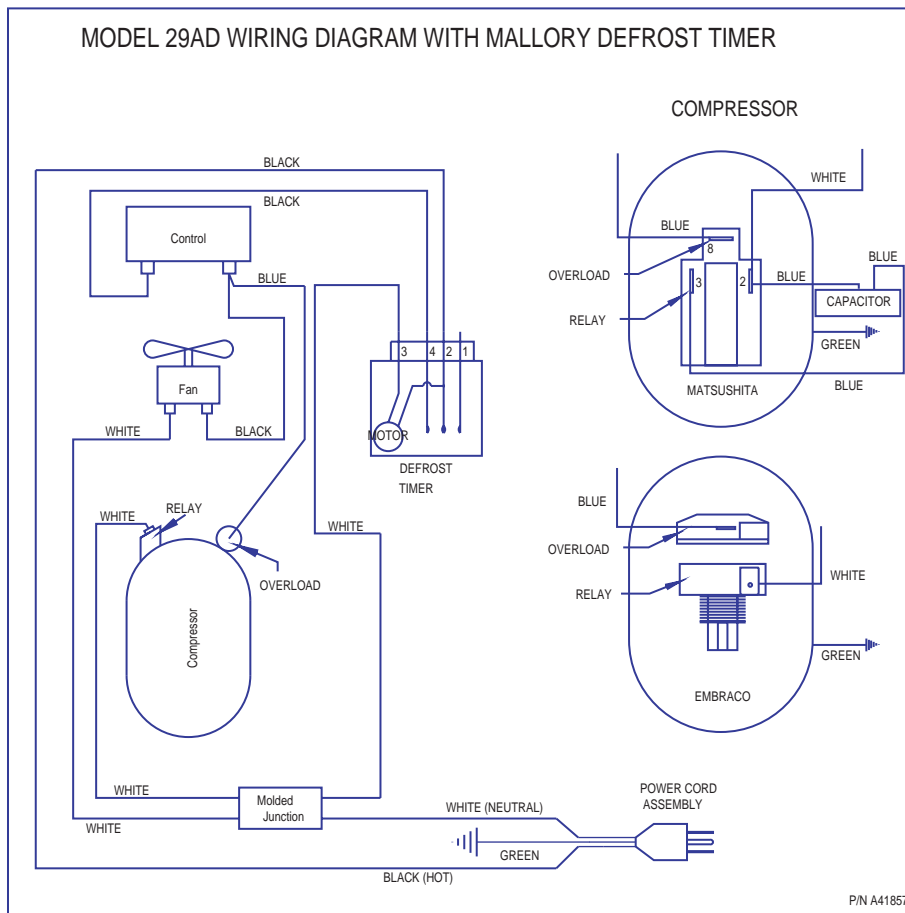
COMBO 75A 220 VOLT WIRING DIAGRAM (WITH BASE MOUNTED CONTROL)

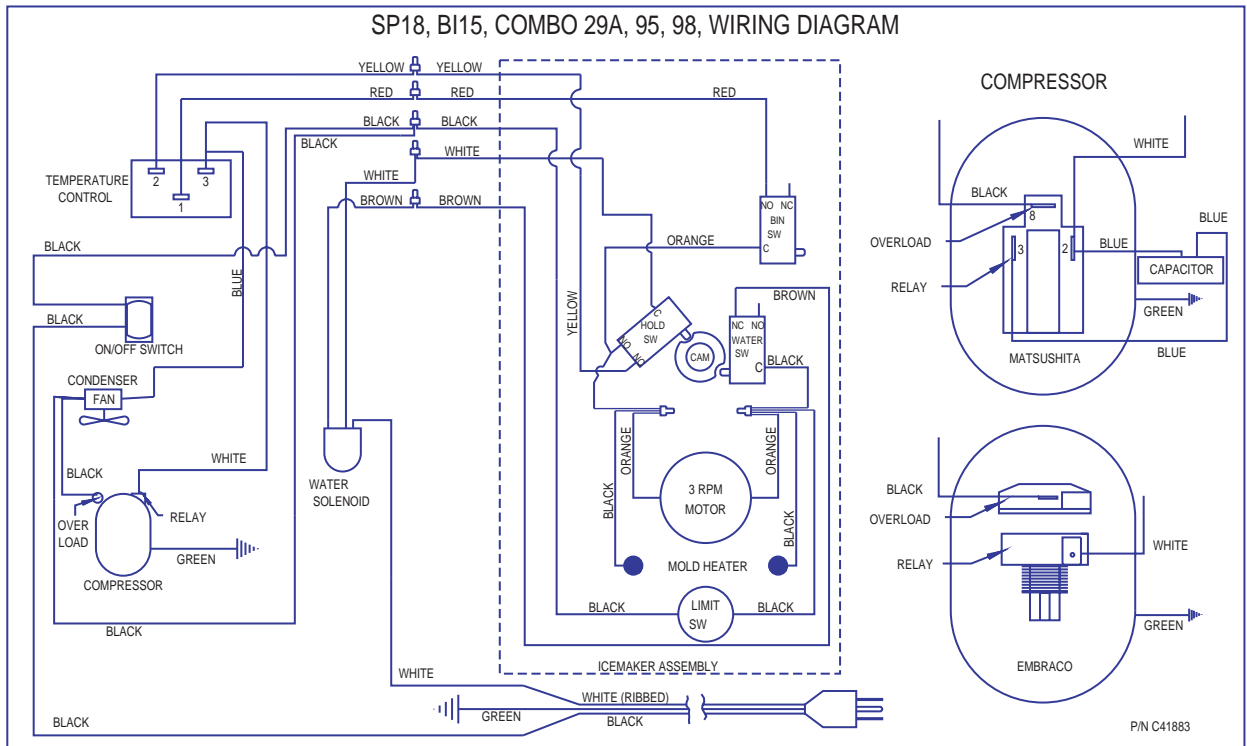
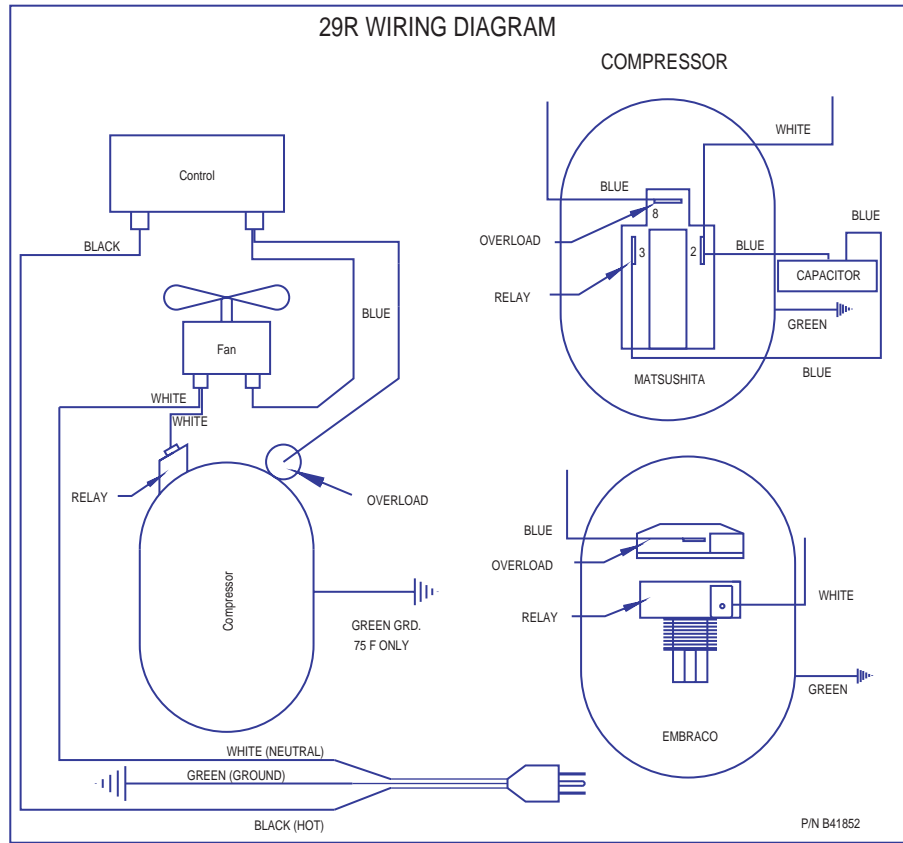


COMBO 75A WIRING DIAGRAM

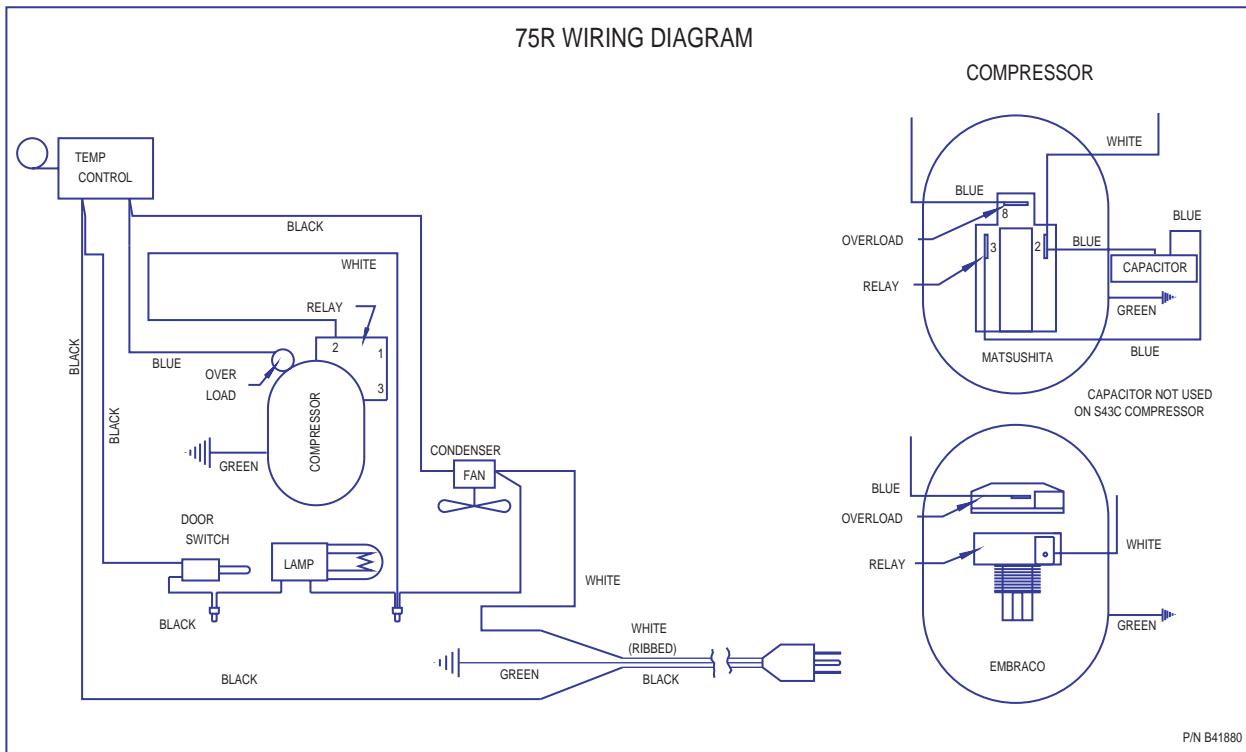
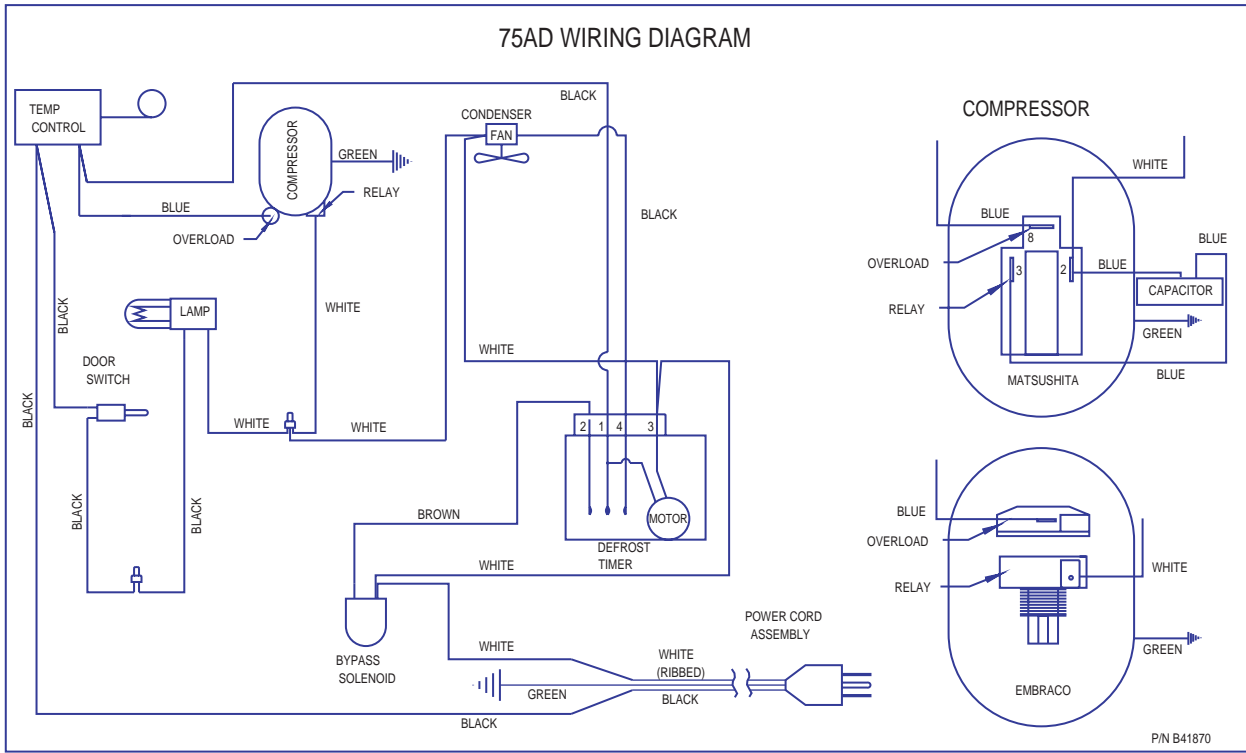


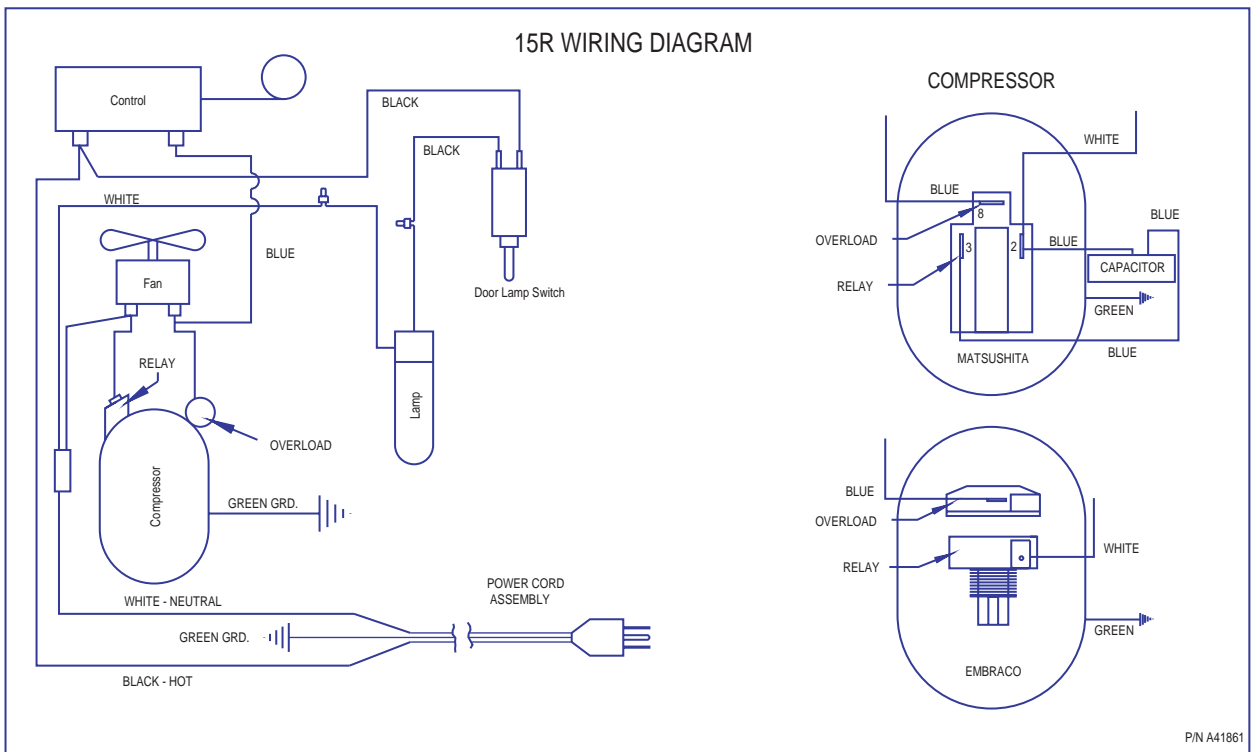
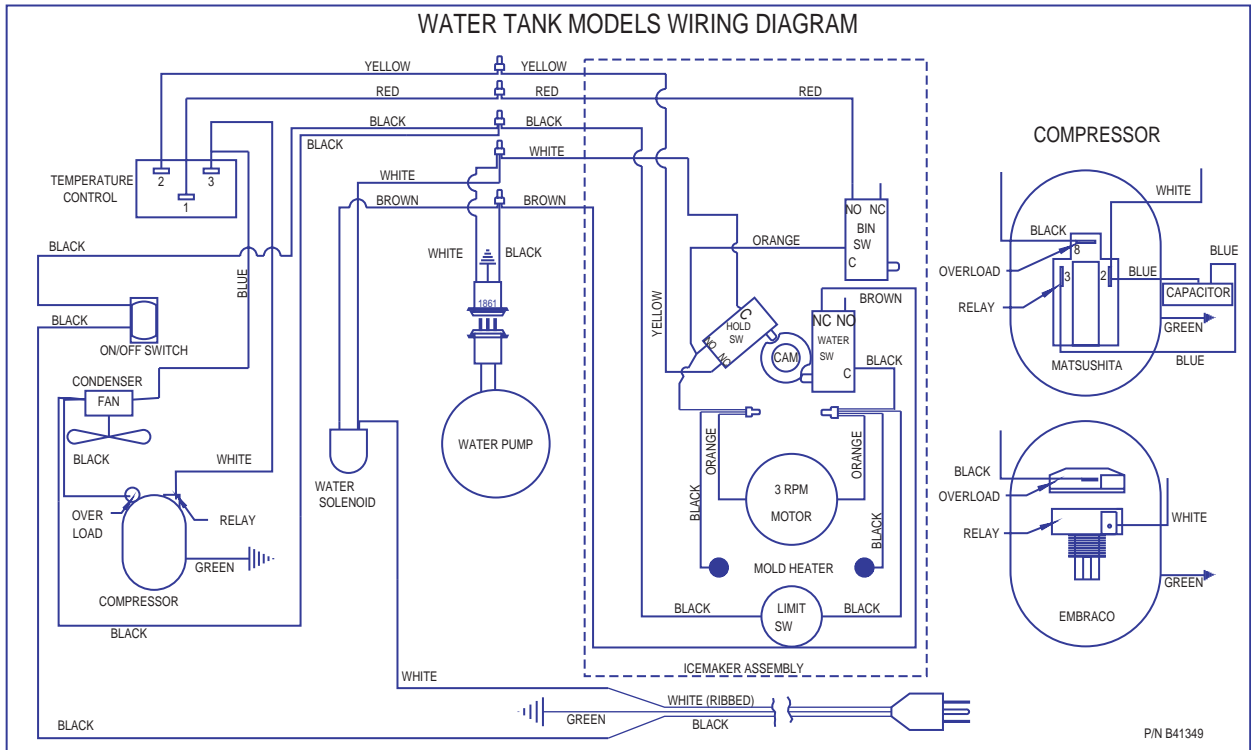
Service and Parts Manual



