

600 Series

TECHNICAL SERVICE/TRAINING MANUAL (ADDENDUM)

For units starting with serial #1810000

NOTE: *Installation Information (Section 2),
Sealed System Information (Section 4),
Air Flow and Fan Blade Spacing (Section 5),
Icemaker Information (Section 6),
and Parts Lists Section (Section 8)
in this addendum manual apply regardless of serial number*

SECTION 1

GENERAL INFORMATION

For units starting with serial #1810000

NOTE: *Installation Information (Section 2),
Sealed System Information (Section 4),
Air Flow and Fan Blade Spacing (Section 5),
Icemaker Information (Section 6),
and Parts Lists Section (Section 8)
in this addendum manual apply regardless of serial number*

INTRODUCTION

This 600 Series Technical Service/Training Manual Addendum has been compiled to provide the most recent information on safety, installation, set-up, design, operation, features, troubleshooting, wiring diagrams, and repair procedures of 600 Series units, starting with serial #1810000. This information will enable the service technician to troubleshoot and diagnose malfunctions, perform necessary repairs, and return a 600 Series unit to proper operational status.

The service technician should read the complete instructions contained in this addendum before initiating any repairs on a 600 Series unit, starting with serial #1810000.

IMPORTANT SAFETY INFORMATION

Below are the Product Safety Labels used in this manual. The "Signal Words" used are **WARNING** or **CAUTION**.

When reviewing this manual, please note these different Product Safety Labels placed at the beginning of certain sections of this manual. You must follow the instructions given in the boxes below the Product Safety Labels in order to avoid personal injury and/or product damage.

The sample Product Safety Labels below illustrate the precautions that should be taken when the signal word is observed.

⚠ WARNING

INDICATES THAT HAZARDOUS OR UNSAFE PRACTICES COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH

⚠ CAUTION

Indicates that hazardous or unsafe practices could result in minor personal injury or product and/or property damage

In addition, please pay attention to the signal word "**NOTE**", which highlights information that is especially important for the topic being covered.

TECHNICAL ASSISTANCE

If you should have any questions regarding the 600 Series and/or this manual, please contact:

*Sub-Zero Freezer Company, Inc.
ATTN: Service Department
P.O. Box 44988
Madison, WI 53744 - 4988*

*Customer Service & Parts / Warranty Claims
Phone #: (800) 222 - 7820*

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*Customer Service & Technical Assistance
Facsimile #: (608) 441 - 5887*

*Parts / Warranty Claims
Facsimile #: (608) 441 - 5886*

*Service Department E-Mail Address:
customerservice@subzero.com*

*Office Hours:
7:00 AM to 7:00 PM Central Time
Monday through Friday*

This manual is designed to be used by Authorized Service Personnel only. Sub-Zero Freezer Co., Inc. assumes no responsibility for any repairs made on Sub-Zero refrigeration units by anyone other than Authorized Service Technicians.

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WARRANTY INFORMATION

This page contains a summary of the 2, 5 & 12 Year Warranty that is supplied with every 600 Series unit. This is followed by a summary of the two special warranties: The *Non-Residential Warranty* which applies to units installed in non-residential applications, and the *Display/Model Home Warranty* which applies to distributor or dealer display units and units in model homes, sold three years after date of manufacture. The last entries on this page are details and notes about the warranties.

TWO, FIVE & TWELVE YEAR Warranty Summary

- Two year TOTAL PRODUCT warranty, *parts and labor.
- Five Year SEALED SYSTEM warranty, **parts and labor.
- Sixth through Twelfth year LIMITED SEALED SYSTEM warranty, sealed system **parts only.

ONE & FIVE YEAR Non-Residential Warranty Summary (Example: Office, Yacht, etc.)

- One Year TOTAL PRODUCT warranty, *parts and labor.
- Five year LIMITED SEALED SYSTEM warranty, sealed system **parts only.

ONE & FIVE YEAR Display/Model Home Warranty Summary (Display units sold three years after date of manufacture)

- One Year TOTAL PRODUCT warranty, *parts and labor.
- Five year LIMITED SEALED SYSTEM warranty, sealed system **parts only.

Warranty Details:

- * “Total Product Parts” includes, but is not limited to the following:
Electronic Control System Components, Fan & Light Switches, Fan Motors & Blades, Defrost & Drain Heaters, Defrost Terminator, Drain Pan, Drain Tubes, Wiring, Light sockets & bulbs, Ice maker, Water Valve, Door hinges, Door closers & Cams, Compressor Electricals, etc. . .
- ** “Sealed System Parts” includes the following:
Compressors, Condenser, Evaporators, Filter-Driers, Heat-exchangers, All Tubing that Carries the Freon.
NOTE: Condenser Fan Motors, Freon, Solder and compressor electricals are NOT considered sealed system parts.

Warranty Notes:

- All warranties begin at the time of the unit's initial installation.
- All Warranty and Service information collected by Sub-Zero is arranged and stored under the unit serial number. This information is now also stored under the customer's last name. Sub-Zero requests that you have the model and serial number available whenever contacting the factory or parts distributor.
- The serial number tag on SIDE-BY-SIDE models is located by the top door hinge in the freezer compartment.
- The serial number tag on OVER-AND-UNDER models is located by the top door hinge in the refrigerator compartment.
- The serial number tag on ALL-REFRIGERATOR and ALL-FREEZER models is located by the top door hinge in the refrigeration compartment.

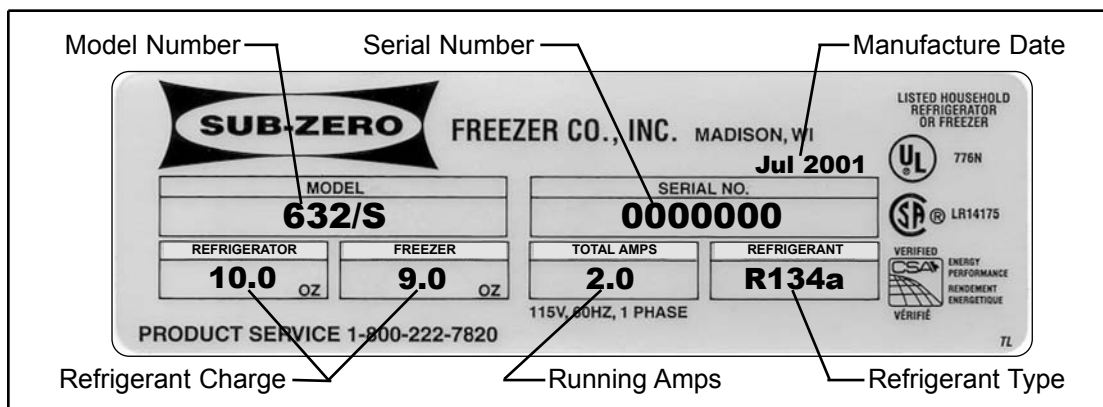


Figure 1-1. Serial Tag Layout

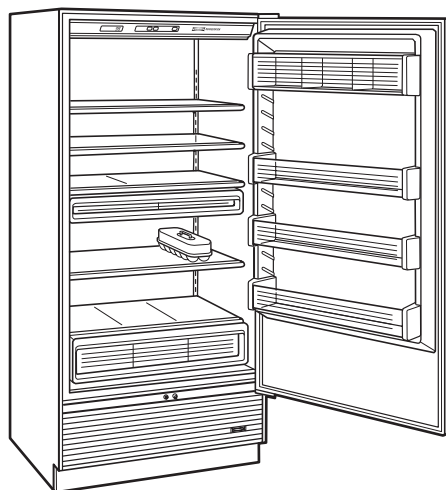
MODEL DESCRIPTIONS

These pages briefly describe the 600 Series. The 600 Series line consists of eleven basic model configurations (Models 601R, 601RG, 601F, 611, 611G, 632, 642, 650, 650G, 680, 690). There are three exterior esthetic variations in the 600 Series. The letter after the backward slash in the alpha-numeric model number indicates the exterior esthetic variation. (“F” indicates a **Framed** look with the door trim visible, “O” indicates that it is intended for the door panels to **Overlay** the door trim, and “S” indicates that the unit is **Stainless Steel**.) There is also one model (model 601RG) which has a glass door.

NOTE: Functional parts are common to each model configuration, meaning the models 601R/F, 601R/O and 601R/S will utilize common functional parts, just as the models 601F/F, 601F/O and 601F/S will utilize common functional parts, and so on... For this reason, the backward slash and letter at the end of the model number will be used in this manual only when necessary.

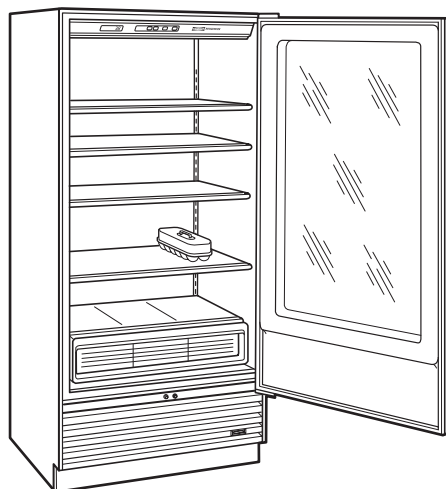
The following lists contain the model numbers of the 600 Series with a brief description of each model. A diagram of the basic model configuration accompanies each list.

MODEL	DESCRIPTION
601R/F	36" Wide, All-Refrigerator, Framed Door Trim with Handle, Louver Grille
601R/O	36" Wide, All-Refrigerator, Overlay Door Trim without Handle, Louver Grille
601R/S	36" Wide, All-Refrigerator, Stainless Steel Door and Grille



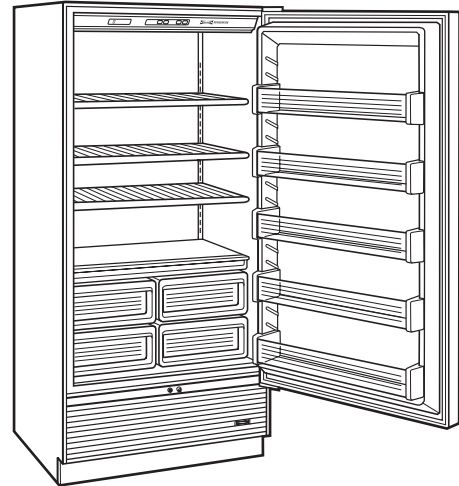
Model 601R

MODEL	DESCRIPTION
601RG/F	36" Wide, All-Refrigerator, Glass Door, Framed Door trim with Handle, Louver Grille
601RHAG/F	(Same as above with High Altitude Glass)
601RG/O	36" Wide, All-Refrigerator, Glass Door, Overlay Door Trim w/o handle, Louver Grille
601RHAG/O	(Same as above with High Altitude Glass)
601RG/S	36" Wide, All-Refrigerator, Glass Door, Stainless Steel Door Wrap and Grille
601RHAG/S	(Same as above with High Altitude Glass)



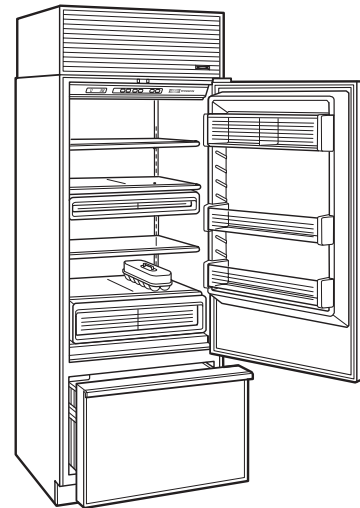
Model 601RG

MODEL	DESCRIPTION
601F/F	36" Wide, All-Freezer, Framed Door Trim with handle, Louver Grille
601F/O	36" Wide, All-Freezer, Overlay Door Trim without handle, Louver Grille
601F/S	36" Wide, All-Freezer, Stainless Steel Door and Grille



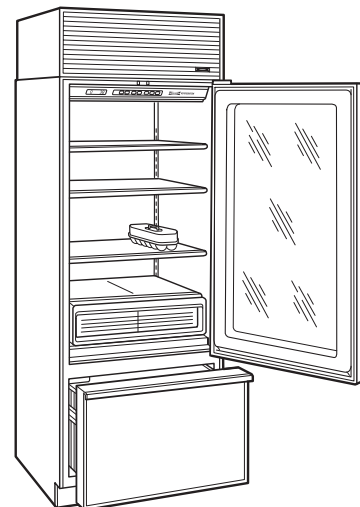
Model 601F

MODEL	DESCRIPTION
611/F	30" Wide, Over/Under, Framed Door Trim with handle, Louver Grille (Standard)
611/O	30" Wide, Over/Under, Overlay Door Trim without handle, Panel Grille (Standard)
611/S	30" Wide, Over/Under, Stainless Steel Doors and Grille



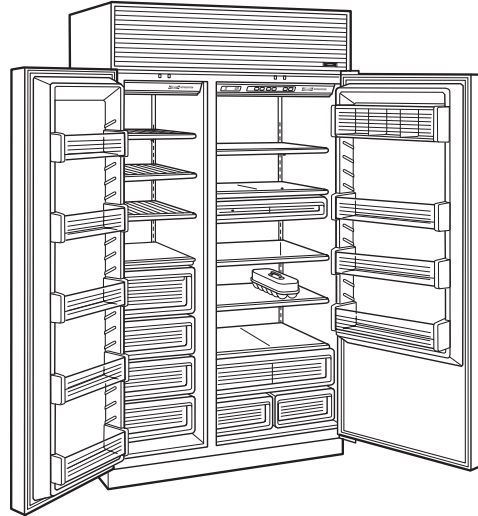
Model 611

MODEL	DESCRIPTION
611G/F	30" Wide, Over/Under, Glass Door, Framed Trim with handle, Louver Grille (Standard)
611HAG/F	<i>(Same as above with High Altitude Glass)</i>
611G/O	30" Wide, Over/Under, Glass Door, Overlay Trim without handle, Panel Grille (Standard)
611HAG/O	<i>(Same as above with High Altitude Glass)</i>
611G/S	30" Wide, Over/Under, Glass Door, Stainless Steel Doors and Grille
611HAG/S	<i>(Same as above with High Altitude Glass)</i>



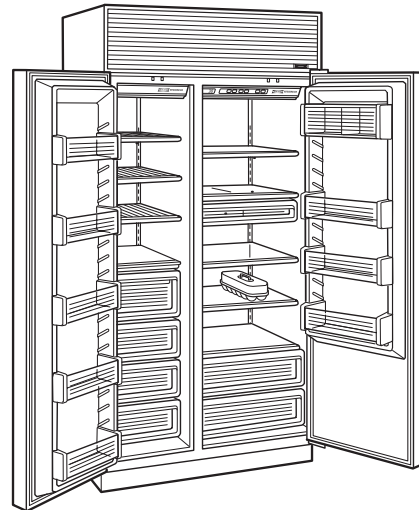
Model 611G

MODEL	DESCRIPTION
632/F	48" Wide, Side-by-Side, Framed Door Trim with handle, Louver Grille (Standard)
632/O	48" Wide, Side-by-Side, Overlay Door Trim without handle, Panel Grille (Standard)
632/S	48" Wide, Side-by-Side, Stainless Steel Doors and Grille



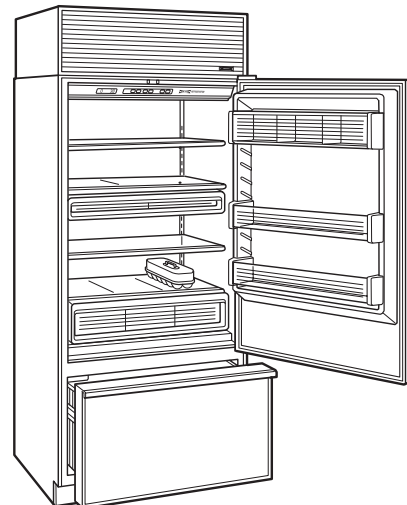
Model 632

MODEL	DESCRIPTION
642/F	42" Wide, Side-by-Side, Framed Door Trim with handle, Louver Grille (Standard)
642/O	42" Wide, Side-by-Side, Overlay Door Trim without handle, Panel Grille (Standard)
642/S	42" Wide, Side-by-Side, Stainless Steel Doors and Grille



Model 642

MODEL	DESCRIPTION
650/F	36" Wide, Over/Under, Framed Door Trim with handle, Louver Grille (Standard)
650/O	36" Wide, Over/Under, Overlay Door Trim without handle, Panel Grille (Standard)
650/S	36" Wide, Over/Under, Stainless Steel Doors and Grille



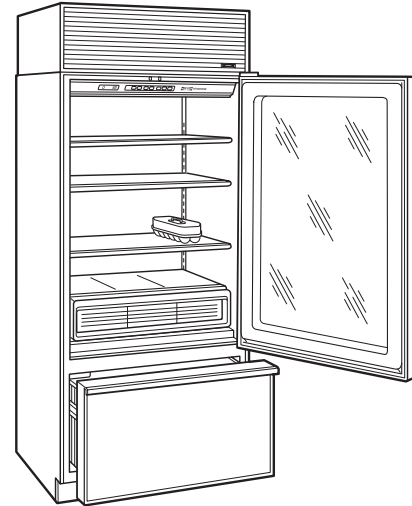
Model 650



600 Series

General Information

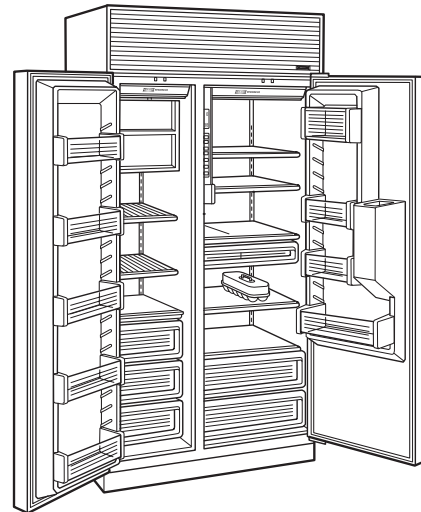
MODEL	DESCRIPTION
650G/F	36" Wide, Over/Under, Glass Door, Framed Trim with handle, Louver Grille (Standard)
650HAG/F	(Same as above with High Altitude Glass)
650G/O	36" Wide, Over/Under, Glass Door, Overlay Trim without handle, Panel Grille (Standard)
650HAG/O	(Same as above with High Altitude Glass)
650G/S	36" Wide, Over/Under, Glass Door, Stainless Steel Doors and Grille
650HAG/S	(Same as above with High Altitude Glass)



Model 650G

MODEL	DESCRIPTION
680/F	42" Wide, Side-by-Side, Ice & Water Dispenser, Framed Door Trim with handle, Louver Grille, (Standard)
680/S	42" Wide, Side-by-Side with Ice & Water Dispenser, Stainless Steel Doors and Grille

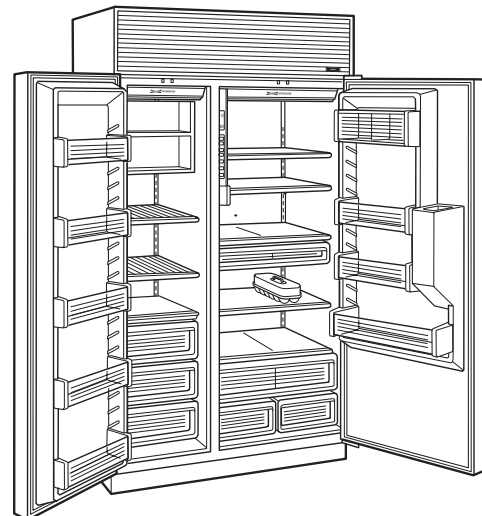
NOTE: There is no overlay variation for the model 680, but an optional panel grille is available.



Model 680

MODEL	DESCRIPTION
690/F	48" Wide, Side-by-Side, Ice & Water Dispenser, Framed Door Trim with handle, Louver Grille, (Standard)
690/S	48" Wide, Side-by-Side with Ice & Water Dispenser, Stainless Steel Doors and Grille

NOTE: There is no overlay variation for the model 690, but an optional panel grille is available.



Model 690

SECTION 2

INSTALLATION INFORMATION

INSTALLATION CONSIDERATIONS

This section covers common installation issues seen by Service Technicians. Improper installation, though not a valid service issue, has the potential to lead to a call for service. Installation related complaints could include, but are not limited to: Unit leveling, unit movement, door misalignment, improper door and drawer sealing, internal frost or condensation, exterior condensation, warm compartment temperatures, etc.

NOTE: If additional installation information is needed, refer to the complete Installation Manual, or contact Sub-Zero Service Department.

WARNING

UNIT COULD TIP UNDER CERTAIN LOAD CONDITIONS. FAILURE TO INSTALL ANTI-TIP COMPONENTS AND EXTEND LEVELERS TO FLOOR ACCORDING TO INSTALLATION MANUAL COULD RESULT IN SERIOUS INJURY OR DEATH.

Unit Leveling (All Models)

NOTE: Unit must be installed before leveling (See WARNING above). If unit is anchored to cabinets, remove anchor screws before leveling, reinstalled after.

To level a unit, first remove kickplate (See Figure 2-1). Then, to raise unit front, turn front leveler legs counterclockwise, clockwise to lower (See Figure 2-2). At front of unit base is an adjusting screw that reaches to rear leveler/roller assembly. To raise unit rear, use 5/16" socket wrench to turn adjusting screw clockwise to raise, counterclockwise to lower (See Figure 2-2).

NOTE: Level is best checked at top & side mainframe.

Door Adjustment (All Models)

NOTE: Unit must be level before adjusting doors.

If unit is properly installed, blocked and leveled, it may still be necessary to adjust door(s) left to right and/or in and out. Adjustments are performed at top and/or bottom door hinge(s). Two small Phillips head shipping screws in each door hinge must be removed and discarded before attempting adjustments. Then, working on only one hinge at a time, loosen and re-snug door hinge mounting screws, allowing door adjustment (See Figure 2-3). After adjusting door, tighten door hinge mounting screws and check for proper door seal.

NOTE: If one door on a side-by-side unit sits higher than the other, bottom hinge spacer (part #0183100) is available. To install spacer, remove shipping screws from bottom door hinge, then loosen hinge mounting screws. Insert spacer(s) between bottom door hinge and bottom door trim. Adjust door accordingly and retighten door hinge screws. (See Figure 2-4.)

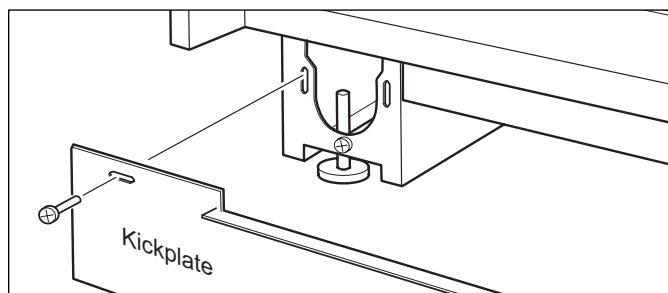


Figure 2-1. Kickplate Removal

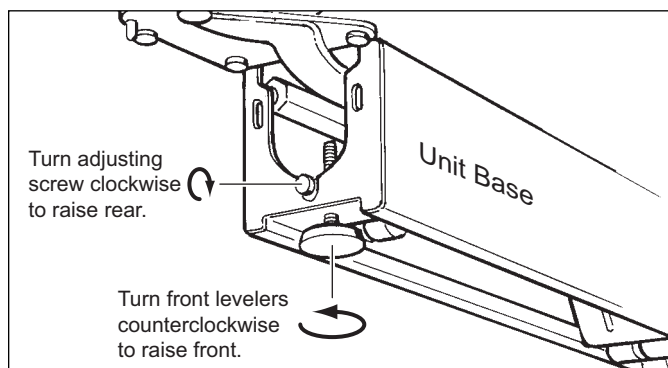


Figure 2-2. Unit Leveling

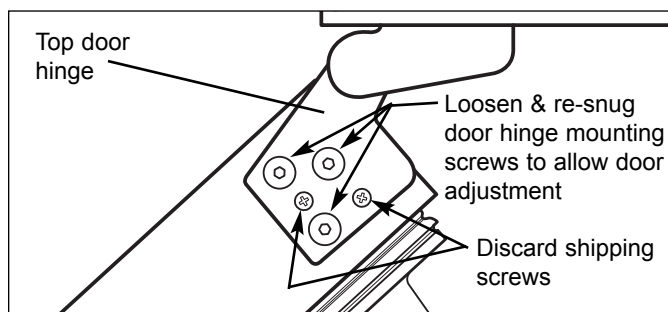


Figure 2-3. Top Door Hinge & Screws

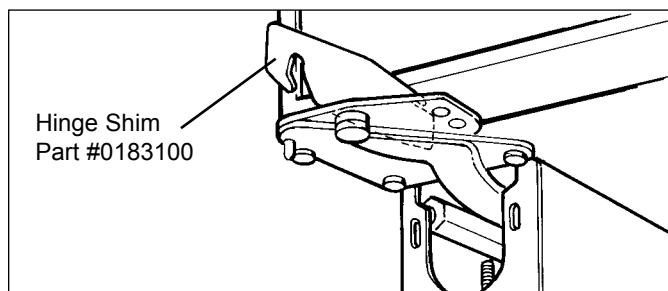


Figure 2-4. Bottom Hinge Shim Installation

Special Side-by-Side Door Adjustment

Occasionally after a side-by-side unit is properly installed, blocked and leveled, the refrigerator door top may stick out farther than the freezer door top, even though the bottom of each door is flush. The adjustment procedure listed below explains how to correct this. (For video showing this procedure, order part #3756530)

NOTE: Unit must be level before adjusting doors.

Special Side-by-Side Door Adjustment Procedure:

1. First - Adjust Refrigerator Door Bottom Hinge OUT:

- Extract shipping screws from refrigerator door bottom hinge. Then, loosen & re-snug bottom hinge mounting screws.
- Pull refrigerator door bottom hinge corner out to outer most limit & tighten hinge mounting screws.

NOTE: Check door gasket seal by refrigerator door bottom hinge. If gasket is not sealing, loosen & re-snug mounting screws, and push refrigerator door bottom hinge corner in slightly until gasket seals.

- Check door alignment. If refrigerator door top still sticks out farther than freezer door, perform second adjustment.

2. Second - Adjust Refrigerator Door Top Hinge IN:

- With a pencil, trace location of refrigerator door top hinge for reference. Extract shipping screws from refrigerator door top hinge, then loosen & re-snug top door hinge mounting screws.
- Push refrigerator door top hinge corner in to inner most limit & tighten hinge mounting screws.

NOTE: Check door gasket seal around refrigerator door. If gasket is not sealing, adjust accordingly.

- Check door alignment. If refrigerator door top still sticks out farther than freezer door, perform third adjustment.

3. Third - Adjust Freezer Door Top Hinge OUT:

- With a pencil, trace location of freezer door top hinge for reference. Extract shipping screws from freezer door top hinge, then loosen & re-snug top door hinge mounting screws.
- Pull freezer door top hinge corner out to outer most limit & tighten hinge mounting screws.

NOTE: Check door gasket seal by freezer door top hinge. If gasket is not sealing, loosen & re-snug mounting screws, and push freezer door top hinge corner in slightly until gasket seals.

- Check door alignment. If refrigerator door top still sticks out farther than freezer door, perform fourth adjustment.

4. Fourth - Adjust Freezer Door Bottom Hinge IN:

- Extract Phillips head shipping screws from freezer door bottom hinge. Then, loosen & re-snug bottom door hinge mounting screws.
- Push freezer door bottom hinge corner in to inner most limit & tighten hinge mounting screws.

NOTE: Check door gasket seal around freezer door. If gasket is not sealing, adjust accordingly.

- Check door alignment. Minor adjustments may still be needed at this point, adjust accordingly.

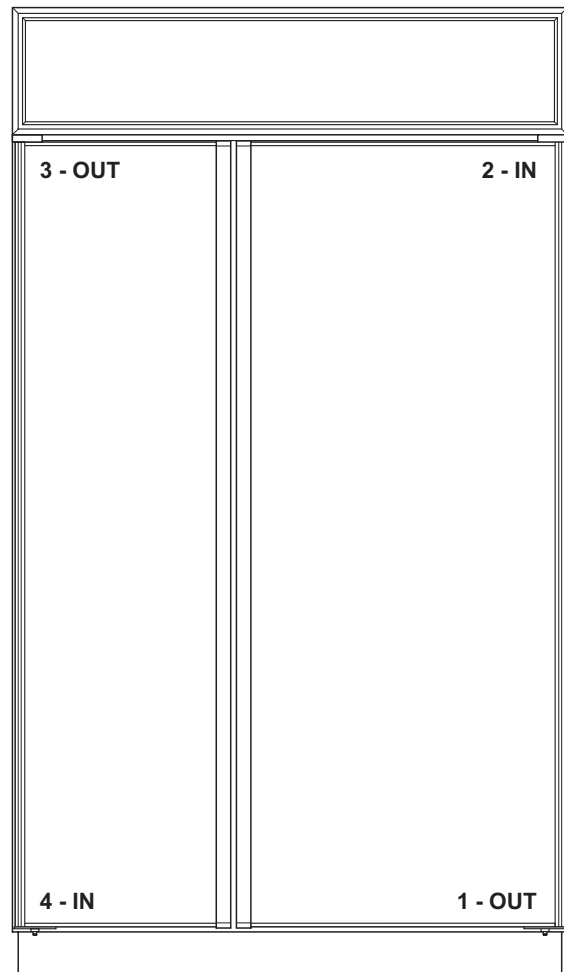


Figure 2-5. Special Side-by-Side Door Adjustment

Freezer Drawer Adjustments (Models 611/611G & 650/650G)

NOTE: Before attempting freezer drawer adjustment, remove freezer drawer assembly. Pull drawer assembly out, then lift at front while holding upper freezer basket in place. (See Figure 2-6)

Vertical Freezer Drawer Adjustment:

- Loosen two screws towards rear of each cabinet drawer slide, and extract screw at slide front. (See Figure 2-7)
- Relocate front screw to desired position in drawer slide insulator grommet (See Figure 2-7).
- After adjustment, tighten all screws, reinstall drawer assembly, then check door seal for proper gasket seating.

Freezer Drawer Front Pitch Adjustment:

- Remove two 3/4" white plastic plugs from each side of plastic drawer liner. (See Figure 2-8)
- With 3/8" socket, loosen bolts, then adjust drawer front pitch accordingly. (See Figure 2-8).
- After adjustment, tighten bolts and check door seal for proper gasket seating.

NOTE: If freezer drawer assembly has too much play from side-to-side, freezer drawer slide shims (part # 0232300 - front, part # 0232310 - rear) are available.

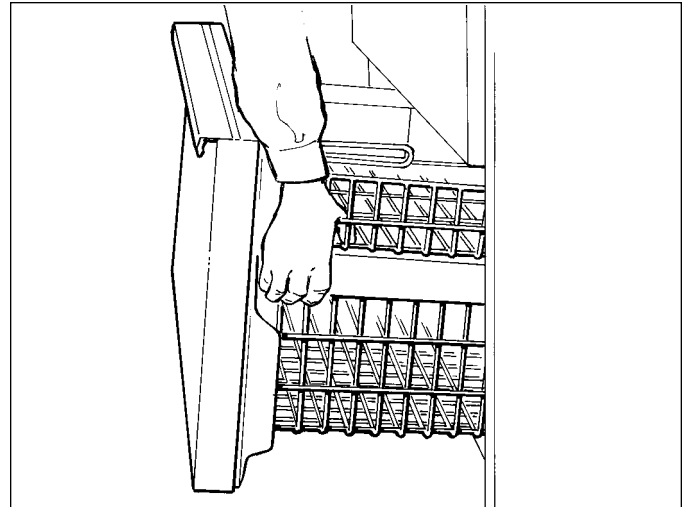


Figure 2-6. Drawer Assembly Removal

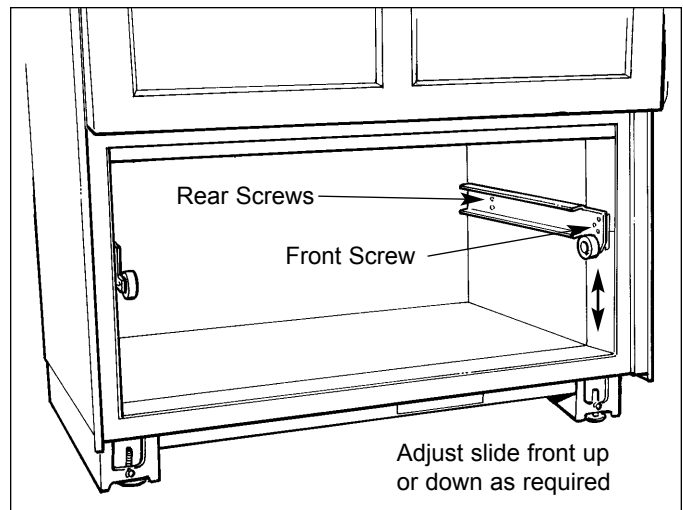


Figure 2-7. Vertical Freezer Drawer Adjustment

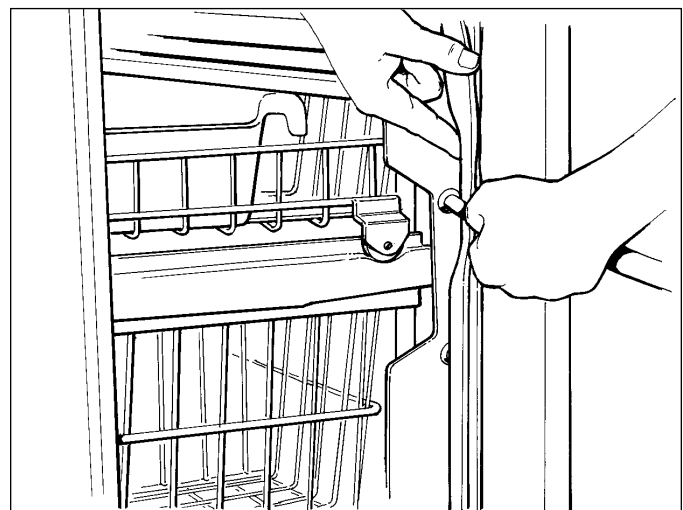


Figure 2-8. Drawer Front Pitch Adjustment

Door Panel Installation (All Models)

- a. Using piece of tape stuck to magnetic trim molding center, pull trim molding out at midpoint to expose handle/trim mounting screws (See Figure 2-9).
- b. Extract mounting screws and handle/trim from door (See Figure 2-10).
- c. Slide door panel into door frame (See Figure 2-11), then reinstalling handle/trim and magnetic trim molding.

NOTE: If door panel is less than 1/4" thick, a filler panel must be installed behind door panel.

NOTE: On Models 680 & 690, the handle inserts, trim fillers, vertical trim strip and glass well bezel will need to also be removed from door before sliding door panel into door frame.

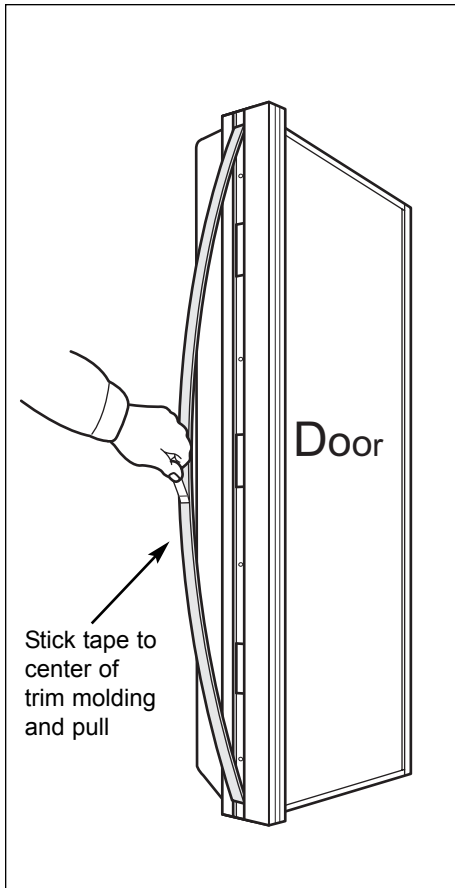


Figure 2-9. Molding Removal

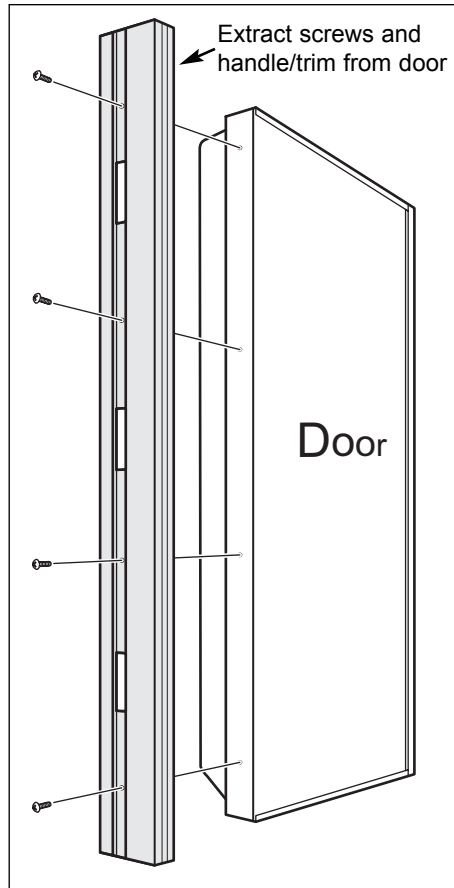


Figure 2-10. Handle/Trim Removal

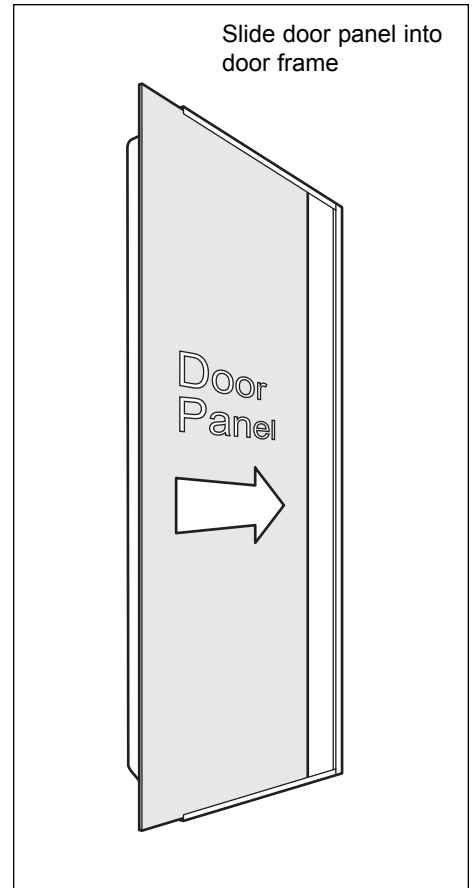


Figure 2-11. Door Panel Install

90° Door Stop Pin Installation (Models 611, 650)

Part #3550770, 90° Door Stop Pin, is supplied with models 611 and 650. To install:

- a Remove unit grille.
- b. With door closed, insert door stop pin down into threaded hole in top cabinet hinge and tighten (See Figure 2-12). Then, reinstall unit grille.

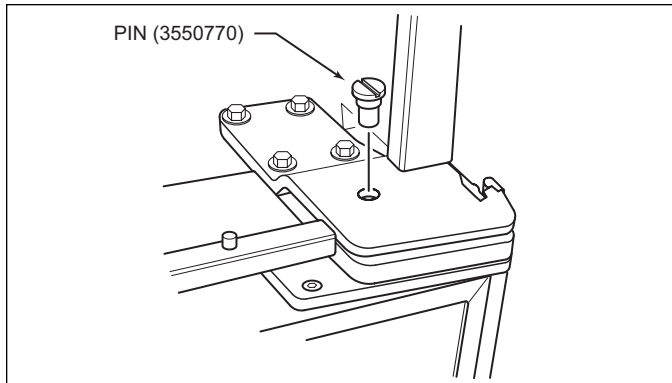


Figure 2-12. 90° Stop Pin (611, 650)

90° Door Stop Pin Installation (Models 611G, 650G)

Part #3550770, 90° Door Stop Pin, is supplied with models 611G and 650G. To install:

- a Open freezer drawer.
- b. Insert door stop pin up into threaded hole in lower cabinet hinge and tighten (See Figure 2-13).

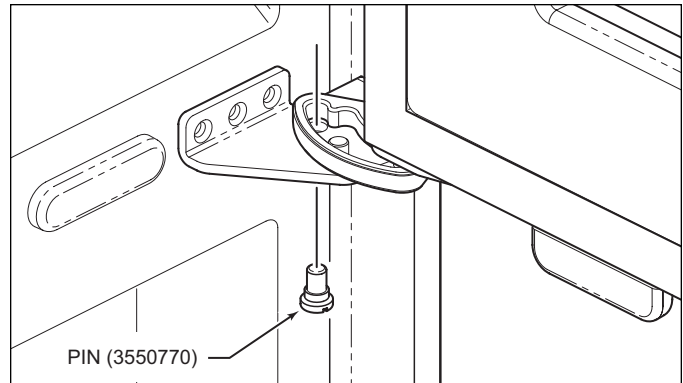


Figure 2-13. 90° Stop Pin (611G, 650G)

90° Door Stop Cam Installation (Models 632, 642, 680, 690)

Optional 90° door stop cam (part # DS90) and 105° door stop cam (part # DS105) are available at no charge from Authorized Parts Distributors and Product Distributors. To install:

- a With door closed, place door stop cam up over hinge pin, making sure stub on cam fits into hole in lower cabinet hinge (See Figure 2-14).
- b. Secure door stop cam by pushing E-ring into groove at end of hinge pin (See Figure 2-14).

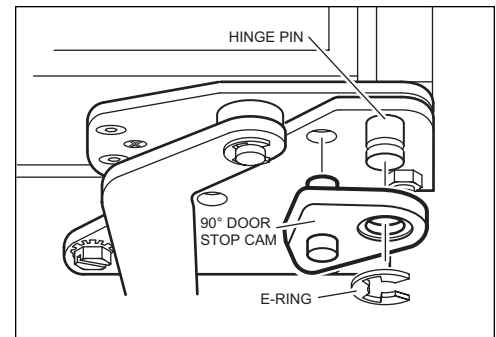


Figure 2-14. 90° Stop Cam

90° Door Stop Cam Installation (Models 601R, 601RG, 601F)

Optional 90° door stop cam (part # DS90) and 105° door stop cam (part # DS105) are available at no charge from Authorized Parts Distributors and Product Distributors. To install:

- a With door closed, extract bolts, stiffener plate and bushing from lower cabinet hinge (See Figure 2-15).
- b. Place door stop cam up over hinge pin, making sure stub on cam fits into hole in lower cabinet hinge (See Figure 2-15).
- c. Reinstall bushing, stiffener plate and bolts onto lower cabinet hinge (See Figure 2-15).

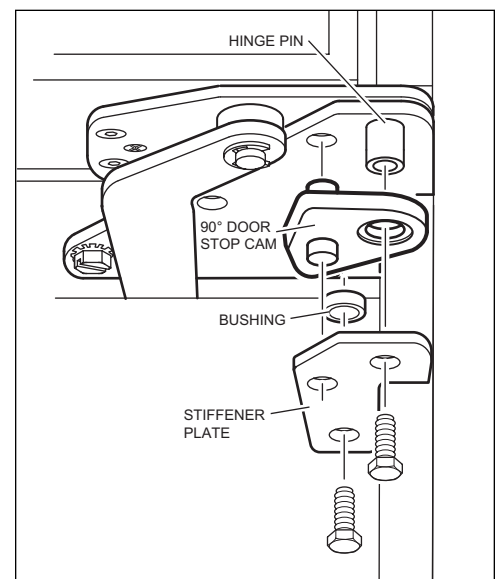


Figure 2-15. 90° Stop Cam

SECTION 3

ELECTRONIC CONTROL SYSTEM INFORMATION

For units starting with serial #1810000

ELECTRONIC CONTROL TERMINOLOGY & COMPONENT DESCRIPTIONS

All 600 Series units utilize an electronic control system. The electronic control system monitors, regulates and controls a variety of functions. The electronic control system also displays temperature readings, ice maker system operation, possible problems with the unit and door ajar alarm status. The table below defines some basic electronic control system terminology and describes some of the electronic control system components. An understanding of the following information is needed in order to comprehend the input operations and functions of the electronic control system.

Term/Component	Definition / Description
Control Board	The printed-circuit board (PC Board) containing the microprocessor, relays and electrical connections which control and monitor all functions and operations of the unit.
Microprocessor	An electrical component on the control board which receives electrical signals from other components, processes that information, then sends an electrical signal to the relays on the board to open or close, and other electronic components in the unit to switch ON or OFF.
Relay	The electrical components on the control board that switch other components in the unit ON and OFF when instructed to do so by the microprocessor.
LCD (Liquid Crystal Display)	That part of the control board seen at the control panel which displays compartment temperatures, service annunciators, error codes, etc. . .
Control Panel Assembly	The information input and read-out area of the electronic control system, located at the top of the refrigerator or freezer compartment.
Membrane Switch	An integral part of the control panel assembly, which consists of the function keys used for all input operations to the electronic control system.
Keys (Function Keys)	The buttons on the membrane switch used for input operations. The keys are: UNIT ON/OFF, DOOR AJAR ALARM BELL ON/OFF, ICE ON/OFF, WARMER, COLDER an on models 680 and 690 only there is a BULK ICE key.
Annunciators	The words and numbers that are displayed on the LCD. Such as: Temperature displays, door ajar alarm bell indicator, SERVICE indicator, ICE system indicator and error codes.
Error Codes	The code numbers accompanied by the letters "EC" that appear on the LCD during diagnostic mode if the unit experienced specific problems related to electrical signals supplied by electrical components.
Display Units of Measure.....	Temperatures displayed at the LCD may be in fahrenheit units of measure (°F) or celsius units of measure (°C). A series of key strokes allows the temperature display units of measure to be switched to read as either °F or °C.
Set-Point	The desired compartment temperature, established by pressing the COLDER or WARMER keys.
High Offset (Cut-in).....	As the compartment air temperature cycles up and down, the high offset is the maximum compartment temperature that the electronic control system will allow before calling for cooling.
Low Offset (Cut-out).....	As the compartment air temperature cycles up and down, the low offset is the minimum compartment air temperature that the electronic control system will allow before interrupting cooling.
Thermistor (Temperature Sensor)	A resistor with which resistance changes as the temperature around it changes. For electronic control system purposes, the microprocessor measures this resistance and displays it as a temperature reading at the LCD.

BASIC 600 SERIES ELECTRONIC CONTROL SYSTEM

This page illustrates a basic 600 Series electronic control system (See Figure 3-1). Input operations for the electronic control system are performed at the membrane switch on the control panel, with monitoring, regulating and controlling functions taking place at the control board (located directly behind the control panel). Temperatures and possible problems with the unit are displayed at the control panel on the LCD. The entire electronic control system is described in greater detail on the following pages.

NOTE: The diagram below is not an exact electrical representation of the electronic control system. For more detailed electrical diagrams refer to the wiring diagram and schematic supplied with the unit.

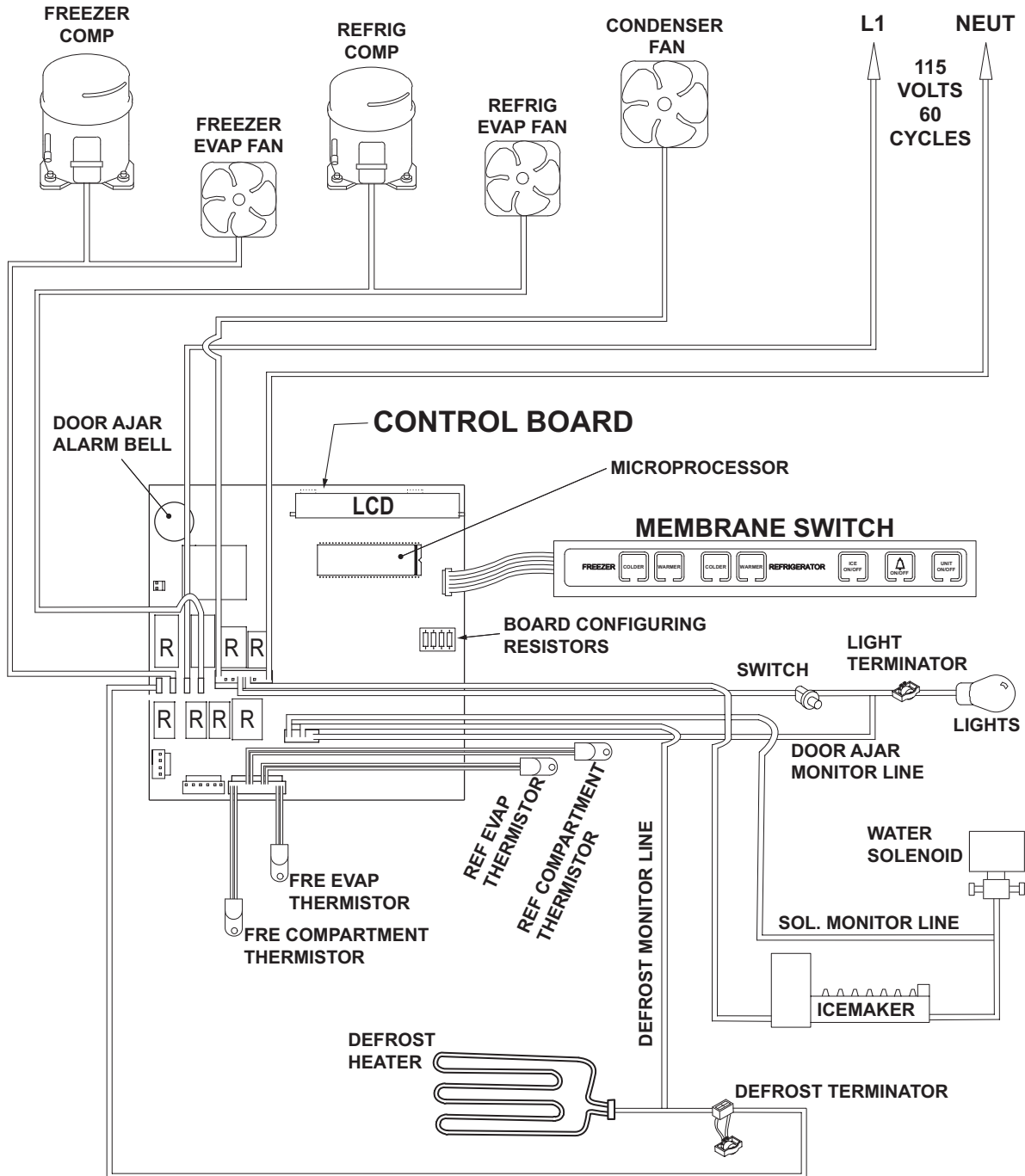


Figure 3-1. Basic 600 Series Electronic Control System Diagram

600 SERIES CONTROL BOARD LAYOUT AND SUMMARY TABLE

The electrical connection points on the control board are labeled alphanumerically. These labels correspond with the alphanumeric control board summary table, located on the wiring diagrams. By referencing the summary table, it is possible to identify which components are connected at which connection points on the control board. Below is a layout diagram of the control board and a copy of a summary table (See Figures 3-2 & 3-3).

NOTE: All components on the control board are non-replaceable. If problems with the control board are identified, the complete control board must be replaced.

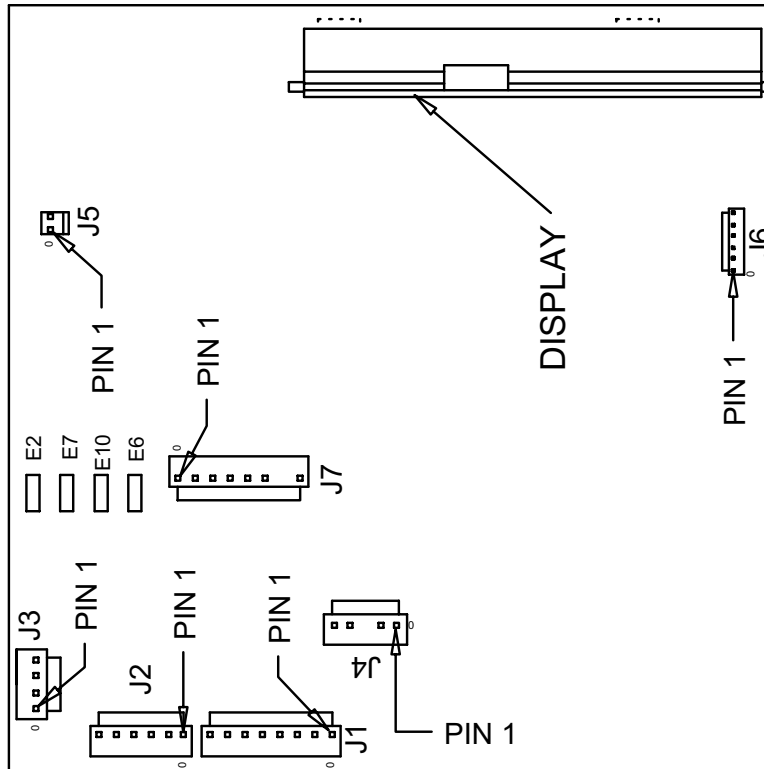


Figure 3-2. Control Board Layout

CONTROL BOARD SUMMARY				
	CIRCUIT	DESCRIPTION	FUNCTION	COLOR
120 VOLT CIRCUITS				
E2	DEF HTR	DEFROST HEATER	POWERS DEFROST CIRCUIT	BLUE
E7	F COMP	FRZ COMPRESSOR	POWERS FRZ COMPRESSOR	PURPLE
E10	L1	POWER IN	POWER INTO BOARD	BLACK
E6	RCOMP	REF COMPRESSOR	POWERS REF COMPRESSOR	GRAY
J7-1	C FAN	CONDENSER FAN	POWERS CONDENSER FAN	WHITE/RED
J7-2	E FAN	NOT USED		
J7-3	I ACC	ICE MAKER ACC (FILL TUBE)	POWERS FILL TUBE HEATER AND ACCESSORIES	WHITE/BLUE
J7-4	LITE	LIGHTS	POWERS LIGHTS	YELLOW
J7-5	ICE	ICE MAKER	POWERS ICE MAKER	PINK
J7-6		NOT USED		
J7-7		NOT USED(NO PIN)		
J7-8	NEU	NEUTRAL	NEUTRAL INTO BOARD	WHITE
J4-1	F DR	FRZ DOOR LIGHT SENSE	SENSES IF FRZ DOOR OPEN	BROWN
J4-2	R DR	REF DOOR LIGHT SENSE	SENSES IF REF DOOR OPEN	ORANGE
J4-3		NOT USED(NO PIN)		
J4-4		DEF SENSOR	SENSES WHEN DEF HEATER SHUTS OFF	GRAY/WHITE
J4-5		ICE MAKER VALVE SENSOR	SENSES WATER VALVE ACTIVATION	TAN
LOW VOLTAGE THERMISTOR CIRCUITS				
J1-1	EVAP FRZ	FRZ EVAP	SENSES FRZ EVAP TEMP	ORANGE/RED
J1-2	EVAP FRZ	FRZ EVAP	SENSES FRZ EVAP TEMP	BLUE/RED
J1-3	EVAP REF	REF EVAP	SENSES REF EVAP TEMP	ORANGE/YELLOW
J1-4	EVAP REF	REF EVAP	SENSES REF EVAP TEMP	BLUE/YELLOW
J1-5	REF	REF COMPARTMENT	SENSES REF CABINET	BLUE/WHITE
J1-6	REF	REF COMPARTMENT	SENSES REF CABINET	BLUE/WHITE
J1-7	FRZ	FRZ COMPARTMENT	SENSES FRZ CABINET TEMP	BLUE/BLACK
J1-8	FRZ	FRZ COMPARTMENT	SENSES FRZ CABINET TEMP	BLUE/BLACK

Figure 3-3. Control Board Summary Table (632/642 Summary Table Shown)

600 SERIES CONTROL PANEL LAYOUT

NOTES:

- The illustration below is of a 632 control panel (See Figure 3-4).
- The control panels in models 601R, 601RG and 601F lack the obvious keys and annunciators illustrated below.
- The control panels in models 601G, 611G and 650G will include a LIGHTS ON/OFF key, not shown in this illustration.
- The control panels in models 680 and 690 are mounted vertically and include a BULK ICE key.

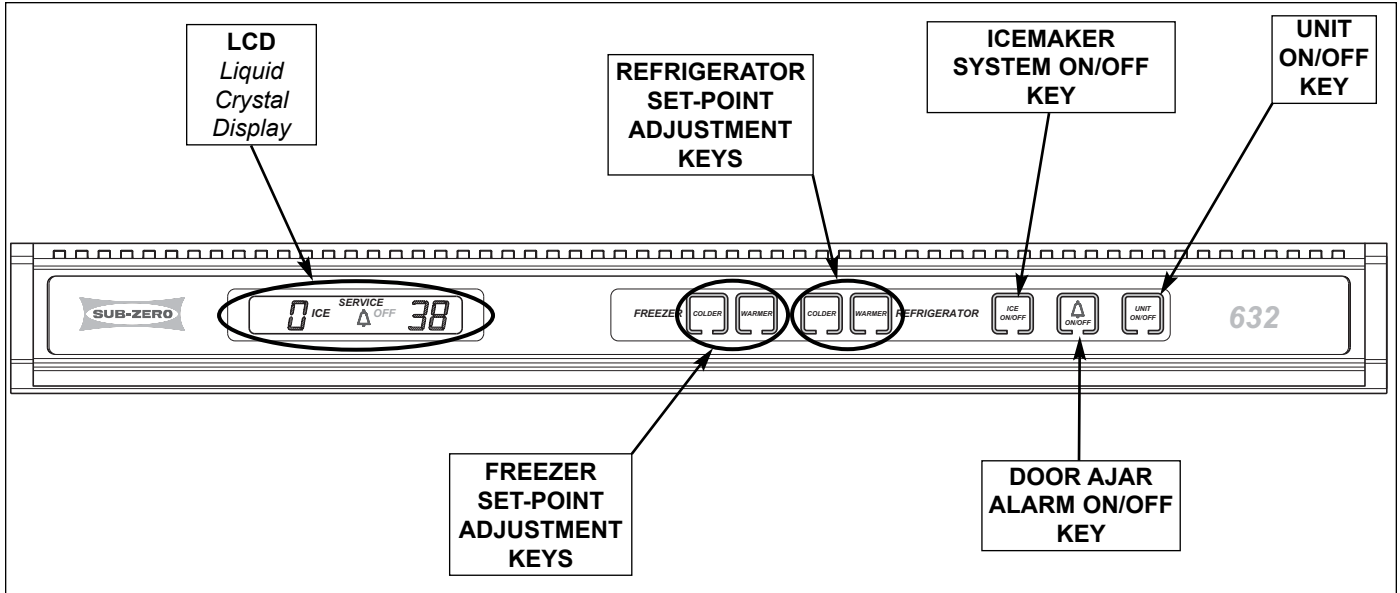


Figure 3-4. 600 Series Control Panel Layout (Model 632 Control Panel Shown)

BASIC ELECTRONIC CONTROL INPUT OPERATIONS

The following pages describe the basic input operations performed at a 600 Series control panel. The subjects covered are: switching the unit ON and OFF; adjusting the set-point (temperature adjustment); switching the ice maker system ON and OFF; enabling and disabling the door ajar alarm feature, and in a model 601RG, 611G and 650G only, accent lighting system ON and OFF.

Unit ON/OFF

All 600 Series units are shipped in the OFF Mode. When power is supplied to the unit, a trace of the word “OFF” is visible on the LCD. By pressing and releasing the UNIT ON/OFF key (See Figure 3-5), power is allowed past the control board to the rest of the unit. This will be indicated by the unit’s lights energizing and LCD at the control panel illuminating with temperature readings.

NOTE: Whenever the unit is switched OFF using the UNIT ON/OFF key, a trace of the word “OFF” will be visible on the LCD as long as there is power to the unit.

⚠ WARNING
WHEN IN “OFF” MODE, 115 VOLTS AC IS STILL PRESENT AT CONTROL BOARD.

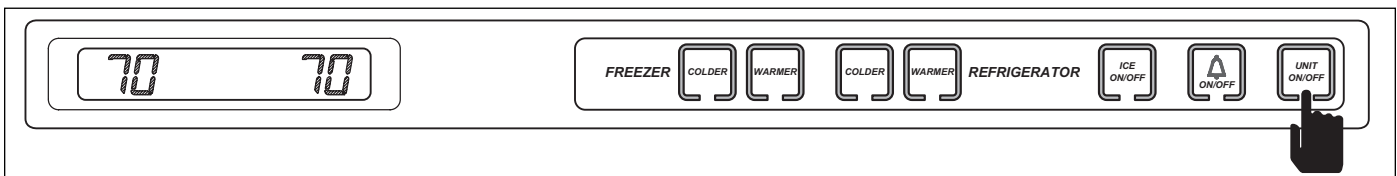


Figure 3-5. 600 Series Unit ON/OFF, Press UNIT ON/OFF Key

Adjusting Set-Point (Temperature Adjustment)

To adjust the set-points, press the appropriate compartment WARMER or COLDER key on the control panel in multiple key strokes until the desired set-point is achieved (See Figure 3-6). One key stroke equals a one degree (Fahrenheit or Celsius) change.

NOTE: The temperature range in a freezer compartment is -5°F (-21°C) to +5°F (-15°C). The temperature range in a refrigerator compartment is +34°F (+1°C) to +45°F (+7°C).

NOTE: When checking set-points, remember that the initial key stroke of the WARMER or COLDER key will change the previous set-point by one degree (Fahrenheit or Celsius).

NOTE: The set-point will be displayed on the LCD for 10 seconds after the last WARMER or COLDER key stroke. After the 10 second delay, the compartment temperature will be displayed. As the compartment temperature changes, the temperature displayed on the LCD will change by no more than one degree per minute.

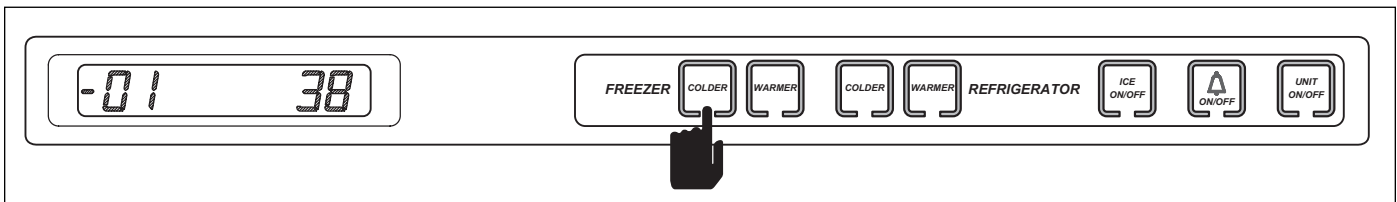


Figure 3-6. Adjusting the Set-Point - Press WARMER or COLDER Key In Multiple Key Strokes

Icemaker System ON/OFF

All 600 Series units with freezer compartments are equipped with an icemaker. When the unit first arrives in a home, the icemaker system is off. By pressing and releasing the ICE ON/OFF key on the control panel, power is allowed to the icemaker system and “ICE” is displayed on the LCD (See Figure 3-7). To deactivate the icemaker system, press and release the ICE ON/OFF key again and the “ICE” annunciator will disappear from the LCD, indicating the icemaker system is off.

NOTE: When the unit is in “Sabbath Mode,” the icemaker system is automatically deactivated. Sabbath Mode will be explained later in this section.

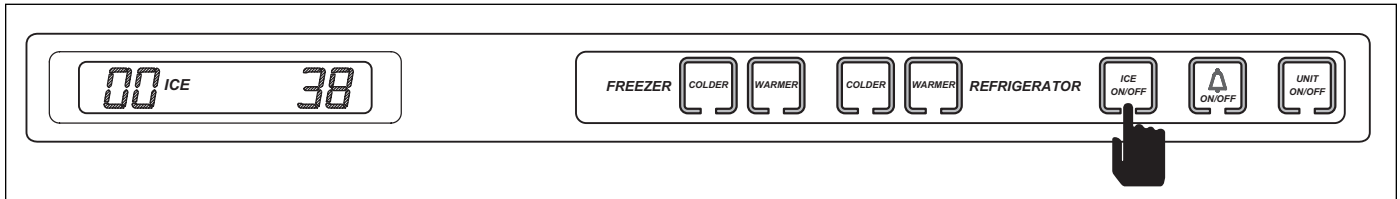


Figure 3-7. Icemaker System ON/OFF - Press ICE ON/OFF Key

Door Ajar Alarm Feature (Δ) ON/OFF

All 600 Series units are equipped with a door ajar alarm feature. To enable the door ajar alarm, press and release the bell ON/OFF key on the control panel (See Figure 3-8). The bell annunciator will illuminate on the LCD indicating the alarm feature is active. With the alarm enabled, the bell annunciator will flash and the audible alarm will beep whenever the door is left open for more than thirty seconds. To disable the door ajar alarm, press the bell ON/OFF key again and the bell annunciator on the LCD will disappear, indicating the alarm feature is inactive.

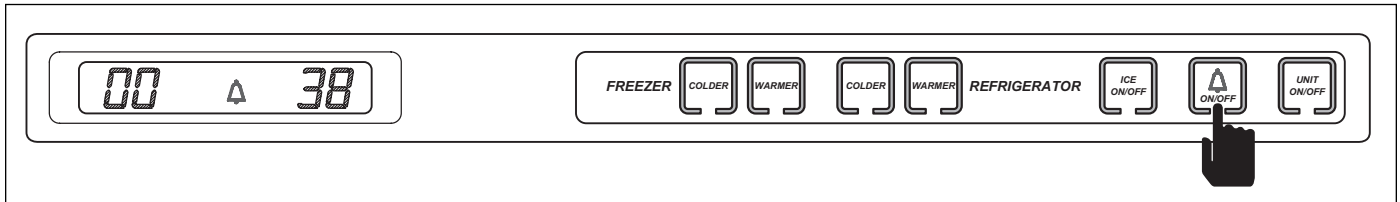


Figure 3-8. Door Ajar Alarm ON/OFF, Press Alarm Bell ON/OFF Key

Accent Lighting System ON/OFF (Models 601RG, 611G and 650G Only)

The models 601RG, 611G and 650G are equipped with an accent lighting system. To energize the accent lighting system, press the LIGHTS ON/OFF key (See Figure 3-9). With the accent lighting system energized, three low intensity light strips (15 Watts each), will stay illuminated when the door is closed. To disable the accent lights, press the LIGHTS ON/OFF key again.

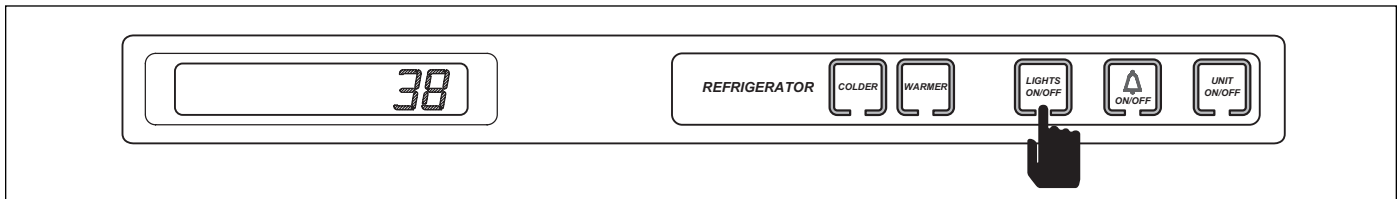


Figure 3-9. Model 601RG, 611G and 650G Accent Lighting System ON/OFF - Press LIGHTS ON/OFF Key

FUNCTIONS OF THE ELECTRONIC CONTROL SYSTEM

The following pages explain the monitoring, regulating and controlling functions of the electronic control system. In most cases signal traces on a model 632 wiring schematic are used to show electric current flow for the function being explained.

NOTE: Only normal operating functions are explained. Possible malfunctions are addressed in the Troubleshooting Guide.

Supply Power to the Lighting System

115 Volts are supplied to the lighting system through the control board when the unit is switched ON by pressing the UNIT ON/OFF key (See Figure 3-10).

NOTE: Disabling the lighting system (Sabbath Mode) is explained later in this section.

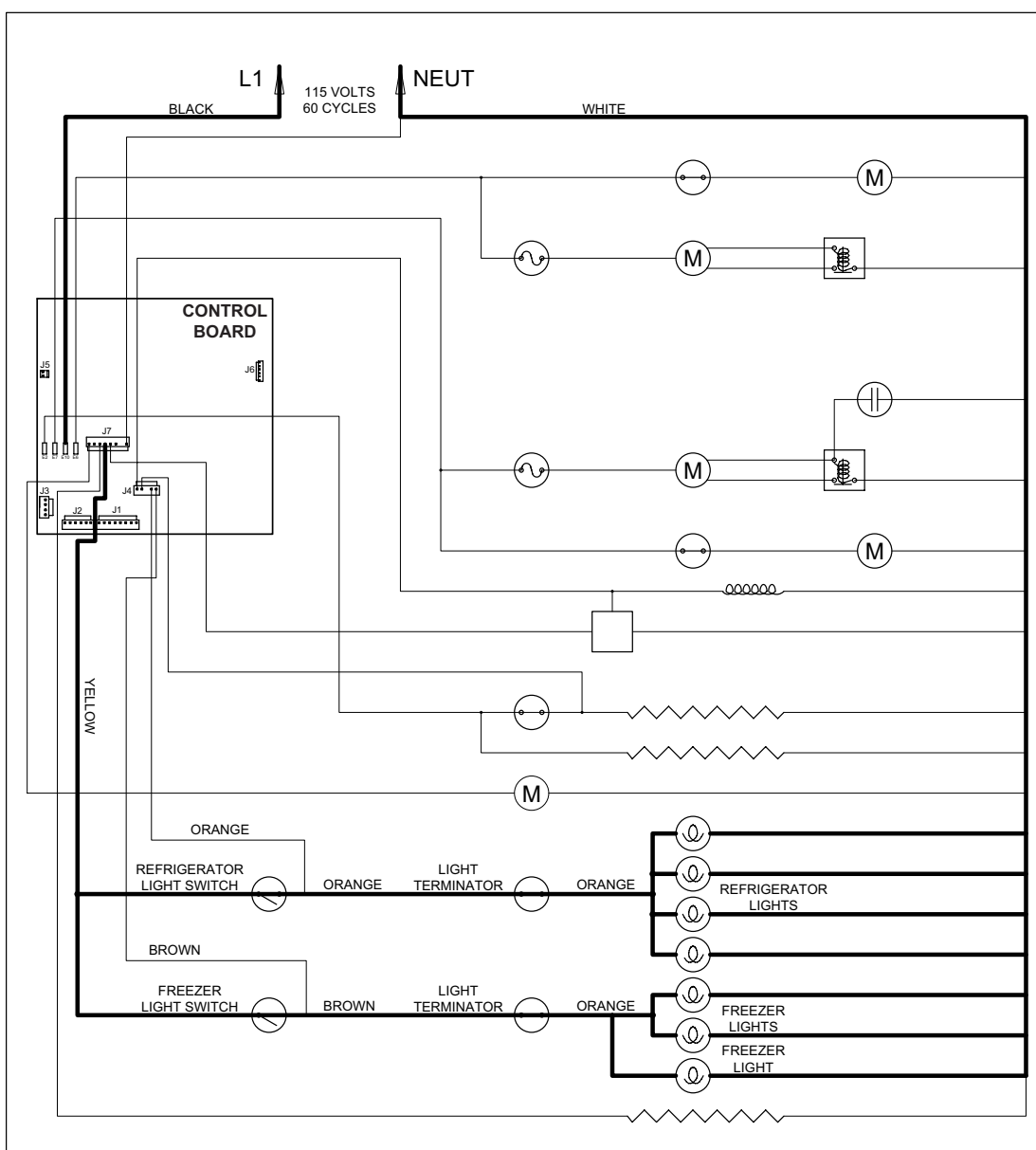


Figure 3-10. Signal Trace Schematic of Lighting System

Monitor, Regulate and Display Compartment Temperatures

The temperature signal from the thermistor in the refrigerator and/or freezer compartment is monitored by the microprocessor and displayed on the LCD. Though the compartment air temperature does fluctuate slightly, the LCD displays the average temperature (See Figure 3-11). When the compartment reaches high offset temperature, the microprocessor supplies power to the compressor and evaporator fan. (See Figure 3-12). As the compressor and evaporator fan run, the compartment temperature drops. When the compartment reaches low offset temperature, the microprocessor interrupts power to the compressor and evaporator fan, cycling them off.

NOTE: If the compartment temperature should ever exceed either the high offset or low offset (Example: when a door is left open), the temperature displayed on the LCD will change by one degree per minute.

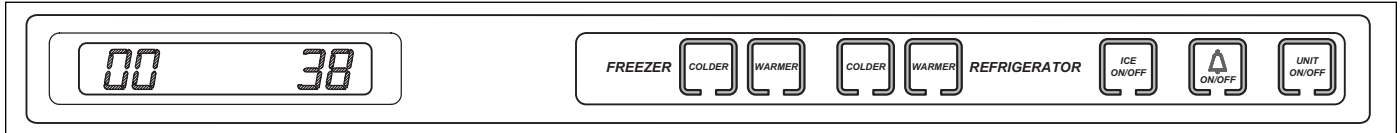


Figure 3-11. Average Compartment Temperature Displayed

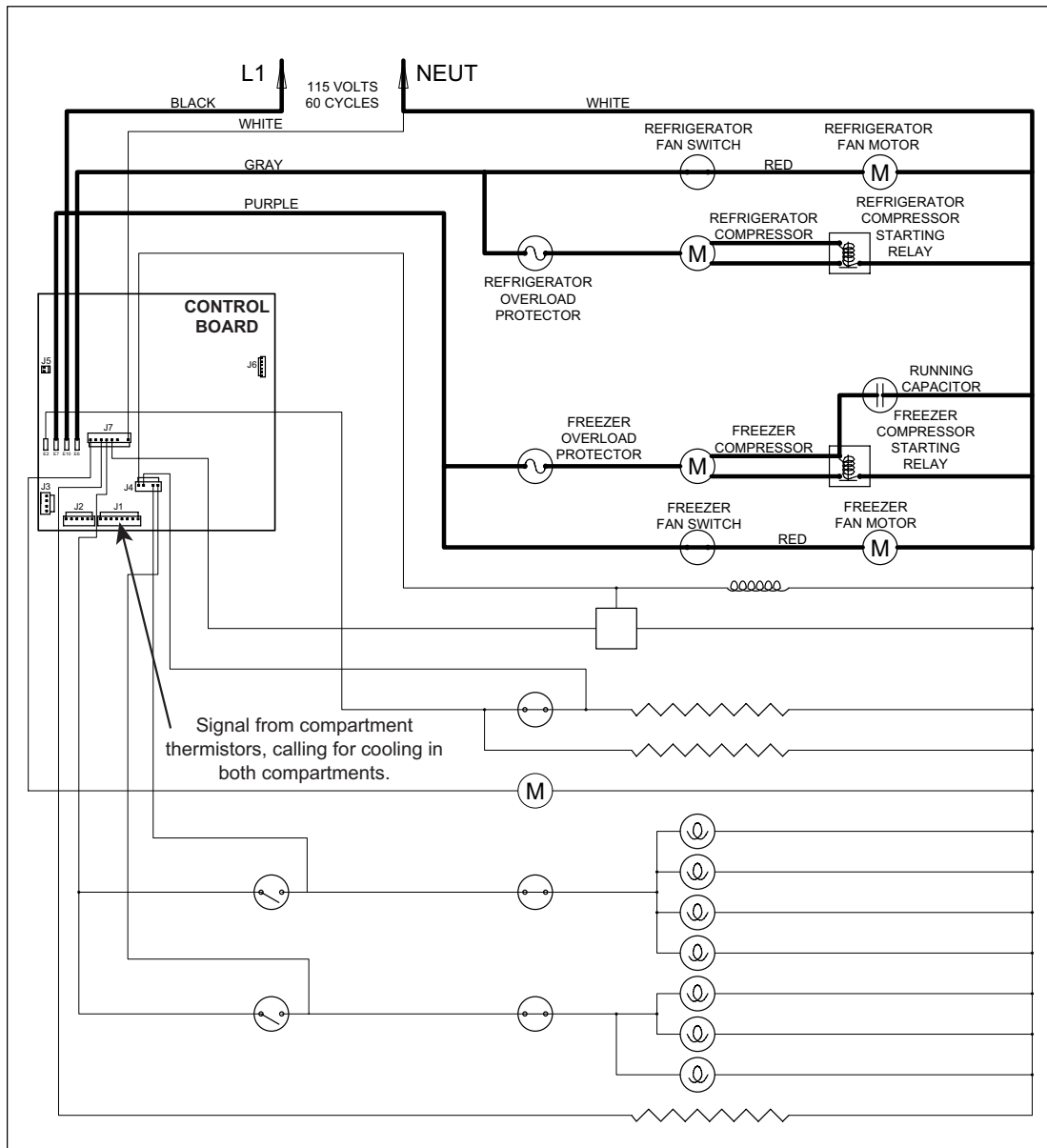


Figure 3-12. Signal Trace Schematic (High Voltage only) of Regulating Temperatures

Control Condenser Fan Run

The microprocessor senses the 115 volt output supplied to both compressors. If either compressor is running, a signal is sent to the condenser fan relay on the control board to close, supplying power to the condenser fan (See Figure 3-13). If both compressors are off, the condenser fan will also be off.

NOTE: In the single compressor models (601R, 601RG and 601F), power to the condenser fan is supplied by the compressor circuit. The white/red wire from the control board will not be present in those models.

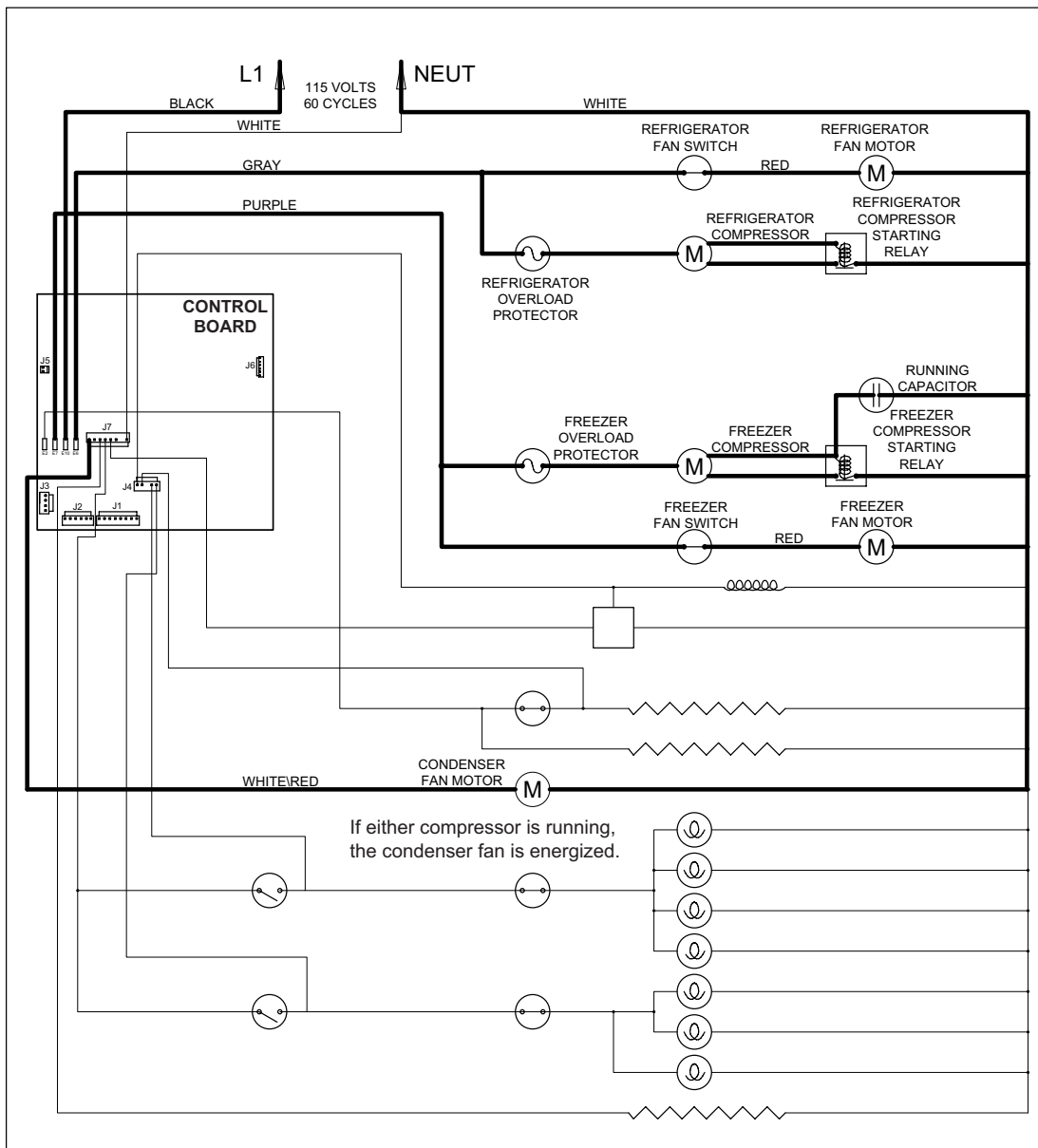


Figure 3-13. Signal Trace Schematic of Condenser Fan Operation

Minimize Condensation on Refrigerator Door Glass (Models 601RG, 611G and 650G Only)

The refrigerator door on models 601RG, 611G and 650G are equipped with a 5 watt braided wire heater around the perimeter of the door glass. When the unit is ON, the heater is energized 100% of the time to minimize condensation formation on the glass. To further help minimize condensation on the glass, the microprocessor senses every time the door is opened and closed by the signal from the light switch. When the door closes the evaporator fan is energized for five minutes to draw any warmer moist air away from the door glass. (See Figure 3-14)

NOTE: The evaporator fan in models 601RG, 611G and 650G also cycles with the compressor.

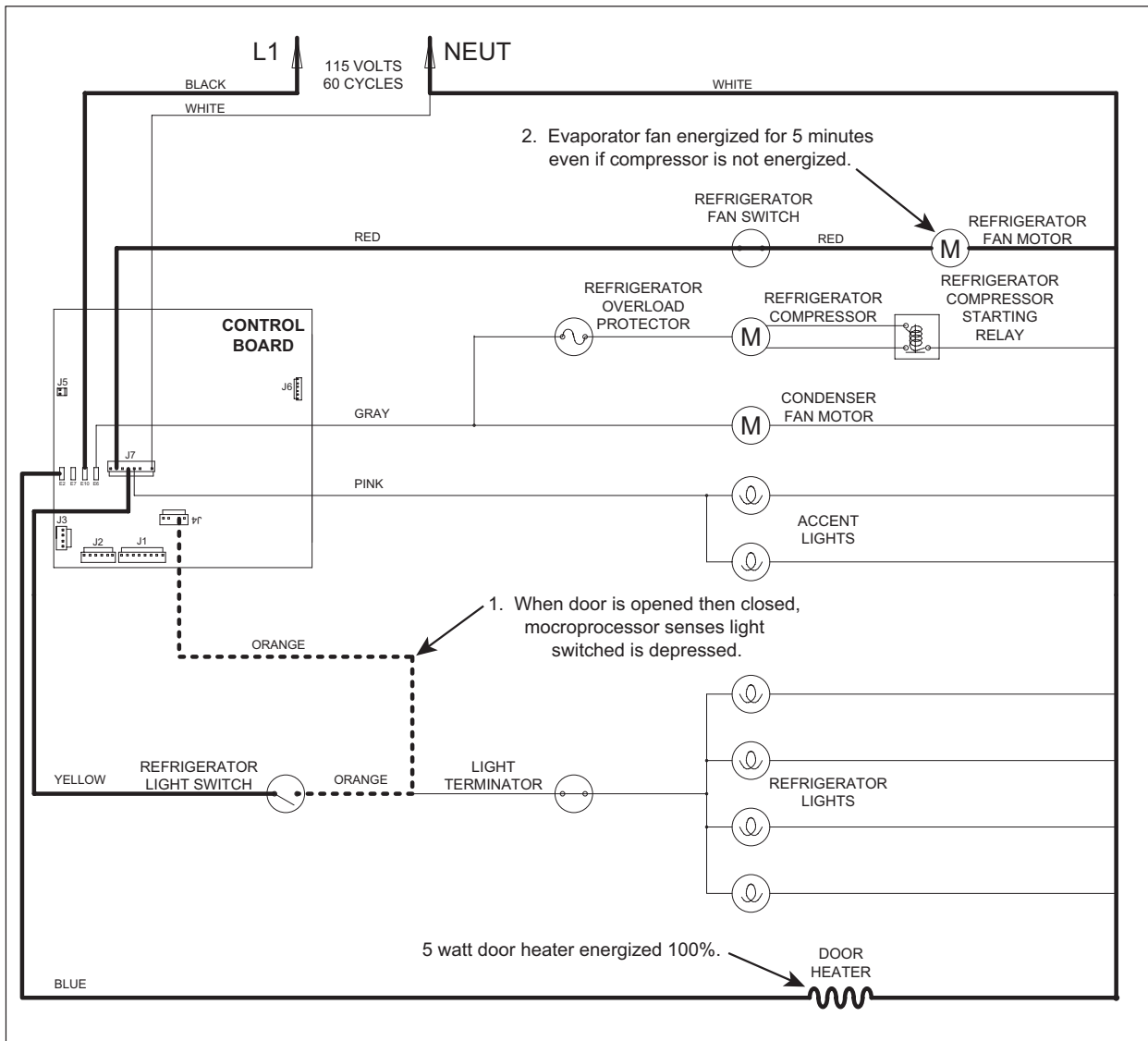


Figure 3-14. Signal Trace Schematic of 601RG Evaporator Fan Operation

Monitor and Control Refrigerator Off-Cycle Defrost

The temperature signals from the refrigerator compartment thermistor and refrigerator evaporator thermistor are monitored by the microprocessor. During off cycle defrost, if the compartment temperature reaches high offset before the evaporator has risen to 38°F (3°C), the signal to run the compressor and evaporator fan will wait, allowing the refrigerator evaporator to fully defrost before the compressor is energized (See Figure 3-15).

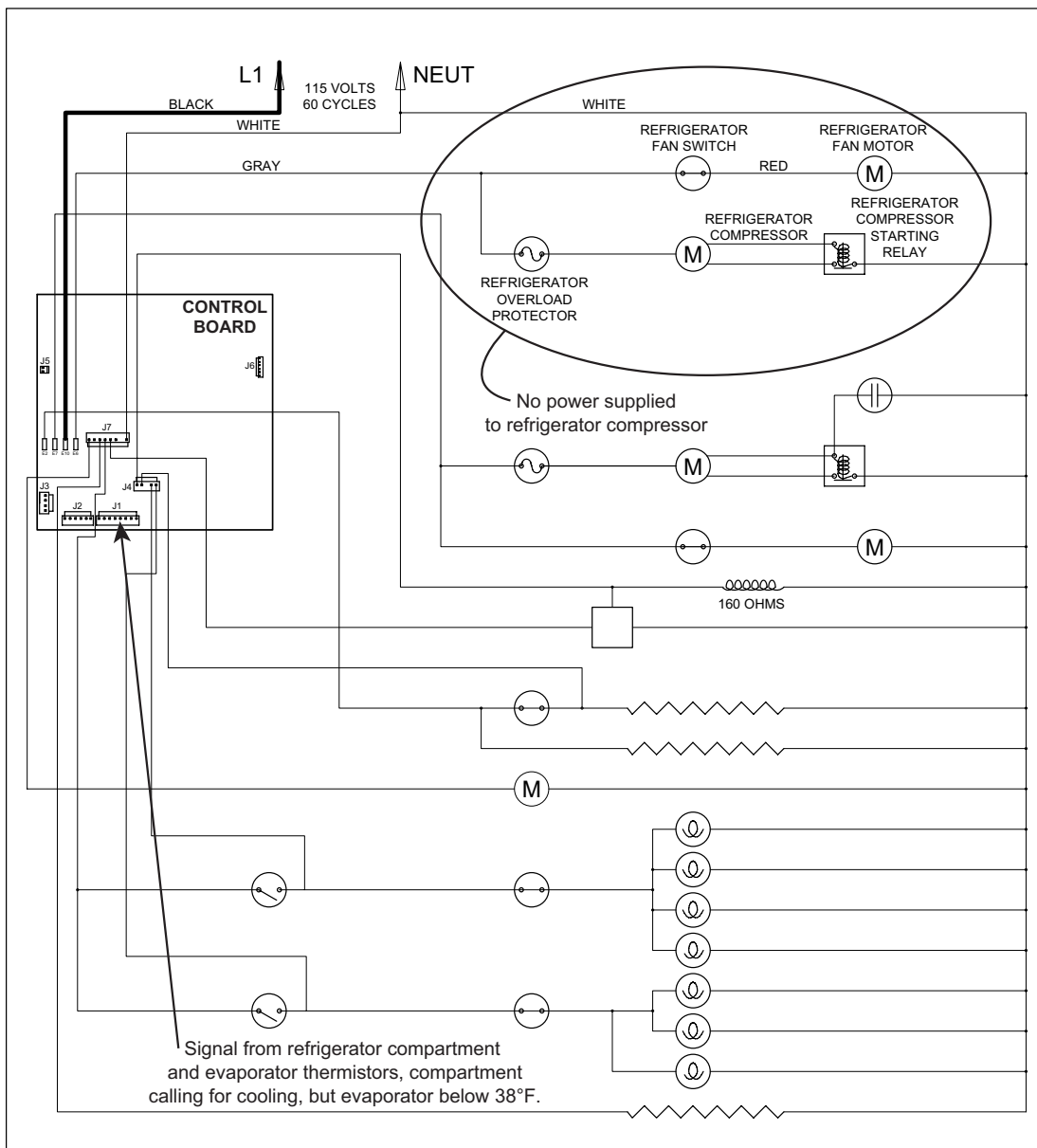


Figure 3-15. Signal Trace Schematic (High Voltage only) of Refrigerator Off-Cycle Defrost

Monitor and Control “Adaptive Defrost” of Freezer Evaporator

Initially the freezer compressor will cycle-run for twelve hours, after which the compressor is switched off and power is supplied to the defrost heater (See Figure 3-16). With the “Adaptive Defrost” technique, the length of time that the heater stays on to defrost the evaporator and satisfy the defrost terminator is observed by the microprocessor. The microprocessor then determines the number of hours before the next defrost. If the heater stays on for a shorter time than specified, the microprocessor increases the time interval before the next defrost. If the heater stays on longer than specified, the electronic control decreases the time interval before the next defrost. This is an ongoing process whereby the defrost time and the defrost interval will vary by unit use.

NOTE: A five minute time delay/dwell follows all defrosts before the compressor is energized. The freezer drain trough heater is energized during defrost and remains energized during this five minute dwell.

NOTE: The minimum defrost interval is six hours. The maximum defrost interval is eighty hours. The maximum defrost duration is twenty-five minutes.

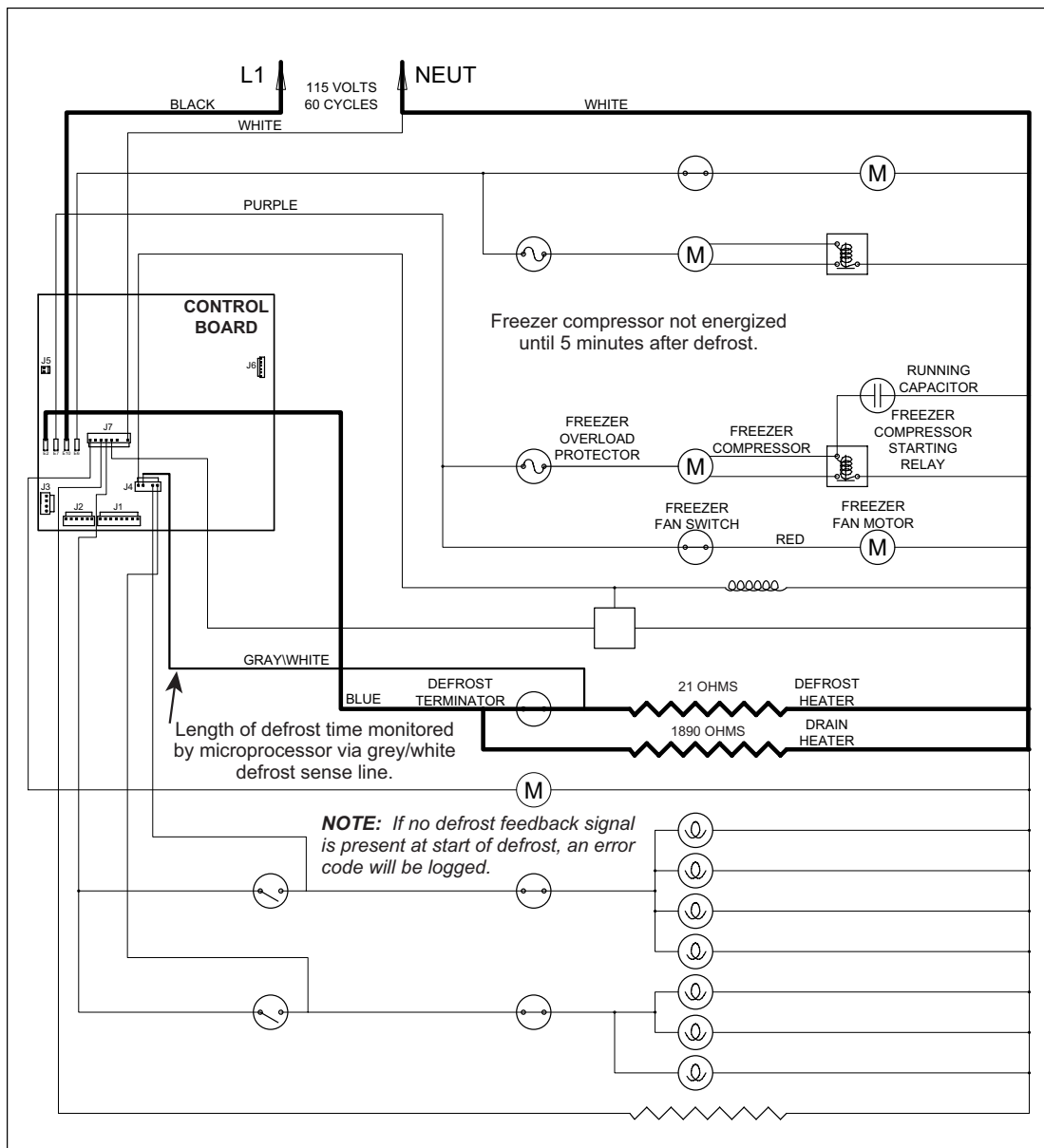


Figure 3-16. Signal Trace Schematic of Freezer Adaptive Defrost

Monitor Compressor Run Duration, Displays If Service may be Needed

The microprocessor senses the 115 volts supplied to each compressor, monitoring the length of compressor run time (See Figure 3-17). If either compressor experiences several excessive run periods (possibly due to a dirty condenser), a signal is sent to the "SERVICE" annunciator on the LCD to flash (See Figure 3-18).

NOTE: SERVICE flashing alone can indicate excessive compressor run or a faulty refrigerator evaporator thermistor. To narrow the search for the cause, Diagnostic Mode (covered later in this section) should be initiated.

NOTE: If Diagnostic Mode is initiated and there are "Error Codes" (also covered later in this section), a non-flashing SERVICE annunciator will be observed. To clear a non-flashing SERVICE annunciator, the problem must be corrected, then the Bell ON/OFF key must be pressed and held for fifteen seconds.

NOTE: If the unit is ever switched OFF then back ON, the compressors will not energize for at least three minutes because of a three minute minimum OFF time built into the electronic control system to protect the compressor and its electricals. There is also a three minute minimum ON time for this same purpose.

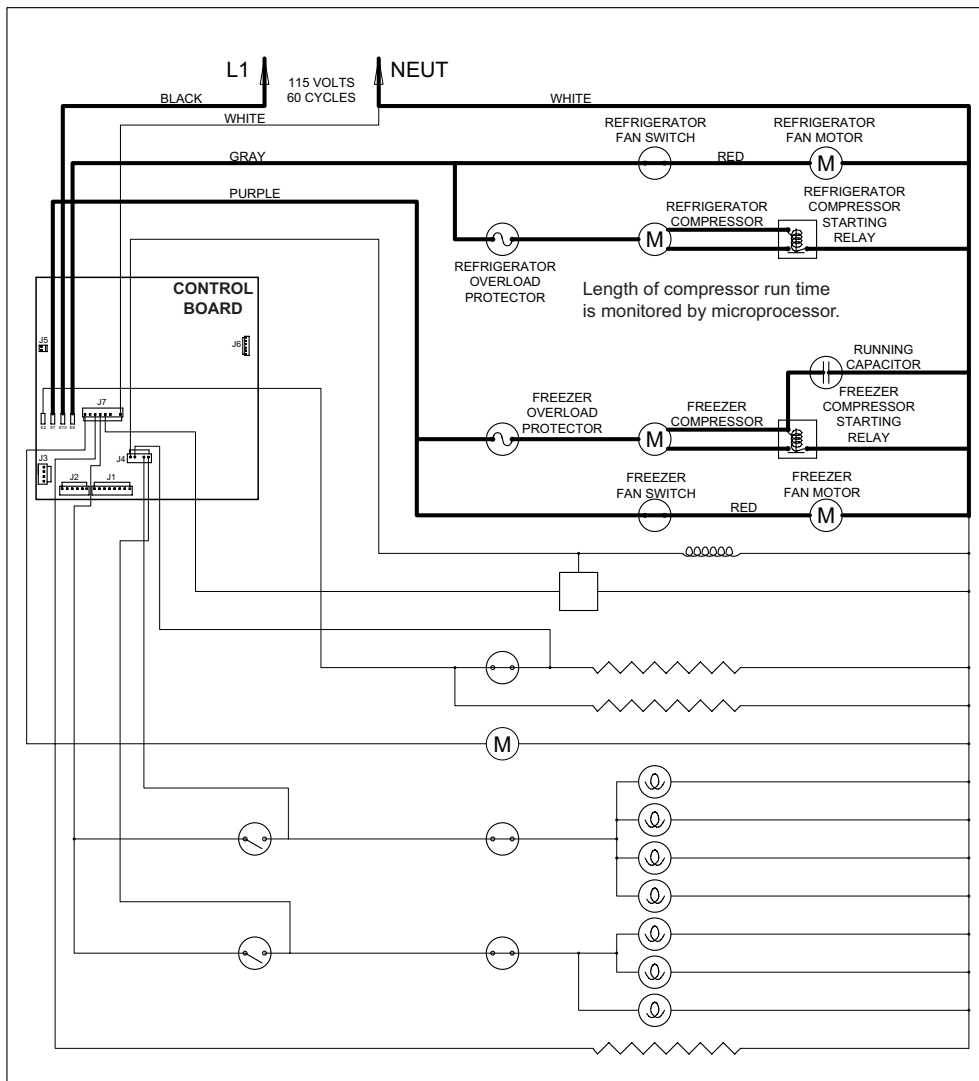


Figure 3-17. Signal Trace Schematic of Compressor Electrical System

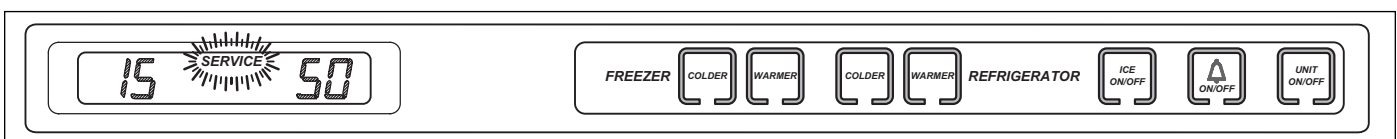


Figure 3-18. SERVICE Flashing Alone Possibly Because of Several Excessive Compressor Run Periods

Monitor Icemaker System and Display If Service Is Needed

The microprocessor monitors the 115 volts supplied to the icemaker water valve solenoid (See Figure 3-19). If the solenoid is energized longer than fifteen seconds, the microprocessor cuts power to the icemaker system and sends a signal to the ICE and SERVICE annunciators on the LCD to flash (See Figure 3-20).

