Multimedia Enhanced

SERVICE MANUAL

Four Door Bottom Mount

Model Nos.				
	JFX2897DRM	JFX2897DRP	MFX2876DRE	MFX2876DRH
	MFX2876DRM	WRF989SDAB	WRX988SIBB	WRX988SIBE
	WRX988SIBH	WRX988SIBM	WRX988SIBW	

W11390550

FORWARD

This Service Manual (Part No. W11390550), provides the In-Home Service Professional with service information for the “Four Door Bottom Mount.”

The Wiring Diagram used in this Service Manual is typical and should be used for training purposes only. Always use the Wiring Diagram supplied with the product tech sheet when servicing the refrigerator.

For specific operating and installation information on the model being serviced, refer to the “Use and Care Guide” or “Installation Instructions” provided with the refrigerator.

GOALS AND OBJECTIVES

The goal of this Service Manual is to provide information that will enable the In-Home Service Professional to properly diagnose malfunctions and repair the “Four Door Bottom Mount.”

The objectives of this Service Manual are to:

- Understand and follow proper safety precautions.
- Successfully troubleshoot and diagnose malfunctions.
- Successfully perform necessary repairs.

WHIRLPOOL CORPORATION assumes no responsibility for any repairs made on our products by anyone other than authorized In-Home Service Professionals.

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Four Door Bottom Mount

Notes

Section 1: General Information

This section provides general safety, parts, and information for the “Four Door Bottom Mount.”

- Refrigerator Safety
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- Model & Serial Label and Tech sheet
  - Location
- Model Nomenclature

Refrigerator Safety

Your safety and the safety of others are very important.

We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.

This is the safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word “DANGER” or “WARNING.” These words mean:

DANGER — **You can be killed or seriously injured if you don't immediately follow instructions.**

WARNING — **You can be killed or seriously injured if you don't follow instructions.**

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

IMPORTANT SAFETY INSTRUCTIONS

WARNING: To reduce the risk of fire, electric shock, or injury when using your refrigerator, follow these basic precautions:

- Plug into a grounded 3 prong outlet.
- Connect to a potable water supply only.
- Do not remove ground prong.
- Do not use an adapter.
- Do not use an extension cord.
- Disconnect power before servicing.
- Replace all parts and panels before operating.
- Remove doors from your old refrigerator
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Remove doors from your old refrigerator.
- Use nonflammable cleaner.
- Keep flammable materials and vapors, such as gasoline, away from refrigerator.
- Use two or more people to move and install refrigerator.
- Disconnect power before installing ice maker (on icemaker kit ready models only).
- Use a sturdy glass when dispensing ice (on some models).
- Do not hit the refrigerator glass doors (on some models). Children should be supervised to ensure that they do not play with the appliance.
- Connect to a potable water supply only.

SAVE THESE INSTRUCTIONS

Product Specifications

JennAir® 69" Standard-Depth French Door Refrigerator

AHAM Volumes and Shelf Area	
Freezer Volume (Cu. Ft.)	7.77
Refrigerator Volume (Cu. Ft.)	18.4
Dimensions	
Capacity (FT3, Cu. Ft.)	26.17
Cabinet Width (IN, inches)	$35\frac{5}{8}$
Cutout Height (IN, inches)	69
Cutout Width (IN, inches)	36
Depth Closed Excluding Handles (IN, inches)	$33\frac{3}{4}$
Depth Closed Including Handles (IN, inches)	$35\frac{1}{2}$
Depth Excluding Doors (IN, inches)	$29\frac{5}{8}$
Depth With Door Open 90 Degree (IN, inches)	$48\frac{1}{2}$
Depth (IN, inches)	$35\frac{1}{2}$
Height to Top of Cabinet (IN, inches)	$68\frac{3}{4}$
Height to Top of Door Hinge (IN, inches)	$70\frac{1}{8}$
Height (IN, inches)	$70\frac{1}{8}$
Width (IN, inches)	$35\frac{5}{8}$
Description	
Type of Refrigerator	French Door
Details	
Advance Foam Insulation	99.9% lower Global Warming Potential and Better Energy Performance
Exterior	
Base Grille Color	Grey
Cabinet Color	Grey
Cabinet Finish	Textured
Door Color	Stainless Steel
Door Finish	Smooth
Door Style	Contour
Handle Color	Stainless Steel
Handle Material	Metal
Handle Type	Reach Through Handle
Hidden Hinge	Yes
Number of Doors	4

JennAir® 69" Standard-Depth French Door Refrigerator

Controls	
Automatic Defrost	Yes
Control Lockout	Yes
Door Ajar/Open Alarm	Yes
Location of Controls	Exterior Dispenser
Max Cool/Fast Cool	Fast Ice
Type of Control	Electronic
Water Filter Indicator/Reset	Yes
Refrigerator Compartment	
Number of Interior Shelves	4
Conventional Shelves	1 Fixed Full-Width Glass
Spill-Proof Glass Shelves	2 Adjustable Half Width 2 Adjustable Half Width Fold Away
Shelf Supports	Cantilever
Humidity-Controlled Drawers	3 Partial-Width
Non-Climate Control Drawers	No
Temperature-Controlled Drawers	1 External Refrigerated Drawer
Door Bins	4 Adjustable Full-Width
Supplementary Containers	No
Lighting	LED
Liner Finish	White Glossy
Freezer Compartment	
Door Type	Pull-Out
Freezer Type	Slide-out Door 3 Tier
Shelves	No
Freezer Number of Shelves	0
Freezer Drawer/Basket	1 Full Width Lower Plastic 1 Full Width Middle Plastic 1 Full Width Upper Plastic
Door Bins	Pizza Pocket
Light	LED
Dispenser	
Dispenser Type	Exterior Ice and Water
Dispenser Options	Control/Child Lock Filtered Water Measured/Metered Fill
Types of Ice	Crushed/Cubed
Icemaker	
Icemaker	Factory Installed
Icemaker Location	Refrigerator Door
Electrical	
Amps	15 or 20
Hz	60
Volts	115

Maytag® 36" Wide 4-Door French Door Refrigerator with Maytag® Steel Shelves - 26 cu. ft.