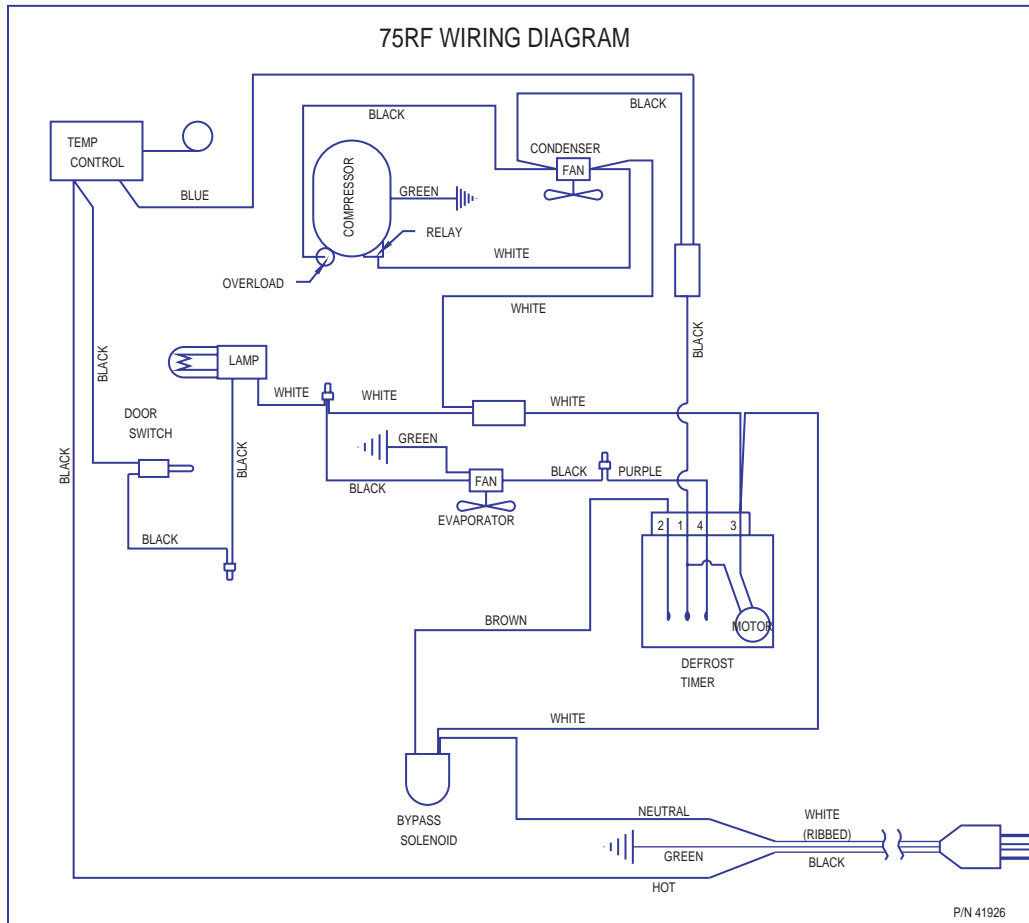


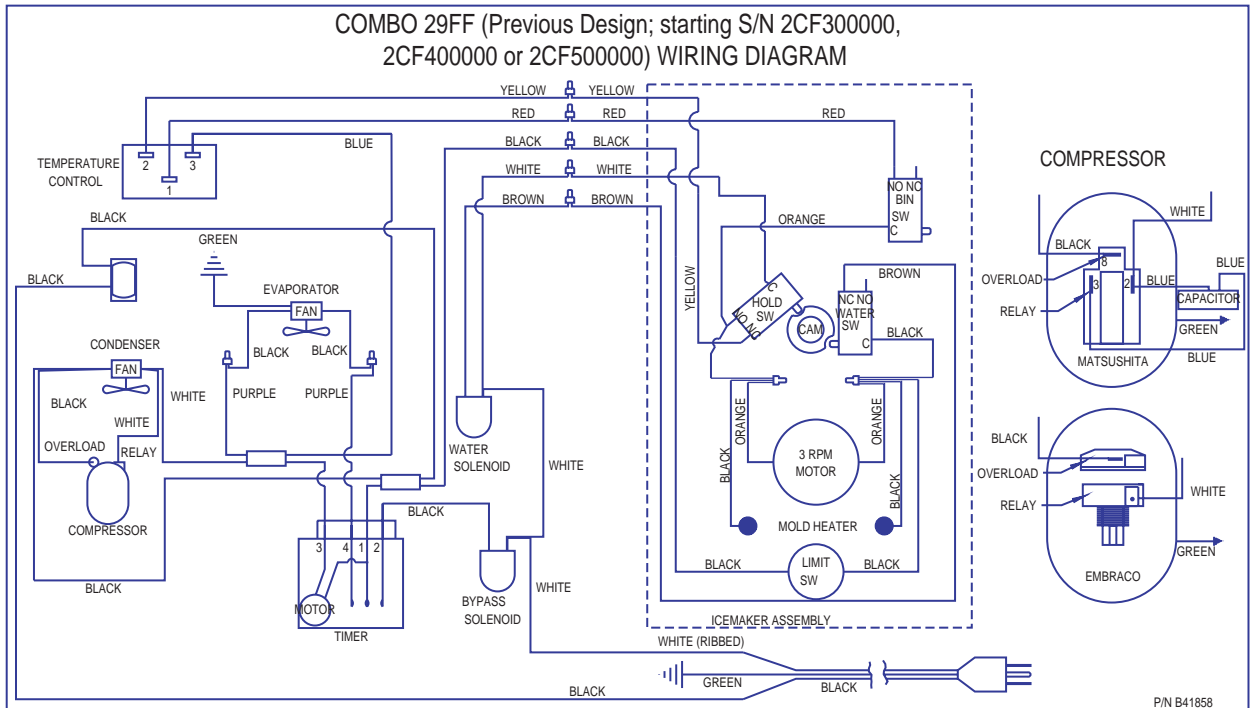
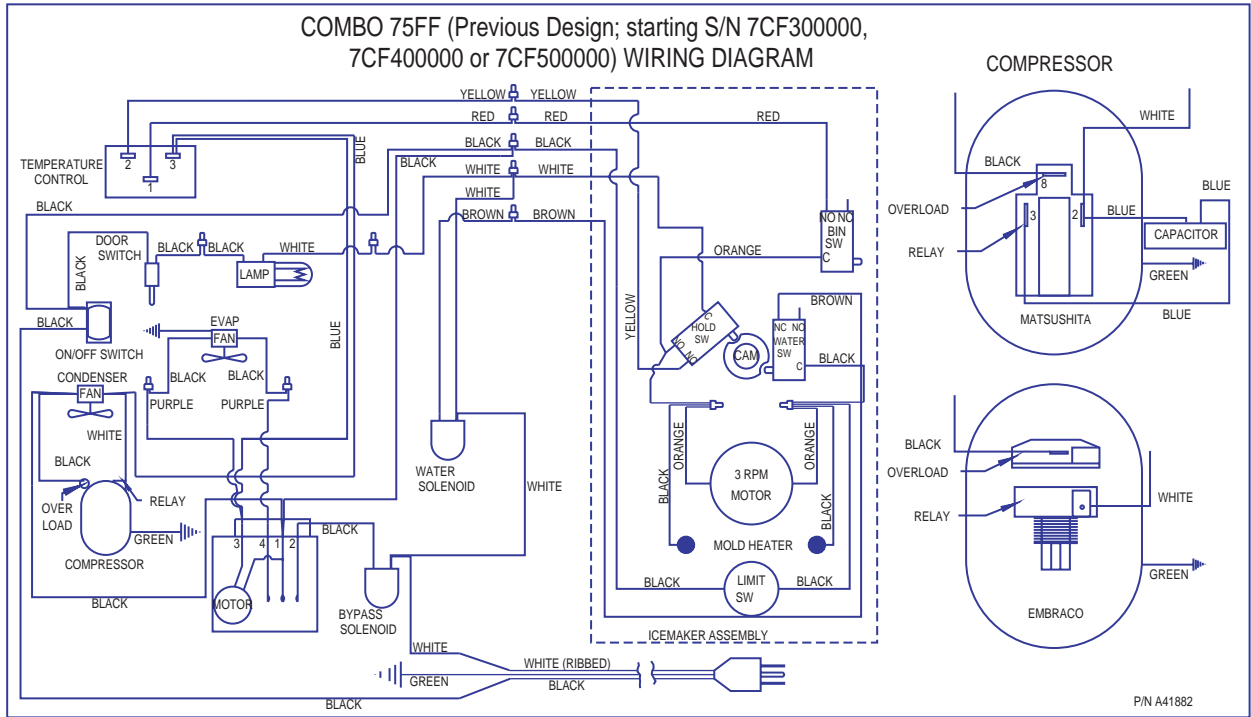
Service and Parts Manual





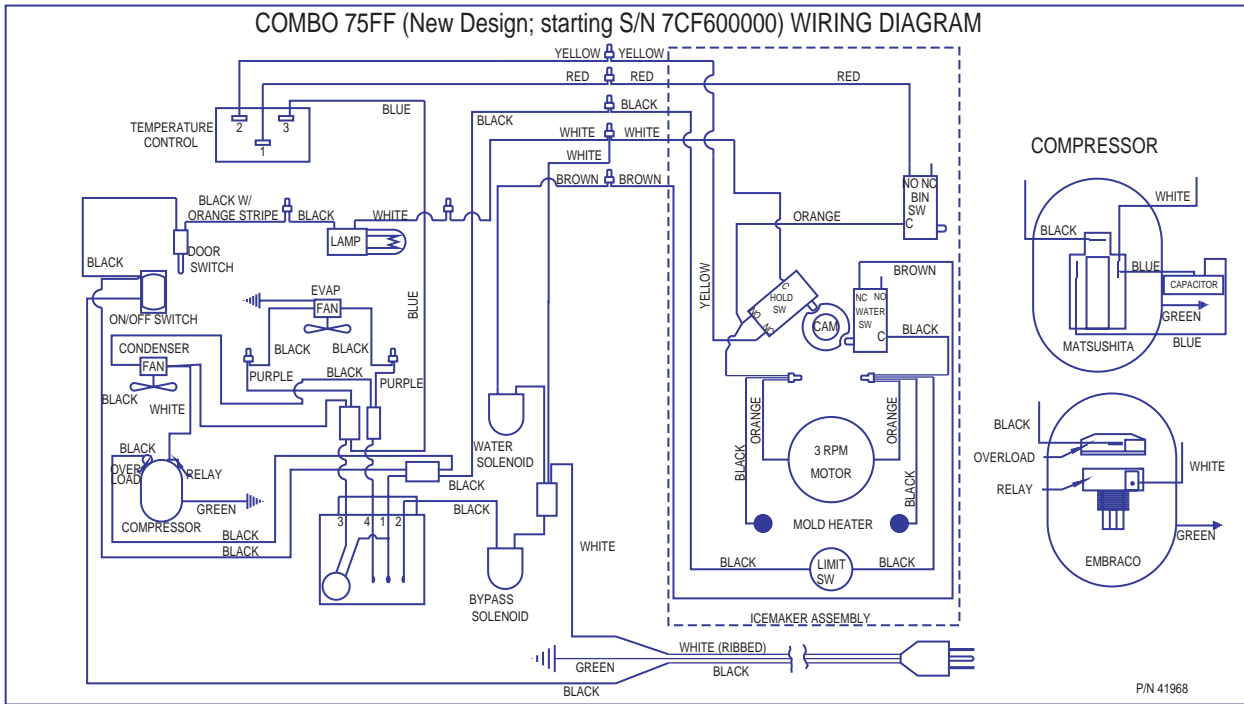
Service and Parts Manual



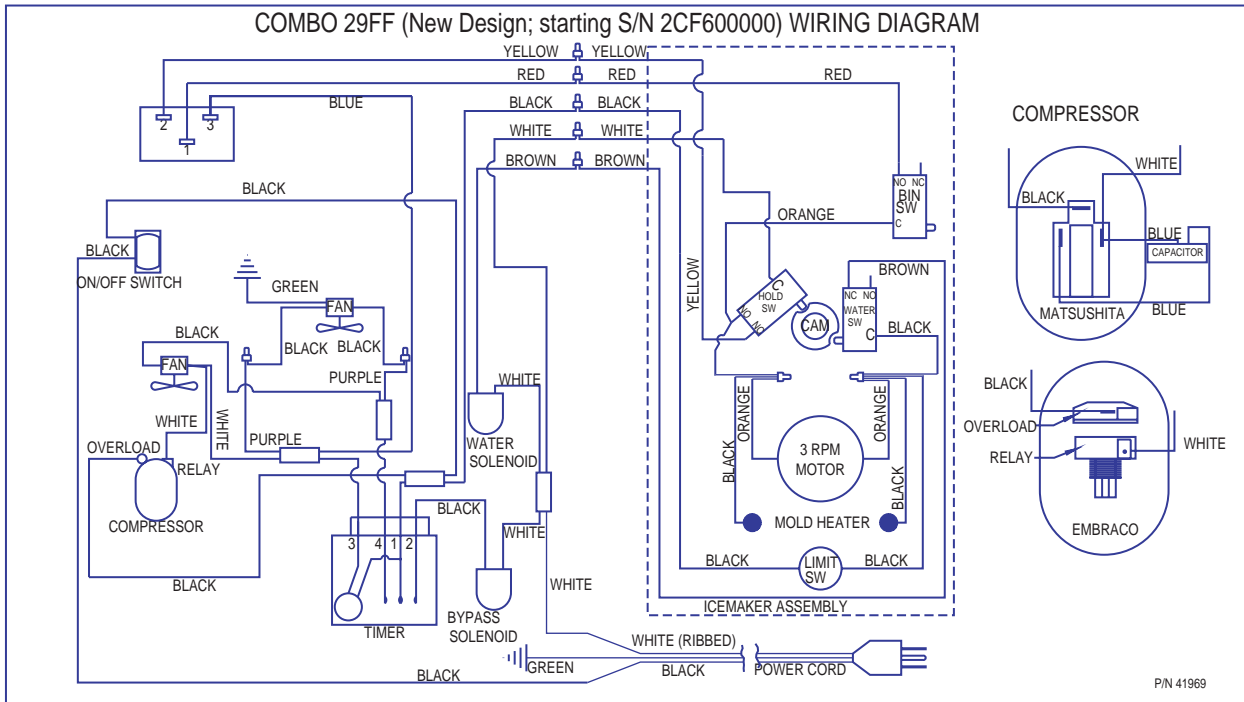


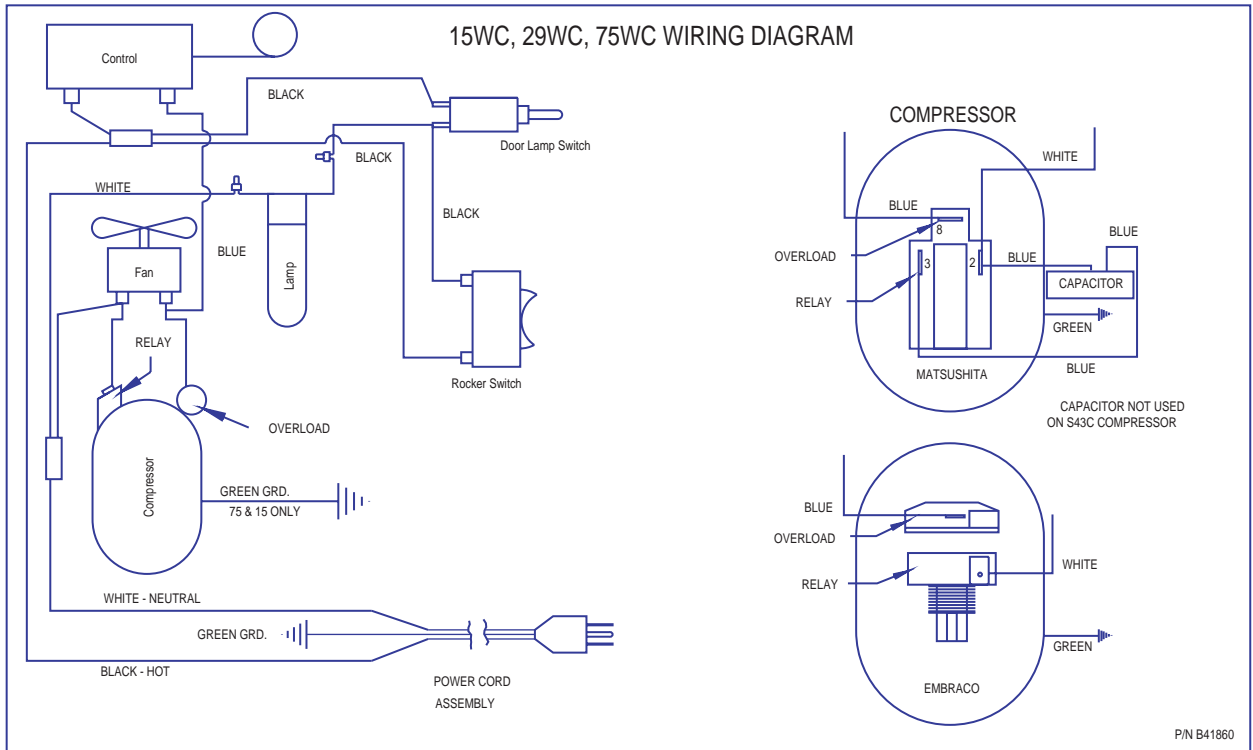
Service and Parts Manual

COMBO 75FF (New Design; starting S/N 7CF60000) WIRING DIAGRAM



COMBO 29FF (New Design; starting S/N 2CF60000) WIRING DIAGRAM





Service and Parts Manual

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 B115 Ice 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	Fan Motor (all models)	5195
627973	I.M. Motor (Ice Makers)*	628109
625843-S	Mold Heater*	626069-S
628123-S	Mold Heater Ass'y*	618
402	Ice Maker Ass'y*	619
2552A	Water Valve*	2555A
1844	Pump (95/98 Tank Model)*	1844-1
31317	Lamp Bulb	31318
5402-S	Compressor (Ice Makers)*	5404-S
5411	Overload**	5415
5412	Relay**	5416
150	Faceplate Ass'y*	650
5400-S	Compressor (Wine Captains)**	5403-S
5414	Relay	5418
5413	Overload*	5417