NOTE: To clear flashing ICE and SERVICE annunciators, the problem must be corrected, then the unit must be switched OFF and back ON.

NOTE: To allow ice to freeze fully and reduce effects of possible low water pressure, the electronic control system interrupts power to the icemaker system for 45 minutes after each ice harvest.

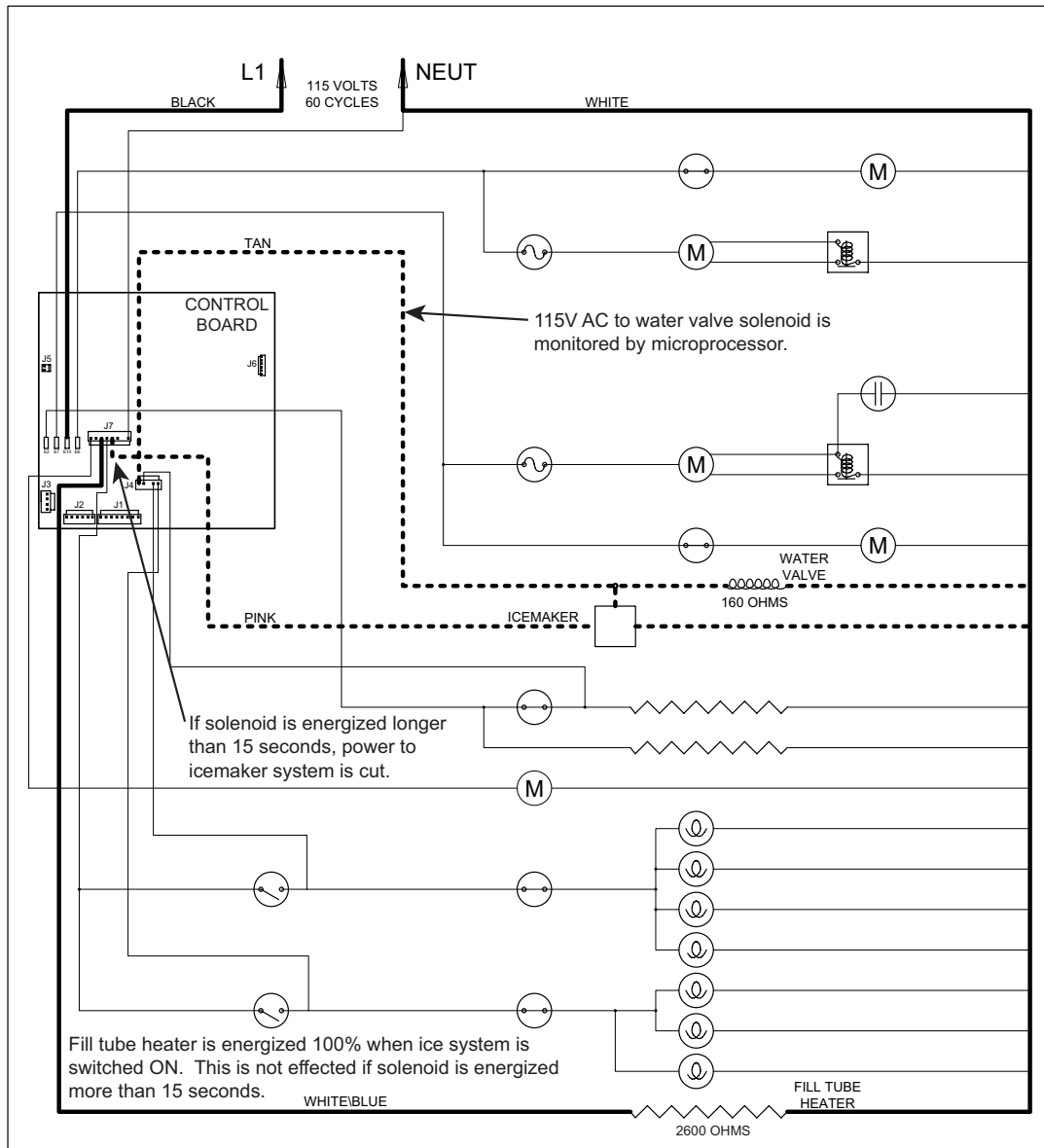


Figure 3-19. Signal Trace Schematic of Icemaker Electrical System

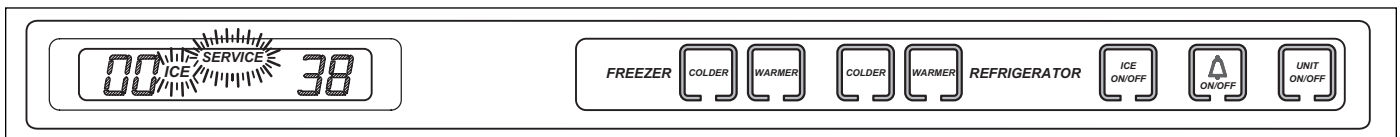


Figure 3-20. ICE & SERVICE Flashing = Water Valve Solenoid Energized Longer Than 15 Seconds and Icemaker System Disabled

UNIQUE ELECTRONIC CONTROL INPUT OPERATIONS

The following few pages illustrate unique electronic control input operations performed at the control panel that you would not expect a customer to perform every day. The input operations described are: Temperature Unit Selection Mode, Sabbath Mode, Showroom Mode, Manual Compartment Disable Mode and Manual Freezer Evaporator Defrost.

Temperature Units Selection Mode (Selecting Degrees Fahrenheit or Degrees Celsius Display)

The electronic control is initially set to display temperature in Fahrenheit (°F) units of measure. However, the temperature units displayed can be converted from °F to °C (Celsius), and/or back again. This operation is called Temperature Units Selection.

NOTE: Temperature Units Selection must be performed within the first minute after switching the unit ON.

To convert the temperature units of measure from Fahrenheit (°F) readings to Celsius (°C) readings, press and hold the door ajar alarm bell key and the UNIT ON/OFF key simultaneously for approximately five seconds, then release both keys (See Figure 3-21). “°C” will appear on the LCD indicating that temperatures will now be displayed in Celsius units of measure. To convert back to Fahrenheit units of measure, repeat pressing the alarm bell key then the UNIT ON/OFF key simultaneously. (See Figure 3-22)

NOTE: Temperature Units Selection Mode will end 10 seconds after the last key stroke.

NOTE: Do not press and hold the UNIT ON/OFF key first, that will simply switch the unit OFF.

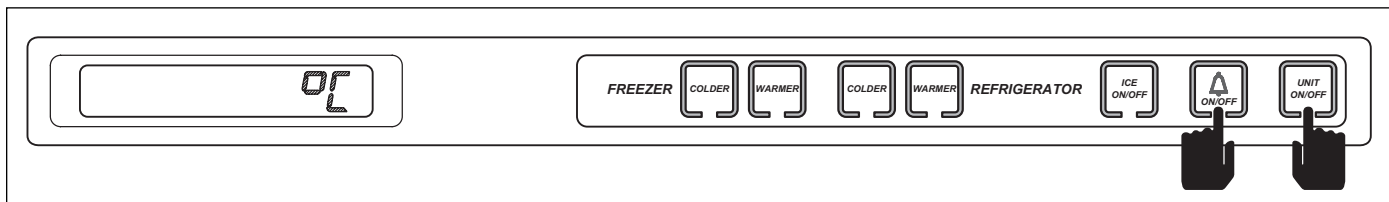


Figure 3-21. Converting to from Fahrenheit to Celsius Units of Measure (within first minute after switching unit ON)
Press and Hold Door Ajar Alarm Bell Key and UNIT ON/OFF Key for 5 Seconds

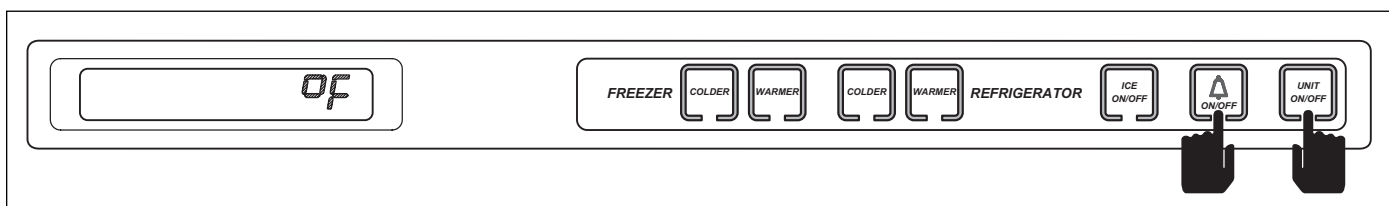


Figure 3-22. Converting Back to Fahrenheit Units of Measure (within 10 seconds of previous key stroke and/or within first minute after switching unit ON)
Press and Hold Door Ajar Alarm Bell Key and UNIT ON/OFF Key

Sabbath Mode

Sabbath Mode was incorporated into the electronic control system for the observance of certain religious days. Initiating Sabbath Mode disables the light switches, the circuits to the ice making system and the door ajar alarm.

To initiate Sabbath Mode, the unit must first be switched OFF using the UNIT ON/OFF key (See Figure 3-23). With the unit switched OFF, press and hold the UNIT ON/OFF key for ten seconds, then release (See Figure 3-24).

To return to normal lighting operation, press and release the UNIT ON/OFF key.

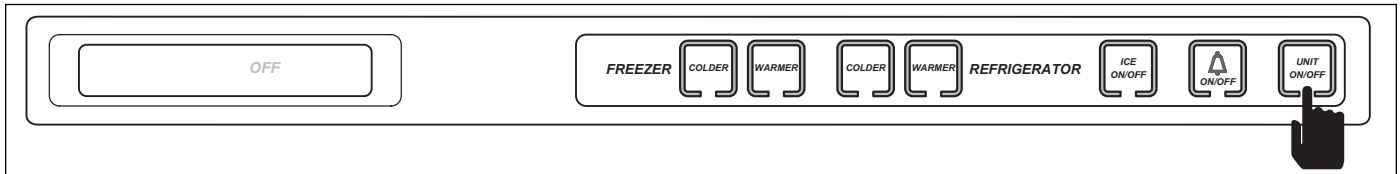


Figure 3-23. To Enter Sabbath Mode, Switch Unit OFF First

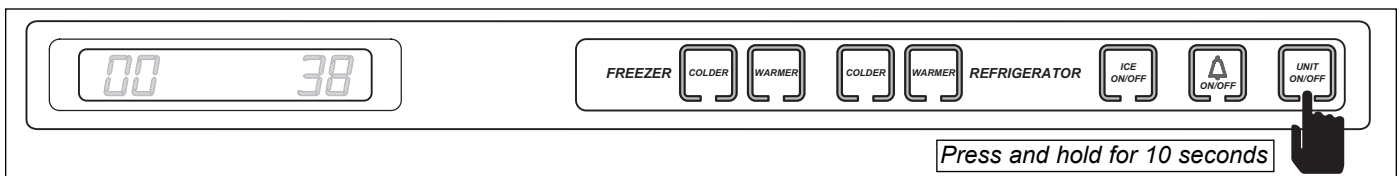


Figure 3-24. After Unit is Switched OFF, Press and Hold the UNIT ON/OFF Key for 10 Seconds

Showroom Mode

Showroom Mode was incorporated into the electronic control system to allow for Sub-Zero appliances to be displayed in a showroom setting. When in Showroom Mode, all cooling functions are disabled, but the lighting system remains active.

To initiate Showroom Mode, the unit must first be switched OFF using the UNIT ON/OFF key (See Figure 3-25). With the unit switched OFF, press and hold either pair of WARMER and COLDER keys, then press the UNIT ON/OFF key, then release all three keys (See Figure 3-26).

To return the unit to normal operating condition, repeat the steps above.

NOTE: Always check set-points after returning unit to normal operating condition.

NOTE: It is possible to determine if a unit is in Showroom Mode by initiating Diagnostic Mode. If "Sr" is observed in the left temperature display area during Diagnostic Mode, the unit is in Showroom mode. Initiating Diagnostic Mode is covered later in this section.

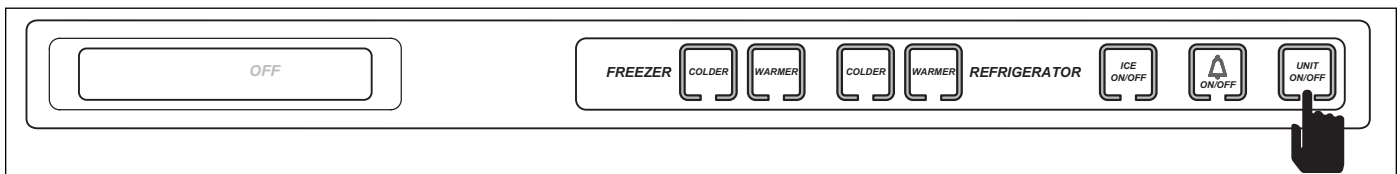


Figure 3-25. To Enter (or Exit) Showroom Mode, Switch Unit OFF First

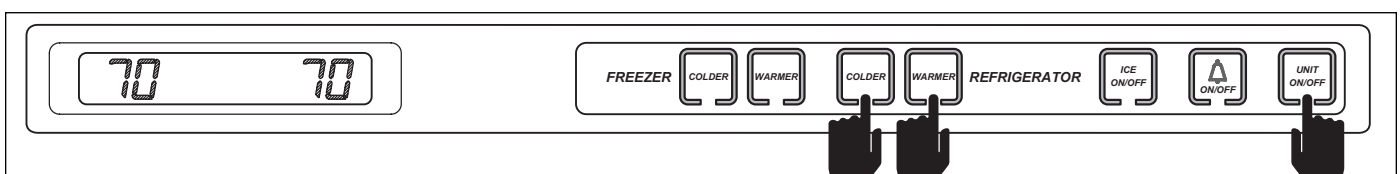


Figure 3-26. After Unit is Switched OFF, Press and Hold the WARMER and COLDER Keys, Then Press the UNIT ON/OFF Key

Manual Compartment Disable Mode

Manual Compartment Disable Mode allows a customer or Service Technician to switch one compartment off for interior cleaning, defrosting or diagnostic purposes, while allowing the other compartment to continue cooling.

To initiate Manual Compartment Disable Mode, the unit must first be switched OFF using the UNIT ON/OFF key (See Figure 3-27). With the unit switched OFF, press and hold the WARMER key for the compartment being disabled, then press the UNIT ON/OFF key, then release both keys (See Figure 3-28). The LCD will display “- -” (double dashes) in place of temperature readings for the compartment chosen, indicating that all cooling functions for that compartment are disabled.

To return the unit to normal operating condition, repeat the steps above.

NOTE: Always check set-points after returning unit to normal operating condition.

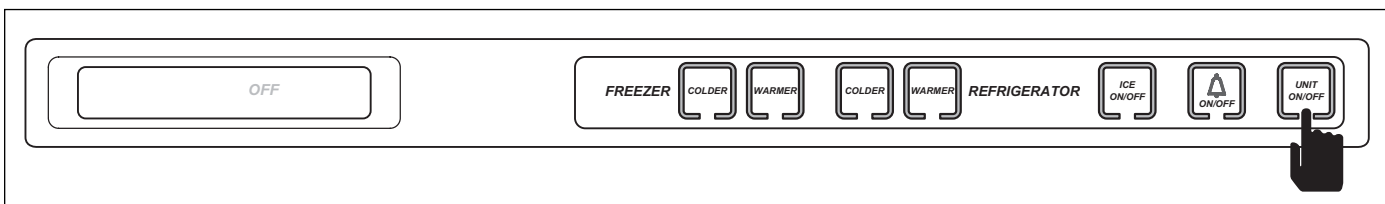


Figure 3-27. To Enter (or Exit) Manual Compartment Disable Mode, Switch Unit OFF First

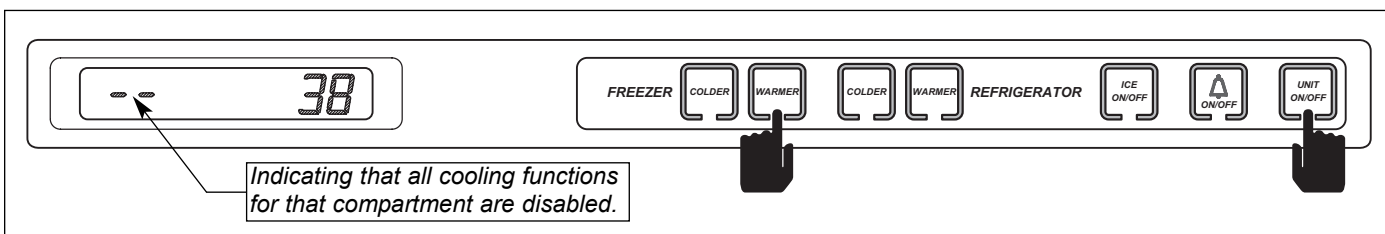


Figure 3-28. After Unit is Switched OFF, Press and Hold the WARMER Key for the Compartment Being Disabled, Then Press the UNIT ON/OFF Key.

Manual Freezer Evaporator Defrost

Manual Freezer Evaporator Defrost was incorporated into the electronic control to assist in servicing and diagnostics.

To initiate manual freezer evaporator defrost, press and hold the ICE key for five seconds, then release the key. (See Figure 3-29).

NOTE: Manual Freezer Evaporator Defrost will not operate if unit is in Sabbath Mode.

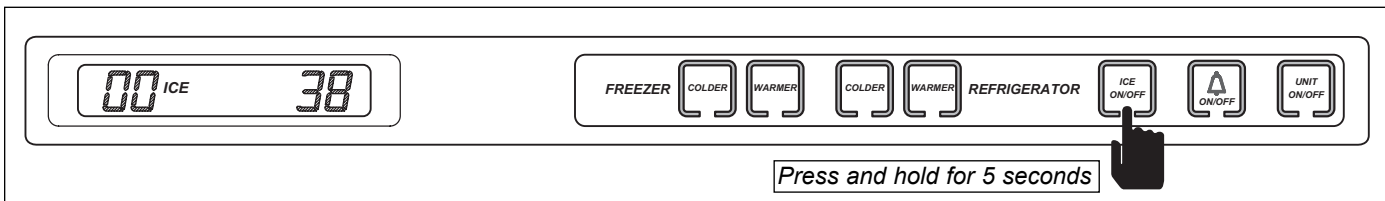


Figure 3-29. Initiate Manual Freezer Evaporator Defrost - Press and Hold the ICE key for 5 Seconds

POSSIBLE ERROR INDICATORS

These pages contain diagrams which illustrate what a customer may see on the LCD if there is a problem/error with the unit.

“EE” Displayed at Left and “SERVICE” Flashing - If “EE” is displayed in place of freezer compartment temperature and “SERVICE” is flashing, then the freezer compartment thermistor is faulty or there is a break in the thermistor’s wiring (See Figure 3-30). To clear this error indicator, the problem must be corrected.

NOTE: To check the thermistor, submerge it in a glass of ice water for two to five minutes, then check for 30,000 to 33,000 ohms.

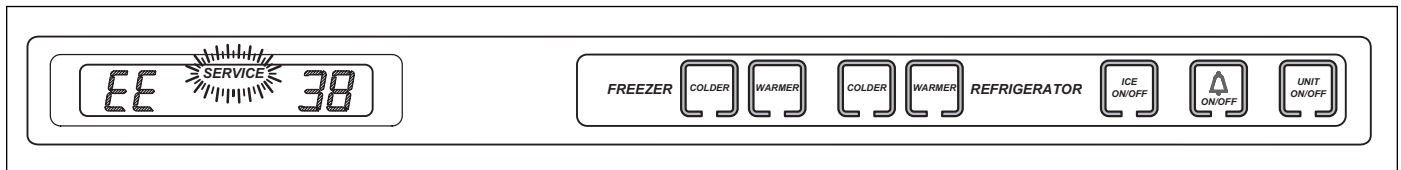


Figure 3-30. “EE” at Left and “SERVICE” Flashing = Freezer Compartment Thermistor (or its Wiring) Fault

“SERVICE” Flashing and “EE” Displayed at Right - If “EE” is displayed in place of refrigerator compartment temperature and “SERVICE” is flashing, then the refrigerator compartment thermistor is faulty or there is a break in the thermistor’s wiring (See Figure 3-31). To clear this error indicator, the problem must be corrected.

NOTE: To check the thermistor, submerge it in a glass of ice water for two to five minutes, then check for 30,000 to 33,000 ohms.

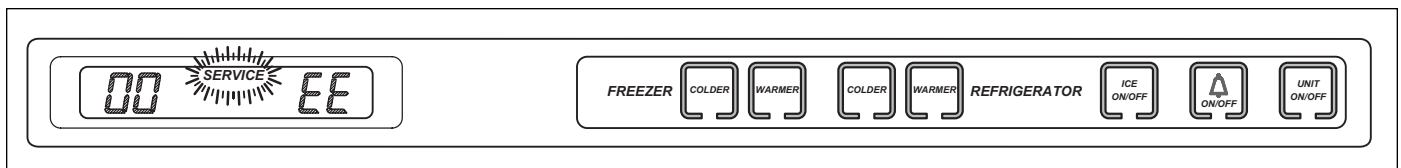


Figure 3-31. “SERVICE” Flashing and “EE” at right = Refrig. Compartment Thermistor (or its wiring) Fault

“ICE” and “SERVICE” Flashing - If “ICE” and “SERVICE” are flashing, then the icemaker water valve solenoid energized longer than fifteen seconds (possibly caused by a jammed ice cube), and the icemaker system is disabled (See Figure 3-32). To clear this error indicator, the problem must be corrected, then the unit must be switched OFF then back ON.

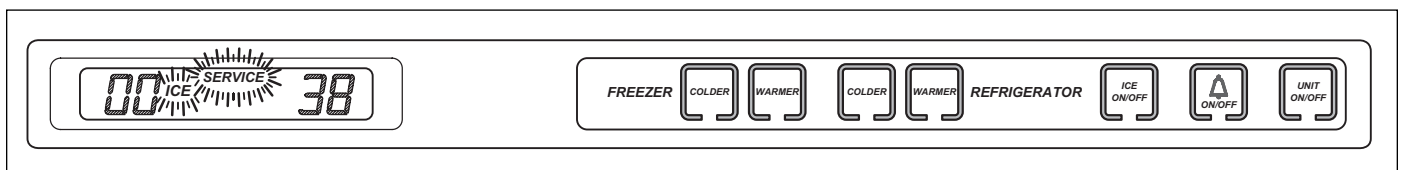


Figure 3-32. “ICE” & “SERVICE” Flashing = Valve Solenoid energized 15 Sec., Icemaker System Disabled

“SERVICE” Alone Flashing - If “SERVICE” is flashing (without “EE” displayed or “ICE” flashing), then one of two things is wrong, either the refrigerator evaporator thermistor (or its wiring) is faulty or the unit experienced excessive compressor run. If it is a refrigerator thermistor fault, there may be normal freezer temperatures and warm or normal refrigerator temperatures (See Figure 3-33). If it is an excessive compressor run problem, there may be warm or normal freezer temperatures and warm or normal refrigerator temperatures (See Figure 3-34). To narrow the search for the problem, Diagnostic Mode (covered later in this section) should be initiated.

To clear this error indicator, the problem must be corrected, then the unit must be switched OFF and back ON.

NOTE: To check the evaporator thermistor, submerge it in a glass of ice water for two to five minutes, then check for 30,000 to 33,000 ohms.

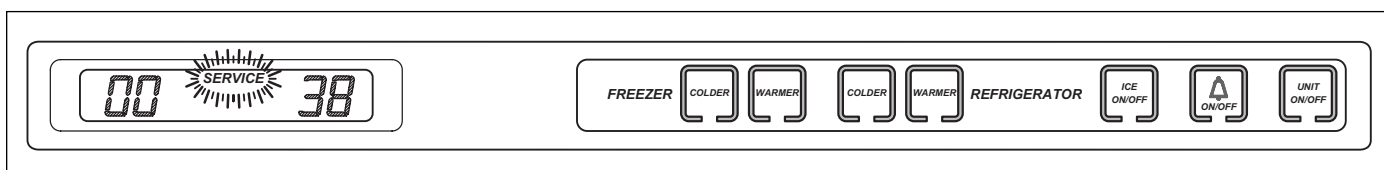


Figure 3-33. “SERVICE” Flashing (possible warm ref. temp.) = Refrig. Evap. Thermistor (or its Wiring) Fault

NOTE: To help identify the problem, Diagnostic Mode (Covered later in this section) should be initiated.

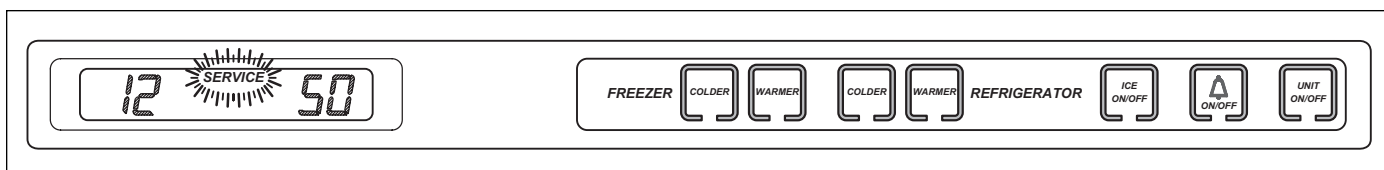


Figure 3-34. “SERVICE” Flashing (possible warm refrig &/or fre. temp.) = Excessive Compressor Run

NOTE: To help identify the problem, Diagnostic Mode (Covered later in this section) should be initiated.

“SERVICE” Flashing and “EC” Displayed - If “SERVICE” is flashing and “EC” is displayed at the right, then the unit experienced excessive compressor run and there are “Error Codes” registered (See Figure 3-35). (Error Codes are covered later in this section.)

NOTE: If error codes were registered during an excessive compressor run condition, the error indicated may or may not be the cause of the excessive compressor run condition. A thorough troubleshooting must be performed.

NOTE: Whenever Error Codes are observed, they must be cleared from electronic control memory. To clear Error Codes, the problem must be corrected, then the Bell ON/OFF key must be pressed and held for 15 seconds.

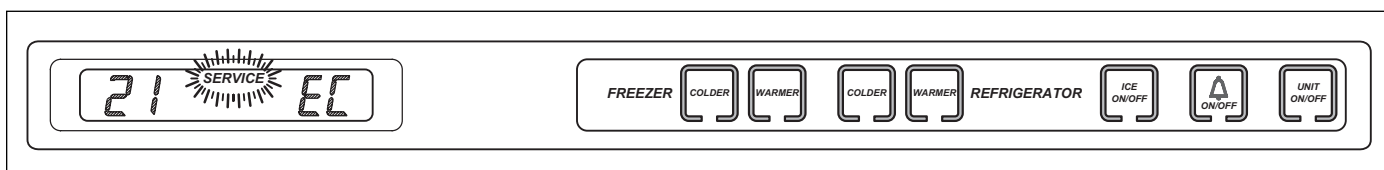


Figure 3-35. “EC” at Right and “SERVICE” Flashing = Excessive Comp. Run with Error Codes Registered

TROUBLESHOOTING INPUT OPERATIONS

These pages explain troubleshooting input operations performed at the control panel. The input operations described are Diagnostic Mode, Manual Component Activation Mode and Temperature Log Recall.

Diagnostic Mode

Initiating Diagnostic Mode allows the Service Technician to observe real-time temperature readings from all thermistors without temperature averaging. If errors were registered by the thermistors or the defrost system, "Error Codes" will also be displayed during diagnostic mode (this is explained later).

To initiate Diagnostic Mode, the unit must be ON. With the unit ON, press and hold either COLDER key, then press the UNIT ON/OFF key, then release both keys (See Figure 3-36). If no error codes are registered, the left display area will show the real-time temperature of the thermistor being read, the right display area will show the thermistor location code, and all annunciators will illuminate on the LCD indicating the unit is in Diagnostic Mode (See Figure 3-35). Pressing either COLDER key or either WARMER key while in Diagnostic Mode will toggle to the next or previous thermistor location, respectively. (See Figure 3-37, 3-38 and 3-39)

NOTE: Diagnostic Mode will end 20 seconds after the last key stroke.

NOTE: If the COLDER and UNIT ON/OFF keys are pressed and held for 10 seconds, Manual Component Activation Mode will be initiated (this is covered later in the section).

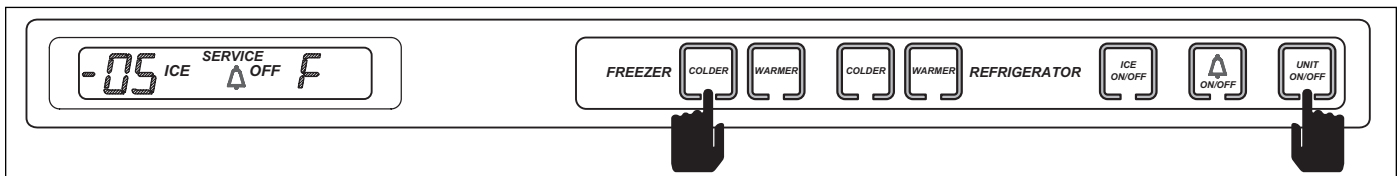


Figure 3-36. Initiate Diagnostic Mode - Press and Hold Either COLDER Key, Then the UNIT ON/OFF Key ("F" Indicates Freezer Compartment)

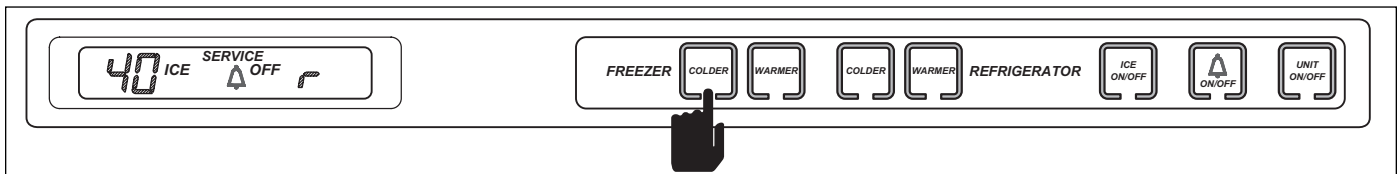


Figure 3-37. Toggle Through Temperature Readings - Press Either COLDER Key or Either WARMER Key ("r" Indicates Refrigerator Compartment)

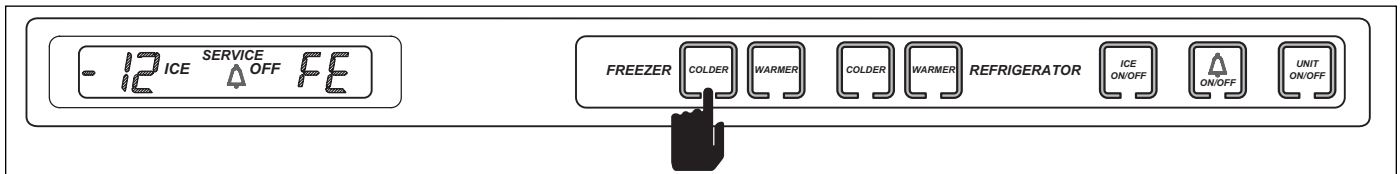


Figure 3-38. Toggle Through Temperature Readings - Press Either COLDER Key or Either WARMER Key ("FE" Indicates Freezer Evaporator)

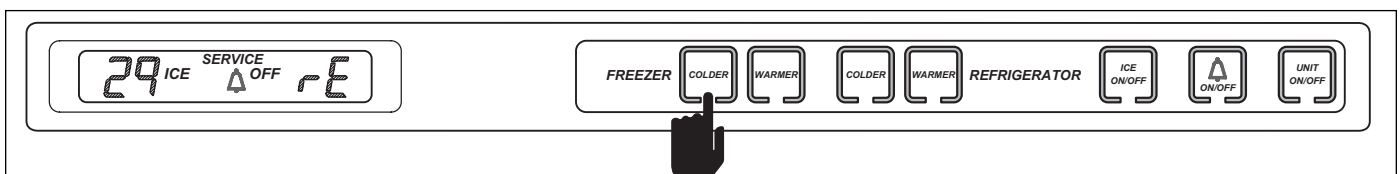


Figure 3-39. Toggle Through Temperature Readings - Press Either COLDER Key or Either WARMER Key ("rE" Indicates Refrigerator Evaporator)



If “EE” is observed in the left display area during Diagnostic Mode, the thermistor in that location is open or shorted, or there is a break in that thermistor’s wiring (See Figure 3-40).

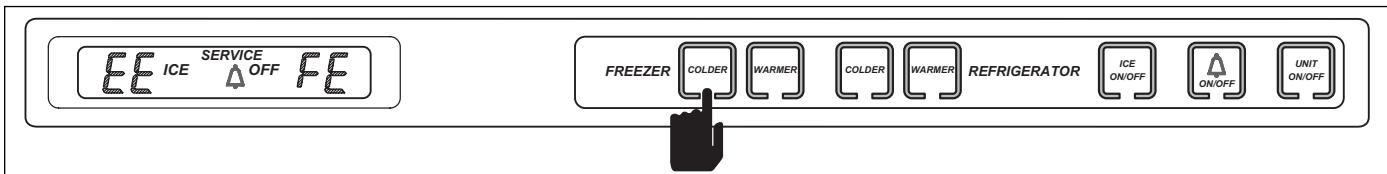


Figure 3-40. “EE” Observed in Diagnostic Mode = Thermistor (or its wiring) Fault in Location Indicated

If “Sr” is observed in the left display area when Diagnostic Mode is initiated, the unit is in Showroom Mode, which was explained earlier in this section (See Figure 3-41).

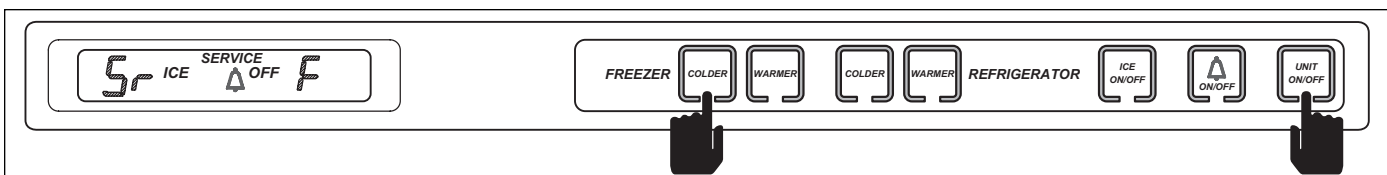


Figure 3-41. “Sr” Observed While in Diagnostic Mode = Unit is in Showroom Mode

When initiating Diagnostic Mode, numbers may appear in the left display area with “EC” in the right display area. “EC” indicates the numbers at left are an “Error Code” (See Figure 3-42 and the Error Code Table below). Error Codes indicate problems registered by specific components. If error codes are registered, they will appear before temperature readings and can be toggled through with the temperature readings as described on the previous page.

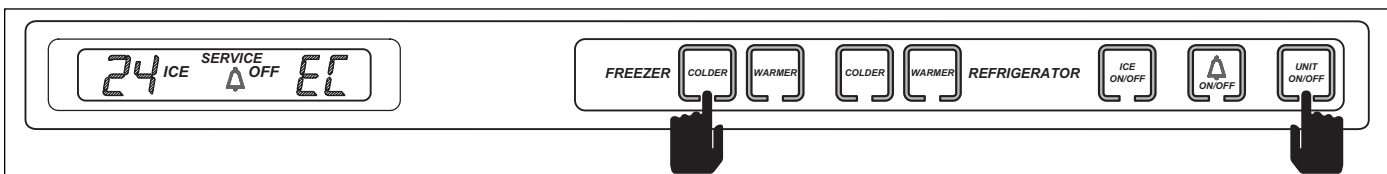


Figure 3-42. Numbers at Left with “EC” at Right = Error Code (See Table on Following Page)

Error Code Table	
CODE	INDICATION
05	Refrig. Cabinet Thermistor read open or shorted for 10+ seconds, or repeatedly read erratic temp’s
06	Refrig. Evaporator Thermistor read open or shorted for 10+ seconds, or repeatedly read erratic temp’s
07	Freezer Cabinet Thermistor read open or shorted for 10+ seconds, or repeatedly read erratic temp’s
08	Freezer Evaporator Thermistor read open or shorted for 10+ seconds, or repeatedly read erratic temp’s
20	Defrost Under-heat with No Voltage Feedback Through Gray/White Wire at Defrost Start
21	Defrost Overheat
22	No Voltage Feedback Through Gray/White Wire at Defrost Start
23	Defrost Overheat with No Voltage Feedback through Gray/White Wire at Defrost Start
24	Defrost Under-heat

NOTE: Currently, Error Codes are registered because of thermistor or defrost system errors only. The table above will be updated through addendums when subsequent software and electrical changes occur and more error codes are added.

If error codes are observed in diagnostic mode, a non-flashing SERVICE annunciator will appear on the LCD when Diagnostic Mode ends, indicating error codes are still registered (See Figure 3-43). To clear a non-flashing SERVICE annunciator and the error codes, the problem must be corrected and the unit must be ON. Then, the Bell ON/OFF key must be pressed and held for fifteen seconds. The control will emit a short “beep” when the SERVICE annunciator and error codes are cleared. (See Figure 3-44)

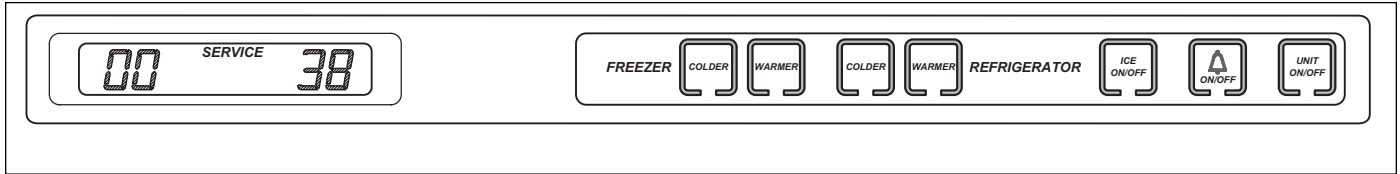


Figure 3-43. Non-flashing SERVICE Annunciator after Diagnostic Mode = Error Codes were Registered

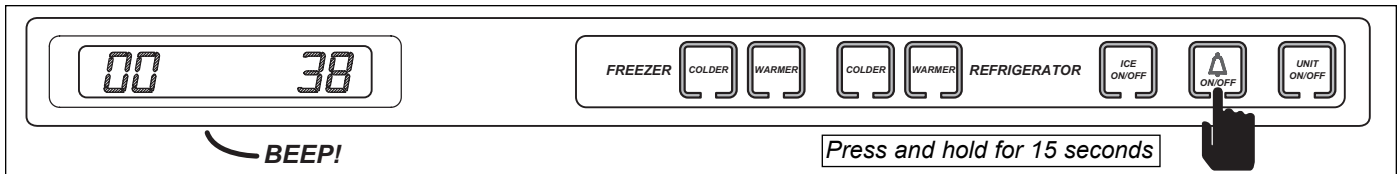


Figure 3-44. Clear Non-flashing SERVICE Annunciator - Press & Hold Bell ON/OFF Key for 15 Seconds

Manual Component Activation Mode

Manual Component Activation Mode allows a Service Technician to energize a cooling system for five minutes. When activated, the chosen compartment’s compressor and evaporator fan are energized along with the condenser fan. While in Component Activation Mode, the evaporator temperatures for that compartment are displayed on the LCD. This also allows the Service Technician to check for proper voltage readings at the activated components without having to wait for the compartment to call for cooling.

To initiate Manual Component Activation Mode, the unit must be ON. With the unit ON, press and hold the desired compartment COLDER key and the UNIT ON/OFF key for ten seconds (See Figure 3-45). The evaporator temperature for that compartment will be displayed in the left display area of the LCD and the right display area will show the thermistor location.

NOTE: If the COLDER and UNIT ON/OFF keys are pressed and held for less than 10 seconds, Diagnostic Mode will be initiated. This was covered earlier in the section.

NOTE: It is possible to toggle through the other temperature readings as in Diagnostic Mode, but in this case the temperature readings will last for five minutes rather than twenty seconds.

NOTE: The compressor overload could prevent the compressor from energizing.

NOTE: Manual Component Activation Mode will end five minutes after it is initiated. It is possible to end this five minute run time and return to normal operation by switching the unit OFF then back ON. If this is done, note that the electronic control will observe a three minute minimum compressor OFF time when the unit is switched back ON. This is to protect the compressor and its electricals.

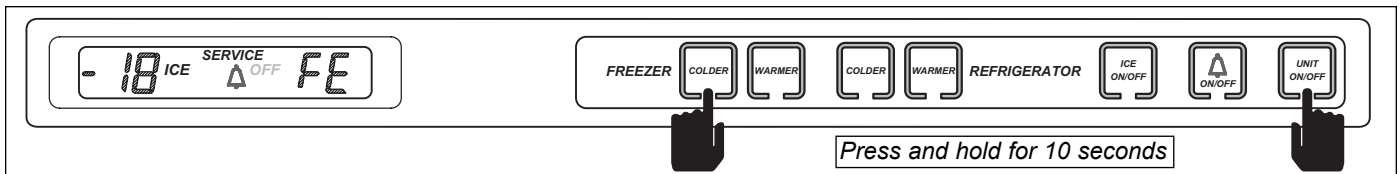


Figure 3-45. Initiate Manual Component Activation Mode - Press and Hold Desired COLDER Key and UNIT ON/OFF Key for 10 Seconds

Temperature Log Recall Mode

The electronic control system is equipped with a temperature history data storage system. This system logs/stores the average temperature of each individual thermistor every two hours (rounded to the nearest two degrees), along with any event indicators (explained later in this section), that may have occurred. These two-hour periods are referred to as “indexes”. Up to 168 indexes can be stored for each compartment, making it possible to observe the preceding fourteen days of the unit’s temperature history (*each index equals 2 hour temperature average; 2 hours X 168 indexes = 14 days*). After 168 indexes are stored, each new index will bump the oldest index. Index number “1” being the most recent two-hour temperature average and index number “168” being the oldest. Accessing this temperature history data so it can be viewed on the LCD is accomplished by initiating Temperature Log Recall Mode.

There are two ways to initiate Temperature Log Recall Mode. One allows viewing of compartment temperature history only (see below), the other allows viewing of compartment temperature history and evaporator temperature history (see following page).

Initiate Temperature Log Recall Mode To View Compartment Temperature History Only - Begin with the unit ON. Now, press and hold the desired compartment WARMER key, then press the UNIT ON/OFF key, then release both keys (See Figure 3-46). The left display area on the LCD will show average compartment thermistor temperature and in the right display area will be the index number. The first index number will be “1”, indicating the most recent two-hour temperature average. The right display area will also flash the thermistor location code at three second intervals (See Figure 3-47).

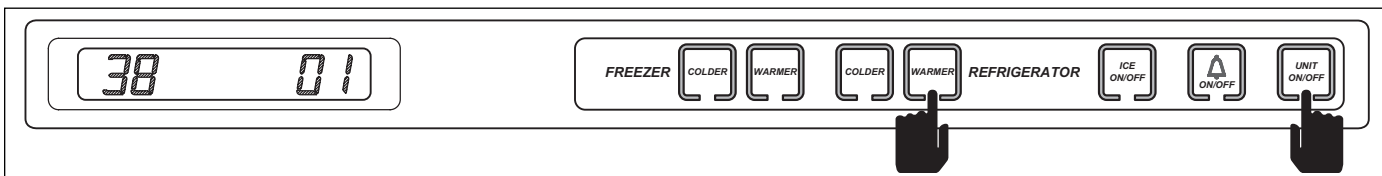


Figure 3-46. Initiate Temperature Log Recall Mode To View Compartment Temperature History Only - Press and Hold Desired WARMER Key, Then Press UNIT ON/OFF Key

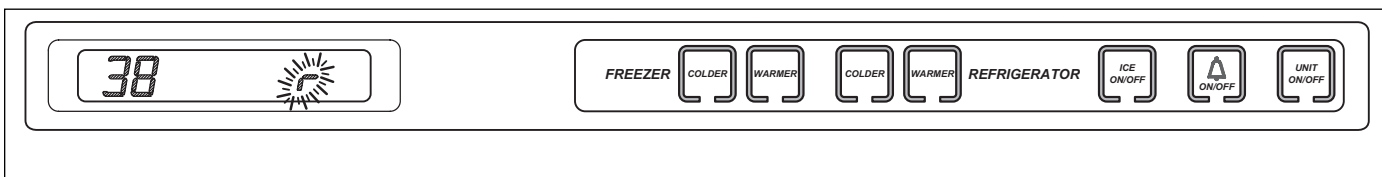


Figure 3-47. Thermistor Location Code Flashes Every Three Seconds

To toggle up through the indexes (from 1 to 168), press the same WARMER key in multiple key strokes (See Figure 3-48). To toggle down through the indexes (from 168 to 1), press the corresponding COLDER key in multiple key strokes (See Figure 3-49).

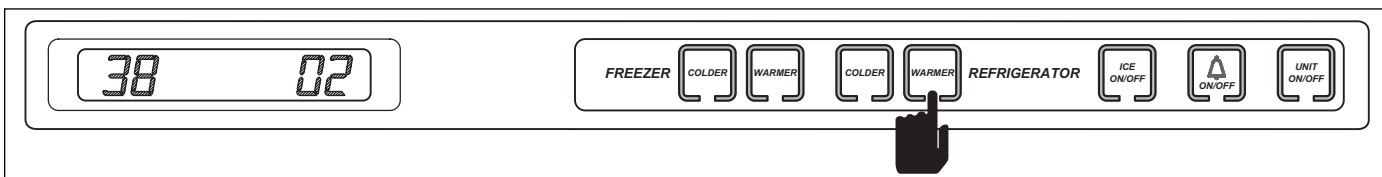


Figure 3-48. Toggle Up Through Indexes - Press WARMER Key in Consecutive Key Strokes

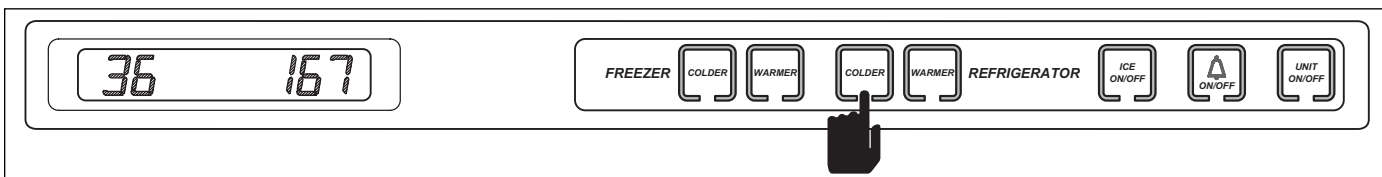


Figure 3-49. Toggle Down Through Indexes - Press COLDER Key in Consecutive Key Strokes

Initiate Temperature Log Recall Mode To View Compartment and Evaporator Temperature History - Begin with the unit ON and in Diagnostic Mode (See Figure 3-50). While in Diagnostic Mode, toggle through the readings until the desired thermistor temperature is displayed on the LCD (See Figure 3-51). Now, press the WARMER key for that compartment and the UNIT ON/OFF key simultaneously (See Figure 3-52). The left display area on the LCD will show average thermistor temperature and in the right display area will be the index number "1" indicating the most recent two-hour temperature average (See Figure 3-52). The right display area will also flash the thermistor location code at three second intervals (See Figure 3-53).

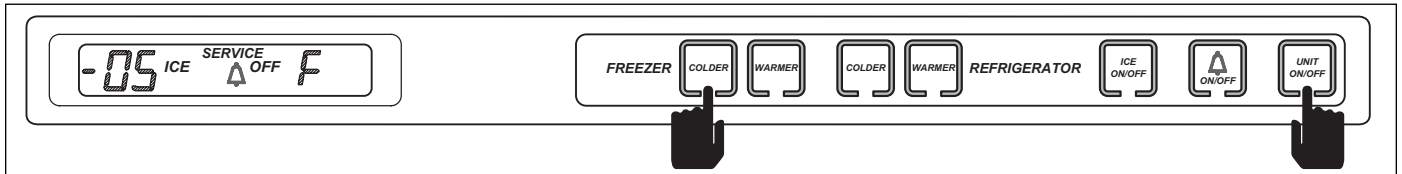


Figure 3-50. Initiate Diagnostic Mode - Press and Hold Either COLDER Key, then the UNIT ON/OFF Key

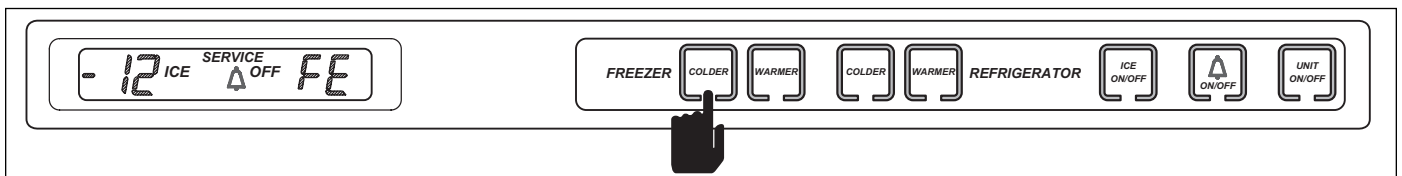


Figure 3-51. Toggle Through Temperature Readings - Press Either COLDER Key or Either WARMER Key Until Desired Thermistor Temperature is Displayed

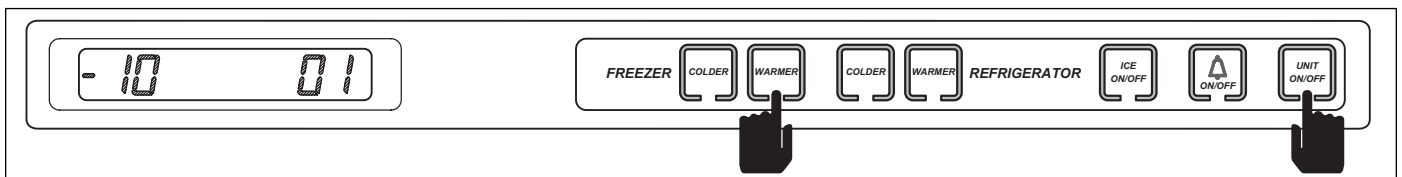


Figure 3-52. Initiate Temperature Log Recall Mode To View Temperature History - Press and Hold Desired WARMER Key and UNIT ON/OFF Key

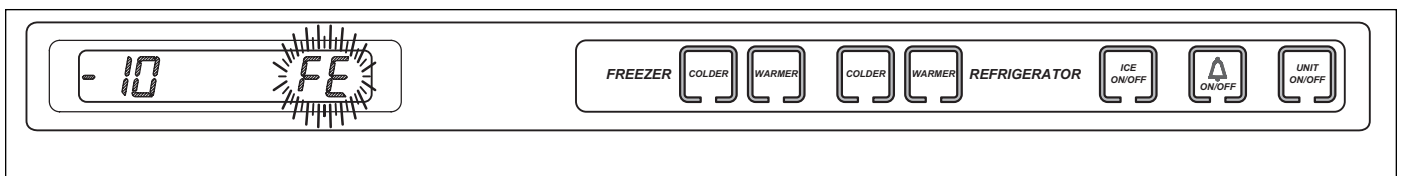


Figure 3-53. Thermistor Location Code Flashes Every Three Seconds

To toggle up through the indexes (from 1 to 168), press the same WARMER key in multiple key strokes (See Figure 3-54). To toggle down through the indexes (from 168 to 1), press the corresponding COLDER key in multiple key strokes (See Figure 3-55).

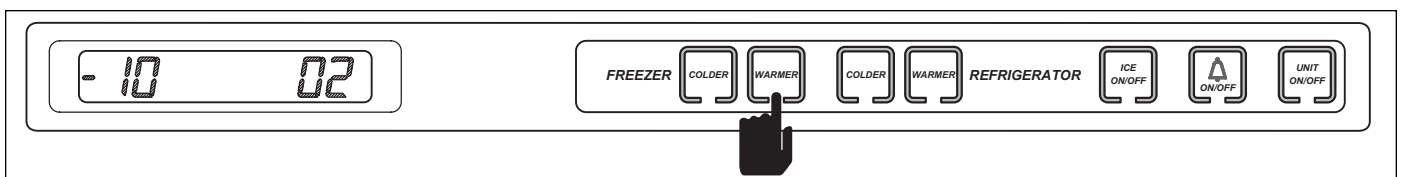


Figure 3-54. Toggle Up Through Indexes - Press WARMER Key in Consecutive Key Strokes

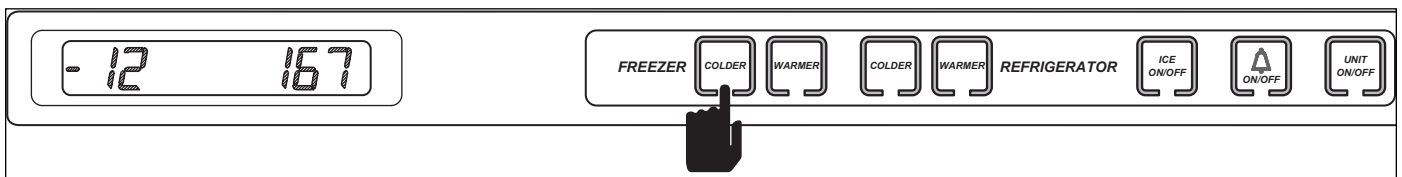


Figure 3-55. Toggle Down Through Indexes - Press COLDER Key in Consecutive Key Strokes

Possible Event Indicators During Temperature Log Recall Mode(s)

The diagrams below illustrate possible event indicators that may be observed while in Temperature Log Recall Mode. (See Figures 3-56 through 3-59)

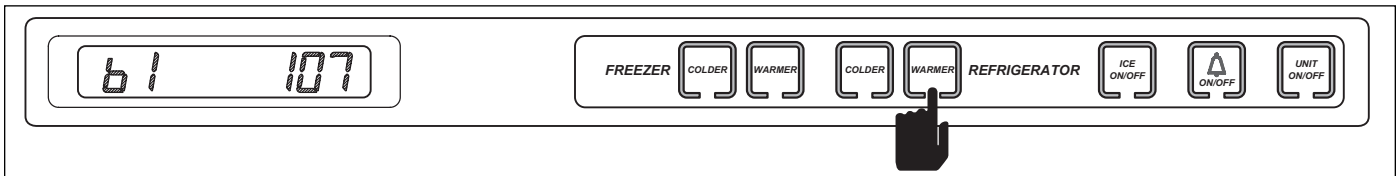


Figure 3-56. "b1" Indicates Index is "blank" - No Temperature has Been Logged Yet (Only possible within first 14 days of unit operation, or after new control board is installed during service)

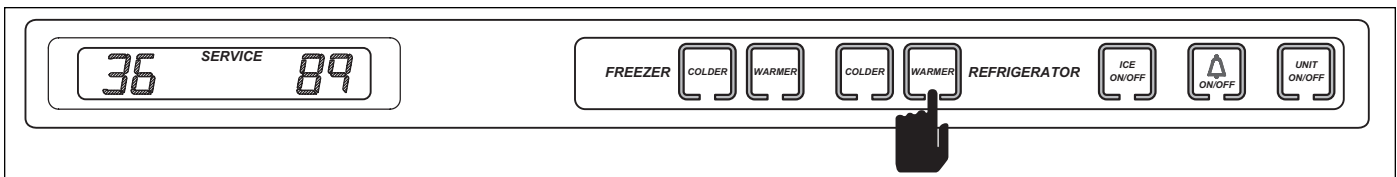


Figure 3-57. SERVICE Annunciator Illuminates - Indicates Unit was switched OFF During that Index Period by Pressing UNIT ON/OFF Key

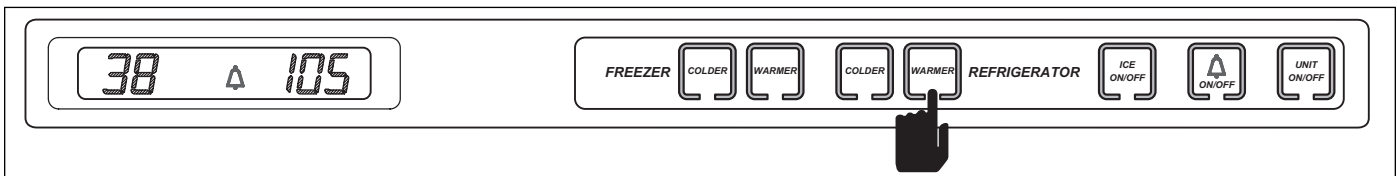


Figure 3-58. Bell Illuminates - Indicates Power Failure / Interruption During that Index Period

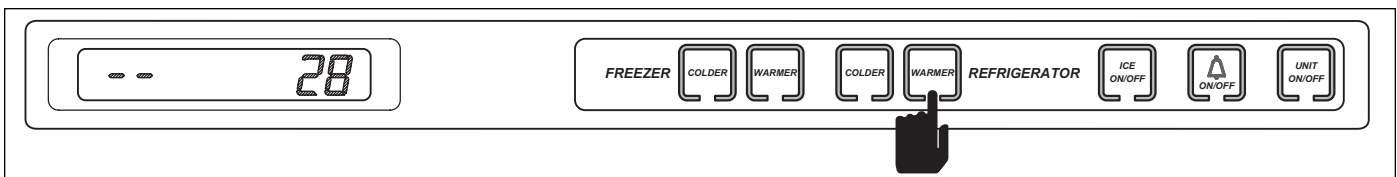


Figure 3-59. Double Dashes (- -) Displayed Instead of Temperature for Several Consecutive Index Periods - Indicates Bad EEPROM on Control Board. Board Must be Replaced

NOTE: Double dashes will also be observed when in Manual Compartment Disable Mode. Only when double dashes are observed in Temperature Log Recall Mode for several consecutive indexes should the control board be replaced.

NOTE: If Manual Compartment Disable Mode has been activated during any of the 168 indexes, average temperatures will continue to be logged. No event indicator will appear with these temperatures.

NOTE: If the unit was in Showroom Mode during any of the 168 indexes, average temperatures will continue to be logged. No event indicator will appear with these temperatures.

NOTE: If the unit was switched OFF by pressing the UNIT ON/OFF key during any of the 168 indexes and there was still 115V AC supplied to the control board, the average temperatures will continue to be logged. This means temperatures would be expected to rise and the SERVICE annunciator would be present in all indexes in which the unit was switched OFF.

NOTE: Temperature Log Recall Mode will end 20 seconds after the last key stroke.

Temperature Log Index Chart

NOTE : The chart below applies to the hours in which the control has power. Temperature history data will only be stored when the control has 115V AC supplied to it. If power to the unit is interrupted by switching the unit OFF at the UNIT ON/OFF key or due to a power failure, the average temperatures for that time period are stored with the event indicator. The temperature history data is stored in a non-volatile memory, so the data is not erased if power is interrupted.

TEMPERATURE LOG INDEX CHART			
Index=	Hours Past	Index=	Hours Past
1	= 2 Hrs	43	= 86 Hrs
2	= 4 Hrs	44	= 88 Hrs
3	= 6 Hrs	45	= 90 Hrs
4	= 8Hrs	46	= 92 Hrs
5	= 10Hrs	47	= 94 Hrs
6	= 12 Hrs	48	= 96 Hrs (4 Days)
7	= 14 Hrs	49	= 98 Hrs
8	= 16 Hrs	50	= 100 Hrs
9	= 18 Hrs	51	= 102 Hrs
10	= 20 Hrs	52	= 104 Hrs
11	= 22 Hrs	53	= 106 Hrs
12	= 24 Hrs (1 Day)	54	= 108 Hrs
13	= 26 Hrs	55	= 110 Hrs
14	= 28 Hrs	56	= 112 Hrs
15	= 30 Hrs	57	= 114 Hrs
16	= 32 Hrs	58	= 116 Hrs
17	= 34 Hrs	59	= 118 Hrs
18	= 36 Hrs	60	= 120 Hrs (5 Days)
19	= 38 Hrs	61	= 122 Hrs
20	= 40 Hrs	62	= 124 Hrs
21	= 42 Hrs	63	= 126 Hrs
22	= 44 Hrs	64	= 128 Hrs
23	= 46 Hrs	65	= 130 Hrs
24	= 48 Hrs (2 Days)	66	= 132 Hrs
25	= 50 Hrs	67	= 134 Hrs
26	= 52 Hrs	68	= 136 Hrs
27	= 54 Hrs	69	= 138 Hrs
28	= 56 Hrs	70	= 140 Hrs
29	= 58 Hrs	71	= 142 Hrs
30	= 60 Hrs	72	= 144 Hrs (6 Days)
31	= 62 Hrs	73	= 146 Hrs
32	= 64 Hrs	74	= 148 Hrs
33	= 66 Hrs	75	= 150 Hrs
34	= 68 Hrs	76	= 152 Hrs
35	= 70 Hrs	77	= 154 Hrs
36	= 72 Hrs (3 Days)	78	= 156 Hrs
37	= 74 Hrs	79	= 158 Hrs
38	= 76 Hrs	80	= 160 Hrs
39	= 78 Hrs	81	= 162 Hrs
40	= 80 Hrs	82	= 164 Hrs
41	= 82 Hrs	83	= 166 Hrs
42	= 84 Hrs	84	= 168 Hrs (7 Days)
		85	= 170 Hrs
		86	= 172 Hrs
		87	= 174 Hrs
		88	= 176 Hrs
		89	= 178 Hrs
		90	= 180 Hrs
		91	= 182 Hrs
		92	= 184 Hrs
		93	= 186 Hrs
		94	= 188 Hrs
		95	= 190 Hrs
		96	= 192 Hrs (8 Days)
		97	= 194 Hrs
		98	= 196 Hrs
		99	= 198 Hrs
		100	= 200 Hrs
		101	= 202 Hrs
		102	= 204 Hrs
		103	= 206 Hrs
		104	= 208 Hrs
		105	= 210 Hrs
		106	= 202 Hrs
		107	= 214 Hrs
		108	= 216 Hrs (9 Days)
		109	= 218 Hrs
		110	= 220 Hrs
		111	= 222 Hrs
		112	= 224 Hrs
		113	= 226 Hrs
		114	= 228 Hrs
		115	= 230 Hrs
		116	= 232 Hrs
		117	= 234 Hrs
		118	= 236 Hrs
		119	= 238 hrs
		120	= 240 Hrs (10 Days)
		121	= 242 Hrs
		122	= 244 Hrs
		123	= 246 Hrs
		124	= 248 Hrs
		125	= 250 Hrs
		126	= 252 Hrs
		127	= 254 Hrs
		128	= 256 Hrs
		129	= 258 Hrs
		130	= 260 Hrs
		131	= 262 Hrs
		132	= 264 Hrs (11 Days)
		133	= 266 Hrs
		134	= 268 Hrs
		135	= 270 hrs
		136	= 272 Hrs
		137	= 274 Hrs
		138	= 276 Hrs
		139	= 278 Hrs
		140	= 280 Hrs
		141	= 282 Hrs
		142	= 284 Hrs
		143	= 286 Hrs
		144	= 288 Hrs (12 Days)
		145	= 290 Hrs
		146	= 292 Hrs
		147	= 294 Hrs
		148	= 296 Hrs
		149	= 298 Hrs
		150	= 300 Hrs
		151	= 302 Hrs
		152	= 304 Hrs
		153	= 306 Hrs
		154	= 308 Hrs
		155	= 310 Hrs
		156	= 312 Hrs (13 Days)
		157	= 314 Hrs
		158	= 316 Hrs
		159	= 318 Hrs
		160	= 320 Hrs
		161	= 322 Hrs
		162	= 324 Hrs
		163	= 326 hrs
		164	= 328 Hrs
		165	= 330 Hrs
		166	= 332 Hrs
		167	= 334 Hrs
		168	= 336 Hrs (14 Days)

SECTION 4

**SEALED SYSTEM
INFORMATION**

HFC-134a REFRIGERANT SERVICE INFORMATION

The 600 Series sealed systems contain HFC-134a refrigerant. This section provides general rules for working with 134a, and explains procedures to be followed while servicing the sealed system. This is followed by diagrams which illustrate sealed system operation, then model-specific refrigerant flow diagrams.

⚠ CAUTION

134a refrigerant requires Synthetic Ester oil in the compressor, and does not tolerate contamination from other refrigerants, moisture, petroleum-based lubricants, silicone lubricants, cleaning compounds, rust inhibitors, leak detection dyes, or any other type of additive.

General Rules for Working with 134a Refrigerant

- Use equipment dedicated to 134a sealed system service only.
- Use only 134a refrigerant for back-flushing and sweep charging.
- Always replace the filter-drier when servicing the sealed system.
- The filter-drier must be cut from the sealed system. Never un-braze the drier as the heat will drive moisture back into the sealed system.
- Do not leave sealed system nor replacement compressor open to the atmosphere for more than 10 minutes.
- When the rubber plugs are pulled from the service compressor, a release of pressure should be heard. If no release of pressure is heard, do not use the compressor.
- Use ONLY virgin 134a refrigerant when recharging the sealed system.



600 SERIES SEALED SYSTEM REPAIR PROCEDURES	
Problem	Service Procedures
Non-Operating, Inefficient, Noisy Compressor	a. Capture refrigerant b. Replace Compressor c. Replace filter-drier d. Evacuate or sweep charge system e. Recharge system with Virgin 134a refrigerant. NOTE: To check for a non-operating compressor, a hard start kit can be used.
High Side leak	a. Capture refrigerant. b. Repair leak. c. Replace filter-drier. d. Evacuate or sweep charge system. e. Recharge system with Virgin 134a refrigerant.
Low Side Leak	a. Capture refrigerant. b. Repair leak (if at solder joint) or replace part. c. Back flush high side of sealed system. d. Replace compressor. e. Replace filter-drier. f. Evacuate or sweep charge system. g. Recharge system with Virgin 134a refrigerant.
Contaminated Sealed System <i>Examples:</i> > Burned out compressor > Excessive moisture from leak in condensate loop or in low side > Plugged capillary tube	a. Capture refrigerant. b. Repair leak (if at solder joint) or replace part. c. Back flush high side of sealed system. d. Replace compressor. e. Replace filter-drier. f. Replace heat exchanger if cap tube is clogged. g. Install a low side drier on suction line. h. Evacuate or sweep charge sealed system. i. Recharge with Virgin 134a refrigerant.
Restriction NOTE: If restriction is due to sealed system being contaminated, see Contaminated Sealed System above.	a. Capture refrigerant. b. Locate and remove restriction or locate and replace part. c. Back flush high side of sealed system. d. Replace filter-drier. e. Evacuate or sweep charge system. f. Recharge system with Virgin 134a refrigerant.
Overcharge	a. Capture refrigerant. b. Replace filter-drier. c. Evacuate or sweep charge system. d. Recharge system with Virgin 134a refrigerant.

SEALED SYSTEM OPERATION

The following six diagrams illustrate a basic sealed system. The components are listed in order of refrigerant flow, with an explanation of their fundamental role as part of a sealed system. **NOTE:** *These illustrations do not represent any specific 600 Series sealed system.*

Compressor (Figure 4-1)

The compressor creates a high side and low side pressure difference in the sealed system by compressing the refrigerant gas, thus raising the pressure and temperature. The compressor pushes this high-pressure/high-heat gas through the door gasket seat heater loop to prevent sweating (on most units the gas also travels through drain pan heater tubing to help evaporate water in the drain pan). The high-pressure/high-heat gas then travels to the condenser.

Condenser (Figure 4-2)

The high-pressure/high-heat gas travels through the condenser, where the heat is dissipated by cooler air being drawn over the condenser tubing by the condenser fan. This changes the gas into a high-pressure/warm liquid that then enters the high-side filter-drier.

High-Side Filter-Drier (Figure 4-3)

The high-pressure/warm liquid travels through the high-side filter-drier, which removes moisture from the refrigerant before it enters the capillary tube.

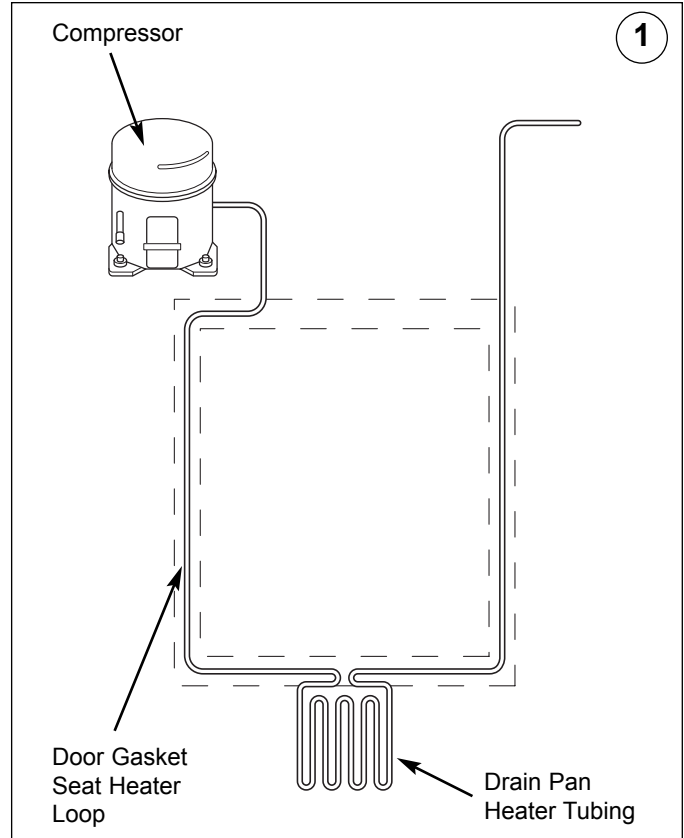


Figure 4-1. Compressor

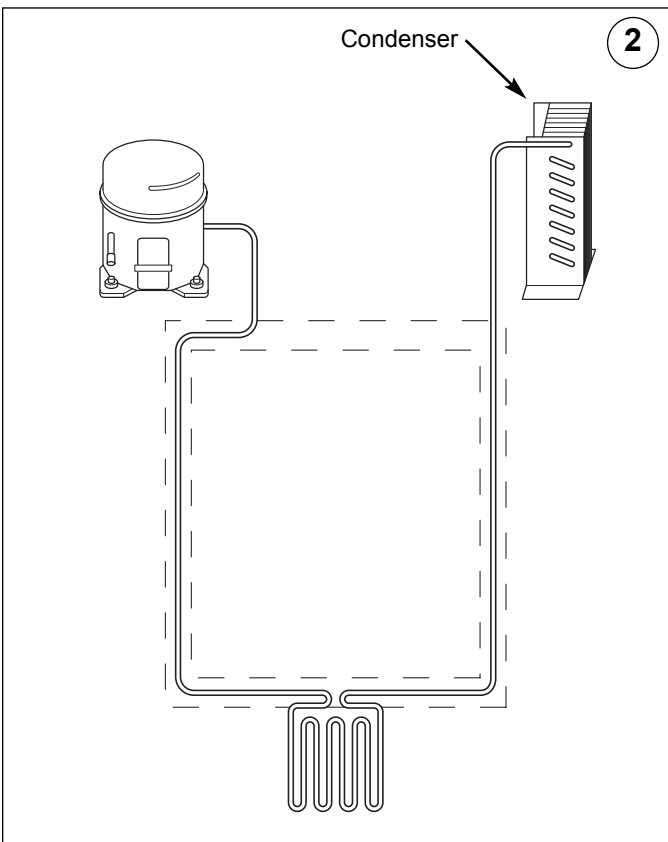


Figure 4-2. Condenser

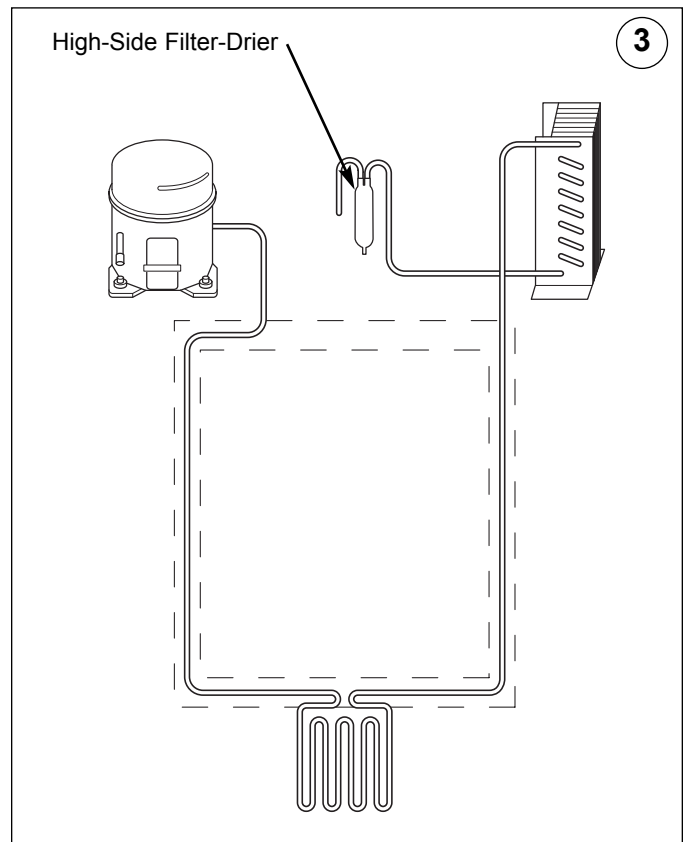


Figure 4-3. High-Side Filter-Drier

Capillary Tube (Part of Heat Exchanger) (Figure 4-4)

The high-pressure/warm liquid refrigerant travels through the long skinny capillary tube which is attached to the suction line. (These two tubes soldered together create the heat exchanger.) As the high-pressure/warm liquid refrigerant travels through the capillary tube it gives up heat to the cool refrigerant gas traveling through the suction line and the pressure drops, so it is a low-pressure/cool liquid before it enters the evaporator.

Evaporator (Figure 4-5)

As the low-pressure/cool liquid refrigerant enters the evaporator, it vaporizes. This is caused by a dramatic pressure change which occurs when the refrigerant enters the larger diameter evaporator tubing from the smaller diameter capillary tubing. This vapor travels through the evaporator absorbing heat from the compartment, gradually converting it to a cool gas. This cool gas then enters the suction line.

Suction Line (& Heat Exchanger) (Figure 4-6)

The cool gas travels through the suction line which is attached to the capillary tube. (As mentioned earlier, these two tubes soldered together create the heat exchanger.) As this cool refrigerant gas travels through the suction line it absorbs heat from the warm liquid refrigerant traveling through the capillary tube, making it a luke warm gas. The lukewarm refrigerant gas returns to the compressor where the process begins again.

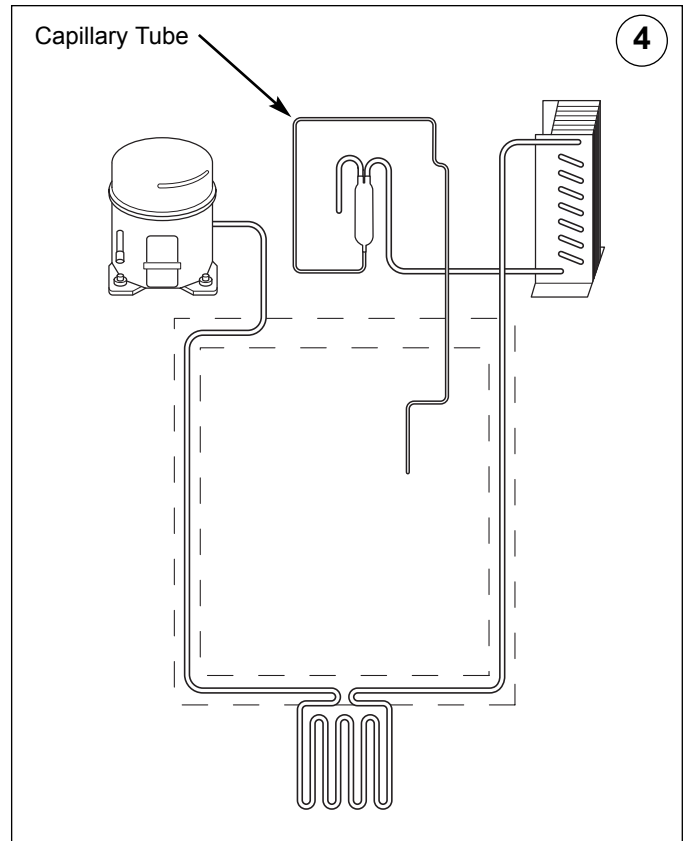


Figure 4-4. Capillary Tube (Part of Heat Exchanger)

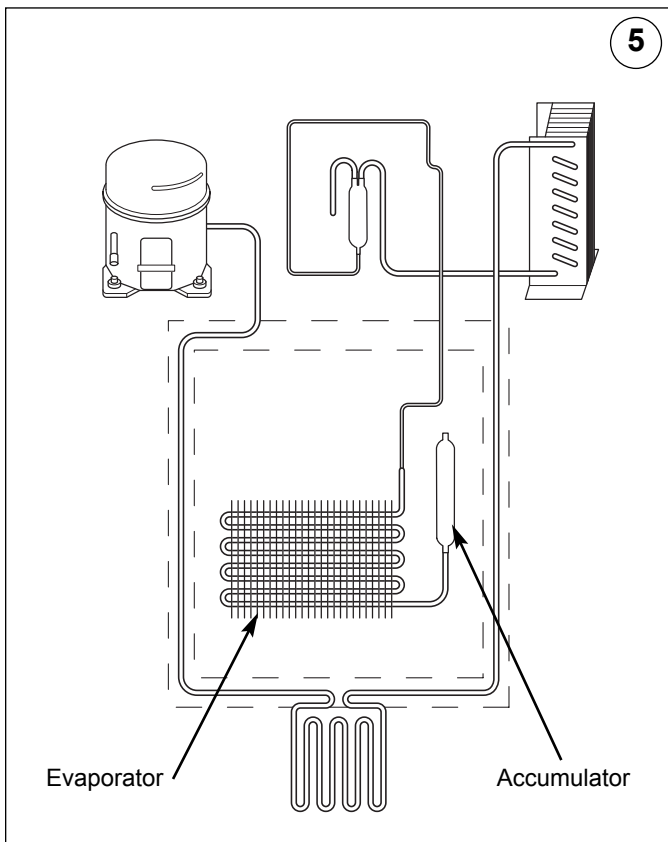


Figure 4-5. Evaporator

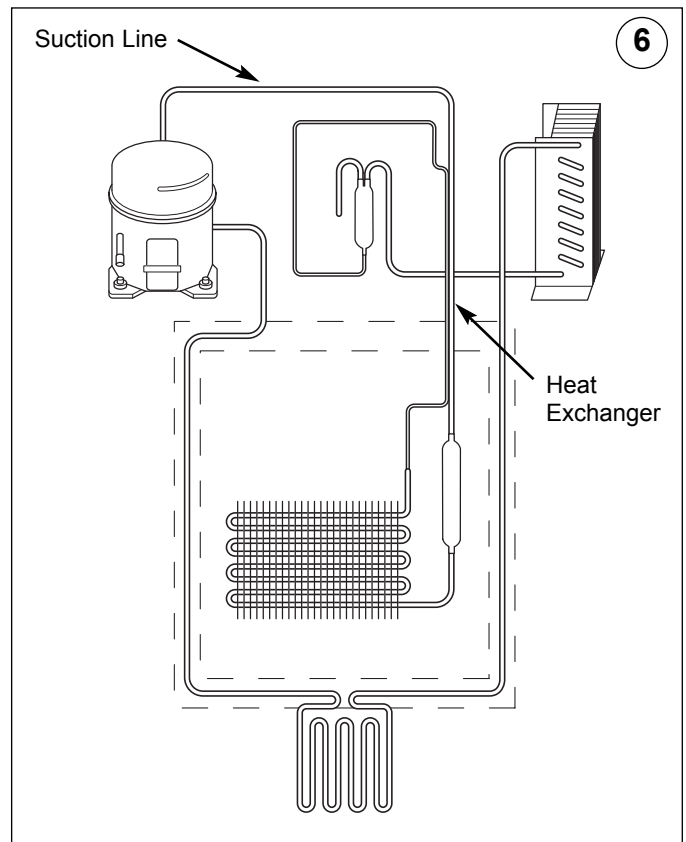


Figure 4-6. Suction Line (Part of Heat Exchanger)