AHAM Volumes and Shelf Area	
Freezer Volume (Cu. Ft.)	7.77
Refrigerator Volume (Cu. Ft.)	18.4
Dimensions	
Capacity (FT3, Cu. Ft.)	26.17
Cabinet Width (IN, inches)	$35^{5}/_{8}$
Depth Closed Excluding Handles (IN, inches)	$33^{3}/_{4}$
Depth Closed Including Handles (IN, inches)	36
Depth Excluding Doors (IN, inches)	$29^{5}/_{8}$
Depth With Door Open 90 Degree (IN, inches)	$48^{5}/_{8}$
Depth (IN, inches)	36
Height to Top of Cabinet (IN, inches)	$68^{3}/_{4}$
Height to Top of Door Hinge (IN, inches)	$70^{1}/_{8}$
Height (IN, inches)	$70^{1}/_{8}$
Width (IN, inches)	$35^{5}/_{8}$
Description	
Type of Refrigerator	French Door
Details	
Advance Foam Insulation	99.9% lower Global Warming Potential and Better Energy Performance
Exterior	
Base Grille Color	Black or White or Grey
Cabinet Color	Black or White or Grey
Cabinet Finish	Textured
Door Color	Black or White or Stainless Steel
Door Finish	Smooth
Door Style	Contour
Handle Color	Stainless Steel
Handle Material	Metal
Handle Type	Reach Through Handle
Hidden Hinge	Yes
Controls	
Air Filter Indicator/Reset	Yes
Automatic Defrost	Yes
Door Ajar/Open Alarm	Yes
Location of Controls	Exterior Dispenser
Max Cool/Fast Cool	Yes
Type of Control	Electronic
Water Filter Indicator/Reset	Yes

Maytag® 36" Wide 4-Door French Door Refrigerator with Maytag® Steel Shelves - 26 cu. ft.

Refrigerator Compartment	
Number of Interior Shelves	5
Spill-Proof Glass Shelves	1 Adjustable Fold 1 Fixed Full Width 3 Adjustable Half Width
Shelf Supports	Cantilever
Humidity-Controlled Drawers	2 Split-Width
Non-Climate Control Drawers	1 Partial Width
Temperature-Controlled Drawers	1 External Refrigerated Drawer
Door Bins	1 Fixed 1 Liter 3 Adjustable Gallon
Supplementary Containers	EasySlide Bin
Lighting	LED
Freezer Compartment	
Freezer Drawer/Basket	1 Full Width Lower Plastic 1 Full Width Upper Plastic
Door Bins	Pizza Pocket
Light	LED
Dispenser	
Dispenser Type	Exterior Ice and Water
Dispenser Options	Control/Child Lock Filtered Water
Types of Ice	Crushed/Cubed
Icemaker	
Icemaker	Factory Installed
Icemaker Location	Refrigerator Door
Electrical	
Amps	20
Volts	115

Whirlpool® 36" Wide 4-Door Refrigerator with More Flexible Storage - 26 cu. ft.

AHAM Volumes and Shelf Area	
Freezer Volume (Cu. Ft.)	7.77
Refrigerator Volume (Cu. Ft.)	18.4
Dimensions	
Capacity (FT3, Cu. Ft.)	26.17
Cutout Height (IN, inches)	69
Cutout Width (IN, inches)	36
Depth Closed Excluding Handles (IN, inches)	$33^{3}/_{16}$
Depth Closed Including Handles (IN, inches)	$35^{11}/_{16}$
Depth Excluding Doors (IN, inches)	$28^{15}/_{16}$
Depth With Door Open 90 Degree (IN, inches)	48
Depth (IN, inches)	$35^{11}/_{16}$
Height to Top of Cabinet (IN, inches)	$68^{5}/_{8}$
Height to Top of Door Hinge (IN, inches)	$69^{15}/_{16}$
Height (IN, inches)	$70^{1}/_{8}$
Width (IN, inches)	$35^{11}/_{16}$
Description	
Type of Refrigerator	French Door
Details	
Advance Foam Insulation	99.9% lower Global Warming Potential and Better Energy Performance
Exterior	
Base Grille Color	Black or White or Grey
Cabinet Color	Black or White or Grey
Door Color	Black or White or Stainless Steel
Door Finish	Smooth
Door Style	Flat
Handle Color	Black or White or Silver or Stainless Steel
Handle Type	Reach Through Handle
Hidden Hinge	Yes
Controls	
Door Ajar/Open Alarm	Yes
Location of Controls	Exterior Dispenser
Type of Control	Electronic
Refrigerator Compartment	
Number of Interior Shelves	5
Spill-Proof Glass Shelves	1 Fixed Full Width 4 Adjustable Half Width
Shelf Supports	Cantilever
Humidity-Controlled Drawers	2 Half-Width
Non-Climate Control Drawers	1 Partial Width
Pantry Drawer	Yes
Temperature-Controlled Drawers	3 Partial Width
Door Bins	4 Fixed Full-Width
Lighting	LED

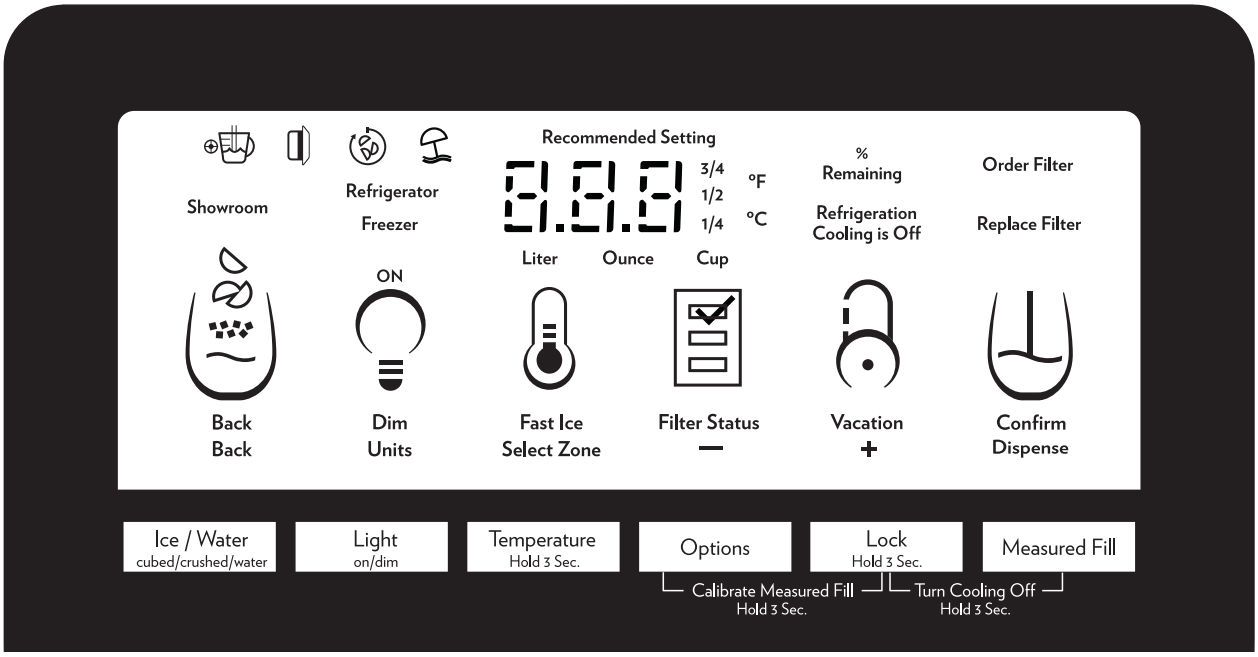
Whirlpool® 36" Wide 4-Door Refrigerator with More Flexible Storage - 26 cu. ft.