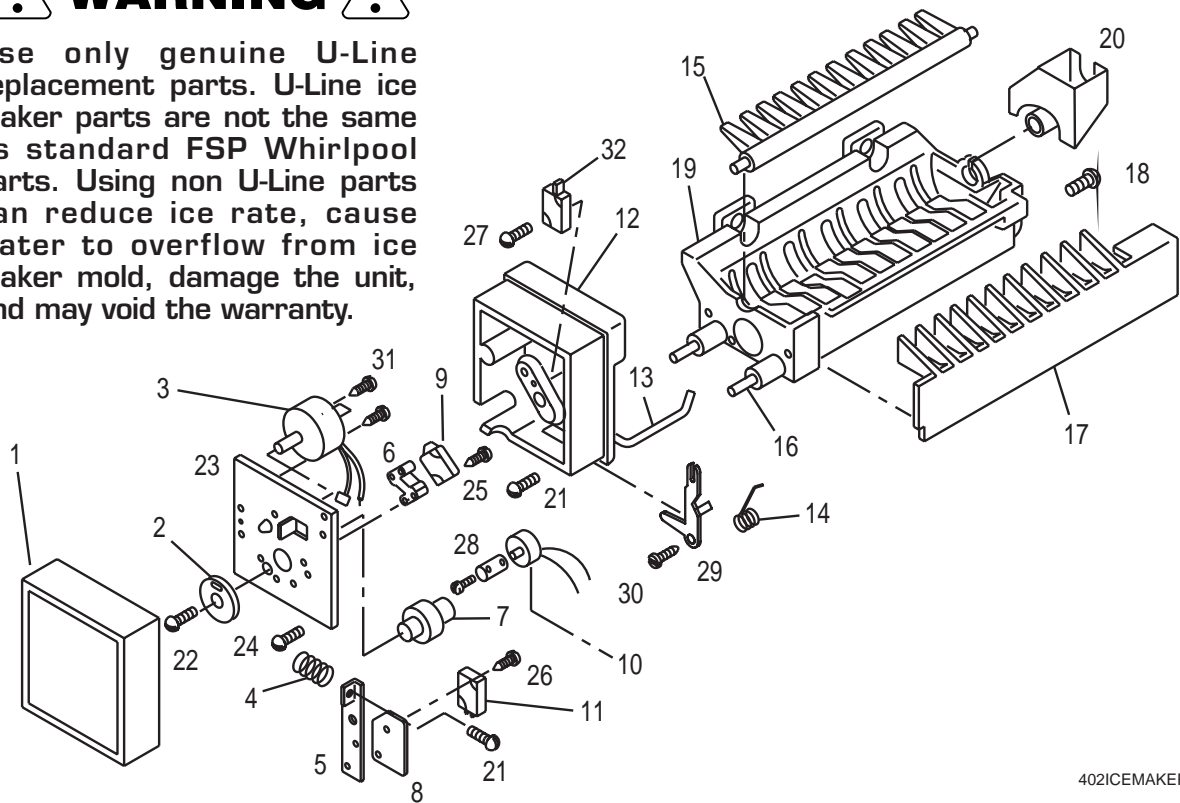
* Parts used on models 95/98 Ice Makers, and B115 Ice Makers, the PBCM 95/98 Tank Model Ice Makers, Combo 29A, and Combo 75A.

** Parts used on the 15WC, 29WC and 75WC Wine Captains.

MODEL 40Z ICE MAKER

⚠ WARNING ⚠

Use only genuine U-Line replacement parts. U-Line ice maker parts are not the same as standard FSP Whirlpool parts. Using non U-Line parts can reduce ice rate, cause water to overflow from ice maker mold, damage the unit, and may void the warranty.



40ZICEMAKER

Item	Description	Part No.	Item	Description	Part No.
-	Ice 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*
3	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*	29	Arm Lever	625830
10	Limit Switch	2579	30	Arm Lever Screw	627199
11	Valve Switch	2506*	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			

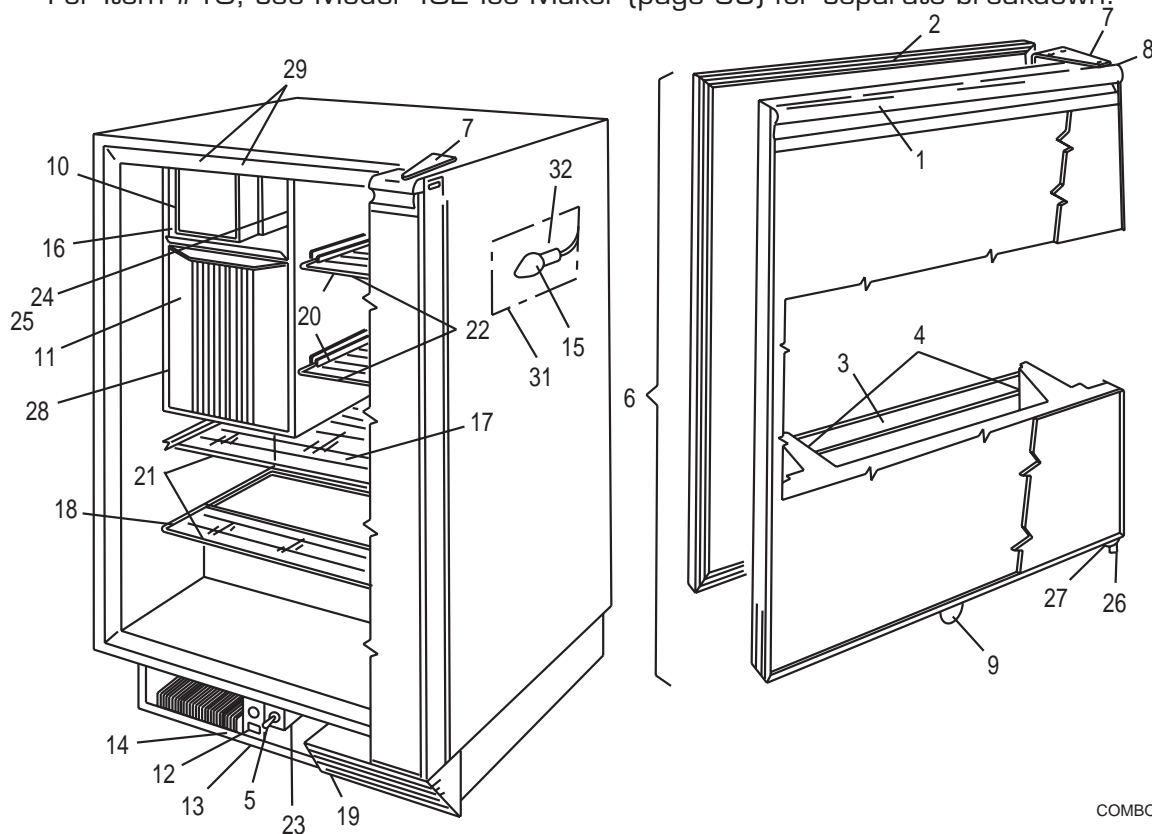
*Parts included in the 150 faceplate assembly.

Service and Parts Manual

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

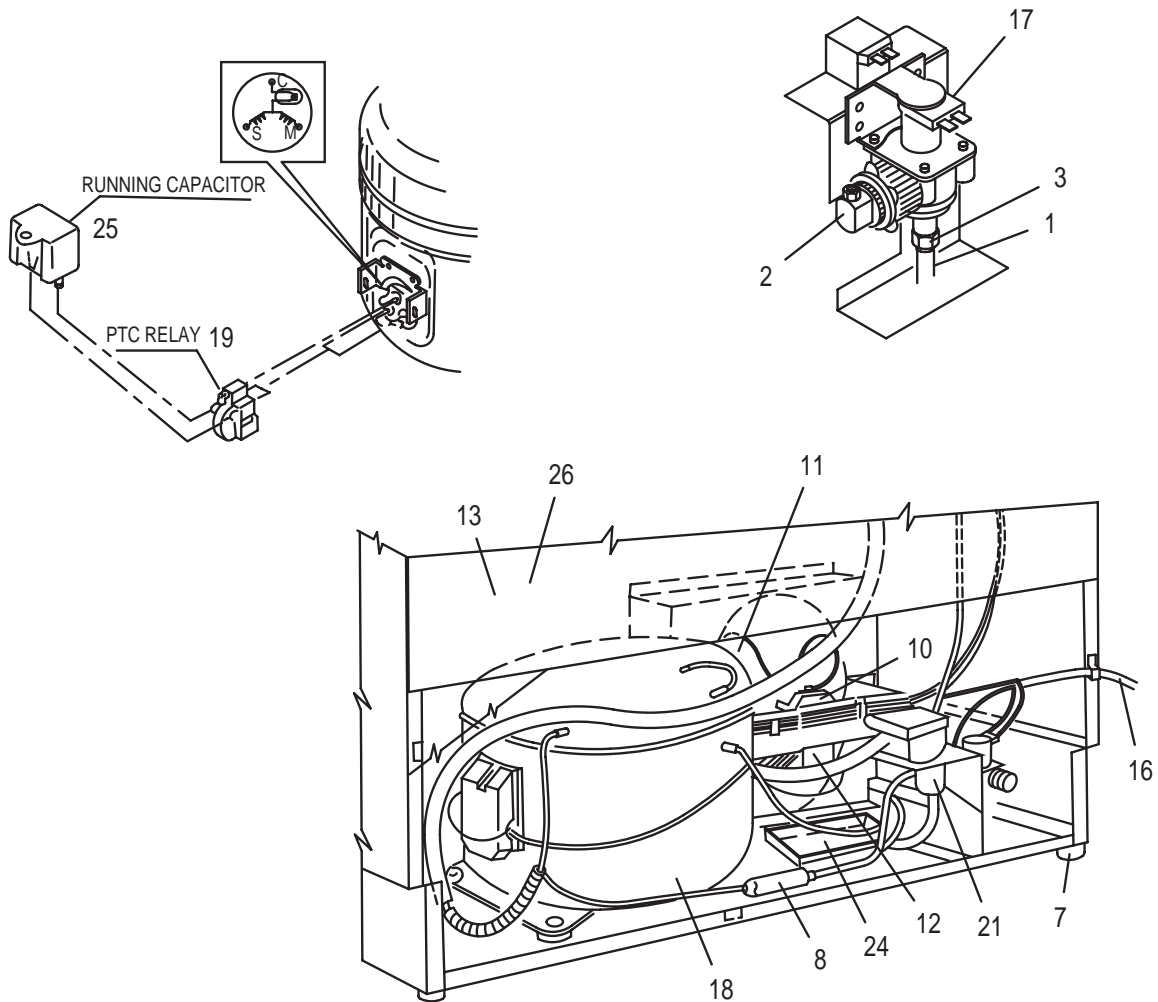
Item	Description	Part No.	Item	Description	Part No.
1	Handle	31489-4*	17	Glass Shelf (1)	31427-1
2	Door Gasket	31493-4*	18	Glass Half Shelf (1)	31435
3	Door Shelf Retainers (3)	31521-1	19	Grille	11664*
4	Shelf Retainer Rivet (6)	41824	20	Glass Short Shelf (2)	31423-1
5	Door Switch	1916	21	Trim Strip, Front Long (2)	31443-4
6	Door Ass'y	75-DOOR*	22	Trim Strip, Front Short (2)	31443-2
7	Hinge, Top, 3 Hole	11679-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	Ice Maker Ass'y	402		Hinge, Bottom, 4 Hole	11849-SB*
11	Ice 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

*Please indicate color.

**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

Item	Description	Part No.	Item	Description	Part No.
1	Water Line	404FF	16	Power Cord	2242
2	Water Line Connection	41826	17	Solenoid Valve	2552A
3	Plastic Nut & Sleeve Ass'y	41254	18	*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.

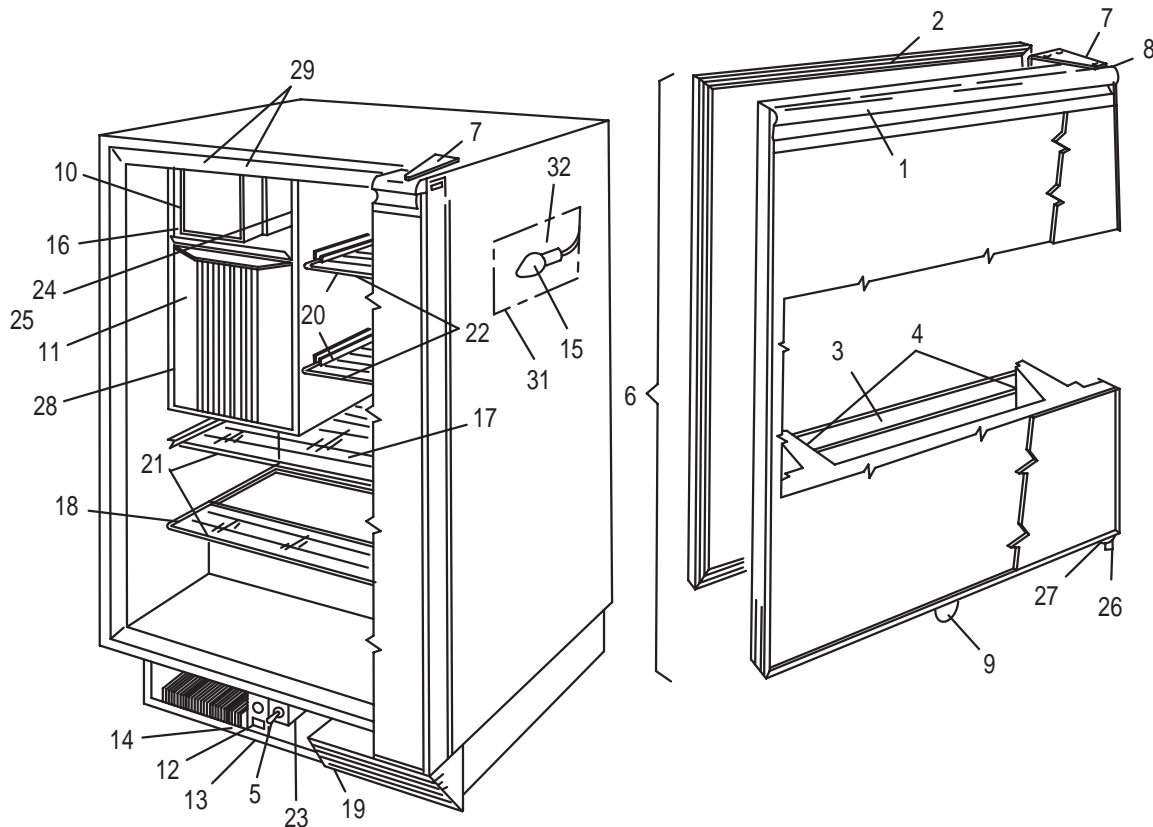
*** Replaces P/N's 5413 & 5414 through installation of kit.

Service and Parts Manual

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.



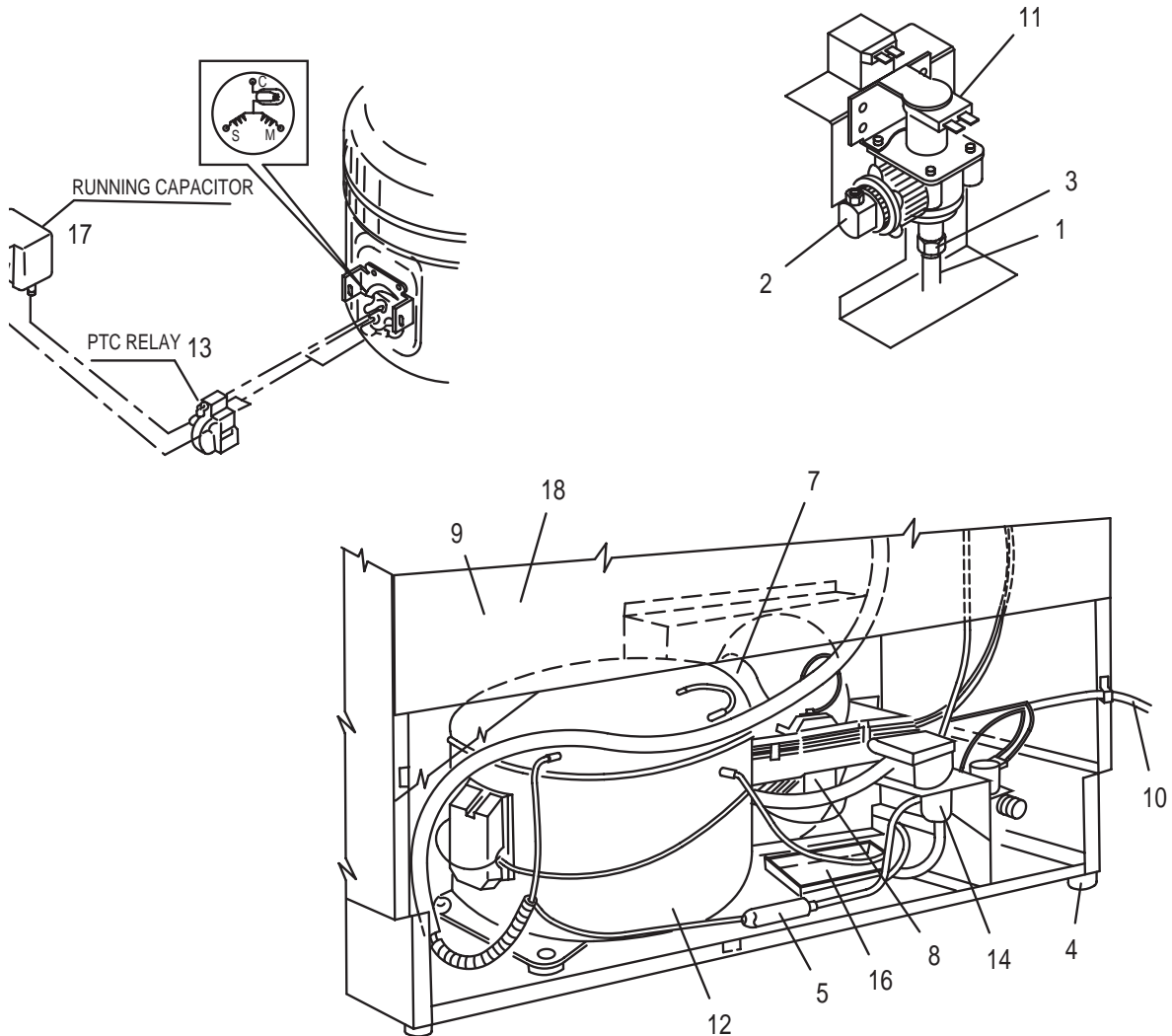
COMBO75FFc

Item	Description	Part No.	Item	Description	Part No.
1	Handle	31789-4*	17	Glass Shelf (1)	31427-1
2	Door Gasket	31493-4*	18	Glass Half Shelf (1)	31435
3	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
10	Ice Maker Ass'y	402	26	Hinge, Bottom	11849-SB*
11	Ice 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