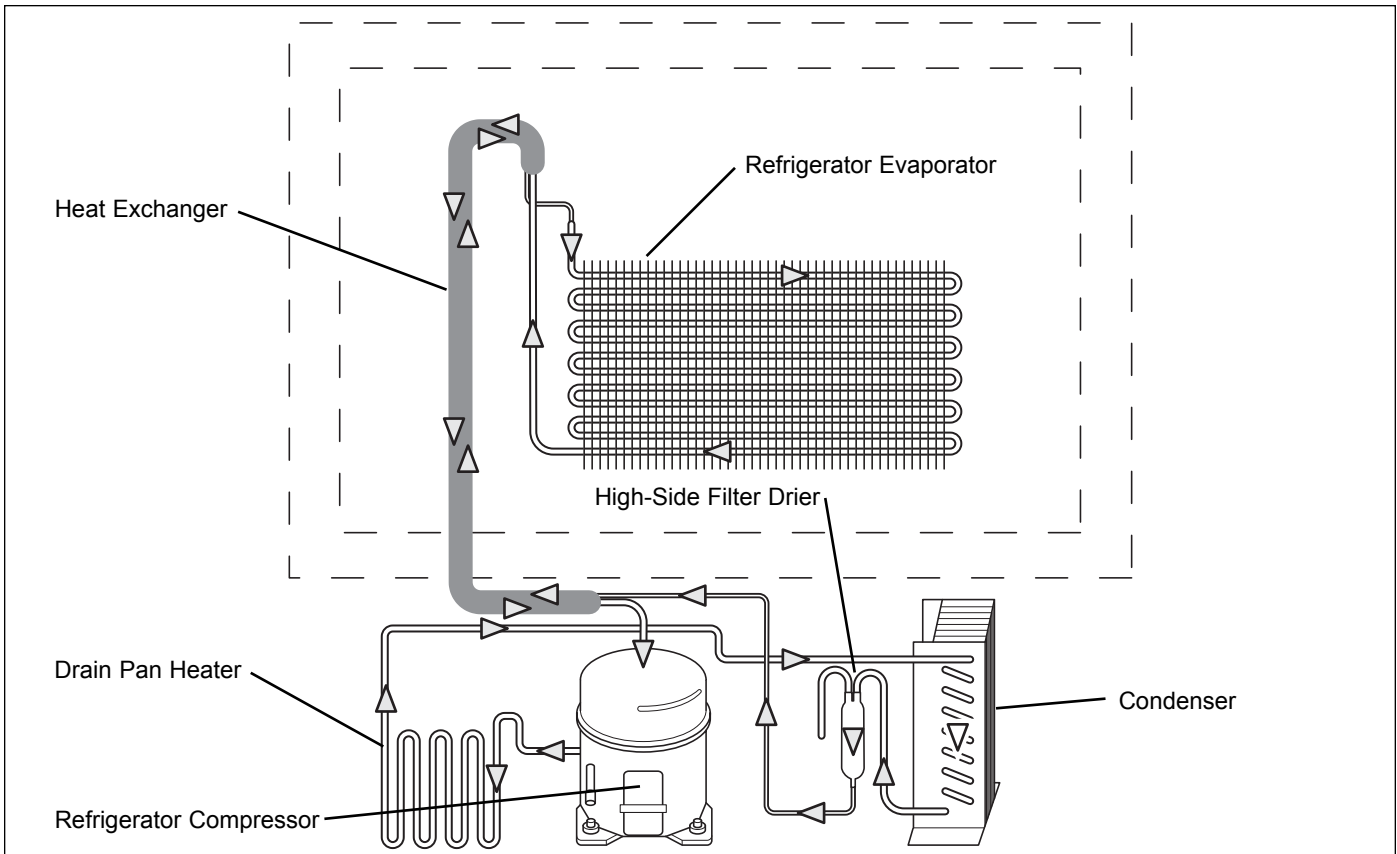


Figure 4-7. Models 601R, 601RG Refrigerant Flow

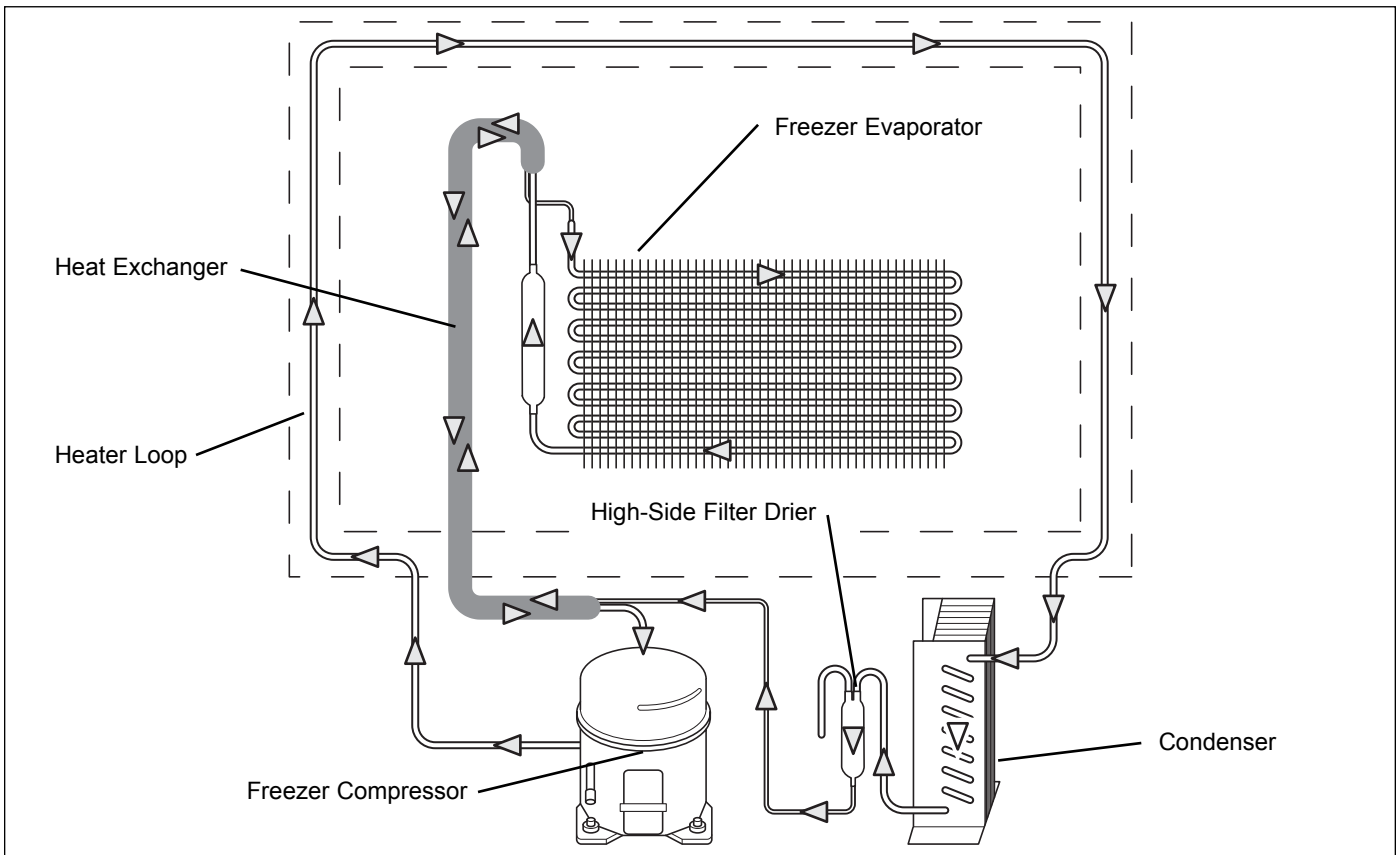


Figure 4-8. Model 601F Refrigerant Flow

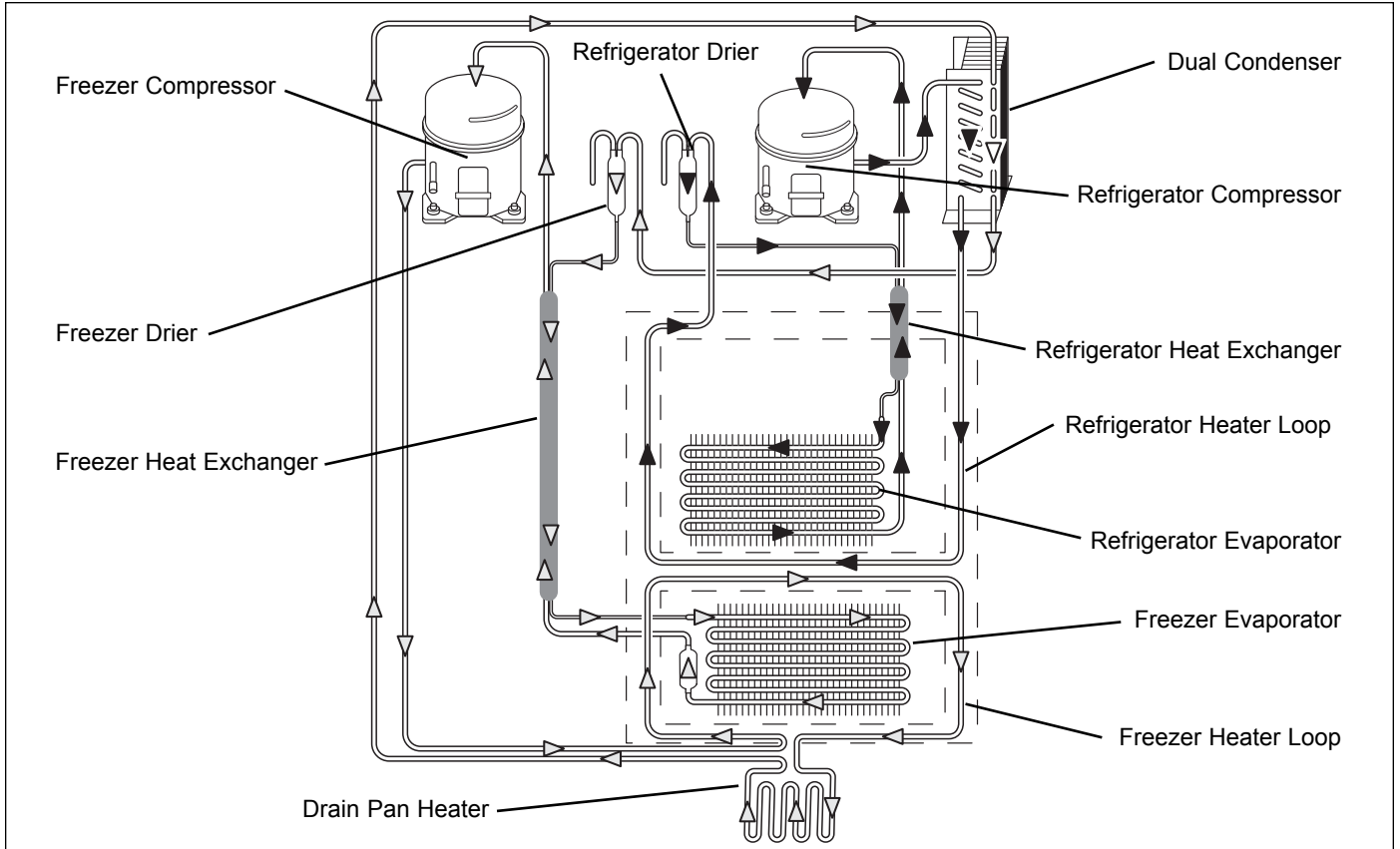


Figure 4-9. Models 611, 611G, 650, 650G Refrigerant Flow

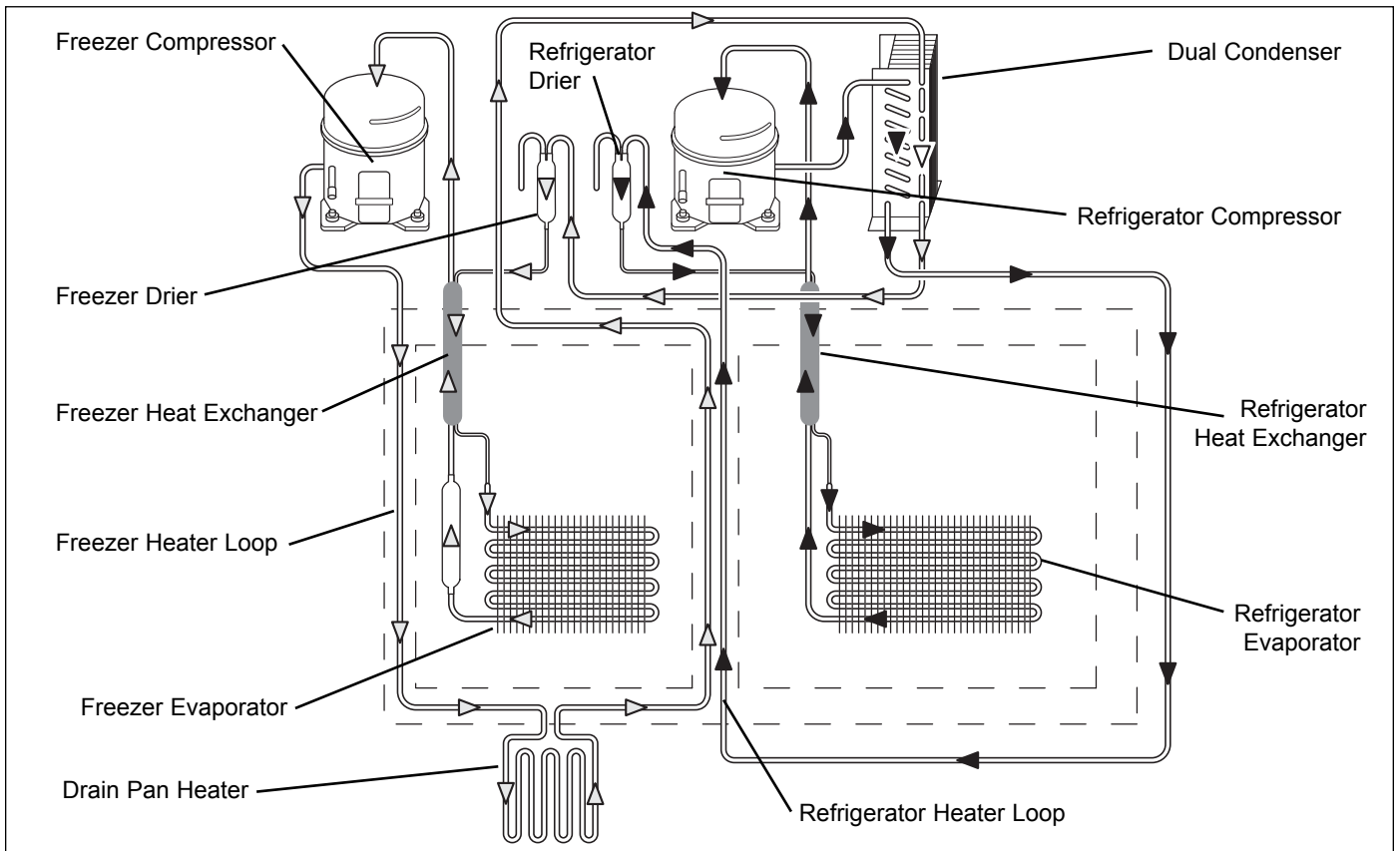


Figure 4-10. Models 632, 642, 680, 690 Refrigerant Flow

SECTION 5

AIR FLOW AND FAN BLADE SPACING

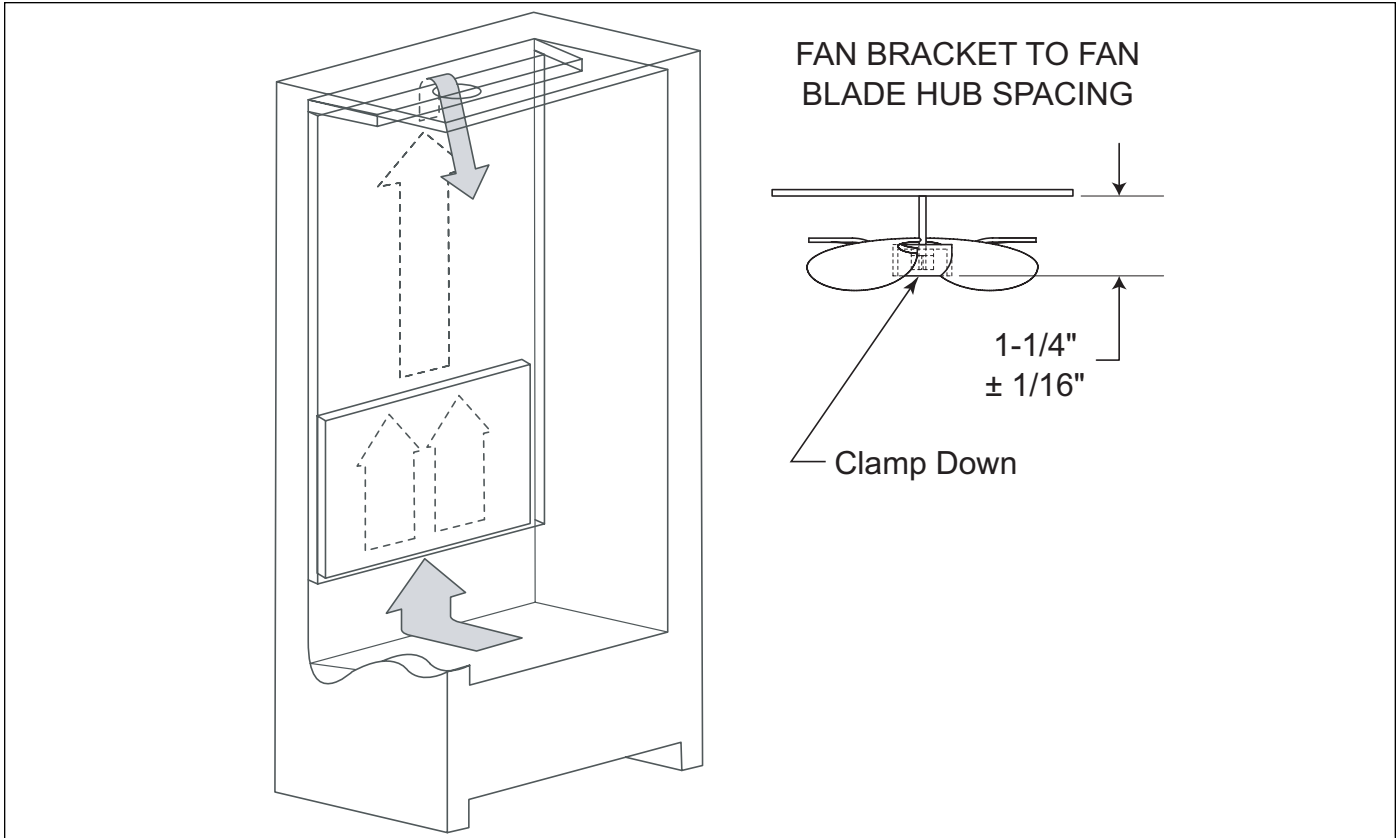


Figure 5-1. Air Flow and Fan Blade Spacing, Models 601R and 601RG

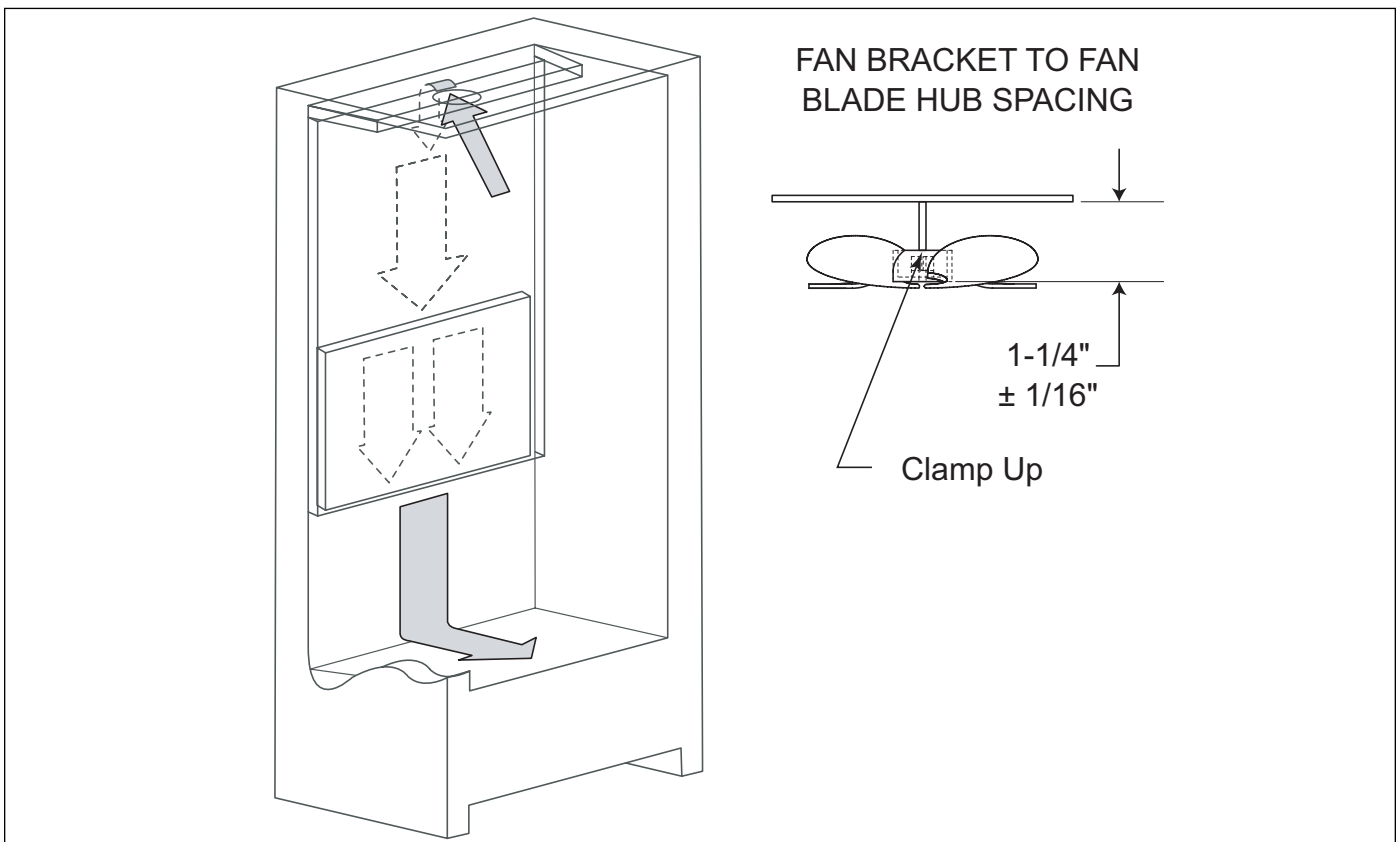


Figure 5-2. Air Flow and Fan Blade Spacing, Model 601F

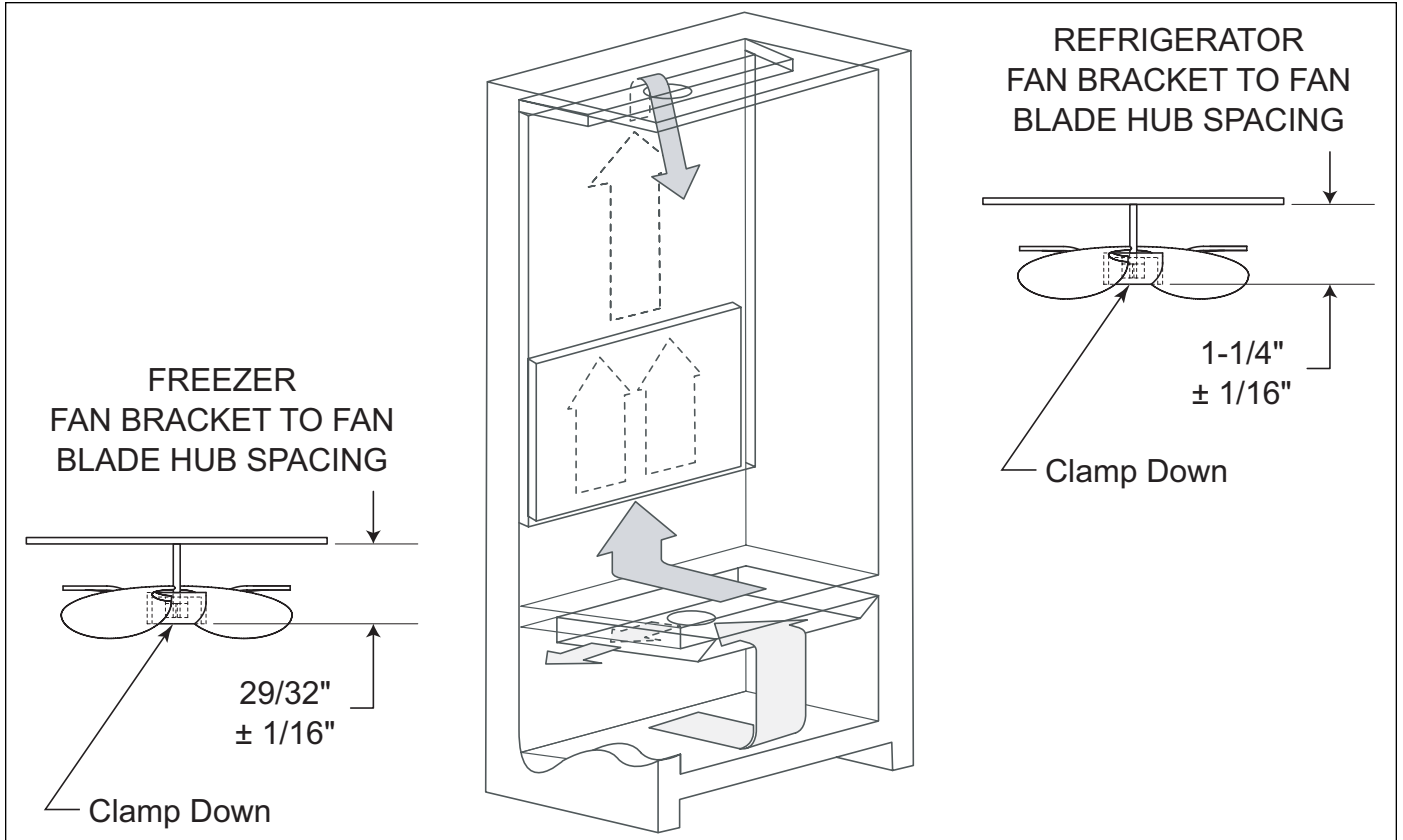


Figure 5-3. Air Flow and Fan Blade Spacing, Models 611, 611G, 650 and 650G

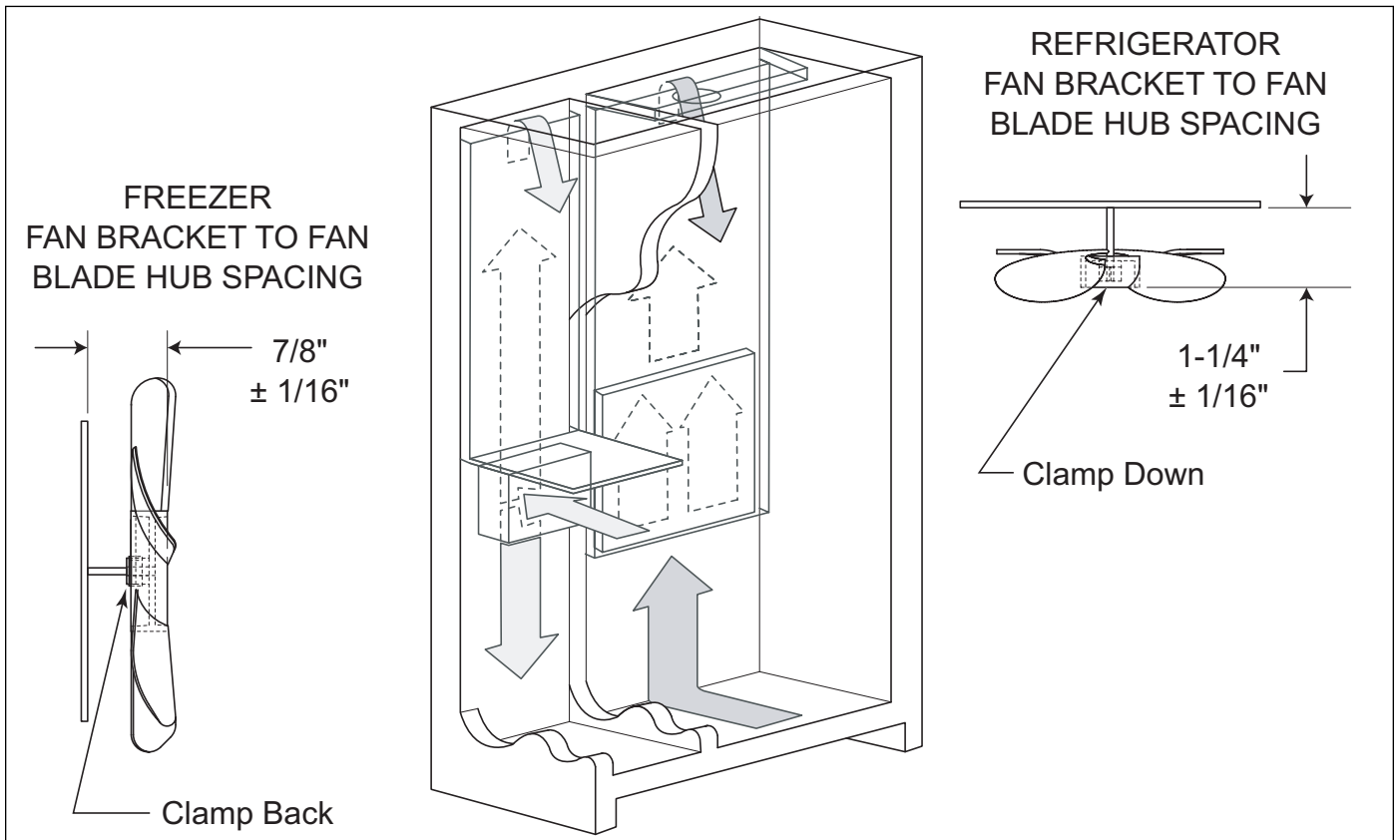


Figure 5-4. Air Flow and Fan Blade Spacing, Models 632 and 642

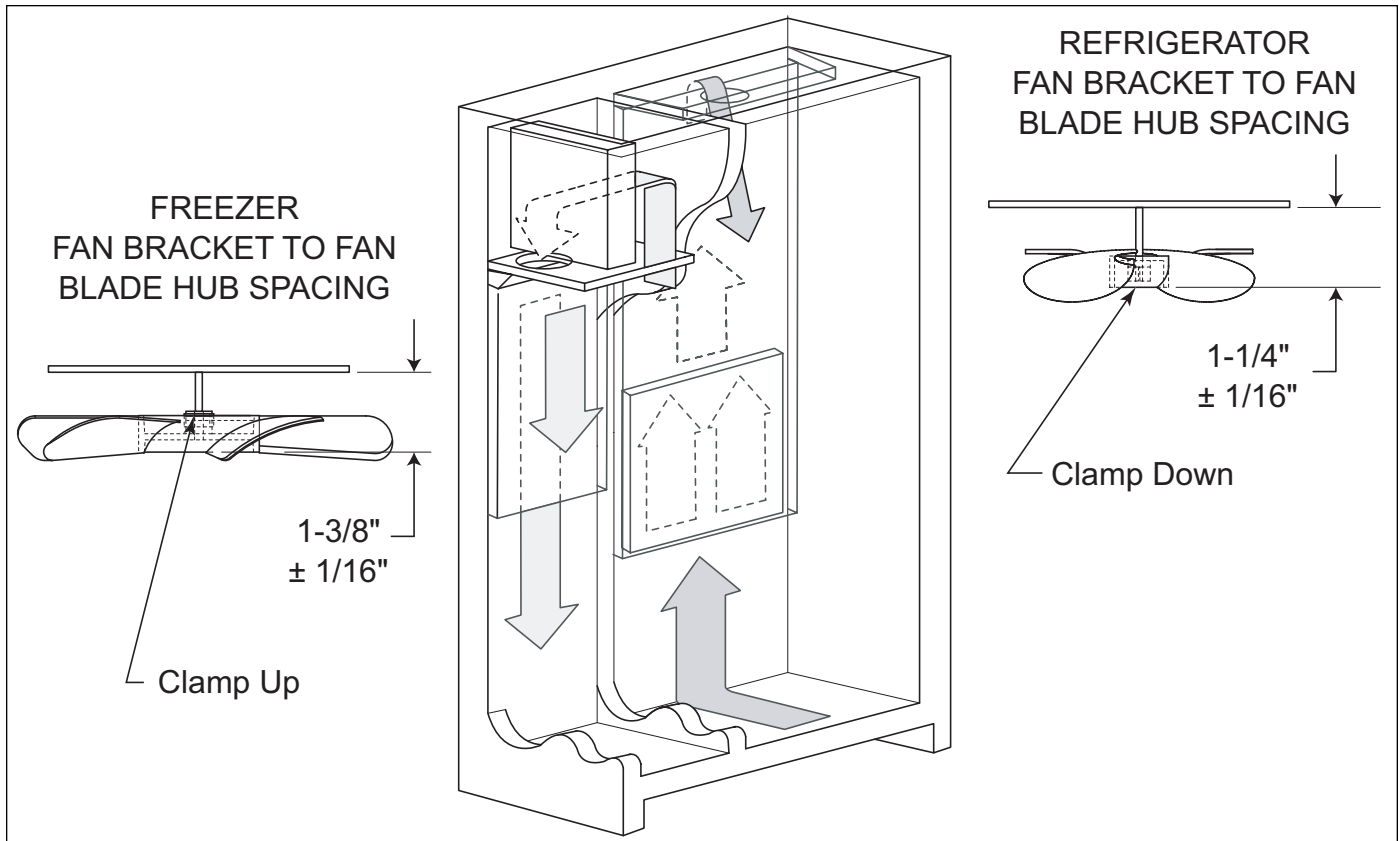


Figure 5-5. Air Flow and Fan Blade Spacing, Model 680

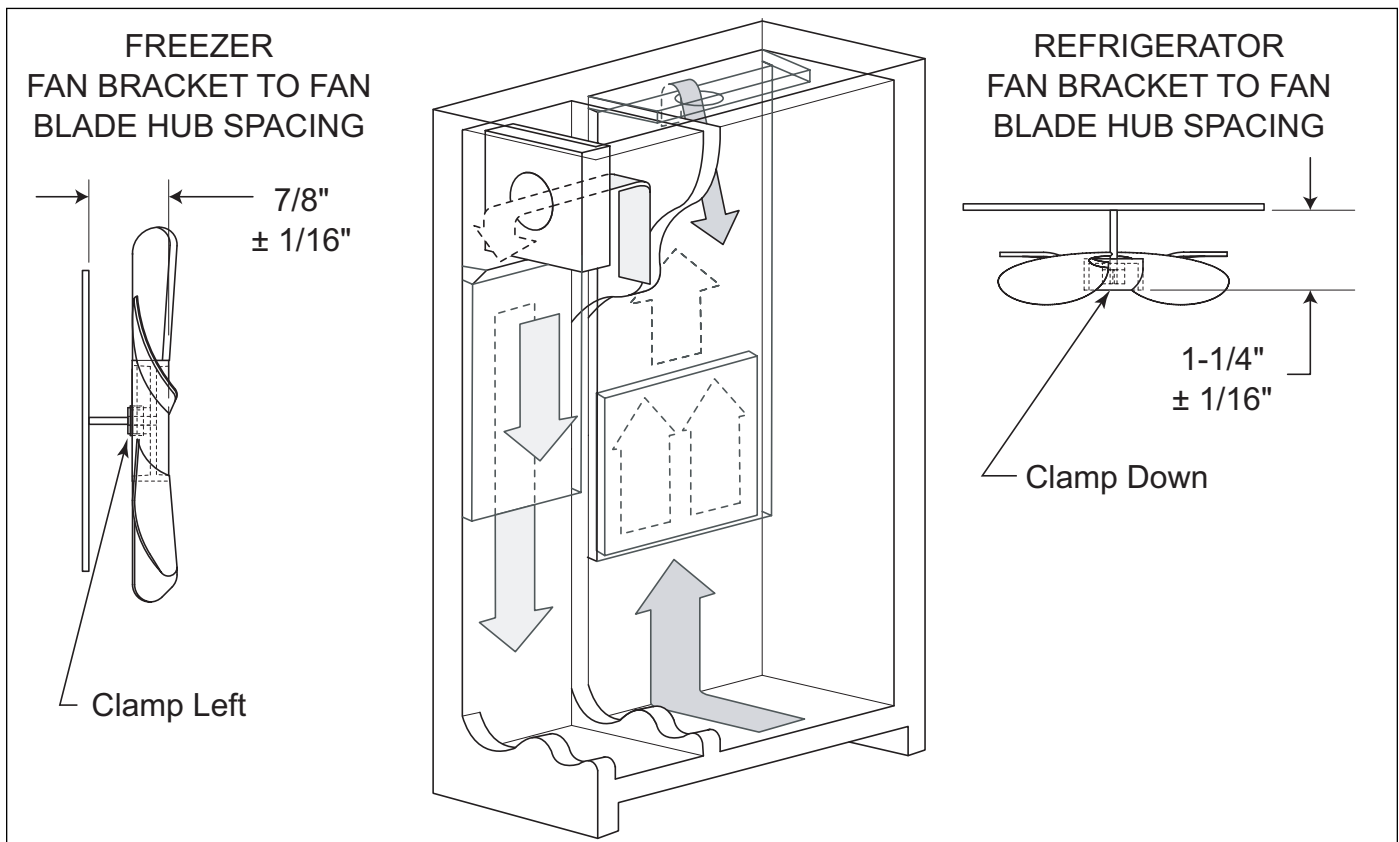


Figure 5-6. Air Flow and Fan Blade Spacing, Model 690

SECTION 6

ICEMAKER INFORMATION

ICEMAKER SYSTEM INFORMATION

All 600 series units utilize a MidSouth icemaker. An icemaker's operation is not complex, but understanding its components and its operation cycle is necessary for a Service Technician to understand in order to make a proper diagnosis.

⚠ WARNING

TO AVOID ELECTRIC SHOCK, ALWAYS DISCONNECT ELECTRICAL POWER TO UNIT WHEN SERVICING ICEMAKER.

NOTE: The ICE ON/OFF key at the control panel activates the icemaker system. If "ICE" is not displayed on the LCD, the icemaker system will not function.

NOTE: To allow ice to freeze fully and reduce effects of low water pressure, the electronic control disables the icemaker system for 45 minutes after each ice harvest.

NOTE: The ice bucket in models 601F, 611 and 650, have a tab at the left rear corner that activates a switch when the ice bucket is in place. The ice bucket in the models 680 and 690 also activates a switch when in place. If the ice bucket is not in proper position on any model, ice production will stop.

NOTE: The icemaker relay on the control board also controls the fill tube heater and water valve.

ICEMAKER COMPONENTS

Following are descriptions that explain the function of each icemaker component. The components are diagrammed in Figure 6-1 on the next page.

Support - The support is the housing around the electrical components and wire connections. The support is attached to the ice mold.

Mounting Plate - The drive motor, holding switch, water valve solenoid switch, timing gear, timing cam and water fill adjusting screw are attached to the metal mounting plate. The mounting plate is then attached to the support.

Drive Motor - 115 volts AC supplied to the drive motor causes the motor to operate. The motor has a single output shaft with a small gear. The motor gear drives/spins the timing gear.

Timing Gear - The timing gear is driven/spun by the drive motor gear and is attached to the timing cam.

Timing Cam - The timing cam is attached to the timing gear and the ice ejector is inserted into the center of the timing cam. As the timing cam rotates, high and low spots on the cam operate the water valve solenoid switch and the holding switch. The timing cam also moves the lever arm side to side and rotates the ice ejector.

Ice Mold - The ice mold is where the eight crescent shaped ice cubes are formed.

Mold Heater - The mold heater uses 175 watts to thaw the ice free from the mold.

Ice Ejector - The drive end of the ice ejector is "D" shaped to fit into the "D" shaped hole in the timing cam. It has eight blades which rotate and sweep the ice from the mold cavities during the ejection phase of the cycle.

Ice Stripper - The stripper is attached to the dumping side of the mold, serving as a decorative side cover and it also prevents ice from falling back into the mold.

Bearing / Inlet - The bearing / inlet is attached to the ice mold, opposite the support. Water enters the bearing / inlet and is directed to the ice mold. The bearing/inlet also supports the ice ejector at the end opposite the timing cam.

Thermostat - The thermostat is a single-pole, single-throw, bi-metal switch. At 15°F/± 3°F it closes, starting the ice ejection phase.

Thermal-Mastic - A substance similar in appearance to grease that is applied between the thermostat and the ice mold. Its purpose is to increase thermal conductivity between the mold and the thermostat.

Lever Arm and Shut-off Arm - The lever arm is moved side to side by two revolutions of the timing cam. As it moves, it raises and lowers the shut-off arm and operates the shut-off switch to control the quantity of ice production. If the shut-off arm comes to rest on top of the ice in the storage bin during either revolution, the shut-off switch will remain open, stopping ice production at the end of that revolution.

Water Valve Solenoid Switch - A single-pole, double-throw type switch that allows electricity to the water valve solenoid, opening the valve, during the fill cycle.

Holding Switch - A single-pole, double-throw type switch that assures completion of a revolution once the icemaker has been energized.

Shut-off Switch - A single-pole, double-throw type switch that stops ice production when the ice bin is full.

TCO (Thermal Cut Out) - The TCO is thermal protection device in the wire harness that would open in the event of mechanical failure, thus protecting against over heating. (The TCO is not shown in diagram.)

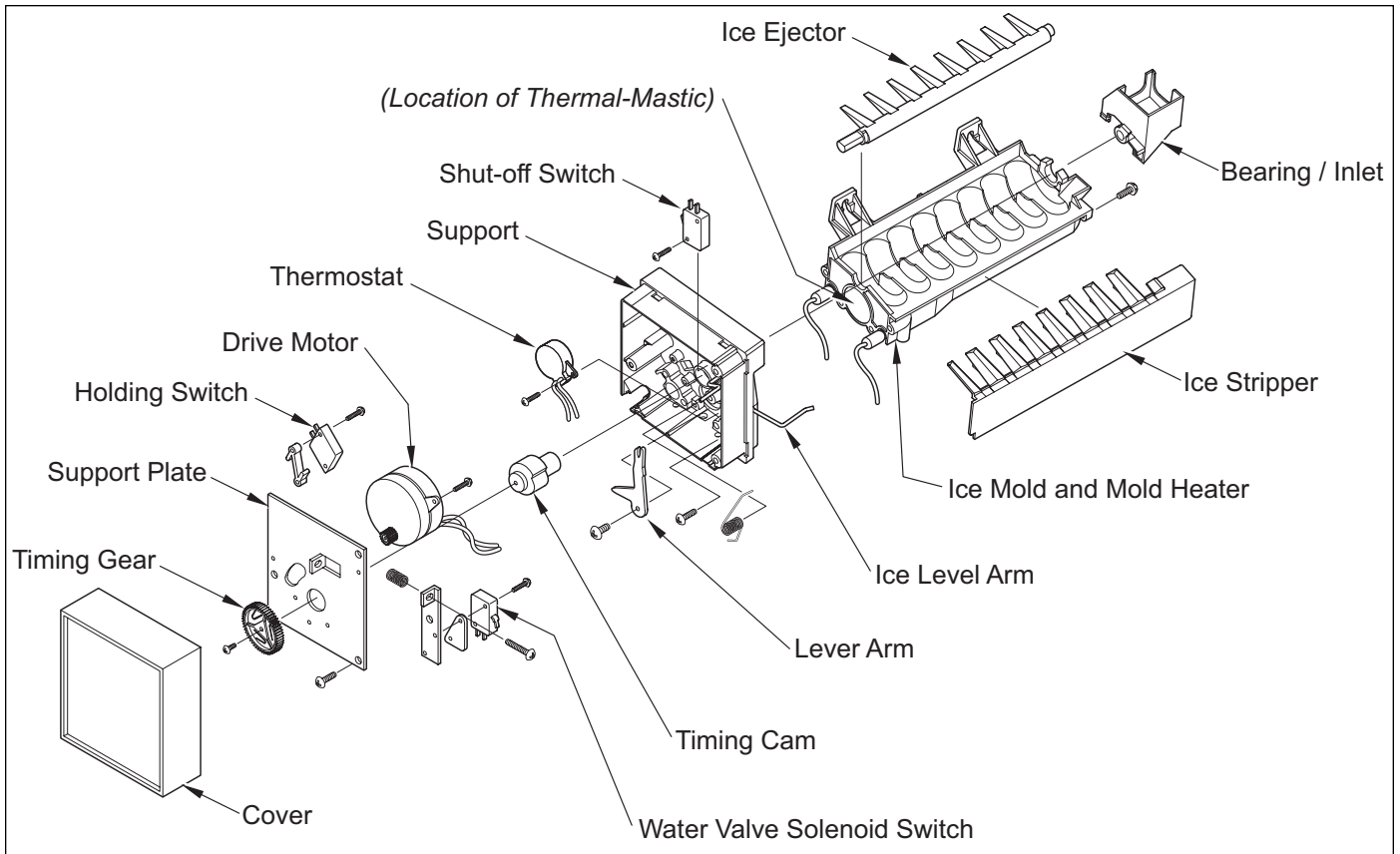


Figure 6-1. Diagram of Icemaker Components

ICEMAKER OPERATION

The following series of electrical schematics illustrate a typical icemaker cycle of operation. Below each schematic is a diagram indicating the approximate location of the ice ejector and ice level arm during the phase the schematic indicates.

Freeze Phase of Ice Making Cycle (See Figure 6-2)

- The ice mold is filled with water.
- The thermostat is open.
- No icemaker components are energized.

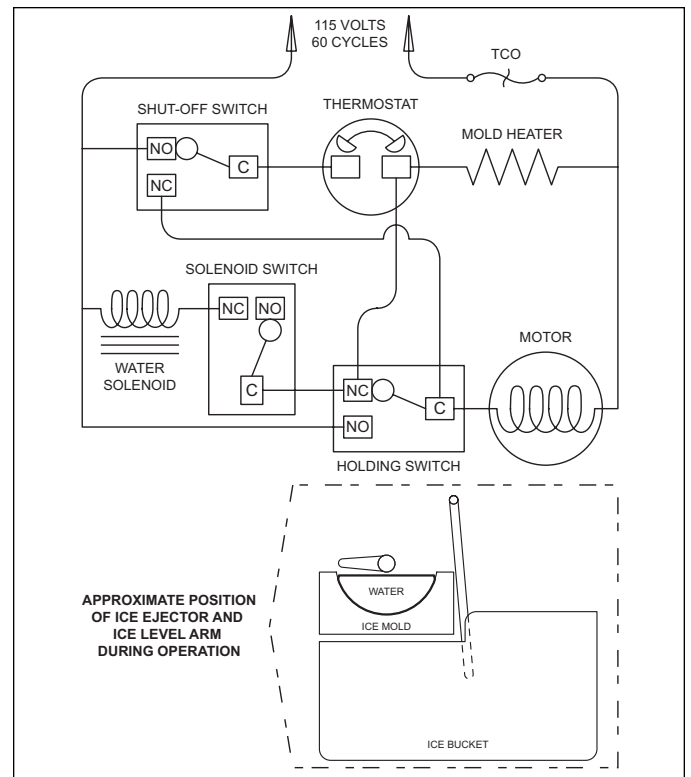


Figure 6-2. The Freeze Phase

Start of the First Revolution (See Figure 6-3)

- The water in the ice mold has turned to ice.
- At 15°F ± 3°F the thermostat closes.
- The mold heater is energized through the thermostat.
- The drive motor is started through the thermostat and “normally closed” terminal of the holding switch.
- The ice ejector begins to turn and the shut-off arm begins to rise.

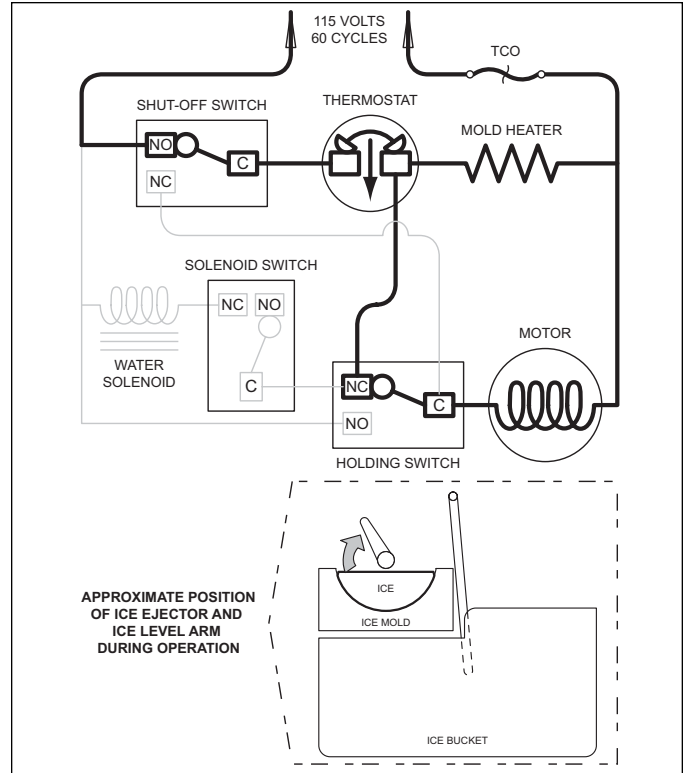


Figure 6-3. Start of First Revolution

First Revolution Continued (See Figure 6-4)

- The holding switch is tripped by the timing cam to “normally open” thus holding power to the motor.
- The mold heater remains energized through the thermostat.
- The shut-off arm begins to rise.

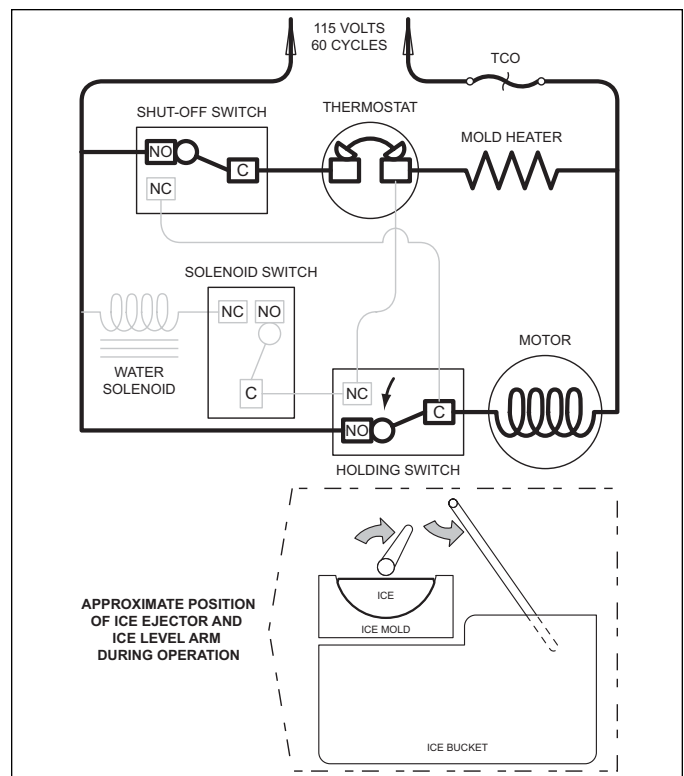


Figure 6-4. First Revolution Continued

First Revolution Continued (See Figure 6-5)

- The ice ejector reach the ice in the mold.
- The ice releases from the mold as the ejector blades begin to rotate the cubes out.
- The drive motor remains energized through the holding switch.
- The mold heater remains energized through the thermostat.
- As the shut-off arm rises, the shut off switch is tripped to “normally closed”, and then the shut-off arm begins to lower.

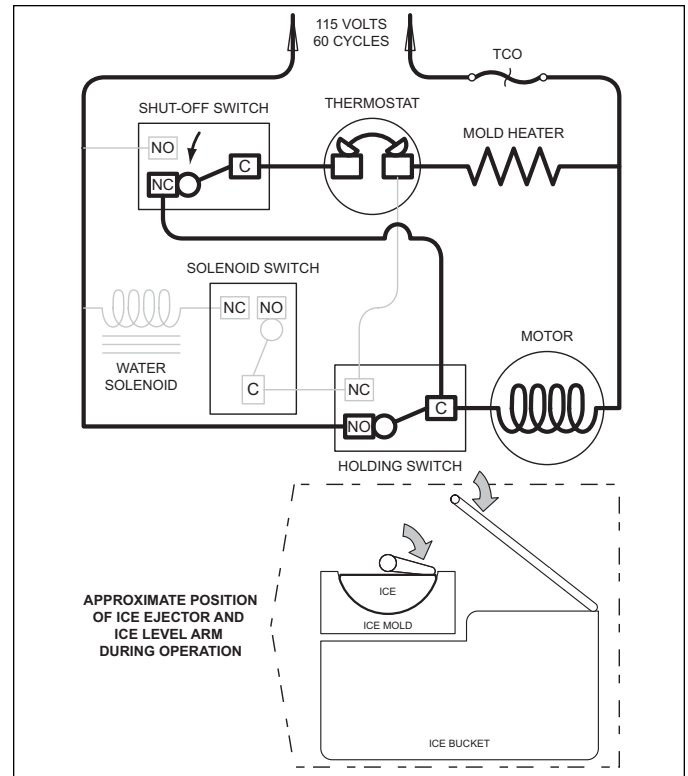


Figure 6-5. First Revolution Continued

First Revolution Continued (See Figure 6-6)

- The ice has released from the mold.
- The motor remains energized through the holding switch.
- The shut-off arm is lowered and the shut off switch is tripped to “normally open”.
- The water valve solenoid switch is tripped by the timing cam, but the solenoid is not energized because the thermostat is still closed and energizing the mold heater. (Electric current follows the path of least resistance.)

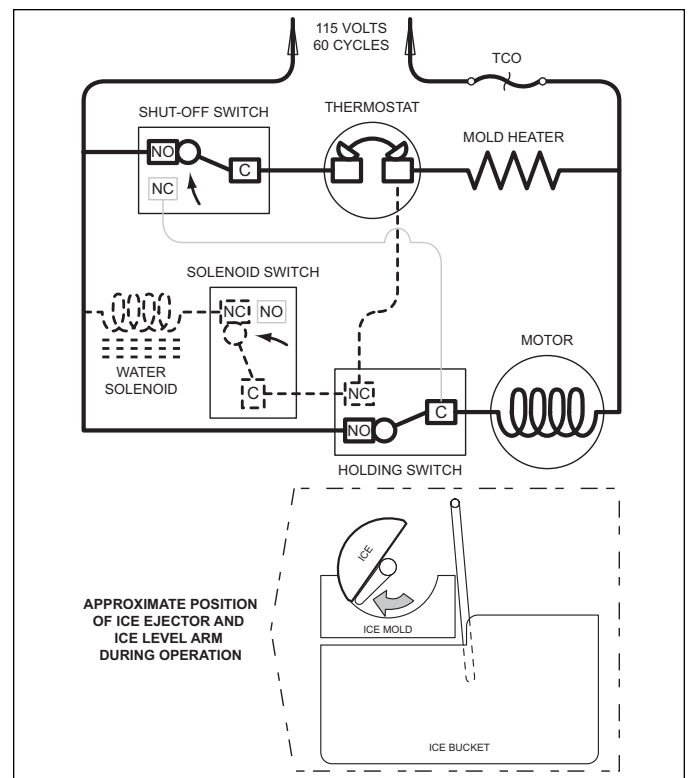


Figure 6-6. First Revolution Continued

End of First Revolution (See Figure 6-7)

- The water valve solenoid switch is tripped by the timing cam back to “normally open.”
- The timing cam trips the holding switch to “normally close,” which ends the first revolution, but the thermostat is still closed, so the motor is again started.
- The mold heater remains energized through the thermostat.

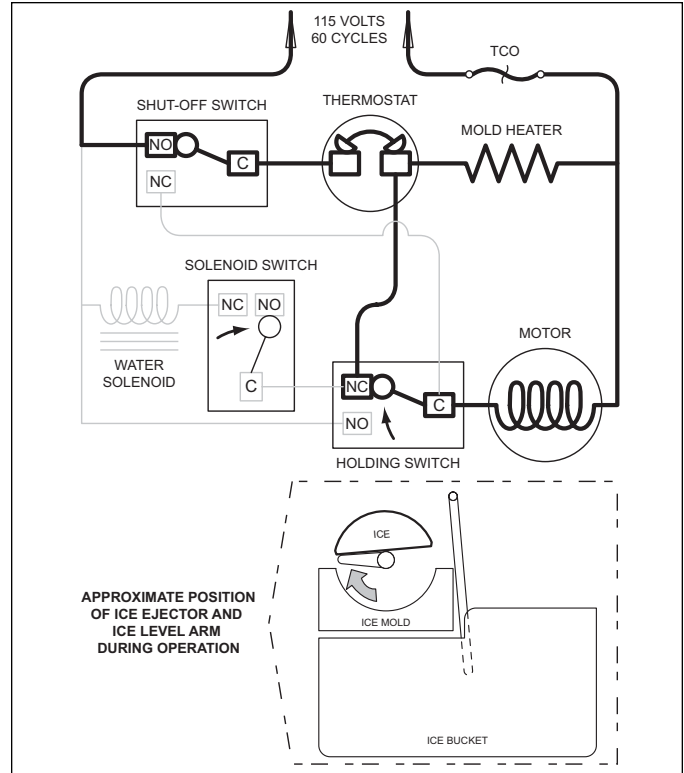


Figure 6-7. End of First Revolution

Start of Second Revolution:(See Figure 6-8)

- The water valve solenoid switch is tripped by the timing cam back to “normally open.”
- The timing cam trips the holding switch to “normally close,” which ends the first revolution, but the thermostat is still closed, so the motor is again started.
- The mold heater remains energized through the thermostat.

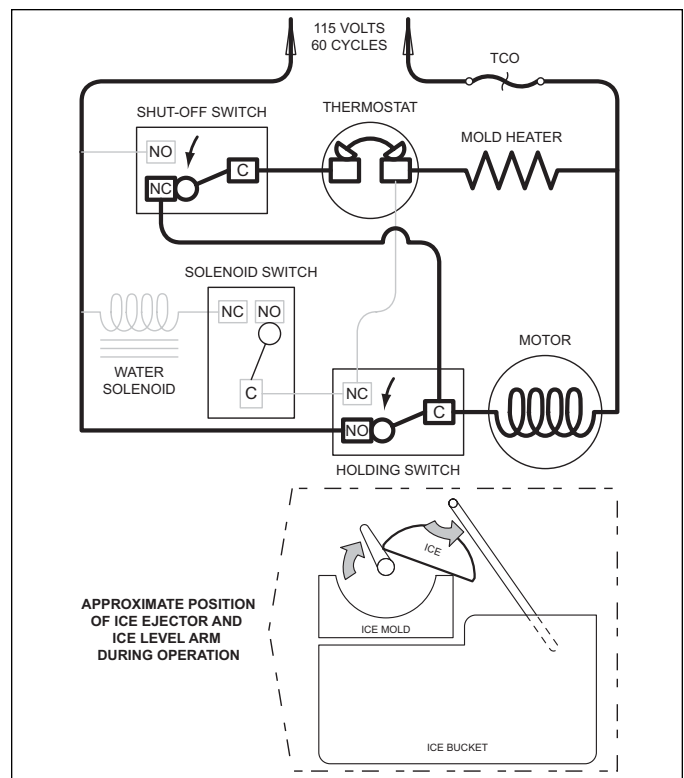


Figure 6-8. Start of Second Revolution

Second Revolution Continued (See Figure 6-9)

- The mold heater has warmed the thermostat, so the thermostat opens, and the mold heater is de-energized.
- If the shut-off arm comes to rest on top of the ice in the storage bin (as illustrated), so the shut-off switch will remain in the “normally closed” position.
- The motor remains energized through the holding switch.

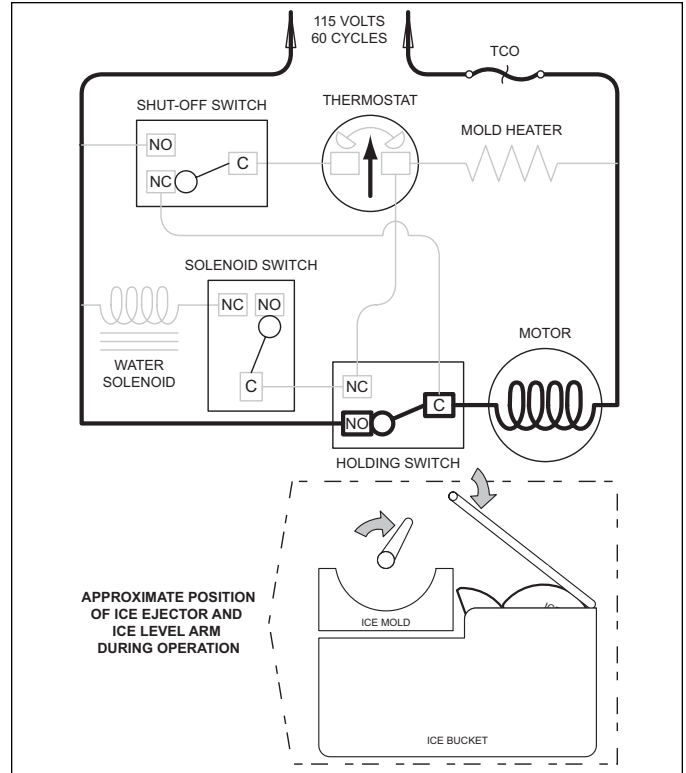


Figure 6-9. Second Revolution Continued

Second Revolution Continued (See Figure 6-10)

- The water valve solenoid switch is tripped by the timing cam. This time the solenoid is energized because the thermostat is open. The water solenoid is open for approximately seven seconds, filling the ice mold with water.
- the mold heater is energized through the solenoid switch and holding switch.

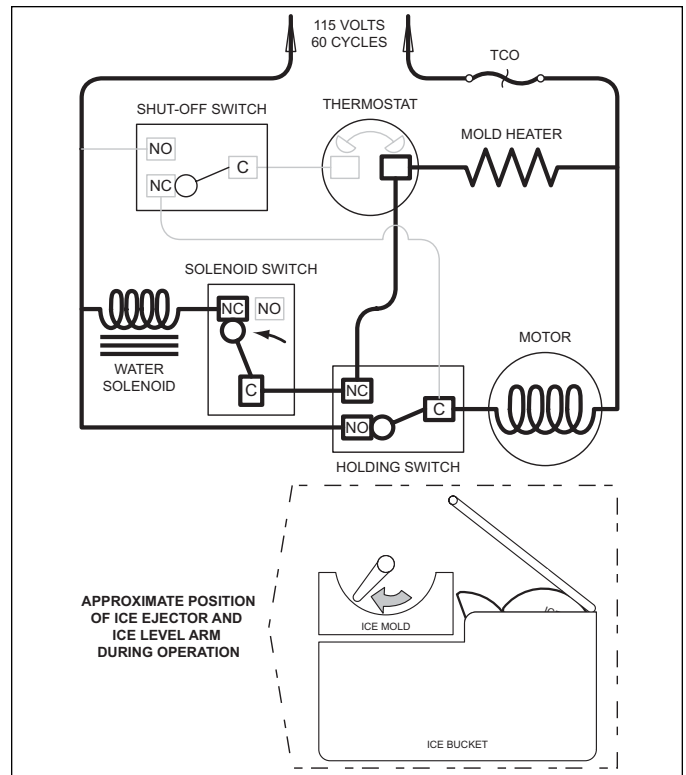


Figure 6-10. Second Revolution Continued

End of Ice making Cycle (See Figure 6-11)

- The water valve solenoid switch is tripped by the timing cam back to “normally open” ending the water fill.
- The timing cam trips the holding switch to “normally close,” which ends the second revolution.
- The thermostat is still open, so it does not start the drive motor.
- If the shut-off arm has come to rest on top of the ice in the storage bin (as illustrated), the shut-off switch remains in the “normally closed” position. This interrupts power from reaching the thermostat, until sufficient ice has been removed from the storage bin allowing the shut-off arm to lower.

NOTE: To allow ice to freeze fully and reduce effects of low water pressure, the electronic control system disables the icemaker system for 45 minutes after each ice harvest.

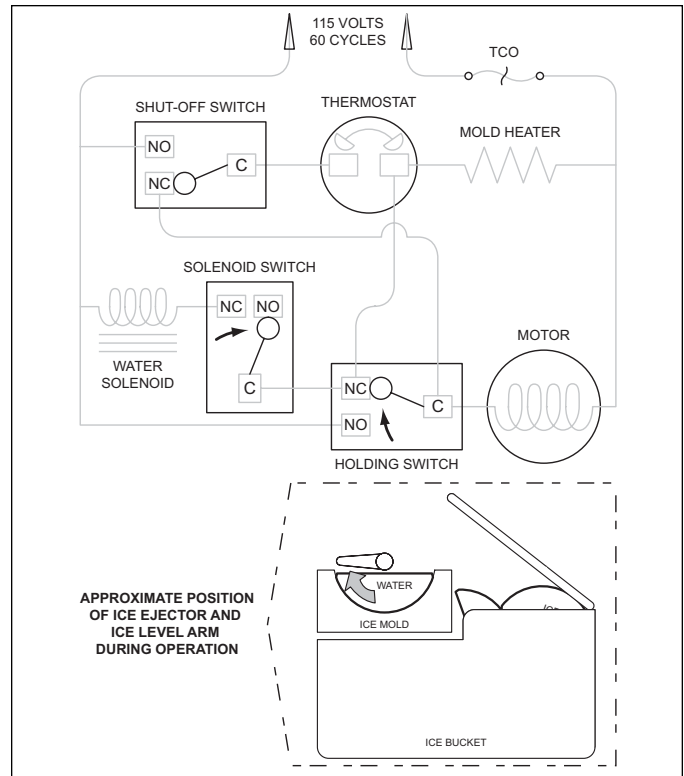


Figure 6-11. End of Ice Making Cycle

MANUALLY STOPPING ICE PRODUCTION

Ice production can be manually stopped four ways:

1. Press the ICE ON/OFF key on the control panel so that “ICE” is not displayed on the LCD.
2. In model 632 and 642, trip the icemaker switch above the ice bucket to the OFF position.
3. In models 601F, 611, 650, 680 and 690, remove the ice bucket so that the icemaker switch at the back of the freezer is not being depressed. Also, make sure no food product is coming in contact with the icemaker switch.
4. In models 611, 650, 680 and 690, lift the ice level arm up to lock it in the OFF position (See Figure 6-12).

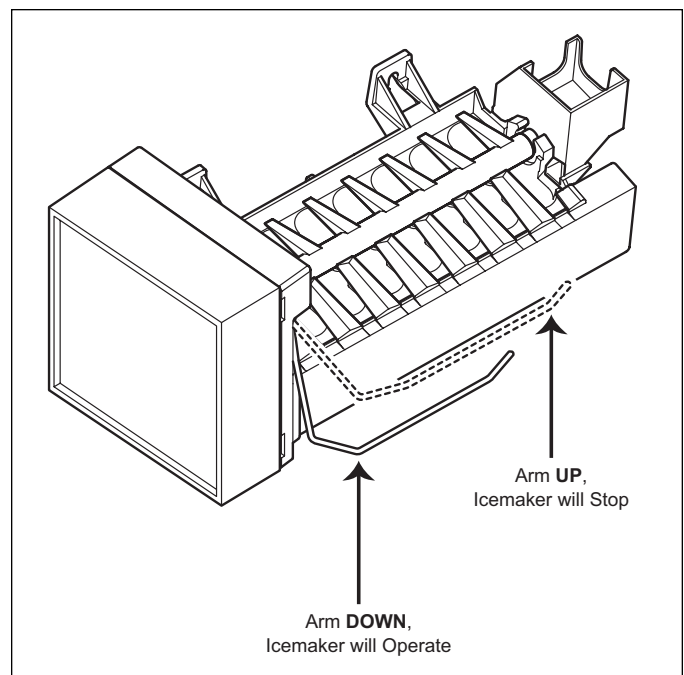


Figure 6-12. Stopping Icemaker

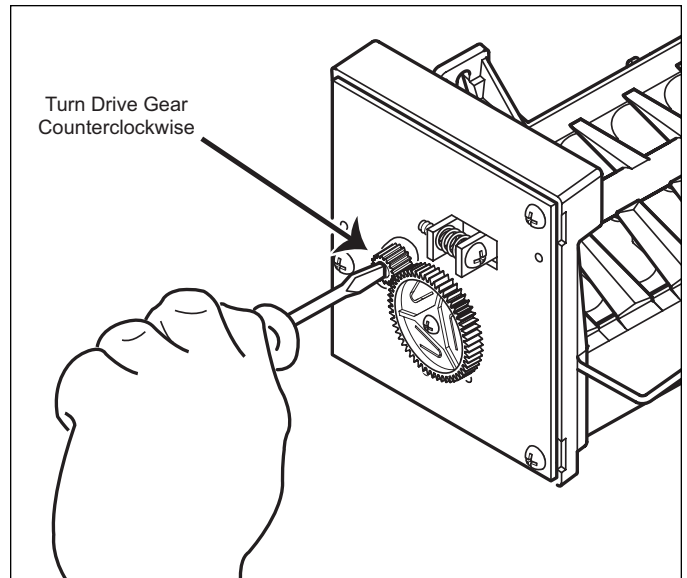
MANUALLY STARTING THE ICEMAKER

NOTE: To allow ice to freeze fully and reduce effects of low water pressure, the electronic control disables the icemaker system for 45 minutes after each ice harvest. To bypass this 45 minute dwell for service purposes, press the the ICE ON/OFF key or the UNIT ON/OFF key at the control panel.

Manual Start Procedure

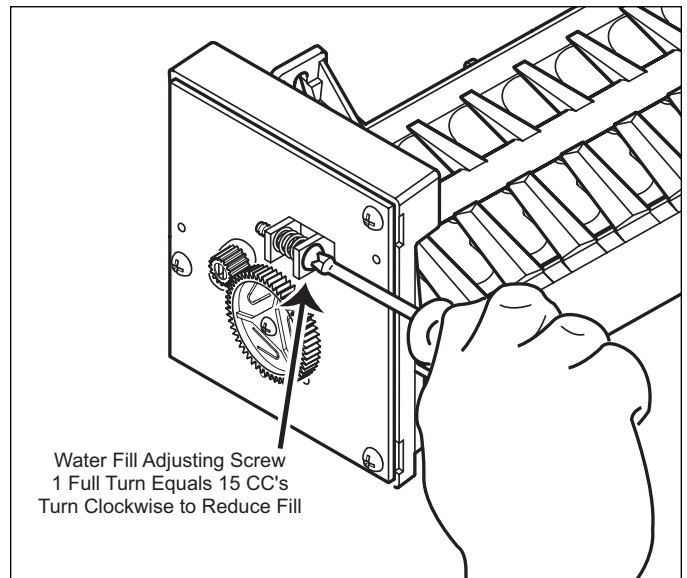
1. Pry the icemaker front cover from the support using a flat-blade screwdriver or coin.
2. With a flat-blade screwdriver, turn the drive gear counterclockwise until the holding switch is activated, completing the circuit to the drive motor (this will be about a 1/8 turn). (See Figure 6-13) The icemaker will then complete its cycle automatically.

NOTE: If after 1/4 turn the icemaker is not running on its own, it may be in the 45 minute dwell period or there is an electrical or mechanical problem.

**Figure 6-13. Manually Start Icemaker****ADJUSTING ICEMAKER WATER FILL LEVEL**

Proper water fill level for a MidSouth icemaker is 100 - 110 cc's (3.5 - 3.75 oz). If the fill level is checked and needs to be adjusted, turn the water fill adjusting screw clockwise to reduce fill level, or counterclockwise to increase fill level. One full turn of the screw equals 15 cc's. (See Figure 6-14)

NOTE: Always check fill level before making any adjustments of the water fill adjusting screw.

**Figure 6-14. Adjust Water Fill Level**

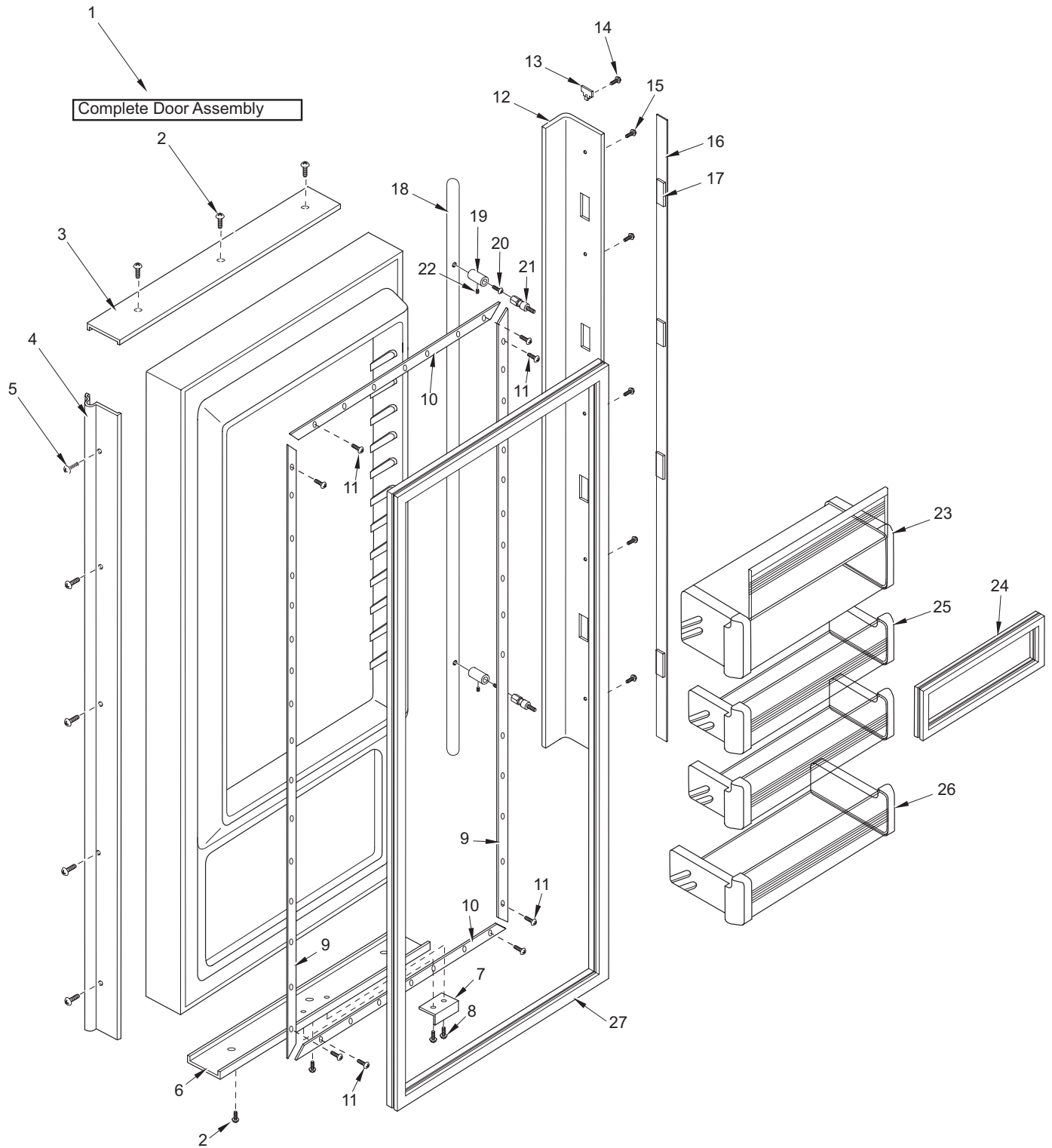
SECTION 8

PARTS LISTS
&
EXPLODED VIEWS

601R DOOR PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4134353	Refrig. Door Assy, Frame/Overlay - RH
	4134354	Refrig. Door Assy, Frame/Overlay - LH
	4134503	Refrig. Door Assy, SS - RH
	4134504	Refrig. Door Assy, SS - LH
2	6200720	Screw, #8-18 x 1/2 Ph Truss Hd
3	2230608	Door Trim, Top LH
	2230609	Door Trim, Top RH
4	3511310	Door Trim, Hinge Side - Mitered Corner
	3511410	Door Trim, Hinge Side - (SS Model)
5	6200720	Screw, #8-18 x 1/2 Ph Truss Hd
6	2230606	Door Trim, Bottom LH
	2230607	Door Trim, Bottom RH
7	0180281	Switch Depressor, White
8	6201300	Tapping Screw, #8 x 1/2
9	3420250	Gasket Retainer, Side, 57.875
10	3420220	Gasket Retainer, 33.312"
11	6200410	Screw, #8 x 1/2 Slot Head Hex
12	4132230	Door Handle Assy (Framed)
	4132330	Handle-side Door Trim (Overlay)
13	3413340	Handle/Trim End Cap
14	6180160	Rivet, Open End Blind, 1/8 X 3/16
15	6201300	Tapping Screw, #8 x 1/2
16	4132370	Handle/Trim Molding Assy
17	3451000	Magnet, Trim Strip - 3"
18	4132410	Handle Assy, Round (Incl. Stand-offs) (See SN Breaks)
	4133510	Handle Assy, Blunt (Incl. Stand-offs) (See SN Breaks)
	4133690	Handle Assy, SS OBR Standoffs (Incl. Stand-offs) (See SN Breaks)
19	3511320	Handle Stand-off 1" D (See SN Breaks)
	3512150	Standoff, SS Oval, Door (See SN Breaks)
20	6110540	Bolt, #10-24 x 1/2 Flat Socket HD
21	3511520	Handle Mounting Stud
22	6110730	Set Screw #10-32 x 1/4 SS Cone
23	4330490	Dairy Compartment Assy (Incl Gasket)
24	3211820	Dairy Compartment Gasket
25	4330480	Door Shelf Assy
26	4330530	Gallon Door Shelf Assy (Sales Acc.)
27	3212100	Door Gasket

601R DOOR VIEW

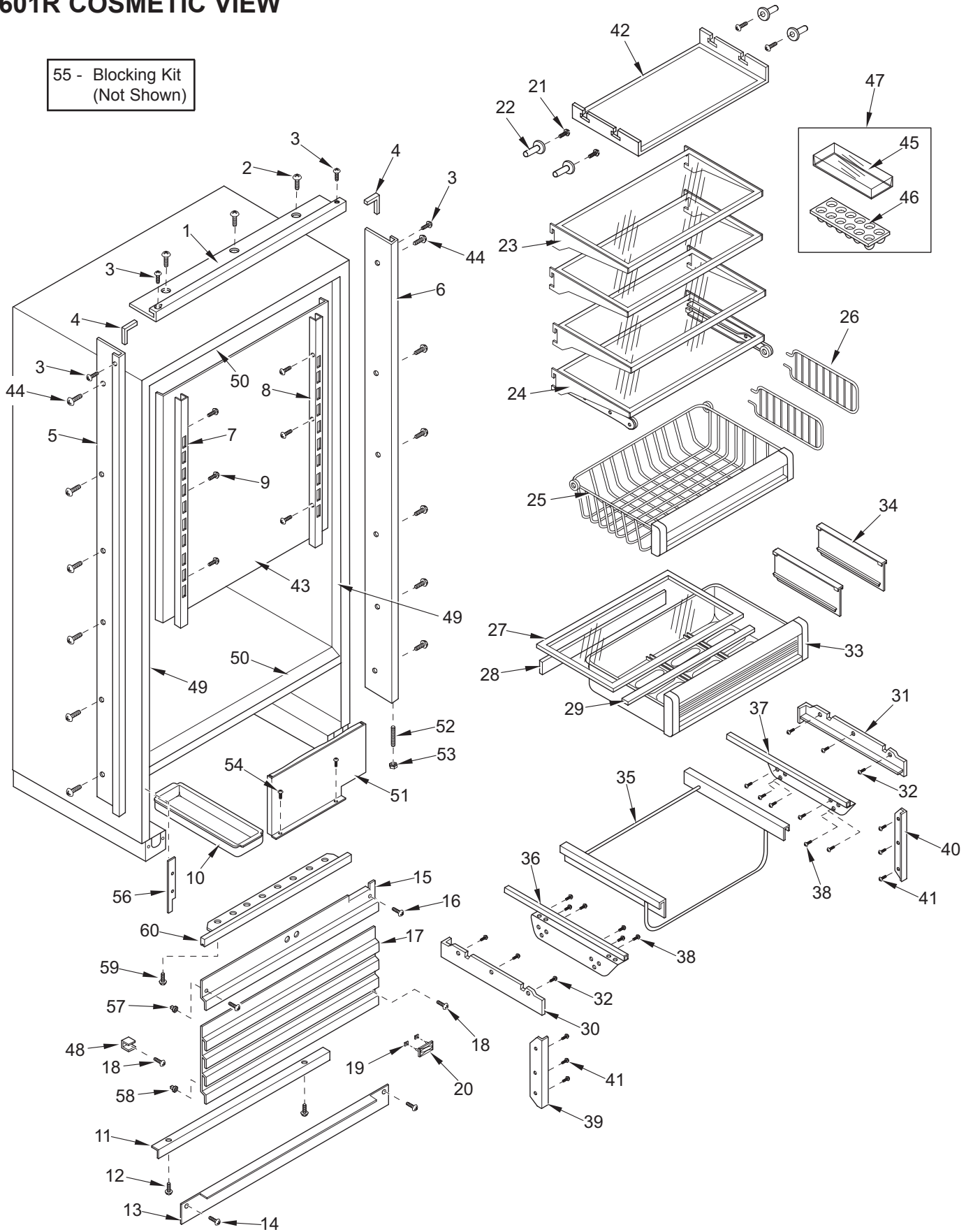


601R COSMETIC PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	2229616	Main Frame, Top-RH (See SN Breaks)	21	6201330	Screw, #8 PH-Pan Head 1"
	2229637	Main Frame, Top-RH (See SN Breaks)	22	3520420	Insert / Diffuser Stand-off
	2234015	Frame, Main Top-RH (See SN Breaks)	23	3601901	Glass Shelf, Spill Proof
	2229617	Main Frame, Top-LH (See SN Breaks)	24	4181620	Refrig. Roll-out Shelf Assy
	2229640	Main Frame, Top-LH (See SN Breaks)	25	4181520	Refrig. Roll-Out Basket Assy
	2234015	Frame, Main Top-LH (See SN Breaks)	26	3411160	Refrig. Roll-Out Basket Divider
2	6200010	Screw, #10-12 x 3/4 Pan HD	27	4151750	Crisper Glass Assy (Incl. Seals)
3	6200070	Screw, #4-24 x 3/8" Flat HD.	28	3211760	Crisper Glass Seal, Rear
4	2210701	Main Frame Angle	29	3211730	Crisper Glass Seal, Front
5	2229603	Main Frame, Left-RH (See SN Breaks)	30	3421711	Top Crspr Glass Support, Narrow-RH
	2229636	Main Frame, Left-RH (See SN Breaks)		3421722	Top Crisper glass Support, Wide-LH
	2234004	Frame, Main Left-RH (See SN Breaks)	31	3421712	Top Crisper Glass Support, Narrow-LH
	2229619	Main Frame, Left-LH (See SN Breaks)		3421721	Top Crisper Glass Support, Wide-RH
	2229641	Main Frame, Left-LH (See SN Breaks)	32	6201130	Screw, #8x 1/2 Ph FI Hd SS
	2234005	Frame, Main Left-LH (See SN Breaks)	33	4181440	High Humidity Drawer Assy
6	2229618	Main Frame,Right-RH(See SN Breaks)	34	3413100	Drawer Divider
	2229638	Main Frame,Right-RH(See SN Breaks)	35	3421770	Humidity Drawer Slide-Frame
	2234003	Frame,Main Right-RH(See SN Breaks)	36	4181412	Top Crisper Slide Assy, Wide-LH
	2229602	Main Frame,Right-LH (See SN Breaks)		4181421	Top Crisper Slide Assy, Narrow-RH
	2229639	Main Frame,Right-LH (See SN Breaks)	37	4181411	Top Crisper Slide Assembly, Wide-RH
	2234006	Frame,Main Side-LH (See SN Breaks)		4181422	Top Crisper Slide Assy, Narrow-LH
7	3601832	Shelf Ladder, Left	38	6201270	Screw, #8-18 x 5/8 Ph Pn SS-Gnd
8	3601831	Shelf Ladder, Right	39	3421741	Crisper Filler Strip, Narrow (if RH)
9	6200710	Screw, #8-18 x 3/8 Fillister HD		3421742	Crisper Filler Strip, Wide (if LH)
10	0166110	Drain Pan	40	3421741	Crisper Filler Strip, Narrow (if LH)
11	0169790	Front Rail		3421742	Crisper Filler Strip, Wide (if RH)
12	6110020	Bolt, #10-24 x 3/8 Truss HD	41	6201270	Screw, #8-18 x 5/8 Ph Pn SS-Gnd
13	0169520	Kickplate	42	4161870	Refrig. Light Diffuser Assy
	0167820	Kickplate, Stainless Steel	43	0201240	Evaporator Cover
14	6200050	Screw, #10-12 Pan Hd	44	6200210	Screw, #8-32 Ft hD (See SN Breaks)
	6200720	Screw, #8-18x1/2 Ph Tr Hd (SS Model)		6201550	Screw, #8-18 Lw Prfl (See SN Breaks)
15	2232001	Upper Grille - RH (See SN Breaks)	45	3412280	Egg Tray Cover
	2233901	Upper Grille - RH	46	3412270	Egg Tray
		- Framed / Overlay (See SN Breaks)	47	4131810	Egg Tray with Cover
		- SS (See SN Breaks)	48	3450910	Clip, Grille (SS Model)
	0261281	Cover, Grille RH (SS) (See SN Breaks)	49	2811207	Breaker Strip, Side (See SN Breaks)
	2232002	Upper Grille - LH (See SN Breaks)	50	2811206	Braker Strip, Top/Bot (See SN Breaks)
	2233902	Upper Grille - LH	51	4280860	Compressor Shroud (See SN Breaks)
		- Framed / Overlay (See SN Breaks)		4281060	Shroud Assy, Comp (See SN Breaks)
		- SS (See SN Breaks)	52	3550190	Bottom Hinge Stud
	0261282	Cover, Grille LH (SS) (See SN Breaks)	53	6150200	Nut, 1/4-20 Hex
16	6200720	Screw, #8-18 x 1/2 PH Truss HD	54	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
17	4242250	Lwr Grille Section (Framed / Overlay)	55	4201320	Blocking Kit, 36" (Not Shown)
	4241740	Lwr Grille Sectn (SS) (See SN Breaks)	56	3580882	Grille, Spacer LH (See SN Breaks)
	4242380	Grille Assy, SS (See SN Breaks)		3580881	Grille, Spacer RH (See SN Breaks)
18	6200790	Screw, #8-18 Black	57	6220320	Screw Grmt (See SN Breaks)
19	6150140	Spring Grip Nut, 1/8	58	6220050	Screw Grmt, 1/2X5/8 (See SN Breaks)
20	3580210	Name Plate, Stick-on	59	6201550	Screw, #8-1/8 Low Profile
	3580230	Name Plate w/ Pegs	60	3516670	Trim, Grille Cover (SS)

601R COSMETIC VIEW

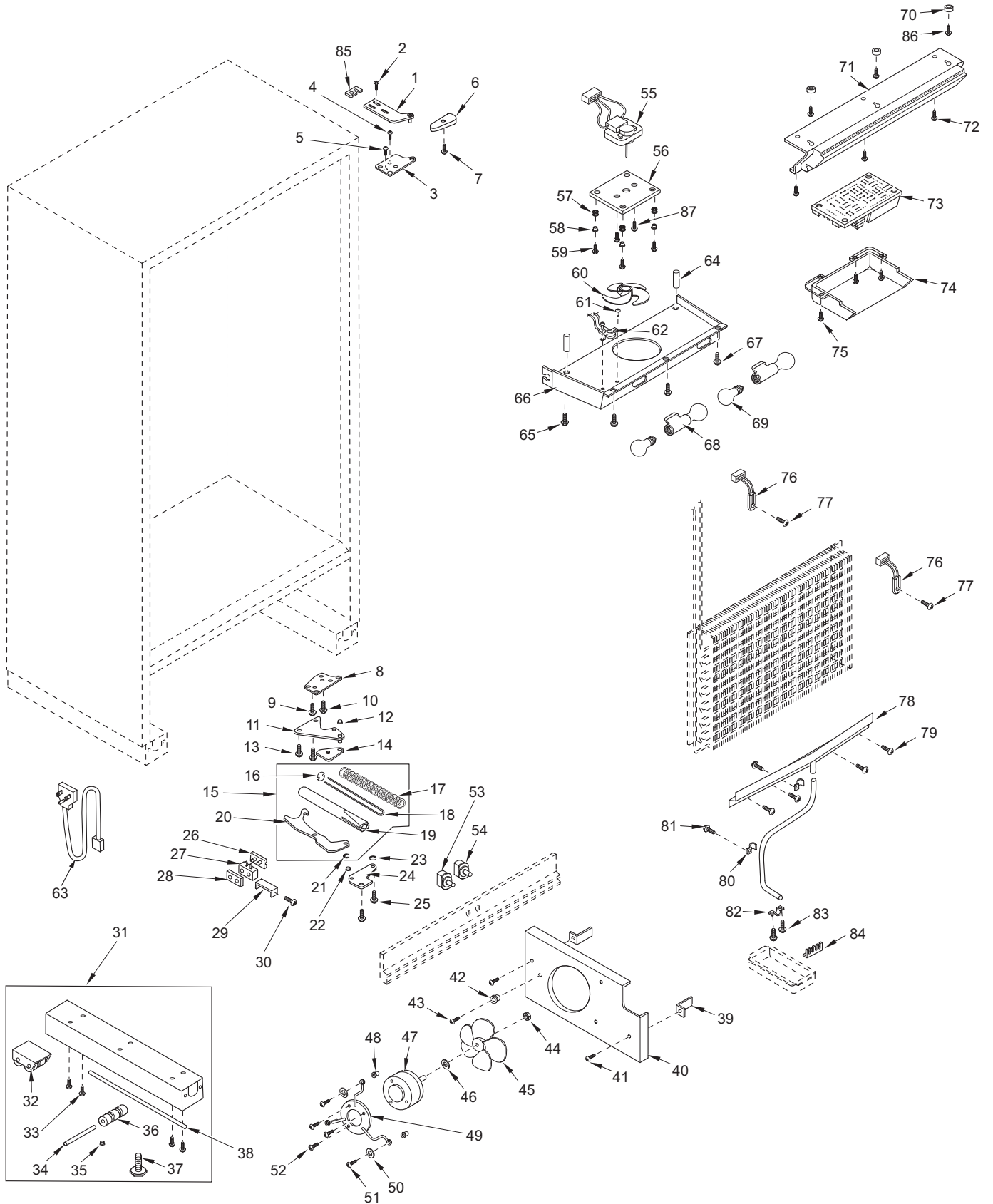
55 - Blocking Kit
(Not Shown)



601R MECHANICAL PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	4151271	Cabinet Hinge Assy, Upper RH	43	6200450	Screw, #8 x 1" Type AR Flat
	4151272	Cabinet Hinge Assy, Upper LH	44	6150410	Nut, 1/4-20
2	6110070	Bolt, 1/4-20 x 3/4" Spinlock Zinc	45	3150320	Fan Blade, Cond -5 prop
3	4151471	Door Hinge Assy, Top RH	46	3210340	Neoprene Silencer, 7/8"
	4151472	Door Hinge Assy, Top LH	47	4200740	Motor Pkg, Cond Fan (blade not incl.)
4	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	48	6150330	Well Nut, .75D x .804", #10-32
5	6200390	Screw, #6 x 3/8" T25 Flat Head PH	49	3150650	Condenser Fan Bracket
6	3541017	Top Cabinet Hinge Cover, RH	50	6240350	Fender Washer, .25x1.25x.06
	3541018	Top Cabinet Hinge Cover, LH	51	6201280	Machine Screw, #10-32 x 1-1/4"
7	6200140	Screw, #8-15 x 3/8" Truss HD	52	6200490	Screw, #8-32 x 3/8" Slotted Hex T25
8	4151241	Door Hinge, Bottom RH	53	3060030	Light Switch, N/C
	4151242	Door Hinge, Bottom LH	54	3060020	Fan Switch, N/O
9	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	55	4200170	Ref Fan Motor Pkg. (blade not incl.)
10	6200390	Screw, #6 x 3/8" T25 Flat Head PH	56	0211620	Refrigerator Fan Bracket
11	4151871	Bottom Cabinet Hinge Assembly - RH	57	3220250	Grommet, Rubber-M5351
	4151872	Bottom Cabinet Hinge Assembly - LH	58	3520410	Brass Insert, Fan
12	3421270	Hinge Bearing, 3/8" x 5/8"	59	6200130	Screw, #8-18 x 3/4" Truss HD
13	6110070	Bolt, 1/4-20 x 3/4" Spinlock Zinc	60	3150640	Fan Blade, Evaporator
14	DS90	Door Stop-90 Degree	61	6180010	Pop Rivet, 1/8"
	DS105	Door Stop-105 Degree	62	3082140	Light Terminator
15	4201113	Door Closer Assembly, RH	63	4321820	Power Cord
	4201114	Door Closer Assembly, LH	64	6220540	Screw Grommet/Stand-off, 1.375
16	0165980	Door Closer Spring Retainer	65	6201010	Screw, #8-15 x 2" Pan Head
17	3450530	Door Closer Spring	66	4161820	Refrig. Fan Shroud Assembly
	3450710	Low Pull Spring	67	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
18	3421290	Door Closer Linkage	68	3050180	Light Socket, Double (See SN breaks)
19	3421300	Door Closer Housing		3050250	Skt, Light MBase Dbl (See SN breaks)
20	0183110	Door Closer Arm	69	3030030	Light Bulb, 40 Watt
21	3450550	E-Ring / Klipring , 5/16"	70	6160240	Nylon Spacer
22	3421260	Door Closer Bearing	71	4160792	Control Panel Assy (See SN Breaks)
23	6160220	Steel Spacer		4161662	Control Panel Assy (See SN Breaks)
24	0183960	Cabinet Hinge Stiffener	72	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
25	6110450	Bolt, 1/4-20 x 1/2" Whiz Lock	73	4202802	Control Board (See SN Breaks)
26	3450570	Door Closer Cushion		4203520	Control Board (See SN Breaks)
27	0165970	Door Closer Guide Support	74	3412790	Control Board Encl (See SN Breaks)
28	3421310	Door Closer Guide		3413940	Control Board Encl (See SN Breaks)
29	0166360	Door Closer Cushion Retainer	75	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
30	6180010	Pop Rivet, 1/8"	76	3014350	Thermistor
31	4110353	Base Assy (w/rollers)	77	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
32	4110331	Base Rear Roller Assy	78	4190150	Drain Trough Assy (See SN Breaks)
33	6200010	Screw, #10-12 x 3/4" Pan HD		0260540	Drain Trough Assy (See SN Breaks)
34	3550560	Straight Pin, Base Assy - .312" x 2.88"	79	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
35	3450620	Canoe Clip	80	6120050	Tube Clamp, Plastic, 5/8"
36	3421240	Cabinet Roller	81	6200010	Screw, #10-12 x 3/4" Pan HD
37	3570050	Leveling Leg, #18-3/8 x 1"	82	6120210	U-Clamp, 5/8"
38	6110580	Adjusting Screw	83	6200010	Screw, #10-12 x 3/4" Pan HD
39	3450290	Angle Bracket	84	3421430	Pan Heater Support
40	0260140	Cond. Fan Shroud (See SN Breaks)	85	0168680	Shim - Hinge
	0168070	Cond. Fan Shroud (See SN Breaks)	86	6200720	Screw, #8-18 x 1/2 PH Truss HD
41	6200010	Screw, #10-12 x 3/4" Pan HD	87	6110270	Bolt, #10-32 x 1/4" RD HD
42	3420670	Screw Spacer			

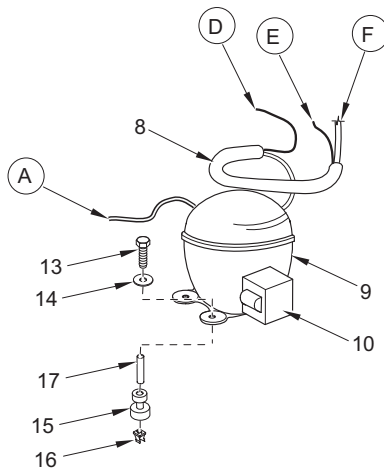
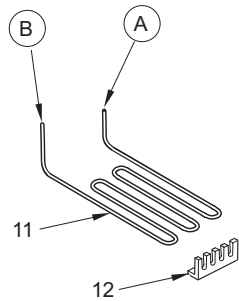
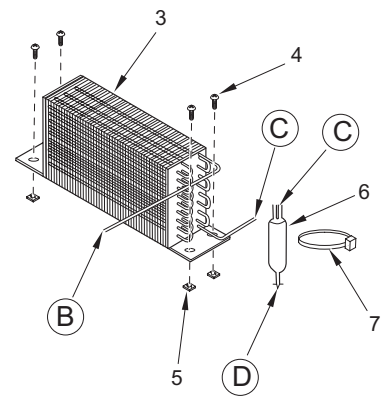
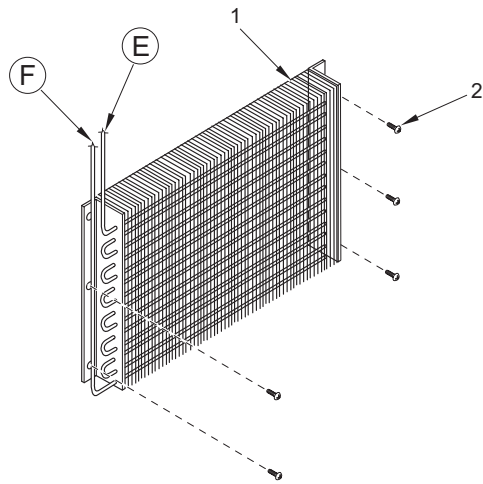
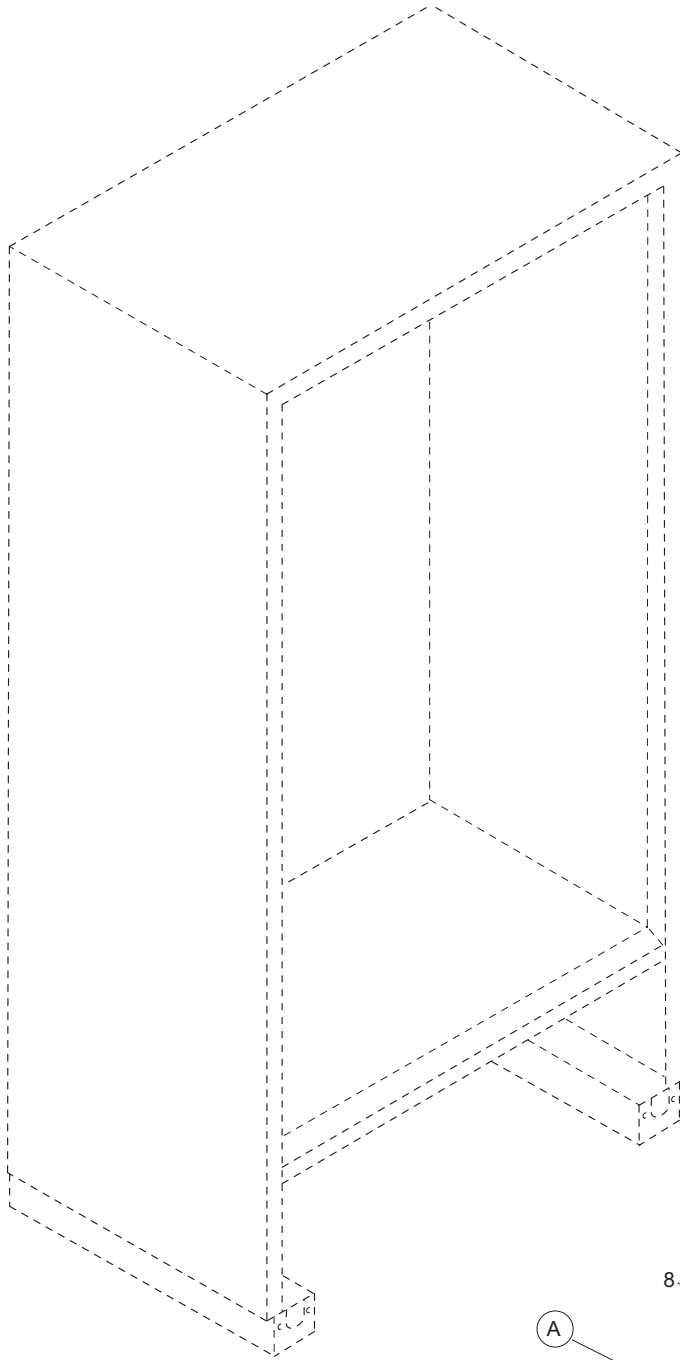
601R MECHANICAL VIEW



601R SEALED SYSTEM PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	3130390	Evaporator, Ref (See SN Breaks)
	3130610	Evaporator, Ref (See SN Breaks)
2	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
3	3120320	Condenser (See SN Breaks)
	3120390	Condenser (See SN Breaks)
4	6110020	Bolt, #10-24 x 3/8" Truss HD
5	6150080	Nut-Flat, #10-24
6	3014230	Filter-Drier, High Side
7	6120170	Locking Cable Tie, Red, 11-1/2"
8	4251310	Heat Exchanger
9	4201880	Compressor, Refrig. (EMI30HER)
10	3111370	Relay (1351400)
	3111410	Overload (4TM734LFB)
11	2600196	Drain Pan Heater Loop
12	3421430	Pan Heater Support
13	6200300	Screw, 5/16-18 x 1-1/2" Hex
14	6240050	Flat Washer, 5/16"
15	3150170	Rubber Grommet, Large, 15/16"
16	1801000	Nylon Compressor Mount, 7/16"
17	6160070	Sleeve, 5/16 x 7/16 x 7/8"
18	3014100	Suction Line Drier (Service Only)

601R SEALED SYSTEM VIEW

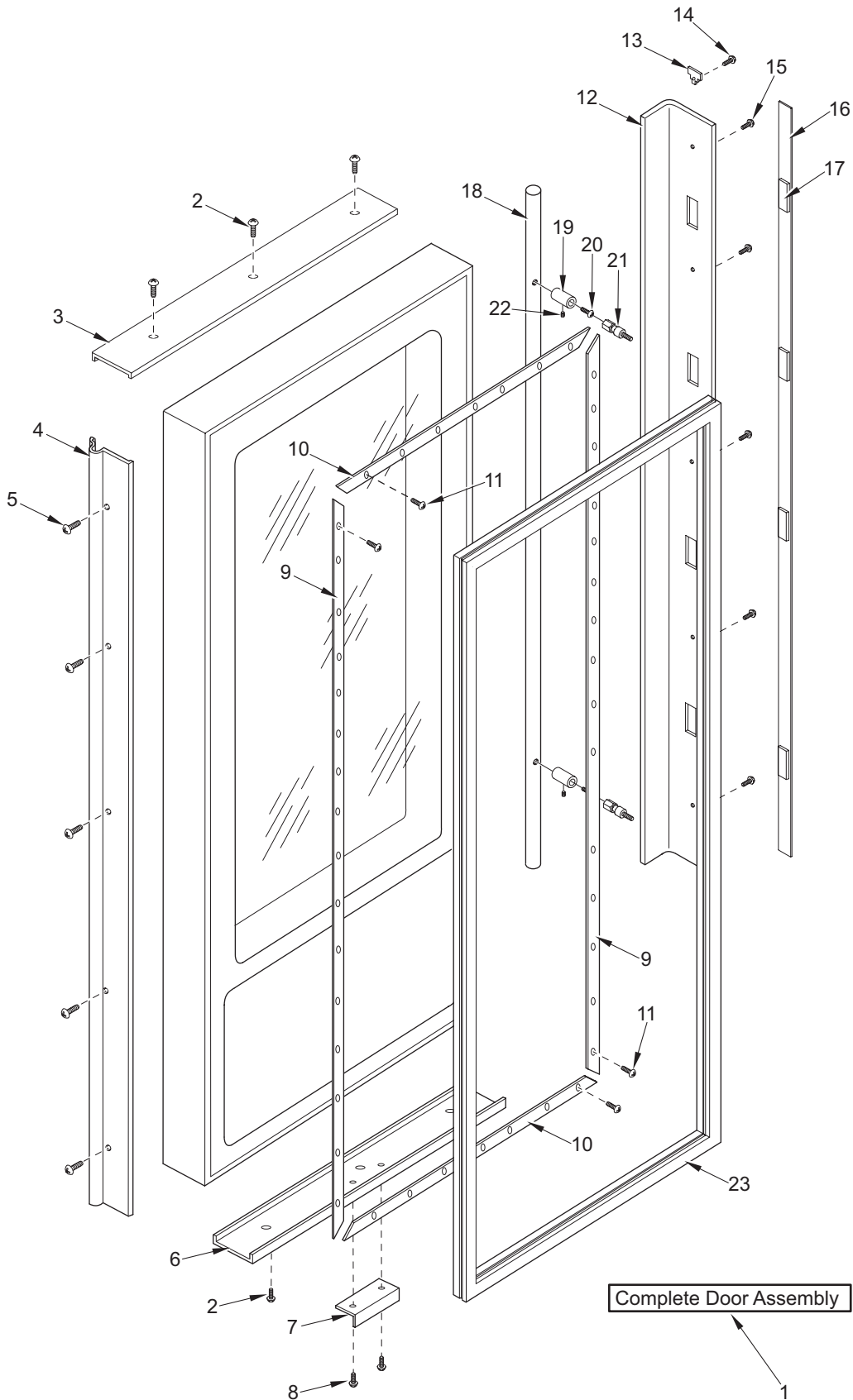


18 - Suction Line Drier
(Not Shown)

601RG DOOR PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4134615	Refrig. Door Assy, Frame/Overlay - RH
	4134616	Refrig. Door Assy, Frame/Overlay - LH
	4134617	Refrig. Door Assy, Frame/Overlay (HAG) - RH
	4134618	Refrig. Door Assy, Frame/Overlay (HAG) - LH
	4134635	Refrig. Door Assy, SS - RH
	4134636	Refrig. Door Assy, SS - LH
	4134637	Refrig. Door Assy, SS (HAG) - RH
	4134638	Refrig. Door Assy, SS (HAG) - LH
		NOTE: All Door Assy's include Wire Harness / Top Hinge Assy.
2	6200720	Screw, #8-18 x 1/2 Ph Truss Hd
3	2230608	Door Trim, Top LH
	2230609	Door Trim, Top RH
4	3511310	Door Trim, Hinge Side - Mitered Corner
	3511410	Door Trim, Hinge Side - (SS Model)
5	6200720	Screw, #8-18 x 1/2 Ph Truss Hd
6	2230606	Door Trim, Bottom LH
	2230607	Door Trim, Bottom RH
7	0185180	Switch Depressor
8	6201300	Tapping Screw, #8 x 1/2
9	3420250	Gasket Retainer, Side, 57.875
10	3420220	Gasket Retainer, 33.312"
11	6200410	Screw, #8 x 1/2 Slot Head Hex
12	4132230	Door Handle Assy (Framed)
	4132330	Handle-side Door Trim (Overlay)
13	3413340	Handle/Trim End Cap
14	6180160	Rivet, Open End Blind, 1/8 X 3/16
15	6201300	Tapping Screw, #8 x 1/2
16	4132370	Handle/Trim Molding Assy
17	3451000	Magnet, Trim Strip - 3"
18	4133510	Handle Assy, Blunt (Incl. Stand-offs) - (See SN Breaks)
	4133690	Handle Assy, SS OBR Standoffs (Incl. Stand-offs) - (See SN Breaks)
19	3511320	Handle Stand-off 1" D (See SN Breaks)
	3512150	Standoff, SS Oval, Door (See SN Breaks)
20	6110540	Bolt, #10-24 x 1/2 Flat Socket HD
21	3511520	Handle Mounting Stud
22	6110730	Set Screw #10-32 x 1/4 SS Cone
23	3212100	Door Gasket

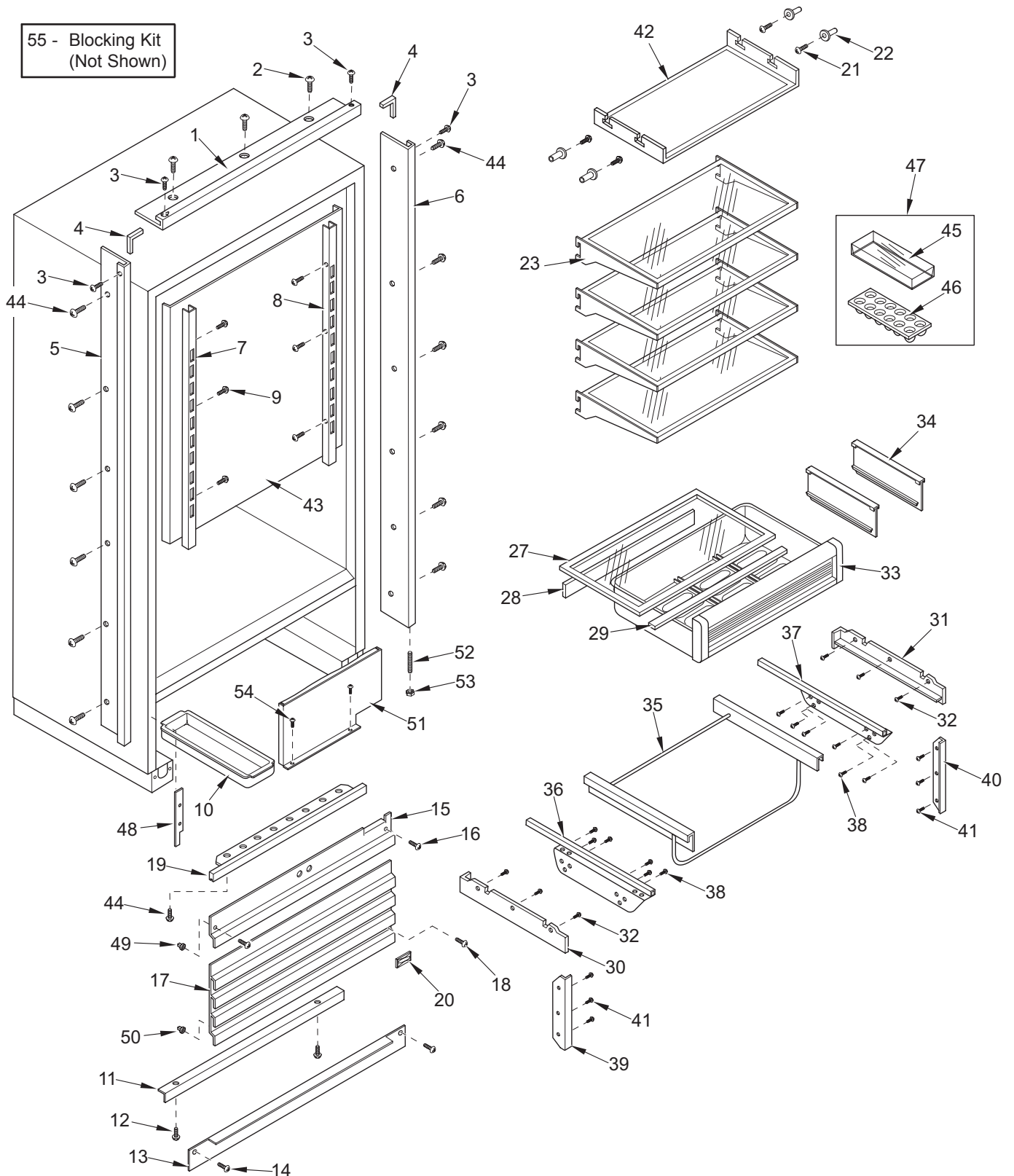
601RG DOOR VIEW



601RG COSMETIC PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>	<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	2234001	Frame, Main Top 36 - RH	27	4151750	Crisper Glass Assy (Incl. Seals)
	2234002	Frame, Main Top 36 - LH	28	3211760	Crisper Glass Seal, Rear
2	6200010	Screw, #10-12 x 3/4 Pan HD	29	3211730	Crisper Glass Seal, Front
3	6200070	Screw, #4-24 x 3/8" Flat HD.	30	3421711	Top Crspr Glass Support, Narrow-RH
4	2210701	Main Frame Angle		3421722	Top Crisper glass Support, Wide-LH
5	2234004	Main Frame, Left-RH	31	3421712	Top Crisper Glass Support, Narrow-LH
	2234005	Main Frame, Left-LH		3421721	Top Crisper Glass Support, Wide-RH
6	2234003	Frame, Main Side Right - RH	32	6201130	Screw, #8x 1/2 Ph FI Hd SS
	2234006	Main Frame, Right-LH	33	4181440	High Humidity Drawer Assy
7	3601832	Shelf Ladder, Left	34	3413100	Drawer Divider
8	3601831	Shelf Ladder, Right	35	3421770	Humidity Drawer Slide-Frame
9	6200710	Screw, #8-18 x 3/8 Fillister HD	36	4181412	Top Crisper Slide Assy, Wide-LH
10	0166110	Drain Pan		4181421	Top Crisper Slide Assy, Narrow-RH
11	0169790	Front Rail	37	4181411	Top Crisper Slide Assembly, Wide-RH
12	6110020	Bolt, #10-24 x 3/8 Truss HD		4181422	Top Crisper Slide Assy, Narrow-LH
13	0169520	Kickplate	38	6201270	Screw, #8-18 x 5/8 Ph Pn SS-Gnd
	0167820	Kickplate, Stainless Steel	39	3421741	Crisper Filler Strip, Narrow (if RH)
14	6200050	Screw, #10-12 Pan Hd		3421742	Crisper Filler Strip, Wide (if LH)
15	2233901	Upper Grille (Framed/Overlay) - RH	40	3421741	Crisper Filler Strip, Narrow (if LH)
	2233902	Upper Grille (Framed/Overlay) - LH		3421742	Crisper Filler Strip, Wide (if RH)
	0261281	Cover, Grill (Stainless Steel) - RH	41	6201270	Screw, #8-18 x 5/8 Ph Pn SS-Gnd
	0261282	Cover, Grill (Stainless Steel) - LH	42	4161870	Refrig. Light Diffuser Assy
16	6201510	Screw, #8-18 x 3/4 PH Truss HD	43	0201240	Evaporator Cover
17	4242250	Grille Assy, Lwr (Framed/Overlay)	44	6201550	Screw, #8-1/8 Low Profile
	4242360	Grille Assy, SS (See SN Breaks)	45	3412280	Egg Tray Cover
	4242380	Grille Assy, SS (See SN Breaks)	46	3412270	Egg Tray
18	6200790	Screw, #8-18 Black (Framed/Overlay)	47	4131810	Egg Tray with Cover
19	3516670	Trim, Grille Cover (SS)	48	3580882	Grille, Spacer LH
20	3580210	Name Plate, Stick-on		3580881	Grille, Spacer RH
21	6201330	Screw, #8 PH-Pan Head 1"	49	6220320	Screw Grmt
22	3520420	Insert / Diffuser Stand-off	50	6220050	Screw Grmt, 1/2X5/8
23	3602310	Shelf, Glass Cantilever	51	4281060	Compressor Shroud Assy
24	NA		52	3550190	Bottom Hinge Stud
25	NA		53	6150200	Nut, 1/4-20 Hex
26	NA		54	6200020	Screw, #7-16 X 1/2 Pan Hd
			55	4201320	Blocking Kit, 36" (Not Shown)