Freezer Compartment	
Freezer Drawer/Basket	1 Full Width Lower Plastic 1 Full Width Middle Plastic 1 Full Width Upper Plastic
Door Bins	Pizza Pocket
Light	LED
Dispenser	
Dispenser Type	Exterior Ice and Water
Dispenser Options	Filtered Ice Filtered Water Measured/Metered Fill
Icemaker	
Icemaker	Factory Installed
Icemaker Location	Refrigerator Door
Electrical	
Amps	15
Hz	60

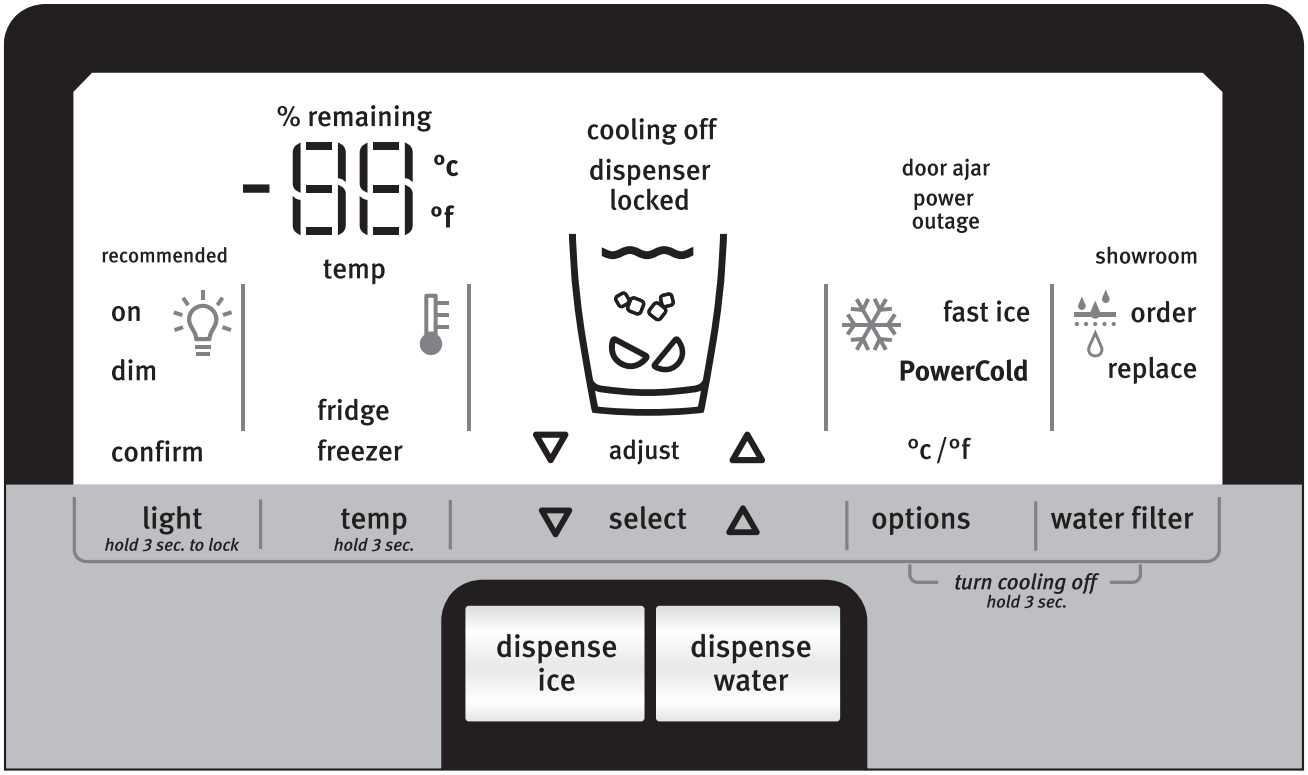
Product Features

CONTROL PANEL

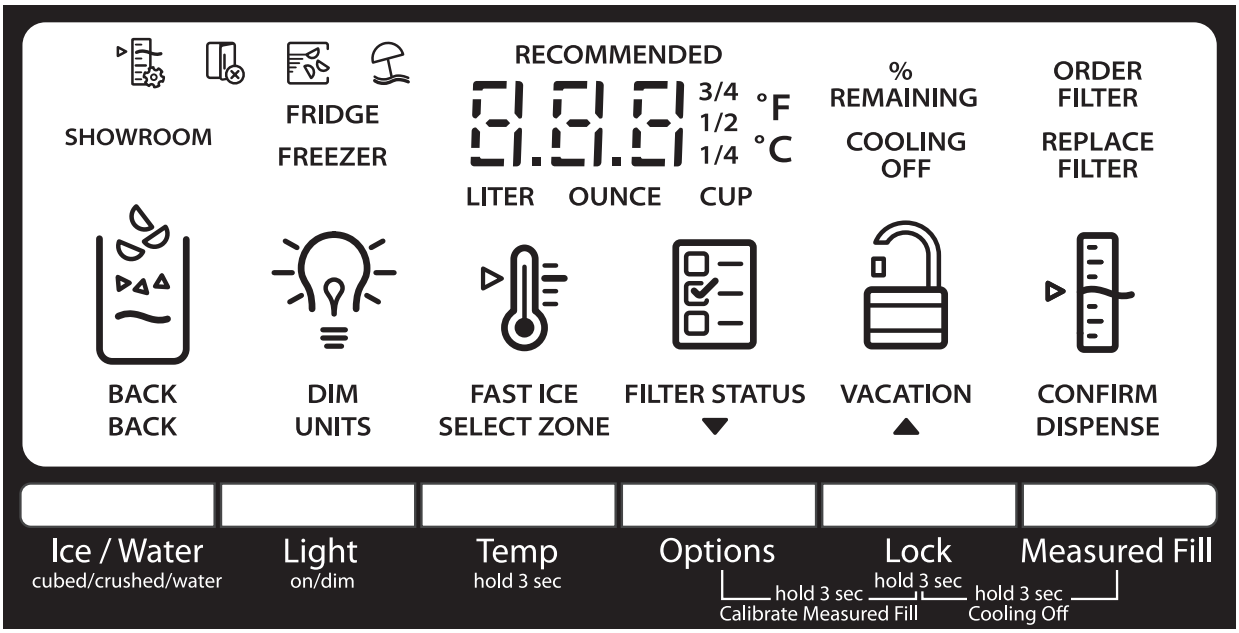
JennAir® 69" Standard-Depth French Door Refrigerator



Maytag® 36" Wide 4-Door French Door Refrigerator with Maytag® Steel Shelves - 26 cu. ft.



Whirlpool® 36" Wide 4-Door Refrigerator with More Flexible Storage - 26 cu. ft.



Model & Serial Number and Tech Sheet Location

Model and Serial plate. Open the Left door and look up to the front of the ceiling.

Tech sheet is located under the right side hinge cover.

Model Nomenclature

Maytag® Model Nomenclature

MODEL NUMBER	M	F	X	28	76	D	R	E

INTERNATIONAL SALES OR MARKETING CHANNEL

Brand
M = Maytag

Product
B = Bottom Freezer
F = French Door Bottom Freezer

Product Type
X = Double Drawer Pantry I&W
Y = Double Drawer Freezer
W = External Water (Canada)
Z = Reversible Doors

Capacity
28 = 26 cu.ft.

Feature Pack
72 = Flush Dispense, Cap Touch, Single Evap
76 = Flush Dispense, Cap Touch, Dual Evap

Year
B = 2013
D = 2014

Energy Star Qualified
E = Energy Star
R = 15% E-Star or Std Energy

Color
M = Stainless Steel on Monochromatic Cabinet
V= Painted Silver on Monochromatic Cabinet
H = White
E = Black

Whirlpool® Model Nomenclature

MODEL NUMBER	W	R	F	9	8	8	S	I	B	B

INTERNATIONAL SALES OR MARKETING CHANNEL

Brand
W = Whirlpool

Platform
R = Freestanding Refrigeration
S = Specialty Refrigeration
U = Undercounter Refrigeration

Sub Platform/Fuel
F = French Door
X = FD Double Drawer
Z = All Freezer

Series
7 = High (GOLD)
9 = High (GOLD)

Feature Level
Feature Level (0-9)

Key Feature/Size/Derivative
8 = 18 or 28 Cu. Ft.
9 = 19 or 29 Cu. Ft.

Door Type
S = Smooth Contour
T = Textured

Key Feature
I = In-Door-Ice
N = Non-Dispense

Year
B = 2013
D = 2014

Colour
B = Black
E = Black with Silver Handle
H = White with Silver Handle
M = Mono Stainless
W = White (W/White UI)

Notes

Section 2: Diagnostics

This section provides diagnostic mode and sales mode information for the “Four Door Bottom Mount.”

- Safety
- Diagnostics Mode
- Control Board Trobleshooting
- Diagnostic Load (Service) Test

For Service Technician Use Only
Safety

⚠ DANGER

Electrical Shock Hazard

Only authorized technicians should perform diagnostic voltage measurements.

After performing voltage measurements, disconnect power before servicing.

Failure to follow these instructions can result in death or electrical shock.

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Voltage Measurement Safety Information