*Please indicate color

COMBO 75FF (2 of 2)

New Design Starting With Serial Numbers
7CF600000



COMBO75FFd

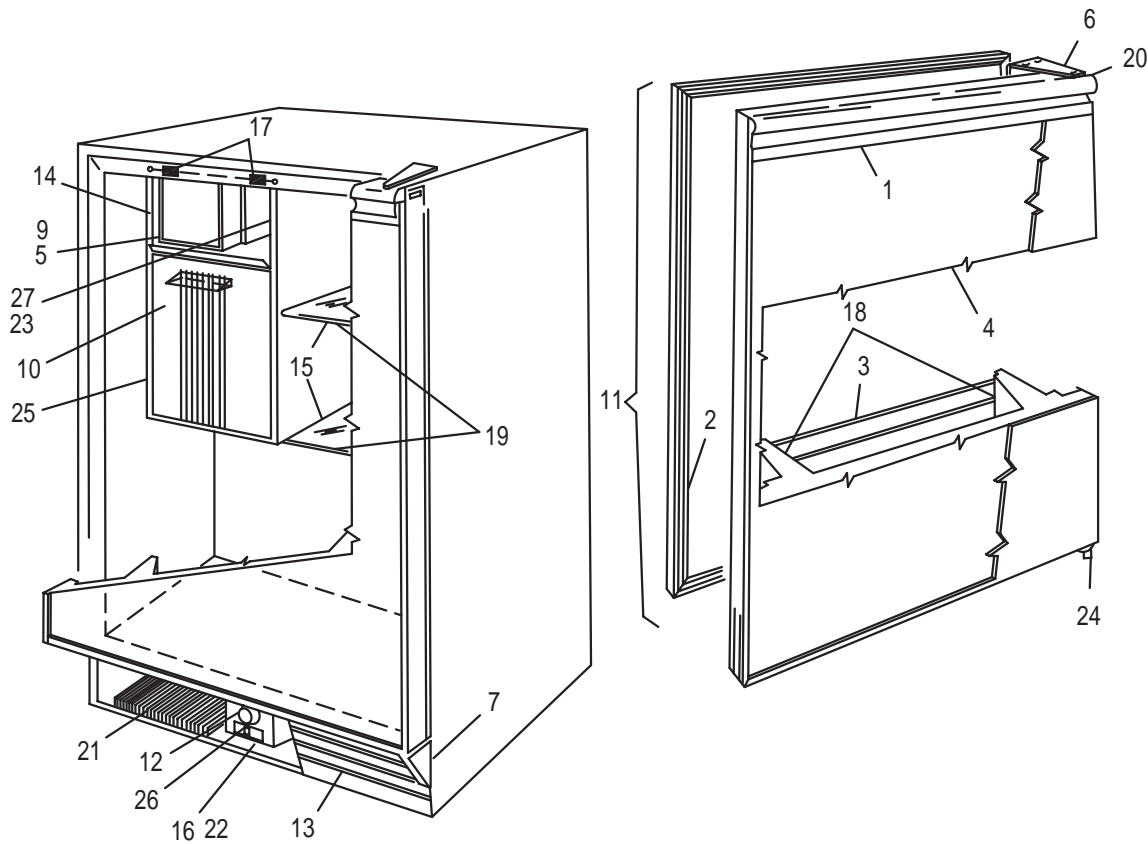
Item	Description	Part No.	Item	Description	Part No.
1	Water Line	404FF	10	Power Cord	2292
2	Water Line Connection	41826	11	Solenoid Valve	2552A
3	Plastic Nut & Sleeve Ass'y	41254	12	Compressor	5405-FFS
4	Cabinet Foot (4)	41319	13	Relay/Overload	5421
5	Dryer	2692	14	Bypass Valve Ass'y	2749-S
6	Fan Motor, Condenser	5300	16	Drain Pan	31550-1-F
7	Fan Blade, Condenser	5428	17	Capacitor	5422
8	Condenser	1951-FFS	18	Insulation	31612
9	Back Panel	11769			

Service and Parts Manual

COMBO 29FF (1 of 2)

Previous Design Starting With Serial Numbers
2CF300000, 2CF400000 or 2CF500000

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



COMBO29FFa
COMBO29FFa

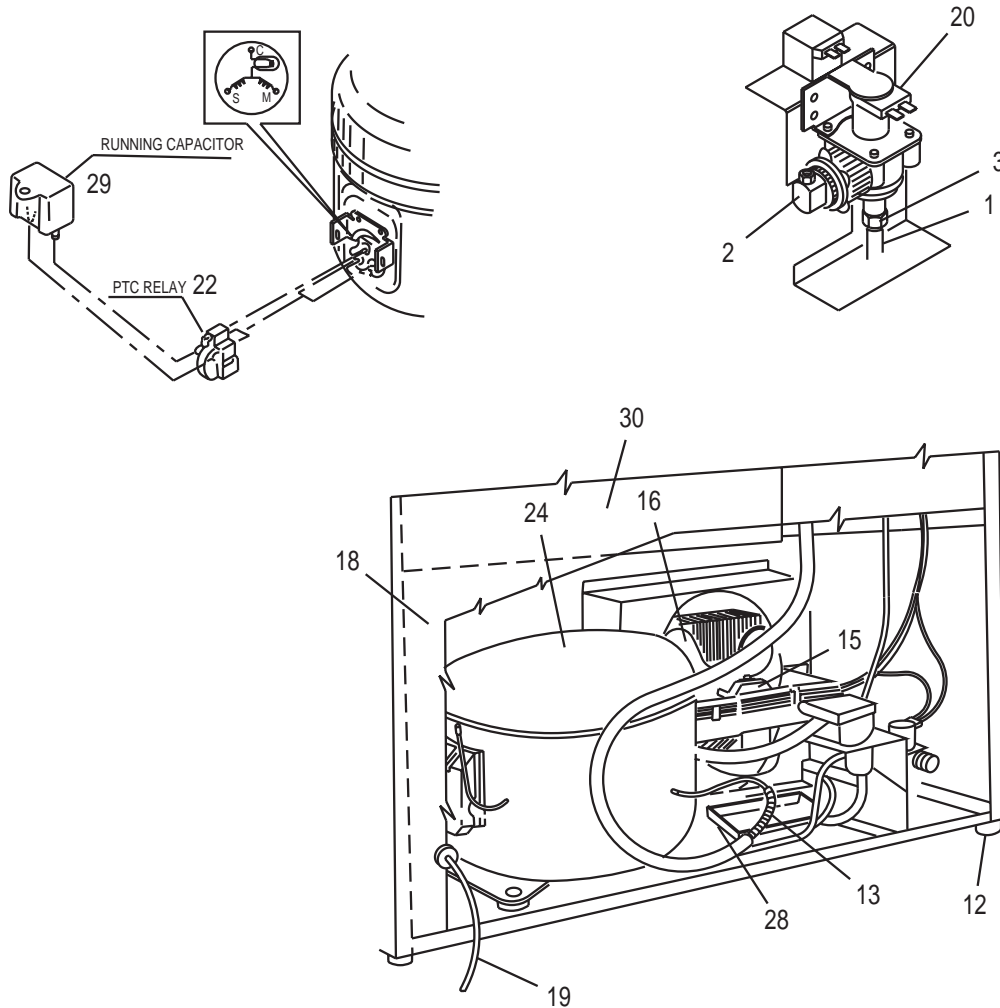
Item	Description	Part No.	Item	Description	Part No.
1	Handle	31489-3*	15	Glass Shelf (2) Short	31425-1
2	Door Gasket	31493-3*	16	Switch On-Off	2053
3	Door Shelf Retainer (Long)	31521-2	17	Ice Bin Door Hinge (2)	31463
4	Door Shelf Retainer (Short)	31521-3	18	Shelf Retainer Rivet (6)	41824
5	Fan Blade, Evaporator	31656	19	Trim Strip, Front Short (2)	31443-1
6	Pivot Hinge, Top	11697-ST*	20	Pivot Screw, Top	41785-SS*
7	Pivot Hinge, Bottom	11695-S*	21	Condenser	1893-FFS
9	Ice Maker Ass'y	402	22	**Timer	2632-1
10	Ice Bucket	31501	23	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

*Please indicate color.

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

COMBO 29FF (2 of 2)

Previous Design Starting With Serial Numbers
2CF300000, 2CF400000 or 2CF500000



COMBO29FFb

Item	Description	Part No.	Item	Description	Part No.
1	Water Line	404FF	19	Power Cord	2293
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.

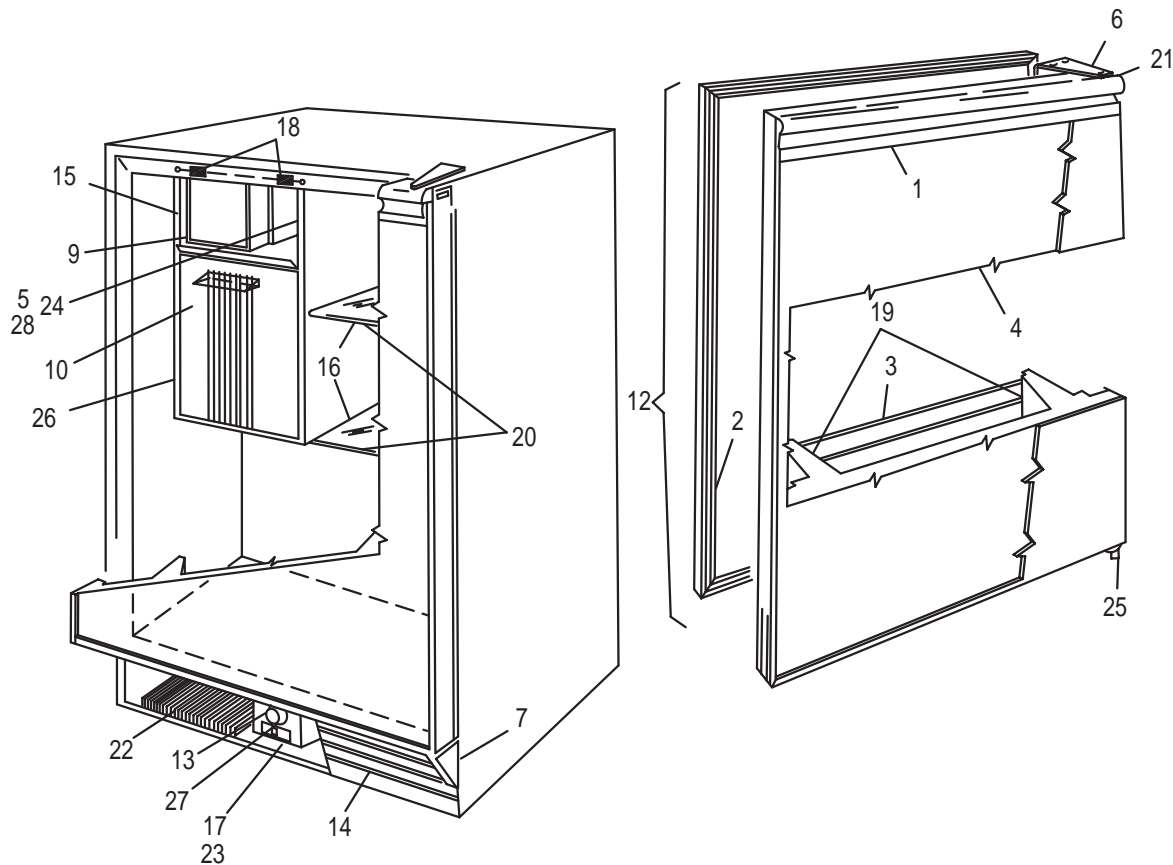
*** Replaces P/N's 5413 and 5414 through installation of kit.

Service and Parts Manual

COMBO 29FF (1 of 2)

New Design Starting With Serial Number
2CF600000

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



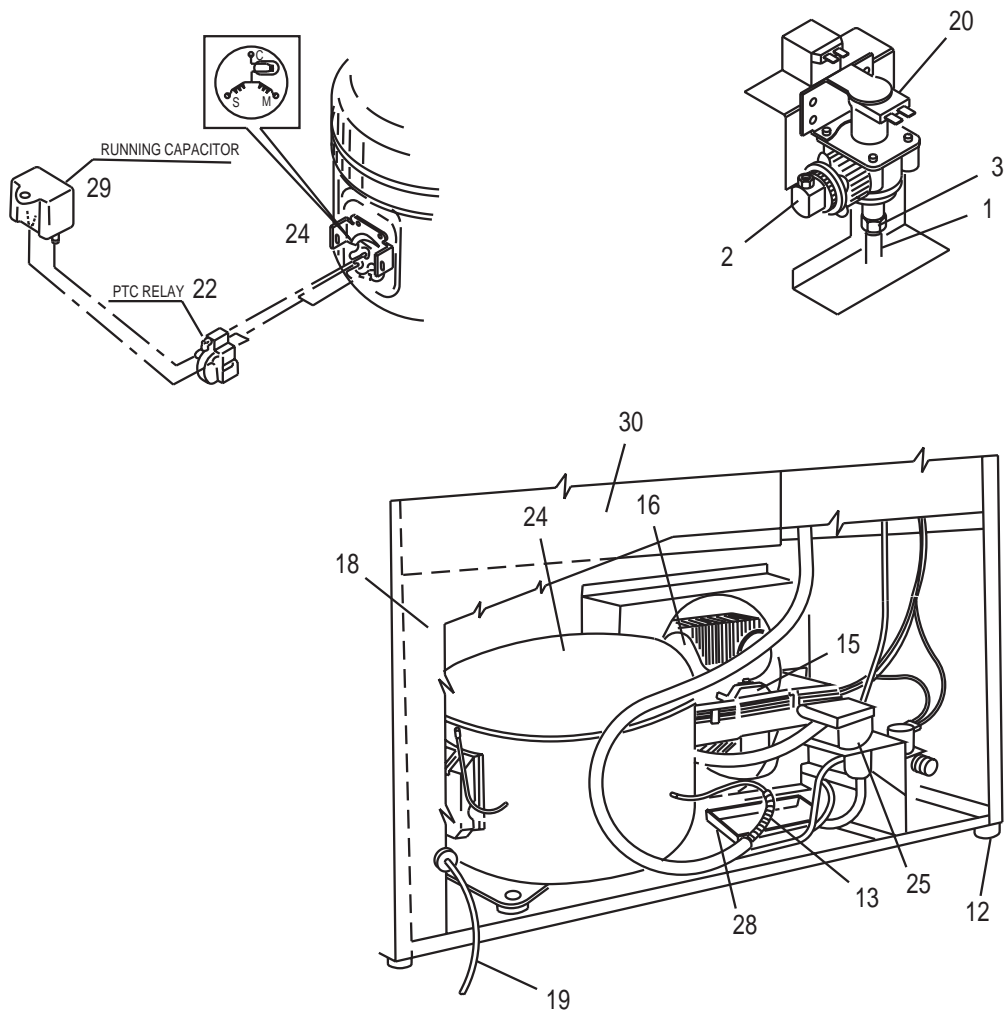
COMBO29FFc

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

*Please indicate color.

COMBO 29FF (2 of 2)

New Design Starting With Serial Numbers
2CF600000



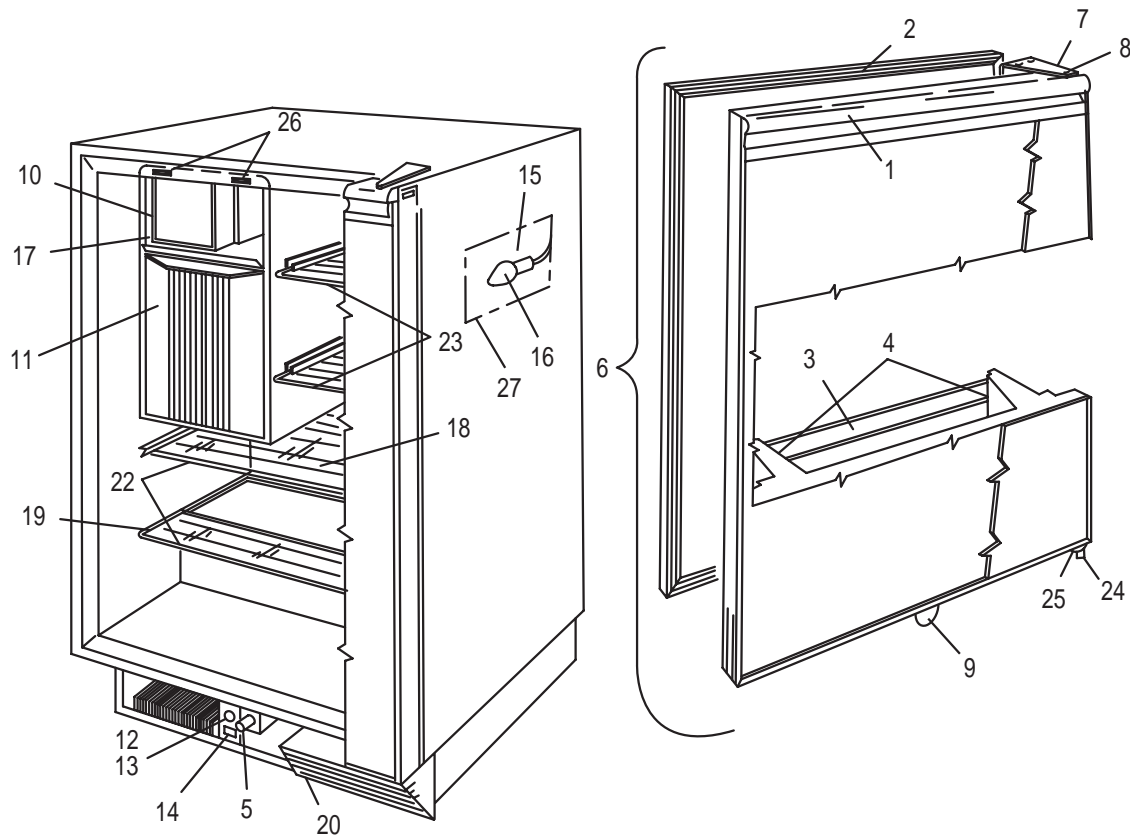
COMBO29FFd

Item	Description	Part No.	Item	Description	Part No.
1	Water Line	404FF	19	Power Cord	2293
2	Water Line Connection	41826	20	Solenoid Valve	2552A
3	Plastic Nut & Sleeve Ass'y	41254	22	Relay	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	5300	28	Drain Pan	31550-1-F
16	Fan Blade, Condenser	5428	29	Capacitor	5422
18	Back Panel	11545-1	30	Insulation	31622