601RG COSMETIC VIEW

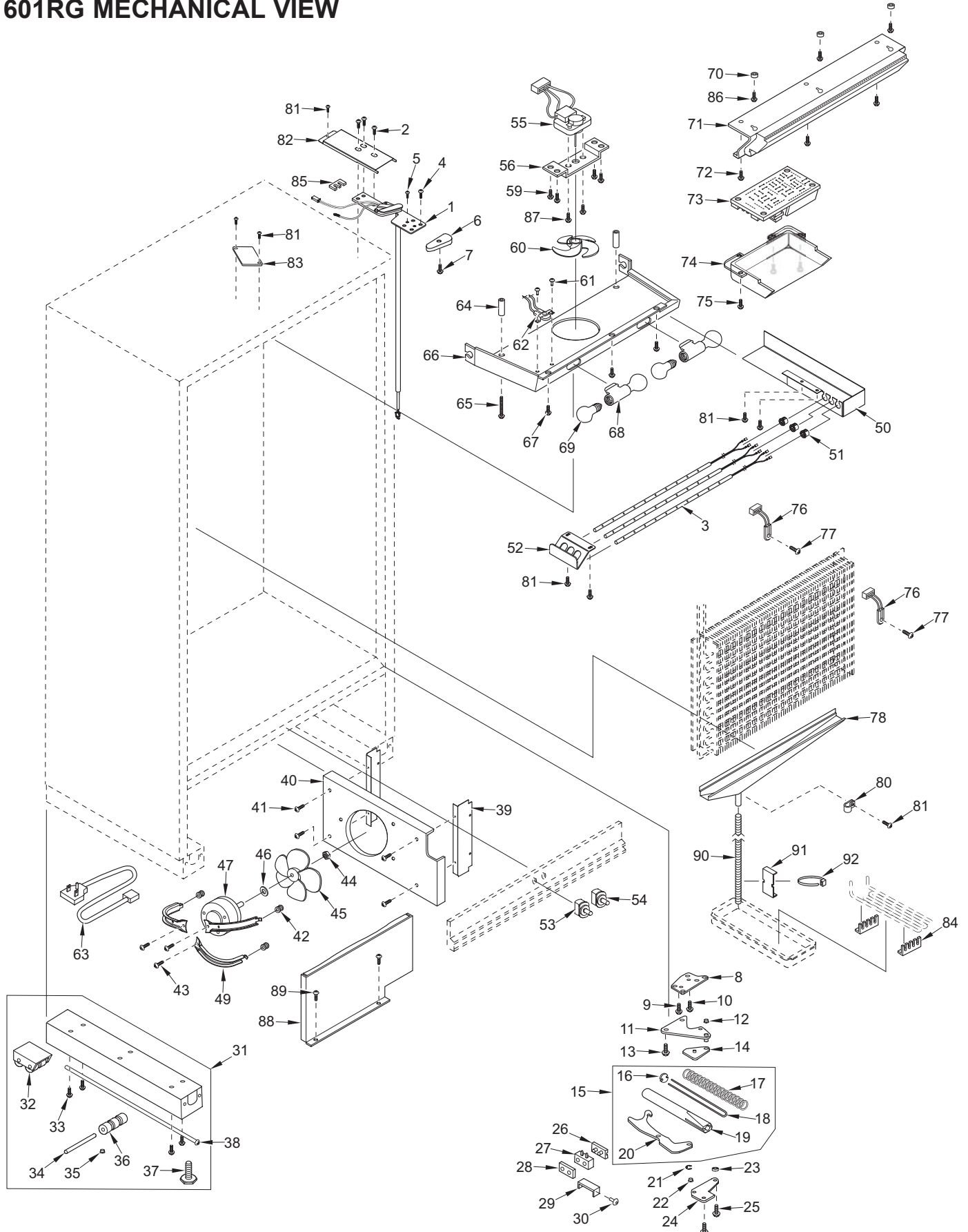


601RG MECHANICAL PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	4325461	Wire Harness/Hinge Assy, Door RH	46	3210340	Neoprene Silencer, 7/8"
	4325462	Wire Harness/Hinge Assy, Door LH	47	4200740	Motor Pkg, Cond Fan (blade not incl.)
2	6201140	Screw 1/4-20 X 5/8 Sems But Hd	48	6150330	Well Nut, .75D x .804", #10-32
3	3030150	Strip, Light 15 Watt	49	0261150	Condenser Fan Bracket
4	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	50	0212740	Light Box
5	6200390	Screw, #6 x 3/8" T25 Flat Head PH	51	3220810	Grommet, Open/Closed 1/2"
6	3541017	Top Cabinet Hinge Cover, RH	52	0261330	Bracket, Light
	3541018	Top Cabinet Hinge Cover, LH	53	3060030	Light Switch, N/C
7	6200140	Screw, #8-15 x 3/8" Truss HD	54	3060020	Fan Switch, N/O
8	4151241	Door Hinge, Bottom RH	55	4200170	Ref Fan Motor Pkg. (blade not incl.)
	4151242	Door Hinge, Bottom LH	56	0212520	Bracket, Fan (Production)
9	6110540	Bolt, #10-24 x 1/2" Flat Socket HD		0212540	Bracket, Fan (In Srvc Pckg, 4200170)
10	6200390	Screw, #6 x 3/8" T25 Flat Head PH	57	3220250	Grommet, Rubber-M5351
11	4151871	Bottom Cabinet Hinge Assembly - RH	58	3520410	Brass Insert, Fan
	4151872	Bottom Cabinet Hinge Assembly - LH	59	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
12	3421270	Hinge Bearing, 3/8" x 5/8"	60	3150640	Fan Blade, Evaporator
13	6110070	Bolt, 1/4-20 x 3/4" Spinlock Zinc	61	6180010	Pop Rivet, 1/8"
14	DS90	Door Stop-90 Degree	62	3082140	Light Terminator
	DS105	Door Stop-105 Degree	63	4321820	Power Cord
15	4201113	Door Closer Assembly, RH	64	6220220	Screw,Grommet 1/32x3/8 Sq
	4201114	Door Closer Assembly, LH	65	6201010	Screw, #8-15 x 2" Pan Head
16	0165980	Door Closer Spring Retainer	66	4162660	Shroud Assy, Ref Fan
17	3450530	Door Closer Spring	67	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
	3450710	Low Pull Spring	68	3050180	Light Socket, Double (See SN breaks)
18	3421290	Door Closer Linkage		3050250	Skt, Light MBase Dbl (See SN breaks)
19	3421300	Door Closer Housing	69	3030030	Light Bulb, 40 Watt
20	0183110	Door Closer Arm	70	6160240	Nylon Spacer
21	3450550	E-Ring / Klipring , 5/16"	71	4162652	Control Panel Assy
22	3421270	Door Closer Bearing	72	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
23	6160220	Steel Spacer	73	4203790	Control Board
24	0183960	Cabinet Hinge Stiffener	74	3413940	Control Board Encl
25	6110450	Bolt, 1/4-20 x 1/2" Whiz Lock	75	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
26	3450570	Door Closer Cushion	76	3014350	Thermistor
27	0165970	Door Closer Guide Support	77	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
28	3421310	Door Closer Guide	78	0260540	Drain Trough Assy
29	0166360	Door Closer Cushion Retainer	79	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
30	6180010	Pop Rivet, 1/8"	80	6120050	Tube Clamp, Plastic, 5/8"
31	4110353	Base Assy (w/rollers)	81	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
32	4110331	Base Rear Roller Assy	82	0185190	Cover, Hinge - LH
33	6200010	Screw, #10-12 x 3/4" Pan HD		0185210	Cover, Hinge - RH
34	3550560	Straight Pin, Base Assy - .312" x 2.88"	83	0261170	Plate, Cover
35	3450620	Canoe Clip	84	3421430	Pan Heater Support
36	3421240	Cabinet Roller	85	0164500	Shim - Hinge (.040")
37	3570050	Leveling Leg, #18-3/8 x 1"		0164510	Shim - Hinge (.060")
38	6110580	Adjusting Screw	86	6200720	Screw, #8-18 x 1/2 PH Truss HD
39	0260610	Bracket, Condenser	87	6110270	Bolt, #10-32 x 1/4" RD HD
40	0261230	Shroud, Condenser Fan	88	4281060	Compressor Shroud Assy
41	6200050	Screw, #10-12 X 1/2" Pan Hd	89	6200020	Screw, #7-16 X 1/2 Pan Hd
42	3220360	Grommet, Mounting Bracket	90	1601400	Tube, Drain 1/2" X 72"
43	6200430	Screw,#8-18x1/2 Ph Pan Hd B	91	0261160	Bracket, Drain Tube
44	6150410	Nut, 1/4-20	92	6120170	Cable Tie, Red 11-1/2
45	3150320	Fan Blade, Cond -5 prop			



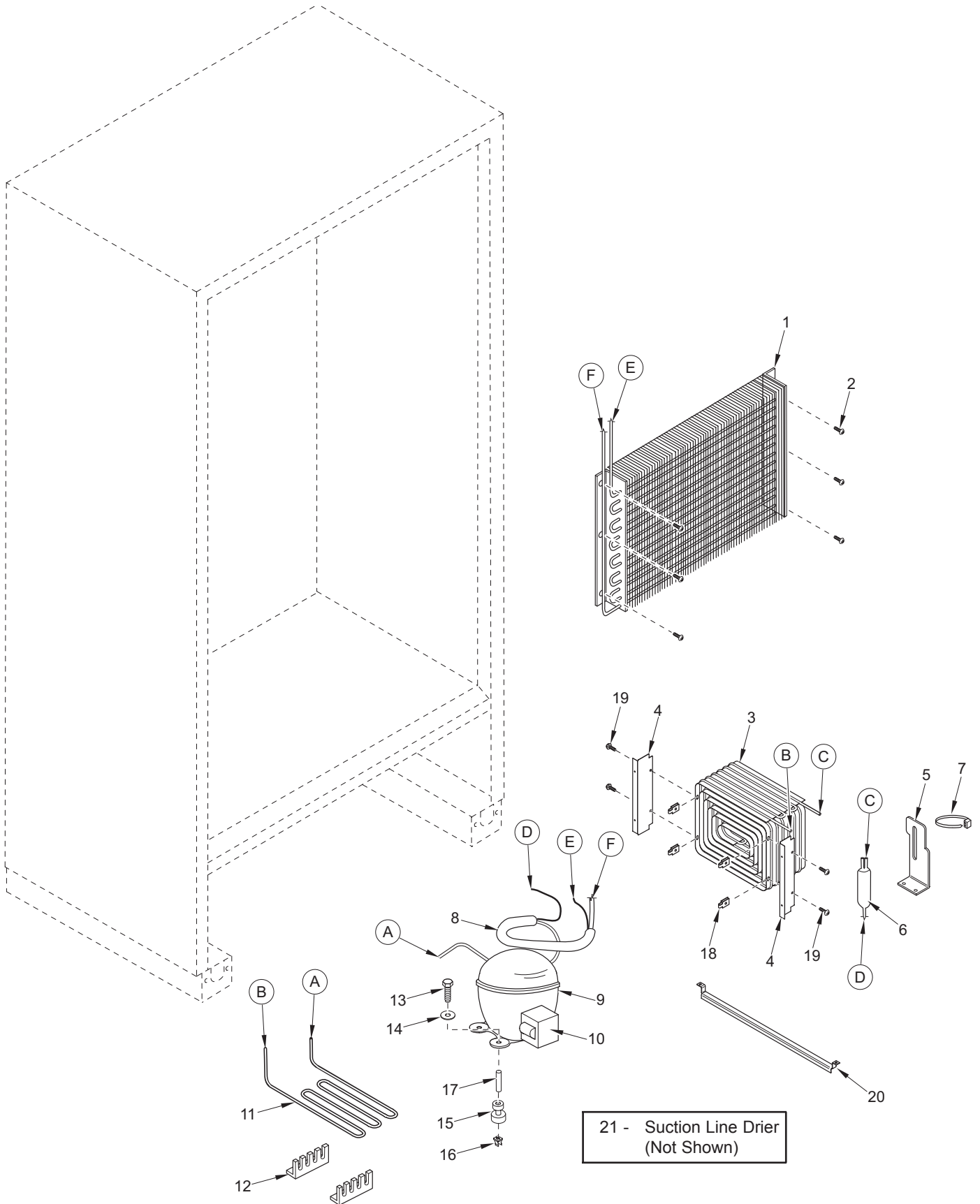
601RG MECHANICAL VIEW



601RG SEALED SYSTEM PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	3130390	Evaporator, Ref (See SN Breaks)
	3130610	Evaporator, Ref (See SN Breaks)
2	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
3	3120390	Condenser
4	0260610	Bracket, Condenser
5	0168040	Bracket, Drier
6	3014230	Filter-Drier, High Side
7	6120170	Locking Cable Tie, Red, 11-1/2"
8	4251310	Heat Exchanger
9	4201880	Compressor, Refrig. (EMI30HER)
10	3111370	Relay, 1351400 (For EMI30HER Service Compressor)
	3111212	Relay, 8EA103 (For EMU30 Production Compressor)
	3111410	Overload, 4TM734LFB (For EMI30HER Service Compressor)
	3111310	Overload, 4TM197NFB (For EMU30 Production Compressor)
	3111070	Capacitor, 12 Mf (For EMU30 Production Compressor)
11	2600196	Drain Pan Heater Loop
12	3421430	Pan Heater Support
13	6200300	Screw, 5/16-18 x 1-1/2" Hex
14	6240050	Flat Washer, 5/16"
15	3150170	Rubber Grommet, Large, 15/16"
16	1801000	Nylon Compressor Mount, 7/16"
17	6160070	Sleeve, 5/16 x 7/16 x 7/8"
18	6150840	Tinnerman J-Clip
19	6200050	Screw, #10-12 X 1/2" Pan Hd
20	0260600	Support, Condenser
21	3014100	Suction Line Drier (Service Only)

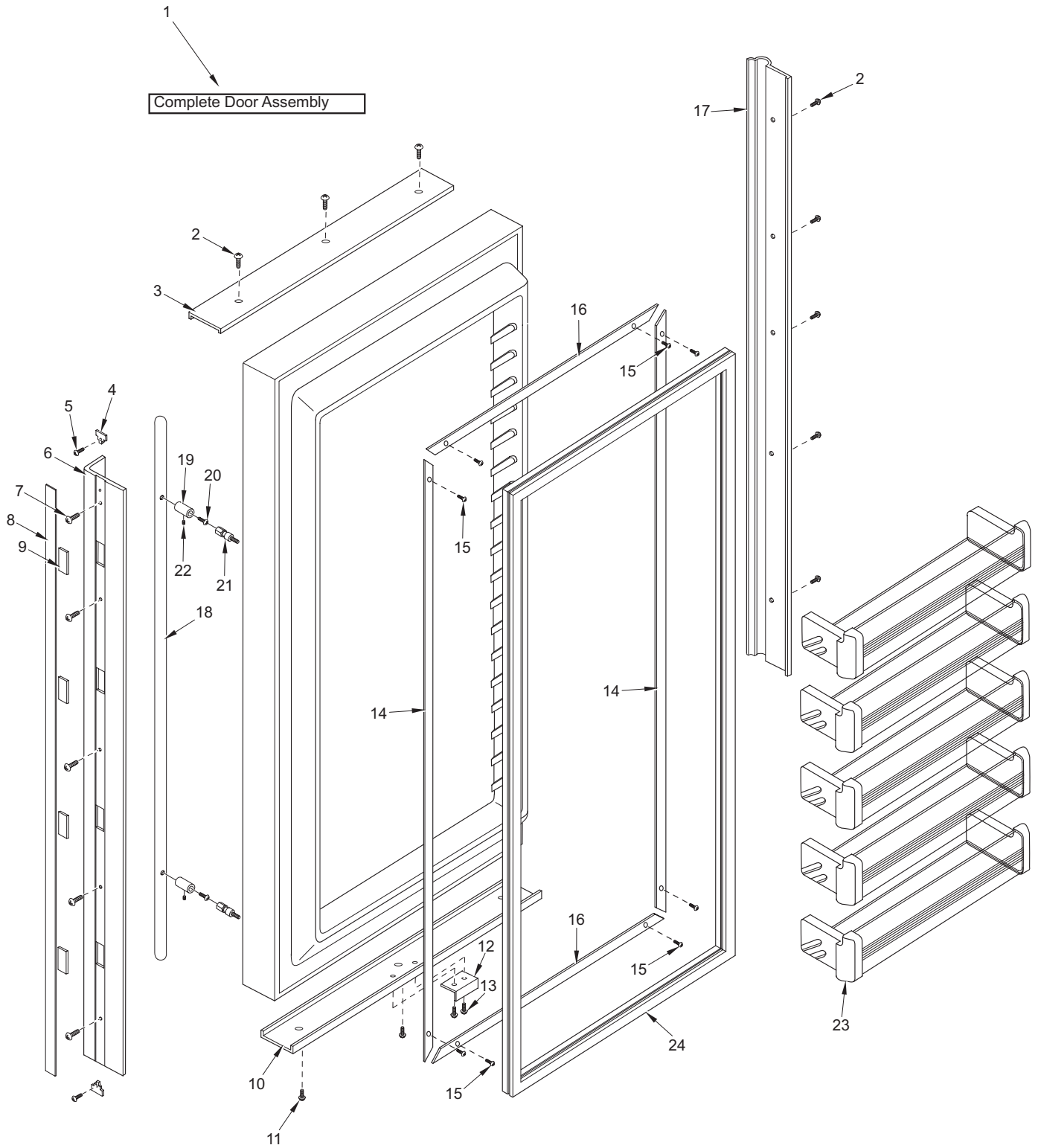
601RG SEALED SYSTEM VIEW



601F DOOR PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4132943	Freezer Door Assy, Frame/Overlay - RH
	4132944	Freezer Door Assy, Frame/Overlay - LH
	4134523	Freezer Door Assy, SS - RH
	4134524	Freezer Door Assy, SS - LH
2	6200720	Screw, #8-18 x 1/2 Ph Truss Hd
3	2230608	Door Trim, Top LH
	2230609	Door Trim, Top RH
4	3413340	Handle/Trim End Cap
5	6180160	Rivet, Open End Blind, 1/8 X 3/16
6	4132230	Door Handle Assy (Framed)
	4132330	Handle-Side Door Trim (Overlay)
7	6201300	Tapping Screw, #8 x 1/2
8	4132370	Handle/Trim Molding Assy
9	3451000	Magnet, Trim Strip - 3"
10	2230606	Door Trim, Top RH or Bottom LH
	2230607	Door Trim, Top LH or Bottom RH
11	6200720	Screw, #8-18 x 1/2 Ph Truss Hd
12	0180281	Switch Depressor, White
13	6201300	Tapping Screw, #8 x 1/2
14	3420250	Gasket Retainer, Side, 57.875
15	6200410	Screw, #8 x 1/2 Slot Head Hex
16	3420220	Gasket Retainer, 33.312
17	3511310	Door Trim, Hinge Side - Mitered Corner
	3511410	Door Trim, Hinge Side - (SS Model)
18	4132410	Handle Assy, Round (Incl. Stand-offs) (See SN Breaks)
	4133510	Handle Assy, Blunt (Incl. Stand-offs) (See SN Breaks)
	4133690	Handle Assy, SS OBR Standoffs (Incl. Stand-offs) (See SN Breaks)
19	3511320	Handle Stand-off 1" D (See SN Breaks)
	3512150	Standoff, SS Oval, Door (See SN Breaks)
20	6110540	Bolt, #10-24 x 1/2 Flat Socket HD
21	3511520	Handle Mounting Stud
22	6110730	Set Screw #10-32 x 1/4 SS Cone
23	4330480	Door Shelf Assy
24	3212100	Door Gasket

601F DOOR VIEW

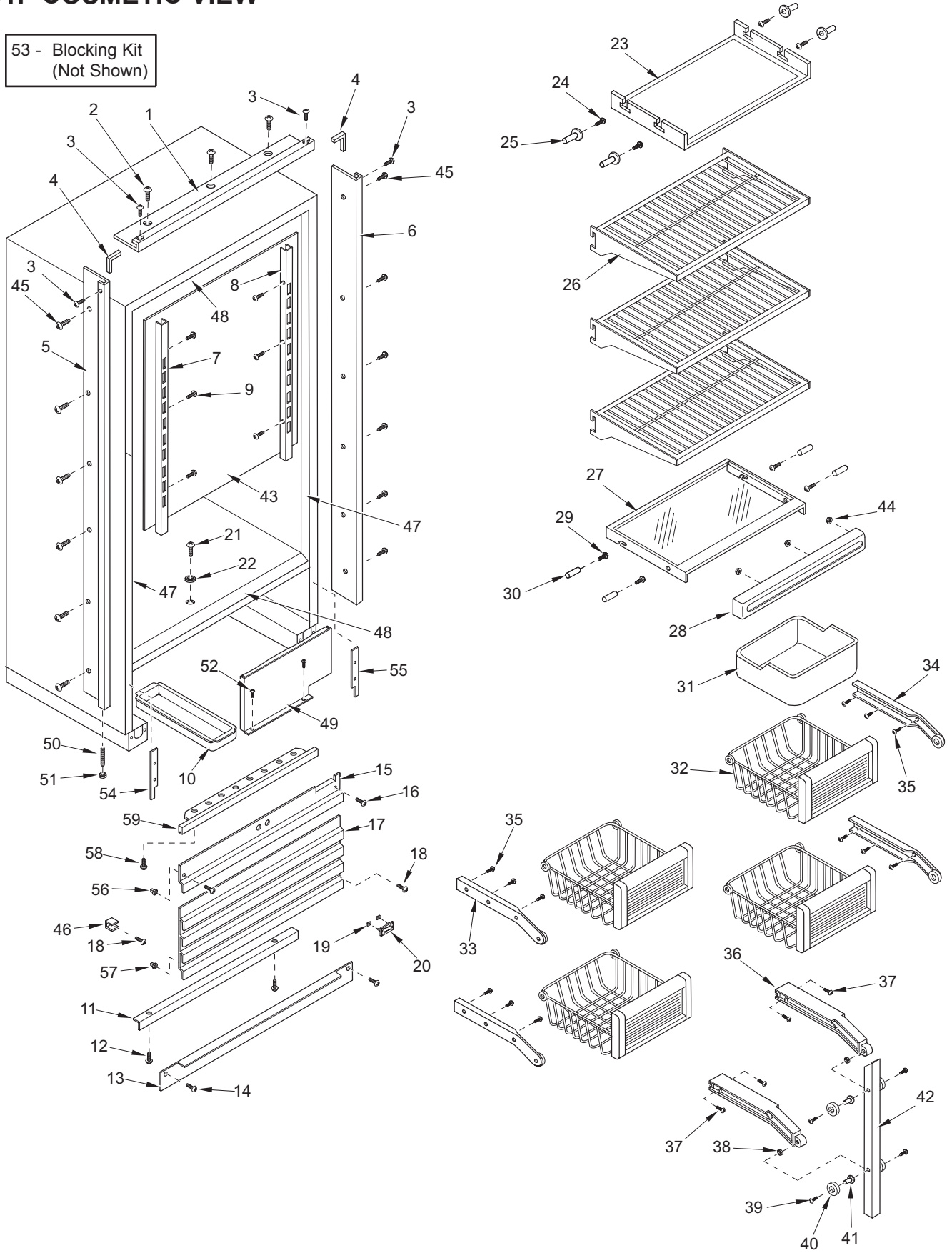


601F COSMETIC PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	2229616	Main Frame, Top-RH (See SN Breaks)	18	6200790	Screw, #8-18 Black
	2229637	Main Frame, Top-RH (See SN Breaks)	19	6150140	Spring Grip Nut, 1/8
	2234015	Frame, Main Top-RH (See SN Breaks)	20	3580210	Name Plate, Stick-on
	2229617	Main Frame, Top-LH (See SN Breaks)		3580230	Name Plate w/ Pegs
	2229640	Main Frame, Top-LH (See SN Breaks)	21	6200130	Screw, #8-18 x 3/4 Truss HD
	2234015	Frame, Main Top-LH (See SN Breaks)	22	6160050	Spacer, 7/32 x 3/8 x 1-1/8
2	6200010	Screw, #10-12 x 3/4 Pan HD	23	4160860	Freezer Light Diffuser Assy
3	6200070	Screw, #4-24 x 3/8" Flat HD.	24	6201330	Screw, #8-18 x 5/8 PH PN SS-Gnd
4	2210701	Main Frame Angle	25	3520420	Insert / Diffuser Stand-off
5	2229603	Main Frame, Left-RH (See SN Breaks)	26	3601880	Freezer Wire Shelf
	2229636	Main Frame, Left-RH (See SN Breaks)	27	4181550	Freezer Glass Shelf Assy. (Incl. Front)
	2234004	Frame, Main Left-RH (See SN Breaks)	28	3413030	Freezer Glass Shelf Front
	2229619	Main Frame, Left-LH (See SN Breaks)	29	6200280	Screw, #8-18 x 1 Pan Head
	2229641	Main Frame, Left-LH (See SN Breaks)	30	6220430	Screw Grommet
	2234005	Frame, Main Left-LH (See SN Breaks)	31	3411320	Ice Bucket
6	2229618	Main Frame,Right-RH(See SN Breaks)	32	4181570	Freezer Basket Assy
	2229638	Main Frame,Right-RH(See SN Breaks)	33	4180972	Freezer Basket Slide Assy - Left
	2234003	Frame,Main Right-RH(See SN Breaks)	34	4180971	Freezer Basket Slide Assy - Right
	2229602	Main Frame,Right-LH (See SN Breaks)	35	6200450	Screw, #8 x 1 Type AR Flat
	2229639	Main Frame,Right-LH (See SN Breaks)	36	3411280	Center Basket Slide
	2234006	Frame,Main Side-LH (See SN Breaks)	37	6200130	Screw, #8-18 x 3/4 Truss HD
7	3601842	Shelf Ladder, Left	38	6150020	Nut-Hex, #10-32
8	3601841	Shelf Ladder, Right	39	6200740	Screw, #10-32 x 11/16 PH Flat HD UC
9	6200710	Screw, #8-18 x 3/8 Fillister HD	40	3421160	Basket Slide Roller
10	0166110	Drain Pan		3421170	Freezer Basket Slide Roller, Wide
11	0169790	Front Rail	41	3430080	Roller Bushing
12	6110020	Bolt, #10-24 x 3/8 Truss HD	42	0234010	Center Basket Slide Support
13	0169520	Kickplate	43	0234510	Evaporator Cover
	0167820	Kickplate, Stainless Steel	44	6150820	Palnut, .25
14	6200050	Screw, #10-12 Pan Hd	45	6200210	Screw, #8-32 x 1/2 Flat Head
	6200720	Screw, #8-18x1/2 Ph Tr Hd (SS Model)	46	3450910	Clip, Grille (SS Model)
15	2232001	Upper Grille - RH (See SN Breaks)	47	2811207	Breaker Strip, Side (See SN Breaks)
	2233901	Upper Grille - RH	48	2811206	Braker Strip, Top/Bot (See SN Breaks)
		- Framed/Overlay (See SN Breaks)	49	4280860	Compressor Shroud (See SN Breaks)
		- SS (See SN Breaks)		4281060	Shroud Assy, Comp (See SN Breaks)
	0261281	Cover, Grille RH (SS) (See SN Breaks)	50	3550190	Bottom Hinge Stud
	2232002	Upper Grille - LH (See SN Breaks)	51	6150200	Nut, 1/4-20 Hex
	2233902	Upper Grille - LH	52	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
		- Framed/Overlay (See SN Breaks)	53	4201320	Blocking Kit, 36" (Not Shown)
		- SS (See SN Breaks)	54	3580882	Grille, Spacer LH (See SN Breaks)
	0261282	Cover, Grille LH (SS) (See SN Breaks)	55	3580881	Grille, Spacer RH (See SN Breaks)
16	6200720	Screw, #8-18 x 1/2 PH Truss HD	56	6220320	Screw Grmt (See SN Breaks)
17	4242250	Lwr Grille Section (Framed / Overlay)	57	6220050	Screw Grmt,1/2X5/8 (See SN Breaks)
	4241740	Lwr Grille Sctn (SS) (See SN Breaks)	58	6201550	Screw, #8-1/8 Lw Prfl (See SN Breaks)
	4242380	Grille Assy, SS (See SN Breaks)	59	3516670	Trim, Grille Cvr (SS) (See SN Breaks)

601F COSMETIC VIEW

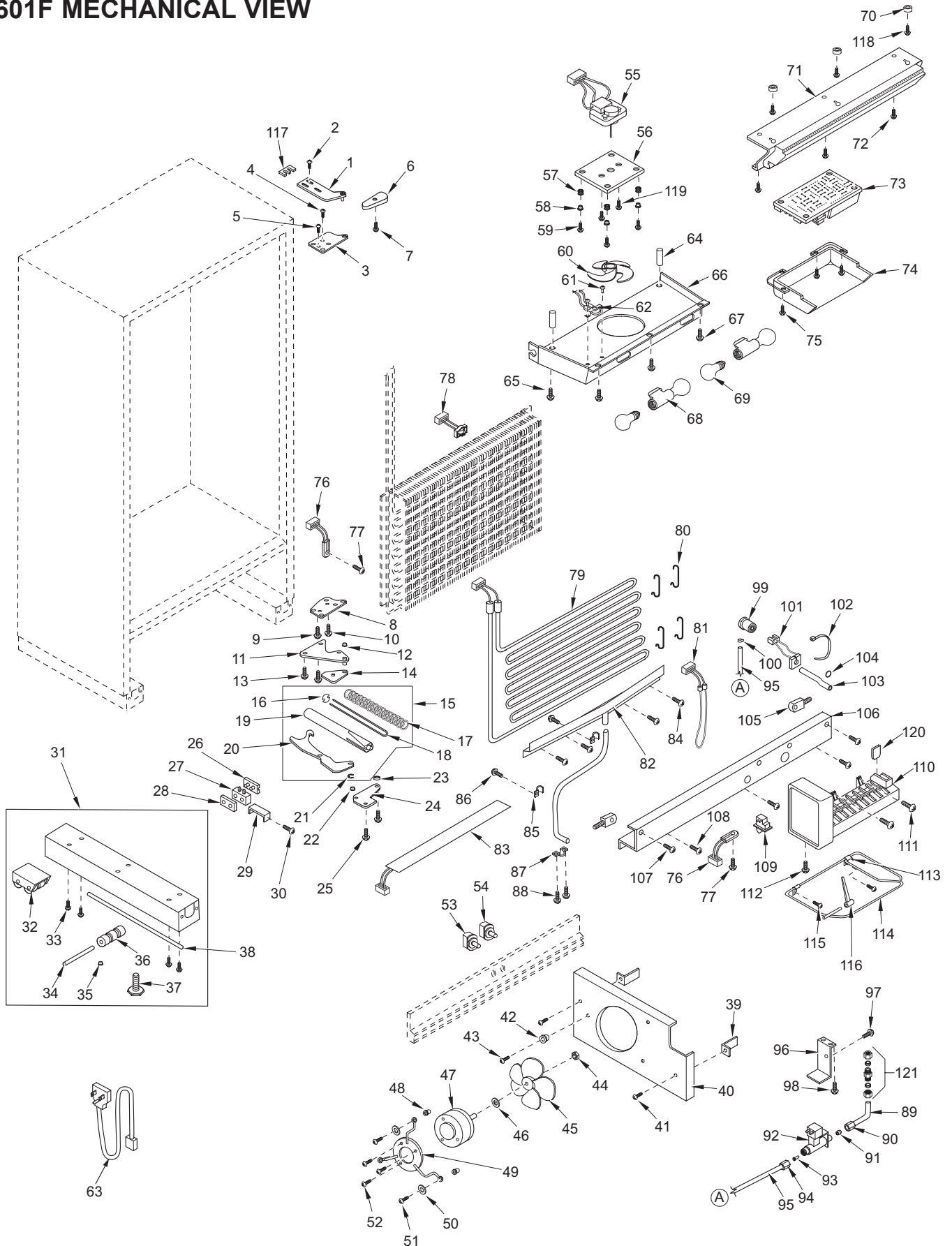
53 - Blocking Kit
(Not Shown)



601F MECHANICAL PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	4151271	Cabinet Hinge Assy, Upper RH	59	6110270	Bolt, #10-32 x 1/4" RD HD
	4151272	Cabinet Hinge Assy, Upper LH	60	3150520	Fan blade, Ref/Fre Evap.
2	6110070	Bolt, 1/4-20 x 3/4" Spinlock Zinc	61	6180010	Pop Rivet, 1/8"
3	4151471	Door Hinge Assy, Top RH	62	3082140	Light Terminator
	4151472	Door Hinge Assy, Top LH	63	4321820	Power Cord
4	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	64	6220540	Screw Grommet / Stand-off
5	6200390	Screw, #6 x 3/8" T25 Flat Head PH	65	6201010	Screw, #8-15 x 2" Pan Head
6	3541017	Top Cabinet Hinge Cover, RH	66	4160880	Fan Shroud Assy (See SN Breaks)
	3541018	Top Cabinet Hinge Cover, LH		4161640	Fan Shroud Assy (See SN Breaks)
7	6200140	Screw, #8-15 x 3/8" Truss HD	67	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
8	4151241	Door Hinge, Bottom RH	68	3050180	Light Socket, Double (See SN breaks)
	4151242	Door Hinge, Bottom LH		3050250	Skt, Light MBase Dbl (See SN breaks)
9	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	69	3030030	Light Bulb, 40 Watt
10	6200390	Screw, #6 x 3/8" T25 Flat Head PH	70	6160240	Nylon Spacer
11	4151871	Bottom Cabinet Hinge Assembly - RH	71	4160802	Control Panel Assy (See SN Breaks)
	4151872	Bottom Cabinet Hinge Assembly - LH		4161672	Control Panel Assy (See SN Breaks)
12	3421270	Hinge Bearing, 3/8" x 5/8"	72	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
13	6110070	Bolt, 1/4-20 x 3/4" Spinlock Zinc	73	4202801	Control Board
14	DS90	Door Stop-90 Degree	74	3412790	Control Board Enclosure
	DS105	Door Stop-105 Degree	75	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
15	4201113	Door Closer Assembly, RH	76	3014350	Thermistor
	4201114	Door Closer Assembly, LH	77	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
16	0165980	Door Closer Spring Retainer	78	3082060	Defrost Terminator
17	3450530	Door Closer Spring	79	4323760	Defrost Heater Assy
	3450710	Low Pull Spring	80	1801100	Heater Clip
18	3421290	Door Closer Linkage	81	3013540	Drain Tube Heater
19	3421300	Door Closer Housing	82	4190220	Drain Trough (w/o htr) (See SN Breaks)
20	0183110	Door Closer Arm		4190270	Drain Trough (w/o htr) (See SN Breaks)
21	3450550	E-Ring / Klipping , 5/16"	83	3013530	Drain Trough Heater
22	3421260	Door Closer Bearing	84	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
23	6160220	Steel Spacer	85	6120050	Tube Clamp, Plastic, 5/8"
24	0183960	Cabinet Hinge Stiffener	86	6200010	Screw, #10-12 x 3/4" Pan HD
25	6110450	Bolt, 1/4-20 x 1/2" Whiz Lock	87	6120210	U-Clamp, 5/8"
26	3450570	Door Closer Cushion	88	6200010	Screw, #10-12 x 3/4" Pan HD
27	0165970	Door Closer Guide Support	89	2600297	Tube, Copper L-Shaped
28	3421310	Door Closer Guide	90	3520380	Compression Nut
29	0166360	Door Closer Cushion Retainer	91	3520370	Compression Sleeve
30	6180010	Pop Rivet, 1/8"	92	4202790	Water Valve
31	4110353	Base Assy (w/rollers)	93	3520050	Brass Insert, Solenoid
32	4110331	Base Rear Roller Assy	94	3520030	Icemaker Nylon Nut, 1/4"
33	6200010	Screw, #10-12 x 3/4" Pan HD	95	2600617	Plastic Water Line
34	3550560	Straight Pin, Base Assy - .312" x 2.88"	96	0168160	Solenoid Water Valve Bracket
35	3450620	Canoe Clip	97	6200780	Screw, #10-24 x 1/2" PH Hex Washer
36	3421240	Cabinet Roller	98	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
37	3570050	Leveling Leg, #18-3/8 x 1"	99	1607700	Water Inlet Tube
38	6110580	Adjusting Screw	100	6220470	Fill Tube Clamp
39	3450290	Angle Bracket	101	3013820	Fill Tube Heater
40	0168070	Cond. Fan Shroud (See SN Breaks)	102	6120450	Locking Cable Tie 9.7" BLK
	0260140	Cond. Fan Shroud (See SN Breaks)	103	2605408	Water Inlet Tube Extension, 6.34"
41	6200010	Screw, #10-12 x 3/4" Pan HD	104	3450480	Plastic O-Ring
42	3420670	Screw Spacer	105	6220330	Plastic Support
43	6200450	Screw, #8 x 1" Type AR Flat	106	0234020	Drain Trough Enclosure
44	6150410	Nut, 1/4-20	107	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
45	3150320	Fan Blade, Cond -5 prop	108	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
46	3210340	Neoprene Silencer, 7/8"	109	3060130	SPST Fan/Icemaker Switch
47	4200740	Motor Pkg, Cond Fan (blade not incl.)	110	4200521	Icemaker Assy
48	6150330	Well Nut, .75D x .804", #10-32	111	6200120	Screw, #10-12 x 1/2" Truss HD
49	3150650	Condenser Fan Bracket	112	6200320	Screw, #8-32 x 1/2" Truss Head
50	6240350	Fender Washer, .25x1.25x.06	113	6120280	Tube Clamp, Nylon, 3/16"
51	6201280	Machine Screw, #10-32 x 1-1/4"	114	3421150	Ice Level Control Arm
52	6200490	Screw, #8-32 x 3/8" Slotted Hex T25	115	6200120	Screw, #10-12 x 1/2" Truss HD
53	3060030	Light Switch, N/C	116	3421070	Connecting Rod
54	3060020	Fan Switch, N/O	117	0168680	Shim - Hinge
55	4201770	Evap. Fan Motor Pkg. (blade not Incl.)	118	6200720	Screw, #8-18 x 1/2 PH Truss HD
56	0211620	Refrigerator Fan Bracket	119	6110270	Bolt, #10-32 x 1/4" RD HD
57	3220250	Grommet, Rubber-M5351	120	3140360	Fill Cup Plug
58	3520410	Brass Insert, Fan	121	3520250	Water Inlet Fitting Assy

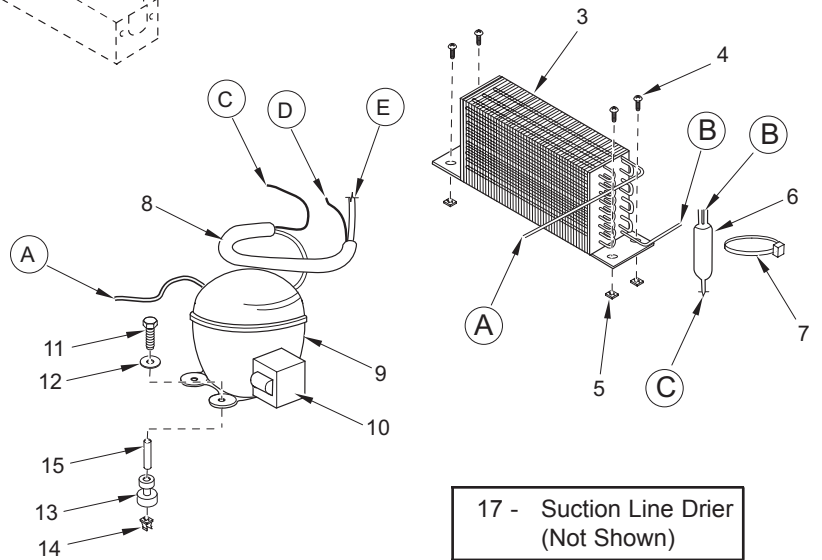
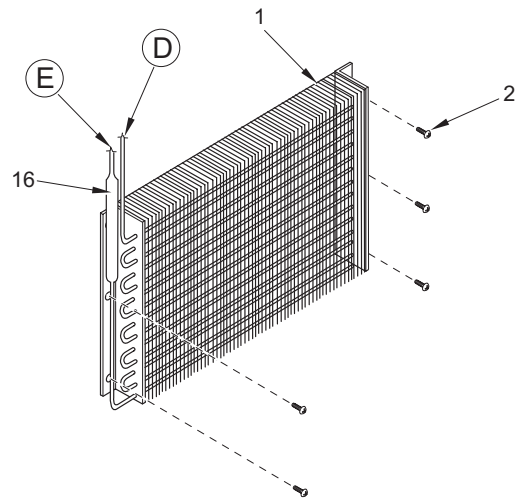
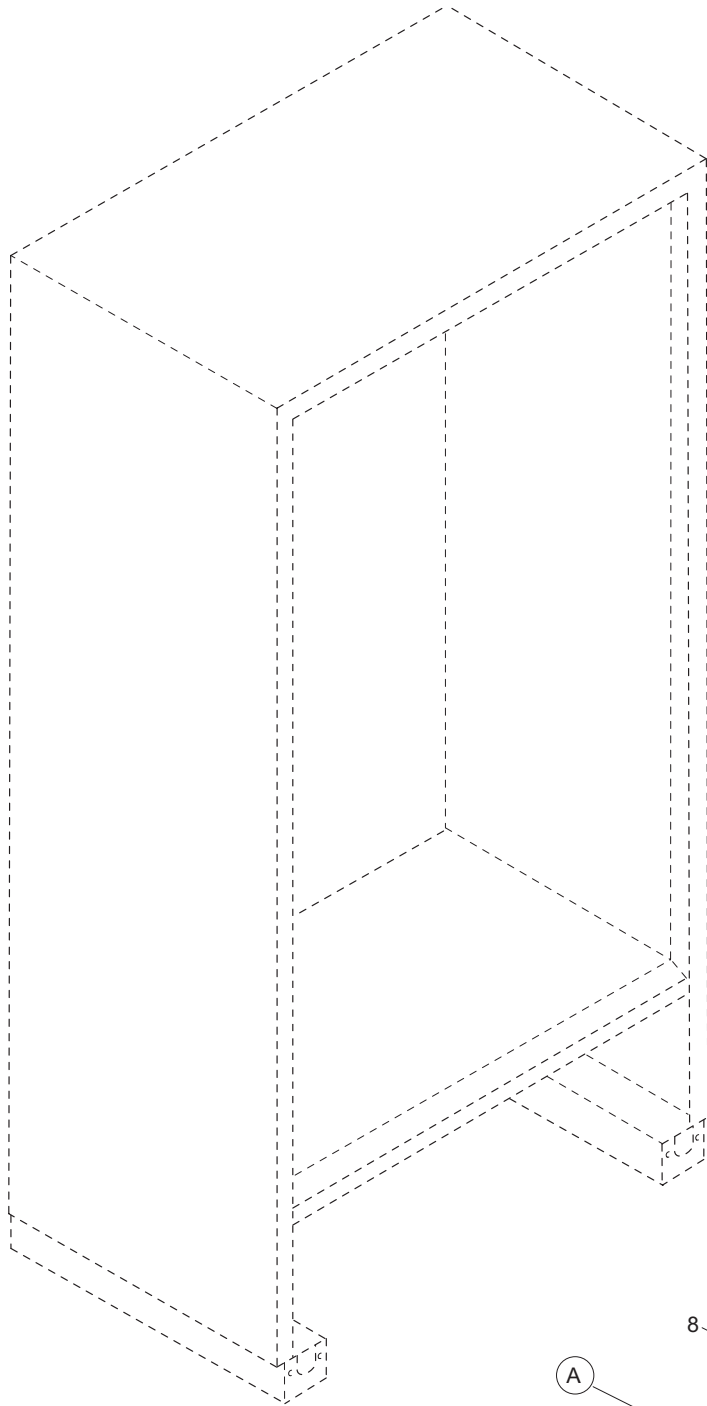
601F MECHANICAL VIEW



601F SEALED SYSTEM PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	3130440	Evaporator Assembly
2	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
3	3120320	Condenser (See SN Breaks)
	3120390	Condenser (See SN Breaks)
4	6110020	Bolt, #10-24 x 3/8" Truss HD
5	6150080	Nut-Flat, #10-24
6	3014230	Filter-Drier, High Side
7	6120170	Locking Cable Tie, Red, 11-1/2"
8	4251320	Heat Exchanger
9	4202250	Compressor, Freezer (DA73)
10	3111041	Relay, (PTH490D-AS100) (Used with DA73 Compressor)
	3111350	Relay, (8EA403) (Used with RG108 Compressor)
	3111430	Overload, (4TM419MFB) (Used with DA73 Compressor)
	3111390	Overload, (4TM419TFB) (Used with RG108 Compressor)
	3111070	Running Capacitor, (12Mf) (Used with DA73 Compressor)
	3111133	Capacitor,(15Mf) (Used with RG108 Compressor)
11	6200300	Screw, 5/16-18 x 1-1/2" Hex
12	6240050	Flat Washer, 5/16"
13	3150170	Rubber Grommet, Large, 15/16"
14	1801000	Nylon Compressor Mount, 7/16"
15	6160070	Sleeve, 5/16 x 7/16 x 7/8"
16	3011140	Accumulator
17	3014100	Suction Line Drier (Service Only)

601F SEALED SYSTEM VIEW

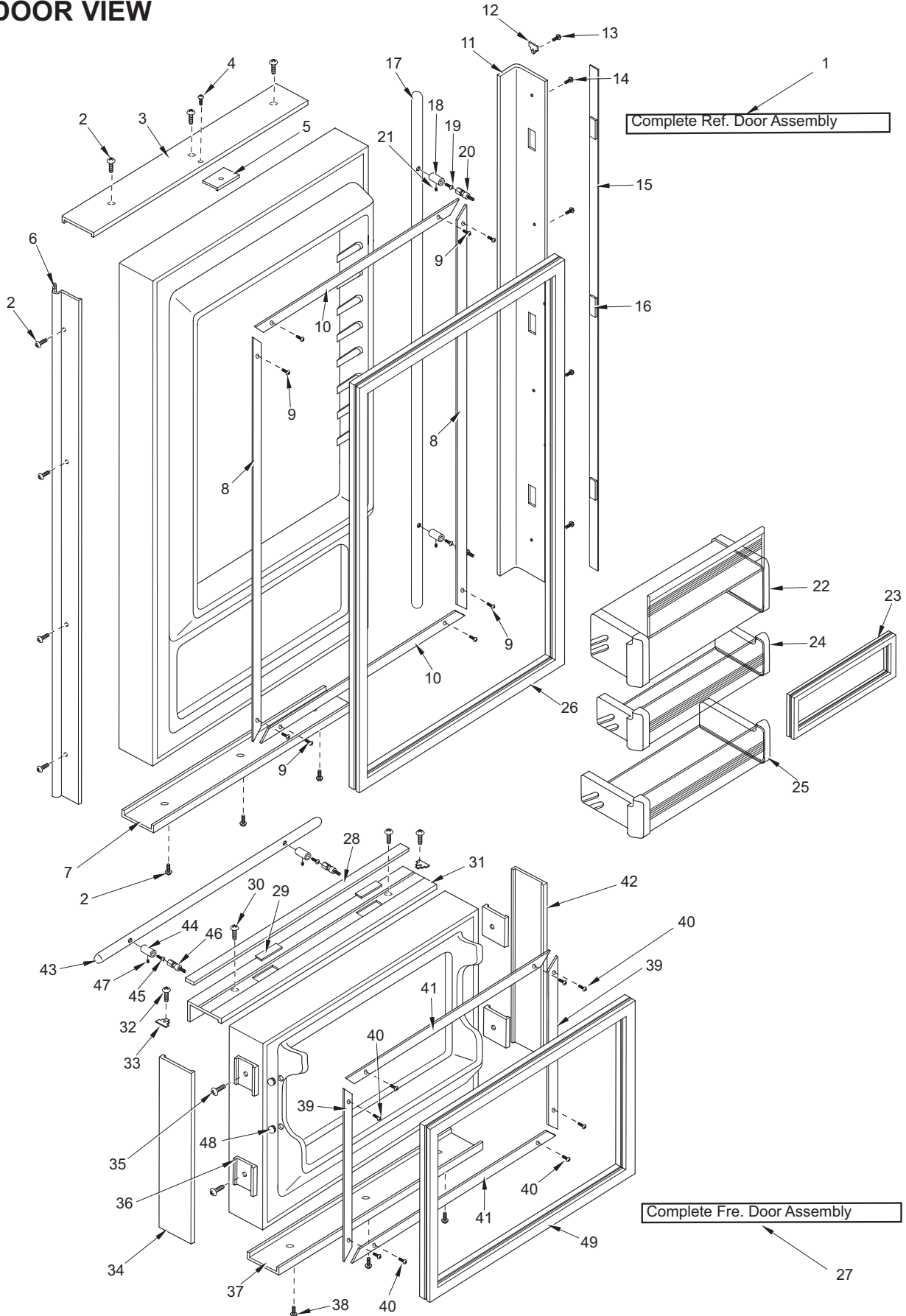


17 - Suction Line Drier
(Not Shown)

611 DOOR PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	4133133	Refrig. Door Assy, Frame/Overlay - RH	25	4330520	Gallon Door Shelf Assy (Sales Acc.)
	4133134	Refrig. Door Assy, Frame/Overlay - LH	26	3212160	Door Gasket, Refrigerator
	4133283	Refrig. Door Assy, SS - RH	27	4131995	Freezer Drawer Assy, Frame/Overlay (See SN Breaks)
	4133284	Refrig. Door Assy, SS - LH		4133145	Freezer Drawer Assy, Frame/Overlay (See SN Breaks)
2	6200720	Screw, #8-18 x 1/2 Ph Truss Hd		4132525	Fre Drawr Assy (SS) (See SN Breaks)
3	2230610	Refrig. Door Trim, Top - RH		4133285	Fre Drawr Assy (SS) (See SN Breaks)
	2230611	Refrig. Door Trim, Top - LH	28	4132380	Handle/Trim Molding Assy, Freezer
4	6200720	Screw, #8-18 x 1/2 Ph Truss Hd	29	3451000	Magnet, Trim Strip - 3"
5	4200940	Switch Depressor (Includes Screw)	30	6201300	Tapping Screw, #8 x 1/2
6	3511140	Door Trim, Hinge Side - (SS Model)	31	4132260	Drawer Handle Assy, Freezer (Framed)
	3511141	Door Trim, Hinge Side - Mitered Corner		4132360	Handle-Side Door Trim, Freezer (Overlay)
7	2230612	Refrig. Door Trim, Bottom - RH	32	6180160	Rivet, Open End Blind, 1/8 x 3/16
	2230613	Refrig. Door Trim, Bottom - LH	33	3413340	Handle/Trim End Cap
8	3420240	Gasket Retainer, Side Ref, 47.438	34	2230701	Fre Drawer Trim, Rt Side
9	6200410	Screw, #8 x 1/2 Slot Head Hex	35	6180040	Pop Rivet, 3/16 x 1/8 Grip
10	3420200	Gasket Retainer, 27.062	36	3450460	Door Trim Clip
11	4132240	Door Handle Assy, Refrig. (Framed)	37	2230614	Freezer Drawer Trim, Bottom
	4132340	Handle-Side Door Trim, Ref. (Overlay)	38	6200720	Screw, #8-18 x 1/2 Ph Truss Hd
12	3413340	Handle/Trim End Cap	39	3420150	Gasket Retainer, 17.312
13	6180160	Rivet, Open End Blind, 1/8 x 3/16	40	6200410	Screw, #8 x 1/2 Slot Head Hex
14	6201300	Tapping Screw, #8 x 1/2	41	3420200	Gasket Retainer, 27.062
15	4131870	Handle/Trim Molding Assy, Refrig.	42	2230702	Fre Drawer Trim, Lt Side
16	3451000	Magnet, Trim Strip - 3"	43	4132570	Handle Assy, Fre Drwr Rnd (Incl. Stand-offs) (See SN Breaks)
17	4132200	Handle Assy,Ref 44.125 Rnd (Incl. Stand-offs) (See SN Breaks)		4133460	Hdl Assy, Fre Drwr Blunt (Incl Stndoffs) (See SN Breaks)
	4133500	Hndl Assy,Ref 44.25 Blnt (Incl stndoffs) (See SN Breaks)		4133710	Handle Assy, Obr Standoff-Fre (See SN Breaks)
	4133700	Handle Assy, SS Obr Standoff-Ref (See SN Breaks)	44	3511320	Hndle Stand-Off 1" D (See SN Breaks)
18	3511320	Handle Stand-Off 1"D (See SN Breaks)		3512160	Stndoff,SS Oval, Drwr(See SN Breaks)
	3512150	Standoff, SS Oval (See SN Breaks)	45	6110540	Bolt, #10-24 x 1/2 Flat Socket HD
19	6110540	Bolt, #10-24 x 1/2 Flat Socket HD	46	3511520	Handle Mounting Stud
20	3511520	Handle Mounting Stud	47	6110730	Set Screw #10-32 x 1/4 SS Cone
21	6110730	Set Screw #10-32 x 1/4 SS Cone	48	3550230	White Plastic Plug, 3/4
22	4330450	Dairy Compartment Assy	49	3211160	Door Gasket, Fre. (See SN Breaks)
23	3211830	Dairy Compartment Gasket		3212170	Door Gasket, Fre. (See SN Breaks)
24	4330470	Refrig. Door Shelf Assy			

611 DOOR VIEW



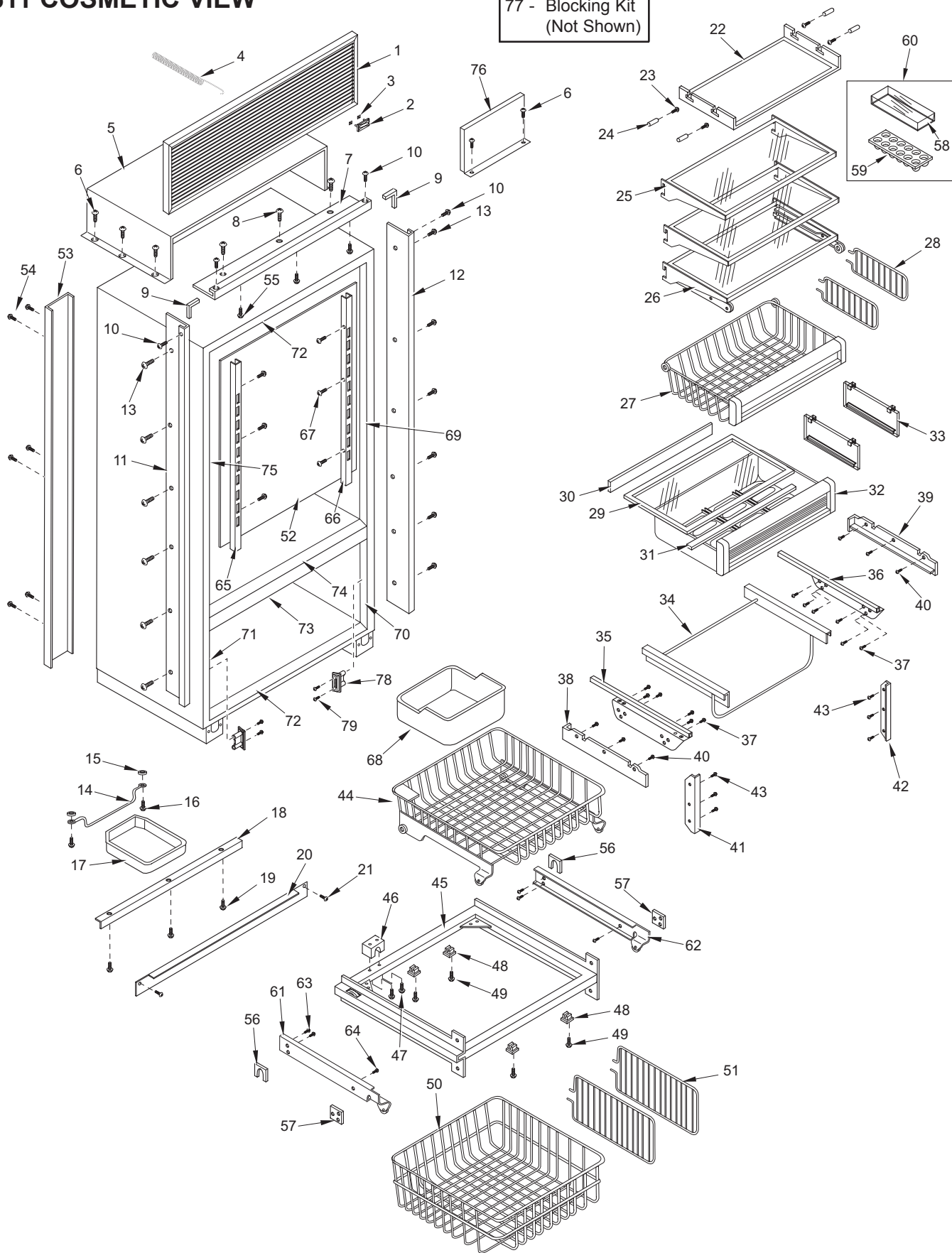
611 COSMETIC PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	6LG3011	Louvered Grille Assy, 30" x 11"	39	3421712	Top Crisper Glass Support, Narrow-LH
	6PG3011	Panel Grille Assy, 30" x 11"		3421721	Top Crisper Glass Support, Wide-RH
	6SG3011	SS Grille 30" x 11" (See SN Breaks)	40	6201130	Screw, #8x 1/2" PH FL HD SS
	6SG3011/S	SS Grille,30X11-CLSC (See SN Breaks)	41	3421741	Crisper Filler Strip, Narrow (if RH)
2	3580230	Nameplate w/ Pegs		3421742	Crisper Filler Strip, Wide (if LH)
	3580210	Name Plate, Stick-on	42	3421741	Crisper Filler Strip, Narrow (if LH)
3	6150140	Spring Grip Nut, 1/8"		3421742	Crisper Filler Strip, Wide (if RH)
4	3450900	Grille spring	43	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
5	4281260	Unit Shroud Assembly	44	4181030	Upper Fre Basket Assy (See SN Breaks)
6	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd		4181950	Upper Fre Basket Assy (See SN Breaks)
7	2229623	Main Frame, Top - LH (See SN Breaks)	45	4180820	Drawer Slide Assy, Fre (See SN Breaks)
	2229643	Main Frame, Top - LH (See SN Breaks)		4181910	Drawer Slide Assy, Fre (See SN Breaks)
	2229624	Main Frame, Top - RH (See SN Breaks)	46	3420950	Upper Freezer Basket Restraint
	2229642	Main Frame, Top - RH (See SN Breaks)	47	6200340	Screw, #6-20 x 1/2" Pan Head
8	6200010	Screw, #10-12 x 3/4" Pan HD	48	6220110	Screw Grommet, 1/2" x 9/16"
9	2210701	Main Frame Angle	49	6200130	Screw, #8-18 x 3/4" Truss HD
10	6200070	Screw, #4-24 x 3/8" Flat HD	50	3411190	Lower Freezer Basket (See SN Breaks)
11	2229608	Main Frame, Left - RH (See SN Breaks)		3413980	Lower Freezer Basket (See SN Breaks)
	2229632	Main Frame, Left - RH (See SN Breaks)	51	3411310	Lower Fre Bskt Divider (See SN Breaks)
	2229613	Main Frame, Left - LH (See SN Breaks)		3413700	Lower Fre Bskt Divider (See SN Breaks)
	2229633	Main Frame, Left - LH (See SN Breaks)	52	0201260	Refig Evap Cover
12	2229607	Main Frame, Right - LH (See SN Breaks)	53	0168120	Back Duct (See SN Breaks)
	2229631	Main Frame, Right - LH (See SN Breaks)		0169600	Back Duct (See SN Breaks)
	2229610	Main Frame, Right - RH (See SN Breaks)	54	6201060	Screw, #8x1-1/4" PH FLAT TAP
	2229630	Main Frame, Right - RH (See SN Breaks)	55	6201310	Screw, #8 x 1-3/4" Flat PH HD
13	6200210	Screw, #8-32 x 1/2" Flat Head	56	0232310	Drawer Slide Shim, Rear
14	3420760	Drain Pan Holder	57	0232300	Drawer Slide Shim, Front - .060"
15	3420670	Screw Spacer		2121180	Shim, Freezer Drawer Front-.030"
16	6201060	Screw, #8x1-1/4" PH FLAT TAP	58	3412280	Egg Tray Cover
17	0164940	Drain Pan	59	3412270	Egg Tray
18	0260720	Kickplate Support	60	4131810	Egg Tray with Cover
19	6200010	Screw, #10-12 x 3/4" Pan HD	61	4180681	Cab Slide Assy, Fre; RT(See SN Breaks)
20	0260710	Kickplate		4181801	Cab Slide Assy, Fre; RT(See SN Breaks)
	0168570	Kickplate, Stainless Steel	62	4180682	Cab Slide Assy, Fre; LT(See SN Breaks)
21	6200050	Screw, #10-12 x 1/2" Pan HD		4181802	Cab Slide Assy, Fre; LT(See SN Breaks)
22	4162580	Refrig. Light Diffuser Assembly	63	6110330	Screw, #10-32 x 1/4" Chrome Plate
23	6201330	Screw, #8-18 x 5/8" PH PN SS-Gnd	64	6200590	Screw, #12 x 1" Type A Zinc Flat HD
24	3520420	Insert / Diffuser Stand-off	65	3601821	Refrig. shelf ladder, Right
25	3601891	Glass Shelf, Spill Proof	66	3601822	Refrig. shelf ladder, Left
26	4181560	Refrig. Roll-out Shelf Assy	67	6200710	Screw, #8-18 x 3/8" Fillister HD
27	4181540	Refrig. Roll-out Basket Assy	68	3411340	Ice Bucket
28	3411160	Ref Roll-Out Bskt Divider	69	2811212	Breaker Strip, Refr, RS (See SN Breaks)
29	4151770	Crisper Glass Assembly (Incl. Seals)	70	2811213	Breaker Strip, Fre, RS (See SN Breaks)
30	3211770	Crisper Glass Seal, Rear	71	2811215	Breaker Strip, Fre, LS (See SN Breaks)
31	3211740	Crisper Glass Seal, Front	72	2811214	Brkr Strip, Ref TOP/Fre BoTtOM (See SN Breaks)
32	4181460	High Humidity Drawer Assembly			
33	3413100	Drawer Divider	73	2811502	Brkr Strip, Fre Mullion (See SN Breaks)
34	3421760	Humidity Drawer Slide-Frame	74	2811402	Brkr Strip, Ref Mullion (See SN Breaks)
35	4181412	Top Crisper Slide Assembly, Wide-LH	75	2811216	Breaker Strip, Ref, LS (See SN Breaks)
	4181421	Top Crisper Slide Assembly, Narrow-RH	76	4280950	Compsr Shroud Assy. (See SN Breaks)
36	4181411	Top Crisper Slide Assembly, Wide-RH		4281270	Compsr Shroud Assy. (See SN Breaks)
	4181422	Top Crisper Slide Assembly, Narrow-LH	77	4201310	Blocking Kit; 30" (Not Shown)
37	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	78	3421400	Grommet,Spprt Insul. (See SN Breaks)
38	3421711	Top Crspr Glass Support, Narrow-RH		3421860	Grommet,Spprt Insul. (See SN Breaks)
	3421722	Top Crisper glass Support, Wide-LH	79	6200010	Screw, #10-12 x 3/4" Pan HD



611 COSMETIC VIEW

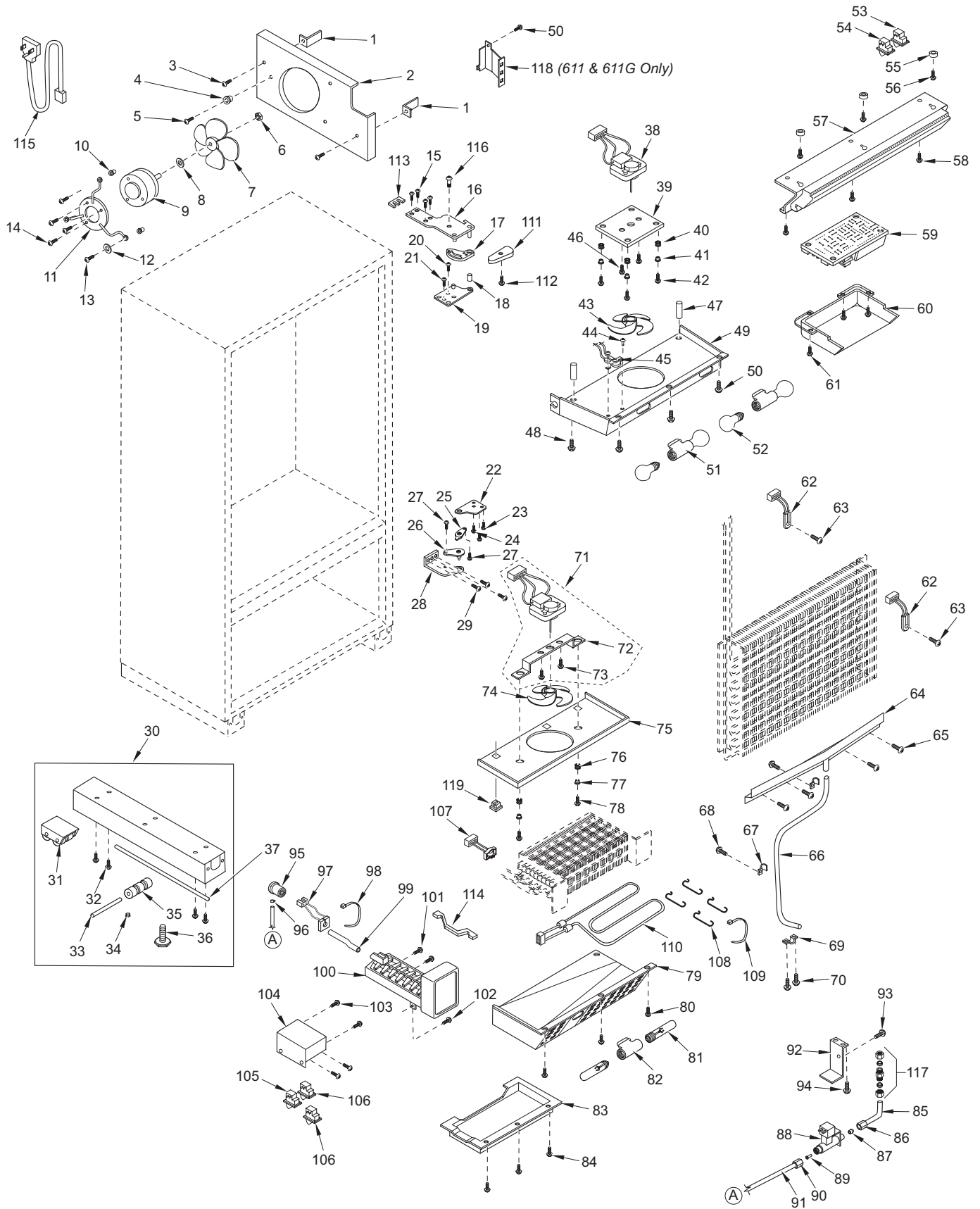
77 - Blocking Kit
(Not Shown)



611 MECHANICAL PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	3450290	Angle Bracket	60	3412790	Control Board Encl. (See SN Breaks)
2	0260730	Condenser Fan Shroud (See SN Breaks)		3413940	Control Board Encl. (See SN Breaks)
	0261220	Shroud, Cond Fan (See SN Breaks)	61	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
3	6200010	Screw, #10-12 x 3/4" Pan HD	62	3014350	Thermistor
4	3420670	Screw Spacer	63	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
5	6200450	Screw, #8 x 1" Type AR Flat	64	4190200	Drain Trough Assy (See SN Breaks)
6	6150410	Nut, 1/4-20		0212630	Drain Trough, Ref (See SN Breaks)
7	3150320	Fan Blade, Cond, 5 prop, 7"	65	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
8	3210340	Neoprene Silencer, 7/8"	66	1601400	Drain Tube, Wire - 1/2" x 72"
9	4200740	Motor Pkg, Cond Fan (blade not incl.)	67	6120050	Tube Clamp, Plastic, 5/8"
10	6150330	Well Nut, .75D x .804", #10-32	68	6200010	Screw, #10-12 x 3/4" Pan HD
11	3150650	Condenser Fan Bracket	69	6120210	U-Clamp, 5/8"
12	6240350	Fender Washer, .25x1.25x.06	70	6200010	Screw, #10-12 x 3/4" Pan HD
13	6201280	Machine Screw, #10-32 x 1-1/4"	71	4200160	Freezer Fan Motor Pkg. (Blade not Incl.)
14	6200490	Screw, #8-32 x 3/8" Slotted Hex T25	72	0232280	Fan Bracket, Fre
15	6110070	Bolt, 1/4-20x3/4 Spinlock Zinc	73	6110270	Bolt, #10-32 x 1/4" RD HD
16	4151831	Upper Cabinet Hinge - RH	74	3150640	Fan blade, Ref/Fre Evap.
	4151832	Upper Cabinet Hinge - LH	75	0233560	Fan Shroud, Fre Evap (See SN Breaks)
17	3421800	Door Stop Cam		4281500	Shroud Assy, Fre Evap (See SN Breaks)
18	3421790	Bearing, Top Door Hinge	76	3220250	Grommet, 3/16" x 7/16" x 9/32"
19	4151841	Hinge, Door Top - RH	77	3520120	Brass Insert, Fan Bracket
	4151842	Hinge, Door Top - LH	78	6200670	Screw, #6-18 x 3/4" Tek
20	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	79	0233180	Evaporator Cover, Fre (See SN Breaks)
21	6200390	Screw, #6 x 3/8" T25 Flat Head PH		0234810	Evaporator Cover, Fre (See SN Breaks)
22	0182381	Door Hinge, Bottom; RH		0235220	Cover, Fre Evap (See SN Breaks)
	0182382	Door Hinge, Bottom; LH		0232860	Fre Evap. Cvr Lft Side (See SN Breaks)
23	6110540	Bolt, #10-24 x 1/2" Flat Socket HD		0234300	Fre Evap. Cvr Lft Side (See SN Breaks)
24	6200390	Screw, #6 x 3/8" T25 Flat Head PH	80	6200120	Screw, #10-12 x 1/2" Truss HD
25	3420690	Bottom Door Hinge Cam	81	3030040	Light Bulb, Long/Narrow; 40 watt
26	3420681	Bottom Cabinet Hinge Cam, RH	82	3050010	Light Socket, 3/4 Single (See SN Breaks)
	3420682	Bottom Cabinet Hinge Cam, LH		3050220	Socket, Light Base Sngl (See SN Breaks)
27	6110270	Bolt, #10-32 x 1/4" RD HD	83	4151880	Fre Air Duct Assy (See SN Breaks)
28	4151641	Cabinet Hinge, Bot- RH (See SN Breaks)		4234890	Fre Air Duct Assy (See SN Breaks)
	4152011	Cabinet Hinge, Bot - RH(See SN Breaks)	84	6200120	Screw, #10-12 x 1/2" Truss HD
	4151642	Cabinet Hinge, Bot - LH (See SN Breaks)	85	2600297	Tube, Copper L-Shaped
	4152012	Cabinet Hinge, Bot - LH(See SN Breaks)	86	3520380	Compression Nut
29	6110010	Bolt, #10-24 x 1/2" Flat Head UC	87	3520370	Compression Sleeve
30	4110353	Base Assy (w/rollers)	88	4202790	Water Valve
31	4110331	Base Rear Roller Assy	89	3520050	Brass Insert, Solenoid
32	6200010	Screw, #10-12 x 3/4" Pan HD	90	3520030	Icemaker Nylon Nut, 1/4"
33	3550560	Straight Pin, Base Assy, .312" x 2.88"	91	2600617	Plastic Water Line
34	3450620	Canoe Clip	92	0168160	Solenoid Water Valve Bracket
35	3421240	Cabinet Roller (Single)	93	6200780	Screw, #10-24 x 1/2" PH Hex Washer
36	3570050	Leveling Leg, #18-3/8 x 1"	94	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
37	6110580	Adjusting Screw	95	1607700	Water Inlet Tube
38	4200170	Refrig. Fan Motor Pkg. (Blade not Incl.)	96	6220470	Fill Tube Clamp
39	0211620	Refrigerator Fan Bracket	97	3070210	Heater, Fill Tube
40	3220250	Grommet, 3/16" x 7/16" x 9/32"	98	6120450	Locking Cable Tie 9.7" BLK
41	3520410	Brass Insert, Fan	99	2605410	Water Inlet Tube Extension
42	6110270	Bolt, #10-32 x 1/4" RD HD	100	4200522	Icemaker Assembly
43	3150640	Fan blade, Ref/Fre Evap.	101	6200120	Screw, #10-12 x 1/2" Truss HD
44	6180010	Pop Rivet, 1/8"	102	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
45	3082140	Light Terminator	103	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
46	6110270	Bolt, #10-32 x 1/4" RD HD	104	0233820	Switch Housing, Freezer
47	6220540	Screw Grommet / Stand-off	105	3060140	SPST Light Switch
48	6201010	Screw, #8-15 x 2" Pan Head	106	3060130	SPST Fan/Icemaker Switch
49	4161970	Refrig. Fan Shroud Assy	107	3082060	Defrost Terminator
50	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	108	1801100	Heater Clip
51	3050180	Light Socket, Double (See SN breaks)	109	6120340	Aluminum Strap
	3050250	Skt, Light MBase Dbl (See SN breaks)	110	4322580	Defrost Heater Assy (See SN Breaks)
52	3030030	Light Bulb, 40 Watt		4325190	Defrost Heater Assy (See SN Breaks)
53	3060130	SPST Fan/Icemaker Switch	111	3541017	Top Cabinet Hinge Cover, RH
54	3060140	SPST Light Switch		3541018	Top Cabinet Hinge Cover, LH
55	6160240	Nylon Spacer	112	6200140	Screw, #8-15 x 3/8" Truss HD
56	6200720	Screw, #8-18 x 1/2 PH Truss HD	113	0168680	Shim - Hinge
57	4160922	Control Panel Assy (See SN Breaks)	114	3140400	Icemaker Rudder Arm
	4161922	Control Panel Assy (See SN Breaks)	115	4321820	Power Cord
58	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	116	3550770	90° Stop Pin
59	4202800	Control Board Pkg -Dual(See SN Breaks)	117	3520250	Water Inlet Fitting Assy
	4203520	Control Board Pkg (See SN Breaks)	118	0260740	Bracket, Condenser Shroud
			119	6220220	Scrw Grmt, 1/32X3/8 SQ(See SN Breaks)

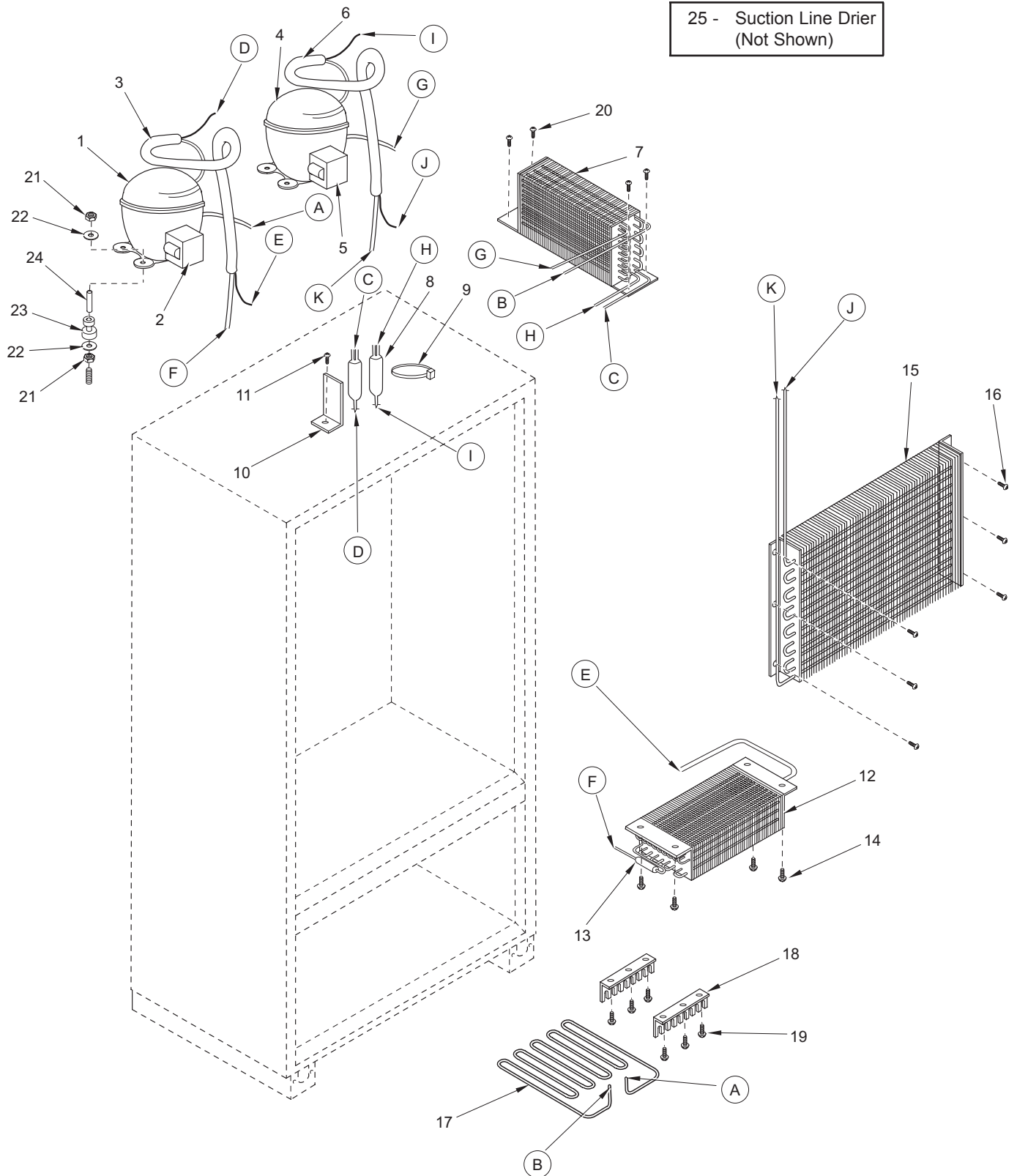
611 MECHANICAL VIEW



611 SEALED SYSTEM PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4202280	Compressor, (EMI60HER)
2	3111350	Relay, (8EA403) (Used with RG108 Compressor)
	3111460	Relay, (1351408) (Used with EMI60HER Compressor)
	3111390	Overload (4TM419TFB) (Used with RG108 Compressor)
	3111470	Overload, (4TM757NFB) (Used with EMI60HER Compressor)
	3111133	Capacitor (15Mf) (Used with RG108 Compressor)
	3111470	Overload, (4TM757NFB) (Used with EMI60HER Compressor)
3	4251350	Heat Exchanger, Freezer
4	4201880	Compressor, Refrig. (EMI30HER)
5	3111370	Relay, (1351400 - for EMI30HER)
	3111410	Overload, (4TM734LFB - for EMI30HER)
6	4251330	Heat Exchanger, Refrigerator
7	3120330	Condenser, Dual
8	3014230	Filter-Drier, High Side
9	6120170	Locking Cable Tie, Red, 11-1/2"
10	0168040	Drier Bracket
11	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
12	3130320	Evaporator Coil, Fre (See SN Breaks)
	3130600	Evaporator Coil, Fre (See SN Breaks)
13	3011130	Freezer Accumulator
14	6200120	Screw, #10-12 x 1/2" Truss HD
15	3130260	Evaporator, Refrig.
16	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
17	2600138	Drain Pan Heater Loop
18	3421410	Drain Pan Heater Loop Support
19	6200010	Screw, #10-12 x 3/4" Pan HD
20	6200010	Screw, #10-12 x 3/4" Pan HD
21	6150220	Nut, 5/16-18 Hex Zinc
22	6240050	Flat Washer, 5/16"
23	3150010	Rubber Grommet, Small, 5/8"
	3150170	Rubber Grommet, Large, 15/16"
24	6160030	Spacer, 5/16 x 7/16 x 5/8"
	6160070	Sleeve, 5/16 x 7/16 x 7/8"
25	3014100	Suction Line Drier (Service Only - Not Shown)

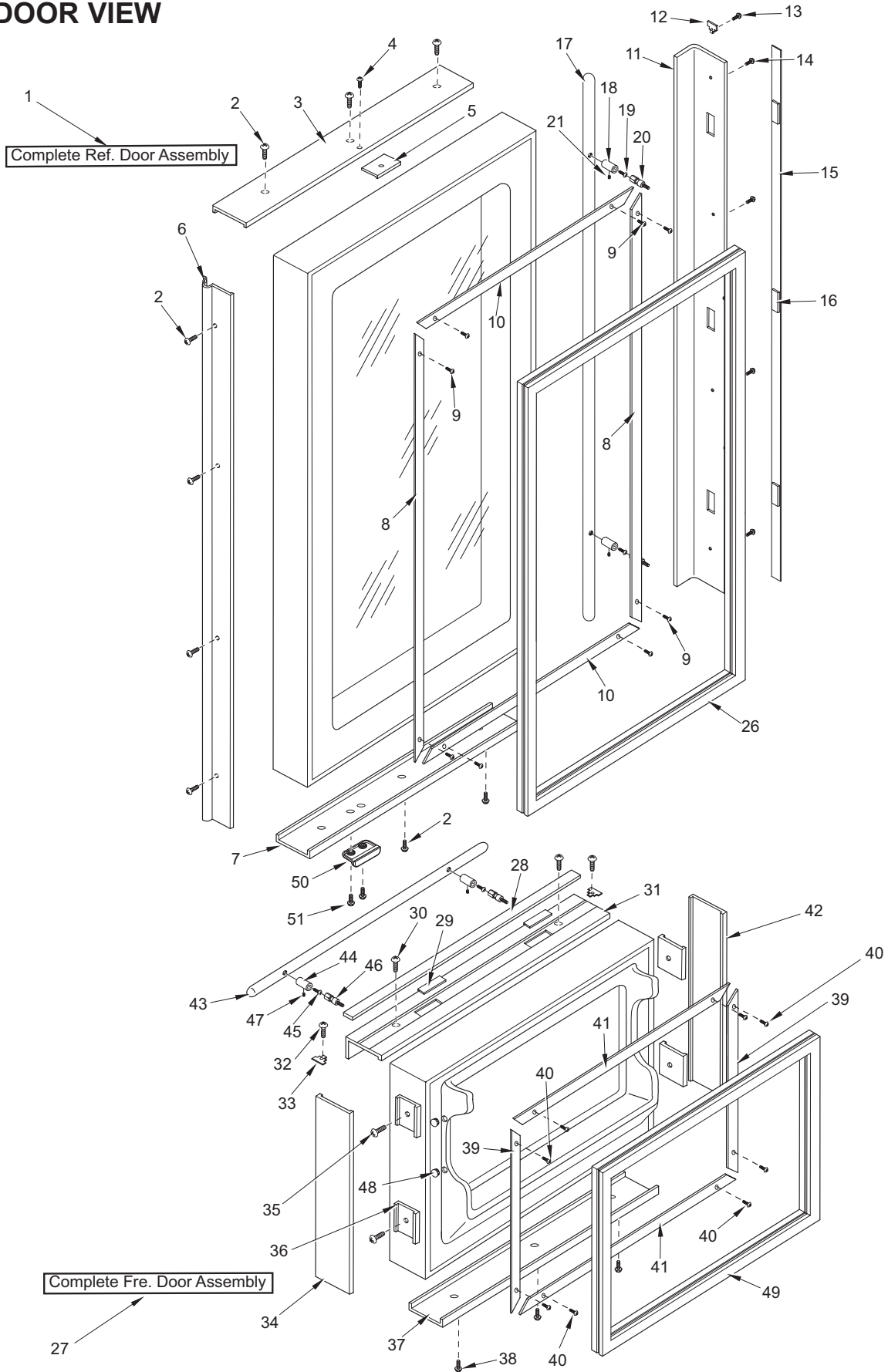
611 SEALED SYSTEM VIEW



611G DOOR PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	4134655	Door Assy,Ref 611G Frmd/Overlay-RH	22	NA	
	4134656	Door Assy,Ref 611G Frmd/Overlay-LH	23	NA	
	4134657	Door Assy,Ref 611HAG Frmd/Olay-RH	24	NA	
	4134658	Door Assy,Ref 611HAG Frmd/Olay-LH	25	NA	
	4134665	Door Assy, Ref 611G SS-RH	26	3212160	Door Gasket, Refrigerator
	4134666	Door Assy, Ref 611G SS-LH	27	4133145	Freezer Drawer Assy-Frame/Overlay
	4134667	Door Assy, Ref 611HAG SS-RH		4133285	Freezer Drawer Assy-Stainless Steel
	4134668	Door Assy, Ref 611HAG SS-LH	28	4132380	Handle/Trim Molding Assy, Freezer
NOTE: Door Assy's incl. Wire Harness / Top Hng Assy.			29	3451000	Magnet, Trim Strip
2	6200720	Screw, #8-18 x 1/2 Ph Truss Hd	30	6201300	Tapping Screw, #8 x 1/2
3	2230610	Refrig. Door Trim, Top - RH	31	4132260	Drawer Handle Assy, Freezer (Framed)
	2230611	Refrig. Door Trim, Top - LH		4132360	Handle-Side Door Trim, Freezer (Overlay)
4	6200720	Screw, #8-18 x 1/2 Ph Truss Hd	32	6180160	Rivet, Open End Blind, 1/8 x 3/16
5	4200940	Switch Depressor (Includes Screw)	33	3413340	Handle/Trim End Cap
6	3511140	Door Trim, Hinge Side - (SS Model)	34	2230701	Fre Drawer Trim, Rt Side
	3511141	Door Trim, Hinge Side - Mitered Corner	35	6180040	Pop Rivet, 3/16 x 1/8 Grip
7	2230612	Refrig. Door Trim, Bottom - RH	36	3450460	Clip, Door Trim
	2230613	Refrig. Door Trim, Bottom - LH	37	2230614	Freezer Drawer Trim, Bottom
8	3420240	Gasket Retainer, Side Ref, 47.438	38	6200720	Screw, #8-18 x 1/2 Ph Truss Hd
9	6200410	Screw, #8 x 1/2 Slot Head Hex	39	3420150	Gasket Retainer, 17.312
10	3420200	Gasket Retainer, 27.062	40	6200410	Screw, #8 x 1/2 Slot Head Hex
11	4132240	Door Handle Assy, Refrig. (Framed)	41	3420200	Gasket Retainer, 27.062
	4132340	Handle-side Door Trim, Rfrig. (Overlay)	42	2230702	Fre Drawer Trim, Lt Side
12	3413340	Handle/Trim End Cap	43	3512010	Handle, Door SS 1 X 24.312
13	6180160	Rivet, Open End Blind, 1/8 x 3/16		4133710	Handle Assy, Obr Standoff - Fre
14	6201300	Tapping Screw, #8 x 1/2	44	3512160	Standoff, SS Oval
15	4131870	Handle/Trim Molding Assy, Refrig.	45	6110540	Bolt, #10-24 x 1/2 Flat Socket HD
16	3451000	Magnet, Trim Strip	46	3511520	Handle Mounting Stud
17	3511980	Handle, Door SS 1 X 44.250	47	6110730	Set Screw #10-32 x 1/4 SS Cone
	4133700	Handle Assy, SS OBR Standoff	48	3550230	White Plastic Plug, 3/4
18	3512150	Standoff, SS Oval	49	3212170	Door Gasket, Fre.
19	6110540	Bolt, #10-24 x 1/2 Flat Socket HD	50	3430100	Closer, Door-Door Side
20	3511520	Handle Mounting Stud	51	6110060	Bolt, #10-32 x 5/8", Truss Head
21	6110730	Set Screw #10-32 x 1/4 SS Cone			

611G DOOR VIEW



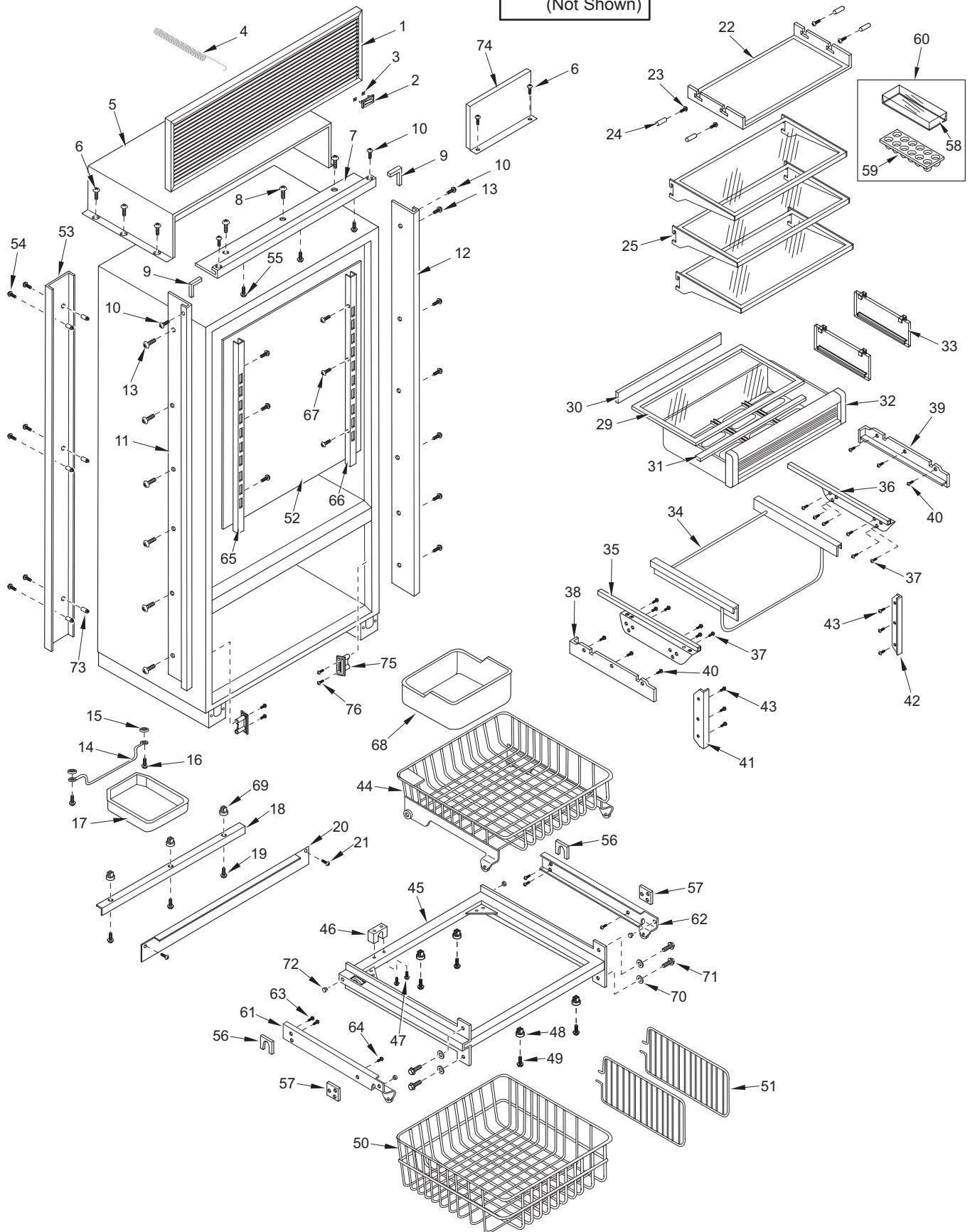
611G COSMETIC PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	6LG3011	Louvered Grille Assy, 30" x 11"	37	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
	6PG3011	Panel Grille Assy, 30" x 11"	38	3421711	Top Crspr Glass Support, Narrow-RH
	6SG3011	Stainless Steel Grille Assy, 30" x 11"		3421722	Top Crisper glass Support, Wide-LH
	6SG3011	SS Grille Assy, 30"X11" (See SN Breaks)	39	3421712	Top Crisper Glass Support, Narrow-LH
	6SG3011/S	SS Grille,30X11-CLSC (See SN Breaks)		3421721	Top Crisper Glass Support, Wide-RH
2	3580230	Nameplate w/ Pegs	40	6201130	Screw, #8x 1/2" PH FL HD SS
3	6150140	Spring Grip Nut, 1/8"	41	3421741	Crisper Filler Strip, Narrow (if RH)
4	3450900	Spring, Grille		3421742	Crisper Filler Strip, Wide (if LH)
5	4281260	Unit Shroud Assembly	42	3421741	Crisper Filler Strip, Narrow (if LH)
6	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd		3421742	Crisper Filler Strip, Wide (if RH)
7	2234007	Frame, Main Top 30 - RH	43	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
	2234008	Frame, Main Top 30 - LH	44	4181950	Upper Fre Basket Assy
8	6200010	Screw, #10-12 x 3/4" Pan HD	45	4181910	Drawer Slide Assy, Fre
9	2210701	Main Frame Angle	46	3420950	Upper Freezer Basket Restraint
10	6200070	Screw, #4-24 x 3/8" Flat HD	47	6200340	Screw, #6-20 x 1/2" Pan Head
11	2234013	Frame, Main Side Left - RH	48	6220110	Screw Grommet, 1/2" x 9/16"
	2234014	Frame, Main Side Left - LH	49	6200130	Screw, #8-18 x 3/4" Truss HD
12	2234011	Frame, Main Side Right - RH	50	3413980	Lower Freezer Basket
	2234012	Frame, Main Side Right - LH	51	3413700	Lower Fre Bskt Divider
13	6201550	Screw, #8-18 X 1/2 Low Profile	52	0201260	Refig Evap Cover
14	3420760	Drain Pan Holder	53	0169600	Back Duct
15	3420670	Screw Spacer	54	6201060	Screw, #8x1-1/4" PH FLAT TAP
16	6201060	Screw, #8x1-1/4" PH FLAT TAP	55	6201310	Screw, #8 x 1-3/4" Flat PH HD
17	0164940	Drain Pan	56	0232310	Drawer Slide Shim, Rear
18	0260720	Kickplate Support	57	0232300	Drawer Slide Shim, Front - .060"
19	6200010	Screw, #10-12 x 3/4" Pan HD		2121180	Shim, Freezer Drawer Front-.030"
20	0260710	Kickplate	58	3412280	Egg Tray Cover
	0168570	Kickplate, Stainless Steel	59	3412270	Egg Tray
21	6200050	Screw, #10-12 x 1/2" Pan HD	60	4131810	Egg Tray with Cover
22	4162580	Refrig. Light Diffuser Assembly	61	4181801	Cab Slide Assy, Fre; RT
23	6201330	Screw, #8-18 x 5/8" PH PN SS-Gnd	62	4181802	Cab Slide Assy, Fre; LT
24	3520420	Insert / Diffuser Stand-off	63	6110330	Screw, #10-32 x 1/4" Chrome Plate
25	3602330	Shelf, Glass Cantilever	64	6200590	Screw, #12 x 1" Type A Zinc Flat HD
26	NA		65	3601821	Refrig. shelf ladder, Right
27	NA		66	3601822	Refrig. shelf ladder, Left
28	NA		67	6200710	Screw, #8-18 x 3/8" Fillister HD
29	4151770	Crisper Glass Assembly (Incl. Seals)	68	3411340	Ice Bucket
30	3211770	Crisper Glass Seal, Rear	69	6220050	Screw Grommet, 1/2" x 5/8"
31	3211740	Crisper Glass Seal, Front	70	6240040	Flat Washer, 1/4"
32	4181460	High Humidity Drawer Assembly	71	6110450	Bolt, 1/4-20 x 1/2" Whiz Lock
33	3413100	Drawer Divider	72	3550300	Glide, Rear Drawer 1/2X1/4
34	3421760	Humidity Drawer Slide-Frame	73	6220430	Screw Grommet
35	4181412	Top Crisper Slide Assembly, Wide-LH	74	4281270	Compressor Shroud Assy.
	4181421	Top Crisper Slide Assembly, Narrow-RH	75	3421860	Grommet, Spprt Insul.
36	4181411	Top Crisper Slide Assembly, Wide-RH	76	6200010	Screw, #10-12 x 3/4" Pan HD
	4181422	Top Crisper Slide Assembly, Narrow-LH	77	4201310	Blocking Kit; 30" (Not Shown)



611G COSMETIC VIEW

77 - Blocking Kit
(Not Shown)