When performing live voltage measurements, you must do the following:

- **Verify the controls are in the off position so that the appliance does not start when energized.**
- **Allow enough space to perform the voltage measurements without obstructions.**
- **Keep other people a safe distance away from the appliance to prevent potential injury.**
- **Always use the proper testing equipment.**
- **After voltage measurements, always disconnect power before servicing.**

IMPORTANT: Electrostatic Discharge (ESD) Sensitive Electronics

ESD problems are present everywhere. ESD may damage or weaken the electronic control assembly. The new control assembly may appear to work well after repair is finished, but failure may occur at a later date due to ESD stress.

- Use an antistatic wrist strap. Connect wrist strap to green ground connection point or unpainted metal in the appliance

  -OR-

  Touch your finger repeatedly to a green ground connection point or unpainted metal in the appliance.
- Before removing the part from its package, touch the antistatic bag to a green ground connection point or unpainted metal in the appliance.
- Avoid touching electronic parts or terminal contacts; handle electronic control assembly by edges only.
- When repackaging failed electronic control assembly in antistatic bag, observe above instructions.

For Service Technician Use Only
Diagnostics Mode

Component Specification

Component	Specifications of all parts 115 VAC/60 Hz unless noted	
Cooling		
Compressor	BTUH	Variable VEGZ7H
	Watt	60 Hz / 113 W
	Current Lock rotor	3.3 A ± 15%
	Current Full load	3.3 A ± 15%
	Resistance Run windings	6.4 Ω ± 15%
	Resistance Start windings	6.4 Ω ± 8%@77°F
	Inverter	3 to 6 VDC, red/white = 120 VAC
Electric damper control	Maximum closing time	16 seconds
	Temperature Rating	-11°F - 110°F
	RPM	3
Condenser motor	Rotation (facing end opposite shaft)	Clockwise
	RPM	940
	Watt	3.9 W ± 15% @115 VAC
	NOTE: Fan blade must be fully seated on shaft to achieve proper airflow.	
Refrigerator Evaporator fan motor	Rotation (facing end opposite shaft)	Clockwise
	RPM	3300 ± 10%
	Watt	2.8 ± 15% W @14 VDC
Freezer Evaporator fan motor	Rotation (facing end opposite shaft)	Clockwise
	RPM	2800
	Watt	5.5 ± 15% W @14 VDC
	NOTE: Fan blade must be fully seated on shaft to achieve proper airflow.	
Thermostat (Defrost)	Volt	120/240 VAC
	Watt	495 W
	Current	3.75/1.87 A
	Resistance across terminals:	56 KΩ
	Above 42°F ± 5°F	Open
	Below 12°F ± 7°F	Closed
Freezer Evaporator Heater	Volt	115 VAC
	Watt	435 ± 5% W
	Resistance	30.4 ± 5% Ω
Controls		
Control Board	Volt See control board section for diagnostics	120 VAC, 60 Hz
Thermistor	Temperature	Resistance
	77°F	2700 Ω ± 5.0%
	36°F	7964 Ω ± 1.0%
	0°F	23,345 Ω ± 2.0%
Light switch	Type	SPDT NO/NC
	Volt	125/250 VAC
	Current	8/4 A