Service and Parts Manual

COMBO 75A (1 of 2)

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

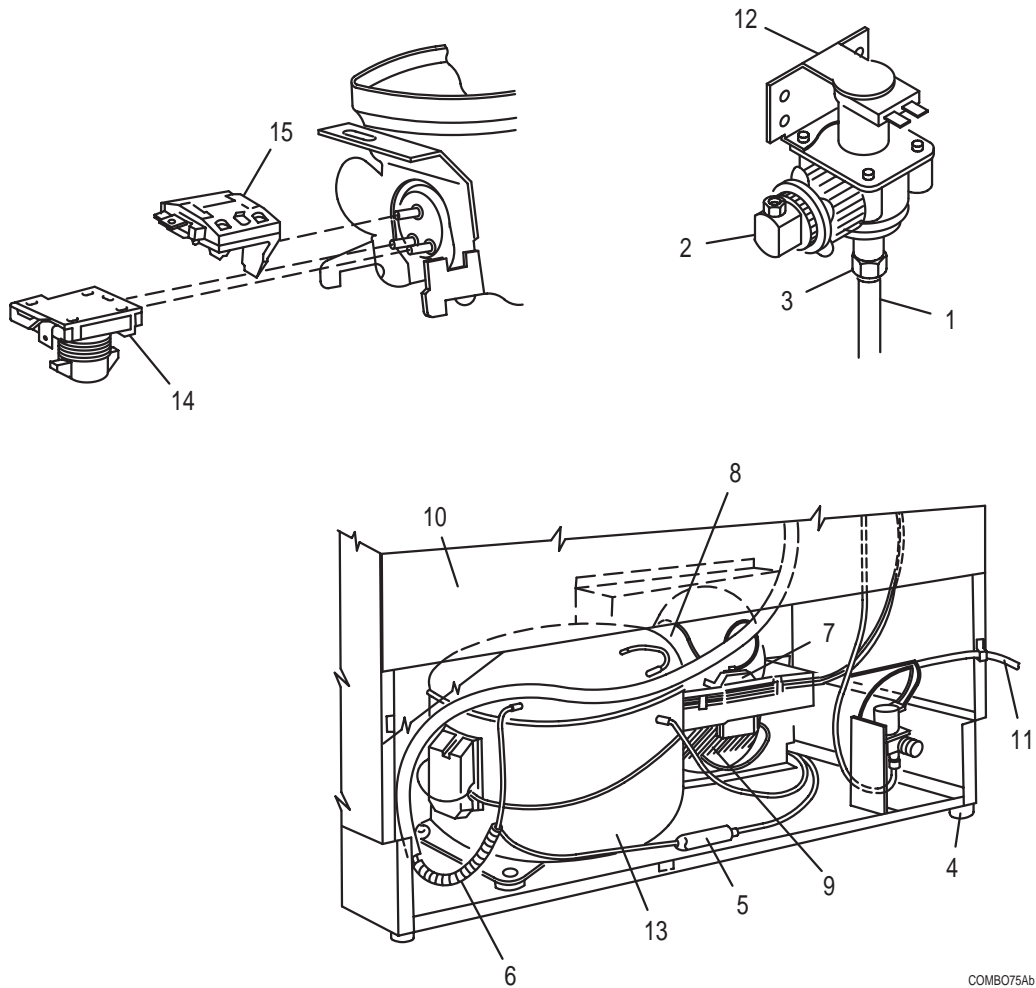


COMBO75Aa

Item	Description	Part No.	Item	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	Ice 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			

*Please indicate color.

COMBO 75A (2 of 2)



COMBO75Ab

COMBO75Ab

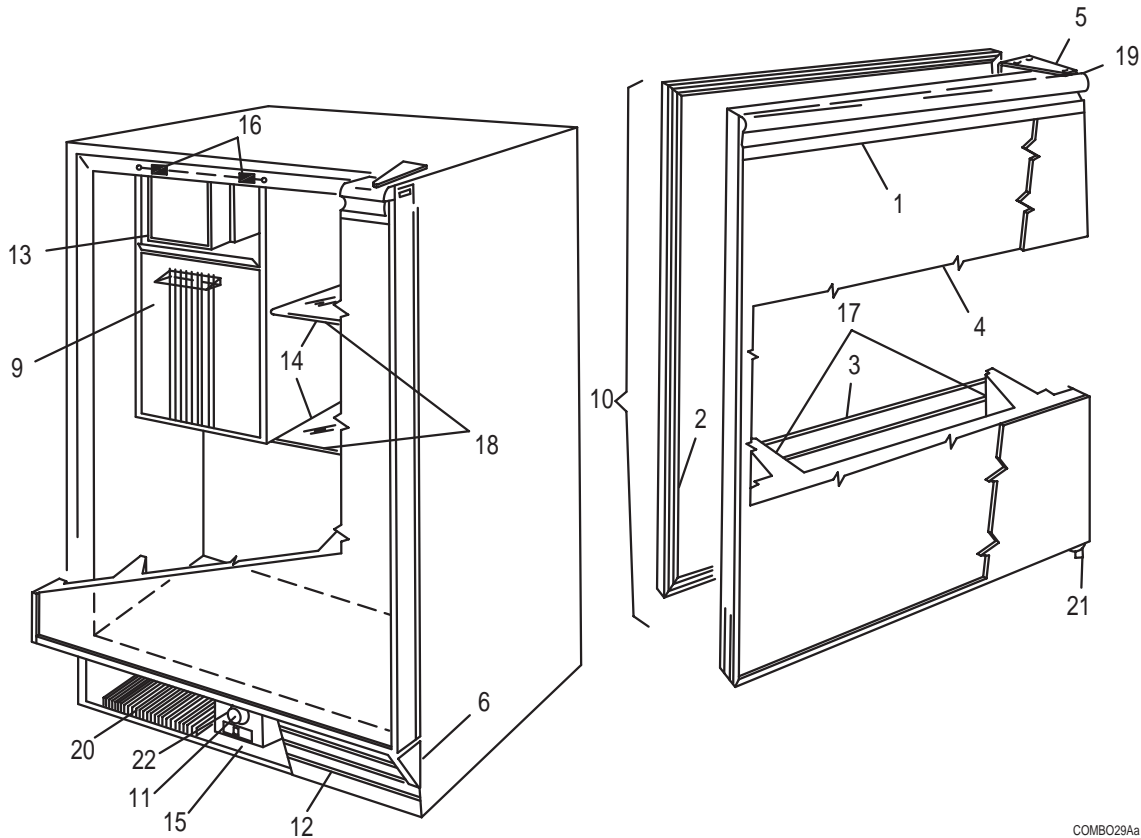
Item	Description	Part No.	Item	Description	Part No.
1	Water Line	404	9	Condenser	1951-S
2	Water Line Connection	41826	10	Back Panel	11769
3	Plastic Nut & Sleeve Ass'y	41254	11	Power Cord	1855-1
4	Cabinet Feet (4)	41319	12	Solenoid Valve	2552A
5	Dryer	2694	13	Compressor	5402-S
6	Evaporator & Heat Exchanger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

*Please indicate color.

Service and Parts Manual

COMBO 29A (1 of 2)

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



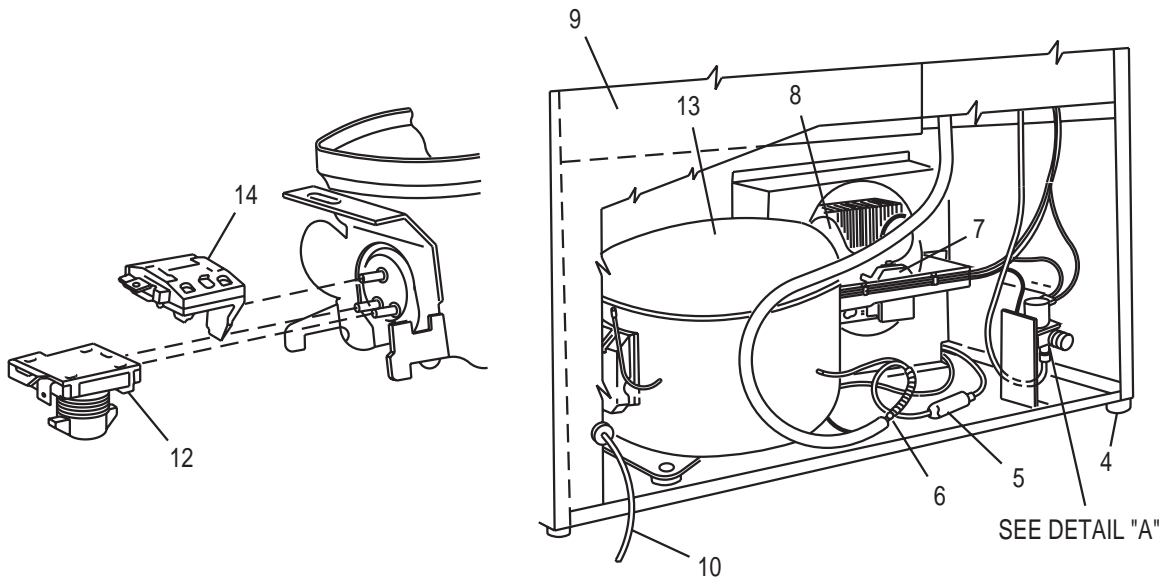
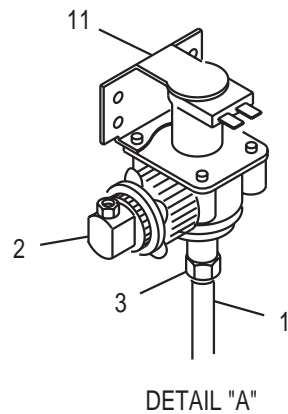
COMBO29Aa

COMBO29Aa

Item	Description	Part No.	Item	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
3	Door Shelf Retainer (Long)	31521-2	15	Switch On-Off	2053
4	Door Shelf Retainer (Short)	31521-3	16	Ice Bin Door Hinge (2)	31463
5	Pivot Hinge, Top	11697-ST*	17	Shelf Retainer Rivet (6)	41824
6	Pivot Hinge, Bottom	11695-S*	18	Shelf Trim Strip Front (Short)	31443-1
8	Ice Maker Ass'y	402	19	Pivot Screw, Top	41785-SS*
9	Ice 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*			

*Please indicate color.

COMBO 29A (2 of 2)



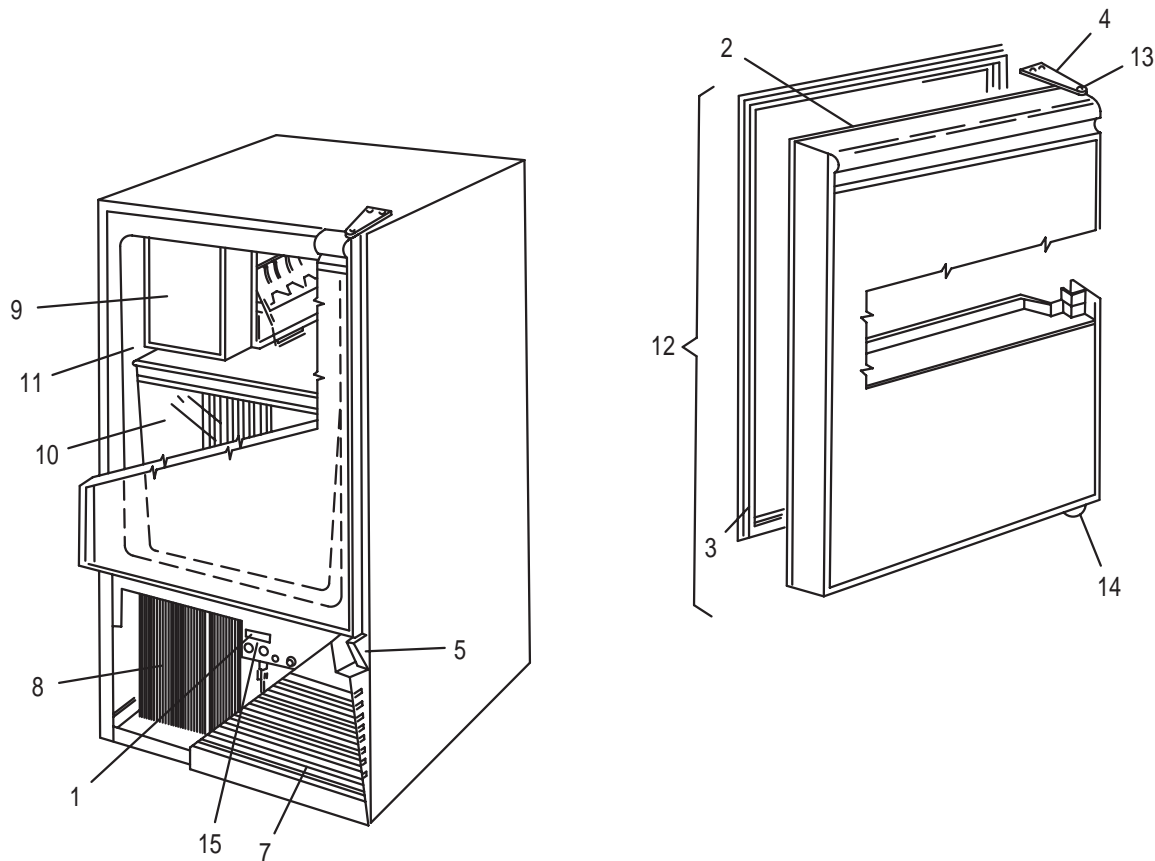
COMBO29A
COMBO29Ab

Item	Description	Part No.	Item	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
5	Dryer	2694	12	Relay	5414
6	Evaporator & Heat Exchanger	2189-29	13	Compressor	5402-S
7	Fan Motor	5263	14	Overload	5413

Service and Parts Manual

MODEL 95 (1 of 2)

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

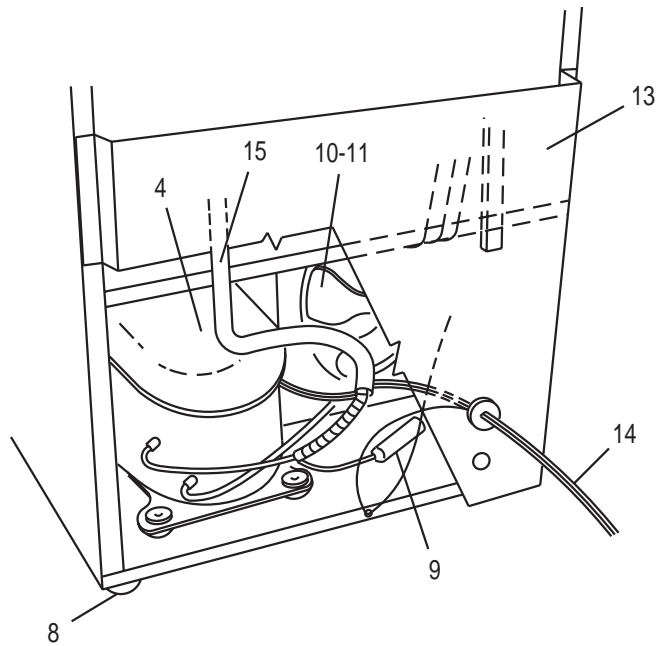
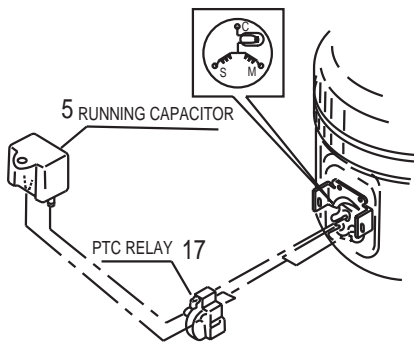
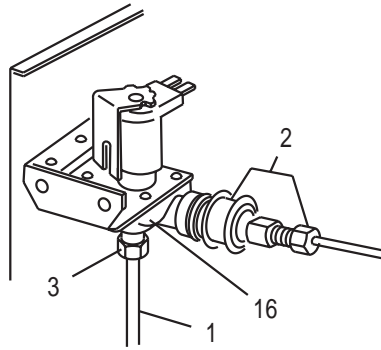


MODEL95a
MODEL95a

Item	Description	Part No.	Item	Description	Part No.
1	Switch - On/Off	2053	9	Ice Maker Ass'y	402
2	Handle	31489-1 *	10	Ice Bucket	31429
3	Door Gasket	31493-1 *	11	Inner Liner Ass'y/Evaporator	2182-S*
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	4548

*Please indicate color.