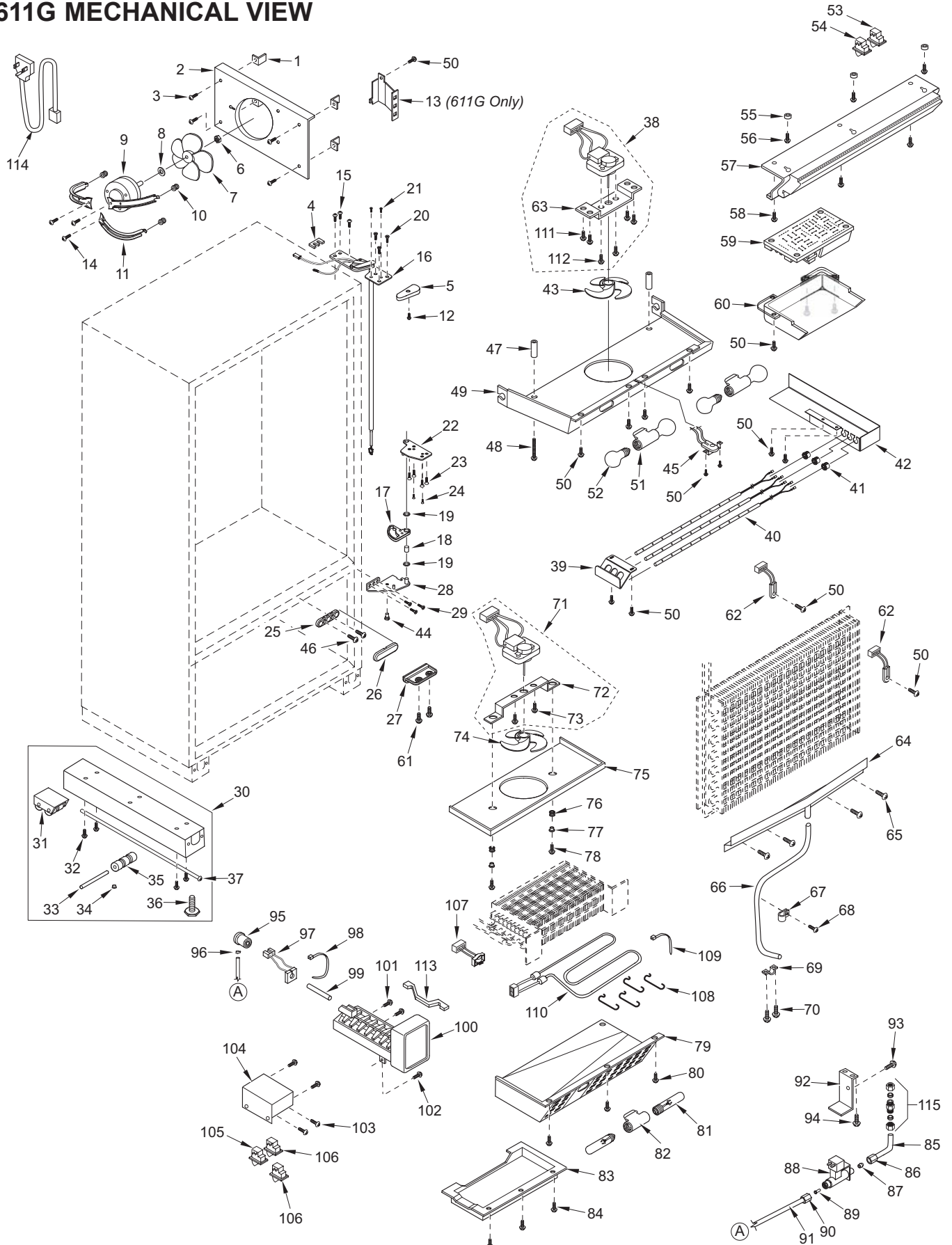


611G MECHANICAL PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	3450290	Angle Bracket	57	4162682	Control Panel Assy, 611G Srvc
2	0261220	Shroud, Cond Fan	58	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
3	6200010	Screw, #10-12 x 3/4" Pan HD	59	4203790	Control Board Pkg
4	0168680	Shim - Hinge	60	3413940	Control Board Encl.
5	3541017	Top Cabinet Hinge Cover, RH	61	6110060	Bolt, #10-32 x 5/8", Truss Head
	3541018	Top Cabinet Hinge Cover, LH	62	3014350	Thermistor
6	6150410	Nut, 1/4-20	63	0212540	Bracket, Fan
7	3150320	Fan Blade, Cond, 5 prop, 7"	64	0212630	Drain Trough, Ref
8	3210340	Neoprene Silencer, 7/8"	65	6201540	Screw, #8- 15X1-1/4 PH PAN HD
9	4200740	Motor Pkg, Cond Fan (blade not incl.)	66	1601400	Drain Tube, Wire - 1/2" x 72"
10	3220360	Grommet, Mtg Brkt	67	6120050	Tube Clamp, Plastic, 5/8"
11	0261150	Bracket, Cond Mounting	68	6200120	Screw, #10-12 x 1/2" Truss HD
12	6200140	Screw, #8-15 x 3/8" Truss HD	69	6120210	U-Clamp, 5/8"
13	0260740	Bracket, Condenser Shroud	70	6200010	Screw, #10-12 x 3/4" Pan HD
14	6200490	Screw, #8-32 x 3/8" Slotted Hex T25	71	4200160	Freezer Fan Motor Pkg. (Blade not Incl.)
15	6110070	Bolt, 1/4-20x3/4 Spinlock Zinc	72	0232280	Fan Bracket, Fre
16	4325671	WH, Top Hinge Assy - RH	73	6110270	Bolt, #10-32 x 1/4" RD HD
	4325672	WH, Top Hinge Assy - LH	74	3150640	Fan Blade, Evaporator
17	3421800	Door Stop Cam	75	4281500	Shroud Assy, Fre Evap 611 Srvc
18	3421790	Bearing, Door Hinge	76	3220250	Grommet, 3/16" x 7/16" x 9/32"
19	3430120	Bushing, Door	77	3520120	Brass Insert, Fan Bracket
20	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	78	6200670	Screw, #6-18 x 3/4" Tek
21	6200390	Screw, #6 x 3/8" T25 Flat Head PH	79	0235220	Cover, Fre Evap
22	4151841	Hinge, Door Bottom LH		0234300	Fre Evap. Cvr Lft Side
	4151842	Hinge, Door Bottom RH	80	6200120	Screw, #10-12 x 1/2" Truss HD
23	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	81	3030040	Light Bulb, Long/Narrow; 40 watt
24	6200390	Screw, #6 x 3/8" T25 Flat Head PH	82	3050220	Socket, Light Int Base Sngl
25	3430110	Closer, Door-Cabinet Side	83	0234890	Fre Air Duct Assy
26	3430140	Cover, Door Closer	84	6200120	Screw, #10-12 x 1/2" Truss HD
27	3430100	Closer, Door-Door Side	85	2600297	Tube, Copper L-Shaped
28	4152081	Cabinet Hinge, Bot - RH	86	3520380	Compression Nut
	4152082	Cabinet Hinge, Bot - LH	87	3520370	Compression Sleeve
29	6110810	Screw, Machine #10-24X3/4 PH FT HD	88	4202790	Water Valve
30	4110353	Base Assy (w/rollers)	89	3520050	Brass Insert, Solenoid
31	4110331	Base Rear Roller Assy	90	3520030	Icemaker Nylon Nut, 1/4"
32	6200010	Screw, #10-12 x 3/4" Pan HD	91	2600617	Plastic Water Line
33	3550560	Straight Pin, Base Assy, .312" x 2.88"	92	0168160	Solenoid Water Valve Bracket
34	3450620	Canoe Clip	93	6200780	Screw, #10-24 x 1/2" PH Hex Washer
35	3421240	Cabinet Roller (Single)	94	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
36	3570050	Leveling Leg, #18-3/8 x 1"	95	1607700	Water Inlet Tube
37	6110580	Adjusting Screw	96	6220470	Fill Tube Clamp
38	4200170	Refrig. Fan Motor Pkg. (Blade not Incl.)	97	3070210	Heater, Fill Tube
39	0261330	Bracket, Light	98	6120450	Locking Cable Tie 9.7" BLK
40	3030170	Light Strip, 7.5 WATT	99	2605410	Water Inlet Tube Extension
41	3220810	Grommet, Open/Closed 1/2	100	4200522	Icemaker Assembly
42	0212740	Box, Light Display	101	6200120	Screw, #10-12 x 1/2" Truss HD
43	3150640	Fan blade, Ref/Fre Evap.	102	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
44	3550770	90° Stop Pin	103	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
45	3082140	Light Terminator	104	0233820	Switch Housing, Freezer
46	6201590	Screw, #8-32X1/2 Taplite Pn Trx	105	3060140	SPST Light Switch
47	6220540	Screw Grommet / Stand-off	106	3060130	SPST Fan/Icemaker Switch
48	6201010	Screw, #8-15 x 2" Pan Head	107	3082060	Defrost Terminator
49	4162700	Shroud Assy, Ref Fan	108	1801100	Heater Clip
50	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	109	6120340	Aluminum Strap
51	3050250	Socket, Light Med Base Double	110	4325190	Defrost Heater Assy
52	3030030	Light Bulb, 40 Watt	111	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
53	3060130	SPST Fan/Icemaker Switch	112	6110270	Bolt, #10-32 X 1/4 Rd Hd
54	3060140	SPST Light Switch	113	3140400	Icemaker Rudder Arm
55	6160240	Nylon Spacer	114	4321820	Power Cord
56	6200720	Screw, #8-18 x 1/2 PH Truss HD	115	3520250	Water Inlet Fitting Assy



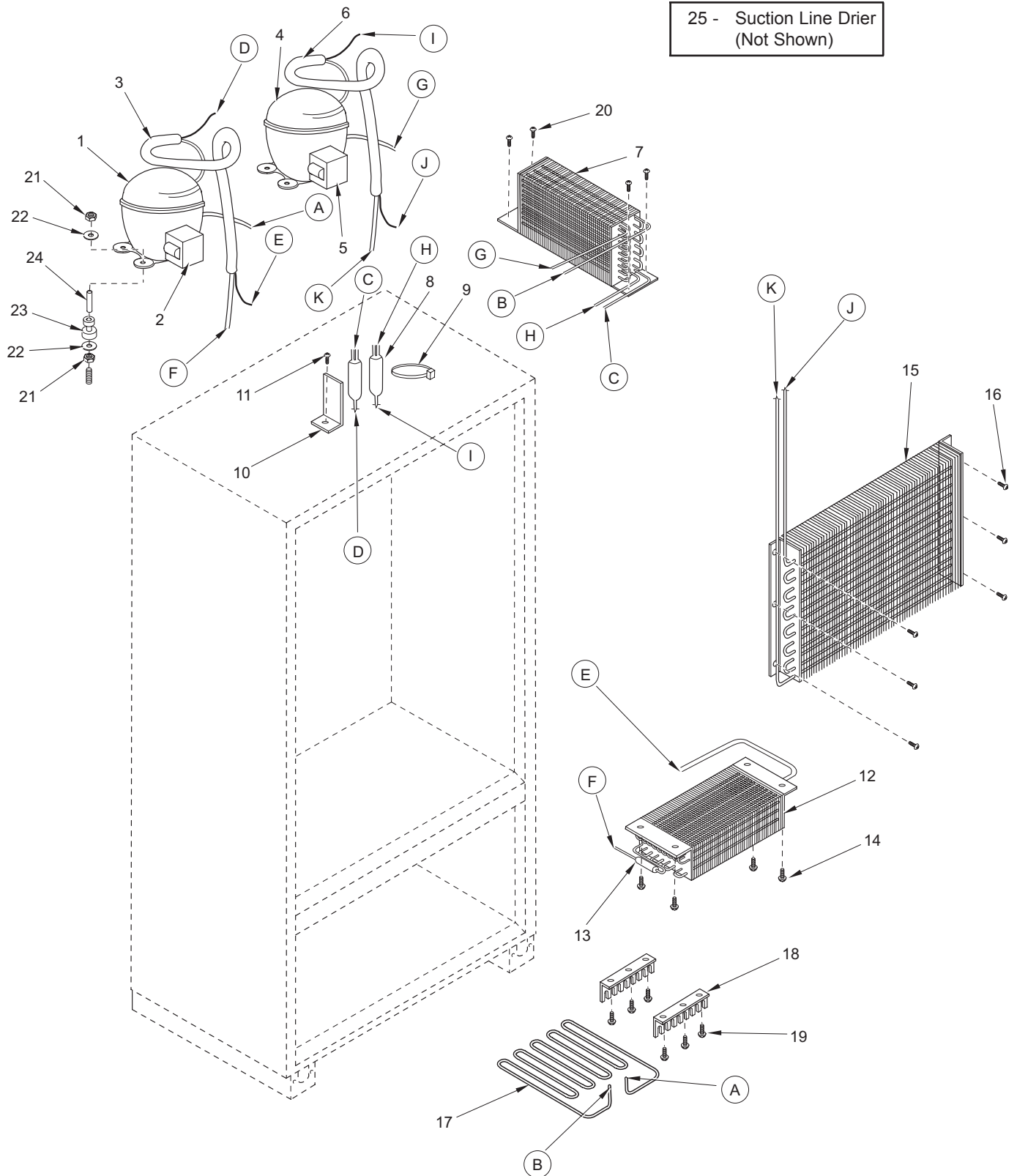
611G MECHANICAL VIEW



611G SEALED SYSTEM PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4202280	Compressor, (EMI60HER)
2	3111460	Relay, (1351408 - for EMI60HER)
	3111470	Overload, (4TM757NFB - for EMI60HER)
3	4251350	Heat Exchanger, Freezer
4	4201880	Compressor, Refrig. (EMI30HER)
5	3111370	Relay, (1351400 - for EMI30HER)
	3111410	Overload, (4TM734LFB - for EMI30HER)
6	4251550	Heat Exchanger, Refrigerator
7	3120330	Condenser, Dual
8	3014230	Filter-Drier, High Side
9	6120170	Locking Cable Tie, Red, 11-1/2"
10	0168040	Drier Bracket
11	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
12	3130600	Evaporator Coil, Fre
13	3011130	Freezer Accumulator
14	6200120	Screw, #10-12 x 1/2" Truss HD
15	3130630	Evaporator, Ref
16	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
17	2600138	Drain Pan Heater Loop
18	3421410	Drain Pan Heater Loop Support
19	6200010	Screw, #10-12 x 3/4" Pan HD
20	6200010	Screw, #10-12 x 3/4" Pan HD
21	6150220	Nut, 5/16-18 Hex Zinc
22	6240050	Flat Washer, 5/16"
23	3150010	Rubber Grommet, Small, 5/8"
	3150170	Rubber Grommet, Large, 15/16"
24	6160030	Spacer, 5/16 x 7/16 x 5/8"
	6160070	Sleeve, 5/16 x 7/16 x 7/8"
25	3014100	Suction Line Drier (Service Only - Not Shown)

611G SEALED SYSTEM VIEW

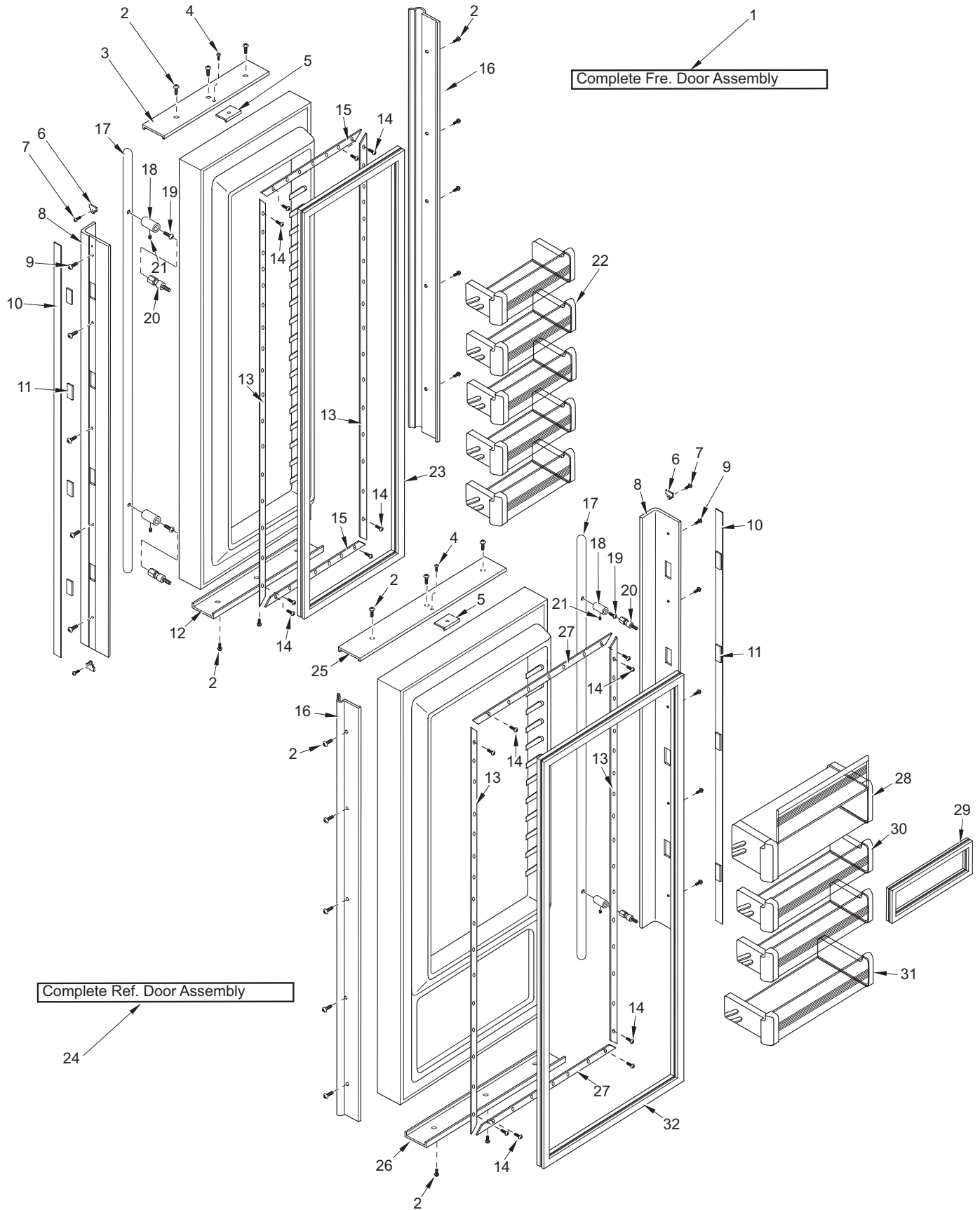


632 DOOR PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>	<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4132075	Freezer Door Assy, Frame/Overlay (See SN Breaks)	17	4132190	Handle Assy, SS Round End (Incl. Stand-offs) - (See SN Breaks)
	4132905	Freezer Door Assy, Frame/Overlay (See SN Breaks)		4133580	Handle Assy, SS Blunt (Incl Stand-offs) (See SN Breaks)
	4132495	Fre Door Assy, SS (See SN Breaks)		4133730	Handle Assy, SS OBR Standoffs (See SN Breaks)
	4134565	Fre Door Assy, SS (See SN Breaks)			
2	6200720	Screw, #8-18 x 1/2 PH Truss HD	18	3511320	Handle Stand-off 1"D (See SN Breaks)
3	2230603	Door Trim, Top; Freezer		3512150	Standoff, SS Oval (See SN Breaks)
4	6200720	Screw, #8-18 x 1/2 PH Truss HD	19	6110540	Bolt, #10-24 x 1/2 Flat Socket HD
5	4200940	Switch Depressor (Includes Screw)	20	3511330	Handle Mounting Stud
6	3413340	Handle/Trim End Cap	21	6110730	Set Screw #10-32 X 1/4 SS Cone
7	6180160	Rivet, Open End Blind, 1/8 x 3/16	22	4330460	Fre Door Shelf Assy (See SN Breaks)
8	4132220	Door Handle Assembly (Framed)		4330660	Fre Door Shelf Assy (See SN Breaks)
	4132320	Handle-Side Door Trim (Overlay)	23	3211090	Door Gasket, Fre (See SN Breaks)
9	6201300	Tapping Screw, #8 x 1/2		3212090	Door Gasket, Fre (See SN Breaks)
10	4131860	Handle/Trim Molding Assy	24	4132935	Refrigerator Door Assy, Frame/Overlay
11	3451000	Magnet, Trim Strip - 3"		4134555	Refrigerator Door Assy, SS
12	2230604	Door Trim, Bottom; Freezer	25	2230601	Door Trim, Top; Refrigerator
13	3420260	Gasket Retainer, 66.875"	26	2230602	Door Trim, Bottom; Refrigerator
14	6200410	Screw, #8 x 1/2 Slot Head Hex	27	3420200	Gasket Retainer, 27.062"
15	3420140	Gasket Retainer, 16.125"	28	4330450	Dairy Compartment Assy
16	3511130	Door Trim, Hinge Side - (SS Model)	29	3211830	Dairy Compartment Gasket
	3511131	Door Trim, Hinge Side - Mitered Corner	30	4330470	Refrig. Door Shelf Assy
			31	4330520	Gallon Door Shelf Assy (Sales Acc.)
			32	3212110	Door Gasket, Refrigerator



632 DOOR VIEW



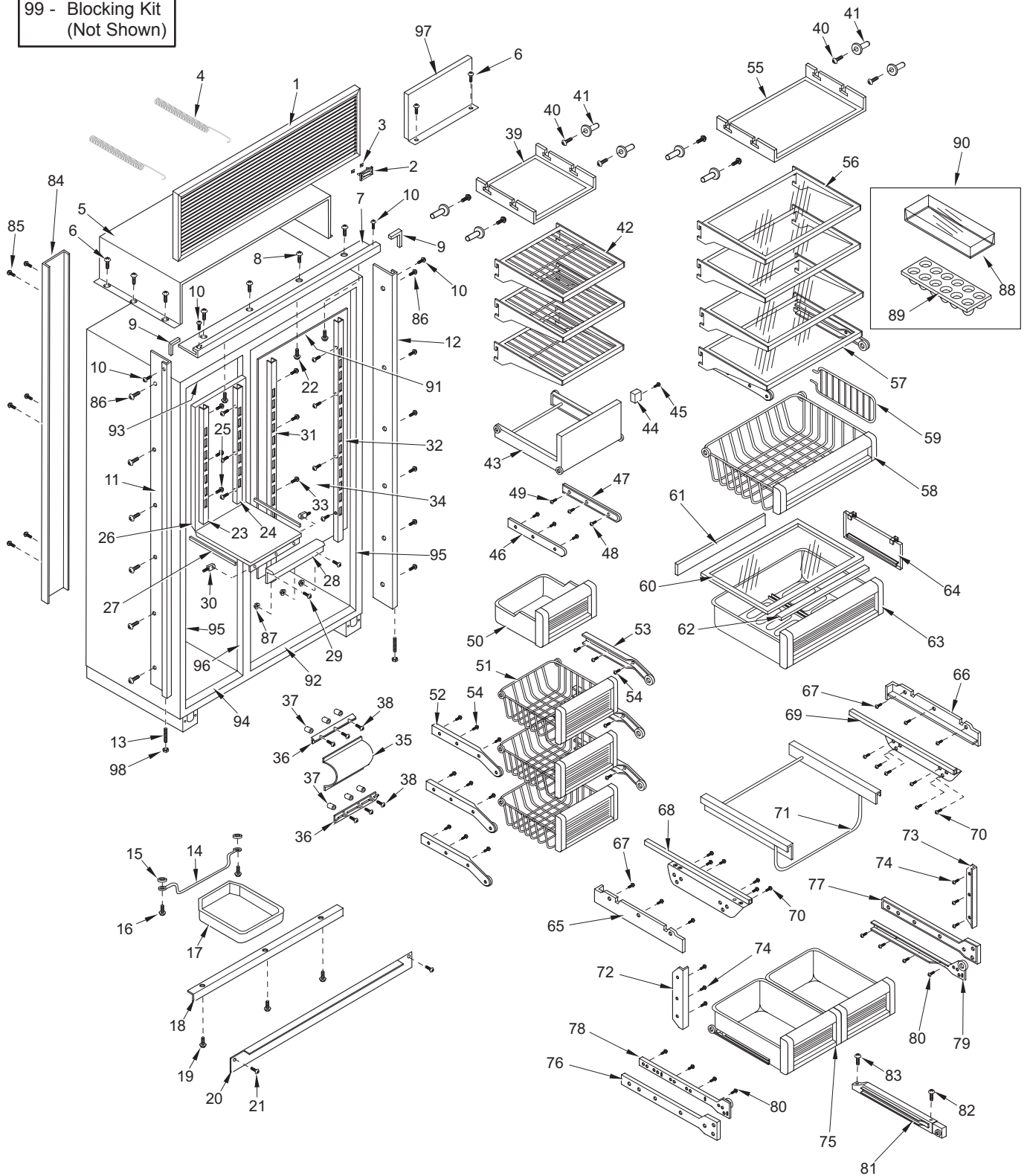


632 COSMETIC PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	6LG4811	Louvered Grille Assy, 48" x 11"	46	3410932	Ice Bucket Slide, Left
	6PG4811	Panel Grille Assy, 48" x 11"	47	3410931	Ice Bucket Slide, Right
	6SG4811	SS Grille 48" x 11" (See SN Breaks)	48	6200450	Screw, #8 x 1" Type AR Flat
	6SG4811/S	SS Grille,48X11-CLSC (See SN Breaks)	49	6200710	Screw, #8-18 x 3/8" Fillister HD
2	3580230	Nameplate w/ Pegs	50	4181580	Ice Bucket Assy (See SN Breaks)
	3580210	Name Plate, Stick-on		4181830	Ice Bucket Assy (See SN Breaks)
3	6150140	Spring Grip Nut, 1/8"	51	4181570	Freezer Basket Assy (See SN Breaks)
4	3450900	Grille Spring		4181820	Freezer Basket Assy (See SN Breaks)
5	4281040	Unit Shroud Assy	52	4180972	Fre Bskt Slide Assy-LH (See SN Breaks)
6	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd		4181842	Fre Bskt Slide Assy-LH (See SN Breaks)
7	2229702	Main Frame, Top (See SN Breaks)	53	4180971	Fre Bskt Slide Assy-RH (See SN Breaks)
	2229709	Main Frame, Top (See SN Breaks)		4181841	Fre Bskt Slide Assy-RH (See SN Breaks)
8	6200010	Screw, #10-12 x 3/4 Pan HD	54	6200450	Screw, #8 x 1" Type AR Flat
9	2210701	Main Frame Angle	55	4161520	Refrig. Light Diffuser Assembly
10	6200070	Screw, #4-24 x 3/8 Flat HD	56	3601891	Glass Shelf, Spill Proof
11	4120590	Main Frame Assy, Left (See SN Breaks)	57	4181560	Refrig. Roll-out Shelf Assy
	4120830	Main Frame Assy, Left (See SN Breaks)	58	4181540	Refrig. Roll-out Basket Assy
12	4120580	Main Frame Assy,Right (See SN Breaks)	59	3411160	Ref Roll-Out Bskt Divider
	4120820	Main Frame Assy,Right (See SN Breaks)	60	4151770	Crisper Glass Assembly (Incl Seals)
13	3550190	Bottom Hinge Stud	61	3211770	Crisper Glass Seal, Rear
14	3420760	Drain Pan Holder	62	3211740	Crisper Glass Seal, Front
15	3420670	Screw Spacer	63	4181460	High Humidity Drawer Assembly
16	6201060	Screw, #8 x 1-1/4 Ph Flat Tap	64	3413100	Drawer Divider
17	0164940	Drain Pan	65	3421711	Top Crspr Glass Support, Narrow-RH
18	0169970	Kickplate Support	66	3421721	Top Crisper glass Support, Wide-RH
19	6200010	Screw, #10-12 x 3/4 Pan HD	67	6201130	Screw, #8x 1/2" PH FL HD SS
20	0260150	Kickplate, Black-Solid	68	4181421	Top Crisper Slide Assy, Narrow-RH
	0167810	Kickplate, Stainless Steel	69	4181411	Top Crisper Slide Assembly, Wide-RH
21	6200050	Screw, #10-12 x 1/2 Pan HD	70	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
	6200720	Screw, #8-18 x 1/2 PH Truss HD	71	3421760	Humidity Drawer Slide-Frame
22	6201310	Screw, #8 x 1-3/4" Flat PH HD	72	3421732	Crisper Filler Strip, Wide
23	3601852	Fre Shelf Ladder, Lft (See SN Breaks)	73	3421731	Crisper Filler Strip, Narrow
	3602252	Fre Shelf Ladder, Lft (See SN Breaks)	74	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
24	3601851	Fre Shelf Ladder, Right (See SN Breaks)	75	4181490	Small Storage Drawer Assembly
	3602251	Fre Shelf Ladder, Right (See SN Breaks)	76	3421691	Bot Crisper Slide Support, Narrow
25	6200710	Screw, #8-18 x 3/8 Fillister HD	77	3421692	Bot Crisper Slide Support, Wide
26	0233890	Freezer Duct/Shelf (See SN Breaks)	78	3413112	Bot Crisper Slide, Cabinet - Left
	0234370	Freezer Duct/Shelf (See SN Breaks)	79	3413111	Bot Crisper Slide, Cabinet - Right
27	3210830	Evaporator Shelf Seal (See SN Breaks)	80	6201230	Screw, #8 x 7/8" w/a #7 PH FT Head
	3212060	Evaporator Shelf Seal (See SN Breaks)	81	4181430	Center Crisper Slide Assembly
28	3413020	Evaporator Shelf Front (See SN Breaks)	82	6201120	Screw, #8-18 x 1.75 Truss SS
	3413740	Evaporator Shelf Front (See SN Breaks)	83	6200130	Screw, #8-18 x 3/4" Truss HD
29	6201290	Screw, #8-15 PH PN HD SS	84	0168120	Back Duct (See SN Breaks)
30	6220070	Support, .44 x .63 x 1.53"		0169600	Back Duct (See SN Breaks)
31	3601812	Refrig. Shelf Ladder, Left	85	6201060	Screw, #8x1-1/4" Ph Flat Tap
32	3601811	Refrig. Shelf Ladder, Right	86	6200210	Screw, #8-32 x 1/2" Flat Head
33	6200710	Screw, #8-18 x 3/8" Fillister HD	87	6150820	Palnut, .25
34	0200830	Refrig Evap Cover (See SN Breaks)	88	3412280	Egg Tray Cover
	0201160	Refrig Evap Cover (See SN Breaks)	89	3412270	Egg Tray
35	3500600	Fre Lower Light Diffuser	90	4131810	Egg Tray with Cover
36	0234110	Fre Lwr Light Diff Rtnr (See SN Breaks)	91	2811201	Breaker Strip, Ref. Top (See SN Breaks)
	0234380	Fre Lwr Light Diff Rtnr (See SN Breaks)	92	2811202	Breaker Strip, Ref Bot (See SN Breaks)
37	6220340	Screw Grommet / Stand-off	93	2811203	Breaker Strip, Fre Top (See SN Breaks)
38	6201010	Screw, #8-15 x 2" Pan Head	94	2811204	Breaker Strip, Fre Bot (See SN Breaks)
39	4160820	Fre Light Diffuser Assy (See SN Breaks)		4203910	Patch, Fre Face Frm Sill (See SN Breaks)
	4161440	Fre Light Diffuser Assy (See SN Breaks)	95	2811205	Brkr Strp, Fre/LS, Ref/RS(See SN Breaks)
40	6201330	Screw, #8-18 x 5/8" PH PN SS-Gnd	96	1811300	Breaker Strip, Mullion (See SN Breaks)
41	3520420	Insert / Diffuser Stand-off	97	4280950	Compressor Shroud Assembly
42	3601870	Freezer Wire Shelf (See SN Breaks)	98	6150200	Nut, 1/4-20 Hex
	3602200	Freezer Wire Shelf (See SN Breaks)	99	4201330	Blocking Components; 48"
43	4180830	Ice Bkt Carriage Assy (See SN Breaks)	100	3411890	Shim, Fre. Basket Slide (See SN Breaks)
	4181920	Ice Bkt Carriage Assy (See SN Breaks)		3121120	Shim, Fre. Basket Slide (See SN Breaks)
44	3421090	IM Carriage Guide	101	3411970	Shim, Ice Bucket Slide
45	6200340	Screw, #6-20 x 1/2" Pan Head			

632 COSMETIC VIEW

99 - Blocking Kit
(Not Shown)



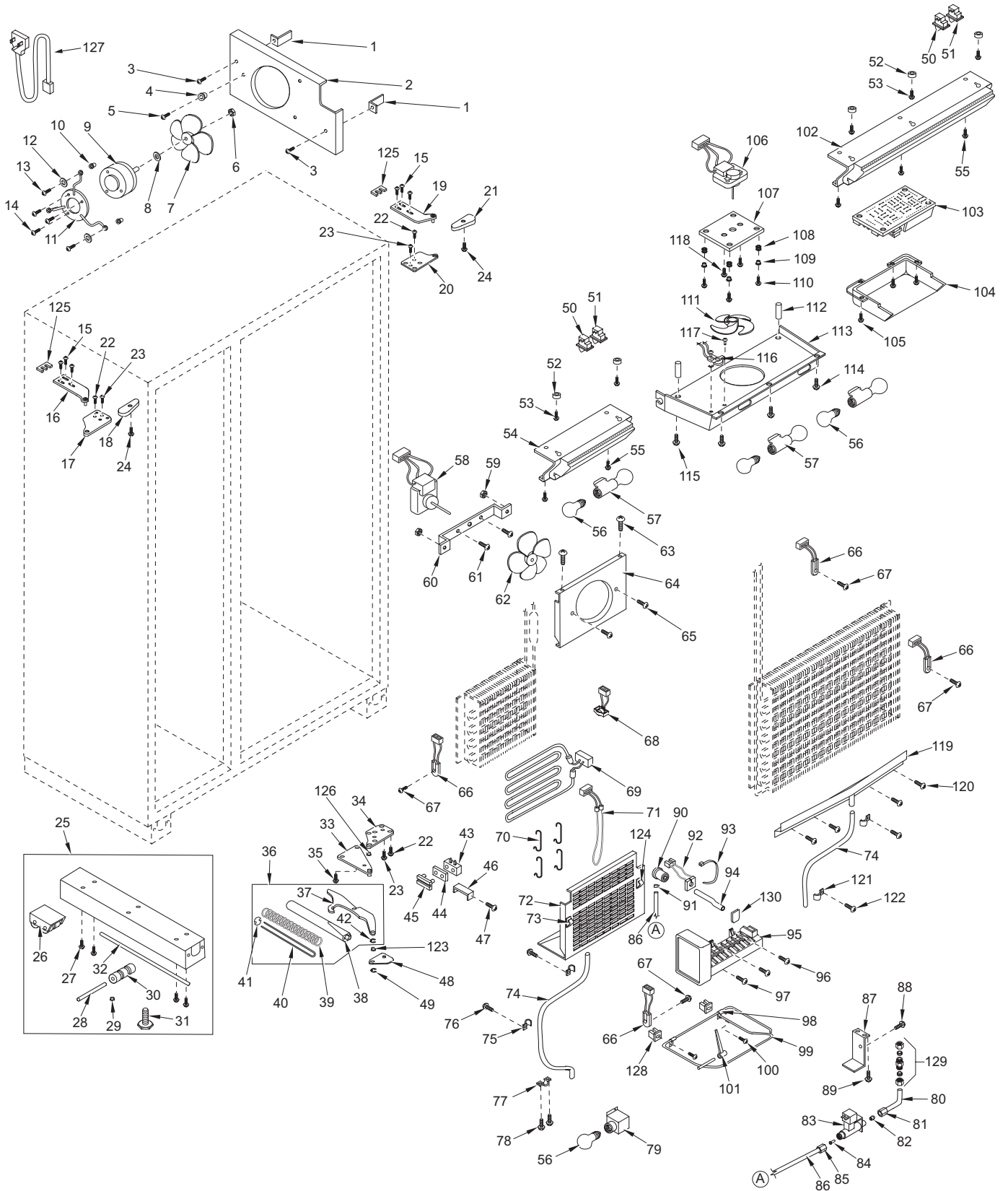
100 - Shim, Freezer Basket Slide (Not Shown)
101 - Shim, Ice Bucket Slide (Not Shown)

632 MECHANICAL PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	3450290	Angle Bracket	65	6110020	Bolt, #10-24 x 3/8" Truss HD
2	0169980	Condenser Fan Shroud	66	3014350	Thermistor
3	6200010	Screw, #10-12 x 3/4" Pan HD	67	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
4	3420670	Screw Spacer	68	3082060	Defrost Terminator
5	6200450	Screw, #8 x 1" Type AR Flat	69	4322130	Defrost Heater Assy (See SN Breaks)
6	6150410	Nut, 1/4-20		4324690	Defrost Heater Assy (See SN Breaks)
7	3150320	Fan Blade, Cond, 5 prop, 7"	70	1801100	Heater Clip
8	3210340	Neoprene Silencer, 7/8"	71	3013540	Drain Tube Heater
9	4200740	Motor Pkg, Cond Fan (blade not incl.) (See SN Breaks)	72	4151120	Fre Evap Cover Assy. (See SN Breaks)
	4200741	Motor Pkg, Cond Fan (blade not incl.) (See SN Breaks)		4151940	Fre Evap Cover Assy. (See SN Breaks)
10	6150330	Well Nut, .75D x .804", #10-32	73	6120160	Cord Clip, Plastic, 5/16 x 1/2"
11	3150650	Condenser Fan Bracket	74	1601400	Drain Tube, Wire - 1/2" x 72"
12	6240350	Fender Washer, .25x1.25x.06	75	6120050	Tube Clamp, Plastic, 5/8"
13	6201280	Machine Screw, #10-32 x 1-1/4"	76	6200010	Screw, #10-12 x 3/4" Pan HD
14	6200490	Screw, #8-32 x 3/8" Slotted Hex T25	77	6120210	U-Clamp, 5/8"
15	6110070	Bolt, 1/4-20x3/4 Spinlock Zinc	78	6200010	Screw, #10-12 x 3/4" Pan HD
16	4151272	Cabinet Hinge Assy, Upper LH	79	3050170	Light Sckt Sngl Straight (See SN Breaks)
17	4151472	Door Hinge Assy, Top LH		3050260	Socket, Light Med Base (See SN Breaks)
18	3541018	Top Cabinet Hinge Cover, LH		4161600	Light Assy, Lower Freezer
19	4151271	Cabinet Hinge Assy, Upper RH	80	2600297	Tube, Copper L-Shaped
20	4151471	Door Hinge Assy, Top RH	81	3520380	Compression Nut
21	3541017	Top Cabinet Hinge Cover, RH	82	3520370	Compression Sleeve
22	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	83	4202790	Water Valve
23	6200390	Screw, #6 x 3/8" T25 Flat Head PH	84	3520050	Brass Insert, Solenoid
24	6200140	Screw, #8-15 x 3/8" Truss HD	85	3520030	Icemaker Nylon Nut, 1/4"
25	4110353	Base Assy (w/rollers)	86	2600617	Plastic Water Line
26	4110331	Base Rear Roller Assy	87	0168160	Solenoid Water Valve Bracket
27	6200010	Screw, #10-12 x 3/4" Pan HD	88	6200780	Screw, #10-24 x 1/2" PH Hex Washer
28	3550560	Straight Pin, Base Assy, .312" x 2.88"	89	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
29	3450620	Canoe Clip	90	1607700	Water Inlet Tube
30	3421240	Cabinet Roller (Single)	91	6220470	Fill Tube Clamp
31	3570050	Leveling Leg, #18-3/8 x 1"	92	3013820	Fill Tube Heater
32	6110580	Adjusting Screw	93	6120450	Locking Cable Tie 9.7" BLK
33	4151281	Cabinet Hinge Assy, Lower RH	94	3024110	Fill Tube Extension
	4151282	Cabinet Hinge Assy, Lower LH	95	4200521	Icemaker Assembly
34	4151241	Door Hinge, Bottom RH	96	6200120	Screw, #10-12 x 1/2" Truss HD
	4151242	Door Hinge, Bottom LH	97	6200060	Screw, #8-32 x 1/2" Pan HD
35	6110070	Bolt, 1/4-20x3/4 Spinlock Zinc	98	6120280	Tube Clamp, Nylon, 3/16"
36	4201111	Door Closer Assy, RH	99	3421220	Icemaker Control Arm
	4201112	Door Closer Assy, LH	100	6200120	Screw, #10-12 x 1/2" Truss HD
37	0183111	Door Closer Arm - RH	101	3421070	Connecting Rod
	0183112	Door Closer Arm - LH	102	4160902	Control Panel Assy (See SN Breaks)
38	3421300	Door Closer Housing		4161542	Control Panel Assy (See SN Breaks)
39	3450530	Door Closer Spring	103	4202800	Control Board Pkg-Dual (See SN Breaks)
	3450710	Low Pull Door Closer Spring		4203520	Control Board Package (See SN Breaks)
40	3421290	Door Closer Linkage	104	3412790	Control Board Enclsr (See SN Breaks)
41	0165980	Door Closer Spring Retainer		3413940	Control Board Enclsr (See SN Breaks)
42	3421260	Door Closer Bearing	105	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
43	3450570	Door Closer Cushion	106	4200170	Refrig. Fan Mtr Cmpnts (Blade not Incl.)
44	0165970	Door Closer Guide Support	107	0211620	Refrigerator Fan Brkt (See SN Breaks)
45	3421310	Door Closer Guide		0212520	Refrigerator Fan Brkt (See SN Breaks)
46	0166360	Door Stop Cushion Retainer	108	3220250	Grommet, 3/16" x 7/16" x 9/32"
47	6180010	Pop Rivet, 1/8"	109	3520410	Brass Insert, Fan
48	DS90	Door Stop - 90 Degree	110	6110270	Bolt, #10-32 x 1/4" RD HD
	DS105	Door Stop - 105 Degree	111	3150640	Fan blade, Ref/Fre Evap.
49	3450560	E - Ring, 7/16"	112	6220540	Screw Grommet / Stand-off
50	3060140	SPST Light Switch	113	4161510	Refrig. Fan Shroud Assembly
51	3060130	SPST Fan/Icemaker Switch	114	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
52	6160240	Nylon Spacer	115	6201010	Screw, #8-15 x 2" Pan Head
53	6200720	Screw, #8-18 x 1/2 PH Truss HD	116	3082140	Light Terminator
54	4160771	Freezer Front Pnl Assy (See SN Breaks)	117	6180010	Pop Rivet, 1/8"
	4161951	Freezer Front Pnl Assy (See SN Breaks)	118	6110270	Bolt, #10-32 x 1/4" RD HD
55	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	119	4190160	Drain Trough Assembly (See SN Breaks)
56	3030030	Light Bulb, 40 Watt		0260550	Drain Trough Assembly (See SN Breaks)
57	3050180	Light Socket, Double (See SN breaks)	120	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
	3050250	Sckt, Light Md Base Dbl (See SN breaks)	121	6120050	Tube Clamp, Plastic, 5/8"
	4161610	Light Assy, Upper Freezer (Incl. Socket)	122	6200120	Screw, #10-12 x 1/2" Truss HD
58	4200160	Freezer Fan Motor (Blade not Incl.)	123	3450550	E-Ring / Klipping , 5/16"
59	6150030	Nut, #10-24 Hex SS	124	6120330	Wire Clip
60	0232770	Fan Bracket, Freezer	125	0168680	Shim - Hinge
61	6110270	Bolt, #10-32 x 1/4" RD HD	126	3421270	Hinge Bearing, 3/8" x 5/8"
62	3150060	Fan Blade, Freezer; 5 Prop; 5-1/2"	127	4321820	Power Cord
63	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	128	6220220	Screw Grommet, 1/32" X 3/8" SQ.
64	0234040	Fre Evap Fan Shroud (See SN Breaks)	129	3520250	Water Inlet Fitting Assy
	0234440	Fre Evap Fan Shroud (See SN Breaks)	130	3140360	Fill Cup Plug



632 MECHANICAL VIEW

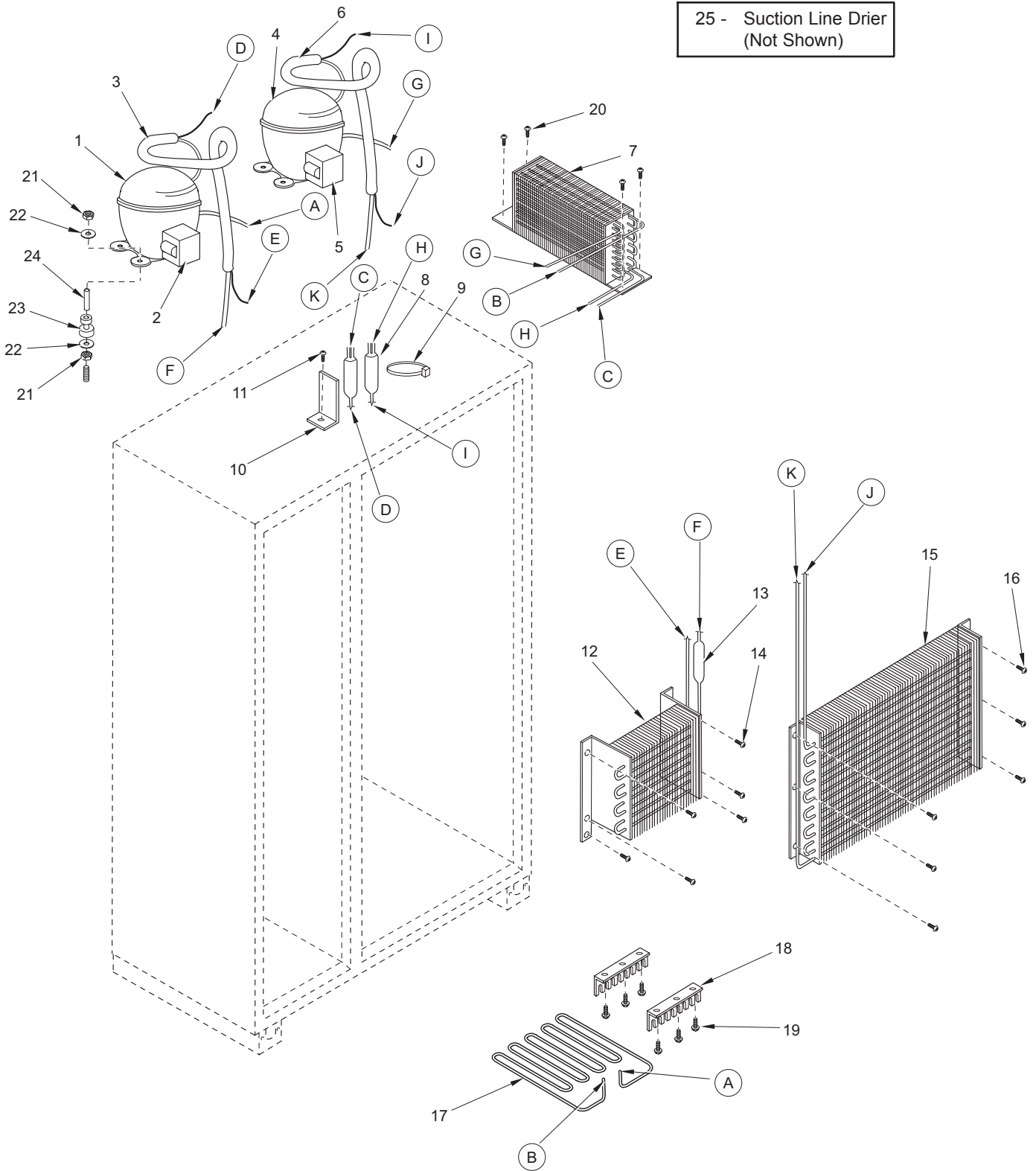


632 SEALED SYSTEM PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4202250	Compressor, Freezer (DA73) (See SN Breaks)
	4202280	Compressor, Freezer (EMI60HER) (See SN Breaks)
2	3111350	Relay, (8EA403) (Used with RG108 Compressor)
	3111041	Relay, (PTH490D-AS100) (Used with DA73 Compressor)
	3111460	Relay, (1351408) (Used with EMI60HER Compressor)
	3111390	Overload, (4TM419TFB) (Used with RG108 Compressor)
	3111430	Overload, (4TM419MFB) (Used with DA73 Compressor)
	3111470	Overload, (4TM757NFB) (Used with EMI60HER Compressor)
	3111133	Capacitor,(15Mf) (Used with RG108 Compressor)
	3111070	Running Capacitor, (12Mf) (Used with DA73 Compressor)
3	4251260	Heat Exchanger, Freezer
4	4201880	Compressor, Refrig. (EMI30HER
5	3111370	Relay, (1351400 - For EMI30HER Comp)
	3111410	Overload, (4TM734LFB - For EMI30HER Comp)
6	4251300	Heat Exchanger, Refrigerator
7	3120330	Condenser, Dual
8	3014230	Filter-Drier, High Side
9	6120170	Locking Cable Tie, Red, 11-1/2"
10	0168040	Drier Bracket
11	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
12	3130470	Evaporator Coil, Fre (See SN Breaks)
	3130530	Evaporator Coil, Fre (See SN Breaks)
13	3011130	Freezer Accumulator
14	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
15	3130260	Evaporator, Refrig.
16	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
17	2600138	Drain Pan Heater Loop
18	3421410	Drain Pan Heater Loop Support
19	6200010	Screw, #10-12 x 3/4" Pan HD
20	6200010	Screw, #10-12 x 3/4" Pan HD
21	6150220	Nut, 5/16-18 Hex Zinc
22	6240050	Flat Washer, 5/16"
23	3150010	Rubber Grommet, Small, 5/8"
	3150170	Rubber Grommet, Large, 15/16"
24	6160030	Spacer, 5/16 x 7/16 x 5/8"
	6160070	Sleeve, 5/16 x 7/16 x 7/8"
25	3014100	Suction Line Drier (Service Only)

632 SEALED SYSTEM VIEW

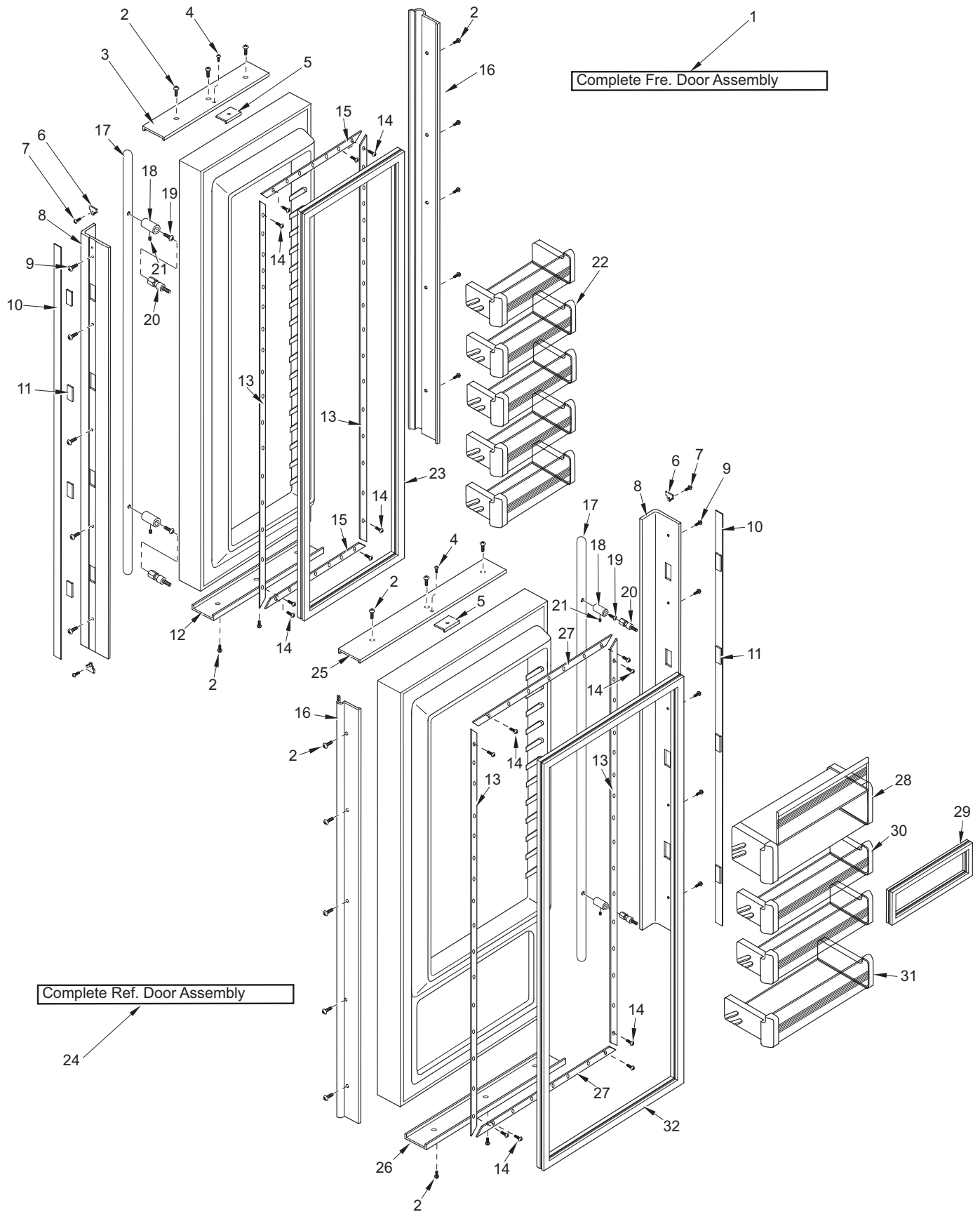
25 - Suction Line Drier
(Not Shown)



642 DOOR PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>	<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4132055	Freezer Door Assy, Frame/Overlay (See SN Breaks)	17	4132190	Handle Assy, SS Round End (Incl. Stand-offs) - (See SN Breaks)
	4133175	Freezer Door Assy, Frame/Overlay (See SN Breaks)		4133580	Handle Assy, SS Blunt (Incl Stand-offs) (See SN Breaks)
	4132565	Fre Door Assy, SS (See SN Breaks)		4133730	Handle Assy, SS OBR Standoffs (See SN Breaks)
	4133235	Fre Door Assy, SS (See SN Breaks)			
2	6200720	Screw, #8-18 x 1/2 PH Truss HD	18	3511320	Handle Stand-off 1"D (See SN Breaks)
3	2230617	Door Trim, Top; Freezer		3512150	Standoff, SS Oval (See SN Breaks)
4	6200720	Screw, #8-18 x 1/2 PH Truss HD	19	6110540	Bolt, #10-24 x 1/2 Flat Socket HD
5	4200940	Switch Depressor (Includes Screw)	20	3511330	Handle Mounting Stud
6	3413340	Handle/Trim End Cap	21	6110730	Set Screw #10-32 X 1/4 SS Cone
7	6180160	Rivet, Open End Blind, 1/8 x 3/16	22	4330580	Fre Door Shelf Assy (See SN Breaks)
8	4132220	Door Handle Assembly (Framed)		4330650	Fre Door Shelf Assy (See SN Breaks)
	4132320	Handle-Side Door Trim (Overlay)	23	3211670	Door Gasket, Fre (See SN Breaks)
9	6201300	Tapping Screw, #8 x 1/2		3212190	Door Gasket, Fre (See SN Breaks)
10	4131860	Handle/Trim Molding Assy	24	4133155	Refrigerator Door Assy, Frame/Overlay
11	3451000	Magnet, Trim Strip - 3"		4133225	Refrigerator Door Assy, SS
12	2230618	Door Trim, Bottom; Freezer	25	2230615	Door Trim, Top; Refrigerator
13	3420260	Gasket Retainer, 66.875"	26	2230616	Door Trim, Bottom; Refrigerator
14	6200410	Screw, #8 x 1/2 Slot Head Hex	27	3421620	Gasket Retainer, 23.125"
15	3421610	Gasket Retainer, 13.813"	28	4330560	Dairy Compartment Assy
16	3511130	Door Trim, Hinge Side - (SS Model)	29	3211850	Dairy Compartment Gasket
	3511131	Door Trim, Hinge Side - Mitered Corner	30	4330530	Refrig. Door Shelf Assy
			31	4330540	Gallon Door Shelf Assy (Sales Acc.)
			32	3212180	Door Gasket, Refrigerator

642 DOOR VIEW

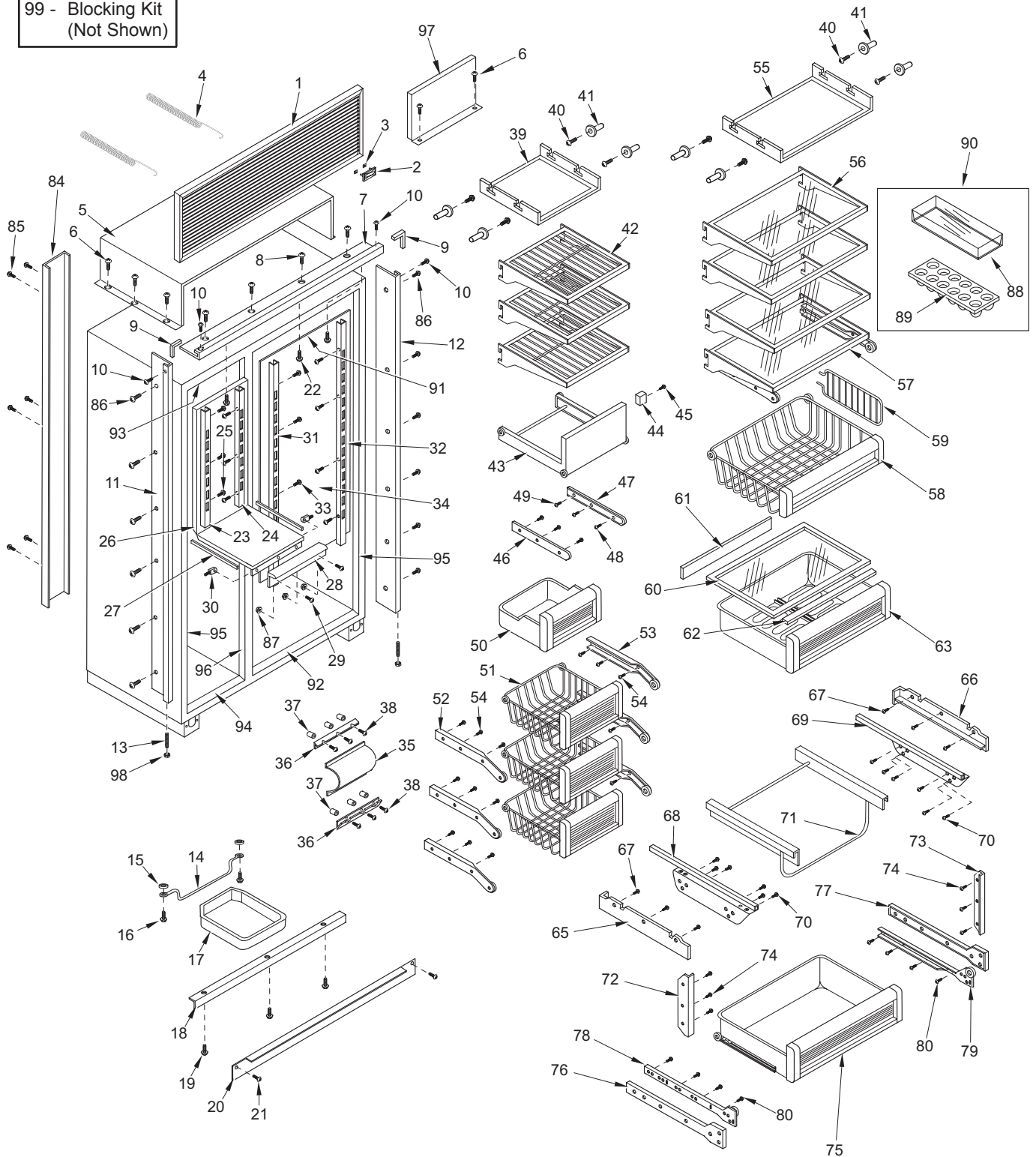


642 COSMETIC PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	6LG4211	Louvered Grille Assy, 42" x 11"	45	6200340	Screw, #6-20 x 1/2" Pan Head
	6PG4211	Panel Grille Assy, 42" x 11"	46	3410932	Ice Bucket Slide, Left
	6SG4211	SS Grille Assy, 42 x 11 (See SN Breaks)	47	3410931	Ice Bucket Slide, Right
	6SG4211/S	SS Grille,42X11-CLSC (See SN Breaks)	48	6200450	Screw, #8 x 1" Type AR Flat
2	3580230	Nameplate w/ Pegs	49	6200710	Screw, #8-18 x 3/8" Fillister HD
	3580210	Name Plate, Stick-on	50	4181500	Ice Bucket Assy (See SN Breaks)
3	6150140	Spring Grip Nut, 1/8"		4181960	Ice Bucket Assy (See SN Breaks)
4	3450900	Grille Spring	51	4181640	Freezer Basket Assy (See SN Breaks)
5	4280940	Unit Shroud Assy		4181970	Freezer Basket Assy (See SN Breaks)
6	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	52	4180972	Fre Bskt Slide Assy-LH (See SN Breaks)
7	2229703	Main Frame, Top (See SN Breaks)		4181842	Fre Bskt Slide Assy-LH (See SN Breaks)
	2229708	Main Frame, Top (See SN Breaks)	53	4180971	Fre Bskt Slide Assy-RH (See SN Breaks)
8	6200010	Screw, #10-12 x 3/4 Pan HD		4181841	Fre Bskt Slide Assy-RH (See SN Breaks)
9	2210701	Main Frame Angle	54	6200450	Screw, #8 x 1" Type AR Flat
10	6200070	Screw, #4-24 x 3/8 Flat HD	55	4161990	Refrig. Light Diffuser Assembly
11	4120590	Main Frame Assy, Left (See SN Breaks)	56	3602042	Glass Shelf, Spill Proof
	4120830	Main Frame Assy, Left (See SN Breaks)	57	4181650	Refrig. Roll-out Shelf Assy
12	4120580	Main Frame Assy,Right (See SN Breaks)	58	4181530	Refrig. Roll-out Basket Assy
	4120820	Main Frame Assy,Right (See SN Breaks)	59	3411160	Ref Roll-Out Bskt Divider
13	3550190	Bottom Hinge Stud	60	4151760	Crisper Glass Assembly (Incl Seals)
14	3420760	Drain Pan Holder	61	3211780	Crisper Glass Seal, Rear
15	3420670	Screw Spacer	62	3211750	Crisper Glass Seal, Front
16	6201060	Screw, #8 x 1-1/4 Ph Flat Tap	63	4181450	High Humidity Drawer Assembly
17	0164940	Drain Pan	64	N/A	
18	0167900	Kickplate Support (See SN Breaks)	65	3421711	Top Crspr Glass Support, Narrow-RH
	0260700	Kickplate Support (See SN Breaks)	66	3421721	Top Crisper glass Support, Wide-RH
19	6200010	Screw, #10-12 x 3/4 Pan HD	67	6201130	Screw, #8x 1/2" PH FL HD SS
20	0169820	Kickplate, Black-Solid	68	4181421	Top Crisper Slide Assy, Narrow-RH
	0168210	Kickplate, Stainless Steel	69	4181411	Top Crisper Slide Assembly, Wide-RH
21	6200050	Screw, #10-12 x 1/2 Pan HD	70	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
	6200720	Screw, #8-18 x 1/2 PH Truss HD	71	3421780	Humidity Drawer Slide-Frame
22	6201310	Screw, #8 x 1-3/4" Flat PH HD	72	3421732	Crisper Filler Strip, Wide
23	3601852	Fre Shelf Ladder, Left (See SN Breaks)	73	3421731	Crisper Filler Strip, Narrow
	3602252	Fre Shelf Ladder, Left (See SN Breaks)	74	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
24	3601851	Fre Shelf Ladder, Right (See SN Breaks)	75	4181480	Small Storage Drawer Assembly
	3602251	Fre Shelf Ladder, Right (See SN Breaks)	76	3421691	Bot Crisper Slide Support, Narrow
25	6200710	Screw, #8-18 x 3/8 Fillister HD	77	3421692	Bot Crisper Slide Support, Wide
26	0234080	Freezer Duct/Shelf (See SN Breaks)	78	3413112	Bot Crisper Slide, Cabinet - Left
	0234830	Freezer Duct/Shelf (See SN Breaks)	79	3413111	Bot Crisper Slide, Cabinet - Right
27	3210830	Evaporator Shelf Seal (See SN Breaks)	80	6201230	Screw, #8 x 7/8" w/a #7 PH FT Head
	3212060	Evaporator Shelf Seal (See SN Breaks)	81	N/A	
28	3413200	Evaporator Shelf Front (See SN Breaks)	82	N/A	
	3413930	Evaporator Shelf Front (See SN Breaks)	83	N/A	
29	6201290	Screw, #8-15 PH PN HD SS	84	0168120	Back Duct (See SN Breaks)
30	6220070	Support, .44 x .63 x 1.53"		0169600	Back Duct (See SN Breaks)
31	3601812	Refrig. Shelf Ladder, Left	85	6201060	Screw, #8x1-1/4" Ph Flat Tap
32	3601811	Refrig. Shelf Ladder, Right	86	6200210	Screw, #8-32 x 1/2" Flat Head
33	6200710	Screw, #8-18 x 3/8" Fillister HD	87	6150820	Palnut, .25
34	0200860	Refrig Evap Cover (See SN Breaks)	88	3412280	Egg Tray Cover
	0201270	Refrig Evap Cover (See SN Breaks)	89	3412270	Egg Tray
35	3500600	Fre Lwr Light Diffuser (See SN Breaks)	90	4131810	Egg Tray with Cover
	3500690	Fre Lwr Light Diffuser (See SN Breaks)	91	2811217	Breaker Strip, Ref. Top (See SN Breaks)
36	0234110	Fre Lwr Light Diff Rtnr (See SN Breaks)	92	2811218	Breaker Strip, Ref Bot (See SN Breaks)
	0235130	Fre Lwr Light Diff Rtnr (See SN Breaks)	93	2811219	Breaker Strip, Fre Top (See SN Breaks)
37	6220340	Screw Grommet / Stand-off	94	2811220	Breaker Strip, Fre Bot (See SN Breaks)
38	6201010	Screw, #8-15 x 2" Pan Head		4203920	Patch, Fre Face Frm Sill (See SN Breaks)
39	4161020	Fre Light Diffuser Assy (See SN Breaks)	95	2811205	Brkr Strp, Fre/LS, Ref/RS (See SN Breaks)
	4162050	Fre Light Diffuser Assy (See SN Breaks)	96	1811300	Breaker Strip, Mullion (See SN Breaks)
40	6201330	Screw, #8-18 x 5/8" PH PN SS-Gnd	97	4280950	Compressor Shroud Assembly
41	3520420	Insert / Diffuser Stand-off	98	6150200	Nut, 1/4-20 Hex
42	3601980	Freezer Wire Shelf (See SN Breaks)	99	4202860	Blocking Components; 42"
	3602210	Freezer Wire Shelf (See SN Breaks)	100	3411890	Shim, Fre Basket Slide (See SN Breaks)
43	4181660	Ice Bkt Carriage Assy (See SN Breaks)		2121120	Shim, Fre Basket Slide (See SN Breaks)
	4181980	Ice Bkt Carriage Assy (See SN Breaks)	101	3411970	Shim, Ice Bucket Slide
44	3421090	IM Carriage Guide			

642 COSMETIC VIEW

99 - Blocking Kit
(Not Shown)

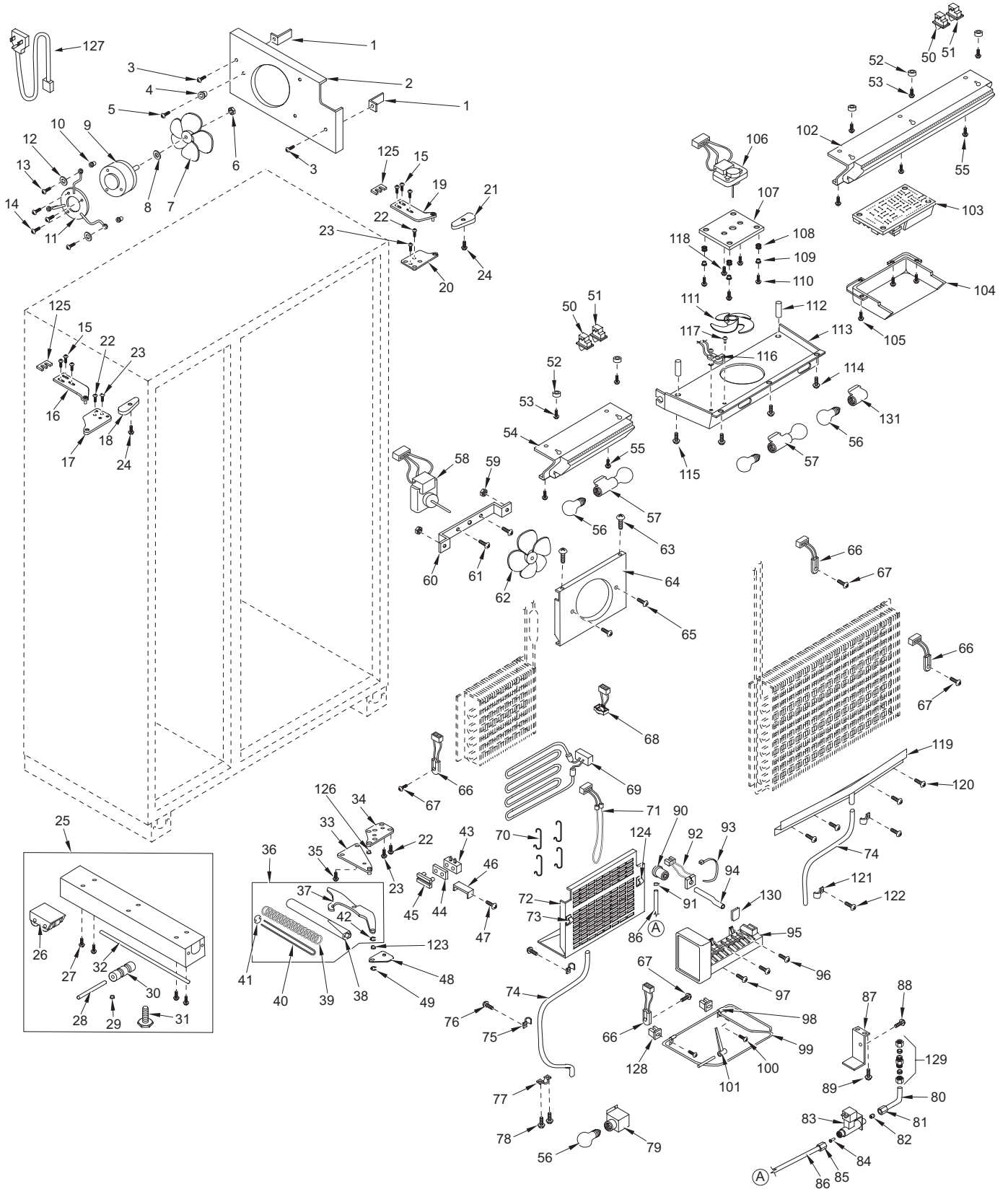


100 - Shim, Freezer Basket Slide (Not Shown)
101 - Shim, Ice Bucket Slide (Not Shown)

642 MECHANICAL PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	3450290	Angle Bracket	67	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
2	0169510	Condenser Fan Shroud	68	3082060	Defrost Terminator
3	6200010	Screw, #10-12 x 3/4" Pan HD	69	4323820	Defrost Heater Assy (See SN Breaks)
4	3420670	Screw Spacer		4322140	Defrost Heater Assy (See SN Breaks)
5	6200450	Screw, #8 x 1" Type AR Flat	70	1801100	Heater Clip
6	6150410	Nut, 1/4-20	71	3013540	Drain Tube Heater
7	3150320	Fan Blade, Cond, 5 prop, 7"	72	4151740	Fre Evap Cover Assy. (See SN Breaks)
8	3210340	Neoprene Silencer, 7/8"		4152040	Fre Evap Cover Assy. (See SN Breaks)
9	4200740	Motor Pkg, Cond Fan (See SN Breaks)	73	6120160	Cord Clip, Plastic, 5/16 x 1/2"
	4200741	Motor Pkg, Cond Fan (See SN Breaks)	74	1601400	Drain Tube, Wire - 1/2" x 72"
10	6150330	Well Nut, .75D x .804", #10-32	75	6120050	Tube Clamp, Plastic, 5/8"
11	3150650	Condenser Fan Bracket	76	6200010	Screw, #10-12 x 3/4" Pan HD
12	6240350	Fender Washer, .25x1.25x.06	77	6120210	U-Clamp, 5/8"
13	6201280	Machine Screw, #10-32 x 1-1/4"	78	6200010	Screw, #10-12 x 3/4" Pan HD
14	6200490	Screw, #8-32 x 3/8" Slotted Hex T25	79	3050170	Light Socket, Sngl; Strt (See SN Breaks)
15	6110070	Bolt, 1/4-20x3/4 Spinlock Zinc		3050200	Light Socket, Sngl; Strt (See SN Breaks)
16	4151272	Cabinet Hinge Assy, Upper LH		3050260	Socket, Light Med Base (See SN Breaks)
17	4151472	Door Hinge Assy, Top LH		4161600	Light Assy, Lower Freezer
18	3541018	Top Cabinet Hinge Cover, LH	80	2600297	Tube, Copper L-Shaped
19	4151271	Cabinet Hinge Assy, Upper RH	81	3520380	Compression Nut
20	4151471	Door Hinge Assy, Top RH	82	3520370	Compression Sleeve
21	3541017	Top Cabinet Hinge Cover, RH	83	4202790	Water Valve
22	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	84	3520050	Brass Insert, Solenoid
23	6200390	Screw, #6 x 3/8" T25 Flat Head PH	85	3520030	Icemaker Nylon Nut, 1/4"
24	6200140	Screw, #8-15 x 3/8" Truss HD	86	2600617	Plastic Water Line
25	4110353	Base Assy (w/rollers)	87	0168160	Solenoid Water Valve Bracket
26	4110331	Base Rear Roller Assy	88	6200780	Screw, #10-24 x 1/2" PH Hex Washer
27	6200010	Screw, #10-12 x 3/4" Pan HD	89	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
28	3550560	Straight Pin, Base Assy, .312" x 2.88"	90	1607700	Water Inlet Tube
29	3450620	Canoe Clip	91	6220470	Fill Tube Clamp
30	3421240	Cabinet Roller (Single)	92	3013820	Fill Tube Heater
31	3570050	Leveling Leg, #18-3/8 x 1"	93	6120450	Locking Cable Tie 9.7" BLK
32	6110580	Adjusting Screw	94	3024110	Fill Tube Extension
33	4151281	Cabinet Hinge Assy, Lower RH	95	4200521	Icemaker Assembly
	4151282	Cabinet Hinge Assy, Lower LH	96	6200120	Screw, #10-12 x 1/2" Truss HD
34	4151241	Door Hinge, Bottom RH	97	6200060	Screw, #8-32 x 1/2" Pan HD
	4151242	Door Hinge, Bottom LH	98	6120280	Tube Clamp, Nylon, 3/16"
35	6110070	Bolt, 1/4-20x3/4 Spinlock Zinc	99	3421630	Icemaker Control Arm
36	4201111	Door Closer Assy, RH	100	6200120	Screw, #10-12 x 1/2" Truss HD
	4201112	Door Closer Assy, LH	101	3421070	Connecting Rod
37	0183111	Door Closer Arm - RH	102	4160902	Control Panel Assy (See SN Breaks)
	0183112	Door Closer Arm - LH		4161932	Control Panel Assy (See SN Breaks)
38	3421300	Door Closer Housing	103	4202800	Control Board Pkg-Dual (See SN Breaks)
39	3450530	Door Closer Spring		4203520	Control Board Package (See SN Breaks)
	3450710	Low Pull Door Closer Spring	104	3412790	Control Board Enclsr (See SN Breaks)
40	3421290	Door Closer Linkage		3413940	Control Board Enclsr (See SN Breaks)
41	0165980	Door Closer Spring Retainer	105	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
42	3421260	Door Closer Bearing	106	4200170	Refrig. Fan Mtr Cmpnts (Blade not Incl.)
43	3450570	Door Closer Cushion	107	0211620	Refrigerator Fan Brkt (See SN Breaks)
44	0165970	Door Closer Guide Support		0212520	Refrigerator Fan Brkt (See SN Breaks)
45	3421310	Door Closer Guide	108	3220250	Grommet, 3/16" x 7/16" x 9/32"
46	0166360	Door Stop Cushion Retainer	109	3520410	Brass Insert, Fan
47	6180010	Pop Rivet, 1/8"	110	6110270	Bolt, #10-32 x 1/4" RD HD
48	DS90	Door Stop - 90 Degree	111	3150640	Fan blade, Ref/Fre Evap.
	DS105	Door Stop - 105 Degree	112	6220540	Screw Grommet / Stand-off
49	3450560	E - Ring, 7/16"	113	4161980	Refrig. Fan Shroud Assembly
50	3060140	SPST Light Switch	114	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
51	3060130	SPST Fan/Icemaker Switch	115	6201010	Screw, #8-15 x 2" Pan Head
52	6160240	Nylon Spacer	116	3082140	Light Terminator
53	6200720	Screw, #8-18 x 1/2 PH Truss HD	117	6180010	Pop Rivet, 1/8"
54	4160911	Freezer Front Pnl Assy (See SN Breaks)	118	6110270	Bolt, #10-32 x 1/4" RD HD
	4161951	Freezer Front Pnl Assy (See SN Breaks)	119	4190240	Drain Trough Assembly (See SN Breaks)
55	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd		0212600	Drain Trough Assembly (See SN Breaks)
56	3030030	Light Bulb, 40 Watt	120	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
57	3050180	Light Socket, Double (See SN breaks)	121	6120050	Tube Clamp, Plastic, 5/8"
	3050250	Sckt, Light Md Base Dbl (See SN breaks)	122	6200120	Screw, #10-12 x 1/2" Truss HD
	4161610	Light Assy, Upper Freezer (Incl. Socket)	123	3450550	E-Ring / Klipring , 5/16"
58	4200160	Freezer Fan Motor (Blade not Incl.)	124	6120330	Wire Clip
59	6150030	Nut, #10-24 Hex SS	125	0168680	Shim - Hinge
60	0232770	Fan Bracket, Freezer	126	3421270	Hinge Bearing, 3/8" x 5/8"
61	6110270	Bolt, #10-32 x 1/4" RD HD	127	4321820	Power Cord
62	3150060	Fan Blade; Freezer; 5 Prop; 5-1/2"	128	6220220	Screw Grommet, 1/32" X 3/8" SQ.
63	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	129	3520250	Water Inlet Fitting Assy
64	0234120	Fre Evap Fan Shroud (See SN Breaks)	130	3140360	Fill Cup Plug
	0234880	Fre Evap Fan Shroud (See SN Breaks)	131	3050190	Light Socket, Single (See SN Breaks)
65	6110020	Bolt, #10-24 x 3/8" Truss HD		3050230	Skt, Light M Base Sngl (See SN Breaks)
66	3014350	Thermistor			

642 MECHANICAL VIEW

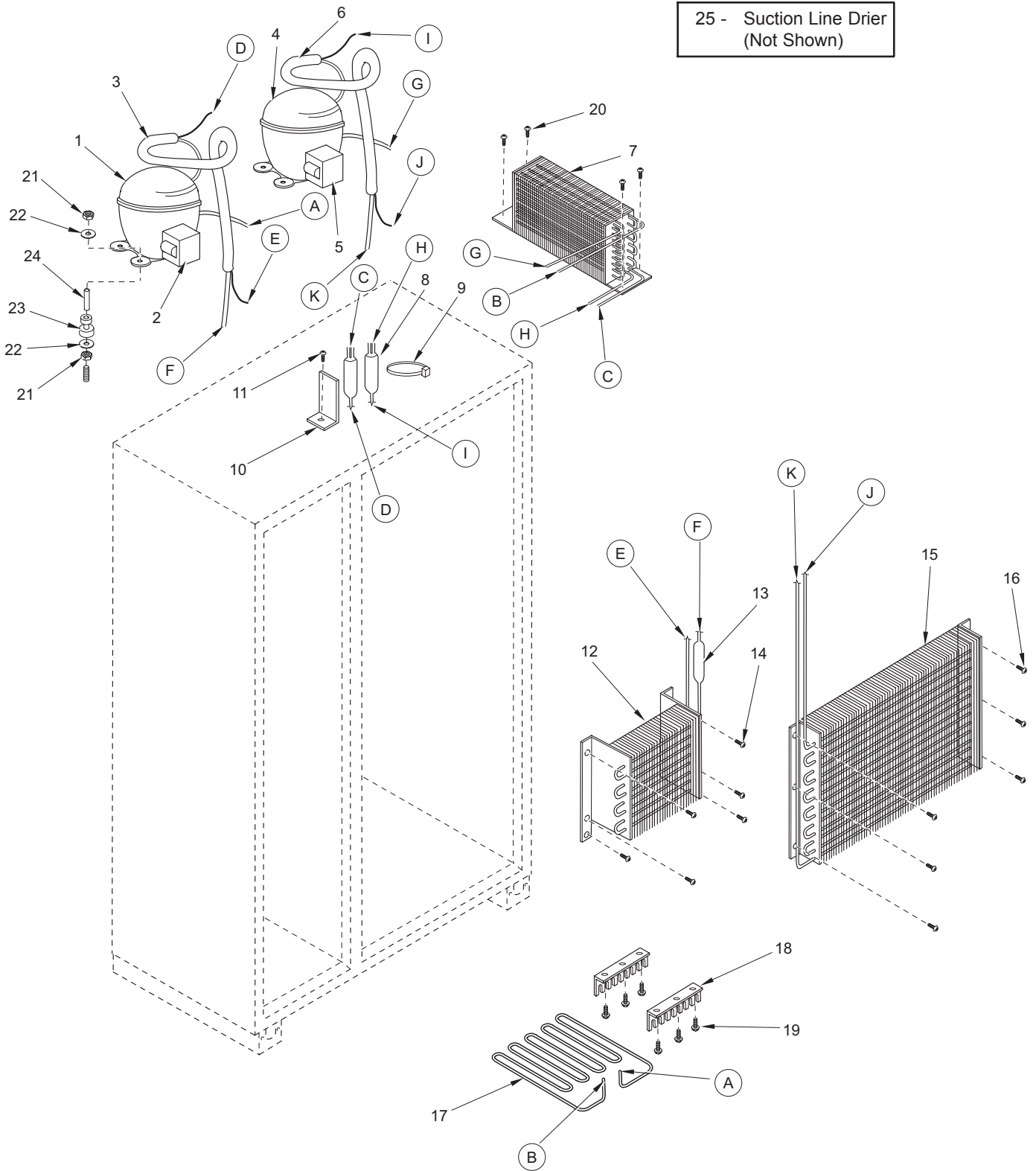


642 SEALED SYSTEM PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4202250	Compressor, Freezer (DA73) (See SN Breaks)
	4202280	Compressor, Freezer (EMI60HER) (See SN Breaks)
2	3111041	Relay, (PTH490D-AS100) (Used with DA73 Compressor)
	3111460	Relay, (1351408) (Used with EMI60HER Compressor)
	3111430	Overload, (4TM419MFB) (Used with DA73 Compressor)
	3111470	Overload, (4TM757NFB) (Used with EMI60HER Compressor)
	3111070	Running Capacitor, (12Mf) (Used with DA73 Compressor)
3	4251400	Heat Exchanger, Freezer
4	4201880	Compressor, Refrig. (EMI30HER)
5	3111370	Relay, (1351400 - For EMI30HER Comp)
	3111410	Overload, (4TM734LFB - For EMI30HER Comp)
6	4251240	Heat Exchanger, Refrigerator
7	3120330	Condenser, Dual
8	3014230	Filter-Drier, High Side
9	6120170	Locking Cable Tie, Red, 11-1/2"
10	0168040	Drier Bracket
11	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
12	3130430	Evaporator Coil, Fre (See SN Breaks)
	3130590	Evaporator Coil, Fre (See SN Breaks)
13	3011130	Freezer Accumulator
14	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
15	3130420	Evaporator, Refrig.
16	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
17	2600138	Drain Pan Heater Loop
18	3421410	Drain Pan Heater Loop Support
19	6200010	Screw, #10-12 x 3/4" Pan HD
20	6200010	Screw, #10-12 x 3/4" Pan HD
21	6150220	Nut, 5/16-18 Hex Zinc
22	6240050	Flat Washer, 5/16"
23	3150010	Rubber Grommet, Small, 5/8"
	3150170	Rubber Grommet, Large, 15/16"
24	6160030	Spacer, 5/16 x 7/16 x 5/8"
	6160070	Sleeve, 5/16 x 7/16 x 7/8"
25	3014100	Suction Line Drier (Service Only)

642 SEALED SYSTEM VIEW

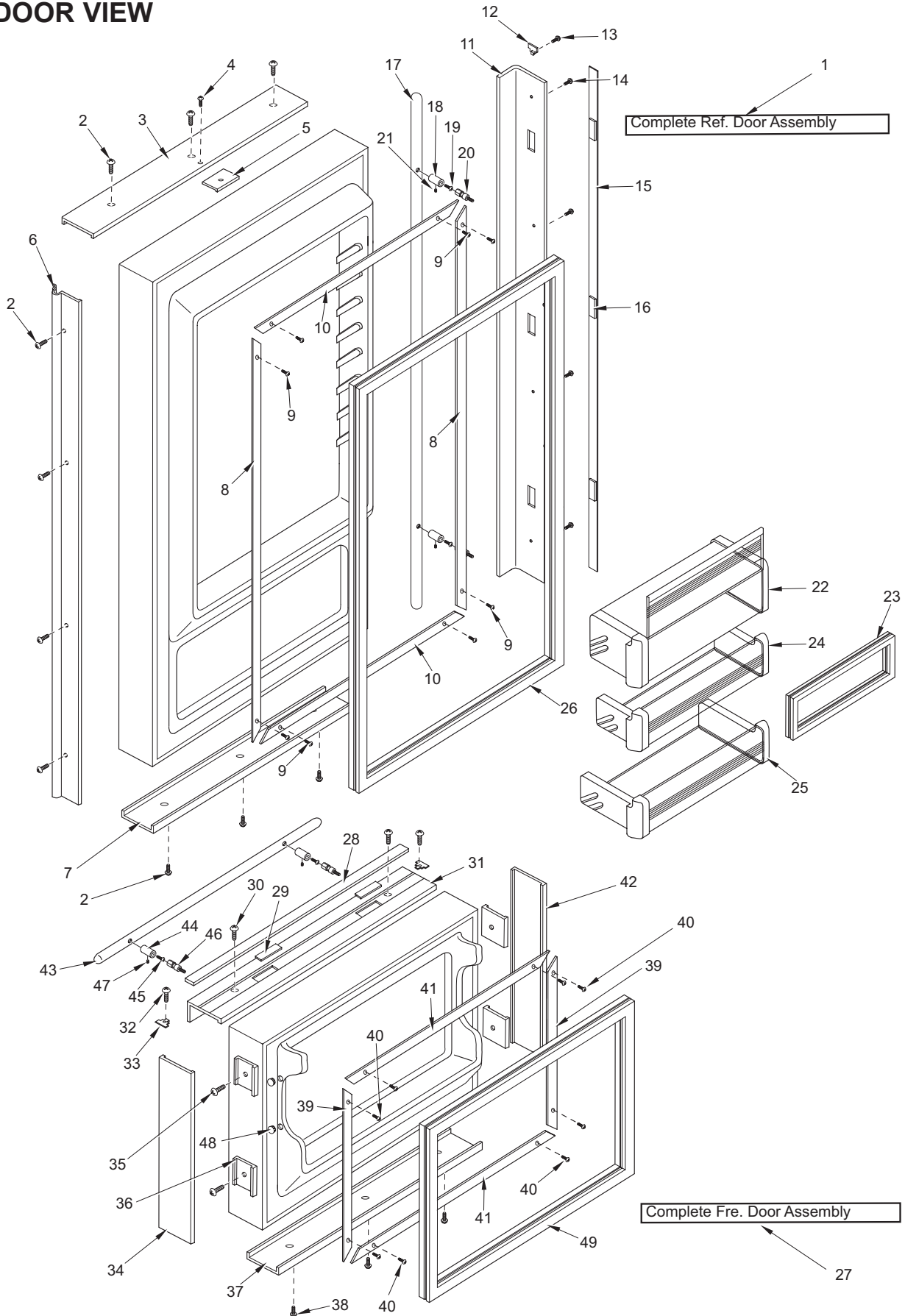
25 - Suction Line Drier
(Not Shown)



650 DOOR PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>	<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4132823	Refrig. Door Assy, Frame/Overlay - RH	25	4330530	Gallon Door Shelf Assy (Sales Acc.)
	4132824	Refrig. Door Assy Frame/Overlay - LH	26	3212130	Door Gasket, Refrigerator
	4133213	Refrig. Door Assy, SS - RH	27	4132015	Freezer Drawer Assy, Frame/Overlay (See SN Breaks)
	4133214	Refrig. Door Assy, SS - LH		4132795	Freezer Drawer Assy, Frame/Overlay (See SN Breaks)
2	6200720	Screw, #8-18 x 1/2 Ph Truss Hd		4132165	Fre Drawr Assy (SS) (See SN Breaks)
3	2230606	Refrig. Door Trim, Top - RH		4133215	Fre Drawr Assy (SS) (See SN Breaks)
	2230608	Refrig. Door Trim, Top - LH	28	4131880	Handle/Trim Molding Assy, Freezer
4	6200720	Screw, #8-18 x 1/2 Ph Truss Hd	29	3451000	Magnet, Trim Strip
5	4200940	Switch Depressor (Includes Screw)	30	6201300	Tapping Screw, #8 x 1/2
6	3511140	Door Trim, Hinge Side - (SS Model)	31	4132250	Drawer Handle Assy, Freezer (Framed)
	3511141	Door Trim, Hinge Side - Mitered Corner		4132350	Handle-Side Door Trim, Freezer (Overlay)
7	2230607	Refrig. Door Trim, Bottom - RH	32	6180160	Rivet, Open End Blind, 1/8 x 3/16
	2230609	Refrig. Door Trim, Bottom - LH	33	3413340	Handle/Trim End Cap
8	3420240	Gasket Retainer, Side Ref, 47.438	34	2230701	Fre Drawer Trim, Rt Side
9	6200410	Screw, #8 x 1/2 Slot Head Hex	35	6180040	Pop Rivet, 3/16 x 1/8 Grip
10	3420220	Gasket Retainer, 33.312"	36	3450460	Door Trim Clip
11	4132240	Door Handle Assy, Refrig. (Framed)	37	2230605	Freezer Drawer Trim, Bottom
	4132340	Handle-Side Door Trim, Ref. (Overlay)	38	6200720	Screw, #8-18 x 1/2 Ph Truss Hd
12	3413340	Handle/Trim End Cap	39	3420150	Gasket Retainer, 17.312
13	6180160	Rivet, Open End Blind, 1/8 x 3/16	40	6200410	Screw, #8 x 1/2 Slot Head Hex
14	6201300	Tapping Screw, #8 x 1/2	41	3420220	Gasket Retainer, 33.312"
15	4131870	Handle/Trim Molding Assy, Refrig.	42	2230702	Fre Drawer Trim, Lt Side
16	3451000	Magnet, Trim Strip - 3"	43	4132210	Handle Assy, Fre Drwr Rnd (Incl. Stand-offs) (See SN Breaks)
17	4132200	Handle Assy,Ref 44.125 Rnd (Incl. Stand-offs) (See SN Breaks)		4133470	Hdl Assy, Fre Drwr Blunt (Incl Stndoffs) (See SN Breaks)
	4133500	Hndl Assy,Ref 44.25 Blnt (Incl stndoffs) (See SN Breaks)		4133720	Handle Assy, Obr Standoff-Fre (See SN Breaks)
	4133700	Handle Assy, SS Obr Standoff (See SN Breaks)	44	3511320	Hndle Stand-Off 1" D (See SN Breaks)
18	3511320	Handle Stand-Off 1"D (See SN Breaks)		3512160	Stndoff,SS Oval, Drwr(See SN Breaks)
	3152150	Standoff, SS Oval (See SN Breaks)	45	6110540	Bolt, #10-24 x 1/2 Flat Socket HD
19	6110540	Bolt, #10-24 x 1/2 Flat Socket HD	46	3511520	Handle Mounting Stud
20	3511520	Handle Mounting Stud	47	6110730	Set Screw #10-32 x 1/4 SS Cone
21	6110730	Set Screw #10-32 x 1/4 SS Cone	48	3550230	White Plastic Plug, 3/4
22	4330490	Dairy Compartment Assy	49	3211110	Door Gasket, Fre. (See SN Breaks)
23	3211820	Dairy Compartment Gasket		3212120	Door Gasket, Fre. (See SN Breaks)
24	4330480	Refrig. Door Shelf Assy			

650 DOOR VIEW

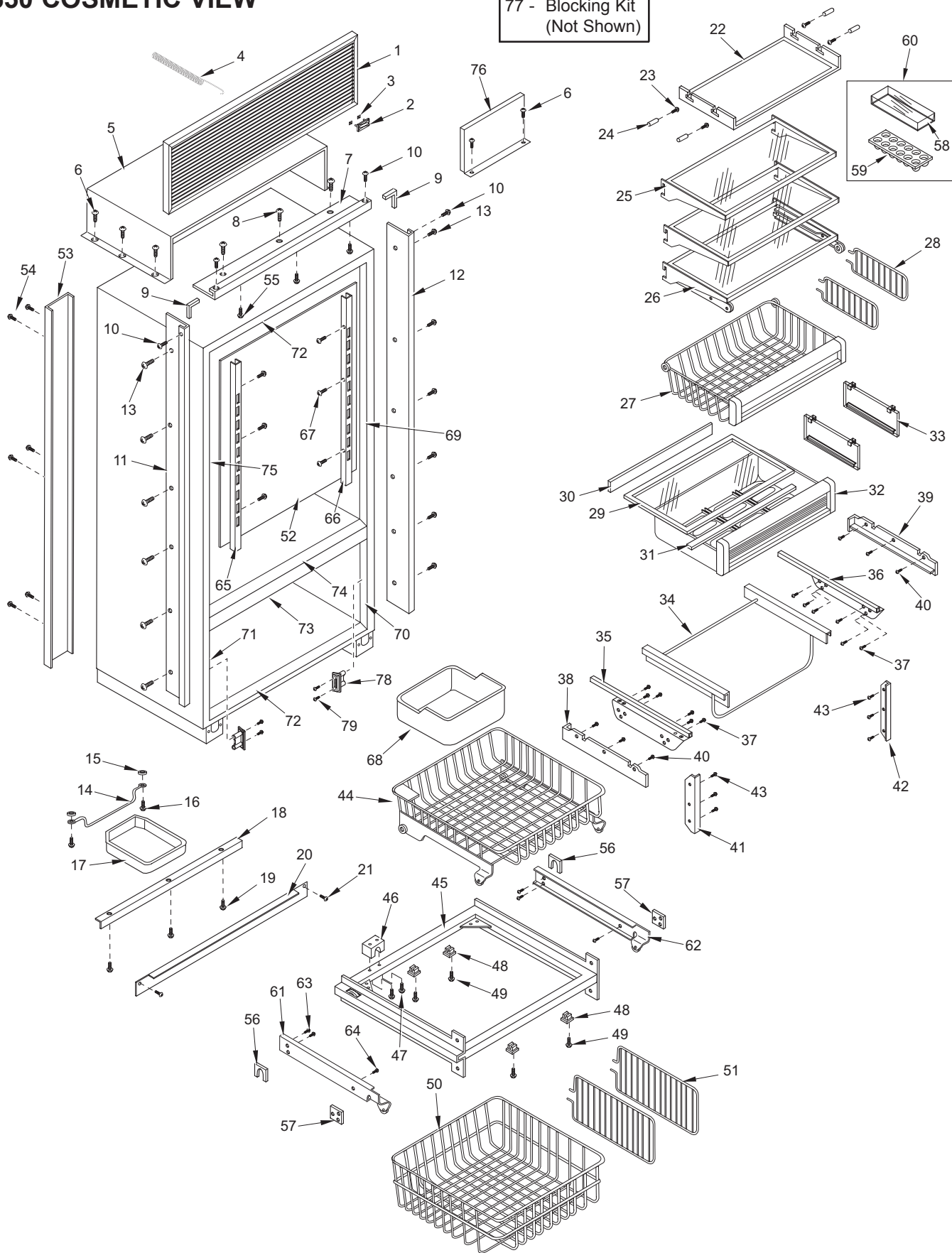


650 COSMETIC PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	6LG3611	Louvered Grille Assy, 36" x 11"	38	3421711	Top Crspr Glass Support, Narrow-RH
	6PG3611	Panel Grille Assy, 36" x 11"		3421722	Top Crisper glass Support, Wide-LH
	6SG3611	SS Grille 36" x 11" (See SN Breaks)	39	3421712	Top Crisper Glass Support, Narrow-LH
	6SG3611/S	SS Grille,36X11-CLSC (See SN Breaks)		3421721	Top Crisper Glass Support, Wide-RH
2	3580230	Nameplate w/ Pegs	40	6201130	Screw, #8x 1/2" PH FL HD SS
	3580210	Name Plate, Stick-on	41	3421741	Crisper Filler Strip, Narrow (if RH)
3	6150140	Spring Grip Nut, 1/8"		3421742	Crisper Filler Strip, Wide (if LH)
4	3450900	Grille spring	42	3421741	Crisper Filler Strip, Narrow (if LH)
5	4280940	Unit Shroud Assembly		3421742	Crisper Filler Strip, Wide (if RH)
6	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	43	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
7	2229621	Main Frame, Top - LH (See SN Breaks)	44	4181040	Upper Fre Basket Assy (See SN Breaks)
	2229635	Main Frame, Top - LH (See SN Breaks)		4181810	Upper Fre Basket Assy (See SN Breaks)
	2229622	Main Frame, Top - RH (See SN Breaks)	45	4181050	Drawer Slide Assy, Fre (See SN Breaks)
	2229634	Main Frame, Top - RH (See SN Breaks)		4181790	Drawer Slide Assy, Fre (See SN Breaks)
8	6200010	Screw, #10-12 x 3/4" Pan HD	46	3420950	Upper Freezer Basket Restraint
9	2210701	Main Frame Angle	47	6200340	Screw, #6-20 x 1/2" Pan Head
10	6200070	Screw, #4-24 x 3/8" Flat HD	48	6220110	Screw Grommet, 1/2" x 9/16"
11	2229608	Main Frame, Left - RH (See SN Breaks)	49	6200130	Screw, #8-18 x 3/4" Truss HD
	2229632	Main Frame, Left - RH (See SN Breaks)	50	3411180	Lower Freezer Basket (See SN Breaks)
	2229613	Main Frame, Left - LH (See SN Breaks)		3413690	Lower Freezer Basket (See SN Breaks)
	2229633	Main Frame, Left - LH (See SN Breaks)	51	3411310	Lower Fre Bskt Divider (See SN Breaks)
12	2229607	Main Frame, Right - LH (See SN Breaks)		3413700	Lower Fre Bskt Divider (See SN Breaks)
	2229631	Main Frame, Right - LH (See SN Breaks)	52	0201130	Refig Evap Cover
	2229610	Main Frame, Right - RH (See SN Breaks)	53	0168120	Back Duct (See SN Breaks)
	2229630	Main Frame, Right - RH (See SN Breaks)		0169600	Back Duct (See SN Breaks)
13	6200210	Screw, #8-32 x 1/2" Flat Head	54	6201060	Screw, #8x1-1/4" PH FLAT TAP
14	3420760	Drain Pan Holder	55	6201310	Screw, #8 x 1-3/4" Flat PH HD
15	3420670	Screw Spacer	56	0232310	Drawer Slide Shim, Rear
16	6201060	Screw, #8x1-1/4" PH FLAT TAP	57	0232300	Drawer Slide Shim, Front
17	0164940	Drain Pan	58	3412280	Egg Tray Cover
18	0169590	Kickplate Support	59	3412270	Egg Tray
19	6200010	Screw, #10-12 x 3/4" Pan HD	60	4131810	Egg Tray with Cover
20	0169520	Kickplate, Solid	61	4180681	Cab Slide Assy, Fre; RT(See SN Breaks)
	0167820	Kickplate, Stainless Steel		4181801	Cab Slide Assy, Fre; RT(See SN Breaks)
21	6200050	Screw, #10-12 x 1/2" Pan HD	62	4180682	Cab Slide Assy, Fre; LT(See SN Breaks)
22	4161870	Refrig. Light Diffuser Assembly		4181802	Cab Slide Assy, Fre; LT(See SN Breaks)
23	6201330	Screw, #8-18 x 5/8" PH PN SS-Gnd	63	6110330	Screw, #10-32 x 1/4" Chrome Plate
24	3520420	Insert / Diffuser Stand-off	64	6200590	Screw, #12 x 1" Type A Zinc Flat HD
25	3601901	Glass Shelf, Spill Proof	65	3601821	Refrig. shelf ladder, Right
26	4181620	Refrig. Roll-out Shelf Assy	66	3601822	Refrig. shelf ladder, Left
27	4181520	Refrig. Roll-out Basket Assy	67	6200710	Screw, #8-18 x 3/8" Fillister HD
28	3411160	Ref Roll-Out Bskt Divider	68	3411340	Ice Bucket
29	4151750	Crisper Glass Assembly (Incl. Seals)	69	2811212	Breaker Strip, Refr, RS (See SN Breaks)
30	3211760	Crisper Glass Seal, Rear	70	2811213	Breaker Strip, Fre, RS (See SN Breaks)
31	3211730	Crisper Glass Seal, Front	71	2811215	Breaker Strip, Fre, LS (See SN Breaks)
32	4181440	High Humidity Drawer Assembly	72	2811206	Brkr Strip, Ref Top/Fre Bottom (See SN Breaks)
33	3413100	Drawer Divider	73	2811501	Brkr Strip, Fre Mullion (See SN Breaks)
34	3421770	Humidity Drawer Slide-Frame	74	2811401	Brkr Strip, Ref Mullion (See SN Breaks)
35	4181412	Top Crisper Slide Assembly, Wide-LH	75	2811216	Breaker Strip, Ref, LS (See SN Breaks)
	4181421	Top Crisper Slide Assembly, Narrow-RH	76	4280950	Compressor Shroud Assembly
36	4181411	Top Crisper Slide Assembly, Wide-RH	77	4201320	Blocking Kit; 36" (Not Shown)
	4181422	Top Crisper Slide Assembly, Narrow-LH			
37	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd			