For Service Technician Use Only

Ice & Water		
Dual Water Valve	Watts	Green side 20 W Red side 35 W
Isolation Valve	Watts	20 W (Green)
Ice Box Fan	Rotation (facing end opposite shaft)	Clockwise
	RPM	3500
	Watt	4.2 W ± 15% @ 14 VDC

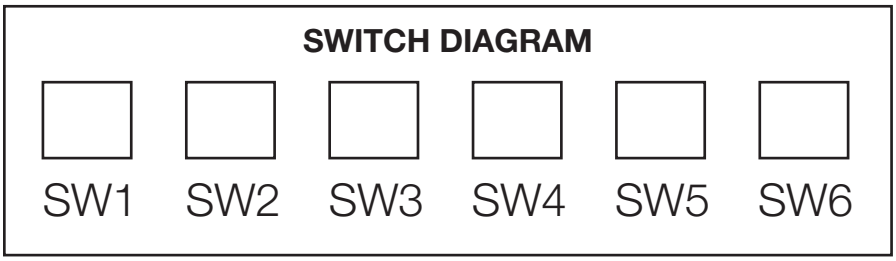
No-Load Performance, Controls in Normal Position

	kW/24 hr/±0.4			Percent Run Time/±10%			Cycles/24 hr /± 10			Refrigerator Compartment Average Food Temperature ± 4°F/-16°C			Freezer Compartment Average Food Temperature ± 5°F/-15°C			Ice Maker Compartment Average Food Temperature ± 5°F/-15°C		
Ambient °F/°C	70°F	90°F	110°F	70°F	90°F	110°F	70°F	90°F	110°F	70°F	90°F	110°F	70°F	90°F	110°F	70°F	90°F	110°F
	21°C	32°C	43°C	21°C	32°C	43°C	21°C	32°C	43°C	21°C	32°C	43°C	21°C	32°C	43°C	21°C	32°C	43°C
29 Cu. Ft.	0.9	1.55	2.8	50%	70%	90%	28	22	10	37°F	37°F	37°F	0°F	0°F	0°F	24°F	24°F	24°F
										2.8°C	2.8°C	2.8°C	-17.8°C	-17.8°C	-17.8°C	-4.4°C	-4.4°C	-4.4°C

Temperature Relationship Test Chart

	Refrigerator Evaporator Inlet/ Outlet ± 5°F/-15°C		Freezer Evaporator Inlet/Outlet ± 5°F/-15°C		Suction Line ± 7°F/-14°C		Average Total Wattage ± 10%		Suction Pressure ± 2 PSIG		Head Pressure ± 5 PSIG	
Ambient °F/°C	70°F	90°F	70°F	90°F	70°F	90°F	70°F	90°F	70°F	90°F	70°F	90°F
	21°C	32°C	21°C	32°C	21°C	32°C	21°C	32°C	21°C	32°C	21°C	32°C
29 Cu. Ft.	15°F	20°F	-11°F	-8°F	80°F	104°F	80-100	80-100	6.0	3.6	70	125
	-9.4°C	-6.7°C	-23.9°C	-22.2°C	26.7°C	40°C						

For Service Technician Use Only
Control Board Troubleshooting



To ENTER SERVICE DIAGNOSTICS Mode:

Press SW1 and SW2 simultaneously for 3 seconds. Release both buttons when you hear the CHIME indicator.

Unit must not be in Lockout prior to entering SERVICE DIAGNOSTIC MODE.

The display will show 01 to indicate the control is in step 1 of the diagnostics routine.

To EXIT SERVICE DIAGNOSTICS Mode do one of the following 3 options:

- Press SW1 and SW2 simultaneously for 3 seconds.
- Disconnect the product from power.
- Allow 20 minutes to pass.
- Following the exit of the diagnostic mode, the controls will then resume normal operation.

NOTES:

- Cooling diagnostics are steps 1 through 7 and 32 through 39.
- Dispensing diagnostics are steps 8 through 31.
- Each step must be manually advanced.
- Press SW5 to move to the next step in the sequence.
- Press SW4 to back up in the sequence to the previous step.
- Diagnostics will begin at Step 1.
- Each step is displayed in the two digits of the dispenser user interface display.
- The step results are displayed in the two digits on dispenser user interface display 2 seconds after the step number is displayed. An amber order filter light will be shown to designate that the step number is being displayed and a red replace filter light will be shown to designate that the status of the test is being displayed.
- All button and pad inputs shall be ignored and all inputs shall be off except as described in the actions for each step.

For Service Technician Use Only
Diagnostic Load (Service) Test

Service Test – 1 FC thermistor

- The board will check the resistance value of the thermistor and display flashes results on the Temp Display. (01 = Pass, 02 = Open, 03 = Short).

Service Test – 2 RC Thermistor

- The board will check the resistance value of the thermistor and display the results on the Temp Display. (01 = Pass, 02 = Open, 03 = Short).

Service Test – 3 Evaporator fan motor and air baffle motor

- Control the RC & FC Evaporator Fan Motors by depressing SW3. (01 = Both Fan Motor off, 02 = FC Fan on).
- Depress SW3 once to advance. Step 3 will flash quickly and advances to steps 13/23 very quickly. The result is RC Fan on, Pantry Air Damper on. Pantry Air Damper will open and close automatically. (13 = Damper Open, 23 = Damper Closed). Verify air flow inside pantry on left hand side when damper is open, (13 displayed). Air flow in pantry will cease when 23 is displayed.
- Depress SW3 to advance to last step. (04 = Both RC & FC fans on).