MODEL 95 (2 of 2)



MODEL95b

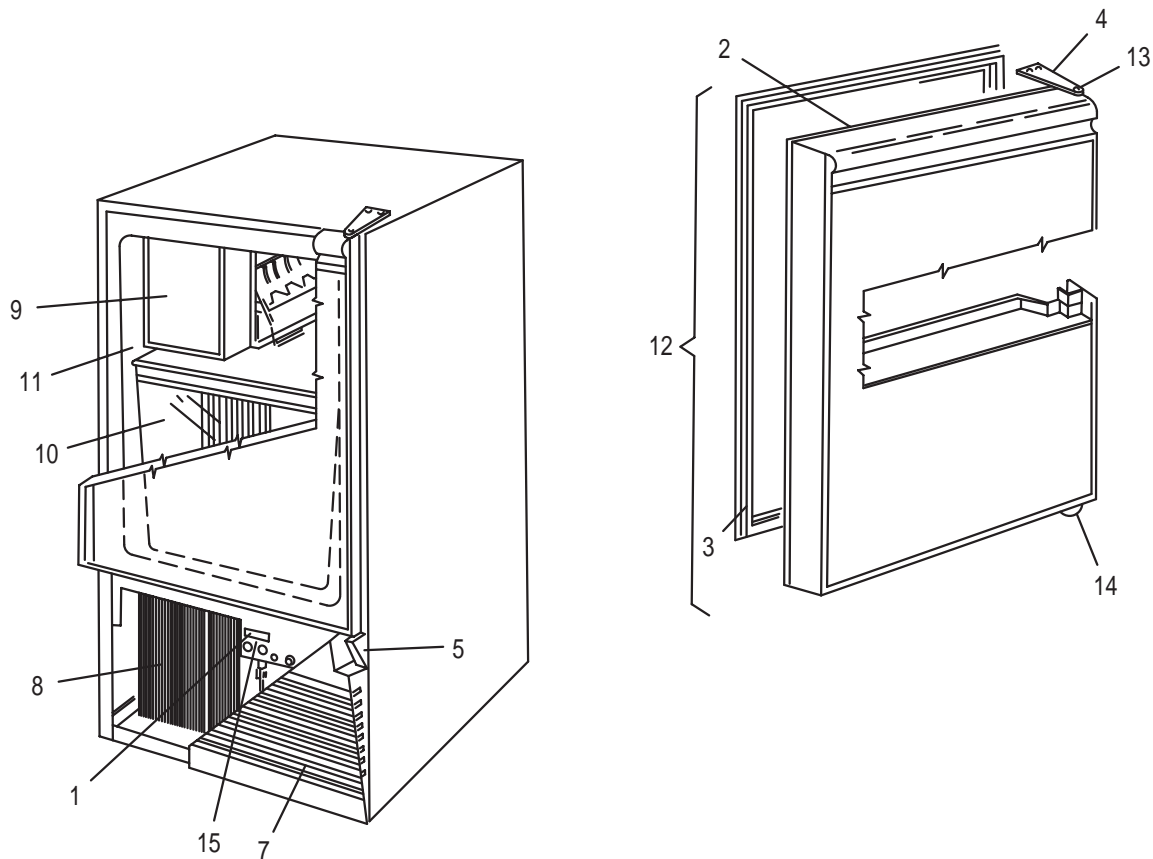
MODEL95

Item	Description	Part No.	Item	Description	Part No.
1	Water Line	404	10	Fan Motor	5263
2	Water Line Connection	405	11	Fan Blade	5188
3	Plastic Nut & Sleeve Ass'y	41254	13	Back Panel-Formed	11444
4	Compressor	5401-S	14	Power Cord	1855-1
5	Capacitor	5420	15	Insulator Tube Armaflex	31154
8	Cabinet Feet (4)	41125	16	Solenoid Valve	2552A
9	Dryer	2694	17	Relay	5419

Service and Parts Manual

MODEL 98 (1 of 2)

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



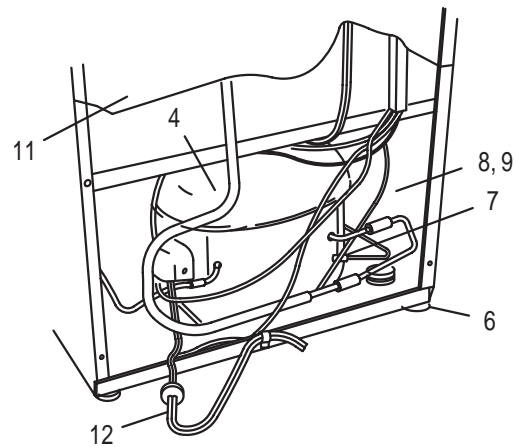
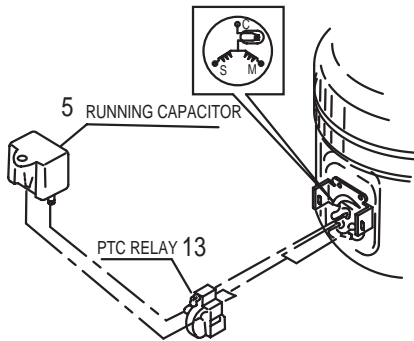
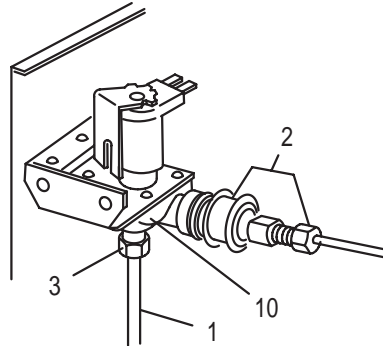
MODEL98a

MODEL98a

Item	Description	Part No.	Item	Description	Part No.
1	Switch-On/Off	2053	9	Ice Maker Ass'y	402
2	Handle	31489-2*	10	Ice Bucket	31430
3	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	4548

*Please indicate color.

MODEL 98 (2 of 2)



MODEL98b

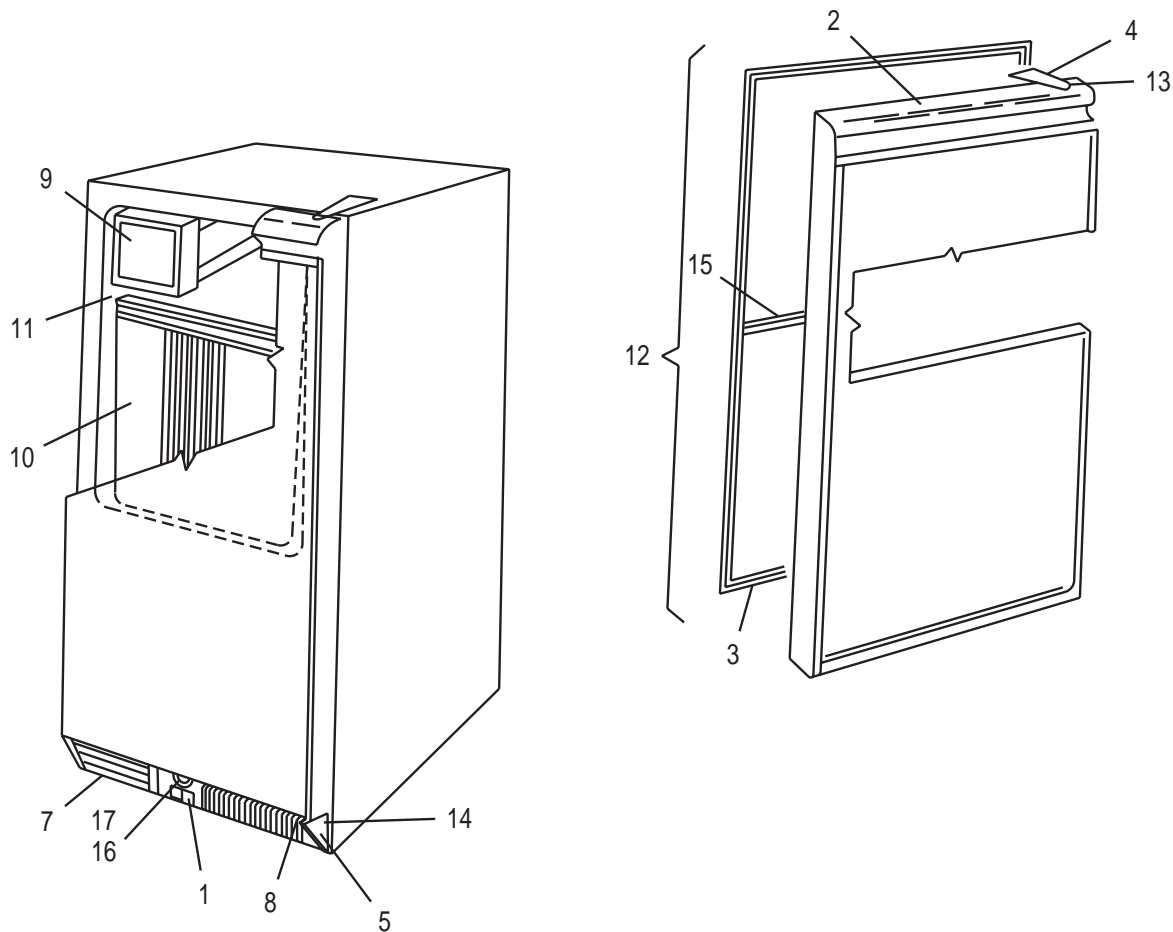
MODEL98b

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

Service and Parts Manual

MODEL BI15 (1 of 2)

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

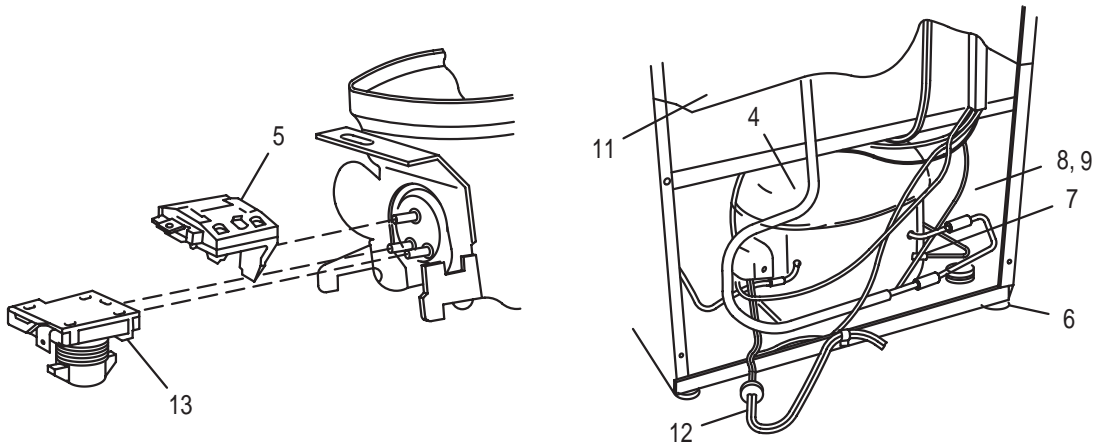
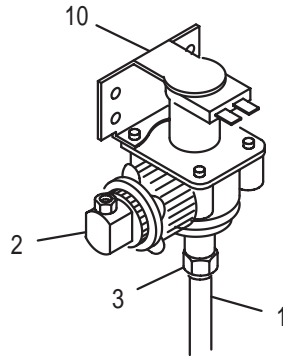


MODELBI15a

Item	Description	Part No.	Item	Description	Part No.
1	Switch- On/Off	2053	10	Ice Bucket	31430
2	Handle	31489-2*	11	Inner Liner Ass'y/Evaporator	2183-S15*
3	Door Gasket, Lower	31606*	12	Complete Door Ass'y	BI15-DOOR*
4	Pivot Hinge, Top	11697-ST*	13	Pivot Screw, Top	41785-SS*
5	Pivot Hinge, Bottom	11695-SB*	14	Pivot Screw, Bottom	41747-SS*
7	Grille	31543*	15	Gasket, Upper	31604*
8	Condenser Ass'y	2223-S	16	Control	2691
9	Ice Maker Ass'y	402	17	Control Knob	41492

*Please indicate color.

MODEL BI15 (2 of 2)



MODELBI15b

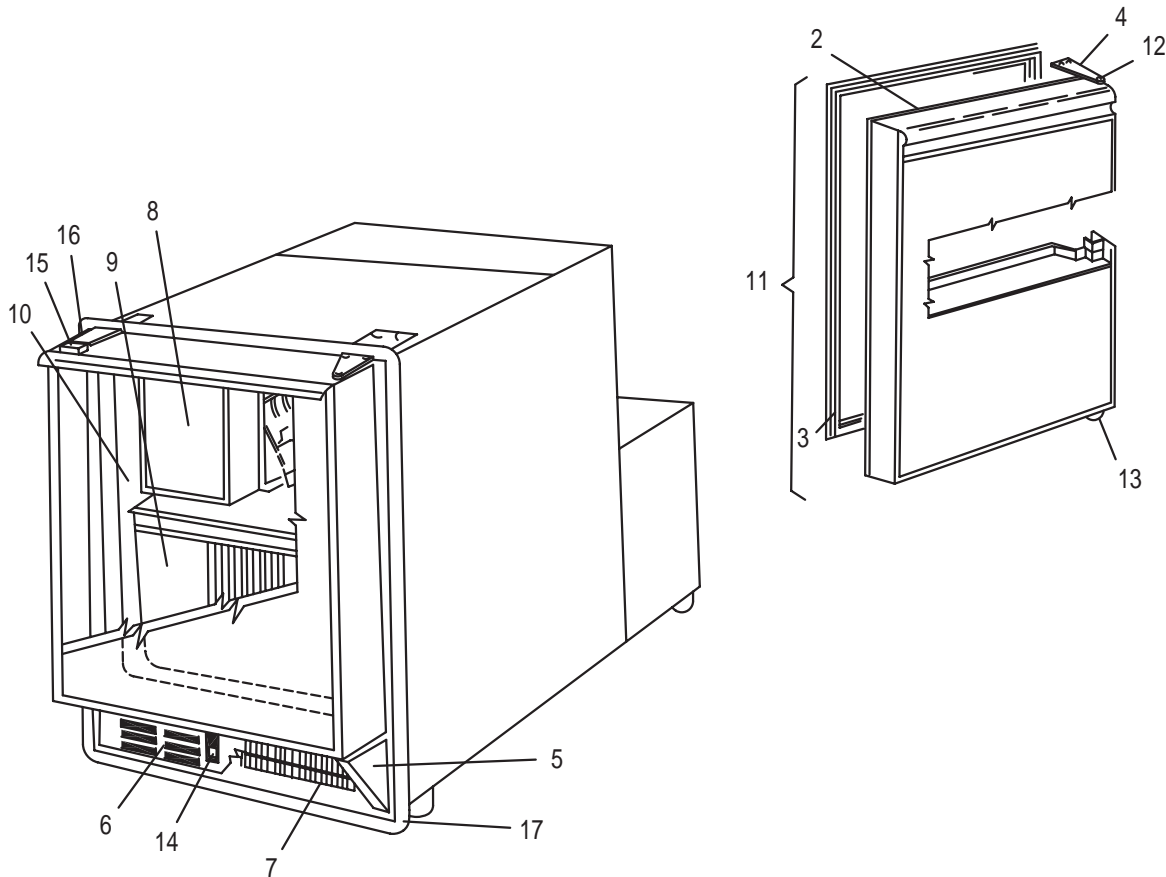
MODELBI15b

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

Service and Parts Manual

MODEL SP18 (1 of 2)

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



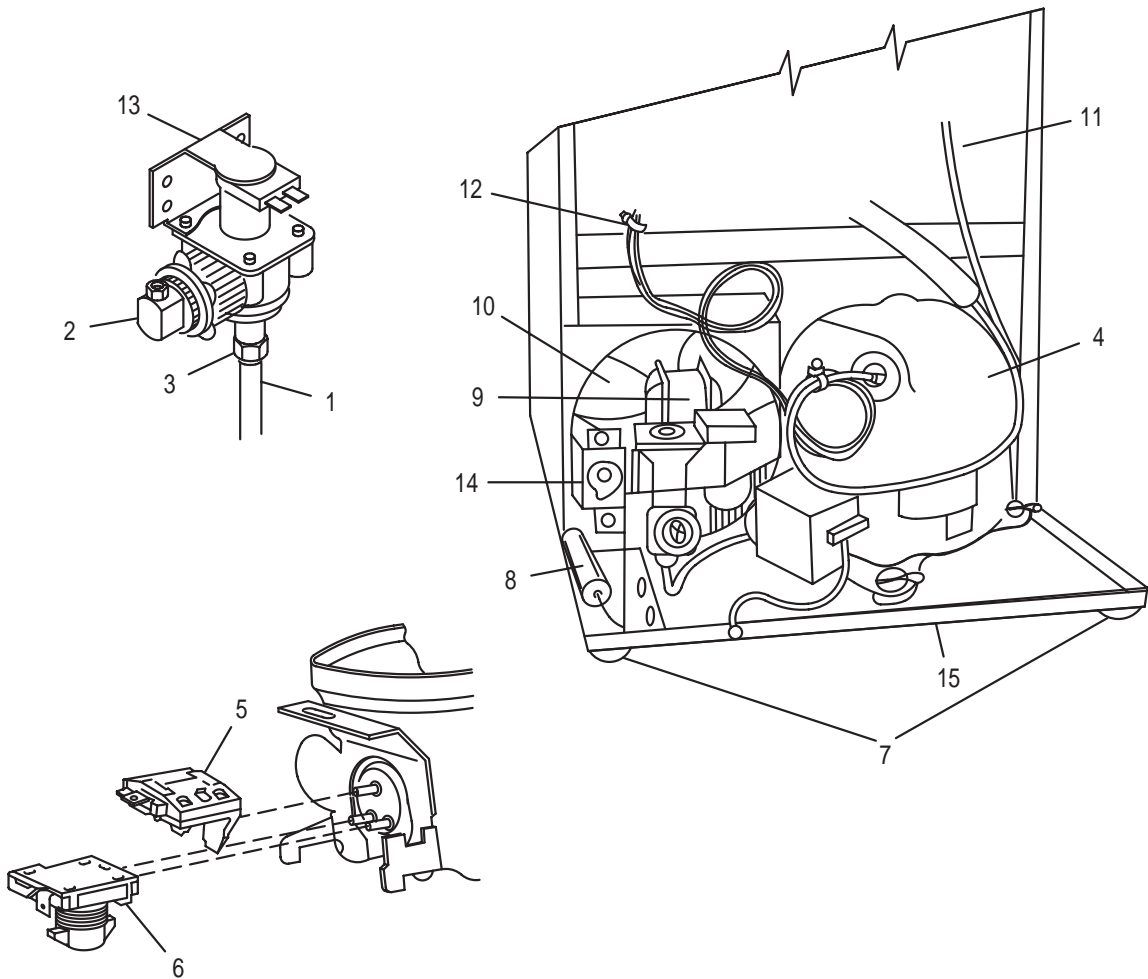
MODELSP18a

MODELSP18a

Item	Description	Part No.	Item	Description	Part No.
2	Handle	11777	10	Inner Liner Ass'y/Evaporator	2182-S18
3	Door Gasket	31493-1*	11	Complete Door Ass'y	WHT95M-DR
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	118870	14	On-Off Switch	2053
7	Condenser Ass'y	2258-S	15	Travel Pin Ass'y	TP91-GRY-1
8	Ice Maker Ass'y	402	16	Travel Pin (Pin Only)	31476-SS
9	Ice Bucket	31429	17	Frame	11810-WHT

*Please indicate color.