650 COSMETIC VIEW

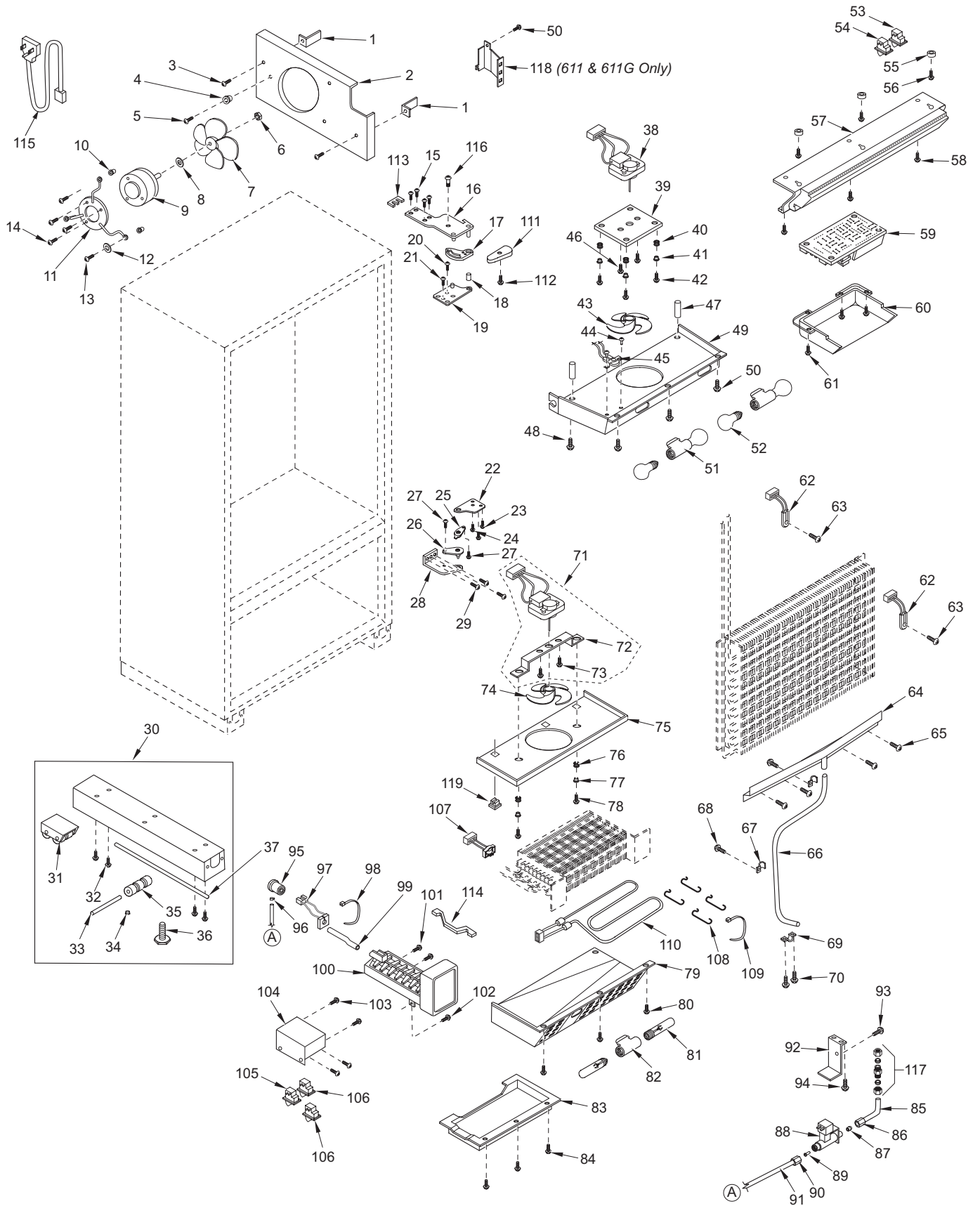
77 - Blocking Kit
(Not Shown)



650 MECHANICAL PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	3450290	Angle Bracket	61	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
2	0261200	Condenser Fan Shroud	62	3014350	Thermistor
3	6200010	Screw, #10-12 x 3/4" Pan HD	63	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
4	3420670	Screw Spacer	64	4190150	Drain Trough Assy (See SN Breaks)
5	6200450	Screw, #8 x 1" Type AR Flat		0260540	Drain Trough Assy (See SN Breaks)
6	6150410	Nut, 1/4-20	65	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
7	3150320	Fan Blade, Cond, 5 prop, 7"	66	1601400	Drain Tube, Wire - 1/2" x 72"
8	3210340	Neoprene Silencer, 7/8"	67	6120050	Tube Clamp, Plastic, 5/8"
9	4200740	Motor Pkg, Cond Fan (blade not incl.)	68	6200010	Screw, #10-12 x 3/4" Pan HD
10	6150330	Well Nut, .75D x .804", #10-32	69	6120210	U-Clamp, 5/8"
11	3150650	Condenser Fan Bracket	70	6200010	Screw, #10-12 x 3/4" Pan HD
12	6240350	Fender Washer, .25x1.25x.06	71	4200160	Freezer Fan Motor Pkg. (Blade not Incl.)
13	6201280	Machine Screw, #10-32 x 1-1/4"	72	0232280	Fan Bracket, Fre
14	6200490	Screw, #8-32 x 3/8" Slotted Hex T25	73	6110270	Bolt, #10-32 x 1/4" RD HD
15	6110070	Bolt, 1/4-20x3/4 Spinlock Zinc	74	3150640	Fan Blade, Evaporator
16	4151831	Upper Cabinet Hinge - RH	75	0233570	Fan Shroud, Fre Evap (See SN Breaks)
	4151832	Upper Cabinet Hinge - LH		4281510	Shroud Assy, Fre Evap (See SN Breaks)
17	3421800	Door Stop Cam	76	3220250	Grommet, 3/16" x 7/16" x 9/32"
18	3421790	Bearing, Top Door Hinge	77	3520120	Brass Insert, Fan Bracket
19	4151841	Hinge, Door Top - RH	78	6200670	Screw, #6-18 x 3/4" Teks
	4151842	Hinge, Door Top - LH	79	0232840	Evaporator Cover, Fre (See SN Breaks)
20	6110540	Bolt, #10-24 x 1/2" Flat Socket HD		0234290	Evaporator Cover, Fre (See SN Breaks)
21	6200390	Screw, #6 x 3/8" T25 Flat Head PH		0232860	Fre Evap. Cvr Lft Side (See SN Breaks)
22	0182381	Door Hinge, Bottom; RH		0234300	Fre Evap. Cvr Lft Side (See SN Breaks)
	0182382	Door Hinge, Bottom; LH	80	6200120	Screw, #10-12 x 1/2" Truss HD
23	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	81	3030040	Light Bulb, Long/Narrow; 40 watt
24	6200390	Screw, #6 x 3/8" T25 Flat Head PH	82	3050020	Light Sckt, 3/4 Double (See SN Breaks)
25	3420690	Bottom Door Hinge Cam		3050220	Sckt, Light Base Sngl (See SN Breaks)
26	3420681	Bottom Cabinet Hinge Cam, RH	83	4151860	Fre Air Duct Assy (See SN Breaks)
	3420682	Bottom Cabinet Hinge Cam, LH		0234310	Fre Air Duct Assy (See SN Breaks)
27	6110270	Bolt, #10-32 x 1/4" RD HD	84	6200120	Screw, #10-12 x 1/2" Truss HD
28	4151641	Cabinet Hinge, Bot-RH (See SN Breaks)	85	2600297	Tube, Copper L-Shaped
	4152011	Cabinet Hinge, Bot-RH (See SN Breaks)	86	3520380	Compression Nut
	4151642	Cabinet Hinge, Bot-LH (See SN Breaks)	87	3520370	Compression Sleeve
	4152012	Cabinet Hinge, Bot-LH (See SN Breaks)	88	4202790	Water Valve
29	6110010	Bolt, #10-24 x 1/2" Flat Head UC	89	3520050	Brass Insert, Solenoid
30	4110353	Base Assy (w/rollers)	90	3520030	Icemaker Nylon Nut, 1/4"
31	4110331	Base Rear Roller Assy	91	2600617	Plastic Water Line
32	6200010	Screw, #10-12 x 3/4" Pan HD	92	0168160	Solenoid Water Valve Bracket
33	3550560	Straight Pin, Base Assy, .312" x 2.88"	93	6200780	Screw, #10-24 x 1/2" PH Hex Washer
34	3450620	Canoe Clip	94	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
35	3421240	Cabinet Roller (Single)	95	1607700	Water Inlet Tube
36	3570050	Leveling Leg, #18-3/8 x 1"	96	6220470	Fill Tube Clamp
37	6110580	Adjusting Screw	97	3013820	Fill Tube Heater
38	4200170	Refrig. Fan Motor Pkg. (Blade not Incl.)	98	6120450	Locking Cable Tie 9.7" BLK
39	0211620	Refrigerator Fan Bracket	99	2605410	Water Inlet Tube Extension
40	3220250	Grommet, 3/16" x 7/16" x 9/32"		6220470	Fill Tube Clamp
41	3520410	Brass Insert, Fan	100	4200522	Icemaker Assembly
42	6110270	Bolt, #10-32 x 1/4" RD HD	101	6200120	Screw, #10-12 x 1/2" Truss HD
43	3150640	Fan blade, Ref/Fre Evap.	102	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
44	6180010	Pop Rivet, 1/8"	103	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
45	3082140	Light Terminator	104	0233820	Switch Housing, Freezer
46	6110270	Bolt, #10-32 x 1/4" RD HD	105	3060140	SPST Light Switch
47	6220540	Screw Grommet / Stand-off	106	3060130	SPST Fan/Icemaker Switch
48	6201010	Screw, #8-15 x 2" Pan Head	107	3082060	Defrost Terminator
49	4161330	Refrig. Fan Shroud Assy	108	1801100	Heater Clip
50	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	109	6120340	Aluminum Strap
51	3050180	Light Socket, Double (See SN Breaks)	110	4321760	Defrost Heater Assy (See SN Breaks)
	3050250	Sckt, Light M Base Dbl (See SN Breaks)		4324640	Defrost Heater Assy (See SN Breaks)
52	3030030	Light Bulb, 40 Watt	111	3541017	Top Cabinet Hinge Cover, RH
53	3060130	SPST Fan/Icemaker Switch		3541018	Top Cabinet Hinge Cover, LH
54	3060140	SPST Light Switch	112	6200140	Screw, #8-15 x 3/8" Truss HD
55	6160240	Nylon Spacer	113	0168680	Shim - Hinge
56	6200720	Screw, #8-18 x 1/2 PH Truss HD	114	3140400	Icemaker Rudder Arm
57	4160782	Control Panel Assy (See SN Breaks)	115	4321820	Power Cord
	4161342	Control Panel Assy (See SN Breaks)	116	3550770	90° Stop Pin
58	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	117	3520250	Water Inlet Fitting Assy
59	4202800	Control Board Pkg-Dual (See SN Breaks)	118	NA	
	4203520	Control Board Pkg (See SN Breaks)	119	6220220	Scrw Grmt, 1/32X3/8 SQ(See SN Breaks)
60	3412790	Control Board Encl. (See SN Breaks)			
	3413940	Control Board Encl. (See SN Breaks)			

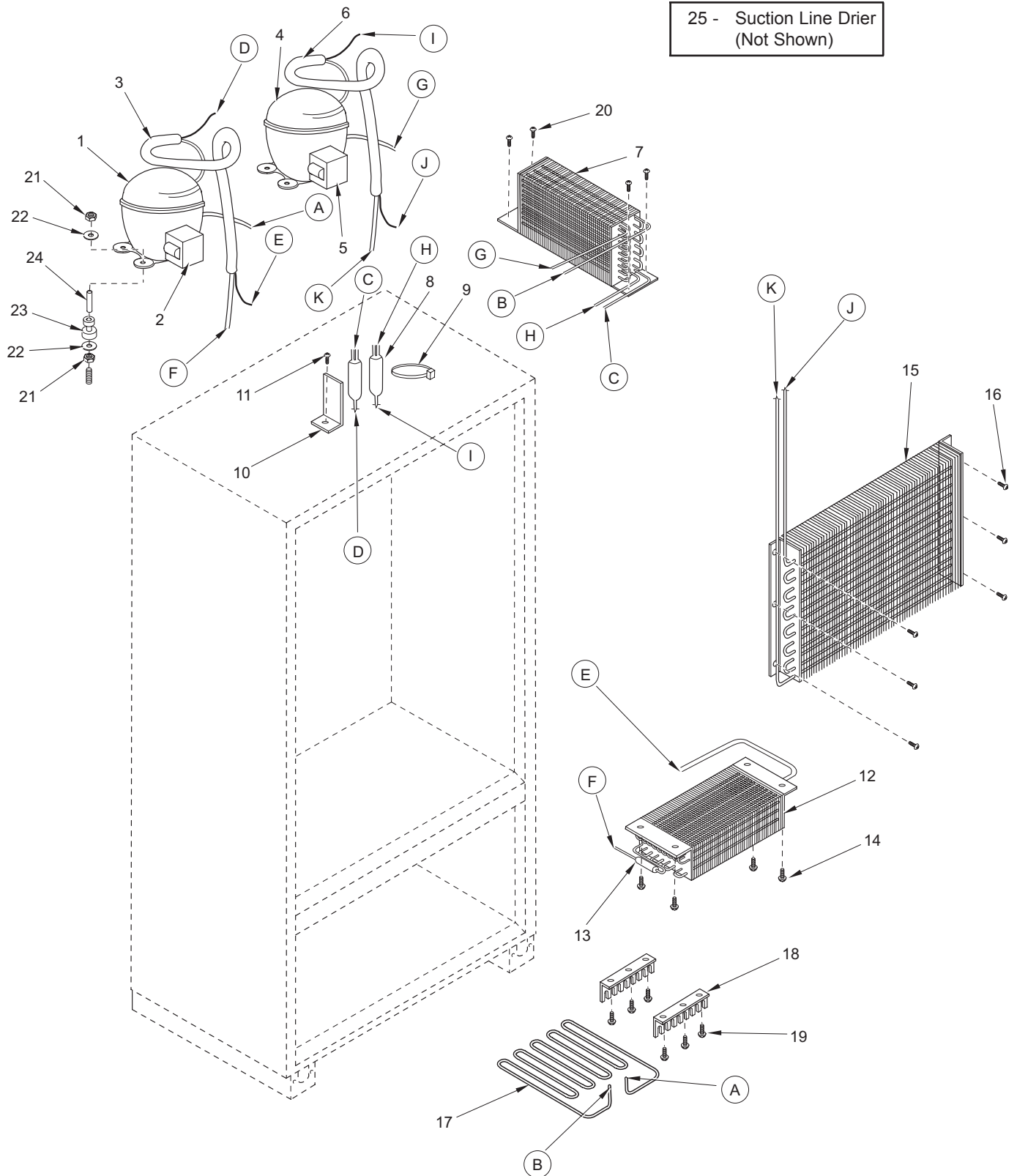
650 MECHANICAL VIEW



650 SEALED SYSTEM PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4202280	Compressor, (EMI60HER)
2	3111041	Relay, (PTH490) (Used with DA73 Compressor)
	3111460	Relay, (1351408) (Used with EMI60HER Compressor)
	3111430	Overload (4TM419MFB) (Used with DA73 Compressor)
	3111470	Overload, (4TM757NFB) (Used with EMI60HER Compressor)
	3111070	Capacitor (12Mf) (Used with DA73 Compressor)
3	4251270	Heat Exchanger, Freezer
4	4201880	Compressor, Refrig. (EMI30HER)
5	3111370	Relay, (1351400 - for EMI30HER)
	3111410	Overload, (4TM734LFB - for EMI30HER)
6	4251290	Heat Exchanger, Refrigerator
7	3120330	Condenser, Dual
8	3014230	Filter-Drier, High Side
9	6120170	Locking Cable Tie, Red, 11-1/2"
10	0168040	Drier Bracket
11	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
12	3130300	Evaporator Coil, Fre (See SN Breaks)
	3130580	Evaporator Coil, Fre (See SN Breaks)
13	3011130	Freezer Accumulator
14	6200120	Screw, #10-12 x 1/2" Truss HD
15	3130270	Evaporator, Refrig.
16	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
17	2600138	Drain Pan Heater Loop
18	3421410	Drain Pan Heater Loop Support
19	6200010	Screw, #10-12 x 3/4" Pan HD
20	6200010	Screw, #10-12 x 3/4" Pan HD
21	6150220	Nut, 5/16-18 Hex Zinc
22	6240050	Flat Washer, 5/16"
23	3150010	Rubber Grommet, Small, 5/8"
	3150170	Rubber Grommet, Large, 15/16"
24	6160030	Spacer, 5/16 x 7/16 x 5/8"
	6160070	Sleeve, 5/16 x 7/16 x 7/8"
25	3014100	Suction Line Drier (Service Only - Not Shown)

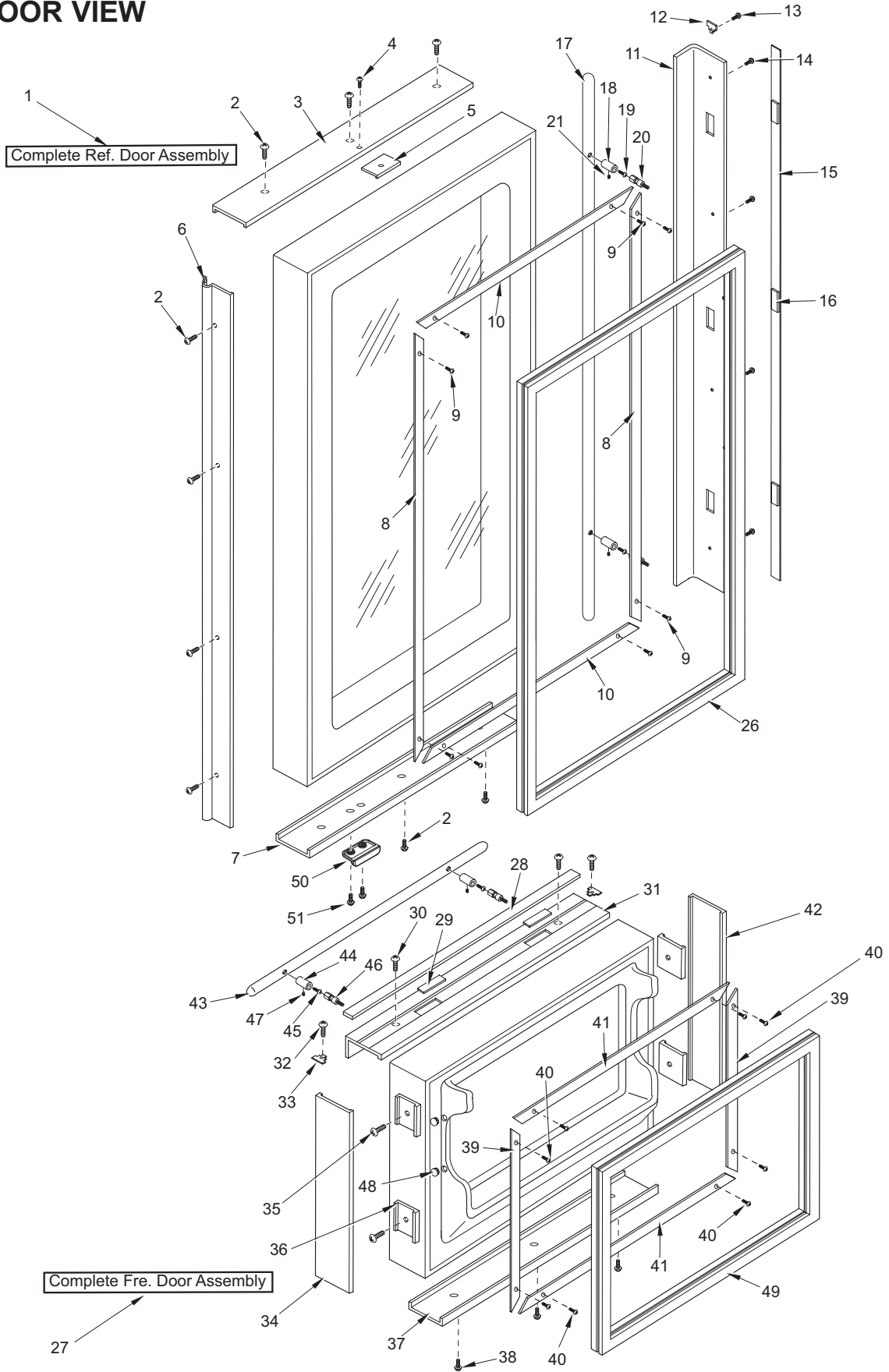
650 SEALED SYSTEM VIEW



650G DOOR PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>	<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4134685	Door Assy,Ref 650G Frmd/Overlay-RH	22	NA	
	4134686	Door Assy,Ref 650G Frmd/Overlay-LH	23	NA	
	4134687	Door Assy,Ref 650HAG Frmd/Olay-RH	24	NA	
	4134688	Door Assy,Ref 650HAG Frmd/Olay-LH	25	NA	
	4134695	Door Assy, Ref 650G SS-RH	26	3212160	Door Gasket, Refrigerator
	4134696	Door Assy, Ref 650G SS-LH	27	4132795	Freezer Drawer Assy, Frame/Overlay
	4134697	Door Assy, Ref 650HAG SS-RH		4133215	Freezer Drawer Assy (SS)
	4134698	Door Assy, Ref 650HAG SS-LH	28	4131880	Handle/Trim Molding Assy, Freezer
NOTE: Door Assy's incl. Wire Harness / Top Hng Assy.			29	3451000	Magnet, Trim Strip
2	6200720	Screw, #8-18 x 1/2 Ph Truss Hd	30	6201300	Tapping Screw, #8 x 1/2
3	2230606	Refrig. Door Trim, Top - RH	31	4132250	Drawer Handle Assy, Freezer (Framed)
	2230608	Refrig. Door Trim, Top - LH		4132350	Handle-Side Door Trim, Freezer (Overlay)
4	6200720	Screw, #8-18 x 1/2 Ph Truss Hd	32	6180160	Rivet, Open End Blind, 1/8 x 3/16
5	4200940	Switch Depressor (Includes Screw)	33	3413340	Handle/Trim End Cap
6	3511140	Door Trim, Hinge Side - (SS Model)	34	2230701	Fre Drawer Trim, Rt Side
	3511141	Door Trim, Hinge Side - Mitered Corner	35	6180040	Pop Rivet, 3/16 x 1/8 Grip
7	2230607	Refrig. Door Trim, Bottom - RH	36	3450460	Clip, Door Trim
	2230609	Refrig. Door Trim, Bottom - LH	37	2230614	Freezer Drawer Trim, Bottom
8	3420240	Gasket Retainer, Side Ref, 47.438	38	6200720	Screw, #8-18 x 1/2 Ph Truss Hd
9	6200410	Screw, #8 x 1/2 Slot Head Hex	39	3420150	Gasket Retainer, 17.312
10	3420220	Gasket Retainer, 33.312"	40	6200410	Screw, #8 x 1/2 Slot Head Hex
11	4132240	Door Handle Assy, Refrig. (Framed)	41	3420220	Gasket Retainer, 33.312"
	4132340	Handle-side Door Trim, Rfrig. (Overlay)	42	2230702	Fre Drawer Trim, Lt Side
12	3413340	Handle/Trim End Cap	43	3511990	Handle, Door SS 1 X 30.312
13	6180160	Rivet, Open End Blind, 1/8 x 3/16		4133720	Handle Assy, Obr Standoff - Fre
14	6201300	Tapping Screw, #8 x 1/2	44	3512160	Standoff, SS Oval
15	4131870	Handle/Trim Molding Assy, Refrig.	45	6110540	Bolt, #10-24 x 1/2 Flat Socket HD
16	3451000	Magnet, Trim Strip	46	3511520	Handle Mounting Stud
17	3511980	Handle, Door SS 1 X 44.250	47	6110730	Set Screw #10-32 x 1/4 SS Cone
	4133700	Handle Assy, SS Obr Standoff	48	3550230	White Plastic Plug, 3/4
18	3512150	Standoff, SS Oval	49	3212120	Door Gasket, Fre.
19	6110540	Bolt, #10-24 x 1/2 Flat Socket HD	50	3430100	Closer, Door-Door Side
20	3511520	Handle Mounting Stud	51	6110060	Bolt, #10-32 x 5/8", Truss Head
21	6110730	Set Screw #10-32 x 1/4 SS Cone			

650G DOOR VIEW



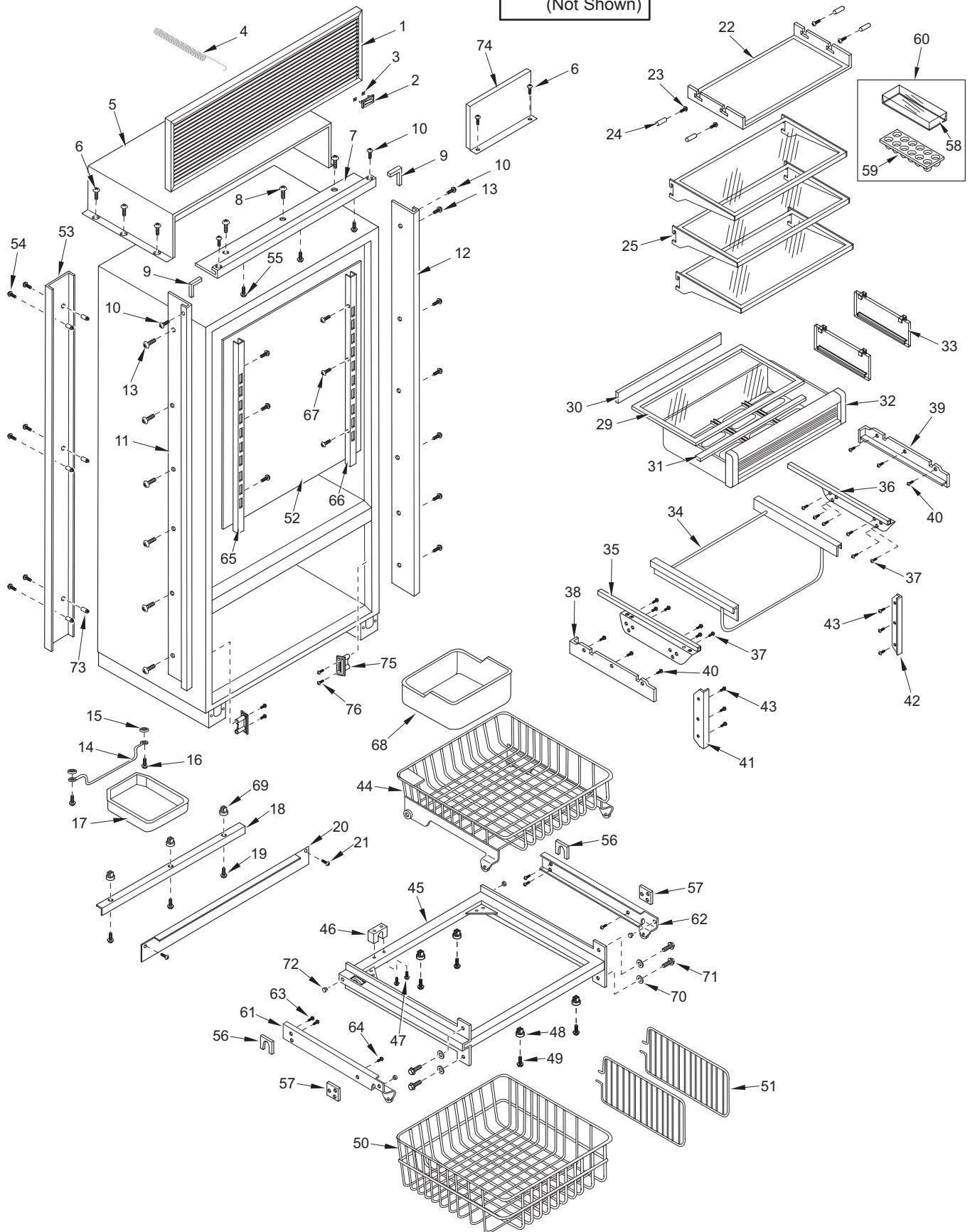
650G COSMETIC PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	6LG3611	Louvered Grille Assy, 36" x 11"	38	3421711	Top Crspr Glass Support, Narrow-RH
	6PG3611	Panel Grille Assy, 36" x 11"		3421722	Top Crisper glass Support, Wide-LH
	6SG3611	SS Grille 36" x 11" (See SN Breaks)	39	3421712	Top Crisper Glass Support, Narrow-LH
	6SG3611/S	SS Grille,36X11-CLSC (See SN Breaks)		3421721	Top Crisper Glass Support, Wide-RH
2	3580230	Nameplate w/ Pegs	40	6201130	Screw, #8x 1/2" PH FL HD SS
3	6150140	Spring Grip Nut, 1/8"	41	3421741	Crisper Filler Strip, Narrow (if RH)
4	3450900	Spring, Grille		3421742	Crisper Filler Strip, Wide (if LH)
5	4280940	Unit Shroud Assembly	42	3421741	Crisper Filler Strip, Narrow (if LH)
6	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd		3421742	Crisper Filler Strip, Wide (if RH)
7	2234009	Frame, Main Top 36 - RH	43	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
	2234010	Frame, Main Top 36 - LH	44	4181950	Upper Fre Basket Assy
8	6200010	Screw, #10-12 x 3/4" Pan HD	45	4181790	Drawer Slide Assy, Fre
9	2210701	Main Frame Angle	46	3420950	Upper Freezer Basket Restraint
10	6200070	Screw, #4-24 x 3/8" Flat HD	47	6200340	Screw, #6-20 x 1/2" Pan Head
11	2234013	Frame, Main Side Left - RH	48	6220110	Screw Grommet, 1/2" x 9/16"
	2234014	Frame, Main Side Left - LH	49	6200130	Screw, #8-18 x 3/4" Truss HD
12	2234011	Frame, Main Side Right - RH	50	3413690	Lower Freezer Basket
	2234012	Frame, Main Side Right - LH	51	3413700	Lower Fre Bskt Divider
13	6201550	Screw, #8-18 X 1/2 Low Profile	52	0201130	Refig Evap Cover
14	3420760	Drain Pan Holder	53	0169600	Back Duct
15	3420670	Screw Spacer	54	6201060	Screw, #8x1-1/4" PH FLAT TAP
16	6201060	Screw, #8x1-1/4" PH FLAT TAP	55	6201310	Screw, #8 x 1-3/4" Flat PH HD
17	0164940	Drain Pan	56	0232310	Drawer Slide Shim, Rear
18	0169590	Kickplate Support	57	0232300	Drawer Slide Shim, Front - .060"
19	6200010	Screw, #10-12 x 3/4" Pan HD		2121180	Shim, Freezer Drawer Front-.030"
20	0169520	Kickplate, Solid	58	3412280	Egg Tray Cover
	0167820	Kickplate, Stainless Steel	59	3412270	Egg Tray
21	6200050	Screw, #10-12 x 1/2" Pan HD	60	4131810	Egg Tray with Cover
22	4161870	Refrig. Light Diffuser Assembly	61	4181801	Cab Slide Assy, Fre; RT
23	6201330	Screw, #8-18 x 5/8" PH PN SS-Gnd	62	4181802	Cab Slide Assy, Fre; LT
24	3520420	Insert / Diffuser Stand-off	63	6110330	Screw, #10-32 x 1/4" Chrome Plate
25	3602330	Shelf, Glass Cantilever	64	6200590	Screw, #12 x 1" Type A Zinc Flat HD
26	NA		65	3601821	Refrig. shelf ladder, Right
27	NA		66	3601822	Refrig. shelf ladder, Left
28	NA		67	6200710	Screw, #8-18 x 3/8" Fillister HD
29	4151750	Crisper Glass Assembly (Incl. Seals)	68	3411340	Ice Bucket
30	3211760	Crisper Glass Seal, Rear	69	6220050	Screw Grommet, 1/2" x 5/8"
31	3211730	Crisper Glass Seal, Front	70	6240040	Flat Washer, 1/4"
32	4181440	High Humidity Drawer Assembly	71	6110450	Bolt, 1/4-20 x 1/2" Whiz Lock
33	3413100	Drawer Divider	72	3550300	Glide, Rear Drawer 1/2X1/4
34	3421770	Humidity Drawer Slide-Frame	73	6220430	Screw Grommet
35	4181412	Top Crisper Slide Assembly, Wide-LH	74	4280950	Compressor Shroud Assembly
	4181421	Top Crisper Slide Assembly, Narrow-RH	75	3421860	Grommet, Spprt Insul.
36	4181411	Top Crisper Slide Assembly, Wide-RH	76	6200010	Screw, #10-12 x 3/4" Pan HD
	4181422	Top Crisper Slide Assembly, Narrow-LH	77	4201320	Blocking Kit; 36" (Not Shown)
37	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd			



650G COSMETIC VIEW

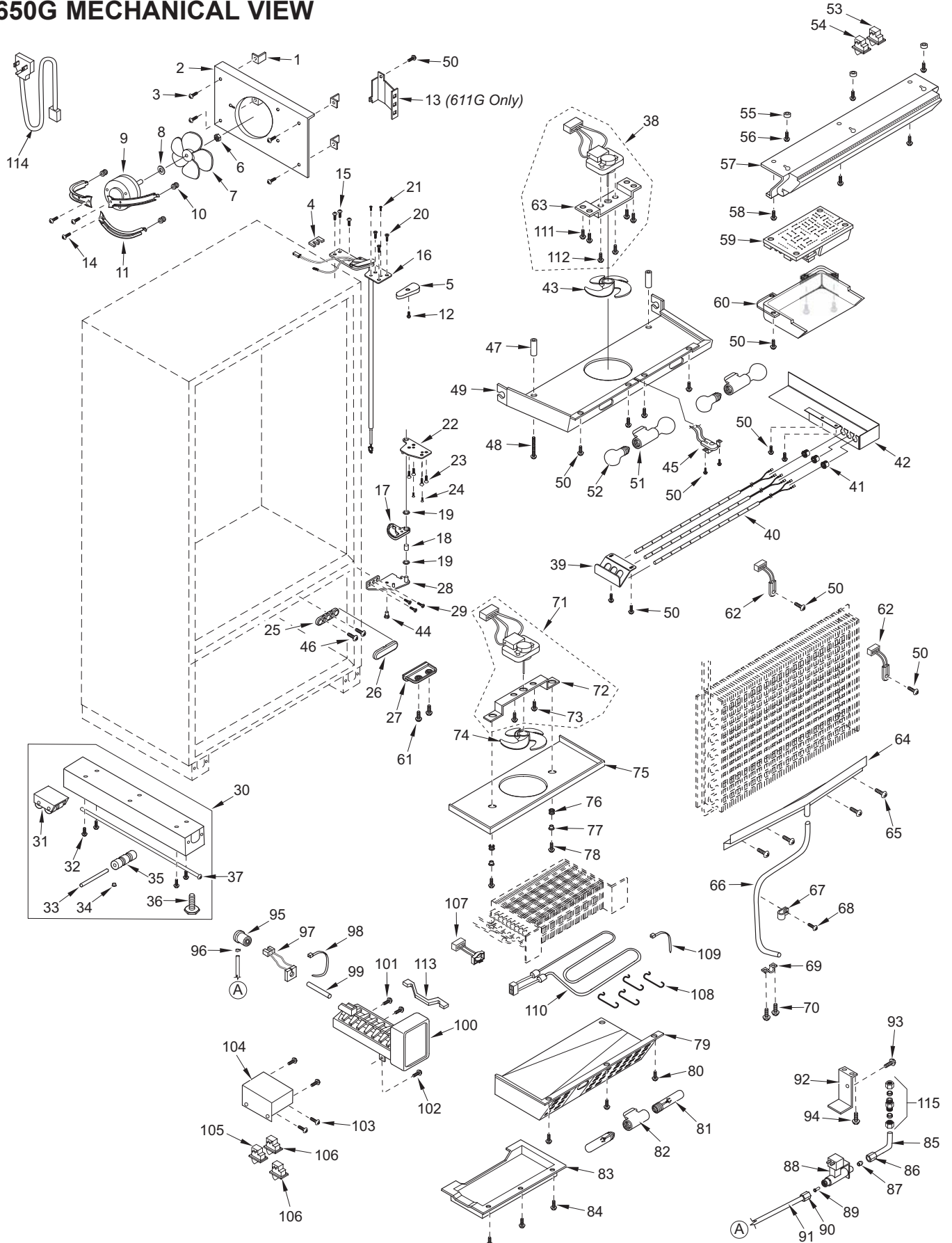
77 - Blocking Kit
(Not Shown)



650G MECHANICAL PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	3450290	Angle Bracket	57	4162692	Control Panel Assy, 650G Srvc
2	0261200	Shroud, Cond Fan	58	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
3	6200010	Screw, #10-12 x 3/4" Pan HD	59	4203790	Control Board Pkg
4	0168680	Shim - Hinge	60	3413940	Control Board Encl.
5	3541017	Top Cabinet Hinge Cover, RH	61	6110060	Bolt, #10-32 x 5/8", Truss Head
	3541018	Top Cabinet Hinge Cover, LH	62	3014350	Thermistor
6	6150410	Nut, 1/4-20	63	0212540	Bracket, Fan
7	3150320	Fan Blade, Cond, 5 prop, 7"	64	0260540	Drain Trough, Ref
8	3210340	Neoprene Silencer, 7/8"	65	6201540	Screw, #8- 15X1-1/4 PH PAN HD
9	4200740	Motor Pkg, Cond Fan (blade not incl.)	66	1601400	Drain Tube, Wire - 1/2" x 72"
10	3220360	Grommet, Mtg Brkt	67	6120050	Tube Clamp, Plastic, 5/8"
11	0261150	Bracket, Cond Mounting	68	6200120	Screw, #10-12 x 1/2" Truss HD
12	6200140	Screw, #8- 15 x 3/8" Truss HD	69	6120210	U-Clamp, 5/8"
13	NA		70	6200010	Screw, #10-12 x 3/4" Pan HD
14	6200490	Screw, #8-32 x 3/8" Slotted Hex T25	71	4200160	Freezer Fan Motor Pkg. (Blade not Incl.)
15	6110070	Bolt, 1/4-20x3/4 Spinlock Zinc	72	0232280	Fan Bracket, Fre
16	4325671	WH, Top Hinge Assy - RH	73	6110270	Bolt, #10-32 x 1/4" RD HD
	4325672	WH, Top Hinge Assy - LH	74	3150640	Fan Blade, Evaporator
17	3421800	Door Stop Cam	75	4281510	Shroud Assy, Fre Evap 650 Srvc
18	3421790	Bearing, Door Hinge	76	3220250	Grommet, 3/16" x 7/16" x 9/32"
19	3430120	Bushing, Door	77	3520120	Brass Insert, Fan Bracket
20	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	78	6200670	Screw, #6-18 x 3/4" Tek
21	6200390	Screw, #6 x 3/8" T25 Flat Head PH	79	0234290	Evaporator Cover, Fre
22	4151841	Hinge, Door Bottom LH		0234300	Fre Evap. Cvr Lft Side
	4151842	Hinge, Door Bottom RH	80	6200120	Screw, #10-12 x 1/2" Truss HD
23	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	81	3030040	Light Bulb, Long/Narrow; 40 watt
24	6200390	Screw, #6 x 3/8" T25 Flat Head PH	82	3050220	Socket, Light Int Base Sngl
25	3430110	Closer, Door-Cabinet Side	83	0234310	Fre Air Duct Assy
26	3430140	Cover, Door Closer	84	6200120	Screw, #10-12 x 1/2" Truss HD
27	3430100	Closer, Door-Door Side	85	2600297	Tube, Copper L-Shaped
28	4152081	Cabinet Hinge, Bot - RH	86	3520380	Compression Nut
	4152082	Cabinet Hinge, Bot - LH	87	3520370	Compression Sleeve
29	6110810	Screw, Machine #10-24X3/4 PH FT HD	88	4202790	Water Valve
30	4110353	Base Assy (w/rollers)	89	3520050	Brass Insert, Solenoid
31	4110331	Base Rear Roller Assy	90	3520030	Icemaker Nylon Nut, 1/4"
32	6200010	Screw, #10-12 x 3/4" Pan HD	91	2600617	Plastic Water Line
33	3550560	Straight Pin, Base Assy, .312" x 2.88"	92	0168160	Solenoid Water Valve Bracket
34	3450620	Canoe Clip	93	6200780	Screw, #10-24 x 1/2" PH Hex Washer
35	3421240	Cabinet Roller (Single)	94	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
36	3570050	Leveling Leg, #18-3/8 x 1"	95	1607700	Water Inlet Tube
37	6110580	Adjusting Screw	96	6220470	Fill Tube Clamp
38	4200170	Refrig. Fan Motor Pkg. (Blade not Incl.)	97	3070210	Heater, Fill Tube
39	0261330	Bracket, Light	98	6120450	Locking Cable Tie 9.7" BLK
40	3030150	Light Strip, 15 WATT	99	2605410	Water Inlet Tube Extension
41	3220810	Grommet, Open/Closed 1/2	100	4200522	Icemaker Assembly
42	0212740	Box, Light Display	101	6200120	Screw, #10-12 x 1/2" Truss HD
43	3150640	Fan blade, Ref/Fre Evap.	102	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
44	3550770	90° Stop Pin	103	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
45	3082140	Light Terminator	104	0233820	Switch Housing, Freezer
46	6201590	Screw, #8-32X1/2 Taplite Pn Trx	105	3060140	SPST Light Switch
47	6220540	Screw Grommet / Stand-off	106	3060130	SPST Fan/Icemaker Switch
48	6201010	Screw, #8-15 x 2" Pan Head	107	3082060	Defrost Terminator
49	4162660	Shroud Assy, Ref Fan	108	1801100	Heater Clip
50	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	109	6120340	Aluminum Strap
51	3050250	Socket, Light Med Base Double	110	4324640	Defrost Heater Assy
52	3030030	Light Bulb, 40 Watt	111	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
53	3060130	SPST Fan/Icemaker Switch	112	6110270	Bolt, #10-32 X 1/4 Rd Hd
54	3060140	SPST Light Switch	113	3140400	Icemaker Rudder Arm
55	6160240	Nylon Spacer	114	4321820	Power Cord
56	6200720	Screw, #8-18 x 1/2 PH Truss HD	115	3520250	Water Inlet Fitting Assy

650G MECHANICAL VIEW

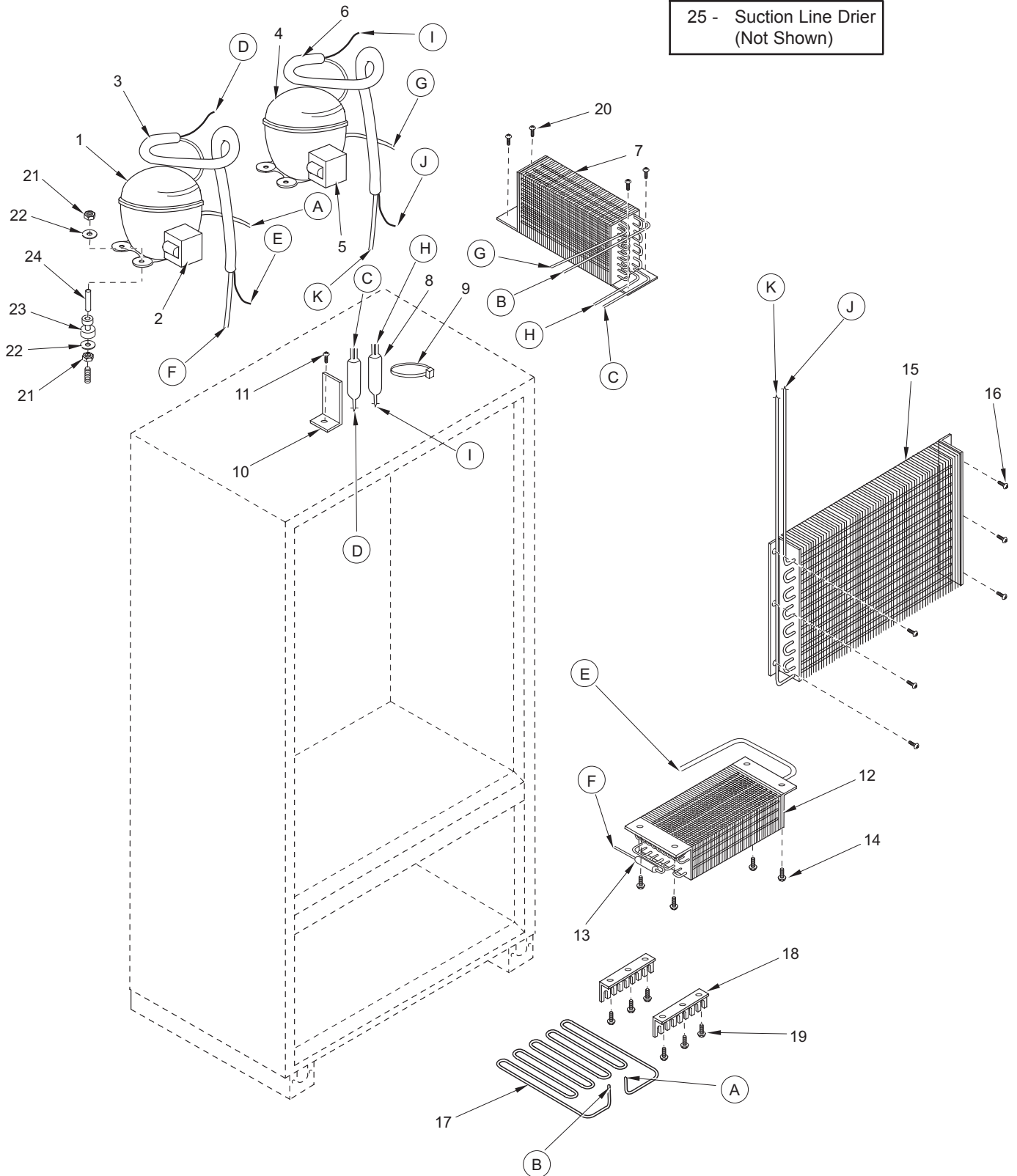


650G SEALED SYSTEM PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4202280	Compressor, (EMI60HER) (See SN Breaks)
2	3111460	Relay, (1351408 - for EMI60HER)
	3111470	Overload, (4TM757NFB - for EMI60HER)
3	4251270	Heat Exchanger, Freezer
4	4201880	Compressor, Refrig. (EMI30HER)
5	3111370	Relay, (1351400 - for EMI30HER)
	3111410	Overload, (4TM734LFB - for EMI30HER)
6	4251560	Heat Exchanger, Refrigerator
7	3120330	Condenser, Dual
8	3014230	Filter-Drier, High Side
9	6120170	Locking Cable Tie, Red, 11-1/2"
10	0168040	Drier Bracket
11	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
12	3130580	Evaporator Coil, Fre
13	3011130	Freezer Accumulator
14	6200120	Screw, #10-12 x 1/2" Truss HD
15	3130630	Evaporator, Ref
16	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
17	2600138	Drain Pan Heater Loop
18	3421410	Drain Pan Heater Loop Support
19	6200010	Screw, #10-12 x 3/4" Pan HD
20	6200010	Screw, #10-12 x 3/4" Pan HD
21	6150220	Nut, 5/16-18 Hex Zinc
22	6240050	Flat Washer, 5/16"
23	3150010	Rubber Grommet, Small, 5/8"
	3150170	Rubber Grommet, Large, 15/16"
24	6160030	Spacer, 5/16 x 7/16 x 5/8"
	6160070	Sleeve, 5/16 x 7/16 x 7/8"
25	3014100	Suction Line Drier (Service Only - Not Shown)

650G SEALED SYSTEM VIEW

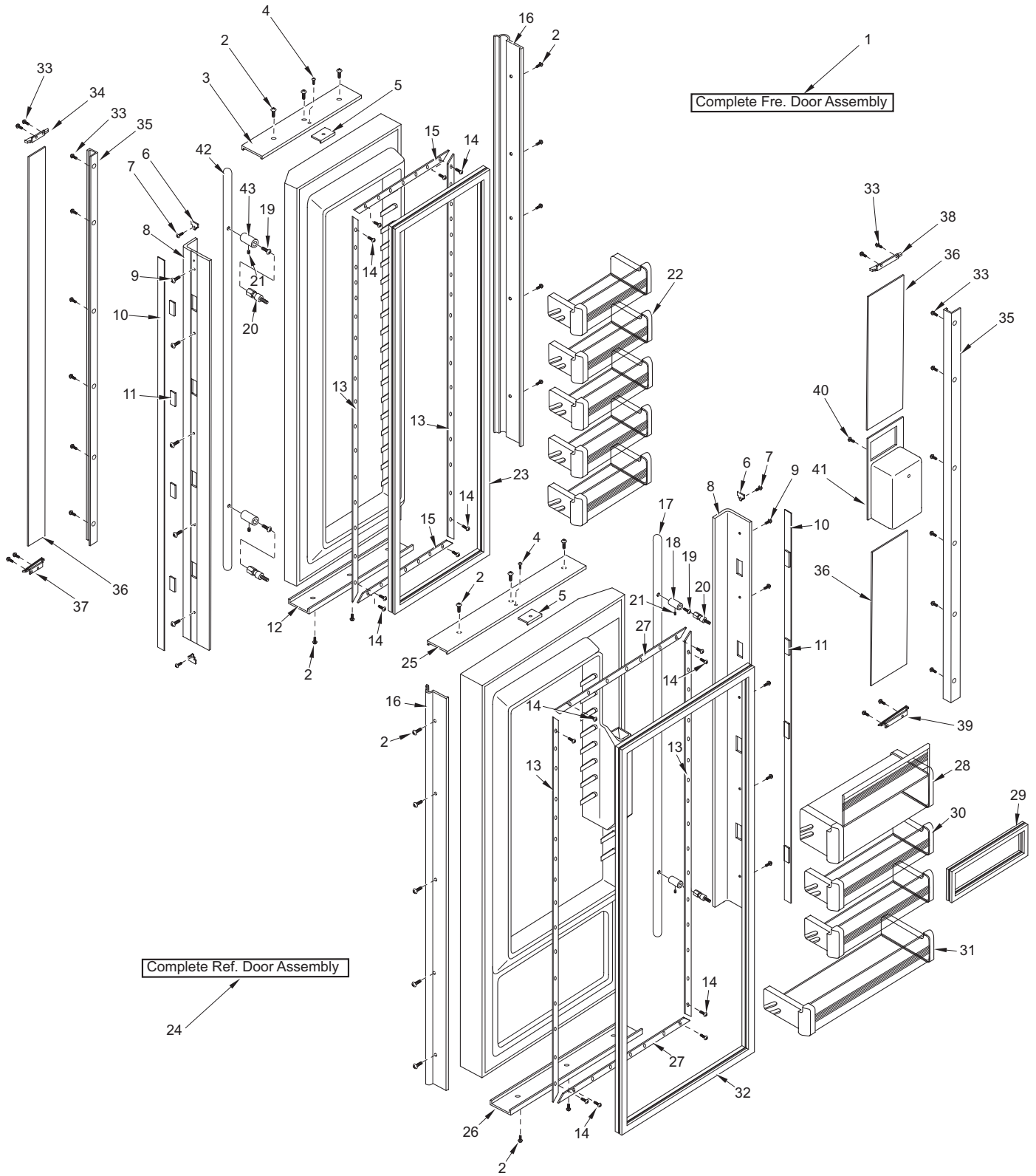
25 - Suction Line Drier
(Not Shown)



680 DOOR PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	4132675	Fre Door Assy-Framd(See SN Breaks)	28	4330620	Dairy Compartment Assembly
	4132925	Fre Door Assy-Framd(See SN Breaks)	29	3211910	Dairy Compartment Gasket
	4132695	Fre Door Assy - SS (See SN Breaks)	30	4330630	Upper Refrig. Door Shelf Assembly
	4133275	Fre Door Assy - SS (See SN Breaks)	31	4330550	Refrig. Door Shelf Assembly (Regular)
2	6200720	Screw, #8-18 x 1/2 PH Truss HD		4330540	Gallon Door Shelf Assy (Sales Acc.)
3	2230617	Door Trim, Top; Freezer	32	3212180	Door Gasket, Refrigerator
4	6200720	Screw, #8-18 x 1/2 PH Truss HD	33	6200840	Screw, #10 x 1/2" PH FH AB SS
5	4200940	Switch Depressor (Includes Screw)	34	3413451	Top Trim Filler, Freezer Door
6	3413340	Handle/Trim End Cap	35	3511470	Vertical Trim Strip
7	6180160	Rivet, Open End Blind, 1/8" X 3/16"	36	P1/P2	Hndl Insrt-Brt White / Almond Buff
8	4132650	Door Handle Assy, 67.88"		P3/P4	Handle Insert-Camel/Adobe
9	6201300	Tapping Screw, #8 x 1/2"		P5	Handle Insert-Brushed Pewter
10	4131860	Handle/Trim Molding Assembly		P6/P7	Hndl Insrt-Smoke Gray / Charcoal
11	3451000	Magnet, Trim Strip - 3"		P8/P9	Hndl Insrt-Port Brown / Black Slate
12	2230618	Door Trim, Bottom; Freezer		P10	Handle Insert-Stainless Steel
13	3420260	Gasket Retainer, 66.875"		P11	Handle Insert-White Enamel
14	6200410	Screw, #8 x 1/2" Slot Head Hex		P12	Handle Insert-Avocado Enamel
15	3421610	Gasket Retainer, 13.813"		P13	Handle Insert-Harvest Gold Enamel
16	3511131	Door Trim, Hinge Side - Mitered Corner		P14	Handle Insert-Almond Enamel
	3511130	Door Trim, Hinge Side - (SS Model)		P15	Handle Insert-Coffee Enamel
17	4132630	Handle Assy, SS 7/8"D X 43"L-Ref (Incl Stnd-off) (See SN Breaks)	37	3413452	Bottom Trim Filler, Freezer Door
	4133100	Handle Assy, SS 1"D Rnd-Ref (Incl Stnd-off) (See SN Breaks)	38	3413441	Top Trim Filler, Refrig. Door
	4133650	Handle Assy, SS 1"D Blnt-Ref (Incl Stnd-off) (See SN Breaks)	39	3413442	Bottom Trim Filler, Refrig. Door
	4133740	Handle Assy, SS OBR Standoff-Ref (See SN Breaks)	40	6200900	Screw, #8 x 1/2" PH FH Hi-Lo
18	3511490	Refrig Hndl Stand-off, 7/8"D / 3.5 Deg. (See SN Breaks)	41	G1	Glass Well-Bright White
	3511850	Refrig Hndl Stand-off, 1"D / 3.5 Deg. (See SN Breaks)		G2	Glass Well-Almond Buff
	3512170	Standoff, SS Oval, Ref 4 Deg. (See SN Breaks)		G3	Glass Well-Camel
19	6110720	Bolt #10-24X1/2 Socket HD Cap		G4	Glass Well-Adobe
20	3511520	Handle Mounting Stud		G5	Glass Well-Brushed Pewter
21	6110730	Set Screw #10-32 X 1/4 SS Cone		G6	Glass Well-Smoke Gray
22	4330580	Fre Door Shelf Assy (See SN Breaks)		G7	Glass Well-Charcoal
	4330650	Fre Door Shelf Assy (See SN Breaks)		G8	Glass Well-Port Brown
23	3211670	Door Gasket, Fre (See SN Breaks)		G9	Glass Well-Black Slate
	3212190	Door Gasket, Fre (See SN Breaks)		3413410	Glass Well-Stnls Steel (SS Model Only)
24	4132665	Ref Door Assy-Framd(See SN Breaks)	42	4132640	Handle Assy, SS 7/8"D-Fre (Incl Stnd-off) (See SN Breaks)
	4132915	Ref Door Assy-Framd(See SN Breaks)		4133110	Hndl Assy, SS 1"D Rnd-Fre (Incl Stnd-offs) (See SN Breaks)
	4132685	Ref Door Assy - SS (See SN Breaks)		4133660	Hndl Assy, SS 1"D Blnt-Fre (Incl Stnd-offs) (See SN Breaks)
	4133265	Ref Door Assy - SS (See SN Breaks)		4133750	Handle Assy, SS OBR Standoff-Fre (See SN Breaks)
25	2230615	Door Trim, Top; Refrigerator	43	3511480	Fre. Handle Stand-off, 7/8"D / 10 Deg. (See SN Breaks)
26	2230616	Door Trim, Bottom; Refrigerator		3511860	Fre. Handle Stand-off, 1"D / 10 Deg. (See SN Breaks)
27	3421620	Gasket Retainer, 23.125"		3152180	Standoff, SS Oval, Fre 10 Deg. (See SN Breaks)

680 DOOR VIEW

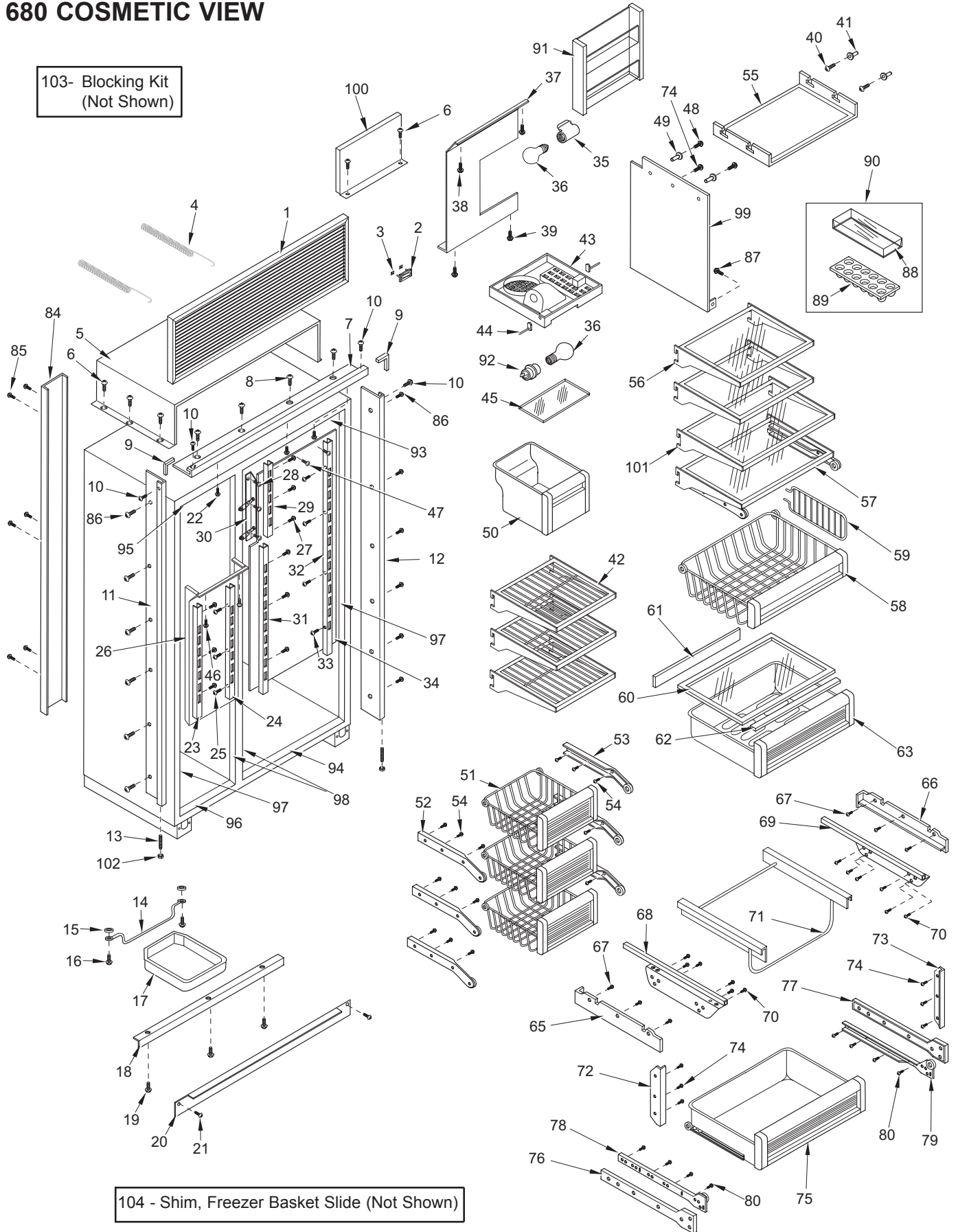


680 COSMETIC PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	6LG4211	Louvered Grille Assembly, 42" x 11"	50	4181690	Ice Bucket Assy
	6PG4211	Panel Grille Assembly, 42" x 11"	51	4181640	Freezer Basket Assy (See SN Breaks)
	6SG4211	SS Grille Assy, 42 x 11 (See SN Breaks)		4181970	Freezer Basket Assy (See SN Breaks)
	6SG4211/S	SS Grille,42X11-CLSC (See SN Breaks)	52	4180972	Fre Bskt Slide Assy-LH (See SN Breaks)
2	3580230	Nameplate w/ Pegs		4181842	Fre Bskt Slide Assy-LH (See SN Breaks)
	3580210	Name Plate, Stick-on	53	4180971	Fre Bskt Slide Assy-RH (See SN Breaks)
3	6150140	Spring Grip Nut, 1/8"		4181841	Fre Bskt Slide Assy-RH (See SN Breaks)
4	3450900	Grille Spring	54	6200450	Screw, #8 x 1" Type AR Flat
5	4281000	Unit Shroud Assembly	55	4161490	Refrig. Light Diffuser Assembly
6	6200230	Screw, #8-18 x 1/2" Hex Head	56	3602100	Glass Shelf, Refrig Upper, Spill Proof
7	2229708	Main Frame, Top	57	4181650	Refrig. Roll-out Shelf Assy
8	6200010	Screw, #10-12 x 3/4" Pan HD	58	4181530	Refrig. Roll-out Basket Assy
9	2210701	Main Frame Angle	59	3411160	Ref Roll-Out Bskt Divider
10	6200070	Screw, #4-24 x 3/8" Flat HD	60	4151760	Crisper Glass Assembly (Incl Seals)
11	4120590	Main Frame Assy, Left (See SN Breaks)	61	3211780	Crisper Glass Seal, Rear
	4120830	Main Frame Assy, Left (See SN Breaks)	62	3211750	Crisper Glass Seal, Front
12	4120580	Main Frame Assy,Right (See SN Breaks)	63	4181450	High Humidity Drawer Assembly
	4120820	Main Frame Assy,Right (See SN Breaks)	64	N/A	
13	3550190	Bottom Hinge Stud	65	3421711	Top Crspr Glass Support, Narrow-RH
14	3420760	Drain Pan Holder	66	3421721	Top Crisper glass Support, Wide-RH
15	3420670	Screw Spacer	67	6201130	Screw, #8x 1/2" PH FL HD SS
16	6201060	Screw, #8x1-1/4" PH FLAT TAP	68	4181421	Top Crisper Slide Assy, Narrow-RH
17	0164940	Drain Pan	69	4181411	Top Crisper Slide Assembly, Wide-RH
18	0169840	Kickplate Support	70	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
19	6200010	Screw, #10-12 x 3/4" Pan HD	71	3421780	Humidity Drawer Slide-Frame
20	0169820	Kickplate, Black-Solid	72	3421732	Crisper Filler Strip, Wide
	0168210	Kickplate, Stainless Steel	73	3421731	Crisper Filler Strip, Narrow
21	6200050	Screw, #10-12 x 1/2" Pan HD	74	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
	6200720	Screw, #8-18 x 1/2 PH Truss HD	75	4181480	Small Storage Drawer Assembly
22	6201310	Screw, #8 x 1-3/4" Flat PH HD	76	3421691	Bott Crisper Slide Support, Narrow
23	3602072	Fre Shelf Ladder, Left (See SN Breaks)	77	3421692	Bott Crisper Slide Support, Wide
	3602230	Fre Shelf Ladder, Left (See SN Breaks)	78	3413112	Bot Crisper Slide, Cabinet - Left
24	3602071	Fre Shelf Ladder, Right (See SN Breaks)	79	3413111	Bot Crisper Slide, Cabinet - Right
	3602220	Fre Shelf Ladder, Right (See SN Breaks)	80	6201230	Screw, #8 x 7/8" w/a #7 PH FT Head
25	6200710	Screw, #8-18 x 3/8" Fillister HD	81	N/A	
26	0200910	Freezer Duct (See SN Breaks)	82	N/A	
	0201150	Freezer Duct (See SN Breaks)	83	N/A	
27	6200710	Screw, #8-18 x 3/8" Fillister HD	84	0168120	Back Duct (See SN Breaks)
28	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd		0169600	Back Duct (See SN Breaks)
29	4151410	Refrig. Upper Left Shelf Ladder Assy	85	6201060	Screw, #8x1-1/4" PH FLAT TAP
30	4151400	Tank Cover Bracket Assembly	86	6200210	Screw, #8-32 x 1/2" Flat Head
31	3602060	Refrig. Shelf Ladder, Lower Left	87	6200140	Screw, #8-15 x 3/8" Truss HD
32	3601811	Refrig. Shelf Ladder, Right	88	3412280	Egg Tray Cover
33	6200710	Screw, #8-18 x 3/8" Fillister HD	89	3412270	Egg Tray
34	0201140	Refrigerator Evaporator Cover	90	4131810	Egg Tray with Cover
35	3050190	Light Socket, Single	91	4181680	Juice Can Rack Assy (See SN Breaks)
36	3030030	Light Bulb, 40 Watt		4181860	Juice Can Rack Assy (See SN Breaks)
37	4161120	Light Assy, Fre Evap Frnt(See SN Breaks)	92	3050170	Light Socket, Single; Straight
	4161500	Light Assy, Fre Evap Frnt(See SN Breaks)	93	2811217	Breaker Strip, Ref Top (See SN Breaks)
38	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	94	2811218	Breaker Strip, Ref Bot (See SN Breaks)
39	6200140	Screw, #8-15 x 3/8" Truss HD	95	2811219	Breaker Strip, Fre Top (See SN Breaks)
40	6201330	Screw, #8-18 x 5/8" PH PN SS-Gnd	96	2811220	Breaker Strip, Fre Bot (See SN Breaks)
41	3520420	Insert / Diffuser Stand-off		4203920	Patch, Fre Face Frm Sill(See SN Breaks)
42	3601980	Freezer Wire Shelf (See SN Breaks)	97	2811205	Brkr Strip; Fre/LS, Ref/RS(See SN Breaks)
	3602210	Freezer Wire Shelf (See SN Breaks)	98	1811300	Breaker Strip, Mullion (See SN Breaks)
43	4151910	Cover Assy, Lwr Evap (See SN Breaks)	99	0212420	Water Reservoir Tank Cover
	4151970	Cover Assy, Lwr Evap (See SN Breaks)	100	4280950	Compsr. Shroud Assy (See SN Breaks)
44	3550620	Snap Pin	101	3602041	Glass Shelf, Spill Proof
45	3500620	Freezer Lower Light Diffuser	102	6150200	Nut, 1/4-20 Hex
46	6200140	Screw, #8-15 x 3/8" Truss HD	103	4202860	Blocking Components; 42"
47	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	104	3411890	Shim, Fre Basket Slide (See SN Breaks)
48	6201330	Screw, #8-18 x 5/8" PH PN SS-Gnd		2121120	Shim, Fre Basket Slide (See SN Breaks)
49	3520420	Insert / Diffuser Stand-off			

680 COSMETIC VIEW

103- Blocking Kit
(Not Shown)



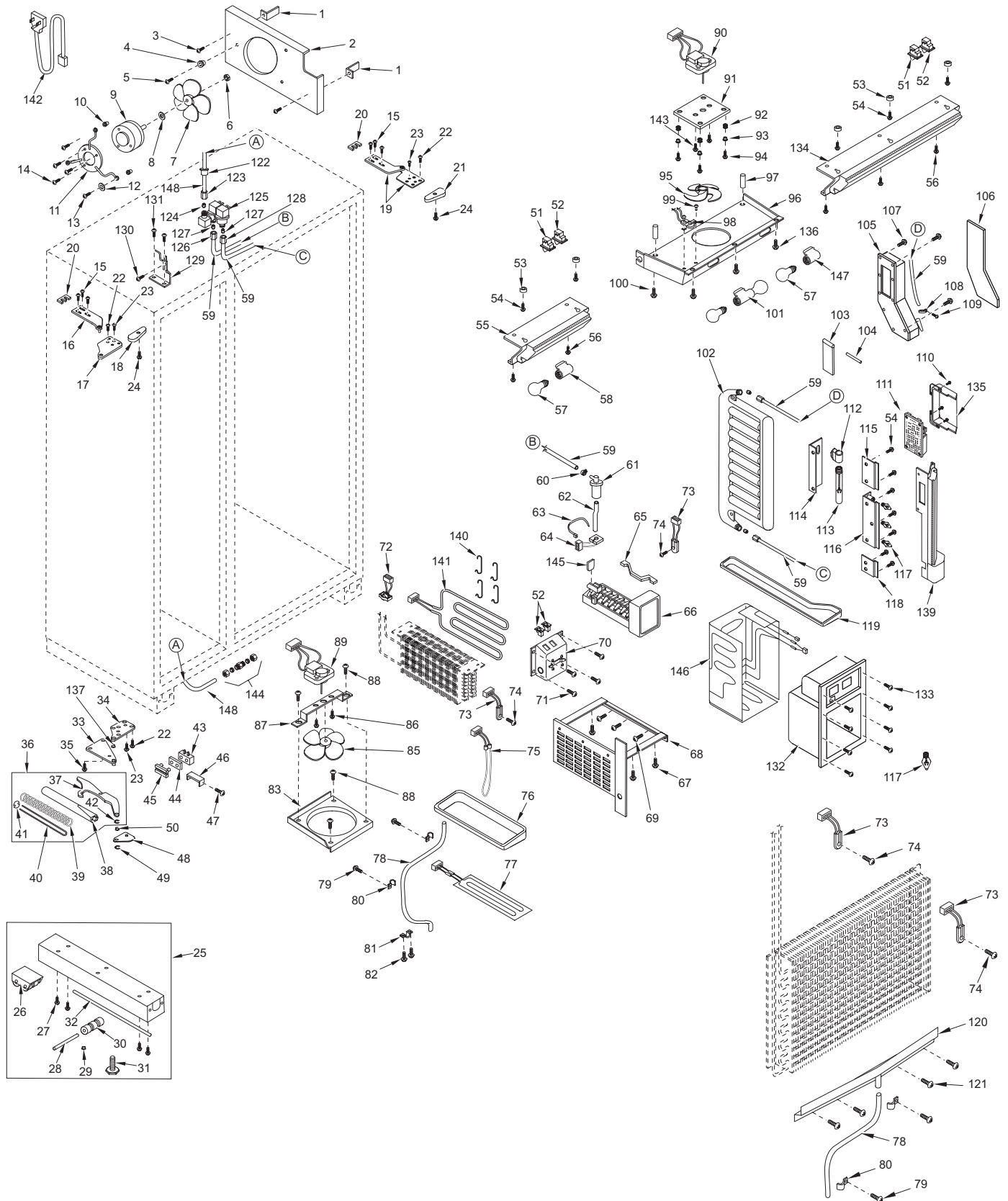
104 - Shim, Freezer Basket Slide (Not Shown)

680 MECHANICAL PARTS LIST (1 of 2)

Ref #	Part #	Description	Ref #	Part #	Description
1	3450290	Angle Bracket	49	3450560	E-Ring, 7/16"
2	0169510	Condenser Fan Shroud	50	3450550	E-Ring / Klipping , 5/16"
3	6200010	Screw, #10-12 x 3/4" Pan HD	51	3060140	SPST Light Switch
4	3420670	Screw Spacer	52	3060130	SPST Fan/Icemaker Switch
5	6200450	Screw, #8 x 1" Type AR Flat	53	6160240	Nylon Spacer
6	6150410	Nut, 1/4-20	54	6200720	Screw, #8-18 x 1/2 PH Truss HD
7	3150320	Fan Blade, Cond, 5 prop, 7"	55	4161091	Frzr Front Panel Assy (See SN Breaks)
8	3210340	Neoprene Silencer, 7/8"		4161471	Frzr Front Panel Assy (See SN Breaks)
9	4200740	Motor Pkg, Cond Fan (blade not incl.) (See SN Breaks)	56	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
	4200741	Motor Pkg, Cond Fan (blade not incl.) (See SN Breaks)	57	3030030	Light Bulb, 40 Watt
10	6150330	Well Nut, .75D x .804", #10-32	58	3050190	Light Socket, Single
11	3150650	Condenser Fan Bracket	59	2600617	Plastic Water Line
12	6240350	Fender Washer, .25x1.25x.06	60	6220470	Fill Tube Clamp
13	6201280	Machine Screw, #10-32 x 1-1/4"	61	1607700	Water Inlet Tube
14	6200490	Screw, #8-32 x 3/8" Slotted Hex T25	62	2605411	Water inlet Tube extension, 2.06"
15	6110070	Bolt, 1/4-20x3/4 Spinlock Zinc	63	6120450	Locking Cable Tie 9.7" BLK
16	4151272	Cabinet Hinge Assy, Upper LH	64	3013820	Fill Tube Heater
17	4151472	Door Hinge Assy, Top LH	65	3140390	Icemaker Rudder Arm
18	3541018	Top Cabinet Hinge Cover, LH	66	4200522	Icemaker Assembly
19	4324250	Cbnt Hng Assy, Upr RH(See SN Breaks)	67	6201000	Screw #8-32X3/8 Thread Forming
	4325070	Cbnt Hng Assy, Upr RH(See SN Breaks)	68	4202970	Ice Bucket Main Frame Assembly
20	0168680	Shim - Hinge	69	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
21	3541017	Top Cabinet Hinge Cover, RH	70	4220420	Auger Motor Assy (Incl motor & switches)
22	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	71	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
23	6200390	Screw, #6 x 3/8" T25 Flat Head PH	72	3082060	Defrost Terminator
24	6200140	Screw, #8-15 x 3/8" Truss HD	73	3014350	Thermistor
25	4110353	Base Assy (w/rollers)	74	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
26	4110331	Base Rear Roller Assy	75	3013540	Drain Tube Heater (See SN Breaks)
27	6200010	Screw, #10-12 x 3/4" Pan HD		3070170	Drain Tube Heater (See SN Breaks)
28	3550560	Straight Pin, Base Assy - .312" x 2.88"	76	4190210	Fre Drain Trough Assy (See SN Breaks)
29	3450620	Canoe Clip		4190290	Fre Drain Trough Assy (See SN Breaks)
30	3421240	Cabinet Roller (Single)	77	4323200	Freezer Drain Trough Heater Assy
31	3570050	Leveling Leg, #18-3/8 x 1"	78	1601400	Drain Tube, Wire - 1/2" x 72"
32	6110580	Adjusting Screw	79	6200010	Screw, #10-12 x 3/4" Pan HD
33	4151281	Cabinet Hinge Assy, Lower RH	80	6120050	Tube Clamp, Plastic, 5/8"
	4151282	Cabinet Hinge Assy, Lower LH	81	6120210	U-Clamp, 5/8"
34	4151241	Door Hinge, Bottom RH	82	6200010	Screw, #10-12 x 3/4" Pan HD
	4151242	Door Hinge, Bottom LH	83	0234210	Fre Evap Fan Shrd Assy(See SN Breaks)
35	6110070	Bolt, 1/4-20x3/4 Spinlock Zinc		0234910	Fre Evap Fan Shrd Assy(See SN Breaks)
36	4201111	Door Closer Assy, RH	84	N/A	
	4201112	Door Closer Assy, LH	85	3150570	Fan Blade - ECM
37	0183111	Door Closer Arm - RH	86	6200060	Screw, #8-32 x 1/2" Pan HD
	0183112	Door Closer Arm - LH	87	0234220	Freezer Fan Bracket
38	3421300	Door Closer Housing	88	6200850	Screw, #8 x 3/4" PH FH Hi-lo
39	3450530	Door Closer Spring	89	4200160	Freezer Fan Mtr Cmpnts (Blade not Incl.)
	3450710	Low Pull Door Closer Spring	90	4200170	Refrig. Fan Mtr Cmpnts (Blade not Incl.)
40	3421290	Door Closer Linkage	91	0211620	Refrig Fan Bracket (See SN Breaks)
41	0165980	Door Closer Spring Retainer		0212520	Refrig Fan Bracket (See SN Breaks)
42	3421260	Door Closer Bearing	92	3220250	Grommet, 3/16" x 7/16" x 9/32"
43	3450570	Door Closer Cushion	93	3520410	Brass Insert, Fan
44	0165970	Door Closer Guide Support	94	6110270	Bolt, #10-32 x 1/4" RD HD
45	3421310	Door Closer Guide	95	3150640	Fan blade, Ref/Fre Evap.
46	0166360	Door Stop Cushion Retainer	96	4161480	Refrig. Fan Shroud Assy
47	6180010	Pop Rivet, 1/8"	97	6220540	Screw Grommet / Stand-off
48	DS90	Door Stop - 90 Degree	98	3082140	Light Terminator
	DS105	Door Stop - 105 Degree	99	6180010	Pop Rivet, 1/8"
			100	6201010	Screw, #8-15 x 2" Pan Head

(CONTINUED ON PAGE 8-80)

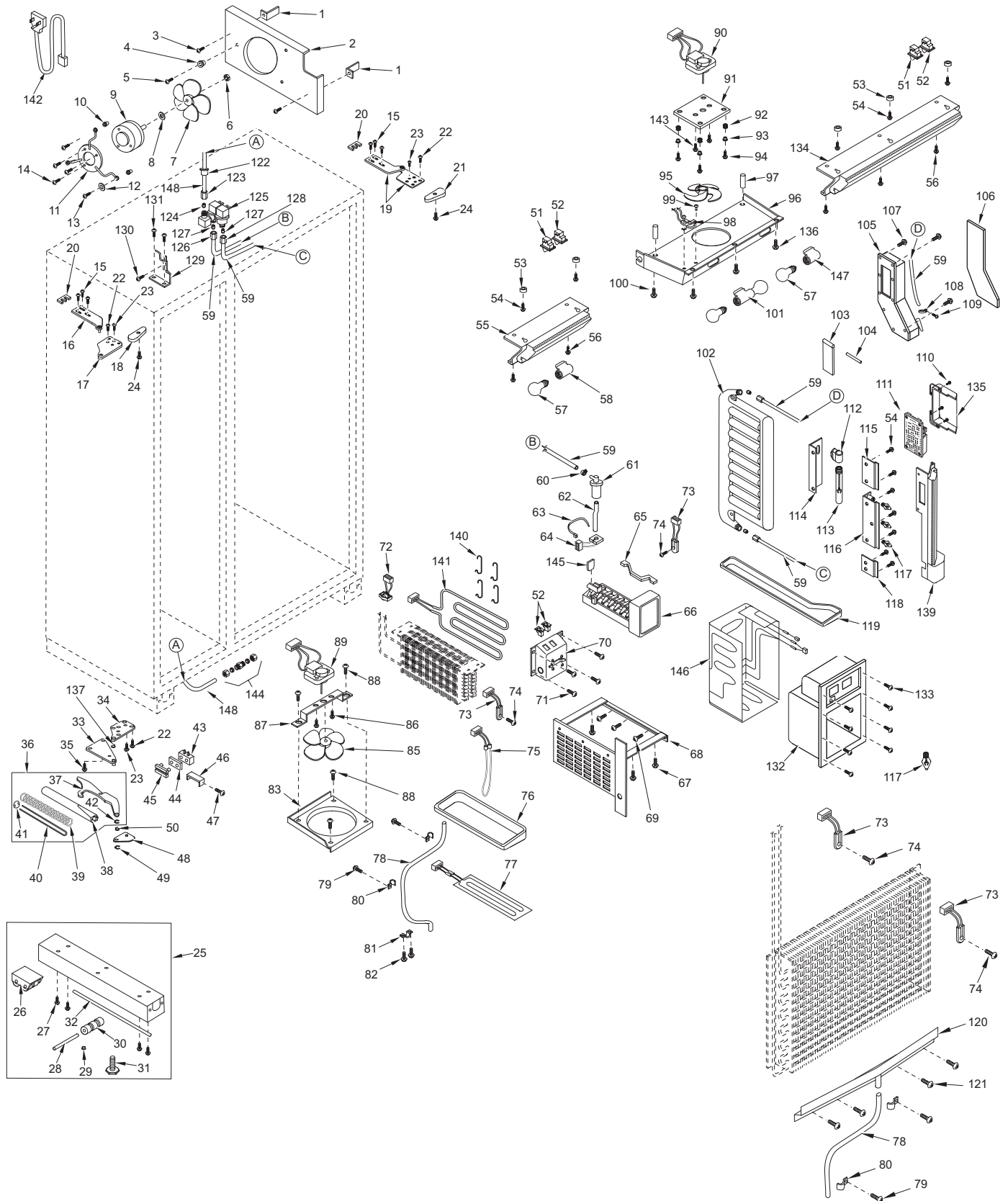
680 MECHANICAL VIEW (1 of 2)



680 MECHANICAL PARTS LIST (2 of 2)

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>	<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
(CONTINUED FROM PAGE 8-78)			123	3520390	Compression Fitting
			124	3520390	Compression Fitting
101	3050180	Light Socket, Double (See SN Breaks)	125	3090280	Dual Water Valve
	3050250	Sckt, Light M Base Dbl (See SN Breaks)	126	3520380	Compression Nut
	3050190	Light Socket, Single (See SN Breaks)	127	3520050	Brass Insert, Solenoid
	3050230	Skt, Light M Base Sngl (See SN Breaks)	128	3520390	Compression Fitting
102	4181710	Water Resrvr Tank Assy (Incl water lines)	129	0167830	Solenoid Bracket
103	3515940	Mullion Chute Door	130	6200060	Screw, #8-32 x 1/2" Pan HD
104	3421360	Chute Door Rod	131	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
105	4181230	Ice Chute/Water Nozzle Assembly	132	4200960	Door Dispenser Assembly
106	3411530	Ice Chute Cover	133	6200850	Screw, #8 x 3/4" PH FH Hi-lo
107	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	134	4161081	Ref. Front Panel Assy (See SN Breaks)
108	6120120	Tube Clamp, 3/8" Stl w/nut		4161321	Ref. Front Panel Assy (See SN Breaks)
109	6200330	Screw, #8-18 x 3/8" Pan Head	135	3413380	Control Enclosure (See SN Breaks)
110	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd		3413810	Control Enclosure (See SN Breaks)
111	4202811	Cntrl Brd Pkg-Dual/Disp (See SN Breaks)	136	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
	4203530	Cntrl Brd Pkg-Dual/Disp(See SN Breaks)	137	3421270	Hinge Bearing, 3/8" x 5/8"
112	3050010	Light Socket, 3/4 Single (See SN Breaks)	138	N/A	
	3050220	Socket, Light Base Sngl (See SN Breaks)	139	4160932	Vertical Cntrl Pnl Assy (See SN Breaks)
113	3030040	Light Bulb, Long/Narrow; 40 watt		4161462	Vertical Cntrl Pnl Assy (See SN Breaks)
114	0169910	Bracket, Display Light (See SN Breaks)	140	1801100	Heater Clip
	0212790	Bracket, Display Light (See SN Breaks)	141	4323190	Defrost Heater Assy (See SN Breaks)
115	0212270	Control Panel Retainer, Upper		4324500	Defrost Heater Assy (See SN Breaks)
116	0212280	Control Panel Retainer, Mid	142	4321820	Power Cord
117	3030070	Light Bulb, 7W	143	6110270	Bolt, #10-32 x 1/4" RD HD
118	0212290	Control Panel Retainer, Lower	144	3520250	Water Inlet Fitting Assy
119	0212410	Mullion Trough	145	3140360	Fill Cup Plug
120	4190240	Drain Trough Assembly (See SN Breaks)	146	4323180	Glass Well Heater (See SN Breaks)
	0212600	Drain Trough Assembly (See SN Breaks)		4324680	Glass Well Heater (See SN Breaks)
121	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	147	3050190	Light Socket, Single
122	3024010	Heat Shrink/Spray Cvr (Also order 6120180)	148	2604163	Water Inlet Line, Copper

680 MECHANICAL VIEW (2 of 2)

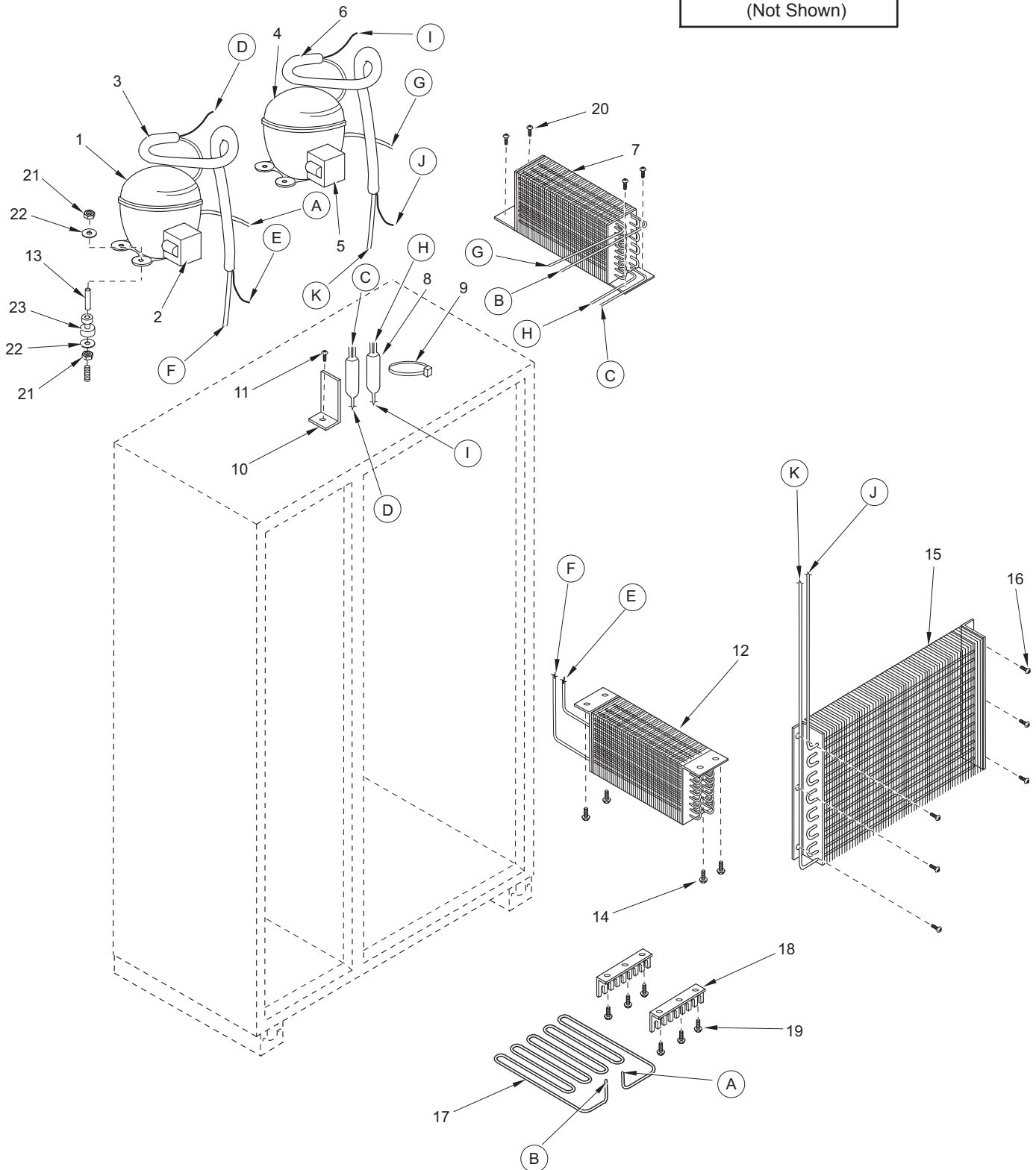


680 SEALED SYSTEM PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4202250	Compressor, Freezer (DA73) (See SN Breaks)
	4202280	Compressor, Freezer (EMI60HER) (See SN Breaks)
2	3111041	Relay, (PTH490D-AS100) (Used with DA73 Compressor)
	3111460	Relay, (1351408) (Used with EMI60HER Compressor)
	3111430	Overload, (4TM419MFB) (Used with DA73 Compressor)
	3111470	Overload, (4TM757NFB) (Used with EMI60HER Compressor)
	3111070	Running Capacitor, (12Mf) (Used with DA73 Compressor)
3	4251340	Heat Exchanger, Freezer
4	4201880	Compressor, Refrig. (EMI30HER)
5	3111370	Relay, (1351400 - For EMI30HER Comp)
	3111410	Overload, (4TM734LFB - For EMI30HER Comp)
6	4251240	Heat Exchanger, Refrigerator
7	3120330	Condenser, Dual
8	3014230	Filter-Drier, High Side
9	6120170	Locking Cable Tie, Red, 11-1/2"
10	0168040	Drier Bracket
11	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
12	4211460	Fre Evap Assy (Incl heat exch. & electricals) (See SN Breaks)
	4211640	Fre Evap Assy (Incl heat exch. & electricals) (See SN Breaks)
13	6160030	Spacer, 5/16 x 7/16 x 5/8"
	6160070	Sleeve, 5/16 x 7/16 x 7/8"
14	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
15	3130420	Evaporator, Refrig.
16	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
17	2600138	Drain Pan Heater Loop
18	3421410	Drain Pan Heater Loop Support
19	6200010	Screw, #10-12 x 3/4" Pan HD
20	6200010	Screw, #10-12 x 3/4" Pan HD
21	6150220	Nut, 5/16-18 Hex Zinc
22	6240050	Flat Washer, 5/16"
23	3150010	Rubber Grommet, Small, 5/8"
	3150170	Rubber Grommet, Large, 15/16"
24	3014100	Suction Line Drier (Service Only)

680 SEALED SYSTEM VIEW

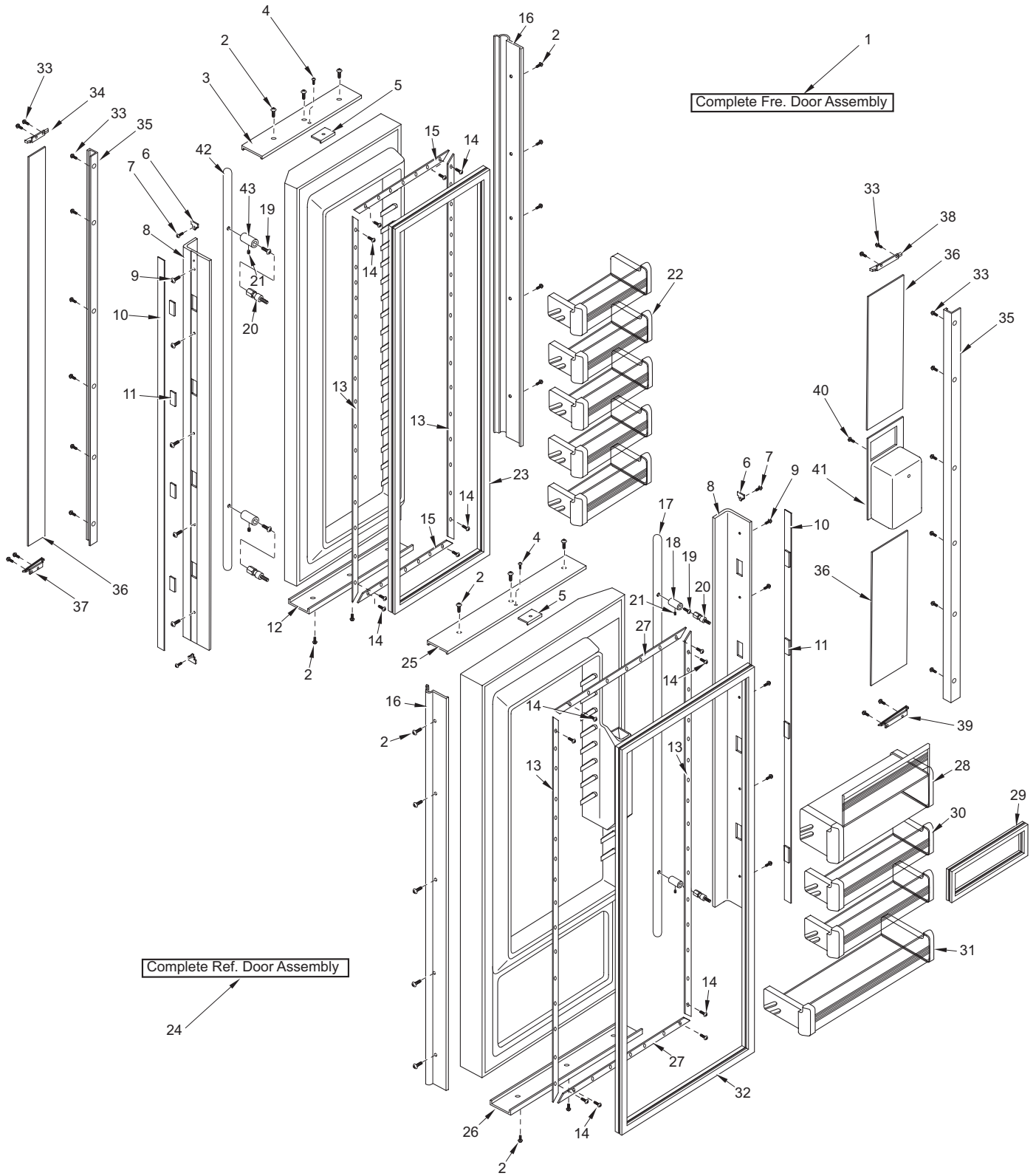
24 - Suction Line Drier
(Not Shown)