Service Test – 4 Compressor/condenser fan motor/evaporator fan

- There will be a delay of 3 seconds before start of sub step 01. Each step is timed and will be automatically proceed to the next step. User will not be allowed to exit step. If exit is attempted, an invalid chime will be produced.
- Control the Sealed System loads selecting SW3.
  01 = Initialize Dual Evap Valve in home position (4 min)
  02 = Close both RC & FC Evap Valve (1 min)
  03 = Turn compressor ON (1 min)
  04 = Keep compressor ON, drive the valve to RC position & turn RC fan ON
  05 = Keep compressor ON, drive the valve to FC position & turn FC fan ON. Verify air flow from the evaporator fan.
  NOTE: Advance quickly through step 4 to keep from locking in. Once locked in you can't exit, must wait ten minutes approximately.

Service Test – 5 Compressor Status/Speed

- Initial Display, 02 = Minimum speed
- Depress SW3, Display = 03, Compressor ramps up to Max speed. When Max speed reached, 01 displayed.
- Depress SW3, Display = 04 Speed ramps down from Max to minimum speed. When Min speed reached, 02 displayed.

Service Test – 6 Defrost Heater/Bimetal

NOTE: If bi-metal is open, it will need to be bypassed for heater to operate. Heater should be on. Display will be blank until a valid reading is displayed.
01 = Bi-metal closed,
02 = Bi-metal open.

Service Test – 7 Defrost Mode

- The defrost mode can be set by using SW3. In ADC mode, the refrigerator will automatically defrost after a minimum of 8 hours of compressor run time up to a maximum of 96 hours of compressor run time, depending upon refrigerator usage. In basic mode, the refrigerator will automatically defrost after 8 hours of compressor run time.
  01 = ADC ON
  02 = Basic Mode ON (8 hour timer).

Service Test – 8 All UI indicators

- Verify that all LED indicators and UI display digits turn on automatically. All indicators ON for 30 seconds timeout.

Service Test – 9 UI Button and Pad Test

- Displays the user Interface Buttons and Ice and Water Pads status as described in the Component Status Indicator column below.

  NOTE: Do not use SW4 and SW5 as these are used only to navigate through the Service Diagnostics.

Press	Digit 1	Digit 2
SW1	1	
SW2	2	
SW3	3	
SW6	6	
Dispenser Pad		1

  NOTE: SW4 and SW5 are used for navigation and are not displayed.

Service Test – 11 Dispenser Lighting

- Pressing SW3 will change the dispenser lighting setting from OFF (0%) to ON (100%) to DIM (50%) Status indicator is Blank.

Service Test – 12 Accent Light Turns on

Service Test – 15 Ice Level Sensor

- Displays the Ice Bin Status in real time on the UI display. Verify that the full and not full levels display correctly. (01 = Bin Full or not present, 02 = Bin Not Full).

Service Test – 16 RC Door Switch Input

- Displays the RC Door status in real time on the UI display. Verify that the open and close status display correctly. (01 = RC Door Open, 02 = RC Door Closed).

Service Test – 17 FC Door Switch Input

- Displays the FC Door status in real time on the UI display. Verify that the open and close status display correctly. (01 = FC Door Open, 02 = FC Door Closed).

Service Test – 18 Ice Door Motor

- Displays the Ice Door stepper motor state on the UI display. Press ice paddle and verify that the mechanical operation of the ice door corresponds to the component status indicator.

  NOTE: Ice door will have a delay in closing after an ice paddle is released.
  (01 = Closed, 02 = Opening, 03 = Open, 04 = Closing).

Service Test – 19 Ice Maker Fill Tube Heater Status

- Control the Ice Maker Fill Tube Heater selecting SW3 (toggle between On and Off)
  (01 = ON, 02 = Off).

Service Test – 20 Water Filter Usage Rating

- Displays in two sequential flashes the total water usage rating in gallons for the water filter on the UI display. Wait until dash is displayed which means end of the number. (00/0- to 99/9-) Example: 123 will be displayed as 12 3-.

For Service Technician Use Only

Service Test – 21 Water Filter Time Rating

- Displays in two sequential flashes the total time rating in days for the water filter on the UI display. Wait until dash is displayed which means end of the number. (00/0- to 99/9) Example: 123 will be displayed as 12 3-.

Service Test – 22 Water Filter Usage

- Displays in two sequential flashes the current water filter status in gallons used since last reset on the UI display. Wait until dash is displayed which means end of the number. (00/0- to 99/9-) Example: 123 will be displayed as 12 3-.

Service Test – 23 Water Filter Time

- Displays in two sequential flashes the current water filter status in days since last reset on the UI display. Wait until dash is displayed which means end of the number. (00/0- to 99/9) Example: 123 will be displayed as 12 3-.

Service Test – 24 Water Filter Reset

- Displays in two sequential flashes the current times the water filter was reset on the UI display. Wait until dash is displayed which means the end of the number. (00/0- to 99/9) Example: 123 will be displayed as 12 3-.

Service Test – 26 Main Control Software Version

NOTE: Not normally used.

- Displays in three sequential flashes the Main Control software version on the UI display. **NOTE:** This is repeatedly displayed during all time in this step. 00/00/00 to 99/99/99.

Service Test – 27 Dispenser UI Control Software Version

NOTE: Not normally used.

- Displays in three sequential flashes the Dispenser UI Control software version on the UI display. **NOTE:** This is repeatedly displayed during all time in this step. 00/00/00 to 99/99/99.

Service Test – 29 Low Voltage IDI Software Version

NOTE: Not normally used.

- Displays in three sequential flashes the low voltage software version on the UI display. **NOTE:** This is repeatedly displayed during all time in this step. 00/00/00 to 99/99/99.

Service Test – 31 Touch Input Module Software

NOTE: Not normally used.

- Displays in three sequential flashes the Dispenser UI Control software version on the UI display. **NOTE:** This is repeatedly displayed during all time in this step. 00/00/00 to 99/99/99.

Service Test – 32 Ambient Thermistor UI Control

- This is an internal board test. The board will check the resistance value of the thermistor and display the results. (01 = Pass, 02 = Open, 03 = Short).