MODEL SP18 (2 of 2)

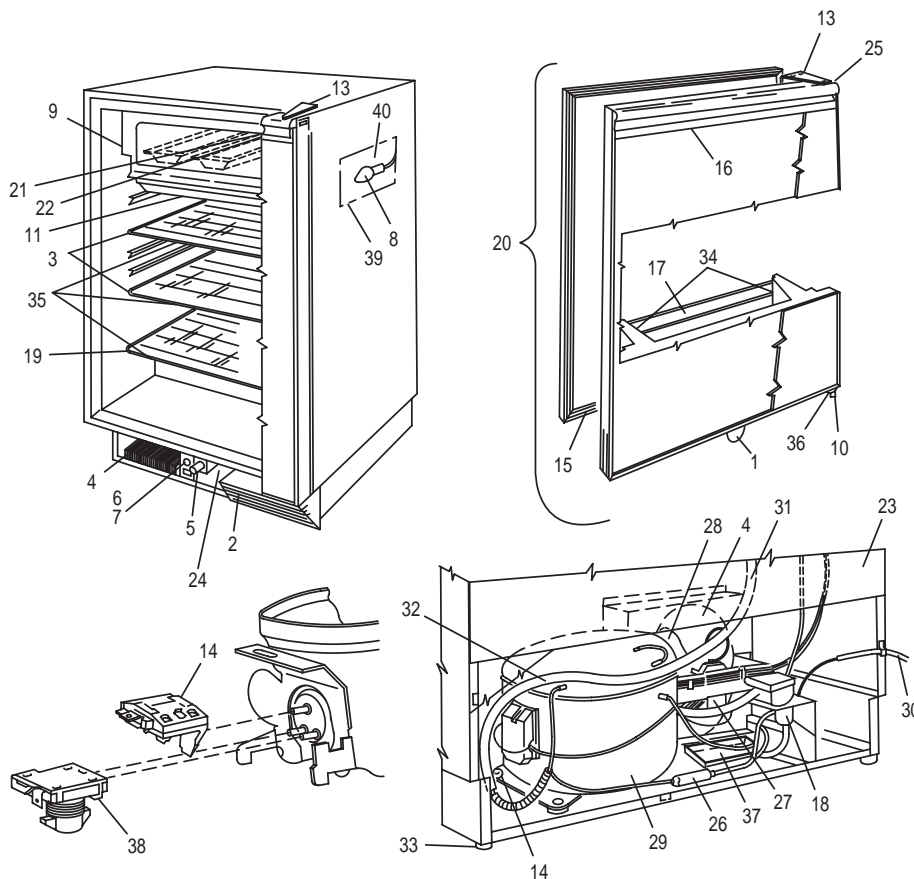


MODELSP18b

Item	Description	Part No.	Item	Description	Part No.
1	Water Line	404	9	Fan Motor	5263
2	Water Line Connection	41826	10	Fan Blade	5188
3	Plastic Nut & Sleeve Ass'y	41254	11	Back Panel	11811
4	Compressor	5402-S	12	Power Cord	2264
5	Overload	5413	13	Solenoid Valve	2552A
6	Relay	5414	14	Cold Control	4548
7	Cabinet Feet	41125	15	Base	2262
8	Dryer	2694			

Service and Parts Manual

MODEL 75RF

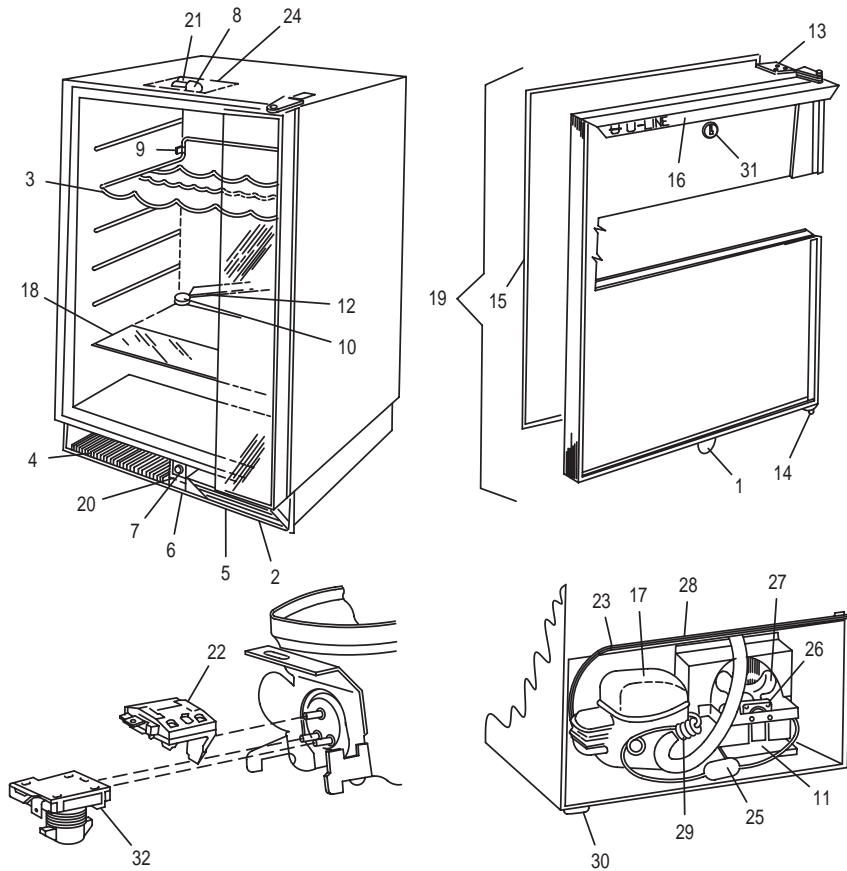


MODEL75RF

Item	Description	Part No.	Item	Description	Part No.
1	Dr Switch Brkt	11712	21	Evaporator Fan	5299-1
2	Grille	11664*	22	Evaporator Fan Blade	31656
3	Glass Shelves (2)	31427-1	23	Back Panel	11769
4	Condenser	1951-FFS	24	Timer	2595
5	Door Switch	1916	25	Pivot Screw, Top	41785*
6	Control	2703	26	Dryer	2692
7	Control Knob	41492	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-DOOR*			

*Please indicate color.

MODEL 75WC



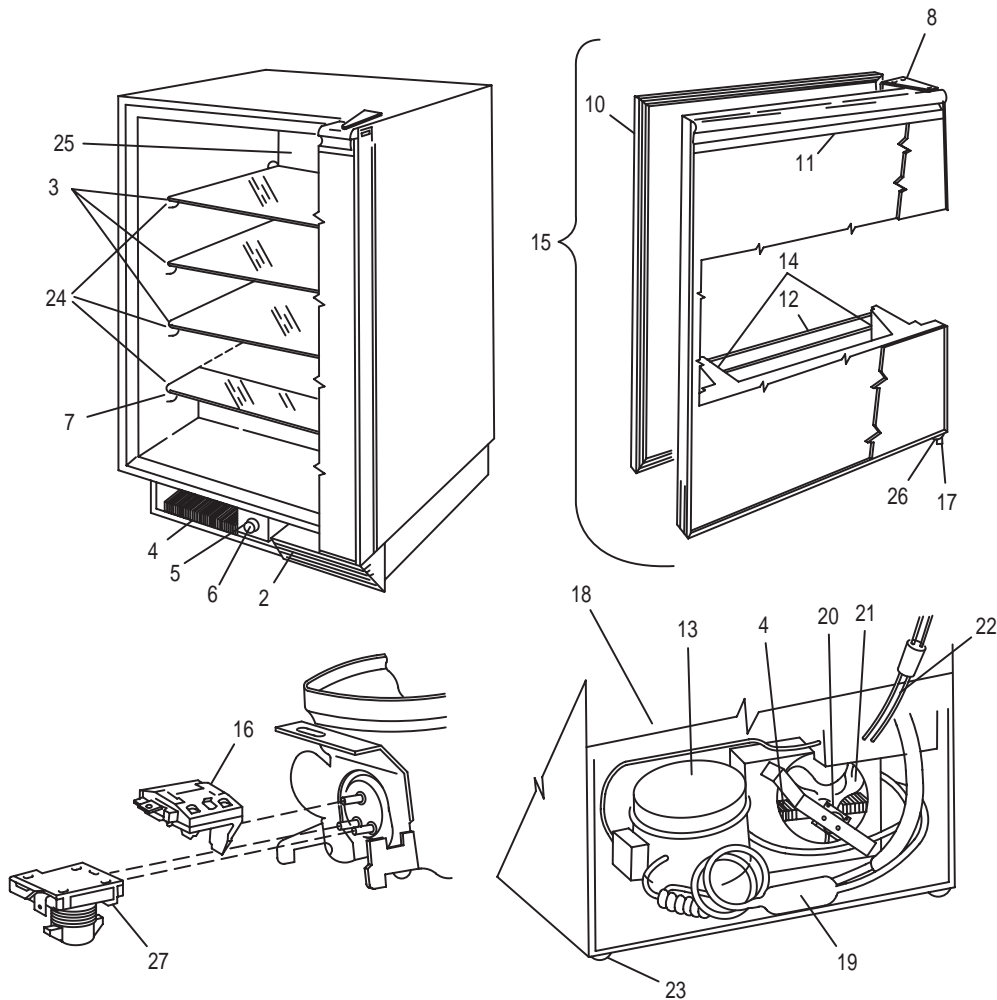
MODEL75WC

Item	Description	Part No.	Item	Description	Part No.
1	Dr Switch Brkt	11712	16	Door Handle	41984-3*
2	Grille	11664*	17	Compressor	5400-S
3	Wine Shelf	2300	18	Glass Half Shelf (1)	31435
4	Condenser	1951-S	19	Door Ass'y	75WC-DOOR*
5	Switch	1916	20	Light On-Off Switch	2053
6	Control	2744-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	2240
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*			

*Please indicate color.

Service and Parts Manual

MODEL 75F

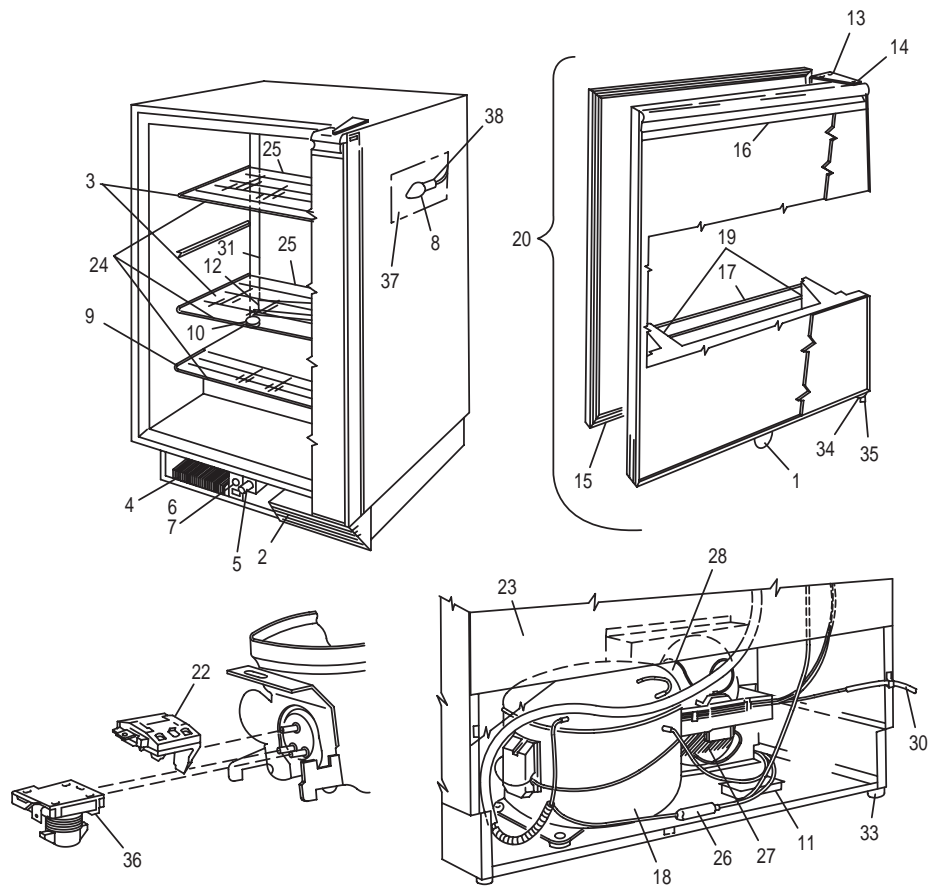


MODEL75F

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

*Please indicate color.

MODEL 75R



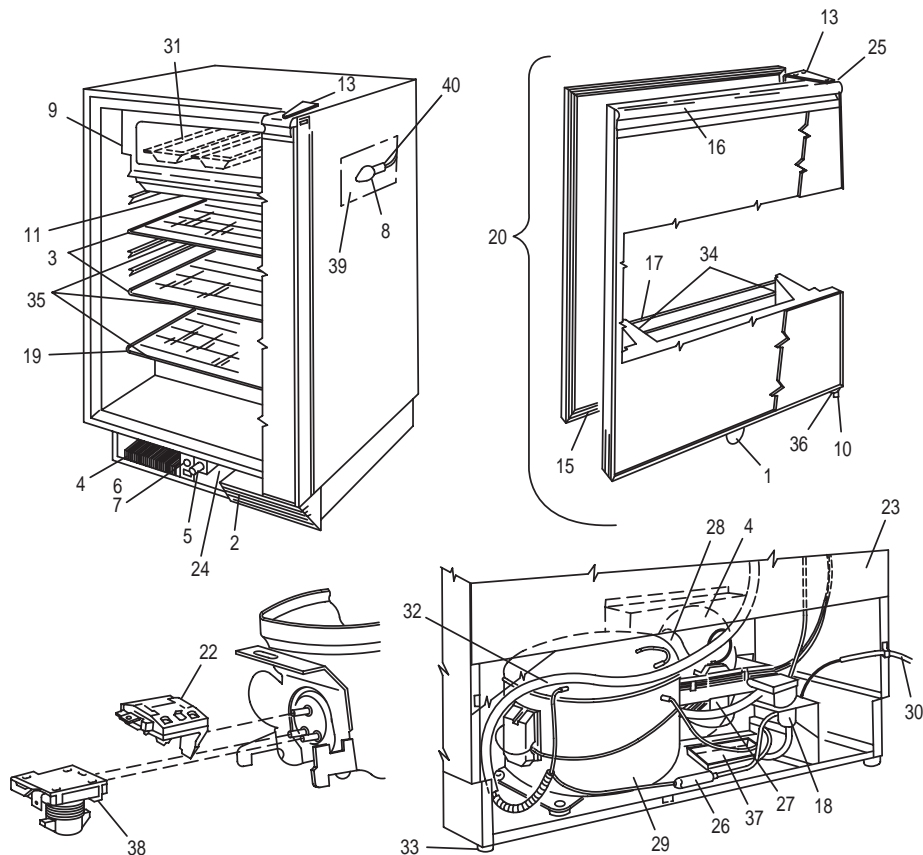
MODEL75R

Item	Description	Part No.	Item	Description	Part No.
1	Dr Switch Brkt	11712	18	Compressor	5400-S
2	Grille	11664*	19	Shelf Retainer Rivets (6)	41824
3	Glass Shelves (2)	31427-1	20	Door Ass'y	75-DOOR*
4	Condenser	1951-S	22	Overload	5411
5	Door Switch	1916	23	Back Panel	11769
6	Control	2745-S	24	Trim Strips, Front Long (3)	31443-4
7	Control Knob-Silver	41715	25	Trim Strips, Rear Long (2)	31444-4
	Alternate Control Knob-Black	41492	26	Dryer	2694
8	Lamp Bulb	31317	27	Fan Motor	5263
9	Glass Half Shelf (1)	31435	28	Fan Blade	5188
10	Drain Cup	11508	30	Power Cord	2245
11	Drain Pan	31550-1-F	31	Evaporator & Heat Exchanger	2186-S
12	Drain Trough	31391-1	33	Leveler Feet (4)	41319
13	Hinge, Top, 3 Hole	11697-ST*	34	Hinge, Bottom, 3 Hole	11697-SB*
	Hinge, Top, 4 Hole	11849-ST*		Hinge, Bottom, 4 Hole	11849-SB*
14	Pivot Screw, Top	41785-SS*	35	Pivot Screw, Bottom	41747-SS*
15	Door Gasket	31493-4*	36	Relay	5412
16	Door Handle	31489-4*	37	Light Cover	31314
17	Door Shelf Retainers (3)	31521-1	38	Light Holder	31316-1

*Please indicate color.

Service and Parts Manual

MODEL 75AD

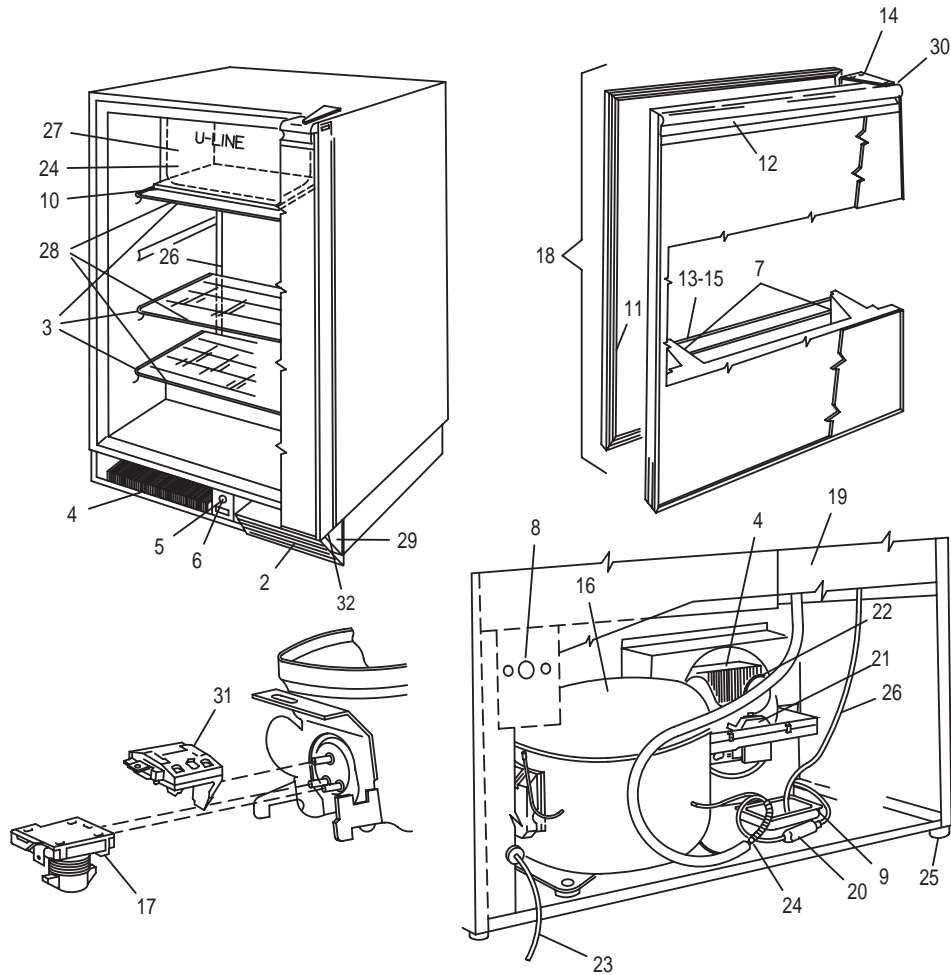


MODEL75AD

Item	Description	Part No.	Item	Description	Part No.
1	Dr Switch Brkt	11712	22	Overload	5411
2	Grille	11664*	23	Back Panel	11769
3	Glass Shelves	31427-1	24	Timer	2632-1
4	Condenser	1951-FFS	25	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
9	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-DOOR*			

*Please indicate color.