690 DOOR PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	4132605	Fre Door Assy-Framd(See SN Breaks)	28	4330600	Dairy Compartment Assembly
	4132975	Fre Door Assy-Framd(See SN Breaks)	29	3211840	Dairy Compartment Gasket
	4132625	Fre Door Assy - SS (See SN Breaks)	30	4330590	Upper Refrig. Door Shelf Assembly
	4133195	Fre Door Assy - SS (See SN Breaks)	31	4330470	Refrig. Door Shelf Assembly (Regular)
2	6200720	Screw, #8-18 x 1/2 PH Truss HD		4330520	Gallon Door Shelf Assy (Sales Acc.)
3	2230603	Door Trim, Top; Freezer	32	3212110	Door Gasket, Refrigerator
4	6200720	Screw, #8-18 x 1/2 PH Truss HD	33	6200840	Screw, #10 x 1/2" PH FH AB SS
5	4200940	Switch Depressor (Includes Screw)	34	3413451	Top Trim Filler, Freezer Door
6	3413340	Handle/Trim End Cap	35	3511470	Vertical Trim Strip
7	6180160	Rivet, Open End Blind, 1/8" X 3/16"	36	P1/P2	Hndl Insrt-Brt White / Almond Buff
8	4132650	Door Handle Assy, 67.88"		P3/P4	Handle Insert-Camel/Adobe
9	6201300	Tapping Screw, #8 x 1/2"		P5	Handle Insert-Brushed Pewter
10	4131860	Handle/Trim Molding Assembly		P6/P7	Hndl Insrt-Smoke Gray / Charcoal
11	3451000	Magnet, Trim Strip - 3"		P8/P9	Hndl Insrt-Port Brown / Black Slate
12	2230604	Door Trim, Bottom; Freezer		P10	Handle Insert-Stainless Steel
13	3420260	Gasket Retainer, 66.875"		P11	Handle Insert-White Enamel
14	6200410	Screw, #8 x 1/2" Slot Head Hex		P12	Handle Insert-Avocado Enamel
15	3420140	Gasket Retainer, 16.125"		P13	Handle Insert-Harvest Gold Enamel
16	3511131	Door Trim, Hinge Side - Mitered Corner		P14	Handle Insert-Almond Enamel
	3511130	Door Trim, Hinge Side - (SS Model)		P15	Handle Insert-Coffee Enamel
17	4132630	Handle Assy, SS 7/8"D X 43"L-Ref (Incl Stnd-off) (See SN Breaks)	37	3413452	Bottom Trim Filler, Freezer Door
	4133100	Handle Assy, SS 1"D Rnd-Ref (Incl Stnd-off) (See SN Breaks)	38	3413441	Top Trim Filler, Refrig. Door
	4133650	Handle Assy, SS 1"D Blnt-Ref (Incl Stnd-off) (See SN Breaks)	39	3413442	Bottom Trim Filler, Refrig. Door
	4133740	Handle Assy, SS OBR Standoff-Ref (See SN Breaks)	40	6200900	Screw, #8 x 1/2" PH FH Hi-lo
18	3511490	Refrig Hndl Stand-off, 7/8"D / 3.5 Deg. (See SN Breaks)	41	G1	Glass Well-Bright White
	3511850	Refrig Hndl Stand-off, 1"D / 3.5 Deg. (See SN Breaks)		G2	Glass Well-Almond Buff
	3512170	Standoff, SS Oval, Ref 4 Deg.		G3	Glass Well-Camel
19	6110720	Bolt #10-24X1/2 Socket HD Cap		G4	Glass Well-Adobe
20	3511520	Handle Mounting Stud		G5	Glass Well-Brushed Pewter
21	6110730	Set Screw #10-32 X 1/4 SS Cone		G6	Glass Well-Smoke Gray
22	4330460	Fre Door Shelf Assy (See SN Breaks)		G7	Glass Well-Charcoal
	4330660	Fre Door Shelf Assy (See SN Breaks)		G8	Glass Well-Port Brown
23	3211090	Door Gasket, Fre (See SN Breaks)		G9	Glass Well-Black Slate
	3212090	Door Gasket, Fre (See SN Breaks)		3413410	Glass well-StnlS Steel (SS Model Only)
24	4132595	Ref Door Assy-Framd(See SN Breaks)	42	4132640	Fr Hndl Assy,7/8"DX43"L (Incl Stnd-off) (See SN Breaks)
	4132965	Ref Door Assy-Framd(See SN Breaks)		4133110	Fre Hndl Assy,1"DX43"L (Incl Stnd-off) (See SN Breaks)
	4132615	Ref Door Assy- SS (See SN Breaks)		4133660	Handle Assy, Fre 1"D X 43"L (Blunt) (Incl. Stand-offs) - (See SN Breaks)
	4133185	Ref Door Assy- SS (See SN Breaks)	43	3511480	Fre. Handle Stand-off, 7/8"D / 10 Deg. (See SN Breaks)
25	2230601	Door Trim, Top; Refrigerator		3511860	Fre. Handle Stand-off, 1"D / 10 Deg. (See SN Breaks)
26	2230602	Door Trim, Bottom; Refrigerator		3152180	Standoff, SS Oval, Fre 10 Deg. (See SN Breaks)
27	3420200	Gasket Retainer, 27.062"			

690 DOOR VIEW

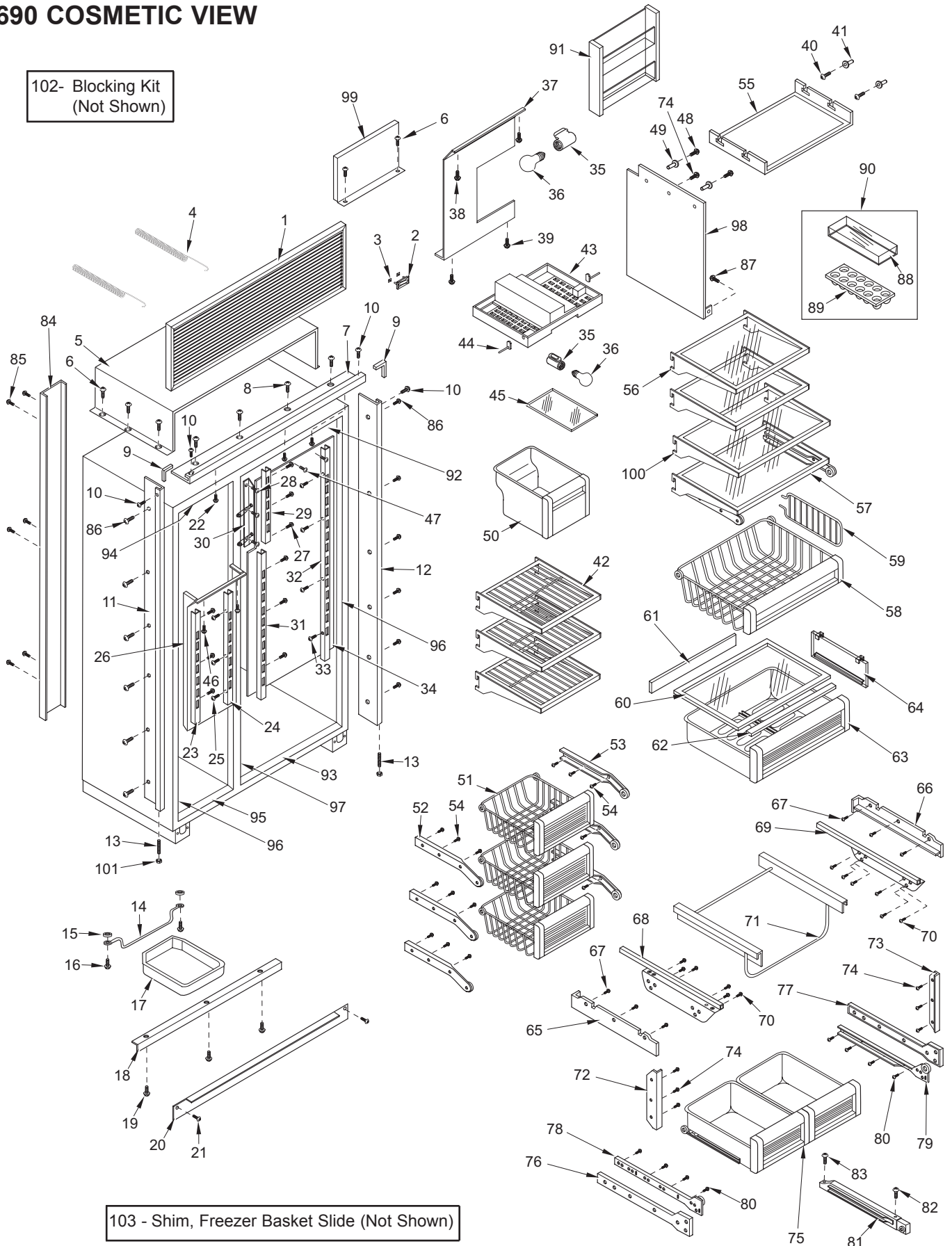


690 COSMETIC PARTS LIST

Ref #	Part #	Description	Ref #	Part #	Description
1	6LG4811	Louvered Grille Assembly, 48" x 11"	50	4181180	Ice Bucket Assy
	6PG4811	Panel Grille Assembly, 48" x 11"	51	4181570	Freezer Basket Assy (See SN Breaks)
	6SG4811	SS Grille 48" x 11" (See SN Breaks)		4181820	Freezer Basket Assy (See SN Breaks)
	6SG4811/S	SS Grille,48X11-CLSIC (See SN Breaks)	52	4180972	Fre Bskt Slide Assy-LH (See SN Breaks)
2	3580230	Nameplate w/ Pegs		4181842	Fre Bskt Slide Assy-LH (See SN Breaks)
	3580210	Name Plate, Stick-on	53	4180971	Fre Bskt Slide Assy-RH (See SN Breaks)
3	6150140	Spring Grip Nut, 1/8"		4181841	Fre Bskt Slide Assy-RH (See SN Breaks)
4	3450900	Grille Spring	54	6200450	Screw, #8 x 1" Type AR Flat
5	4281080	Unit Shroud Assembly	55	4161580	Refrig. Light Diffuser Assembly
6	6200230	Screw, #8-18 x 1/2" Hex Head	56	3602050	Glass Shelf, Refrig Upper, Spill Proof
7	2229704	Main Frame, Top	57	4181560	Refrig. Roll-out Shelf Assy
8	6200010	Screw, #10-12 x 3/4" Pan HD	58	4181540	Refrig. Roll-out Basket Assy
9	2210701	Main Frame Angle	59	3411160	Ref Roll-Out Bskt Divider
10	6200070	Screw, #4-24 x 3/8" Flat HD	60	4151770	Crisper Glass Assembly (Incl Seals)
11	4120590	Main Frame Assy, Left (See SN Breaks)	61	3211770	Crisper Glass Seal, Rear
	4120830	Main Frame Assy, Left (See SN Breaks)	62	3211740	Crisper Glass Seal, Front
12	4120580	Main Frame Assy,Right (See SN Breaks)	63	4181460	High Humidity Drawer Assembly
	4120820	Main Frame Assy,Right (See SN Breaks)	64	3413100	Drawer Divider
13	3550190	Bottom Hinge Stud	65	3421711	Top Crspr Glass Support, Narrow-RH
14	3420760	Drain Pan Holder	66	3421721	Top Crisper glass Support, Wide-RH
15	3420670	Screw Spacer	67	6201130	Screw, #8x 1/2" PH FL HD SS
16	6201060	Screw, #8x1-1/4" PH FLAT TAP	68	4181421	Top Crisper Slide Assy, Narrow-RH
17	0164940	Drain Pan	69	4181411	Top Crisper Slide Assembly, Wide-RH
18	0169970	Kickplate Support	70	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
19	6200010	Screw, #10-12 x 3/4" Pan HD	71	3421760	Humidity Drawer Slide-Frame
20	0260150	Kickplate, Black-Solid	72	3421732	Crisper Filler Strip, Wide
	0167810	Kickplate, Stainless Steel	73	3421731	Crisper Filler Strip, Narrow
21	6200050	Screw, #10-12 x 1/2" Pan HD	74	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
	6200720	Screw, #8-18 x 1/2 PH Truss HD	75	4181490	Small Storage Drawer Assembly
22	6201310	Screw, #8 x 1-3/4" Flat PH HD	76	3421691	Bott Crisper Slide Support, Narrow
23	3602072	Fre Shelf Ladder, Left (See SN Breaks)	77	3421692	Bott Crisper Slide Support, Wide
	3602230	Fre Shelf Ladder, Left (See SN Breaks)	78	3413112	Bot Crisper Slide, Cabinet - Left
24	3602071	Fre Shelf Ladder, Right (See SN Breaks)	79	3413111	Bot Crisper Slide, Cabinet - Right
	3602220	Fre Shelf Ladder, Right (See SN Breaks)	80	6201230	Screw, #8 x 7/8" w/a #7 PH FT Head
25	6200710	Screw, #8-18 x 3/8" Fillister HD	81	4181430	Center Crisper Slide Assembly
26	0200890	Freezer Duct (See SN Breaks)	82	6201120	Screw, #8-18 x 1.75 Truss SS
	0201180	Freezer Duct (See SN Breaks)	83	6201130	Screw, #8x 1/2" PH FL HD SS
27	6200710	Screw, #8-18 x 3/8" Fillister HD	84	0168120	Back Duct (See SN Breaks)
28	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd		0169600	Back Duct (See SN Breaks)
29	4151410	Refrig. Upper Left Shelf Ladder Assy	85	6201060	Screw, #8x1-1/4" PH FLAT TAP
30	4151400	Tank Cover Bracket Assembly	86	6200210	Screw, #8-32 x 1/2" Flat Head
31	3602060	Refrig. Shelf Ladder, Lower Left	87	6200140	Screw, #8-15 x 3/8" Truss HD
32	3601811	Refrig. Shelf Ladder, Right	88	3412280	Egg Tray Cover
33	6200710	Screw, #8-18 x 3/8" Fillister HD	89	3412270	Egg Tray
34	0201170	Refrigerator Evaporator Cover	90	4131810	Egg Tray with Cover
35	3050190	Light Socket, Single	91	4181190	Juice Can Rack Assy (See SN Breaks)
36	3030030	Light Bulb, 40 Watt		4181880	Juice Can Rack Assy (See SN Breaks)
37	4161060	Light Assy,Fre Evap Frnt(See SN Breaks)	92	2811201	Breaker Strip, Ref Top (See SN Breaks)
	4161590	Light Assy,Fre Evap Frnt(See SN Breaks)	93	2811202	Breaker Strip, Ref Bot (See SN Breaks)
38	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	94	2811203	Breaker Strip, Fre Top (See SN Breaks)
39	6200140	Screw, #8-15 x 3/8" Truss HD	95	2811204	Breaker Strip, Fre Bot (See SN Breaks)
40	6201330	Screw, #8-18 x 5/8" PH PN SS-Gnd		4203910	Patch,Fre Face Frm Sill(See SN Breaks)
41	3520420	Insert / Diffuser Stand-off	96	2811205	Brkr Strip;Fre/LS,Ref/RS(See SN Breaks)
42	3601870	Freezer Wire Shelf (See SN Breaks)	97	1811300	Breaker Strip, Mullion (See SN Breaks)
	3602200	Freezer Wire Shelf (See SN Breaks)	98	0212420	Water Reservoir Tank Cover
43	4151890	Fre Lwr Evap Cvr Assy (Incl light socket)	99	4280950	Compressor Shroud Assembly
44	3550610	Snap Pin	100	3601891	Glass Shelf, Spill Proof
45	3500620	Freezer Lower Light Diffuser	101	6150200	Nut, 1/4-20 Hex
46	6200140	Screw, #8-15 x 3/8" Truss HD	102	4201330	Blocking Components; 48"
47	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	103	3411890	Shim, Fre Basket Slide (See SN Breaks)
48	6201330	Screw, #8-18 x 5/8" PH PN SS-Gnd		2121120	Shim, Fre Basket Slide (See SN Breaks)
49	3520420	Insert / Diffuser Stand-off			

690 COSMETIC VIEW

102- Blocking Kit
(Not Shown)



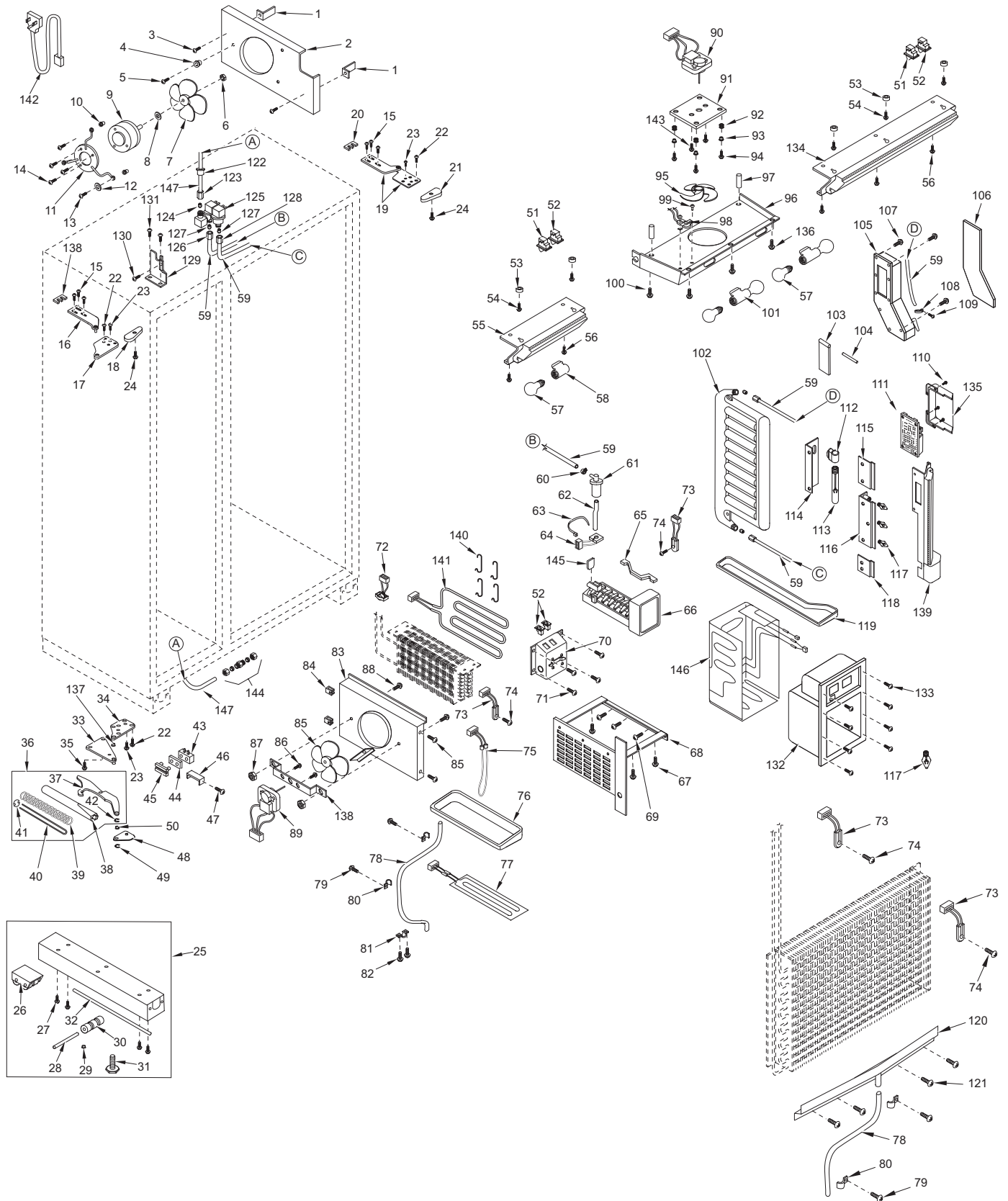
103 - Shim, Freezer Basket Slide (Not Shown)

690 MECHANICAL PARTS LIST (1 of 2)

Ref #	Part #	Description	Ref #	Part #	Description
1	3450290	Angle Bracket	50	3450550	E-Ring / Klipping , 5/16"
2	0169980	Condenser Fan Shroud	51	3060140	SPST Light Switch
3	6200010	Screw, #10-12 x 3/4" Pan HD	52	3060130	SPST Fan/Icemaker Switch
4	3420670	Screw Spacer	53	6160240	Nylon Spacer
5	6200450	Screw, #8 x 1" Type AR Flat	54	6200720	Screw, #8-18 x 1/2 PH Truss HD
6	6150410	Nut, 1/4-20	55	4160951	Freezer Front Pnl Assy (See SN Breaks)
7	3150320	Fan Blade, Cond, 5 prop, 7"		4161561	Freezer Front Pnl Assy (See SN Breaks)
8	3210340	Neoprene Silencer, 7/8"	56	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
9	4200740	Motor Pkg, Cond Fan (blade not incl.) (See SN Breaks)	57	3030030	Light Bulb, 40 Watt
	4200741	Motor Pkg, Cond Fan (blade not incl.) (See SN Breaks)	58	3050190	Light Socket, Single (See SN Breaks)
10	6150330	Well Nut, .75D x .804", #10-32		3050230	Skt, Light M Base Sngl (See SN Breaks)
11	3150650	Condenser Fan Bracket	59	2600617	Plastic Water Line
12	6240350	Fender Washer, .25x1.25x.06	60	6220470	Fill Tube Clamp
13	6201280	Machine Screw, #10-32 x 1-1/4"	61	1607700	Water Inlet Tube
14	6200490	Screw, #8-32 x 3/8" Slotted Hex T25	62	2605411	Water inlet Tube extension, 2.06"
15	6110070	Bolt, 1/4-20x3/4 Spinlock Zinc	63	6120450	Locking Cable Tie 9.7" BLK
16	4151272	Cabinet Hinge Assy, Upper LH	64	3013820	Fill Tube Heater
17	4151472	Door Hinge Assy, Top LH	65	3140390	Icemaker Rudder Arm
18	3541018	Top Cabinet Hinge Cover, LH	66	4200522	Icemaker Assembly
19	4324250	Cbnt Hng Assy, Upr RH (See SN Breaks)	67	6201000	Screw #8-32X3/8 Thread Forming
	4325070	Cbnt Hng Assy, Upr RH (See SN Breaks)	68	4202820	Ice Bucket Main Frame Assembly
20	0168680	Shim - Hinge	69	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
21	3541017	Top Cabinet Hinge Cover, RH	70	4220400	Auger Motor Assy (Incl motor & switches)
22	6110540	Bolt, #10-24 x 1/2" Flat Socket HD	71	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
23	6200390	Screw, #6 x 3/8" T25 Flat Head PH	72	3082060	Defrost Terminator
24	6200140	Screw, #8-15 x 3/8" Truss HD	73	3014350	Thermistor
25	4110353	Base Assy (w/rollers)	74	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
26	4110331	Base Rear Roller Assy	75	3013540	Drain Tube Heater (See SN Breaks)
27	6200010	Screw, #10-12 x 3/4" Pan HD		3070170	Drain Tube Heater (See SN Breaks)
28	3550560	Straight Pin, Base Assy - .312" x 2.88"	76	4190210	Fre Drain Trough Assy (See SN Breaks)
29	3450620	Canoe Clip		4190290	Fre Drain Trough Assy (See SN Breaks)
30	3421240	Cabinet Roller (Single)	77	4323200	Freezer Drain Trough Heater Assy
31	3570050	Leveling Leg, #18-3/8 x 1"	78	1601400	Drain Tube, Wire - 1/2" x 72"
32	6110580	Adjusting Screw	79	6200010	Screw, #10-12 x 3/4" Pan HD
33	4151281	Cabinet Hinge Assy, Lower RH	80	6120050	Tube Clamp, Plastic, 5/8"
	4151282	Cabinet Hinge Assy, Lower LH	81	6120210	U-Clamp, 5/8"
34	4151241	Door Hinge, Bottom RH	82	6200010	Screw, #10-12 x 3/4" Pan HD
	4151242	Door Hinge, Bottom LH	83	4280930	Fre Evap Fan Shrd (See SN Breaks)
35	6110070	Bolt, 1/4-20x3/4 Spinlock Zinc		4281350	Fre Evap Fan Shrd (See SN Breaks)
36	4201111	Door Closer Assy, RH	84	6120380	U-Type Clip
	4201112	Door Closer Assy, LH	85	3150060	Fan Blade; Freezer; 5 prop; 5-1/2"
37	0183111	Door Closer Arm - RH	86	6200060	Screw, #8-32 x 1/2" Pan HD
	0183112	Door Closer Arm - LH	87	6150160	Nut, #8-32 Hex
38	3421300	Door Closer Housing	88	6200060	Screw, #8-32 x 1/2" Pan HD
39	3450530	Door Closer Spring	89	4200160	Freezer Fan Mtr Cmpnts (Blade not Incl.)
	3450710	Low Pull Door Closer Spring	90	4200170	Refrig. Fan Mtr Cmpnts (Blade not Incl.)
40	3421290	Door Closer Linkage	91	0211620	Refrigerator Fan Brkt (See SN Breaks)
41	0165980	Door Closer Spring Retainer		0212520	Refrigerator Fan Brkt (See SN Breaks)
42	3421260	Door Closer Bearing	92	3220250	Grommet, 3/16" x 7/16" x 9/32"
43	3450570	Door Closer Cushion	93	3520410	Brass Insert, Fan
44	0165970	Door Closer Guide Support	94	6110270	Bolt, #10-32 x 1/4" RD HD
45	3421310	Door Closer Guide	95	3150640	Fan blade, Ref/Fre Evap.
46	0166360	Door Stop Cushion Retainer	96	4161570	Refrig. Fan Shroud Assy
47	6180010	Pop Rivet, 1/8"	97	6220540	Screw Grommet / Stand-off
48	DS90	Door Stop - 90 Degree	98	3082140	Light Terminator
	DS105	Door Stop - 105 Degree	99	6180010	Pop Rivet, 1/8"
49	3450560	E-Ring, 7/16"	100	6201010	Screw, #8-15 x 2" Pan Head

(CONTINUED ON PAGE 8-90)

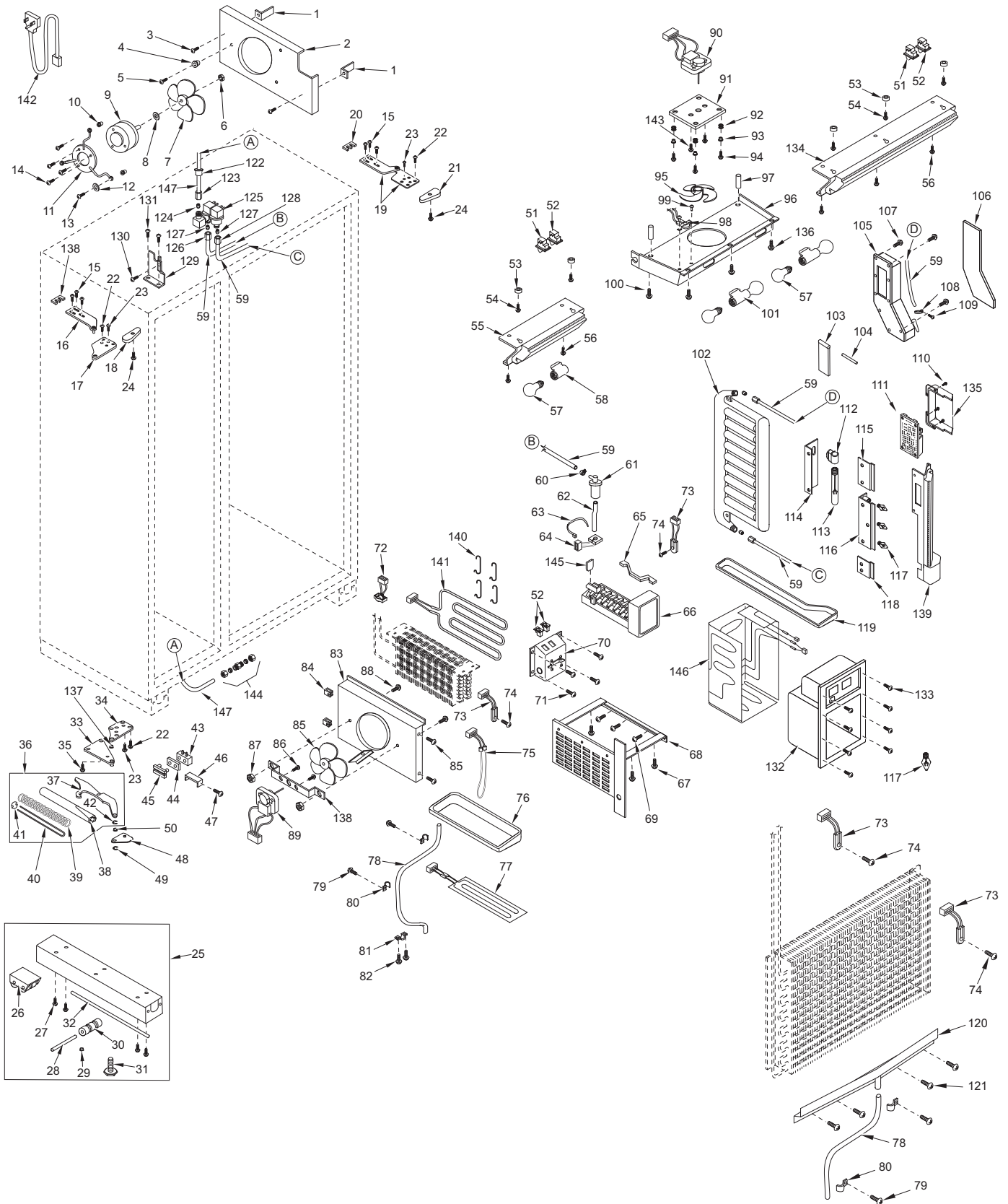
690 MECHANICAL VIEW (1 of 2)



690 MECHANICAL PARTS LIST (2 of 2)

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>	<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
(CONTINUED FROM PAGE 8-88)			124	3520390	Compression Fitting
			125	3090280	Dual Water Valve
101	3050180	Light Socket, Double (See SN Breaks)	126	3520380	Compression Nut
	3050250	Sckt, Light M Base Dbl (See SN Breaks)	127	3520050	Brass Insert, Solenoid
102	4181710	Water Resrvr Tank Assy (Incl water lines)	128	3520390	Compression Fitting
103	3515940	Mullion Chute Door	129	0167830	Solenoid Bracket
104	3421360	Chute Door Rod	130	6200060	Screw, #8-32 x 1/2" Pan HD
105	4181230	Ice Chute/Water Nozzle Assembly	131	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
106	3411530	Ice Chute Cover	132	4200960	Door Dispenser Assembly
107	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	133	6200850	Screw, #8 x 3/4" PH FH Hi-lo
108	6120120	Tube Clamp, 3/8" Stl w/nut	134	4160941	Ref. Front Panel Assy (See SN Breaks)
109	6200330	Screw, #8-18 x 3/8" Pan Head		4161841	Ref. Front Panel Assy (See SN Breaks)
110	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	135	3413380	Control Enclosure (See SN Breaks)
111	4202810	Cntrl Brd Pkg-Dual/Disp (See SN Breaks)		3413810	Control Enclosure (See SN Breaks)
	4203530	Cntrl Brd Pkg-Dual/Disp(See SN Breaks)	136	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
112	3050010	Light Socket, 3/4 Single (See SN Breaks)	137	3421270	Hinge Bearing, 3/8" x 5/8"
	3050220	Socket, Light Base Sngl (See SN Breaks)	138	0232770	Fan Bracket, Freezer (See SN Breaks)
113	3030040	Light Bulb, Long/Narrow; 40 watt		0234360	Fan Bracket, Freezer (See SN Breaks)
114	0169910	Bracket, Display Light (See SN Breaks)	139	4160932	Vertical Cntrl Pnl Assy (See SN Breaks)
	0212790	Bracket, Display Light (See SN Breaks)		4161462	Vertical Cntrl Pnl Assy (See SN Breaks)
115	0212270	Control Panel Retainer, Upper	140	1801100	Heater Clip
116	0212280	Control Panel Retainer, Mid	141	4323190	Defrost Heater Assy (See SN Breaks)
117	3030070	Light Bulb, 7W		4324500	Defrost Heater Assy (See SN Breaks)
118	0212290	Control Panel Retainer, Lower	142	4321820	Power Cord
119	0212410	Mullion Trough	143	6110270	Bolt, #10-32 x 1/4" RD HD
120	4190160	Drain Trough Assembly (See SN Breaks)	144	3520250	Water Inlet Fitting Assy
	0260550	Drain Trough Assembly (See SN Breaks)	145	3140360	Fill Cup Plug
121	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd	146	4323180	Glass Well Heater (See SN Breaks)
122	3024010	Heat Shrink Spray Cvr (Also order 6120180)		4324680	Glass Well Heater (See SN Breaks)
123	3520390	Compression Fitting	147	2604165	Water Inlet Line, Copper

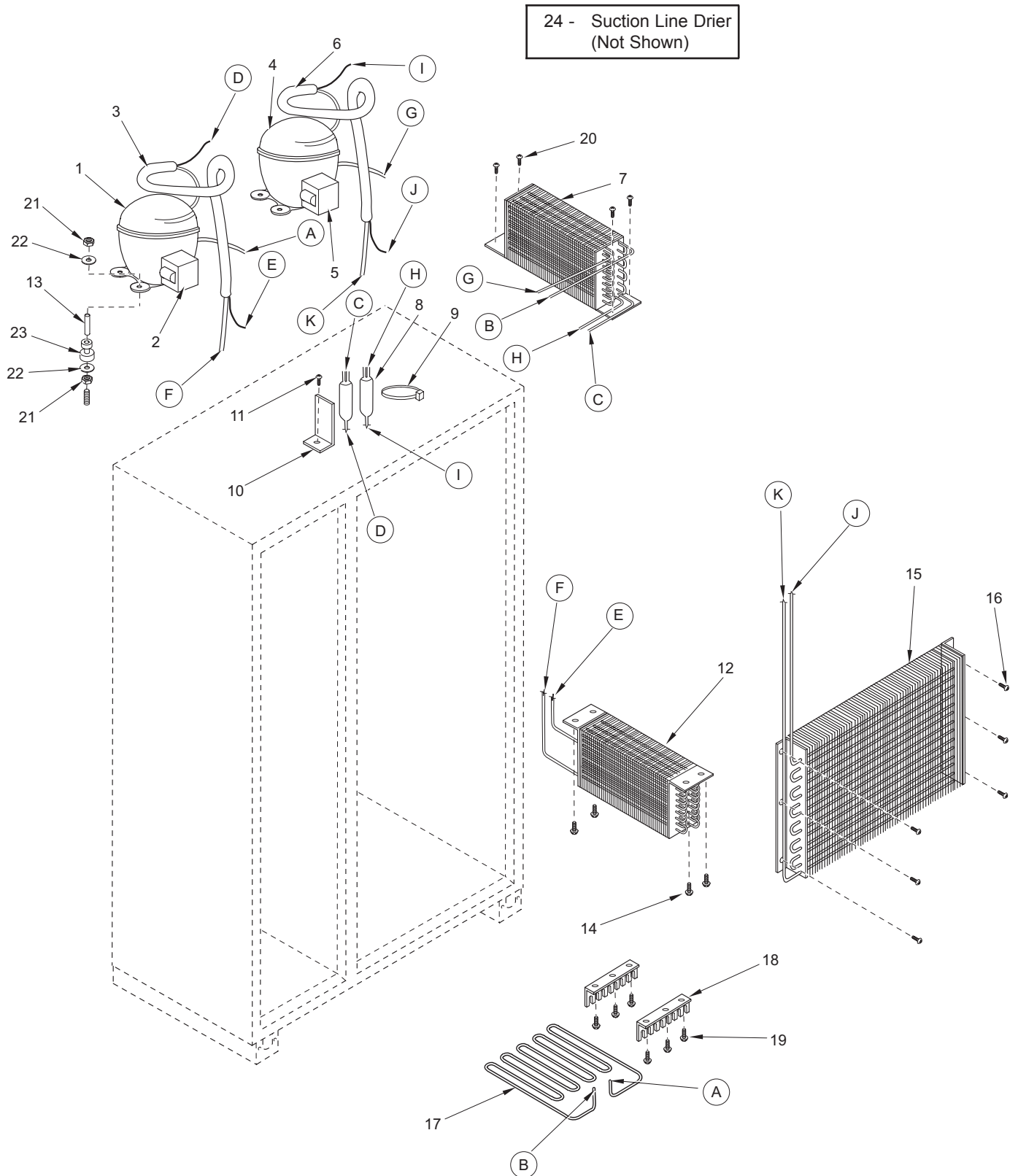
690 MECHANICAL VIEW (2of 2)



690 SEALED SYSTEM PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4202250	Compressor, Freezer (DA73) (See SN Breaks)
	4202280	Compressor, Freezer (EMI60HER) (See SN Breaks)
2	3111041	Relay, (PTH490D-AS100) (Used with DA73 Compressor)
	3111460	Relay, (1351408) (Used with EMI60HER Compressor)
	3111430	Overload, (4TM419MFB) (Used with DA73 Compressor)
	3111470	Overload, (4TM757NFB) (Used with EMI60HER Compressor)
	3111070	Running Capacitor, (12Mf) (Used with DA73 Compressor)
3	4251340	Heat Exchanger, Freezer
4	4201880	Compressor, Refrig. (EMI30HER)
5	3111370	Relay, (1351400 - For EMI30HER Comp)
	3111410	Overload, (4TM734LFB - For EMI30HER Comp)
6	4251300	Heat Exchanger, Refrigerator
7	3120330	Condenser, Dual
8	3014230	Filter-Drier, High Side
9	6120170	Locking Cable Tie, Red, 11-1/2"
10	0168040	Drier Bracket
11	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
12	4211450	Fre Evap Assy (Incl heat exch. & electricals) (See SN Breaks)
	4211650	Fre Evap Assy (Incl heat exch. & electricals) (See SN Breaks)
13	6160030	Spacer, 5/16 x 7/16 x 5/8"
	6160070	Sleeve, 5/16 x 7/16 x 7/8"
14	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
15	3130260	Evaporator, Refrig.
16	6201270	Screw, #8-18 x 5/8" PH PN SS-Gnd
17	2600138	Drain Pan Heater Loop
18	3421410	Drain Pan Heater Loop Support
19	6200010	Screw, #10-12 x 3/4" Pan HD
20	6200010	Screw, #10-12 x 3/4" Pan HD
21	6150220	Nut, 5/16-18 Hex Zinc
22	6240050	Flat Washer, 5/16"
23	3150010	Rubber Grommet, Small, 5/8"
	3150170	Rubber Grommet, Large, 15/16"
24	3014100	Suction Line Drier (Service Only)

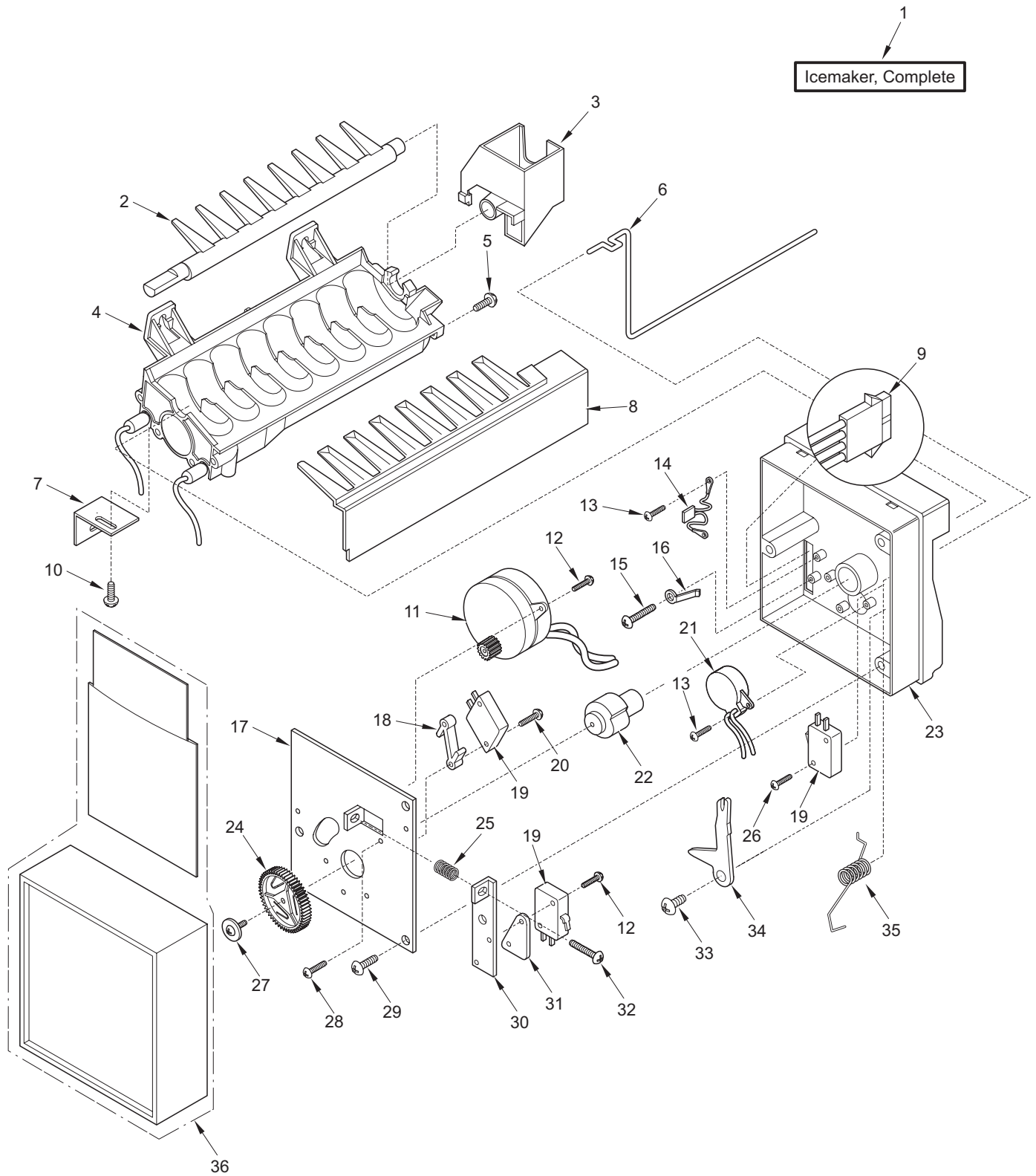
690 SEALED SYSTEM VIEW



ICEMAKER PARTS LIST

<u>Ref #</u>	<u>Part #</u>	<u>Description</u>
1	4200521	Icemaker Assembly, Complete - (Models 601F, 632, 642)
	4200522	Icemaker Assembly, Complete - (Models 611, 650, 680, 690)
2	75107431	Ice Ejector
3	75142606	Bearing/Inlet - (Models 601F, 632, 642)
	75107414	Bearing/Inlet - (Models 611, 650, 680, 690)
4	75107417	Mold Body Assy. (Includes Mold Heater)
5	75107448	Screw
6	75142604	Ice Level Arm, Short - (Models 601F, 632, 642)
	75142605	Ice Level Arm, Long - (Models 611, 650, 680, 690)
	3140330	Ice Level Arm / Rudder (<i>Not Shown</i>) - (Models 611, 650)
	3140400	Ice Level Arm / Rudder (<i>Not Shown</i>) - (Models 680, 690)
7	75107426	Bracket, Mounting
8	75129507	Ice Stripper
9	75107424	Harness, Wire
10	75107460	Screw
11	75107404	Drive Motor
12	75107446	Screw
13	75140588	Screw
14	75107405	Thermal Cut-out
15	75107442	Screw
16	75107408	Clamp
17	75107438	Plate, Mounting
18	75107452	Spacer
19	75107401	Switch
20	75107451	Screw
21	75056861	Thermostat
22	75107436	Cam
23	75107416	Support
24	75107419	Gear, Timing
25	75107443	Spring, Fill Adjust
26	75140586	Screw
27	75107459	Screw
28	75107453	Screw
29	75140589	Screw
30	75107457	Plate, Valve Switch
31	75107456	Insulator, Valve Switch
32	75107455	Screw
33	75107449	Screw
34	75107430	Lever Arm
35	75140584	Spring, Shut-off
36	75142601	Cover

ICEMAKER PARTS VIEW



SECTION 9

**TROUBLESHOOTING
GUIDE**

For units starting with serial #1810000

TROUBLESHOOTING GUIDES

This section of the manual contains the Error Code Troubleshooting Guide to be referenced if a 600 Series unit, starting with serial #1810000, experiences temperature problems and/or Error Codes appear during Diagnostic Mode. The General Troubleshooting Guide that follows covers all problems that a 600 Series may experience. This is followed by Sealed System Diagnostics Tables along with a Temperature/Low Side Pressure Chart, to be referenced if the sealed system must be entered. The last entry in this section is the Membrane Switch/Ribbon Cable Test Procedure.

HOW TO USE THE ERROR CODE TROUBLESHOOTING GUIDE

Error Codes are registered if a unit experiences thermistor or defrost system errors. These types of errors can lead to a unit experiencing temperature problems. If Error Codes are registered, they will appear when Diagnostic Mode is initiated.

To initiate Diagnostic Mode, press and hold either COLDER key, then press the UNIT ON/OFF key, then release both keys. Now, check to see if Error Codes are present, being sure to toggle through all error and temperature readings by pressing either COLDER key or either WARMER key. (See Error Code Table Below)

NOTE: *Currently, Error Codes are registered because of thermistor or defrost system errors only. When subsequent software and electrical changes occur, more error codes will be added and the Error Code Troubleshooting Guide will be expanded.*

If Error Codes appear during Diagnostic Mode, follow the Error Code Troubleshooting Guide on the following page. The left column of the troubleshooting guide lists the error codes. The information in the right column explain what tests to perform and/or what action to take to correct the error.

NOTE: *If error codes are observed in diagnostic mode, a non-flashing SERVICE annunciator will appear on the LCD when Diagnostic Mode ends, indicating error codes are still registered. To clear the non-flashing SERVICE annunciator and the error codes, the problem must be corrected and the unit must be ON. Then, press and hold the Door Ajar Alarm Bell ON/OFF key for 15 seconds. The control will emit a short “beep” when the SERVICE annunciator and error codes are cleared.*

Error Code Table	
CODE	INDICATION
05	Refrig. Cabinet Thermistor read open or shorted for 10+ seconds, or repeatedly read erratic temp's
06	Refrig. Evaporator Thermistor read open or shorted for 10+ seconds, or repeatedly read erratic temp's
07	Freezer Cabinet Thermistor read open or shorted for 10+ seconds, or repeatedly read erratic temp's
08	Freezer Evaporator Thermistor read open or shorted for 10+ seconds, or repeatedly read erratic temp's
20	Defrost Under-heat with No Voltage Feedback Through Gray/White Wire at Defrost Start
21	Defrost Overheat
22	No Voltage Feedback Through Gray/White Wire at Defrost Start
23	Defrost Overheat with No Voltage Feedback through Gray/White Wire at Defrost Start
24	Defrost Under-heat



ERROR CODE TROUBLESHOOTING GUIDE

ERROR CODE	TEST / ACTION
05	<ul style="list-style-type: none"> a. Check refrigerator compartment thermistor electrical connections and continuity from thermistor to J1 on control board. Reconnect / repair connections. b. Check resistance of refrigerator compartment thermistor for 30,000 to 33,000 ohms at 32°F. Replace if defective.
06	<ul style="list-style-type: none"> a. Check refrigerator evaporator thermistor electrical connections and continuity from thermistor to J1 on control board. Reconnect / repair connections. b. Check resistance of refrigerator evaporator thermistor for 30,000 to 33,000 ohms at 32°F. Replace if defective.
07	<ul style="list-style-type: none"> a. Check freezer compartment thermistor electrical connections and continuity from thermistor to J1 on control board. Reconnect / repair connections. b. Check resistance of freezer compartment thermistor for 30,000 to 33,000 ohms at 32°F. Replace if defective.
08	<ul style="list-style-type: none"> a. Check freezer evaporator thermistor electrical connections and continuity from thermistor to J1 on control board. Reconnect / repair connections. b. Check resistance of freezer evaporator thermistor for 30,000 to 33,000 ohms at 32°F. Replace if defective.
20	<ul style="list-style-type: none"> a. With a cold evaporator (< 10°F), initiate Manual Defrost. If compressor starts 5 minutes after defrost is initiated, check Grey/White wire connections and continuity from defrost heater to J4-4 on control board. Reconnect / repair Grey/White wire &/or electrical connections. b. Check for proper ohm readings of defrost heater. Replace heater if defective. c. Check defrost terminator and its electrical connections, Reconnect / repair bad connections or replace terminator if defective. d. Initiate Manual Defrost, check for 115V AC at E2 on control board. If no voltage, replace board. e. Initiate Manual Defrost, check for 115V AC from E2 (Blue Wire) on control board to defrost terminator. Reconnect / repair blue wire &/or electrical connections. f. Reference wiring diagram to identify components in same White wire circuit as defrost heater. Check all White wire electrical connections and continuity from defrost heater to J7-8 on control board.
21	<ul style="list-style-type: none"> a. Check for proper mounting and location of freezer evaporator thermistor and defrost heater. Remount correctly. b. Check for correct wire connection at control board, Blue wire at E2 on control board. If connected to wrong pin, reconnect correctly. c. Check for electrical short of Blue wire to another circuit. Repair Blue wire &/or electrical connections. d. Check for proper operation of defrost terminator (Cut-in 30°F/Cut-out 55°F. For model 601F ONLY: Cut-in 30°F/Cut-out 70°F). Replace if defective.
22	<ul style="list-style-type: none"> a. Initiate Manual Defrost. If compressor starts 5 minutes after defrost is initiated, check Grey/White wire connections and continuity from defrost heater to J4-4 on control board. Reconnect / repair Grey/White wire &/or electrical connections.
23	<ul style="list-style-type: none"> a. Check for proper mounting and location of freezer evaporator thermistor and defrost heater. Remount correctly. b. Check for correct wire connection at control board, Blue wire at E2 on control board. If connected to wrong pin, reconnect correctly. c. Check for electrical short of Blue wire to another circuit. Repair Blue wire &/or electrical connections. d. Initiate Manual Defrost. If compressor starts 5 minutes after defrost is initiated, check Grey/White wire connections and continuity from defrost heater to J4-4 on control board. Reconnect / repair Grey/White wire &/or electrical connections.
24	<ul style="list-style-type: none"> a. Check for proper ohm readings of defrost heater. Replace heater if defective. b. Check for proper mounting and location of freezer evaporator thermistor and defrost heater. Remount correctly.



HOW TO USE THE GENERAL TROUBLESHOOTING GUIDE

The General Troubleshooting Guide Table of Contents on the following page indicates how the General Trouble Shooting Guide is arranged. Match the description of the problem the unit is experiencing with those in the table. To the left of the problem description is a letter. Locate that letter in the left column of the Troubleshooting Guide. The information in the center column of the Troubleshooting Guide identifies possible causes for the problem. The information in the right column explains the tests to perform and/or what action to take to correct the problem.

For Problems “A” through “H”:

1. Begin troubleshooting by observing the compartment set points.
2. If the set-points are normal, initiate Diagnostic Mode by pressing and holding either COLDER key, then press the UNIT ON/OFF key, then release both keys.
3. When Diagnostic Mode is initiated, check to see if “Error Codes” are present, being sure to toggle through all the error and temperature readings by pressing either COLDER key or either WARMER key. (See Thermistor Location Code Tables below.)
4. If Error Codes are present, refer to Error Code Troubleshooting Guide on previous pages.
5. If there are no Error Codes, initiate Manual Component Activation Mode (which lasts for 5 minutes) by pressing and holding the desired compartment COLDER and UNIT ON/OFF keys for 10 seconds, then observe the evaporator temperatures.

NOTE: Verify that the compressor is operating before observing evaporator temperatures. If the problem is in the refrigerator section, the refrigerator door must be left open for 5 minutes with the compressor running.

6. After observing the evaporator temperatures as instructed above, take note of the “Pointers” in the first column of the troubleshooting guide under problems “A” through “D”. The “Pointers” list what possible causes to check based on the evaporator temperatures observed.

Thermistor Location Code Tables

MODEL 611, 632, 642, 650, 680, 690		MODEL 601R & 601RG		MODEL 601F	
THERMISTOR LOCATION	CODE	THERMISTOR LOCATION	CODE	THERMISTOR LOCATION	CODE
Freezer Compartment	F	Refrigerator Compartment	r	Freezer Compartment	F
Refrigerator Compartment	r	Refrigerator Evaporator	rE	Freezer Evaporator	FE
Freezer Evaporator	FE				
Refrigerator Evaporator	rE				

For All Problems:

If the unit's temperature history is needed to help diagnose the problem, initiate Temperature Log Recall Mode as described below. This allows the preceding fourteen days of the unit's temperature history to be observed.

- a. *To View Compartment Temperature History Only:* Begin with the unit ON. Now, press and hold the desired compartment WARMER key, then press the UNIT ON/OFF key, then release both keys.
- b. *To View Compartment or Evaporator Temperature History:* Begin with the unit in Diagnostic Mode. While in Diagnostic Mode, toggle through the readings until the desired thermistor temperature is displayed on the LCD. Now, press the WARMER key for that compartment and the UNIT ON/OFF key simultaneously.



GENERAL TROUBLESHOOTING GUIDE TABLE OF CONTENTS

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PROBLEM	POSSIBLE CAUSE	TEST / ACTION
<p>A.) Warm Freezer Temperature with "SERVICE" Flashing</p> <p>Pointers:</p> <ol style="list-style-type: none"> Evaporator temp -20°F or lower, see: <ul style="list-style-type: none"> Door ajar Lights ON w/door closed Evaporator fan fault Compartment thermistor mis-read Evaporator heavily frosted Sealed system fault - leak or partial restriction Evaporator Temp. between -19°F & 0°F, see: <ul style="list-style-type: none"> Condenser Air Flow Compartment thermistor mis-read Sealed system fault, leak Evaporator Temp. 0°F or higher, see: <ul style="list-style-type: none"> Power to compressor fault, Sealed system fault, leak, restriction or inefficient compressor <p>NOTE: "Pointers" do not apply to cabinet initial pulldown from ambient temperatures.</p> <p>NOTE: To clear flashing SERVICE annunciator after repairs, power OFF, then back ON.</p> <p>NOTE: To clear non-flashing SERVICE annunciator after repairs, press door ajar alarm bell ON/OFF key for 15 seconds.</p> <p>(Continued)</p>	<p>Door Ajar</p> <ol style="list-style-type: none"> Food product obstruction Door/cabinet hinge problem 	<ol style="list-style-type: none"> Move obstruction. Check and replace hinge if defective.
	<p>Condenser Air Flow</p> <ol style="list-style-type: none"> Dirty condenser Condenser fan blade obstructed or blade is loose Condenser fan motor disconnected Condenser fan motor defective No power from control board to condenser fan (Does not apply to single compressor models) (NOTE: A compressor must be running) 	<ol style="list-style-type: none"> Clean condenser. Remove obstruction or tighten nut on motor shaft. Check electrical connections from motor to J7-1 on control board, or from motor to compressor on single compressor models. Reconnect / repair connections. Check for 115V AC to motor, replace motor if defective. Check for 115V AC at J7-1 on control board (with compressor running). Replace board if defective.
	<p>Light ON with Door Closed</p> <ol style="list-style-type: none"> Switch depressor missing or bent, not depressing light switch Faulty light switch 	<ol style="list-style-type: none"> Replace/straighten switch depressor. Check operation of light switches, lights off when switch is depressed. Replace switch if defective.
	<p>Evaporator Fan Fault</p> <ol style="list-style-type: none"> Switch depressor missing or bent, not depressing fan switch Fan blade obstructed or out of position Faulty fan switch (NOTE: A compressor must be running) Evaporator fan motor disconnected Evaporator fan motor defective (NOTE: Compressor must be running) 	<ol style="list-style-type: none"> Replace/straighten switch depressor. Move obstruction or reposition blade. Check for 115V AC to fan switch, depress fan switch and check for 115V AC from switch to motor. Replace switch if defective. Check electrical connections of motor. Reconnect / repair bad connections. Check for 115V AC at fan motor with fan switch depressed. Replace motor if defective.
	<p>Compartment Thermistor Misread</p>	<p>Check resistance of compartment thermistor for 30,000 to 33,000 ohms at 32°F. Replace if defective.</p>



PROBLEM	POSSIBLE CAUSE	TEST / ACTION
<p><i>(Continued)</i></p> <p>A.) Warm Freezer Temperature with “SERVICE” Flashing <i>(See Pointers on previous page)</i></p>	<p>Evaporator Heavily Frosted</p> <ul style="list-style-type: none"> a. Door ajar b. Evaporator fan fault c. Compartment thermistor misread d. Defrost heater or drain trough heater disconnected or faulty e. Defrost terminator disconnected or faulty. f. Defrost sense line disconnected. g. No power from control board to defrost circuit 	<ul style="list-style-type: none"> a. See Door Ajar on previous page. b. See Evaporator Fan Fault on previous page. c. See Compartment Thermistor Misread on previous page. d. Check electrical connections of heaters. Reconnect / repair bad connections. Check resistance of heaters, replace if defective. e. Check electrical connections, Reconnect / repair bad connections or replace terminator if defective. f. Look for Error Codes 20, 22 or 23 or Manually initiate defrost by pressing ICE key for 5 seconds. If defrost lasts exactly 5 minutes, check all connections of gray/white wire from terminator to J4-4 on control board. Reconnect / repair bad connections. g. Manually initiate defrost by pressing ICE key for 5 seconds. Check for 115V AC at E2 on control board. Replace control board if defective.
	<p>Power to Compressor Fault</p>	<p>Initiate Manual Component Activation Mode and check for 115V AC at E7 on control board. Replace control board if defective.</p>
	<p>Sealed System Fault</p> <ul style="list-style-type: none"> • Sealed System Leak • Sealed System Restriction • Inefficient Compressor 	<p>See Sealed System Diagnostic Tables at back of Troubleshooting Guide</p>



PROBLEM	POSSIBLE CAUSE	TEST / ACTION
<p>B.) Warm Freezer Temperatures without “SERVICE” Flashing</p> <p>Pointers:</p> <p>1. “Sr” appears during Diagnostic Mode, see:</p> <ul style="list-style-type: none"> • Unit in Showroom Mode <p>2. Evaporator temp -20°F or lower, see:</p> <ul style="list-style-type: none"> • Door ajar • Lights ON w/door closed • Evaporator fan fault • Compartment thermistor mis-read • Evaporator heavily frosted • Sealed system fault - leak or partial restriction <p>3. Evaporator. Temp. between -19°F & 0°F, see:</p> <ul style="list-style-type: none"> • Warm food load • High room ambient • Door ajar • Condenser air flow • Sealed system fault, leak <p>4. Evaporator. Temp. 0°F or higher, see:</p> <ul style="list-style-type: none"> • Power To Compressor fault • Sealed system fault, leak restriction or inefficient compressor <p>NOTE: “Pointers” do not apply to cabinet initial pulldown from ambient temperatures.</p> <p>NOTE: To clear non-flashing SERVICE annunciator after repairs, press door ajar alarm bell ON/OFF key for 15 seconds.</p> <p>(Continued)</p>	<p>No Power to Unit</p>	<p>Check power to unit, plug unit in or switch supply circuit breaker ON.</p>
	<p>Unit Switched OFF</p>	<p>Check for “OFF” displayed at LCD. If off, press UNIT ON/OFF key.</p>
	<p>Unit in Showroom Mode</p>	<p>Press UNIT ON/OFF key to OFF, then press and hold WARMER & COLDER keys, and press UNIT ON/OFF key.</p>
	<p>Control Set Too High</p>	<p>Check set-point. If high, adjust.</p>
	<p>Warm Food Load</p>	<p>Check contents of freezer for warm food load. Instruct customer.</p>
	<p>High Room Ambient</p>	<p>Instruct customer unit performs best between 60°F(16°C) and 90°F(32°C).</p>
	<p>Door Ajar</p> <p>a. Food product obstruction b. Door/cabinet hinge problem</p>	<p>a. Move obstruction. b. Check and replace hinge if defective.</p>
	<p>Condenser Air Flow</p> <p>a. Dirty condenser b. Condenser fan blade obstructed or blade is loose c. Condenser fan motor disconnected d. Condenser fan motor defective e. No power from control board to condenser fan (Does not apply to single compressor models) (NOTE: A compressor must be running)</p>	<p>a. Clean condenser. b. Remove obstruction or tighten nut on motor shaft. c. Check electrical connections from motor to J7-1 on control board, or from motor to compressor on single compressor models. Reconnect / repair connections. d. Check for 115V AC to motor, replace motor if defective. e. Check for 115V AC at J7-1 on control board (with compressor running). Replace board if defective.</p>
<p>Light ON with Door Closed</p> <p>a. Switch depressor missing or bent, not depressing light switch b. Faulty light switch</p>	<p>a. Replace/straighten switch depressor. b. Check operation of light switches, lights off when switch is depressed. Replace switch if defective.</p>	



PROBLEM	POSSIBLE CAUSE	TEST / ACTION
<p><i>(Continued)</i></p> <p>B.) Warm Freezer Temperatures without "SERVICE" Flashing <i>(See Pointers on previous page)</i></p>	<p>Evaporator Fan Fault</p> <p>a. Switch depressor missing or bent, not depressing fan switch b. Fan blade obstructed or out of position c. Faulty fan switch <i>(NOTE: A compressor must be running)</i> d. Evaporator fan motor disconnected e. Evaporator fan motor defective <i>(NOTE: Compressor must be running)</i></p>	<p>a. Replace/straighten switch depressor. b. Move obstruction or reposition blade. c. Check for 115V AC to fan switch, depress fan switch and check for 115V AC from switch to motor. Replace switch if defective. d. Check electrical connections of motor. Reconnect / repair bad connections. e. Check for 115V AC at fan motor with fan switch depressed. Replace motor if defective.</p>
	<p>Compartment Thermistor Misread</p>	<p>Check resistance of compartment thermistor for 30,000 to 33,000 ohms at 32°F. Replace if defective.</p>
	<p>Evaporator Heavily Frosted</p> <p>a. Door ajar b. Evaporator fan fault c. Compartment thermistor misread d. Defrost heater or drain trough heater disconnected or faulty e. Defrost terminator disconnected or faulty. f. Defrost sense line disconnected. g. No power from control board to defrost circuit</p>	<p>a. See Door Ajar on previous page. b. See Evaporator Fan Fault on previous page. c. See Compartment Thermistor Misread on previous page. d. Check electrical connections of heaters. Reconnect / repair bad connections. Check resistance of heaters, replace if defective. e. Check electrical connections, Reconnect / repair bad connections or replace terminator if defective. f. Look for Error Codes 20, 22 or 23 or Manually initiate defrost by pressing ICE key for 5 seconds. If defrost lasts exactly 5 minutes, check all connections of gray/white wire from terminator to J4-4 on control board. Reconnect / repair bad connections. g. Manually initiate defrost by pressing ICE key for 5 seconds. Check for 115V AC at E2 on control board. Replace control board if defective.</p>
	<p>Power to Compressor Fault</p>	<p>Initiate Manual Component Activation Mode and check for 115V AC at E7 on control board. Replace control board if defective.</p>
	<p>Sealed System Fault</p> <ul style="list-style-type: none"> • Sealed System Leak • Sealed System Restriction • Inefficient Compressor 	<p>See Sealed System Diagnostic Tables at back of Troubleshooting Guide</p>



PROBLEM	POSSIBLE CAUSE	TEST / ACTION
<p>C. Warm Refrigerator Temperatures with “SERVICE” Flashing</p> <p>Pointers:</p> <p>Refrigerator door must be open and compressor running for <u>five minutes</u>.</p> <p>1. “EE” appears in place of refrigerator evap. temperature, see:</p> <ul style="list-style-type: none"> Evaporator thermistor disconnected or shorted <p>2. Evaporator temp 15°F or lower within 5 minutes w/ door open, see:</p> <ul style="list-style-type: none"> Door ajar Lights stay ON Evaporator fan fault Compartment or evaporator thermistor misread Evaporator heavily frosted Sealed system fault - leak or partial restriction <p>3. Evaporator. Temp. cannot pull below 30°F within 5 minutes w/ door open, see:</p> <ul style="list-style-type: none"> Condenser Air Flow Compartment or evaporator thermistor misread Sealed system fault, leak or inefficient compressor <p>4. Evaporator. Temp. 35°F or higher after 5 minutes w/door open, see:</p> <ul style="list-style-type: none"> Condenser Air Flow Power to compressor fault Sealed system fault, leak, restriction or inefficient compressor <p>NOTE: “Pointers” do not apply to cabinet initial pulldown from ambient temperatures.</p> <p>NOTE: To clear flashing SERVICE annunciator after repairs, power OFF, then back ON.</p> <p>NOTE: To clear non-flashing SERVICE annunciator after repairs, press door ajar alarm bell ON/OFF key for 15 seconds.</p> <p>(Continued)</p>	<p>Door Ajar</p> <ol style="list-style-type: none"> Food product obstruction Door/cabinet hinge problem 	<ol style="list-style-type: none"> Move obstruction. Check and replace hinge if defective.
	<p>Condenser Air Flow</p> <ol style="list-style-type: none"> Dirty condenser Condenser fan blade obstructed or blade is loose Condenser fan motor disconnected Condenser fan motor defective No power from control board to condenser fan (Does not apply to single compressor models) (NOTE: A compressor must be running) 	<ol style="list-style-type: none"> Clean condenser. Remove obstruction or tighten nut on motor shaft. Check electrical connections from motor to J7-1 on control board, or from motor to compressor on single compressor models. Reconnect / repair connections. Check for 115V AC to motor, replace motor if defective. Check for 115V AC at J7-1 on control board (with compressor running). Replace board if defective.
	<p>Light ON with Door Closed</p> <ol style="list-style-type: none"> Switch depressor missing or bent, not depressing light switch Faulty light switch 	<ol style="list-style-type: none"> Replace/straighten switch depressor. Check operation of light switches, lights off when switch is depressed. Replace switch if defective.
	<p>Evaporator Fan Fault</p> <ol style="list-style-type: none"> Switch depressor missing or bent, not depressing fan switch Fan blade obstructed or out of position Faulty fan switch (NOTE: A compressor must be running) Evaporator. fan motor disconnected Evaporator fan motor defective (NOTE: Compressor must be running) 	<ol style="list-style-type: none"> Replace/straighten switch depressor. Move obstruction or reposition blade. Check for 115V AC to fan switch, depress fan switch and check for 115V AC from switch to motor. Replace switch if defective. Check electrical connections of motor. Reconnect / repair bad connections. Check for 115V AC at fan motor with fan switch depressed. Replace motor if defective.
	<p>Evaporator Thermistor Disconnected or Shorted</p>	<p>Check for “EE” & “rE” in diagnostic mode. Check refrigerator evaporator thermistor electrical connections from thermistor to J1 on control board. Reconnect / repair connections. Check resistance of refrigerator evaporator thermistor for 30,000 to 33,000 ohms at 32°F. Replace if defective.</p>
	<p>Compartment or Evaporator Thermistor Misread</p>	<p>Check resistance of refrigerator compartment and evaporator thermistors for 30,000 to 33,000 ohms at 32°F. Replace if defective.</p>
	<p>Evaporator Heavily Frosted</p> <ol style="list-style-type: none"> Door or drawer ajar Evaporator fan fault Thermistor misread 	<ol style="list-style-type: none"> See Door Ajar above. See Evaporator Fan Fault above. See Thermistor Misread above.



PROBLEM	POSSIBLE CAUSE	TEST / ACTION
<p>(Continued)</p> <p>C. Warm Refrigerator Temperatures with “SERVICE” Flashing (See Pointers on previous page)</p>	<p>Power to Compressor Fault</p> <hr/> <p>Sealed System Fault</p> <ul style="list-style-type: none"> • Sealed System Leak • Sealed System Restriction • Inefficient Compressor 	<p>Check for 115V AC E6 on control board. Replace control board if defective.</p> <hr/> <p>See Sealed System Diagnostic Tables at back of Troubleshooting Guide</p>
<p>D. Warm Refrigerator Temperatures without “SERVICE” Flashing</p> <p>Pointers:</p> <p>Refrigerator door must be open and compressor running for <u>five minutes</u>.</p> <p>1. “Sr” appears during Diagnostic Mode, see:</p> <ul style="list-style-type: none"> • Unit in Showroom Mode <p>2. Evaporator temp 15°F or lower within 5 minutes w/ door open, see:</p> <ul style="list-style-type: none"> • Door ajar • Lights stay ON • Evaporator fan fault • Compartment or evaporator thermistor misread • Evaporator heavily frosted • Sealed system fault - leak or partial restriction <p>3. Evaporator Temp. cannot pull below 30°F within 5 minutes w/ door open, see:</p> <ul style="list-style-type: none"> • Warm food load • High room ambient • Door ajar • Condenser air flow • Sealed system fault, leak <p>4. Evaporator Temp. 35°F or higher after 5 minutes w/door open, see:</p> <ul style="list-style-type: none"> • Condenser Air Flow • Power to compressor fault • Sealed system fault, leak, restriction or inefficient compressor <p>NOTE: “Pointers” do not apply to cabinet initial pulldown from ambient temperatures.</p> <p>NOTE: To clear non-flashing SERVICE annunciator after repairs, press door ajar alarm bell ON/OFF key for 15 seconds.</p> <p>(Continued)</p>	<p>No Power to Unit</p> <hr/> <p>Unit Switched OFF</p> <hr/> <p>Unit in Showroom Mode</p> <hr/> <p>Control Set Too High</p> <hr/> <p>Warm Food Load</p> <hr/> <p>High Room Ambient</p> <hr/> <p>Door Ajar</p> <ul style="list-style-type: none"> a. Food product obstruction b. Door/cabinet hinge problem <hr/> <p>Condenser Air Flow</p> <ul style="list-style-type: none"> a. Dirty condenser b. Condenser fan blade obstructed or blade is loose c. Condenser fan motor disconnected d. Condenser fan motor defective e. No power from control board to condenser fan (Does not apply to single compressor models) <i>(NOTE: A compressor must be running)</i> <hr/> <p>Light ON with Door Closed</p> <ul style="list-style-type: none"> a. Switch depressor missing or bent, not depressing light switch b. Faulty light switch 	<p>Check power to unit, plug unit in or switch supply circuit breaker ON.</p> <hr/> <p>Check for “OFF” displayed at LCD. If off, press UNIT ON/OFF key.</p> <hr/> <p>Press UNIT ON/OFF key to OFF, then press and hold WARMER & COLDER keys, and press UNIT ON/OFF key.</p> <hr/> <p>Check set-point. If high, adjust.</p> <hr/> <p>Check contents of refrigerator for warm food load. Instruct customer.</p> <hr/> <p>Instruct customer unit performs best between 60°F(16°C) and 90°F(32°C).</p> <hr/> <ul style="list-style-type: none"> a. Move obstruction. b. Check and replace hinge if defective. <hr/> <ul style="list-style-type: none"> a. Clean condenser. b. Remove obstruction or tighten nut on motor shaft. c. Check electrical connections from motor to J7-1 on control board, or from motor to compressor on single compressor models. Reconnect / repair connections. d. Check for 115V AC to motor, replace motor if defective. e. Check for 115V AC at J7-1 on control board (with compressor running). Replace board if defective. <hr/> <ul style="list-style-type: none"> a. Replace/straighten switch depressor. b. Check operation of light switches, lights off when switch is depressed. Replace switch if defective.

PROBLEM	POSSIBLE CAUSE	TEST / ACTION
<p><i>(Continued)</i></p> <p>D. Warm Refrigerator Temperatures without "SERVICE" Flashing <i>(See Pointers on previous page)</i></p>	<p>Evaporator Fan Fault</p> <p>a. Switch depressor missing or bent, not depressing fan switch b. Fan blade obstructed or out of position c. Faulty fan switch <i>(NOTE: A compressor must be running)</i></p> <p>d. Evaporator fan motor disconnected</p> <p>e. Evaporator fan motor defective <i>(NOTE: Compressor must be running)</i></p>	<p>a. Replace/straighten switch depressor.</p> <p>b. Move obstruction or reposition blade.</p> <p>c. Check for 115V AC to fan switch, depress fan switch and check for 115V AC from switch to motor. Replace switch if defective.</p> <p>d. Check electrical connections of motor. Reconnect / repair bad connections.</p> <p>e. Check for 115V AC at fan motor with fan switch depressed. Replace motor if defective.</p>
	<p>Compartment or Evaporator Thermistor Misread</p>	<p>Check resistance of refrigerator compartment and evaporator thermistors for 30,000 to 33,000 ohms at 32°F. Replace if defective.</p>
	<p>Evaporator Heavily Frosted</p> <p>a. Door or drawer ajar b. Evaporator fan fault c. Thermistor misread</p>	<p>a. See Door Ajar on previous page. b. See Evaporator Fan Fault above. c. See Thermistor Misread above.</p>
	<p>Power to Compressor Fault</p>	<p>Check for 115V AC E6 on control board. Replace control board if defective.</p>
	<p>Sealed System Fault</p> <ul style="list-style-type: none"> • Sealed System Leak • Sealed System Restriction • Inefficient Compressor 	<p>See Sealed System Diagnostic Tables at back of Troubleshooting Guide</p>
<p>E. Warm or Normal Temperatures in Both Compartments with "SERVICE" Flashing</p>	<p>High Room Ambient</p>	<p>Instruct customer unit performs best between 60°F(16°C) and 90°F(32°C).</p>
	<p>Condenser Air Flow</p> <p>a. Dirty condenser b. Condenser fan blade obstructed or blade is loose c. Condenser fan motor disconnected</p> <p>d. Condenser fan motor defective</p> <p>e. No power from control board to condenser fan (Does not apply to single compressor models) <i>(NOTE: A compressor must be running)</i></p>	<p>a. Clean condenser. b. Remove obstruction or tighten nut on motor shaft. c. Check electrical connections from motor to J7-1 on control board, or from motor to compressor on single compressor models. Reconnect / repair connections. d. Check for 115V AC to motor, replace motor if defective. e. Check for 115V AC at J7-1 on control board (with compressor running). Replace board if defective.</p>
	<p>Refrigerator Evaporator Thermistor Disconnected or Shorted</p>	<p>Check for "EE" & "rE" in diagnostic mode. Check refrigerator evaporator thermistor electrical connections from thermistor to J1 on control board. Reconnect / repair connections. Check resistance of refrigerator evaporator thermistor for 30,000 to 33,000 ohms at 32°F. Replace if defective.</p>



PROBLEM	POSSIBLE CAUSE	TEST / ACTION
F. Warm Temperatures in Both Compartments <u>without</u> “SERVICE” Flashing	No Power to Unit	Check power to unit, plug unit in or switch supply circuit breaker ON.
	Unit Switched OFF	Check for “OFF” displayed at LCD. If off, press UNIT ON/OFF key.
	Unit in Showroom Mode	Press UNIT ON/OFF key to OFF, then press and hold WARMER& COLDER keys, and press UNIT ON/OFF key.
	Control Set Too High	Check set-point. If high, adjust.
	Warm Food Load	Check contents of freezer for warm food load. Instruct customer.
	High Room Ambient	Instruct customer unit performs best between 60°F(16°C) and 90°F(32°C).
	Door Ajar a. Food product obstruction b. Door/cabinet hinge problem	a. Move obstruction. b. Check and replace hinge if defective.
	Condenser Air Flow a. Dirty condenser b. Condenser fan blade obstructed or blade is loose c. Condenser fan motor disconnected d. Condenser fan motor defective e. No power from control board to condenser fan (Does not apply to single compressor models) <i>(NOTE: A compressor must be running)</i>	a. Clean condenser. b. Remove obstruction or tighten nut on motor shaft. c. Check electrical connections from motor to J7-1 on control board, or from motor to compressor on single compressor models. Reconnect / repair connections. d. Check for 115V AC to motor, replace motor if defective. e. Check for 115V AC at J7-1 on control board (with compressor running). Replace board if defective.
G. Warm or Normal Freezer Temperatures with “EE” Displayed for Freezer Temp and “SERVICE” Flashing	Freezer Compartment Thermistor Disconnected or Shorted	Check for “EE” & “F” in diagnostic mode. Check freezer compartment thermistor electrical connections from thermistor to J1 on control board. Reconnect / repair connections. Check resistance of freezer compartment thermistor for 30,000 to 33,000 ohms at 32°F. Replace if defective.
H. Warm or Normal Refrigerator Temperatures with “EE” Displayed for Refrigerator Temp and “SERVICE” Flashing	Refrigerator Compartment Thermistor Disconnected or Shorted	Check for “EE” & “r” in diagnostic mode. Check refrigerator compartment thermistor electrical connections from thermistor to J1 on control board. Reconnect / repair connections. Check resistance of refrigerator compartment thermistor for 30,000 to 33,000 ohms at 32°F. Replace if defective.

PROBLEM	POSSIBLE CAUSE	TEST / ACTION
I. Product Temperature 10° or More Colder than Displayed Temperature	Compartment Thermistor Misread	Check resistance of compartment thermistor for 30,000 to 33,000 ohms at 32°F. Replace if defective.
J. 1. "Extremely" Cold Temperatures Displayed (1° to 7° in Refrigerator and -21° to -15° in Freezer) 2. If outside US - "Extremely" Warm Temperatures Displayed (34° to 45° in Refrigerator and -5° to 5° in Freezer)	1. Control Set to Display Celsius but Customer Thought it Was Fahrenheit 2. If Outside US - Control Set to Display Fahrenheit but Customer Thought it Was Celsius	1. Switch unit OFF, then ON, then press & hold Bell key and UNIT ON/OFF key for 10 seconds. 2. Switch unit OFF, then ON, then press & hold Bell key and UNIT ON/OFF key for 10 seconds.
K. "ICE" and "SERVICE" Flashing on LCD	Water Valve Energized Longer than Fifteen Seconds	Check icemaker area for jammed ice cube, clear jam if present. Check levelness of icemaker, level if needed. Check position of fill cup. Reposition if in ice path. Check water supply pressure; must be constant 20-100 PSI. If not, instruct customer. Check water valve operation, opens when 115V AC is applied, closes completely when 115V AC is removed. Water valve Ohms = 160. Replace if defective.
L. No Ice, "ICE" Displayed on LCD, but not Flashing NOTE: The Icemaker system is disabled for 45 minutes after each harvest. (Continued)	Unit Has Not Run Long Enough	Freezer must be 15°F/± 3°F for icemaker to operate, approximately 24 hours after unit installation. Instruct customer.
	Warm Freezer Temperatures (NOTE: Freezer must be 17°F or colder for icemaker to function)	See PROBLEM A, B, E, F & G earlier in Troubleshooting Guide.
	Shut-off Arm Stuck in Up/Off Position	Check shut-off arm, if stuck in up/off position, correct problem.
	Disconnected or Defective Water Valve	Check electrical connections and water connections at water valve, Reconnect / repair connections. Check resistance of water valve, 160 ohms. Replace if defective.



PROBLEM	POSSIBLE CAUSE	TEST / ACTION
<p>(Continued)</p> <p>L. No Ice, "ICE" Displayed on LCD, but not Flashing</p> <p>NOTE: The Icemaker system is disabled for 45 minutes after each harvest.</p> <p>(Continued)</p>	<p>Icemaker System Fault</p> <ul style="list-style-type: none"> a. Disconnected or damaged electrical connections at icemaker or water valve, or defective water valve. b. Defective Thermostat c. Defective Solenoid Switch c. Defective Holding Switch d. Defective Shut-off Switch e. Defective Mold Heater or Thermostat f. Shut-off Arm in up (OFF) position g. Defective Drive Motor h. Disconnected or damaged electrical connections at icemaker i. Icemaker switch disconnected or faulty j. Electrical connection at control board or control board defect. 	<p>Bypass 45 minute dwell by pressing ICE ON/OFF key to OFF, then again to ON. Then, depress icemaker switch and manually start icemaker cycle by turning drive gear counter-clockwise with flat-blade screwdriver. Watch cycle of icemaker and see #1, #2 & #3 below.</p> <ul style="list-style-type: none"> 1. If icemaker starts and finishes cycle: <ul style="list-style-type: none"> NOTE: Icemaker will only complete 1 revolution if above 15°F± 3°F. a. Visually inspect electrical connections at icemaker & valve. Repair or replace connection. Then, check valve operation with test cord. If valve does not open, replace valve. b. Check continuity of thermostat - Open at 48° ± 6°F, Close at 15° ± 3°F. Replace thermostat if defective. c. With icemaker in park position, check solenoid switch terminals "C" & "NO" for continuity. Then, with icemaker ejector between 8:00 & 10:00 position, check solenoid switch terminals "C" & "NC" for continuity. If no continuity on either check, replace solenoid switch. 2. If icemaker starts but does not finish cycle: <ul style="list-style-type: none"> c. With icemaker in park position, check holding switch terminals "C" & "NC" for continuity. Then, with icemaker ejector between 10:00 & 12:00 position, check holding switch terminals "C" & "NO" for continuity. If no continuity on either check, replace holding switch. d. With icemaker in park position, check shut-off switch terminals "C" & "NO" for continuity. Then, with icemaker ejector between 12:00 & 2:00 position, check shut-off switch terminals "C" & "NC" for continuity. If no continuity on either check, replace shut-off switch. e. Check mold heater for 75-85 ohms. If outside range, replace mold body assembly. If heater checks OK, replace thermostat. 3. If icemaker motor does NOT start: <ul style="list-style-type: none"> f. Lower shut-off arm. g. Check operation of motor with a test cord. If motor does not run, replace motor. h. Check for 115V to icemaker. If no power, check/repair electrical connection. i. Check power to and from icemaker switch. reconnect or repair connection. Replace switch if defective. j. Check for 115V AC at J7-5 on control board. If power is present, check and repair connection. If no power, replace control board.

PROBLEM	POSSIBLE CAUSE	TEST / ACTION
<p><i>(Continued)</i></p> <p>L. No Ice, "ICE" Displayed on LCD, but not Flashing NOTE: <i>The Icemaker system is disabled for 45 minutes after each harvest.</i></p>	<p>Frozen Fill Tube</p> <p>a. Water Supply Problem</p> <p>b. Disconnected or defective fill tube heater</p> <p>c. No power from control board to fill tube heater</p>	<p>a. Check water supply pressure; must be constant 20-100 PSI. If not, instruct customer.</p> <p>b. Check electrical connections at fill tube heater. Reconnect / repair connections. Check resistance of fill tube heater, 2300 - 2900 Ohms. Replace if defective.</p> <p>c. Check for 115V AC at J7-3 on control board. Replace board if defective.</p>
<p>M. No Ice and "ICE" Not Displayed on LCD</p>	<p>Icemaker System Not Energized</p>	<p>Press ICE key. "ICE" should appear on LCD.</p>
<p>N. Icemaker produces Too much ice</p>	<p>Ice Level Arm/Linkage Bent or Broken</p>	<p>Inspect ice level arm, shut-off arm and linkage. Replace defective parts.</p>
	<p>Icemaker Faulty</p>	<p>With the ice level arm in the UP/OFF position, manually start icemaker by rotating the ejector blades clockwise by hand while turning the drive gear counterclockwise with a flat blade screwdriver. If icemaker motor starts with arm in the UP/OFF position, replace icemaker.</p>
<p>O. Icemaker Produces Hollow Cubes</p>	<p>Freezer Too Cold, Cycles Icemaker Too Soon</p>	<p>See PROBLEM "I" earlier in Troubleshooting Guide.</p>
	<p>Not Enough Thermal-Mastic on Icemaker Thermostat</p>	<p>Inspect icemaker, apply more Thermal-Mastic.</p>
	<p>Icemaker System Fault</p>	<p>See "Icemaker System Fault"</p>
<p>P. Icemaker Produces Small cubes</p>	<p>Water Supply Problem</p>	<p>Check water supply pressure; must be constant 20-100 PSI. If not, instruct customer.</p>
	<p>Icemaker Not Level</p>	<p>Check level of icemaker, adjust if needed</p>
<p>Q. Water in Ice Bucket / Clump of Ice in Ice Bucket</p>	<p>Low Fill Adjustment on Icemaker</p>	<p>Check for 100-110 cc. fill (3.5-3.75 oz.). If low, increase by turning adjusting screw counterclockwise.</p>
	<p>Icemaker Not Level</p>	<p>Check level of icemaker, adjust if needed</p>
	<p>High Fill Adjustment on Icemaker</p>	<p>Check for 100-110 cc. fill (3.5-3.75 oz.). Turn adjusting screw clockwise to decrease.</p>
	<p>Water Valve Energized Too Long</p>	<p>Check icemaker area for jammed ice cube, clear jam if present. Check levelness of icemaker; level if needed. Check position of fill cup, reposition if in ice path. Check water supply pressure; must be constant 20-100 PSI. If not, instruct customer. Check water valve operation, opens when 115V AC is applied, closes completely when 115V AC is removed. Water valve Ohms = 160. Replace if defective.</p>
<p>Intermittent Warm Freezer Temperatures</p>	<p>See PROBLEM A, B, E, F & G earlier in Troubleshooting Guide.</p>	



PROBLEM	POSSIBLE CAUSE	TEST / ACTION
R. Membrane Switch on Control Panel Malfunctioning	Control Panel Ribbon Cable Disconnected or Connected Incorrectly	Check control panel ribbon cable at control board. All pins on board should be in ribbon cable terminal. See "Pin 1 Identification Procedure" on page 9-21, to identify Pin 1 of ribbon cable terminal, then verify Pin 1 of cable aligns with Pin 1 on control board.
	Control Panel Assembly Defective (OR) No Signal Read at Control Board	See Membrane Switch/Ribbon Cable Test Procedures. If membrane switch fails any test, replace control panel assembly. If switch passes all tests, replace control board.
S. No Lights	No power to unit	Check power to unit, plug unit in or switch supply circuit breaker ON.
	Unit switched OFF	Check for "OFF" displayed at LCD. If off, press UNIT ON/OFF key.
	Unit in Sabbath Mode	Press UNIT ON/OFF key.
	Defective or loose light bulb(s)	Install a known good light bulb.
	Light Terminator Interrupt / Door Ajar	Check for proper door closing. If door is open too long, lighting system is interrupted by the terminator. If door is obstructed, move obstruction. If door will not close properly, adjust door or replace hinge if defective. After correcting problem, bulbs must cool down before normal lighting function returns.
	Light Switch Disconnected or Defective	Check wire connections at light switch. Reconnect/repair. Check for 115V AC to and from light switch. Replace switch if defective.
	Lighting System Wiring Disconnected or Defective	Check for 115V AC from light sockets back to J7-4 on control board. Reconnect/repair or replace defective components.
T. Lights Stay ON with Doors Closed - (May be Accompanied by Door/Drawer Ajar Alarm Bell)	Door Ajar a. Food product obstruction b. Door/cabinet hinge problem	a. Move obstruction. b. Check and replace hinge if defective.
	Switch Depressor Not Hitting Switch	Replace or repair switch depressor
	Light Switch Defective	Check for 115V AC to and from light switch. Replace switch if defective.
	Wiring to Light Switch and Fan Switch Crossed	Check operation of light switch & fan switch, lights OFF when light switch depressed, fan ON when fan switch depressed. If crossed, reconnect wiring correctly.
	Food Product Obstruction	See "Door Ajar" above.
	No Power From Control Board (NOTE: See Unit in Sabbath Mode above.)	Check for 115V AC at J7-4 on control board. Replace board if defective. (NOTE: See Unit in Sabbath Mode above.)

PROBLEM	POSSIBLE CAUSE	TEST / ACTION
U. No Accent Lights (Model 601RG, 611G, 650G Only)	Accent Lighting System Wiring Disconnected or Defective	Check wiring and connections, then with LIGHTS ON/OFF key in on position, check for 115V AC at: <ul style="list-style-type: none"> • Pin J7-5 on Model 601RG • Pin J7-3 on Models 611G or 650G Reconnect/repair wiring or replace control board if defective.
	Defective light strip(s)	Install known good light strip(s).
	Membrane Switch on Control Panel Malfunctioning	See "Membrane Switch on Control Panel Malfunctioning" on previous page.
V. Condensation on Glass Door (Model 601RG, 611G, 650G Only)	High Room Ambient	Instruct customer
	Door Ajar a. Food product obstruction b. Door/cabinet hinge problem	a. Move obstruction. b. Check and replace hinge if defective. (Also see "Door Not Able to Close Completely" below.)
	Air Leak	Check wiring and heat exchanger holes. Seal if open. If door gasket is new, place small bead of silicone under four corners of gasket, 3"-4" long.
	Unit in Sabbath Mode with Heavy Usage (Fan ON Feature after door close inactive)	Instruct customer. Press UNIT ON/OFF Key.
	Door Heater Defect	Check heater for 2300 - 2900 ohms. If bad, unplug heater and plug in redundant heater.
W. Door Not Able to Close Completely	Unit Not Level	Check levelness of unit. Adjust levelness if un-level.
	Improper Door Adjustment	Adjust doors.
	Door/Cabinet Hinge Problem	Replace hinge if defective.
X. Doors Uneven	Unit Not Level	Check levelness of unit. Adjust levelness if un-level.
	Improper Door Adjustment	Adjust doors.
	Door/Cabinet Hinge Problem	Replace hinge if defective.



SEALED SYSTEM DIAGNOSTICS TABLES

Before entering sealed system, see General Troubleshooting Guide starting on page 9-4, specifically problems “A” - “D”, referencing “Pointers” in first column. By initiating Diagnostic Mode and observing evaporator temperatures, you may find it unnecessary to enter the sealed system. The table on following page also provides a quick reference for temperature/pressure correlation.

NOTE: Always use solder-on process valves. Do NOT use bolt-on process valves as they are prone to leak.

NOTE: Whenever servicing the sealed system, the high-side filter-drier must be replaced.

NORMAL OPERATING PRESSURES			
Model		Normal Low-Side Pressures	Normal High-Side Pressures
601R	Refrigerator	10 psi to 36 psi	90 psi to 100 psi
601RG	Refrigerator	10 psi to 36 psi	90 psi to 100 psi
601F	Freezer	1” vacuum to 13 psi	90 psi to 100 psi
611	Refrigerator	6 psi to 40 psi	90 psi to 100 psi
	Freezer	2” vacuum to 14 psi	90 psi to 100 psi
611G	Refrigerator	6 psi to 40 psi	90 psi to 100 psi
	Freezer	2” vacuum to 14 psi	90 psi to 100 psi
632	Refrigerator	11 psi to 38 psi	90 psi to 100 psi
	Freezer	1” vacuum to 9 psi	90 psi to 100 psi
642	Refrigerator	11 psi to 38 psi	90 psi to 100 psi
	Freezer	1” vacuum to 9 psi	90 psi to 100 psi
650	Refrigerator	6 psi to 40 psi	90 psi to 100 psi
	Freezer	2” vacuum to 14 psi	90 psi to 100 psi
650G	Refrigerator	6 psi to 40 psi	90 psi to 100 psi
	Freezer	2” vacuum to 14 psi	90 psi to 100 psi
680	Refrigerator	16 psi to 36 psi	90 psi to 100 psi
	Freezer	1” vacuum to 9 psi	90 psi to 100 psi
690	Refrigerator	16 psi to 36 psi	90 psi to 100 psi
	Freezer	1” vacuum to 9 psi	90 psi to 100 psi

EVAPORATOR TEMPERATURE / SEALED SYSTEM LOW-SIDE PRESSURE CORRELATION

NOTE: The temperature/pressure table at right is for reference only. A unit's temperature/pressure correlation may differ from those listed due to: variations in evaporator thermistor location, set-points, where the sealed system is in the refrigeration cycle, ambient temperature, etc. If a unit is experiencing temperature problems, it is recommended that you follow the "Pointers" in the first column of the General Troubleshooting Guide. After all mechanical and electrical components have been ruled out, sealed system pressures can be checked by applying solder-on process valves and referencing the preceding page. Do NOT use bolt-on process valves as they are prone to leak. This table should only be used as a last quick check before entering the sealed system.

Temp °F	Pressure
-30	10" Vac
-25	7" Vac
-20	4" Vac
-15	0" Vac
-10	2 Psi
-5	4 Psi
0	7 Psi
5	9 Psi
10	12 Psi
15	15 Psi
20	18 Psi
25	22 Psi
30	26 Psi
35	30 Psi
40	35 Psi
45	40 Psi
50	45 Psi
55	51 Psi
60	57 Psi
65	64 Psi
70	71 Psi
75	78 Psi

PRESSURE INDICATIONS		
<i>If low side pressure is</i>	<i>& high side pressure is</i>	<i>possible problem is</i>
NORMAL	NORMAL	MECHANICAL (see General Troubleshooting Guide)
LOW	LOW	LEAK
LOW	HIGH	RESTRICTION
HIGH	LOW	INEFFICIENT COMPRESSOR
HIGH	HIGH	OVER CHARGE

CONTROL PANEL MEMBRANE SWITCH / RIBBON CABLE TEST

If integrity of control panel assembly is suspect, perform continuity tests at membrane switch ribbon cable terminal housing. Begin by disconnecting ribbon cable from control board. Disengage control board from control panel. Remove control panel assembly from unit and place it on solid surface.

Pin 1 Identification Procedure

The ribbon cable wires are exposed at back of terminal housing (see Figure 9-1). If Pin 1 is not labeled on ribbon cable or terminal housing tag, follow guidelines below to identify Pin 1:

1. If terminal housing is BLUE, then Pin 1 is closest to arrow on housing.
2. If terminal housing is BLACK, check for continuity between first two pins at each end of housing while pushing UNIT ON/OFF key. If there is continuity, then Pin 1 is at that end.

Continuity Test Procedure

1. Identify model number being serviced in left column of table below.
2. Press key listed at top of table.
3. Corresponding numbers to right of model number and below key being pressed are the pin numbers on terminal housing that should have continuity.

NOTE: If any continuity tests show failure, replace entire control panel assembly.