Service Test – 33 Humidity Sensor UI Control

- Relative Humidity Test (Humidity % Value 0-99 = pass or Er = Fail).

Service Test – 34 Vertical Mullion Heater Mode

- Set the Vertical Mullion Heater Sensor Mode by selecting SW3. (01 = Sensor Operation On, 02 = Sensor Operation Off (Heater on 100%)).

Service Test – 35 Vertical Mullion Heater Status

- Control the Vertical Million Heater selecting SW3. (toggle between On and Off) (01 = ON, 02 = OFF).

Service Test – 36 Ice Box Fan

- Check for fan operation. Control Ice Box Fan using SW3. Displays the status on Temp Display. (01 = ON, 02 = OFF). Verify air flow from the IB fan.

Service Test – 37 Ice Box Thermistor

- The board will check the resistance value of the thermistor and displays the results on the Temp Display. (01 = Pass, 02 = Open, 03 = Short).

Service Test – 38 Forced Defrost mode

- Set the Forced Defrost Mode by selecting SW3. OF = No forced Defrost, Sh = Short Defrost, Lo = Long defrost.

Service Test – 39 RC Evap. Thermistor

- The board will check the resistance value of the thermistor and displays the results on the Temp Display. (01 = Pass, 02 = Open, 03 = Short.)

Service Test – 40 Horizontal Mullion Heater Mode

- Set the Horizontal Mullion Heater Sensor Mode by selecting SW3. (01 = Sensor Operation On, 02 = Sensor Operation Off (Heater on 100%)).

Service Test – 41 Horizontal Mullion Heater Status

- Control the Horizontal Mullion Heater selecting SW3. (toggle between On and Off) (01 = ON, 02= OFF).

Service Test – 42 UI EEPROM Control Software Version

NOTE: Not normally used.

- Displays in three sequential flashes the Dispenser UI Control software version on the UI display. **NOTE:** This is repeatedly displayed during all time in this step. 00/00/00 to 99/99/99.

Service Test – 43 UI FLASH Control Software Version

NOTE: Not normally used.

- Displays in three sequential flashes the Dispenser UI Control software version on the UI display. **NOTE:** This is repeatedly displayed during all time in this step. 00/00/00 to 99/99/99.

Service Test – 45 Ice Maker Water Fill Test

NOTE: BEFORE INITIATING THIS TEST, GO TO STEP 57, INITIATE ICE MAKER HARVEST TO INSURE ALL ICE IS EJECTED FROM MOLD BEFORE FILLING.

- After an initial 3 seconds delay, displays the Ice Maker water fill state on the UI display. Press SW3 to start a water fill. Pressing SW3 will toggle between ON and PAUSE. (02 = Off, 03 = On, 04 = Paused).

Service Test – 46 Water dispensing Test

- Displays the status of the water dispense valve. Press the water pad to initiate a water dispense.
  00 = Water Dispense Valve Off
  01 = Water Dispense Valve On.

Service Test – 56 Ice Maker Error Codes

- Displays active Ice Maker Error Codes on the UI display. (E0 = No Errors, E1 = No Cooling, E2 = Motor Lost Position, E3 = Heater Timeout, E4 = Dry Cycle, E5 = Timed Ice Making).

For Service Technician Use Only

Notes

Section 3: Component Testing

This section provides the schematic diagram, wiring diagram and component location for the “Four Door Bottom Mount.”

- Safety
- Wiring Diagram
- Schematic Diagram
- Component Location

For Service Technician Use Only
Safety

⚠ DANGER

Electrical Shock Hazard

Only authorized technicians should perform diagnostic voltage measurements.

After performing voltage measurements, disconnect power before servicing.

Failure to follow these instructions can result in death or electrical shock.

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Voltage Measurement Safety Information

When performing live voltage measurements, you must do the following:

- **Verify the controls are in the off position so that the appliance does not start when energized.**
- **Allow enough space to perform the voltage measurements without obstructions.**
- **Keep other people a safe distance away from the appliance to prevent potential injury.**
- **Always use the proper testing equipment.**
- **After voltage measurements, always disconnect power before servicing.**

IMPORTANT: Electrostatic Discharge (ESD) Sensitive Electronics

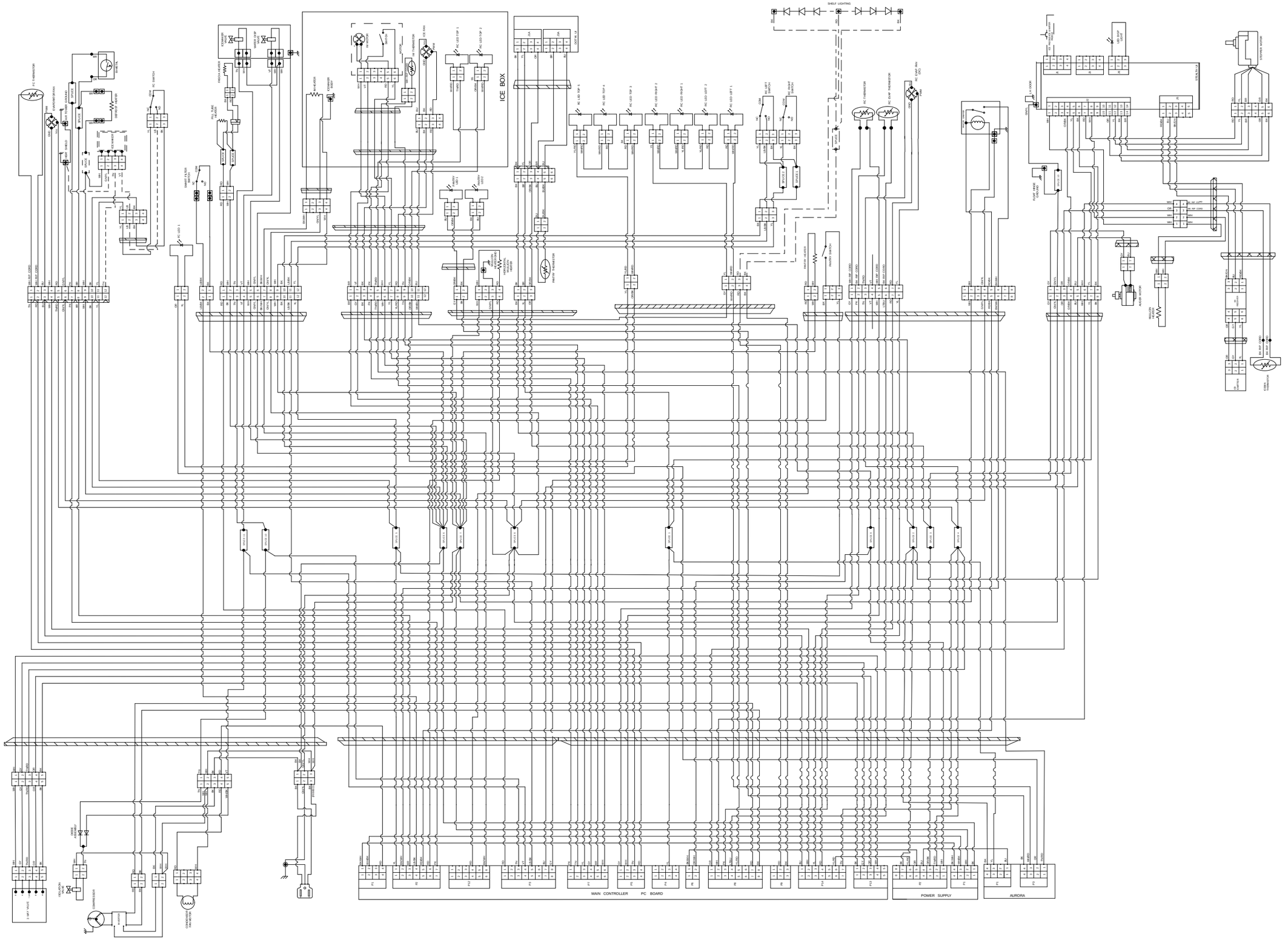
ESD problems are present everywhere. ESD may damage or weaken the electronic control assembly. The new control assembly may appear to work well after repair is finished, but failure may occur at a later date due to ESD stress.