MODEL 29AD



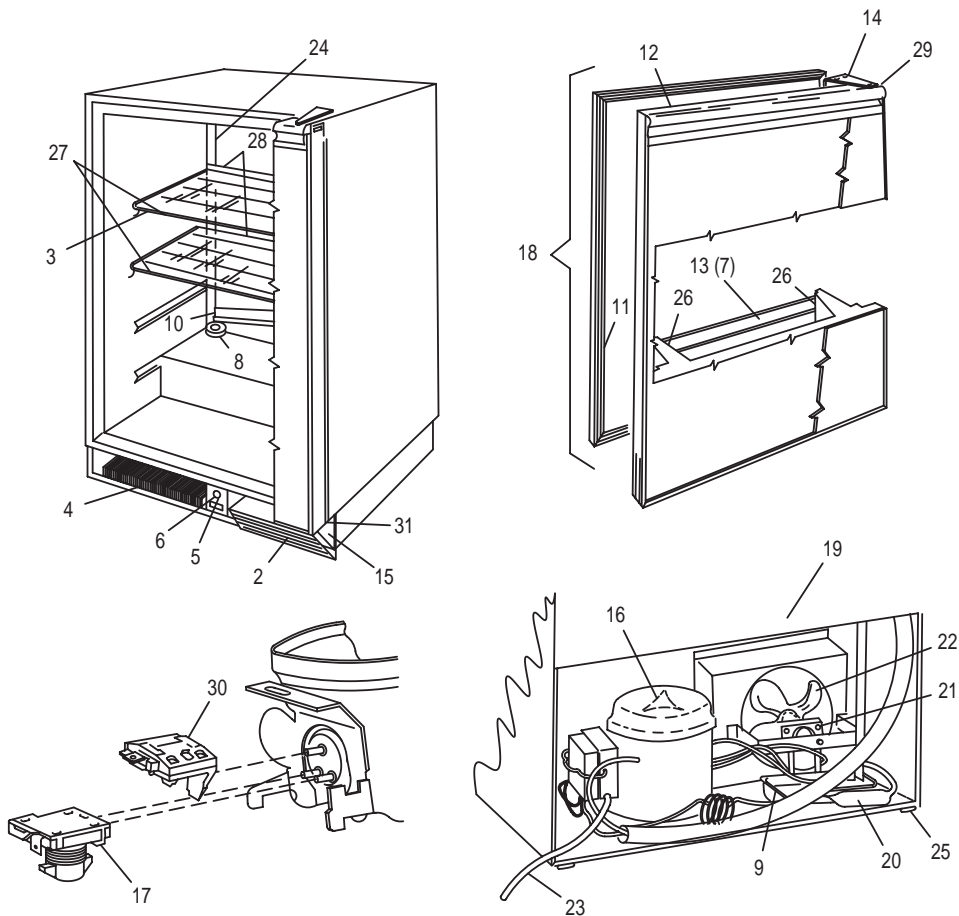
MODEL29AD

Item	Description	Part No.	Item	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	2235
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	31436-1-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)	31521-3	31	Overload	5411
16	Compressor	5400-S	32	Pivot Screw, Bottom	41747*
17	Relay	5412			

*Please indicate color.

Service and Parts Manual

MODEL 29R

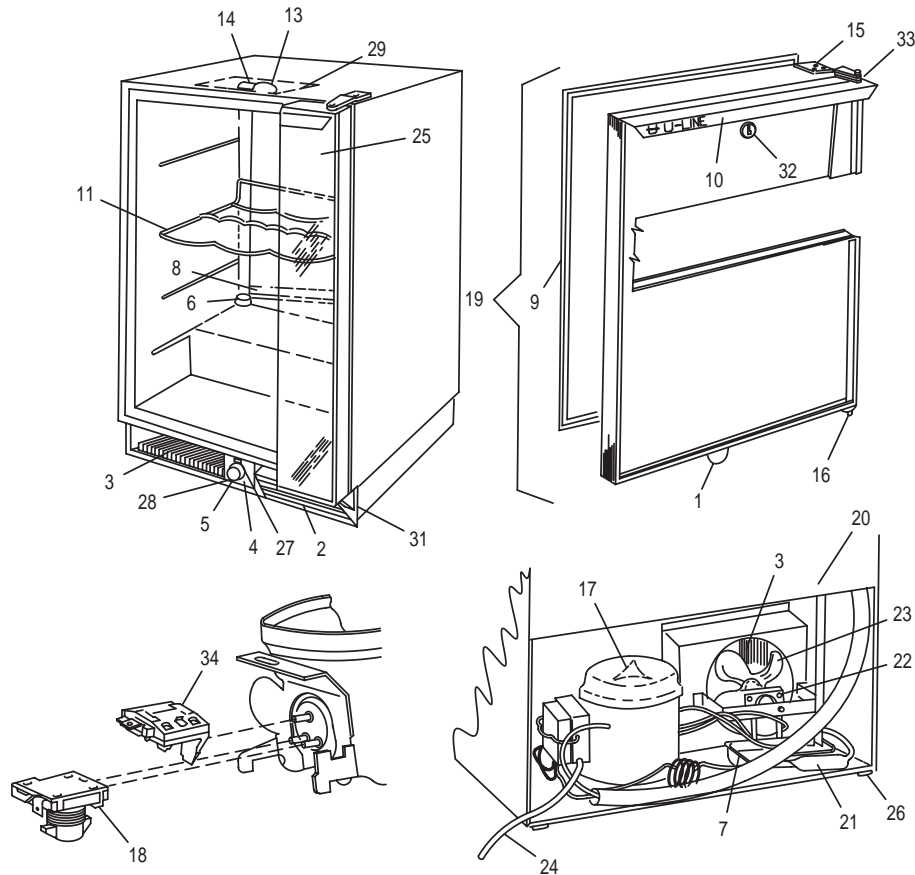


MODEL29R

Item	Description	Part No.	Item	Description	Part No.
2	Grille	11663*	17	Relay	5412
3	Glass Shelves (3)	31426-1	18	Door Ass'y	29-DOOR*
4	Condenser	1893-S	19	Back Panel	11545-1
5	Control	2745-S	20	Dryer	2693
6	Control Knob-Silver	41715	21	Fan Motor	5263
	Alternate Control Knob-Black	41492	22	Fan Blade	5188
7	Door Shelf Retainer (Short) (1)	31521-3	23	Power Cord	2234
8	Drain Cup	11508	24	Evaporator & Heat Exchanger	1960-S
9	Drain Pan	31550-1-F	25	Cabinet Feet (4)	41125
10	Drain Trough	31391	26	Shelf Retainer Rivet (6)	41824
11	Door Gasket	31493-3*	27	Shelf Trim Strip (Long) Front (3)	31443-3
12	Door Handle	31489-3*	28	Shelf Trim Strip (Long) Rear (3)	31444-3
13	Door Shelf Retainers (Long) (2)	31521-2	29	Pivot Screw, Top	41785*
14	Door Hinge, Upper	11697-ST*	30	Overload	5287
15	Door Hinge, Lower	11695-S*	31	Pivot Screw, Bottom	41747*
16	Compressor	5400-S			

*Please indicate color.

MODEL 29WC



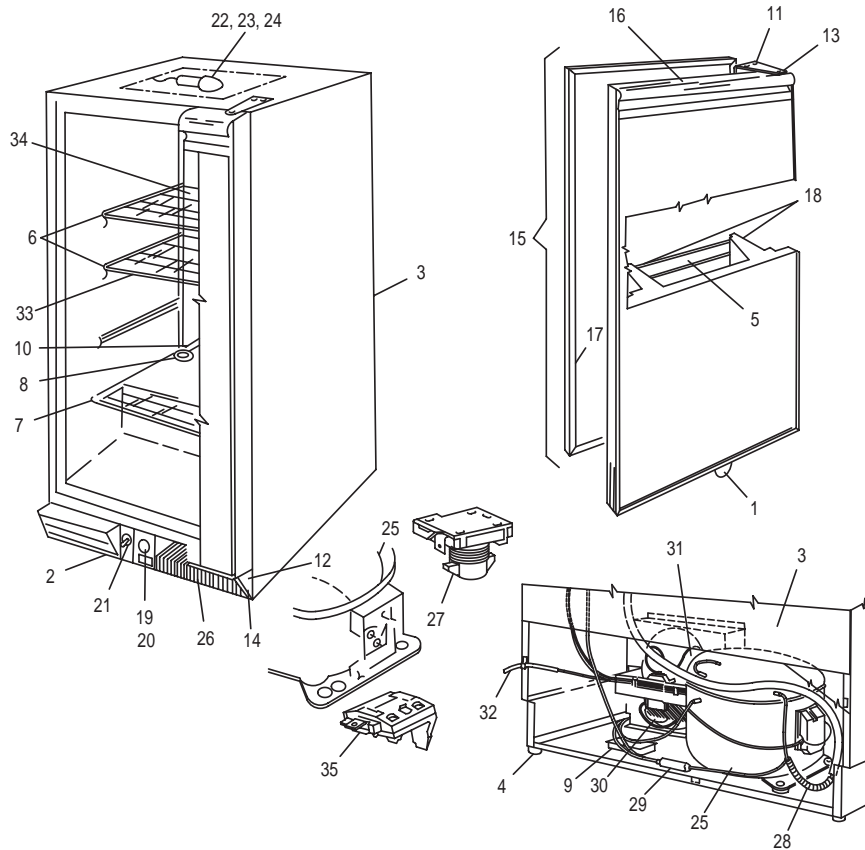
MODEL29WC

Item	Description	Part No.	Item	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	2744-S	21	Dryer	2693
5	Control Knob-Silver	41715	22	Fan Motor	5263
	Alternate Control Knob-Black	41492	23	Fan Blade	5188
6	Drain Cup	11508	24	Power Cord	2240
7	Drain Pan	31550-1-F	25	Evaporator & Heat Exchanger	1960-S
8	Drain Trough	31391	26	Cabinet Feet (4)	41125
9	Door Gasket	31493-3*	27	Light Door Switch	1916
10	Door Handle	41984-2-BLK	28	Light On-Off Switch	2053
11	Wire Wine Rack	2299	29	Light Cover	31314
13	Light Bulb	31317	31	Lower Hinge Support	11624-1-S*
14	Light Socket	31316-1	32	Lock Ass'y	41734-S
15	Door Hinge, Upper	1848A-S*	33	Hinge Plate, Top Right	1847-1-S*
16	Hinge Plate, Lower Right	1847-2-S*	34	Overload	5411
17	Compressor	5400-S			

*Please indicate color.

Service and Parts Manual

MODEL 15R

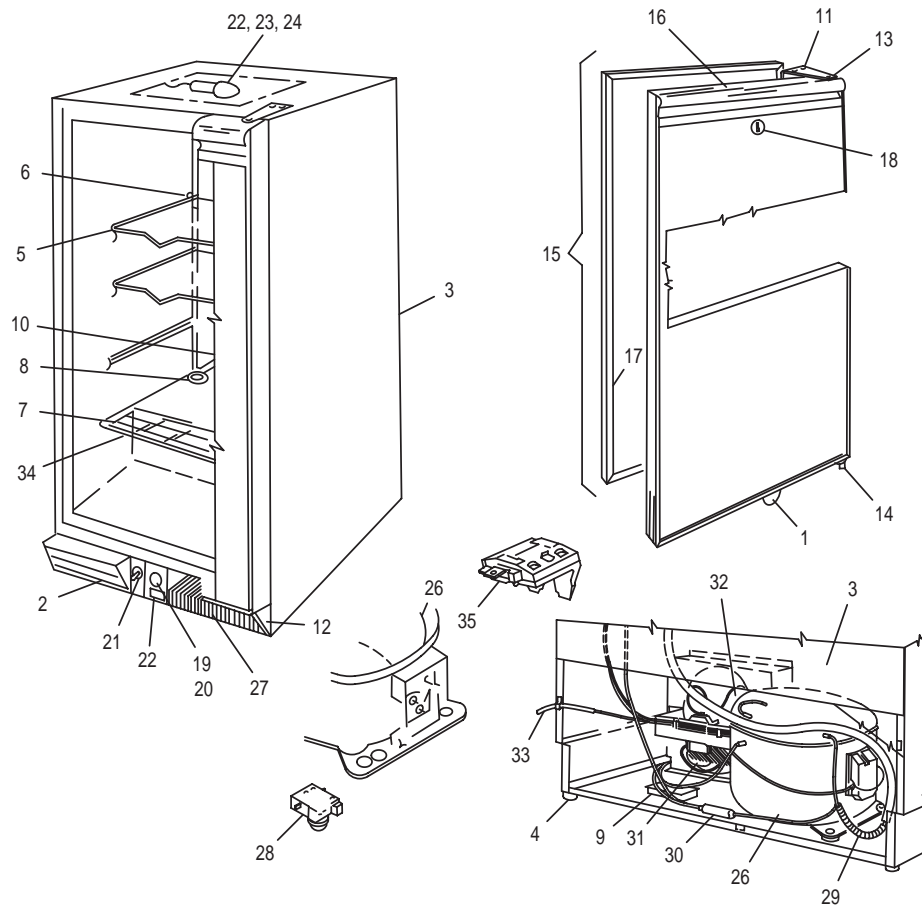


MODEL15R

Item	Description	Part No.	Item	Description	Part No.
1	Dr Switch Brkt	11712	19	Control Knob-Silver	41715
2	Grille	31543*		Alternate Control Knob-Black	41492
3	Back Panel	41802	20	Control	2745-S
4	Feet Leveler (4)	41319	21	Door Switch (Plunger)	1916
5	Door Shelf Retainers (3)	31521-3	22	Lamp Cover	31314
6	Glass Shelf (3)	11771	23	Lamp Holder	31316-1
7	Glass Shelf (1)	11770	24	Lamp Bulb	31317
8	Drain Cup	11508	25	Compressor	5400-S
9	Drain Pan	31550-1-F	26	Condenser	2223-S
10	Drain Trough	31391-2	27	Relay	5288
11	Hinge Bracket, Top	11697-ST*	28	Evaporator & Heat Exchanger	2649-S
12	Hinge Bracket, Bottom	11695-S*	29	Dryer	2694
13	Hinge Pin, Top	41785-SS*	30	Fan Motor, Condenser	5263
14	Hinge Pin, Bottom	41747-SS*	31	Fan Blade, Condenser	5188
15	Door Ass'y	15R-DOOR*	32	Power Cord	2241
16	Door Handle	31489-2*	33	Glass Trim Strip, Front (4)	31443-5
17	Door Gasket	31493-6*	34	Glass Trim Strip, Rear (3)	31444-5
18	Shelf Retainer Rivet (6)	41824	35	Overload	5287

*Please indicate color.

MODEL 15WC



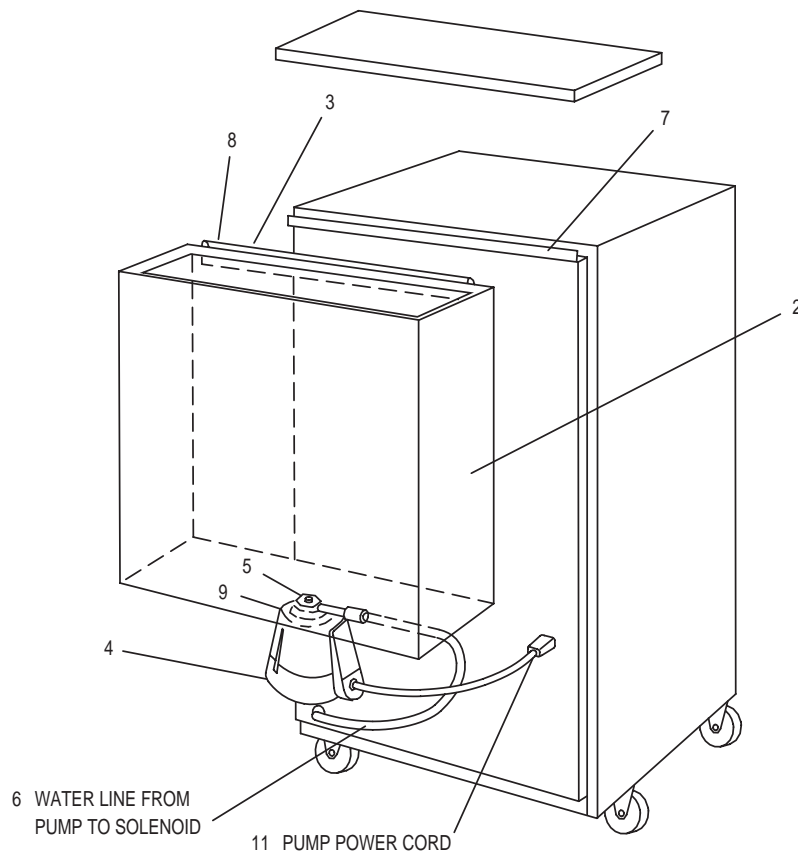
MODEL15WC

Item	Description	Part No.	Item	Description	Part No.
1	Dr Switch Brkt	11712	19	Control Knob-Silver	41715
2	Grille	31543*		Alternate Control Knob-Black	41492
3	Back Panel	41802	20	Control	2744-S
4	Feet Leveler [4]	41319	21	Door Switch - Plunger	1916
5	Wine Rack	2301	22	Lamp On-Off Switch	2053
6	Wine Rack Clip	31648	23	Lamp Cover	31314
7	Glass Half Shelf (1)	11770	24	Lamp Holder	31316-1
8	Drain Cup	11508	25	Lamp Bulb	31317
9	Drain Pan	31550-1-F	26	Compressor	5400-S
10	Drain Trough	31391-2	27	Condenser	2223-S
11	Hinge Bracket Ass'y, Top	1848A-S*	28	Relay	5412
12	Hinge Bracket, Bottom	11624-1-S*	29	Evaporator & Heat Exchanger	2649-S
13	Pivot Hinge, Top	1847-1-S*	30	Dryer	2694
14	Pivot Hinge, Bottom	1847-2-S*	31	Fan Motor, Condenser	5263
15	Door Ass'y	15WC-DOOR*	32	Fan Blade, Condenser	5188
16	Door Handle	41984-1*	33	Power Cord	2240
17	Door Gasket	31493-6*	34	Glass Trim Strip Front	31443-5
18	Lock Ass'y	41734-S	35	Overload	5411

*Please indicate color.

Service and Parts Manual

TANK MODELS



TANK MODELS

Item	Description	Part No.	Item	Description	Part No.
1	Built-In Cabinet Trim - Model 95	11708*	6	Water Line	41223
1	Built-In Cabinet Trim - Model 98	11709*	7	Tank Hanger - Model 95/98	11650
2	Water Tank - Plastic	1832-BLK	8	Tank Support - Model 95/98	11649
3	Water Tank Cover - Plastic	509-BLK	9	Rubber Seal	31358
4	Pump	1844	10	Caster	41590
5	Nut	41216	11	Tank Cord	1861

*Please indicate color.

NOTES

Service and Parts Manual

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 or phone.

FAX Number (414) 354-7905

Phone Number (414) 354-0300 or (414) 354-7885; press 3

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 _____



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