MODEL	UNIT ON/OFF KEY	ALARM (Δ) ON/OFF KEY	ICE ON/OFF KEY	REFRIG WARMER KEY	REFRIG COLDER KEY	FREEZER WARMER KEY	FREEZER COLDER KEY	BULK ICE KEY	LIGHTS ON/OFF KEY
601R	1 - 2	2 - 5	NA	3 - 4	4 - 5	NA	NA	NA	NA
601RG	1 - 2	2 - 5	NA	3 - 4	4 - 5	NA	NA	NA	2 - 3
601F	1 - 2	2 - 5	2 - 3	NA	NA	3 - 4	4 - 5	NA	NA
611	1 - 2	2 - 5	2 - 3	1 - 6	5 - 6	3 - 4	4 - 5	NA	NA
611G	1 - 2	2 - 3	2 - 5	3 - 4	4 - 5	1 - 6	5 - 6	NA	1 - 4
632	1 - 2	2 - 5	2 - 3	1 - 6	5 - 6	3 - 4	4 - 5	NA	NA
642	1 - 2	2 - 5	2 - 3	1 - 6	5 - 6	3 - 4	4 - 5	NA	NA
650	1 - 2	2 - 5	2 - 3	1 - 6	5 - 6	3 - 4	4 - 5	NA	NA
650G	1 - 2	2 - 3	2 - 5	3 - 4	4 - 5	1 - 6	5 - 6	NA	1 - 4
680	1 - 2	2 - 3	2 - 5	3 - 4	4 - 5	1 - 6	5 - 6	1 - 4	NA
690	1 - 2	2 - 3	2 - 5	3 - 4	4 - 5	1 - 6	5 - 6	1 - 4	NA

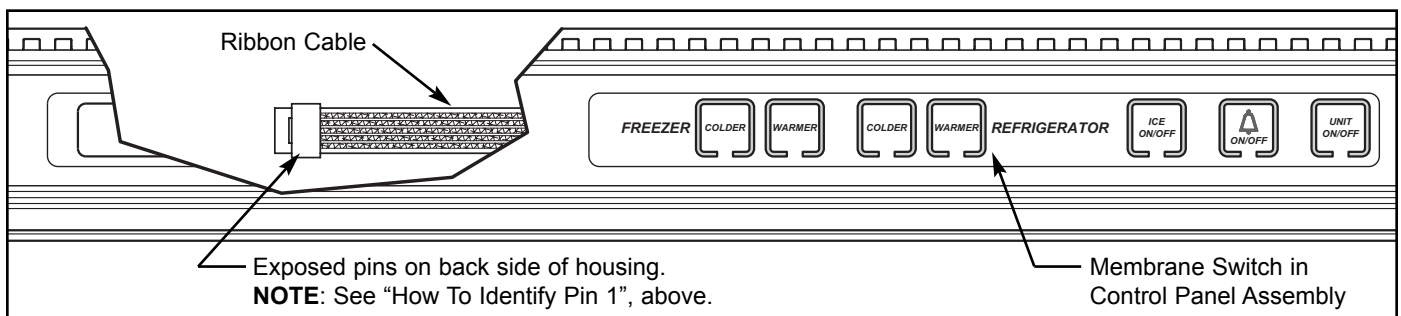


Figure 9-1. Control Panel Assy with Cut-Away View to Show Ribbon Cable (Model 632 Control Panel Shown)

SECTION 10

TECHNICAL DATA

For units starting with serial #1810000

Model 601R

		REFRIGERATOR
CHARGE (R-134a Refrigerant) <i>NOTE: Always check serial tag for exact charge</i>		10 oz. (PTS #1978387) 8.5 oz (SWS #1978387)
NORMAL OPERATING PRESSURES	Low Side High Side	10 psi to 36 psi 90 psi to 100 psi
COMPRESSOR <i>NOTE: Always check current parts price list for possible substitutions.</i>	Service Part No. Manufacturer Mfg. Part No. Original Compressor / Service Compressor Amps Original Compressor / Service Compressor BTU's	4201880 Embraco EMI30HER 0.9 / 0.9 280 / 280
DEFROST METHOD		"Off Cycle Defrost" Evap > 38°F before Compressor ON.
DEFROST TERMINATOR	Cut-In Temp. Cut-Out Temp.	---- ----
DEFROST HEATER	Watts Amps Ohms	---- ---- ----
DRAIN TUBE HEATER	Watts Amps Ohms	---- ---- ----
FILL TUBE HEATER	Watts Amps Ohms	---- ---- ----
WATER VALVE	Watts Amps Ohms (Inductive)	---- ---- ----
THERMISTORS (Evap & Compartment)	Ohms at 32°F / 0°C	30000 - 33000

Model 601RG

		REFRIGERATOR
CHARGE (R-134a Refrigerant) <i>NOTE: Always check serial tag for exact charge</i>		10 oz. (PTS #1978387) 8.5 oz (SWS #1978387)
NORMAL OPERATING PRESSURES		<div style="display: flex; justify-content: space-between;"> <div style="text-align: right;"> Low Side High Side </div> <div style="text-align: left;"> 10 psi to 36 psi 90 psi to 100 psi </div> </div>
COMPRESSOR <i>NOTE: Always check current parts price list for possible substitutions.</i>		
Service Part No. Manufacturer Mfg. Part No. Original Compressor / Service Compressor Amps Original Compressor / Service Compressor BTU's		4201880 Embraco EMI30HER 1.0 / 0.9 370 / 280
DEFROST METHOD		"Off Cycle Defrost" Evap > 38°F before Compressor ON.
DEFROST TERMINATOR		
Cut-In Temp. Cut-Out Temp.		---- ----
DEFROST HEATER		
Watts Amps Ohms		---- ---- ----
DRAIN TUBE HEATER		
Watts Amps Ohms		---- ---- ----
FILL TUBE HEATER		
Watts Amps Ohms		---- ---- ----
WATER VALVE		
Watts Amps Ohms (Inductive)		---- ---- ----
THERMISTORS (Evap & Compartment)		
Ohms at 32°F / 0°C		30000 - 33000
DOOR HEATER		
Watts Amps Ohms		5 .5 2300 - 2900

Model 601F

		FREEZER
CHARGE (R-134a Refrigerant) <i>NOTE: Always check serial tag for exact charge</i>		11 oz.
NORMAL OPERATING PRESSURES	Low Side High Side	1" vacuum to 13 psi 90 psi to 100 psi
COMPRESSOR <i>NOTE: Always check current parts price list for possible substitutions.</i>		
	Service Part No. Manufacturer Mfg. Part No. Original Compressor / Service Compressor Amps Original Compressor / Service Compressor BTU's	4202250 Panasonic DA73C 1.2 / 1.3 715 / 880
DEFROST METHOD		"Adaptive Defrost" Intervals and duration varies. Followed by 5 min. compressor delay.
DEFROST TERMINATOR	Cut-In Temp. Cut-Out Temp.	30°F / -1°C 55°F / 13°C
DEFROST HEATER	Watts Amps Ohms	640 5.5 19 - 23
DRAIN TUBE HEATER	Watts Amps Ohms	7 .06 1700 - 2080
DRAIN TROUGH HEATER	Watts Amps Ohms	50 .4 240 - 280
FILL TUBE HEATER	Watts Amps Ohms	5 .04 2300 - 2900
WATER VALVE	Watts Amps Ohms (Inductive)	50 .4 160
THERMISTORS (Evap & Compartment)	Ohms at 32°F / 0°C	30000 - 33000

Model 611

		REFRIGERATOR	FREEZER
CHARGE (R-134a Refrigerant) <i>NOTE: Always check serial tag for exact charge</i>		10 oz.	8.5 oz. (PTS #1921778) 7 oz. (SWS #1921778)
NORMAL OPERATING PRESSURES	Low Side High Side	6 psi to 40 psi 90 psi to 100 psi	2" vacuum to 14 psi 90 psi to 100 psi
COMPRESSOR <i>NOTE: Always check current parts price list for possible substitutions.</i>	Service Part No. Manufacturer Mfg. Part No. Original Compressor / Service Compressor Amps Original Compressor / Service Compressor BTU's	4201880 Embraco EMI30HER 1.2 / 1.2 280 / 280	4202280 Embraco EMI60HER 2.5 / 2.5 585 / 585
DEFROST METHOD		"Off Cycle Defrost" Evap > 38°F before Compressor ON.	"Adaptive Defrost" Intervals and duration varies. Followed by 5 min. compressor delay.
DEFROST TERMINATOR	Cut-In Temp. Cut-Out Temp.	---- ----	30°F / -1°C 55°F / 13°C
DEFROST HEATER	Watts Amps Ohms	---- ---- ----	640 5.5 19 - 23
DRAIN TUBE HEATER	Watts Amps Ohms	---- ---- ----	---- ---- ----
DRAIN TROUGH HEATER	Watts Amps Ohms	---- ---- ----	---- ---- ----
FILL TUBE HEATER	Watts Amps Ohms	---- ---- ----	5 .04 2300 - 2900
WATER VALVE	Watts Amps Ohms (Inductive)	---- ---- ----	50 .4 160
THERMISTORS (Evap & Compartment)	Ohms at 32°F / 0°C	30000 - 33000	30000 - 33000

Model 611G

		REFRIGERATOR	FREEZER
CHARGE (R-134a Refrigerant) <i>NOTE: Always check serial tag for exact charge</i>		6 oz.	8.5 oz. (PTS #1921778) 7 oz. (SWS #1921778)
NORMAL OPERATING PRESSURES			
	Low Side	6 psi to 40 psi	2" vacuum to 14 psi
	High Side	90 psi to 100 psi	90 psi to 100 psi
COMPRESSOR <i>NOTE: Always check current parts price list for possible substitutions.</i>			
	Service Part No.	4201880	4202280
	Manufacturer	Embraco	Embraco
	Mfg. Part No.	EMI30HER	EMI60HER
	Original Compressor / Service Compressor Amps	1.2 / 1.2	2.5 / 2.5
	Original Compressor / Service Compressor BTU's	280 / 280	585 / 585
DEFROST METHOD		"Off Cycle Defrost" Evap > 38°F before Compressor ON.	"Adaptive Defrost" Intervals and duration varies. Followed by 5 min. compressor delay.
DEFROST TERMINATOR			
	Cut-In Temp.	----	30°F / -1°C
	Cut-Out Temp.	----	55°F / 13°C
DEFROST HEATER			
	Watts	----	640
	Amps	----	5.5
	Ohms	----	19 - 23
DRAIN TUBE HEATER			
	Watts	----	----
	Amps	----	----
	Ohms	----	----
DRAIN TROUGH HEATER			
	Watts	----	----
	Amps	----	----
	Ohms	----	----
FILL TUBE HEATER			
	Watts	----	5
	Amps	----	.04
	Ohms	----	2300 - 2900
WATER VALVE			
	Watts	----	50
	Amps	----	.4
	Ohms (Inductive)	----	160
THERMISTORS (Evap & Compartment)			
	Ohms at 32°F / 0°C	30000 - 33000	30000 - 33000
DOOR HEATER			
	Watts	5	----
	Amps	.5	----
	Ohms	2300 - 2900	----

Model 632

		REFRIGERATOR	FREEZER
CHARGE (R-134a Refrigerant) <i>NOTE: Always check serial tag for exact charge</i>		10 oz.	9 oz. (PTS #1921778) 7 oz. (SWS #1921778)
NORMAL OPERATING PRESSURES			
	Low Side	11 psi to 38 psi	1" vacuum to 9 psi
	High Side	90 psi to 100 psi	90 psi to 100 psi
COMPRESSOR <i>NOTE: Always check current parts price list for possible substitutions.</i>			(See price list for serial number breaks)
	Service Part No.	4201880	4202250 4202280
	Manufacturer	Embraco	Panasonic Embraco
	Mfg. Part No.	EMI30HER	DA73C EMI60HER
	Original Compressor / Service Compressor Amps	1.2 / 1.2	1.2 / 1.3 1.2 / 2.5
	Original Compressor / Service Compressor BTU's	280 / 280	715 / 880 715 / 585
DEFROST METHOD		"Off Cycle Defrost" Evap > 38°F before Compressor ON.	"Adaptive Defrost" Intervals and duration varies. Followed by 5 min. compressor delay.
DEFROST TERMINATOR			
	Cut-In Temp.	----	30°F / -1°C
	Cut-Out Temp.	----	55°F / 13°C
DEFROST HEATER			
	Watts	----	640
	Amps	----	5.5
	Ohms	----	19 - 23
DRAIN TUBE HEATER			
	Watts	----	7
	Amps	----	.06
	Ohms	----	1700 - 2080
DRAIN TROUGH HEATER			
	Watts	----	----
	Amps	----	----
	Ohms	----	----
FILL TUBE HEATER			
	Watts	----	5
	Amps	----	.04
	Ohms	----	2300 - 2900
WATER VALVE			
	Watts	----	50
	Amps	----	.4
	Ohms (Inductive)	----	160
THERMISTORS (Evap & Compartment)			
	Ohms at 32°F / 0°C	30000 - 33000	30000 - 33000

Model 642

		REFRIGERATOR	FREEZER
CHARGE (R-134a Refrigerant) <i>NOTE: Always check serial tag for exact charge</i>		9 oz.	7.5 oz. (PTS #1921778) 7 oz. (SWS #1921778)
NORMAL OPERATING PRESSURES	Low Side High Side	11 psi to 38 psi 90 psi to 100 psi	1" vacuum to 9 psi 90 psi to 100 psi
COMPRESSOR <i>NOTE: Always check current parts price list for possible substitutions.</i>	Service Part No. Manufacturer Mfg. Part No. Original Compressor / Service Compressor Amps Original Compressor / Service Compressor BTU's	4201880 Embraco EMI30HER 1.2 / 1.2 280 / 280	(See price list for serial number breaks) 4202250 4202280 Panasonic Embraco DA73C EMI60HER 1.4 / 1.3 1.4 / 2.5 860 / 880 860 / 585
DEFROST METHOD		"Off Cycle Defrost" Evap > 38°F before Compressor ON.	"Adaptive Defrost" Intervals and duration varies. Followed by 5 min. compressor delay.
DEFROST TERMINATOR	Cut-In Temp. Cut-Out Temp.	---- ----	30°F / -1°C 55°F / 13°C
DEFROST HEATER	Watts Amps Ohms	---- ---- ----	640 5.5 19 - 23
DRAIN TUBE HEATER	Watts Amps Ohms	---- ---- ----	7 .06 1700 - 2080
DRAIN TROUGH HEATER	Watts Amps Ohms	---- ---- ----	---- ---- ----
FILL TUBE HEATER	Watts Amps Ohms	---- ---- ----	5 .04 2300 - 2900
WATER VALVE	Watts Amps Ohms (Inductive)	---- ---- ----	50 .4 160
THERMISTORS (Evap & Compartment)	Ohms at 32°F / 0°C	30000 - 33000	30000 - 33000

Model 650

	REFRIGERATOR	FREEZER
CHARGE (R-134a Refrigerant) <i>NOTE: Always check serial tag for exact charge</i>	8 oz.	6 oz. (PTS #1921778) 7 oz. (SWS #1921778)
NORMAL OPERATING PRESSURES <div style="text-align: right;"> Low Side High Side </div>	6 psi to 40 psi 90 psi to 100 psi	2" vacuum to 14 psi 90 psi to 100 psi
COMPRESSOR <i>NOTE: Always check current parts price list for possible substitutions.</i> <div style="text-align: right;"> Service Part No. Manufacturer Mfg. Part No. Original Compressor / Service Compressor Amps Original Compressor / Service Compressor BTU's </div>	4201880 Embraco EMI30HER 1.2 / 1.2 280 / 280	4202280 Embraco EMI60HER 2.5 / 2.5 585 / 585
DEFROST METHOD	"Off Cycle Defrost" Evap > 38°F before Compressor ON.	"Adaptive Defrost" Intervals and duration varies. Followed by 5 min. compressor delay.
DEFROST TERMINATOR <div style="text-align: right;"> Cut-In Temp. Cut-Out Temp. </div>	---- ----	30°F / -1°C 55°F / 13°C
DEFROST HEATER <div style="text-align: right;"> Watts Amps Ohms </div>	---- ---- ----	640 5.5 19 - 23
DRAIN TUBE HEATER <div style="text-align: right;"> Watts Amps Ohms </div>	---- ---- ----	---- ---- ----
DRAIN TROUGH HEATER <div style="text-align: right;"> Watts Amps Ohms </div>	---- ---- ----	---- ---- ----
FILL TUBE HEATER <div style="text-align: right;"> Watts Amps Ohms </div>	---- ---- ----	5 .04 2300 - 2900
WATER VALVE <div style="text-align: right;"> Watts Amps Ohms (Inductive) </div>	---- ---- ----	50 .4 160
THERMISTORS (Evap & Compartment)	Ohms at 32°F / 0°C 30000 - 33000	30000 - 33000

Model 650G

		REFRIGERATOR	FREEZER
CHARGE (R-134a Refrigerant) <i>NOTE: Always check serial tag for exact charge</i>		7 oz.	6 oz.
NORMAL OPERATING PRESSURES			
	Low Side	6 psi to 40 psi	2" vacuum to 14 psi
	High Side	90 psi to 100 psi	90 psi to 100 psi
COMPRESSOR <i>NOTE: Always check current parts price list for possible substitutions.</i>			
	Service Part No.	4201880	4202280
	Manufacturer	Embraco	Embraco
	Mfg. Part No.	EMI30HER	EMI60HER
	Original Compressor / Service Compressor Amps	1.2 / 1.2	2.5 / 2.5
	Original Compressor / Service Compressor BTU's	280 / 280	585 / 585
DEFROST METHOD		"Off Cycle Defrost" Evap > 38°F before Compressor ON.	"Adaptive Defrost" Intervals and duration varies. Followed by 5 min. compressor delay.
DEFROST TERMINATOR			
	Cut-In Temp.	----	30°F / -1°C
	Cut-Out Temp.	----	55°F / 13°C
DEFROST HEATER			
	Watts	----	640
	Amps	----	5.5
	Ohms	----	19 - 23
DRAIN TUBE HEATER			
	Watts	----	----
	Amps	----	----
	Ohms	----	----
DRAIN TROUGH HEATER			
	Watts	----	----
	Amps	----	----
	Ohms	----	----
FILL TUBE HEATER			
	Watts	----	5
	Amps	----	.04
	Ohms	----	2300 - 2900
WATER VALVE			
	Watts	----	50
	Amps	----	.4
	Ohms (Inductive)	----	160
THERMISTORS (Evap & Compartment)			
	Ohms at 32°F / 0°C	30000 - 33000	30000 - 33000
DOOR HEATER			
	Watts	5	----
	Amps	.5	----
	Ohms	2300 - 2900	----

Model 680

		REFRIGERATOR	FREEZER
CHARGE (R-134a Refrigerant) <i>NOTE: Always check serial tag for exact charge</i>		9 oz.	9 oz. (PTS #1921778) 7 oz. (SWS #1921778)
NORMAL OPERATING PRESSURES	Low Side High Side	16 psi to 36 psi 90 psi to 100 psi	1" vacuum to 9 psi 90 psi to 100 psi
COMPRESSOR <i>NOTE: Always check current parts price list for possible substitutions.</i>	Service Part No. Manufacturer Mfg. Part No. Original Compressor / Service Compressor Amps Original Compressor / Service Compressor BTU's	4201880 Embraco EMI30HER 1.2 / 1.2 280 / 280	(See price list for serial number breaks) 4202250 4202280 Panasonic Embraco DA73C EMI60HER 1.4 / 1.3 1.4 / 2.5 860 / 880 715 / 585
DEFROST METHOD		"Off Cycle Defrost" Evap > 38°F before Compressor ON.	"Adaptive Defrost" Intervals and duration varies. Followed by 5 min. compressor delay.
DEFROST TERMINATOR	Cut-In Temp. Cut-Out Temp.	---- ----	30°F / -1°C 55°F / 13°C
DEFROST HEATER	Watts Amps Ohms	---- ---- ----	640 5.5 19 - 23
DRAIN TUBE HEATER	Watts Amps Ohms	---- ---- ----	7 .06 1700 - 2080
DRAIN TROUGH HEATER	Watts Amps Ohms	---- ---- ----	15 .13 790 - 970
FILL TUBE HEATER	Watts Amps Ohms	---- ---- ----	5 .04 2300 - 2900
WATER VALVE	Watts Amps Ohms (Inductive)	20 .2 260	50 .4 160
THERMISTORS (Evap & Compartment)	Ohms at 32°F / 0°C	30000 - 33000	30000 - 33000
MULLION CHUTE HEATER	Watts Amps Ohms	15 .13 790 - 970	---- ---- ----
GLASS WELL HEATER	Watts Amps (PTS #1810000) Ohms (Heater 1 - SWS #1810000) Ohms (Heater 2 - SWS #1810000) Ohms	5 .04 2600 - 3100 1400 - 1800 2600 - 3100	---- ---- ---- ---- ----

Model 690

		REFRIGERATOR	FREEZER
CHARGE (R-134a Refrigerant) <i>NOTE: Always check serial tag for exact charge</i>		10 oz.	8 oz. (PTS #1921778) 7 oz. (SWS #1921778)
NORMAL OPERATING PRESSURES	Low Side High Side	16 psi to 36 psi 90 psi to 100 psi	1" vacuum to 9 psi 90 psi to 100 psi
COMPRESSOR <i>NOTE: Always check current parts price list for possible substitutions.</i>	Service Part No. Manufacturer Mfg. Part No. Original Compressor/Service Compressor Amps Original Compressor/Service Compressor BTU's	4201880 Embraco EMI30HER 1.2 / 1.2 280 / 280	(See price list for serial number breaks) 4202250 4202280 Panasonic Embraco DA73C EMI60HER 1.4 / 1.3 1.4 / 2.5 860 / 880 715 / 585
DEFROST METHOD		"Off Cycle Defrost" Evap > 38°F before Compressor ON.	"Adaptive Defrost" Intervals and duration varies. Followed by 5 min. compressor delay.
DEFROST TERMINATOR	Cut-In Temp. Cut-Out Temp.	---- ----	30°F / -1°C 55°F / 13°C
DEFROST HEATER	Watts Amps Ohms	---- ---- ----	640 5.5 19 - 23
DRAIN TUBE HEATER	Watts Amps Ohms	---- ---- ----	7 .06 1700 - 2080
DRAIN TROUGH HEATER	Watts Amps Ohms	---- ---- ----	15 .13 790 - 970
FILL TUBE HEATER	Watts Amps Ohms	---- ---- ----	5 .04 2300 - 2900
WATER VALVE	Watts Amps Ohms (Inductive)	20 .2 260	50 .4 160
THERMISTORS (Evap & Compartment)	Ohms at 32°F / 0°C	30000 - 33000	30000 - 33000
MULLION CHUTE HEATER	Watts Amps Ohms (Inductive)	15 .13 790 - 970	---- ---- ----
GLASS WELL HEATER	Watts Amps (PTS #1810000) Ohms (Heater 1 - SWS #1810000) Ohms (Heater 2 - SWS #1810000) Ohms	5 .04 2600 - 3100 1400 - 1800 2600 - 3100	---- ---- ---- ---- ----

SECTION 11

WIRING DIAGRAMS & SCHEMATICS

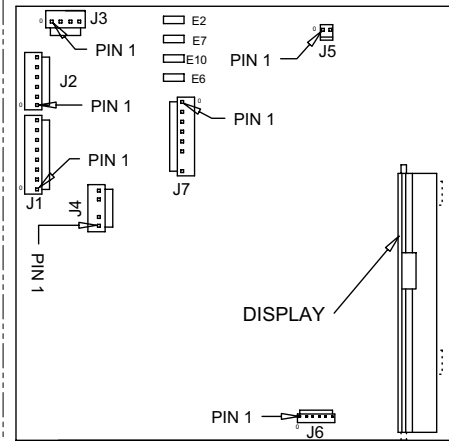
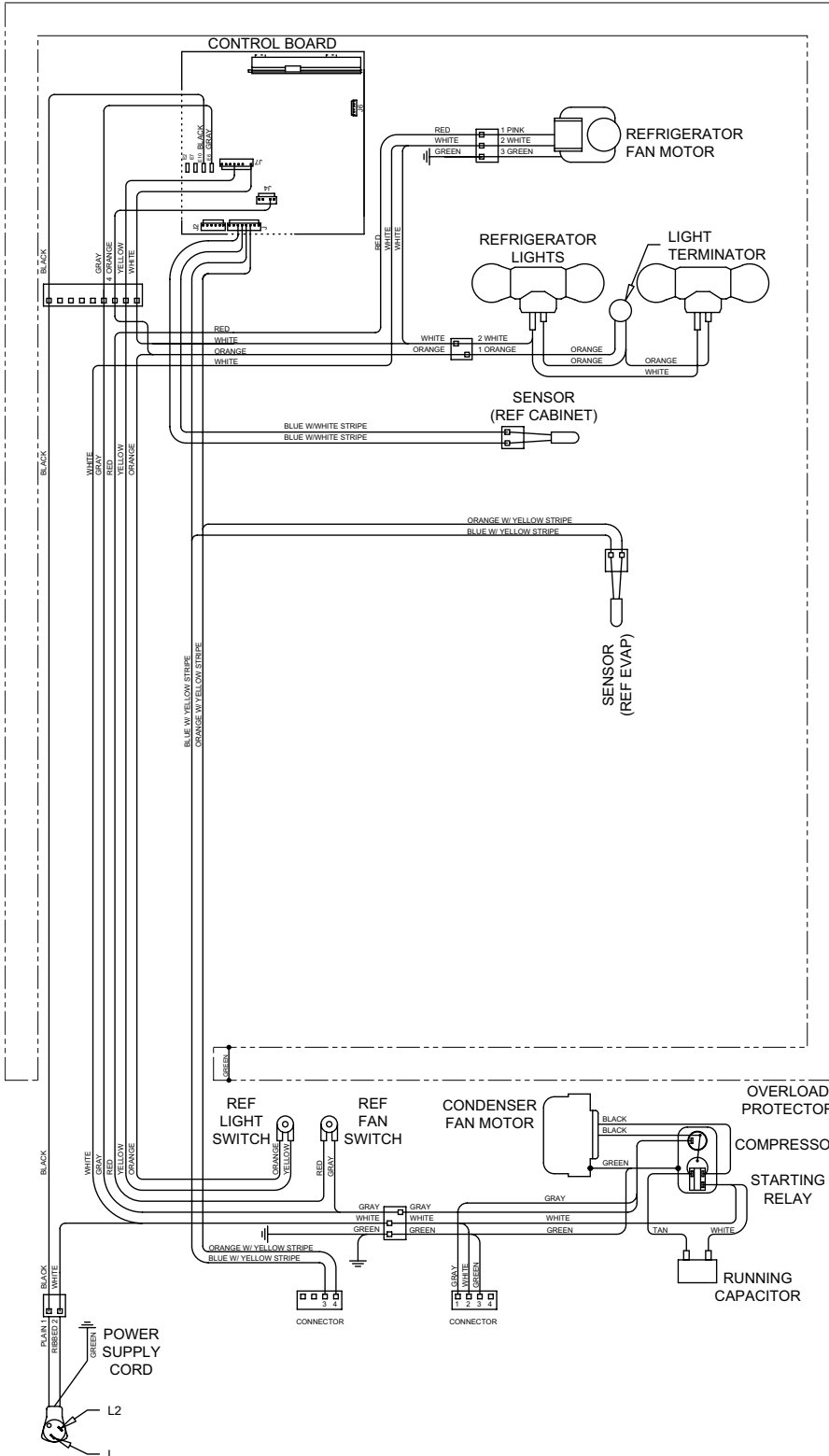
For units starting with serial #1810000

NOTE: *Due to our continuous improvement program, it is recommended to always use the wiring diagrams supplied with the appliance, located in an envelope in the compressor area. These diagrams should only be used for reference prior to servicing a Sub-Zero appliance.*

WIRING DIAGRAM MODEL: 601R

WARNING

-This wiring information is provided for use by qualified service personnel only.
 -Disconnect appliance from electrical supply before beginning service.
 -Be sure all grounding devices are connected when service is complete.
 -Failure to observe the above warnings may result in severe electrical shock.



CONTROL BOARD DETAIL

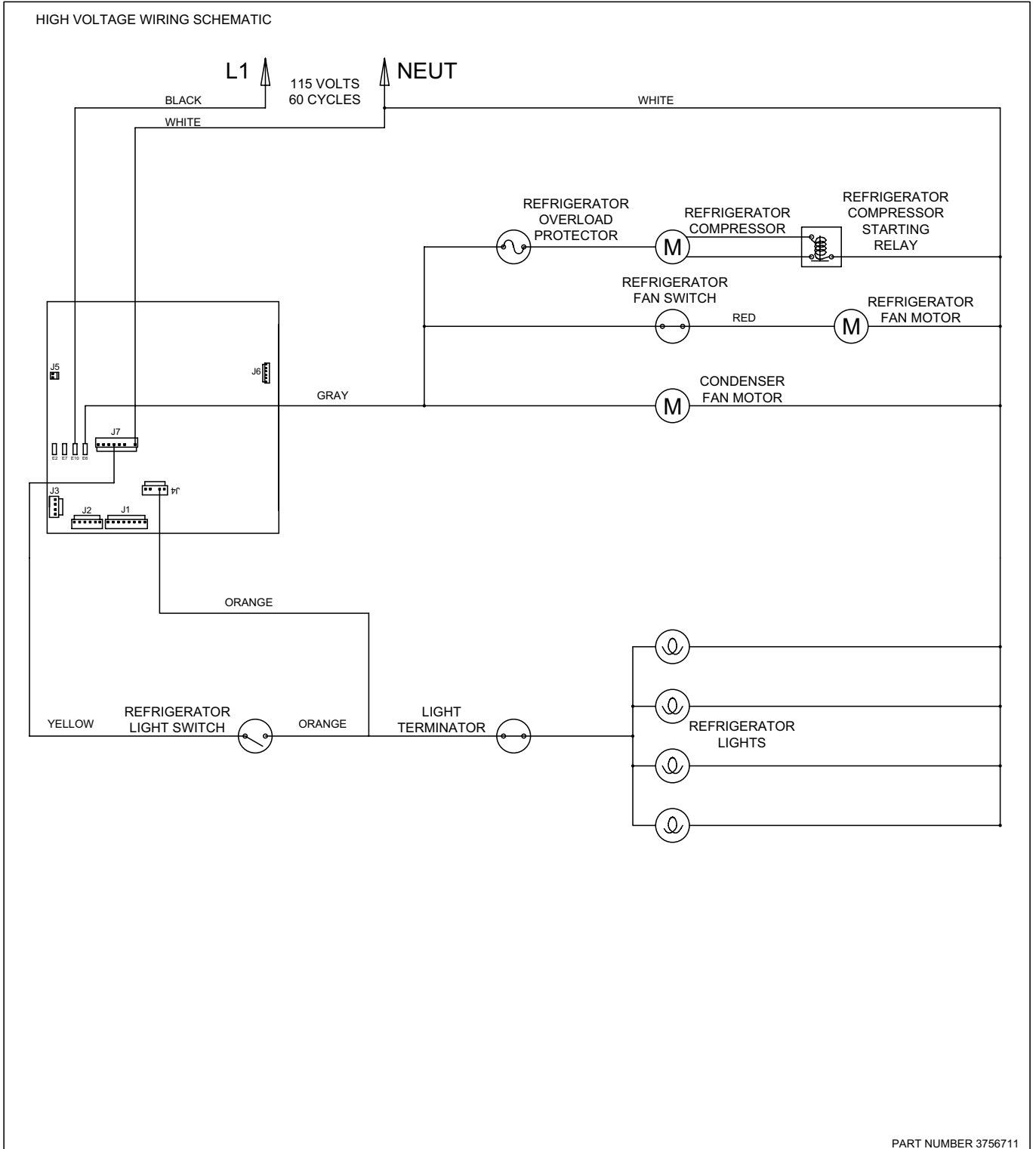
CONTROL BOARD SUMMARY			
CIRCUIT	DESCRIPTION	FUNCTION	COLOR
E7	NOT USED		
E7	POWER IN	POWER INTO BOARD	BLACK
E10	REF COMPRESSOR	POWERS REF COMPRESSOR AND CONDENSER FAN	GRAY
J7-1	C FAN		
J7-2	NOT USED		
J7-3	NOT USED		
J7-4	LITES	POWERS LIGHTS	YELLOW
J7-5	NOT USED		
J7-6	NOT USED		
J7-7	NEUTRAL (NO PIN)	NEUTRAL INTO BOARD	WHITE
J7-8	NOT USED		
J4-2	REF DOOR LIGHT SENSE	SENSES IF REF DOOR OPEN	ORANGE
J4-3	NOT USED		
J4-4	NOT USED		
J4-5	NOT USED		
LOW VOLTAGE THERMISTOR CIRCUITS			
J1-1	NOT USED		
J1-2	REF EVAP	SENSES REF EVAP TEMP	ORANGE/YLW
J1-3	REF COMPARTMENT	SENSES REF COMPARTMENT TEMP	BLUE/YLW
J1-4	REF COMPARTMENT	SENSES REF COMPARTMENT TEMP	BLUE/YLW
J1-5	REF EVAP	SENSES REF EVAP TEMP	ORANGE/YLW
J1-6	REF COMPARTMENT	SENSES REF COMPARTMENT TEMP	BLUE/YLW
J1-7	NOT USED		
J1-8	NOT USED		

WIRING SCHEMATIC

MODEL: 601R

WARNING

-This wiring information is provided for use by qualified service personnel only.
 -Disconnect appliance from electrical supply before beginning service.
 -Be sure all grounding devices are connected when service is complete.
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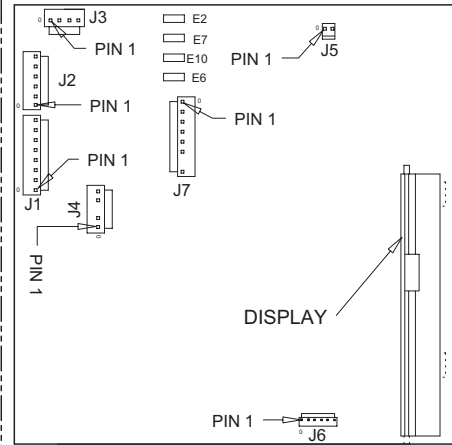
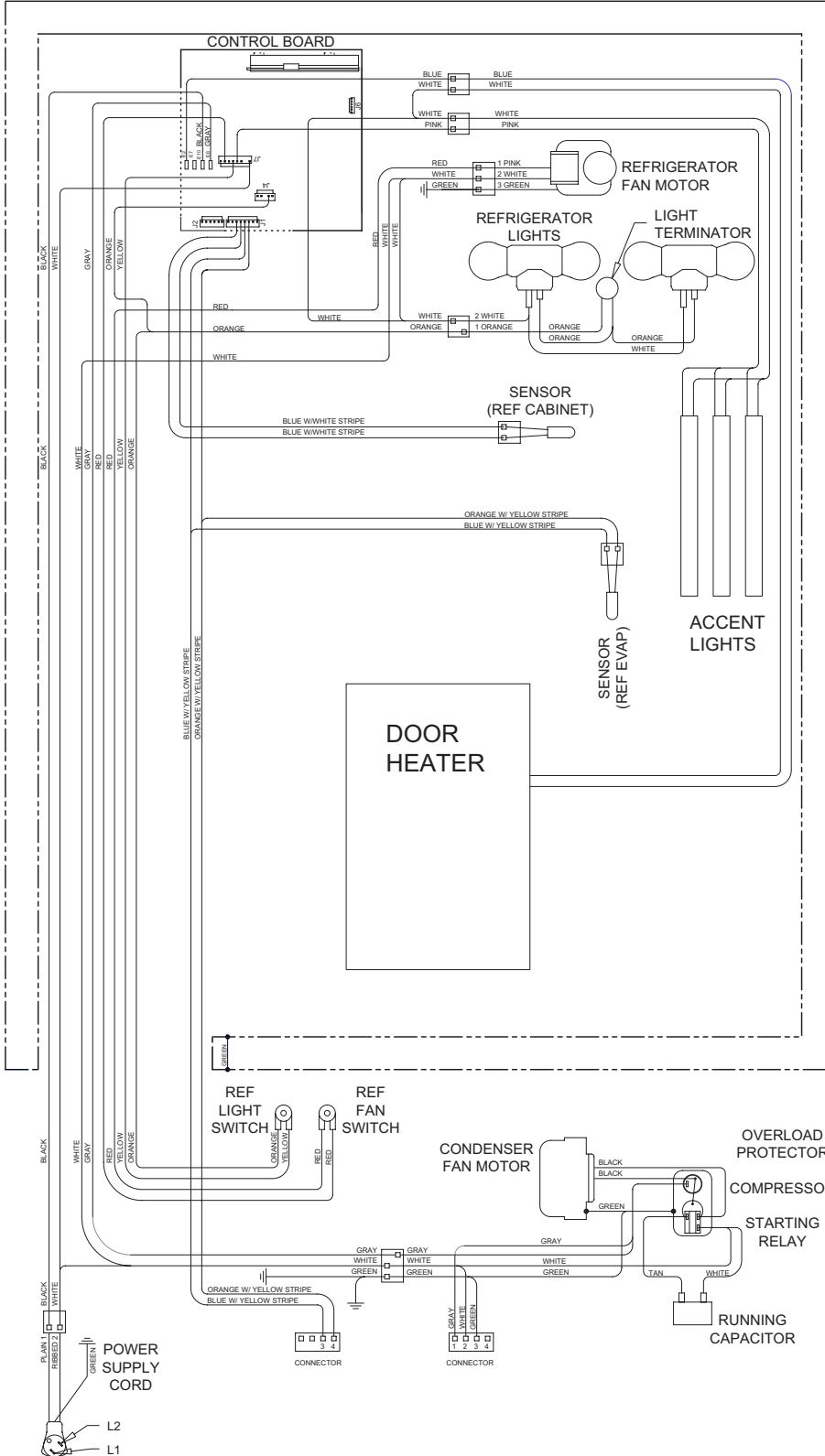


PART NUMBER 3756711

WIRING DIAGRAM MODEL 601RG

WARNING

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- Disconnect appliance from electrical supply before beginning service.
- Be sure all grounding devices are connected when service is complete.
- Failure to observe the above warnings may result in severe electrical shock.



CONTROL BOARD DETAIL

CIRCUIT	DESCRIPTION	FUNCTION	COLOR
120 VOLT CIRCUITS			
E2	DOOR HEATER	POWERS DOOR HEATER	BLUE
E7	NOT USED		
E10	POWER INTO BOARD	POWERS INTO BOARD	BLACK
E6	REF COMPRESSOR	POWERS REF COMPRESSOR AND CONDENSER FAN	GRAY
J7-1	C FAN	NOT USED	
J7-2	REF EVAP FAN	POWERS REF EVAP FAN	RED
J7-3	NOT USED		
J7-4	LITES	POWERS LIGHTS	YELLOW
J7-5	ICE	NOT USED	PINK
J7-6	ACCENT LIGHTS		
J7-7	NOT USED (NO PIN)		
J7-8	NEU	NEUTRAL INTO BOARD	WHITE
J4-1	NOT USED		ORANGE
J4-2	REF DOOR LIGHT SENSE	SENSES IF REF DOOR OPEN	
J4-3	NOT USED (NO PIN)		
J4-4	NOT USED		
J4-5	NOT USED		
LOW VOLTAGE THERMISTOR CIRCUITS			
J1-1	NOT USED		
J1-2	NOT USED		
J1-3	REF EVAP	SENSES REF EVAP TEMP	ORANGE/YLW
J1-4	REF COMP	SENSES REF COMP TEMP	BLACK
J1-5	REF COMPARTMENT	SENSES REF COMPARTMENT	BLUE/WHITE
J1-6	REF COMPARTMENT	SENSES REF COMPARTMENT	BLUE/WHITE
J1-7	NOT USED		
J1-8	NOT USED		

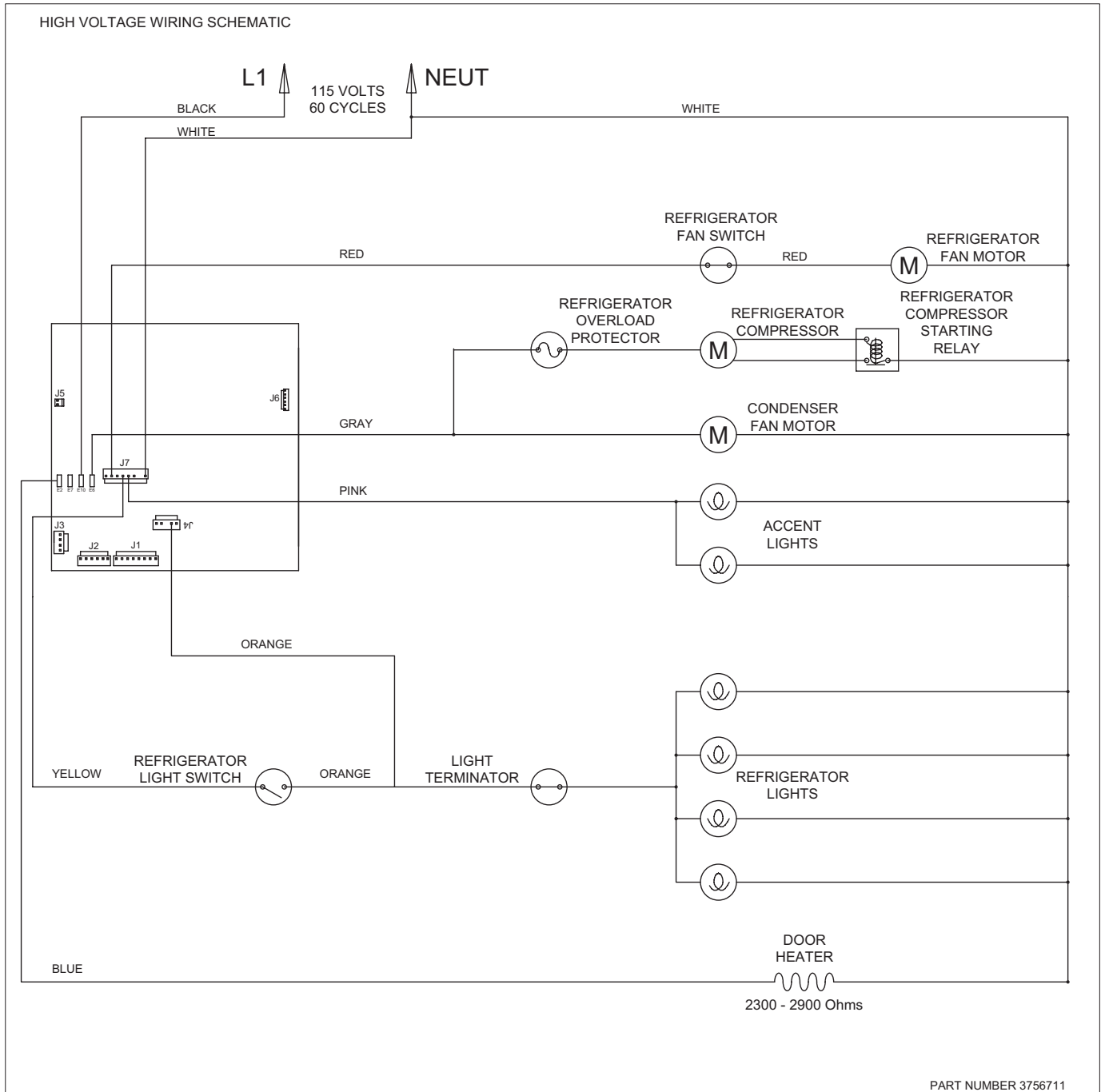
CONTROL BOARD SUMMARY

WIRING SCHEMATIC

MODEL: 601RG

WARNING

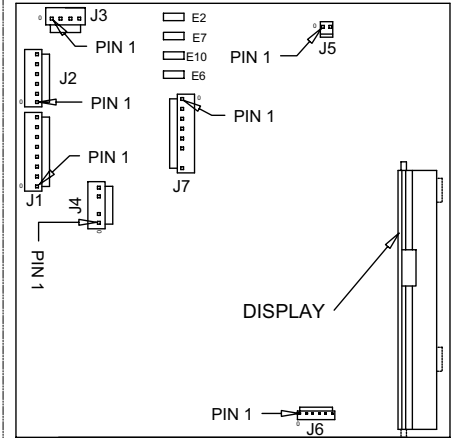
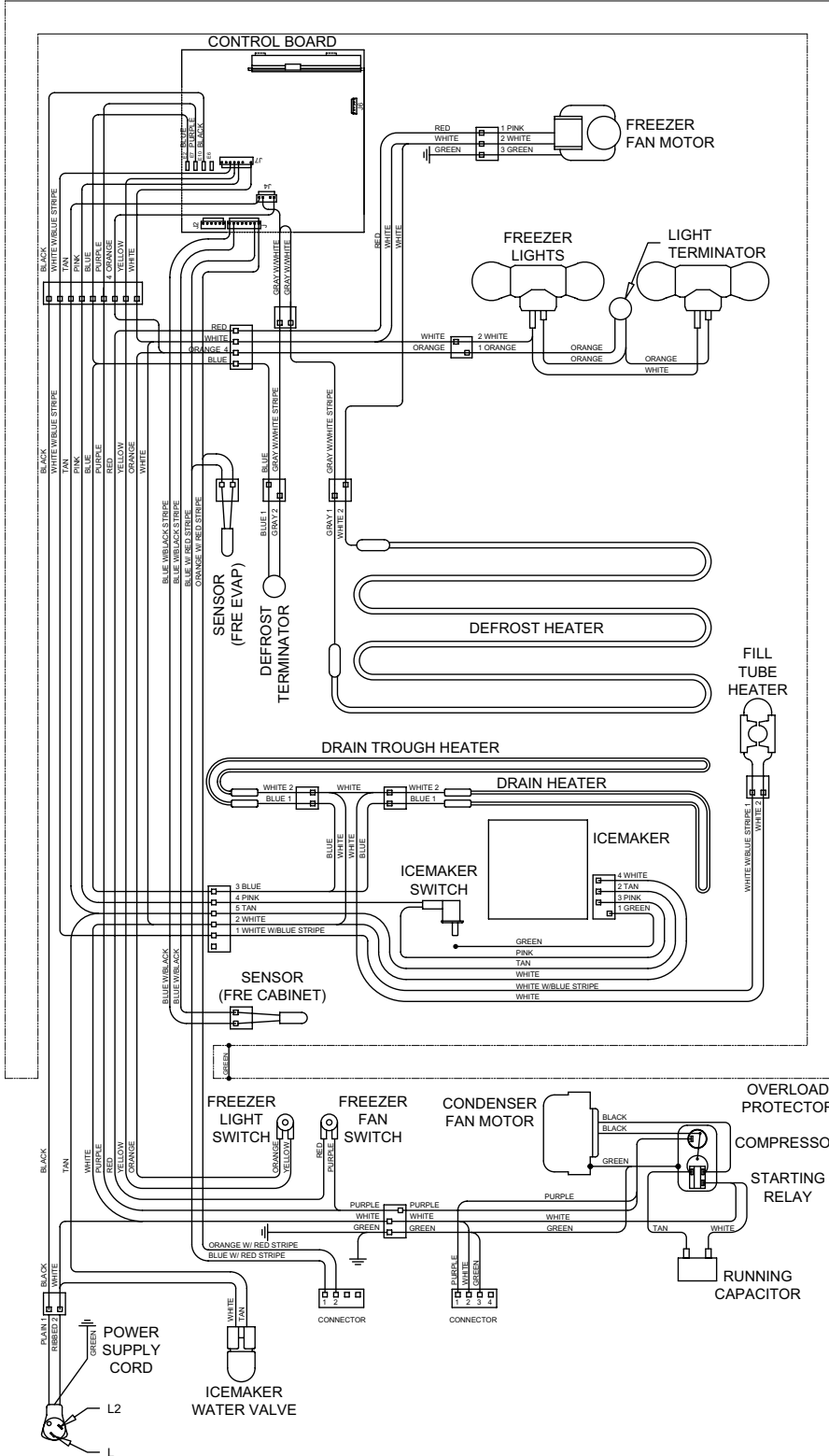
-This wiring information is provided for use by qualified service personnel only.
 -Disconnect appliance from electrical supply before beginning service.
 -Be sure all grounding devices are connected when service is complete.
 -Failure to observe the above warnings may result in severe electrical shock.



WIRING DIAGRAM MODEL: 601F

WARNING

-This wiring information is provided for use by qualified service personnel only.
 -Disconnect appliance from electrical supply before beginning service.
 -Be sure all grounding devices are connected when service is complete.
 -Failure to observe the above warnings may result in severe electrical shock.



CONTROL BOARD DETAIL

CONTROL BOARD SUMMARY			
CIRCUIT	DESCRIPTION	FUNCTION	COLOR
E7	DEFROST HEATER	POWERS DEFROST CIRCUIT	BLUE
E7	FRZ COMPRESSOR	POWERS FRZ COMPRESSOR AND CONDENSER FAN	PURPLE
E10	L1	POWER INTO BOARD	BLACK
E6	RCOMP	NOT USED	
J7-1	C FAN	NOT USED	
J7-2	F FAN	NOT USED	
J7-3	ICE MAKER ACC (FILL TUBE)	POWERS FILL TUBE HEATER AND ACCESSORIES	WHITE/BLUE
J7-4	LITES	POWERS LIGHTS	YELLOW
J7-5	ICE MAKER	POWERS ICE MAKER	PINK
J7-6	NOT USED		
J7-7	NEUTRAL (NO PIN)	NEUTRAL INTO BOARD	WHITE
J7-8	NEUTRAL (NO PIN)	SENSES IF FRZ DOOR OPEN	ORANGE
J4-1	NOT USED		
J4-2	NOT USED		
J4-3	DEF SENSOR	SENSES WHEN DEF HEATER SHUTS OFF	GRAY/WHITE
J4-4	ICE MAKER VALVE SENSOR	SENSES WATER VALVE ACTIVATION	TAN
J4-5	ICE MAKER VALVE SENSOR	SENSES WATER VALVE ACTIVATION	TAN
LOW VOLTAGE THERMISTOR CIRCUITS			
J1-1	FRZ EVAP	SENSES FRZ EVAP TEMP	ORANGE/RED
J1-2	FRZ EVAP	SENSES FRZ EVAP TEMP	BLUE/RED
J1-3	NOT USED		
J1-4	NOT USED		
J1-5	NOT USED		
J1-6	NOT USED		
J1-7	FRZ COMPARTMENT	SENSES FRZ CABINET TEMP	BLUE/BLACK
J1-8	FRZ COMPARTMENT	SENSES FRZ CABINET TEMP	BLUE/BLACK

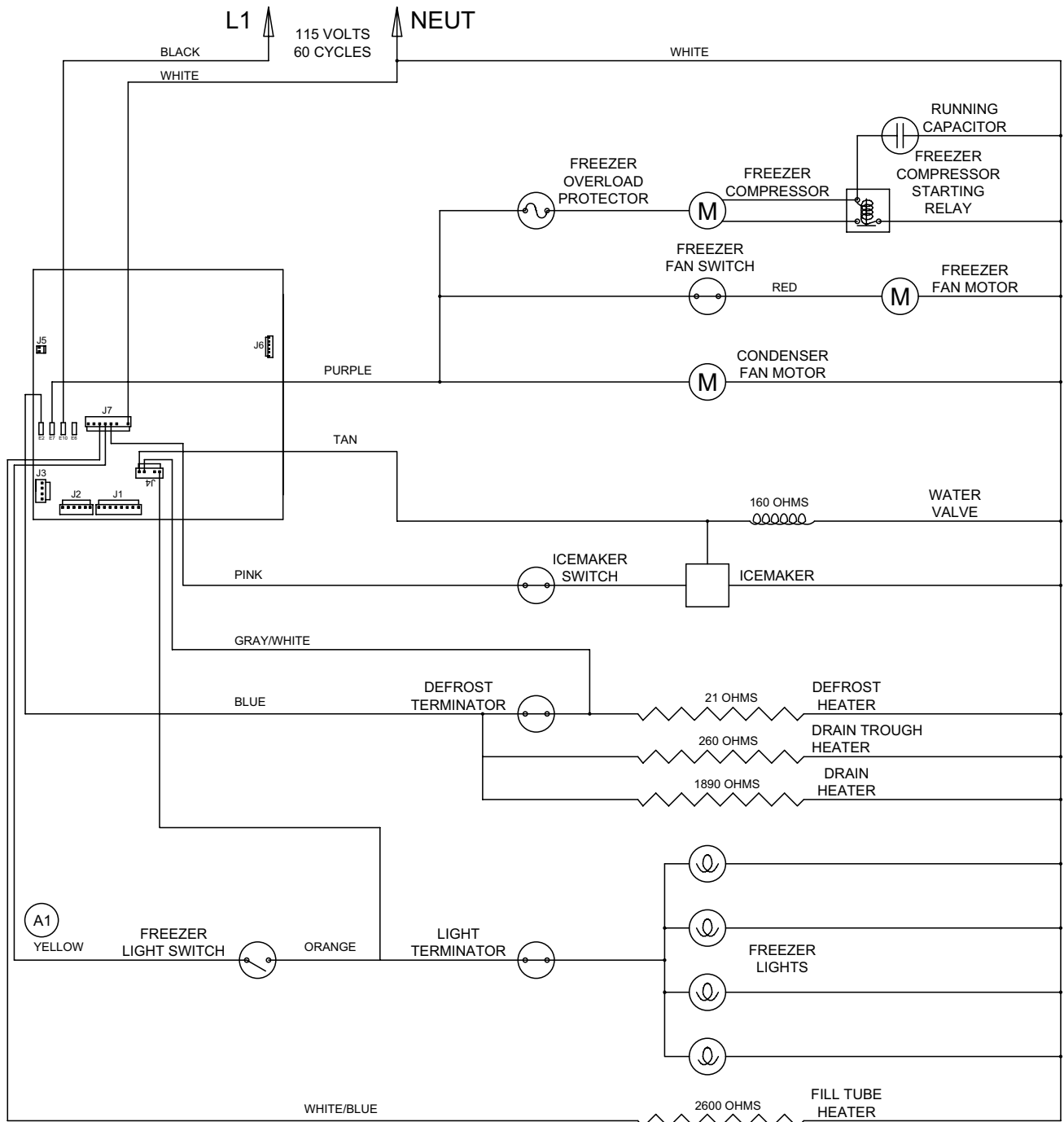
WIRING SCHEMATIC

MODEL: 601F

WARNING

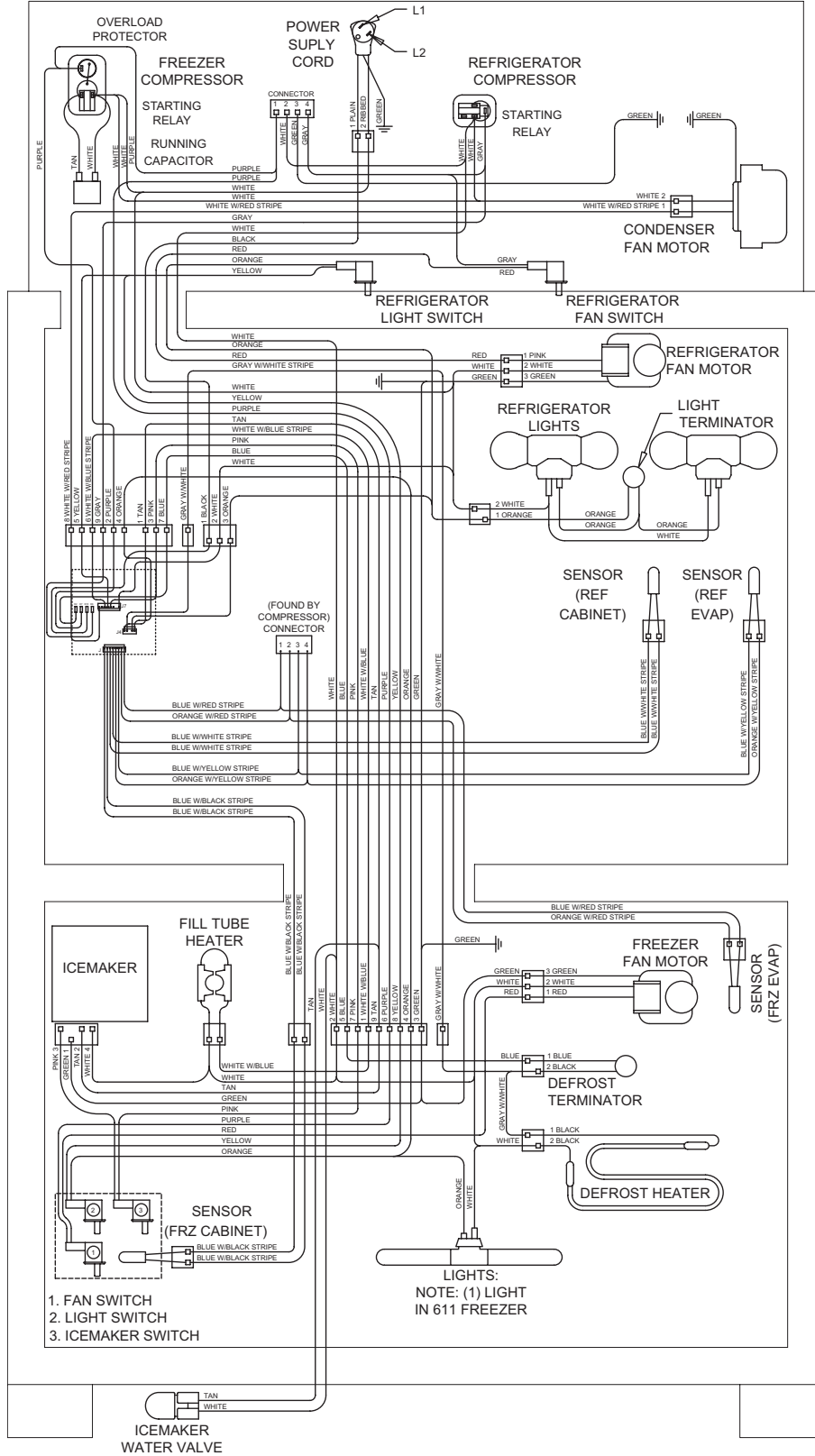
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 -Be sure all grounding devices are connected when service is complete.
 -Failure to observe the above warnings may result in severe electrical shock.

HIGH VOLTAGE WIRING SCHEMATIC



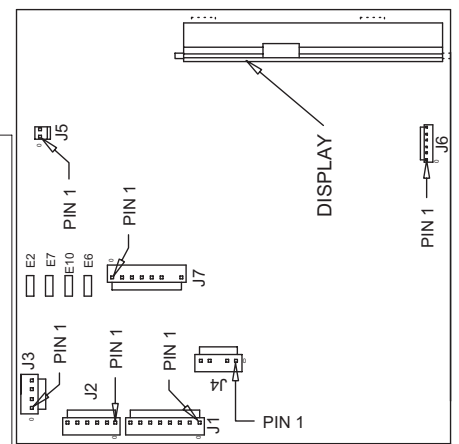
PART NUMBER 3756690

WIRING DIAGRAM MODELS: 611 & 650



⚠ WARNING

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CONTROL BOARD SUMMARY

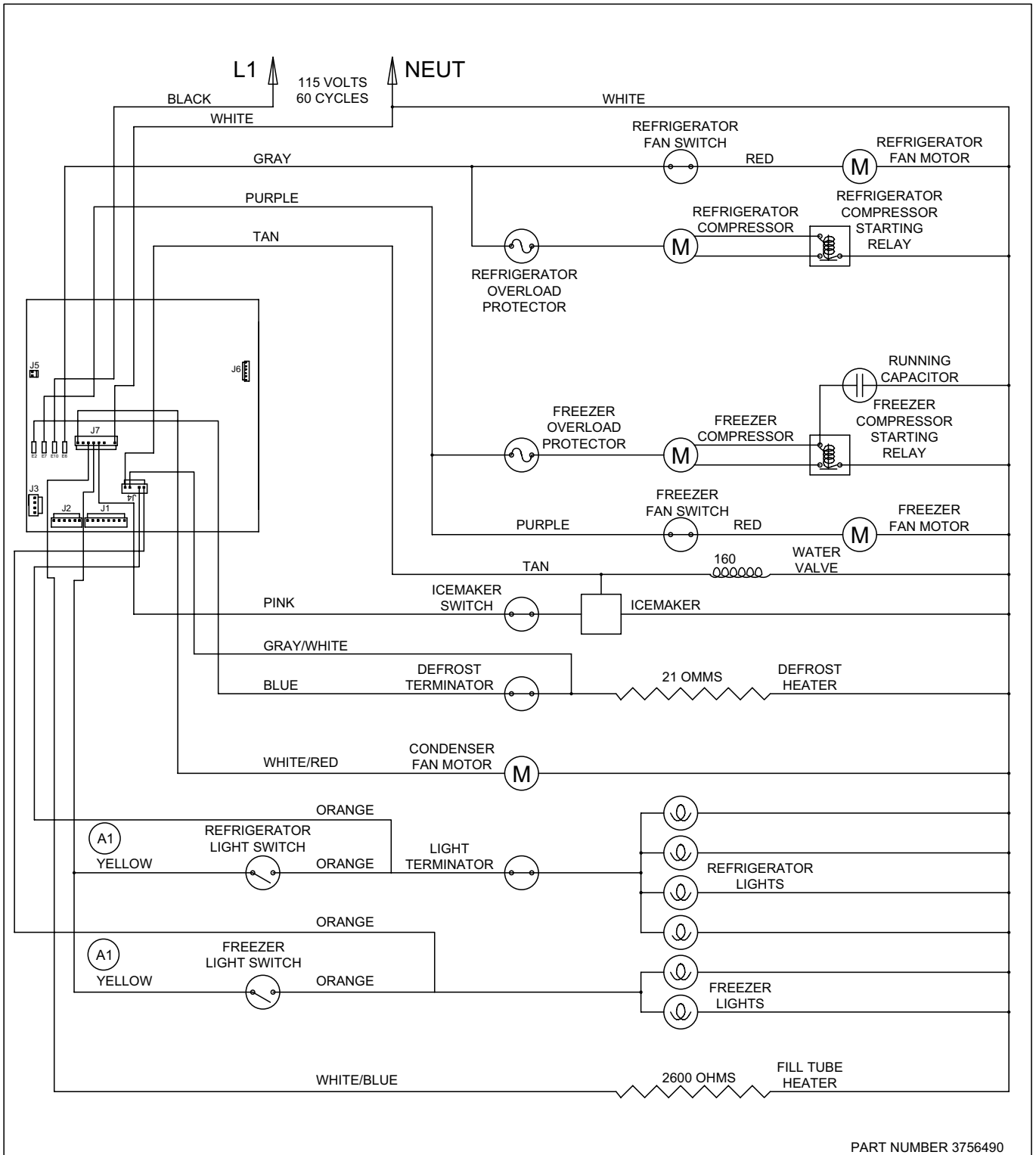
CIRCUIT	DESCRIPTION	FUNCTION	COLOR
E2	DEF FAN	POWERS DEFROST CIRCUIT	BLUE
E7	F-COMP	POWERS FRZ COMPRESSOR	PURPLE
E10	POWER IN	POWER INTO BOARD	BLACK
E1	R-COMP	POWERS REF COMPRESSOR	BLACK
J1	FAN	POWERS REFRIGERATOR FAN	WHITERED
J2	FAN	NOT USED	WHITERED
J2-3	ICEMAKER ACC (FILL TUBE)	POWERS FILL TUBE HEATER AND ACCESSORIES	WHITERED/BLUE
J7-7	LIGHTS	POWERS LIGHTS	YELLOW
J7-8	LIGHTS	POWERS LIGHTS	PINK
J7-9	LIGHTS	POWERS LIGHTS	PINK
J7-10	LIGHTS	POWERS LIGHTS	PINK
J4-1	REF DOOR LIGHT SENSE	SENSES IF REF DOOR OPEN	WHITE
J4-2	REF DOOR LIGHT SENSE	SENSES IF REF DOOR OPEN	BROWN
J4-3	REF DOOR LIGHT SENSE	SENSES IF REF DOOR OPEN	ORANGE
J4-4	REF DOOR LIGHT SENSE	SENSES IF REF DOOR OPEN	ORANGE
J4-5	REF DOOR LIGHT SENSE	SENSES WHEN ICE HEATER SHUTS OFF	GRAY/WHITE
J4-6	REF DOOR LIGHT SENSE	SENSES WATER VALVE ACTIVATION	TAN
J1-1	LOW VOLTAGE THERMISTOR CIRCUITS	SENSES REF EVAP TEMP	ORANGE/RED
J1-2	REF EVAP	SENSES FRZ EVAP TEMP	BLUE/RED
J1-3	REF EVAP	SENSES FRZ EVAP TEMP	ORANGE/YELLOW
J1-4	REF EVAP	SENSES REF EVAP TEMP	BLUE/YELLOW
J1-5	REF EVAP	SENSES REF EVAP TEMP	BLUE/YELLOW
J1-6	REF COMPARTMENT	SENSES REF CABINET	BLUE/WHITE
J1-7	REF COMPARTMENT	SENSES FRZ CABINET	BLUE/BLACK
J1-8	REF COMPARTMENT	SENSES FRZ CABINET	BLUE/BLACK
J1-9	REF COMPARTMENT	SENSES FRZ CABINET	BLUE/BLACK

WIRING SCHEMATIC

MODELS: 611 & 650

WARNING

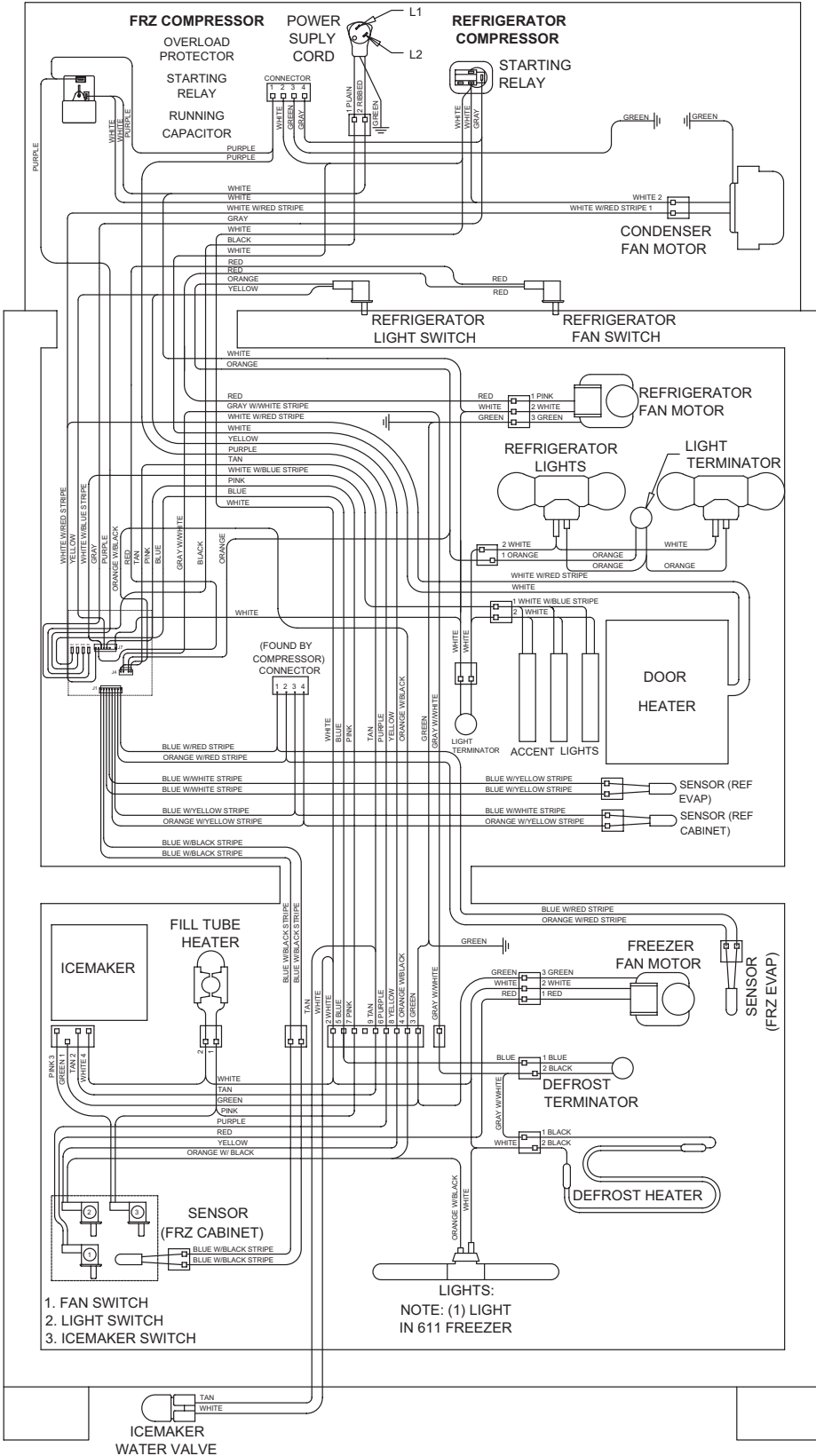
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PART NUMBER 3756490

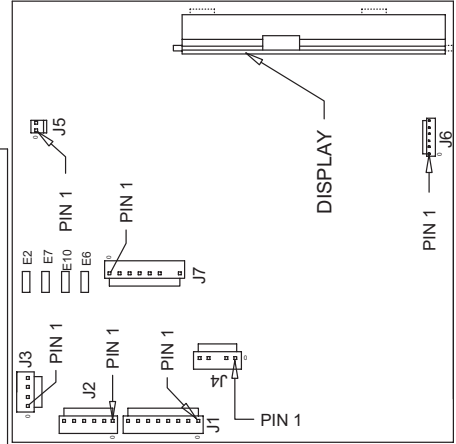
WIRING DIAGRAM

MODELS: 611G & 650G



WARNING

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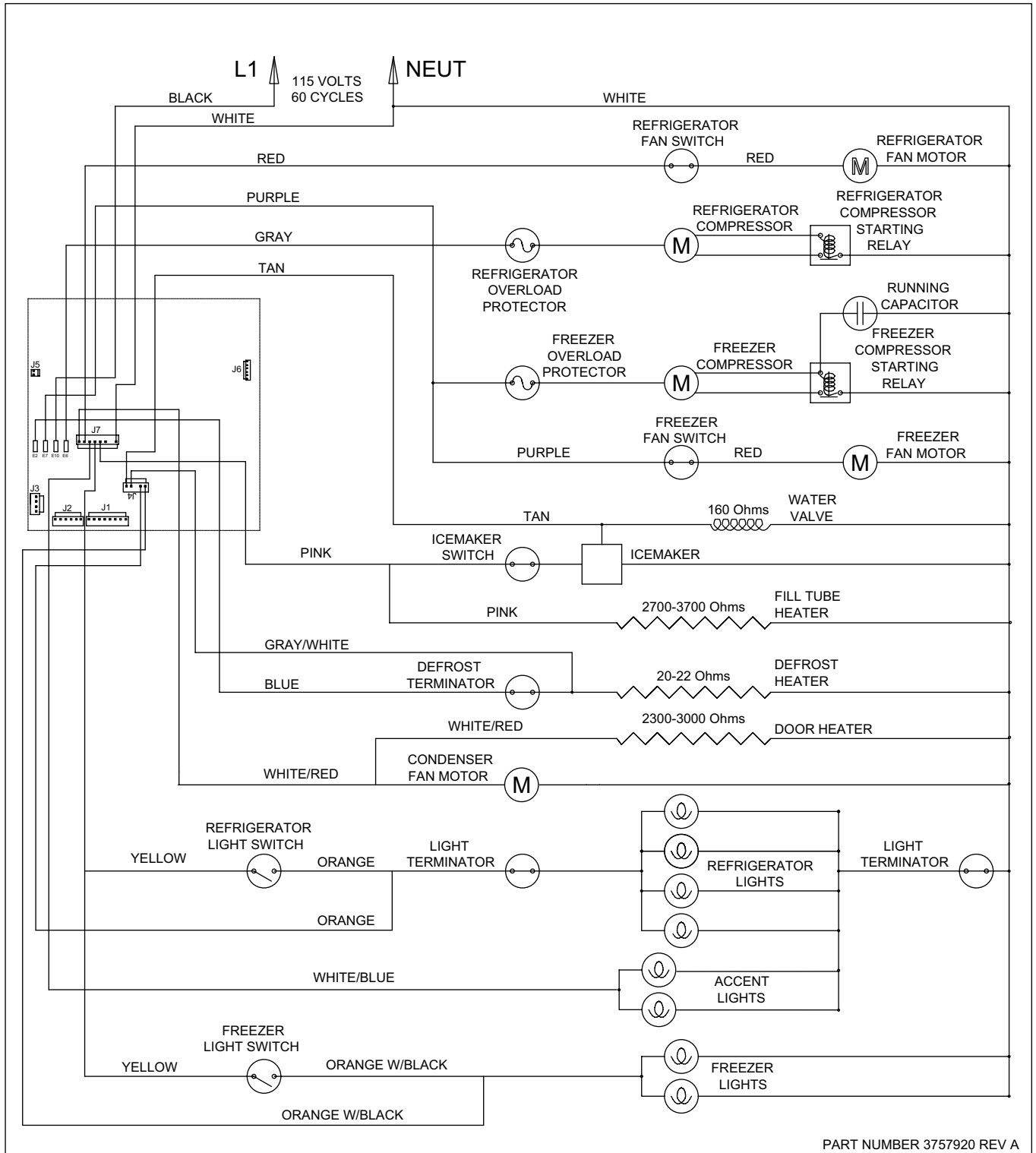
CIRCUIT	DESCRIPTION	FUNCTION	COLOR
E2	DEFROST HEATER	DEFROST HEATER	BLUE
F COMP	FRZ COMPRESSOR	POWERS FRZ COMPRESSOR	PURPLE
E10	FAN MOTOR	POWERS FAN MOTOR	PURPLE
E6	REF COMPRESSOR	POWERS REF COMPRESSOR	GRAY
J7-1	C-FAN	CONDENSER FAN AND DOOR HEATER	WHITE/RED
J7-2	E-FAN	REF EVAP FAN	WHITE/RED
J7-3	REF LIGHTS	REF LIGHTS	YELLOW
J7-4	ICE MAKER	POWERS ICE MAKER	PINK
J7-5	ICE MAKER FILL TUBE	POWERS ICE MAKER AND FILL TUBE HEATER	PINK
J7-6	DEFROST	DEFROST TERMINATOR	GRAY/WHITE
J7-7	DEFROST	DEFROST HEATER	GRAY/WHITE
J7-8	DEFROST	DEFROST TERMINATOR	GRAY/WHITE
J7-9	DEFROST	DEFROST HEATER	GRAY/WHITE
J7-10	DEFROST	DEFROST TERMINATOR	GRAY/WHITE
J7-11	DEFROST	DEFROST HEATER	GRAY/WHITE
J7-12	DEFROST	DEFROST TERMINATOR	GRAY/WHITE
J7-13	DEFROST	DEFROST HEATER	GRAY/WHITE
J7-14	DEFROST	DEFROST TERMINATOR	GRAY/WHITE
J7-15	DEFROST	DEFROST HEATER	GRAY/WHITE
J7-16	DEFROST	DEFROST TERMINATOR	GRAY/WHITE
J7-17	DEFROST	DEFROST HEATER	GRAY/WHITE
J7-18	DEFROST	DEFROST TERMINATOR	GRAY/WHITE

WIRING SCHEMATIC

MODELS: 611G & 650G

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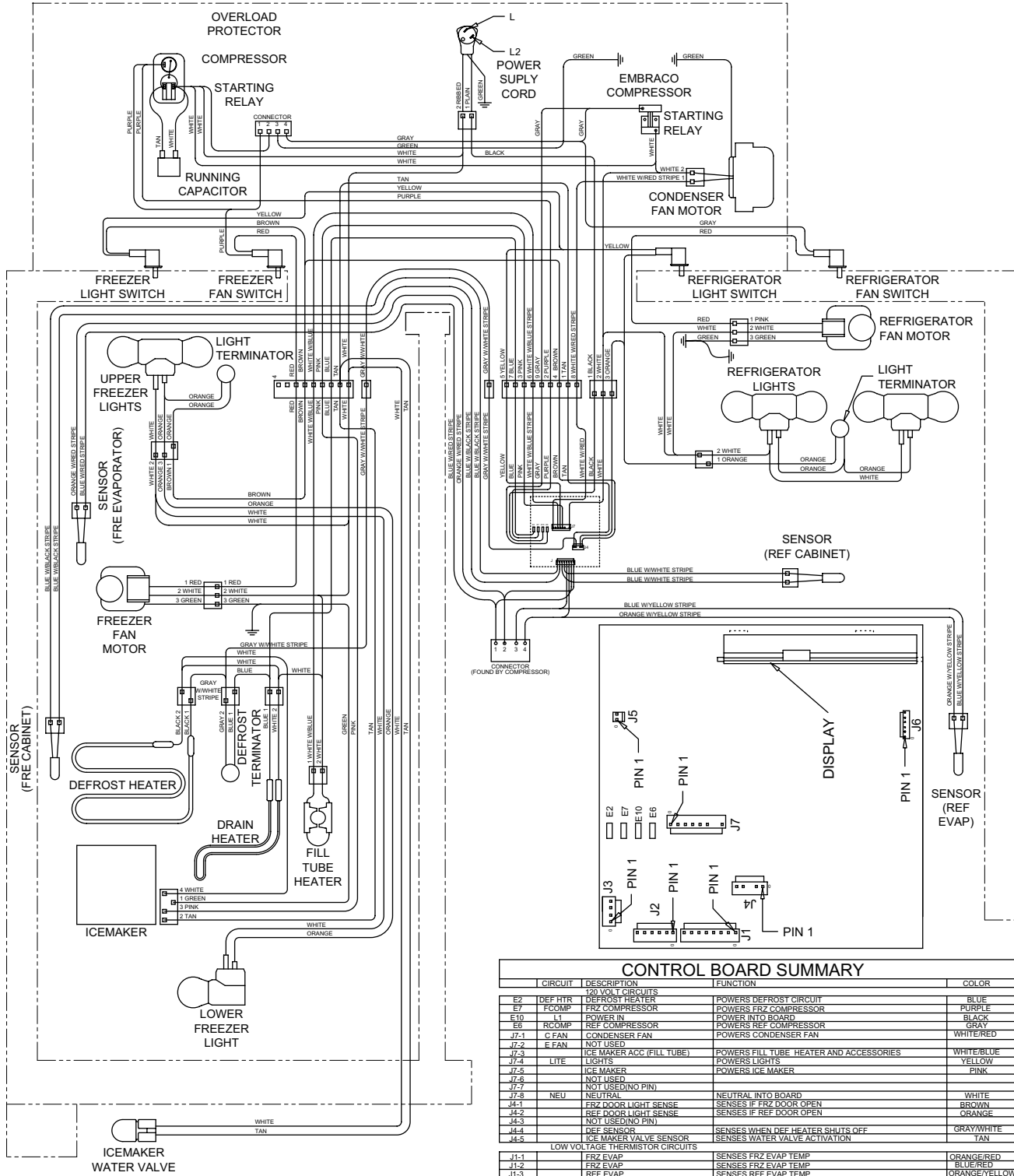


PART NUMBER 3757920 REV A

WIRING DIAGRAM MODELS: 632/642

WARNING

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PART NUMBER 3756771

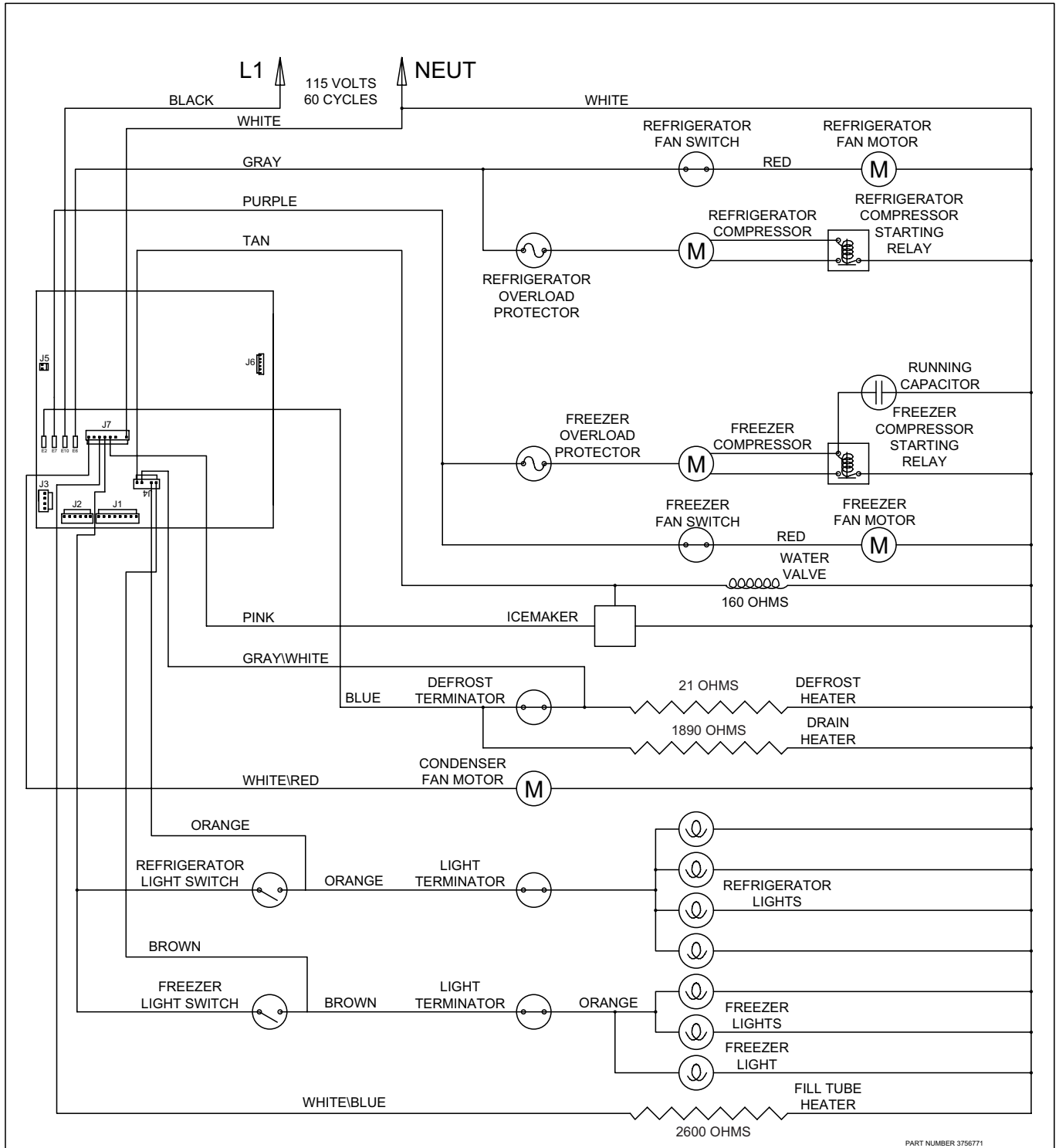
CONTROL BOARD SUMMARY			
CIRCUIT	DESCRIPTION	FUNCTION	COLOR
120 VOLT CIRCUITS			
E2	DEF HTR	POWERS DEFROST HEATER	BLUE
E7	FCOMP	POWERS FRZ COMPRESSOR	PURPLE
E10	L1	POWER INTO BOARD	BLACK
E6	RCOMP	POWERS REF COMPRESSOR	GRAY
J7-1	C FAN	POWERS CONDENSER FAN	WHITE/RED
J7-2	E FAN	NOT USED	
J7-3	ICE MAKER ACC (FILL TUBE)	POWERS FILL TUBE HEATER AND ACCESSORIES	WHITE/BLUE
J4-2	LITE	POWERS LIGHTS	YELLOW
J7-5	ICE MAKER	POWERS ICE MAKER	PINK
J7-6	NOT USED		
J7-7	NOT USED (NO PIN)		
J7-8	NEU	NEUTRAL INTO BOARD	WHITE
J4-1	FRZ DOOR LIGHT SENSE	SENSES IF FRZ DOOR OPEN	BROWN
J4-2	REF DOOR LIGHT SENSE	SENSES IF REF DOOR OPEN	ORANGE
J4-3	NOT USED (NO PIN)		
J4-4	DEF SENSOR	SENSES WHEN DEF HEATER SHUTS OFF	GRAY/WHITE
J4-5	ICE MAKER VALVE SENSOR	SENSES WATER VALVE ACTIVATION	TAN
LOW VOLTAGE THERMISTOR CIRCUITS			
J1-1	FRZ EVAP	SENSES FRZ EVAP TEMP	ORANGE/RED
J1-2	FRZ EVAP	SENSES FRZ EVAP TEMP	BLUE/RED
J1-3	FRZ EVAP	SENSES FRZ EVAP TEMP	ORANGE/YELLOW
J1-4	REF EVAP	SENSES REF EVAP TEMP	BLUE/YELLOW
J1-5	REF COMPARTMENT	SENSES REF CABINET	BLUE/WHITE
J1-6	REF COMPARTMENT	SENSES REF CABINET	BLUE/WHITE
J1-7	FRZ COMPARTMENT	SENSES FRZ CABINET TEMP	BLUE/BLACK
J1-8	FRZ COMPARTMENT	SENSES FRZ CABINET TEMP	BLUE/BLACK

WIRING SCHEMATIC

MODELS: 632/642

WARNING

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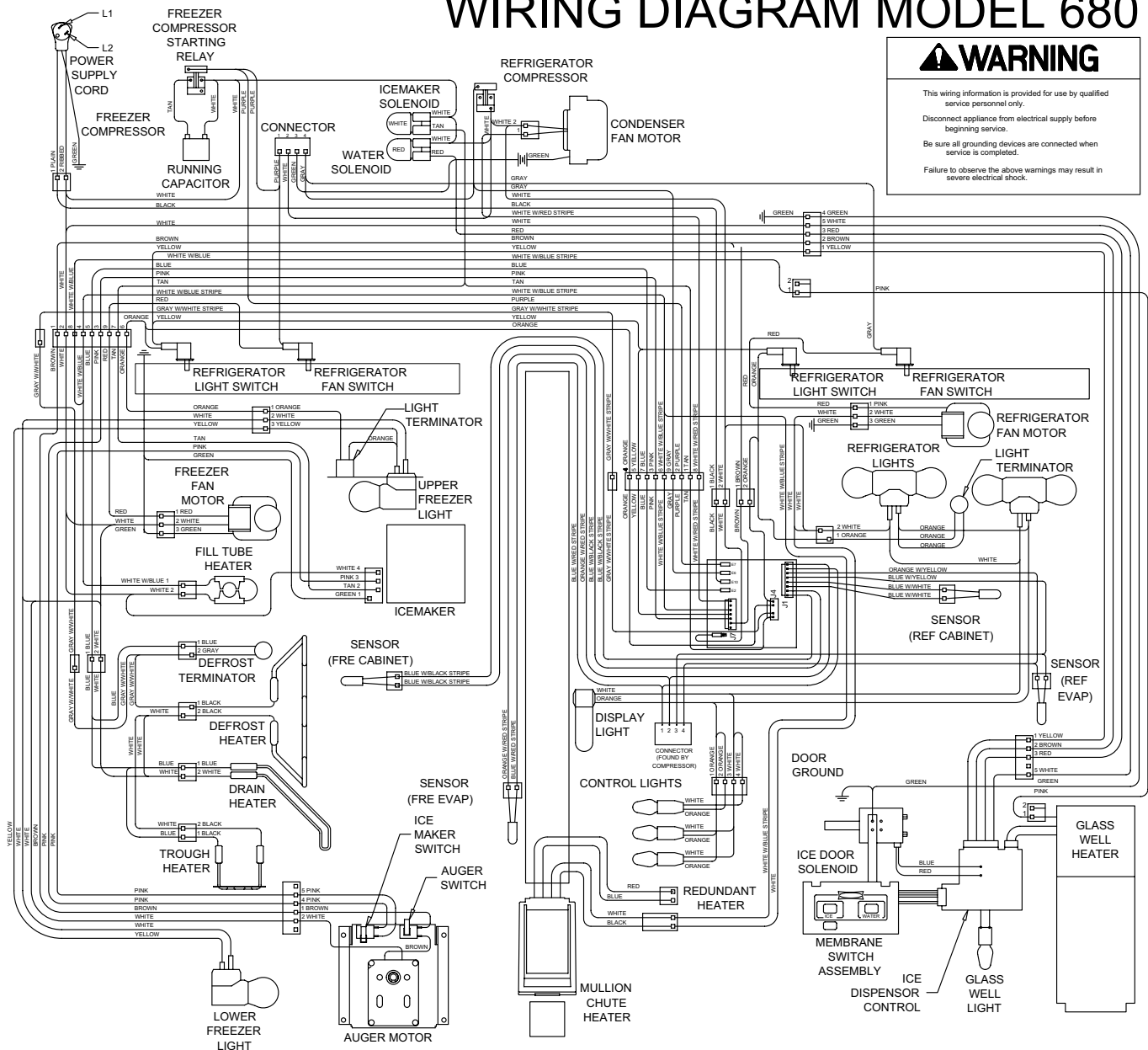


PART NUMBER 3756771

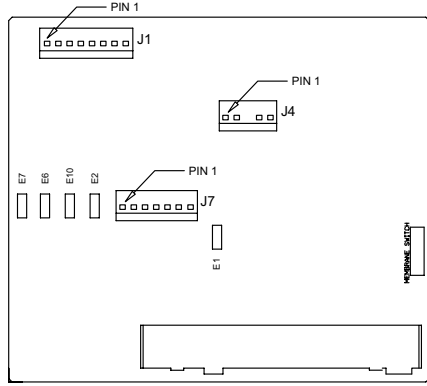
WIRING DIAGRAM MODEL 680

WARNING

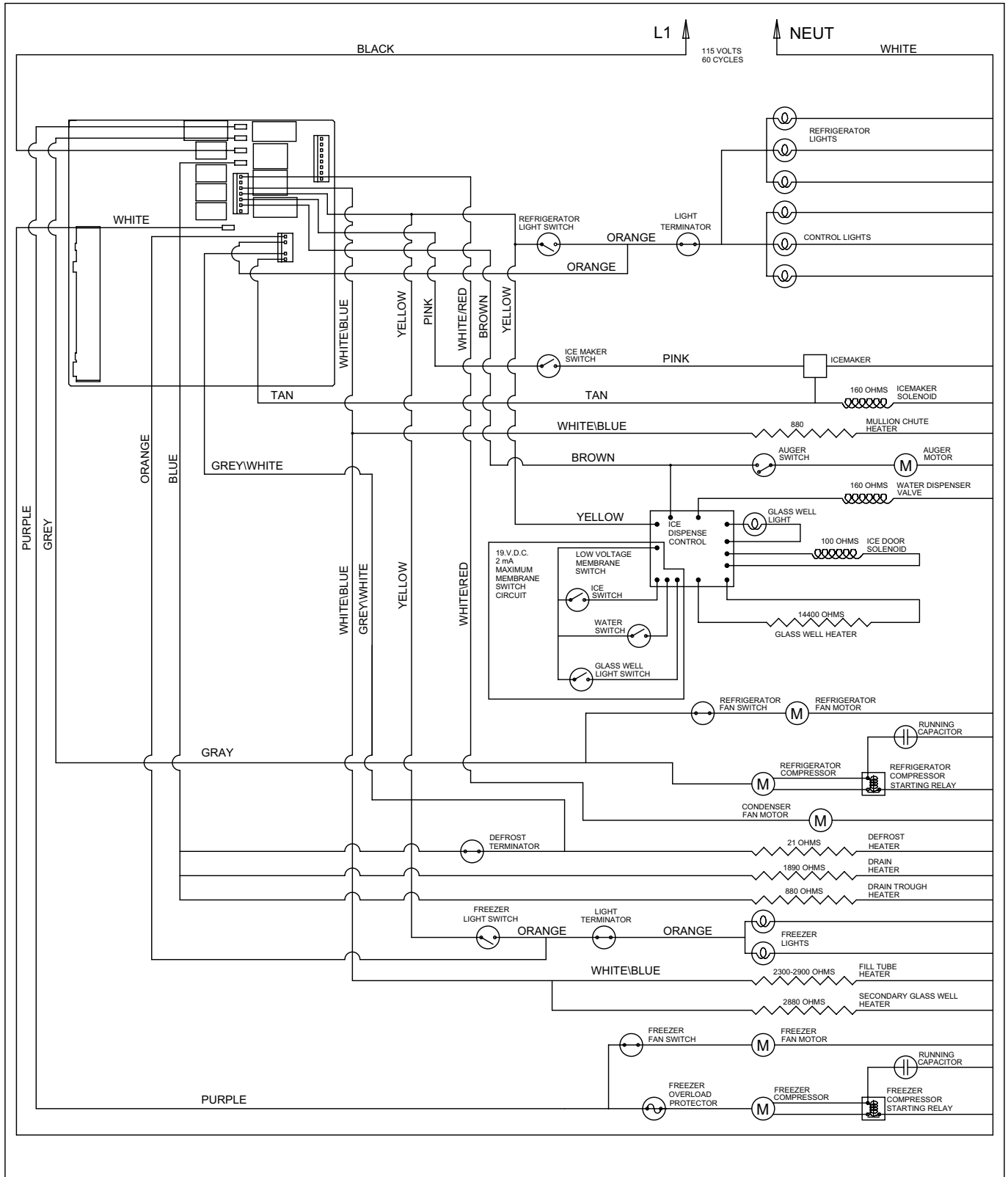
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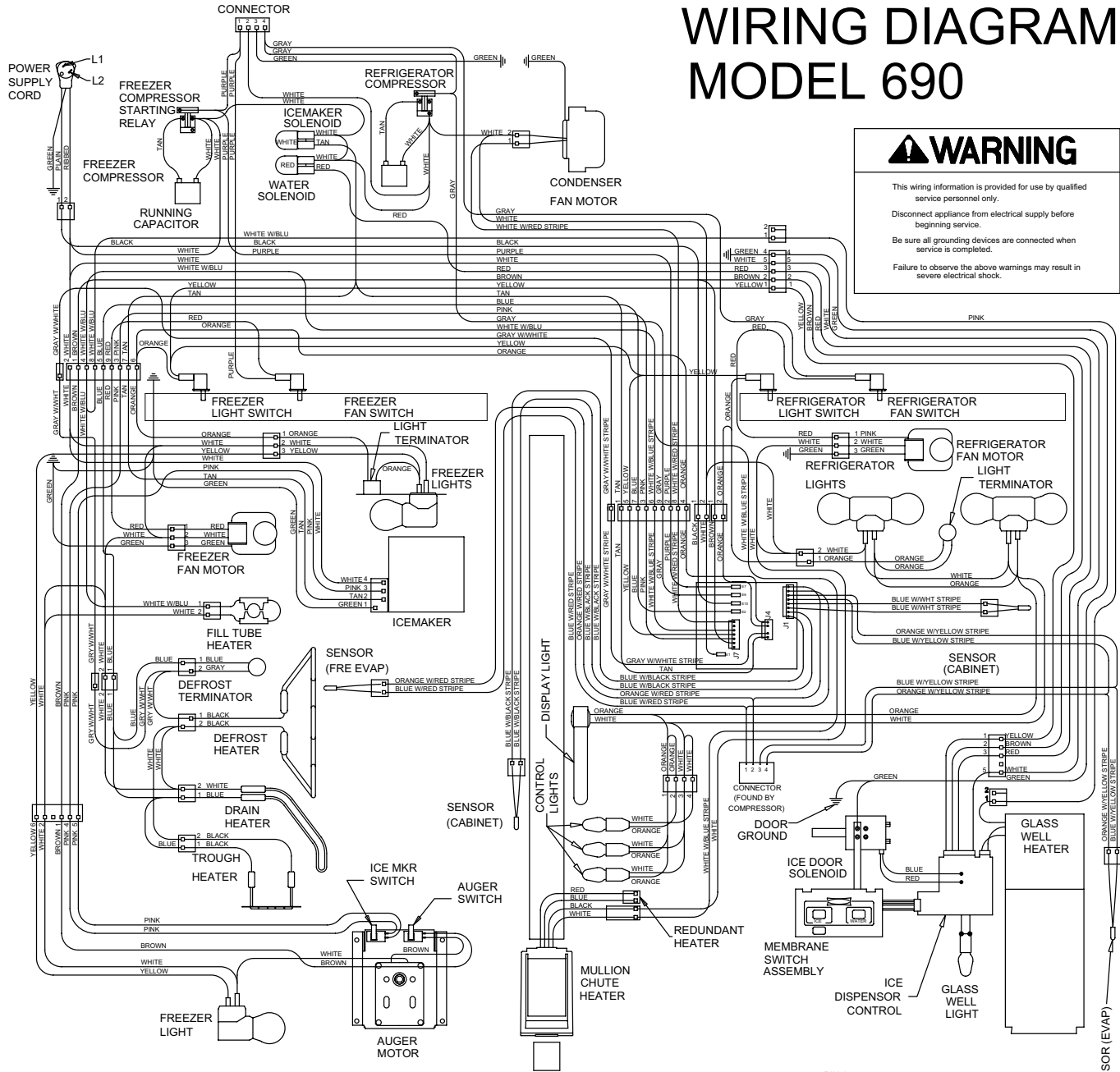
CONTROL BOARD SUMMARY				
CIRCUIT	DESCRIPTION	FUNCTION	COLOR	
E6	RCOMP	120 VOLT CIRCUITS REFRIGERATOR COMPRESSOR	POWERS REFRIG. COMPRESSOR	GRAY
E7	FCOMP	FREEZER COMPRESSOR	POWERS FREEZER COMPRESSOR	PURPLE
E10	L1	POWER IN	POWER INTO BOARD	BLACK
E2	DEF HTR	DEFROST HEATER	POWERS DEFROST CIRCUIT	BLUE
J7-1	C FAN	CONDENSER FAN	POWERS CONDENSER FAN	WHT/RED
J7-2	E FAN	NOT USED		
J7-3	IACC	ICE MAKER ACCESSORIES(FILL TUBE)	POWERS FILL TUBE AND ACCESSORIES	WHT/BLUE
J7-4	LITE	LIGHTS	POWERS LIGHTS	YELLOW
J7-5	ICE	ICEMAKER	POWERS ICEMAKER	PINK
J7-6	IAUG	BULK ICE	POWERS AUGER MOTOR	BROWN
J7-7		NOT USED		
E1	NEU	NEUTRAL	NEUTRAL INTO BOARD	WHITE
J4-1	F DR	FREEZER LIGHT SENSOR	SENSES IF FREEZER DOOR OPEN	ORANGE
J4-2	R DR	REF LIGHT SENSOR	SENSES IF REF DOOR OPEN	ORANGE
J4-3		NOT USED (NO PIN)		
J4-4		DEFROST SENSE-TERMINATOR	SENSES WHEN HEATER SHUTS OFF	GRAY/WHT
J5-5		ICE MAKER VALVE	SENSES WATER VALVE ACTIVATION	TAN
LOW VOLTAGE THERMISTOR CIRCUITS				
J1-1	EVAP FRZ	FREEZER EVAPORATOR	SENSES FRE EVAP TEMP	ORANGE/RED
J1-2	EVAP FRZ	FREEZER EVAPORATOR	SENSES FRE EVAP TEMP	BLU/RED
J1-3	EVAP REF	REFRIGERATOR EVAPORATOR	SENSES REF EVAP TEMP	ORANGE/YEL
J1-4	EVAP REF	REFRIGERATOR EVAPORATOR	SENSES REF EVAP TEMP	BLU/YEL
J1-5	REF	REFRIGERATOR COMPARTMENT	SENSES REF COMPARTMENT TEMP	BLU/WHT
J1-6	REF	REFRIGERATOR COMPARTMENT	SENSES REF COMPARTMENT TEMP	BLU/WHT
J1-7	FRZ	FREEZER COMPARTMENT	SENSES FREEZER COMPARTMENT TEMP	BLU/BLK
J1-8	FRZ	FREEZER COMPARTMENT	SENSES FREEZER COMPARTMENT TEMP	BLU/BLK



SCHEMATIC MODEL 680



WIRING DIAGRAM MODEL 690



WARNING

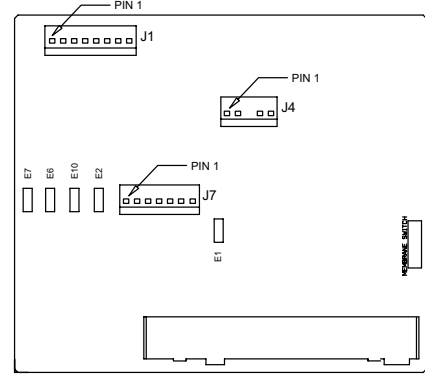
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CONTROL BOARD SUMMARY			
CIRCUIT	DESCRIPTION	FUNCTION	COLOR
E6	RCOMP	REFRIGERATOR COMPRESSOR	GRAY
E7	FCOMP	FREEZER COMPRESSOR	PURPLE
E10	L1	POWER IN	BLACK
E2	DEF HTR	DEFROST HEATER	BLACK
J7-1	C FAN	CONDENSER FAN	WHT/RED
J7-2	E FAN	NOT USED	
J7-3	IACC	ICE MAKER ACCESSORIES(FILL TUBE)	WHT/BLUE
J7-4	LITE	LIGHTS	YELLOW
J7-5	ICE	ICEMAKER	PINK
J7-6	IAUG	BULK ICE	BROWN
J7-7		NOT USED (NO PIN)	
E1	NEU	NEUTRAL INTO BOARD	WHITE
J4-1	F DR	FREEZER LIGHT SENSOR	ORANGE
J4-2	R DR	REF LIGHT SENSOR	ORANGE
J4-3		NOT USED (NO PIN)	
J4-4		DEFROST SENSE-TERMINATOR	GRAY/WHT
J5-5		ICE MAKER VALVE	TAN
LOW VOLTAGE THERMISTOR CIRCUITS			
J1-1	EVAP FRZ	FREEZER EVAPORATOR	ORANGE/RED
J1-2	EVAP FRZ	FREEZER EVAPORATOR	BLU/RED
J1-3	EVAP REF	REFRIGERATOR EVAPORATOR	ORANGE/YEL
J1-4	EVAP REF	REFRIGERATOR EVAPORATOR	BLU/YEL
J1-5	REF	REFRIGERATOR COMPARTMENT	BLU/WHT
J1-6	REF	REFRIGERATOR COMPARTMENT	BLU/WHT
J1-7	FRZ	FREEZER COMPARTMENT	BLU/BLK
J1-8	FRZ	FREEZER COMPARTMENT	BLU/BLK



SCHEMATIC MODEL 690