- Use an antistatic wrist strap. Connect wrist strap to green ground connection point or unpainted metal in the appliance

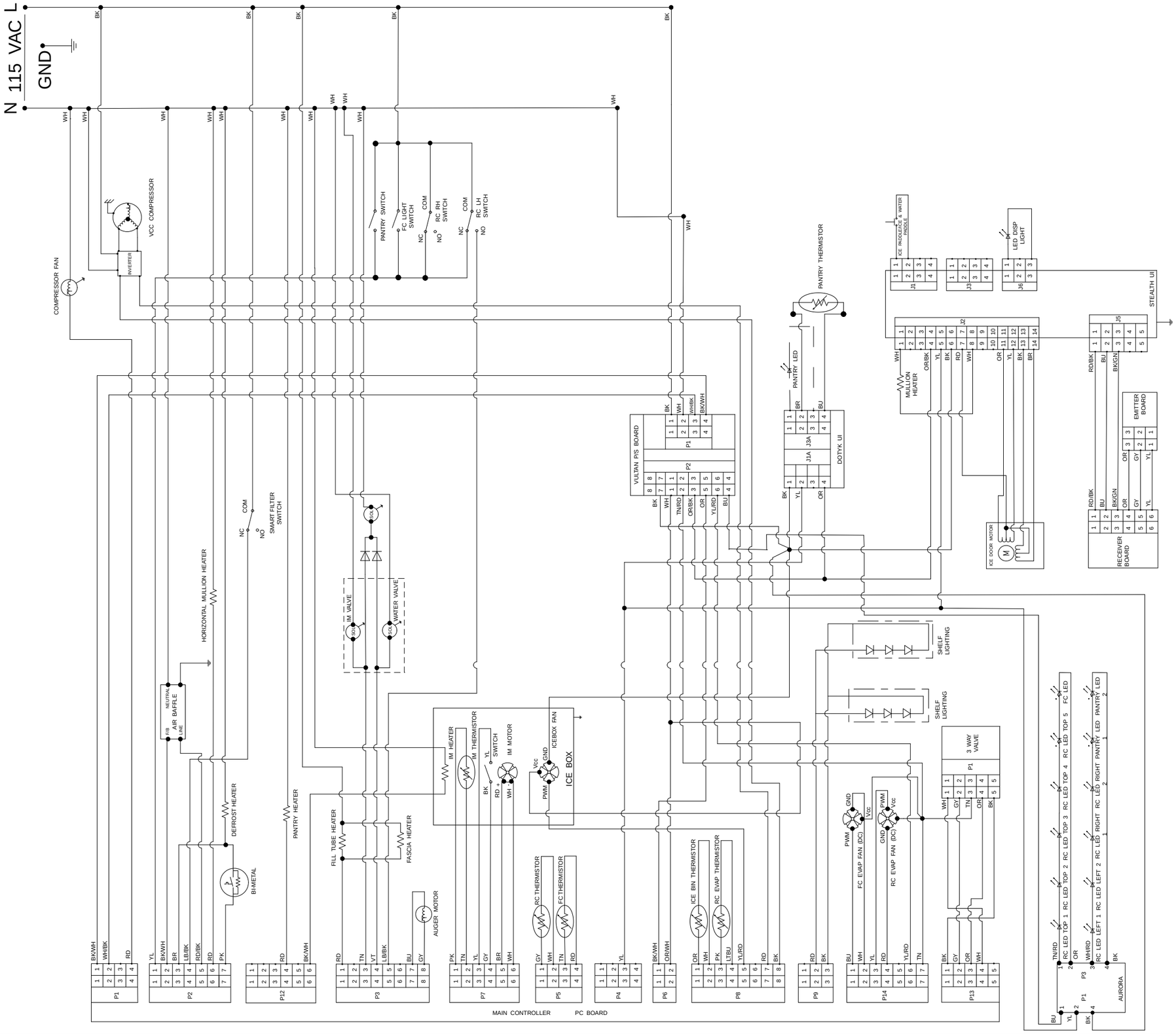
  -OR-

  Touch your finger repeatedly to a green ground connection point or unpainted metal in the appliance.
- Before removing the part from its package, touch the antistatic bag to a green ground connection point or unpainted metal in the appliance.
- Avoid touching electronic parts or terminal contacts; handle electronic control assembly by edges only.
- When repackaging failed electronic control assembly in antistatic bag, observe above instructions.

For Service Technician Use Only
Wiring Diagram



For Service Technician Use Only
Schematic Diagram



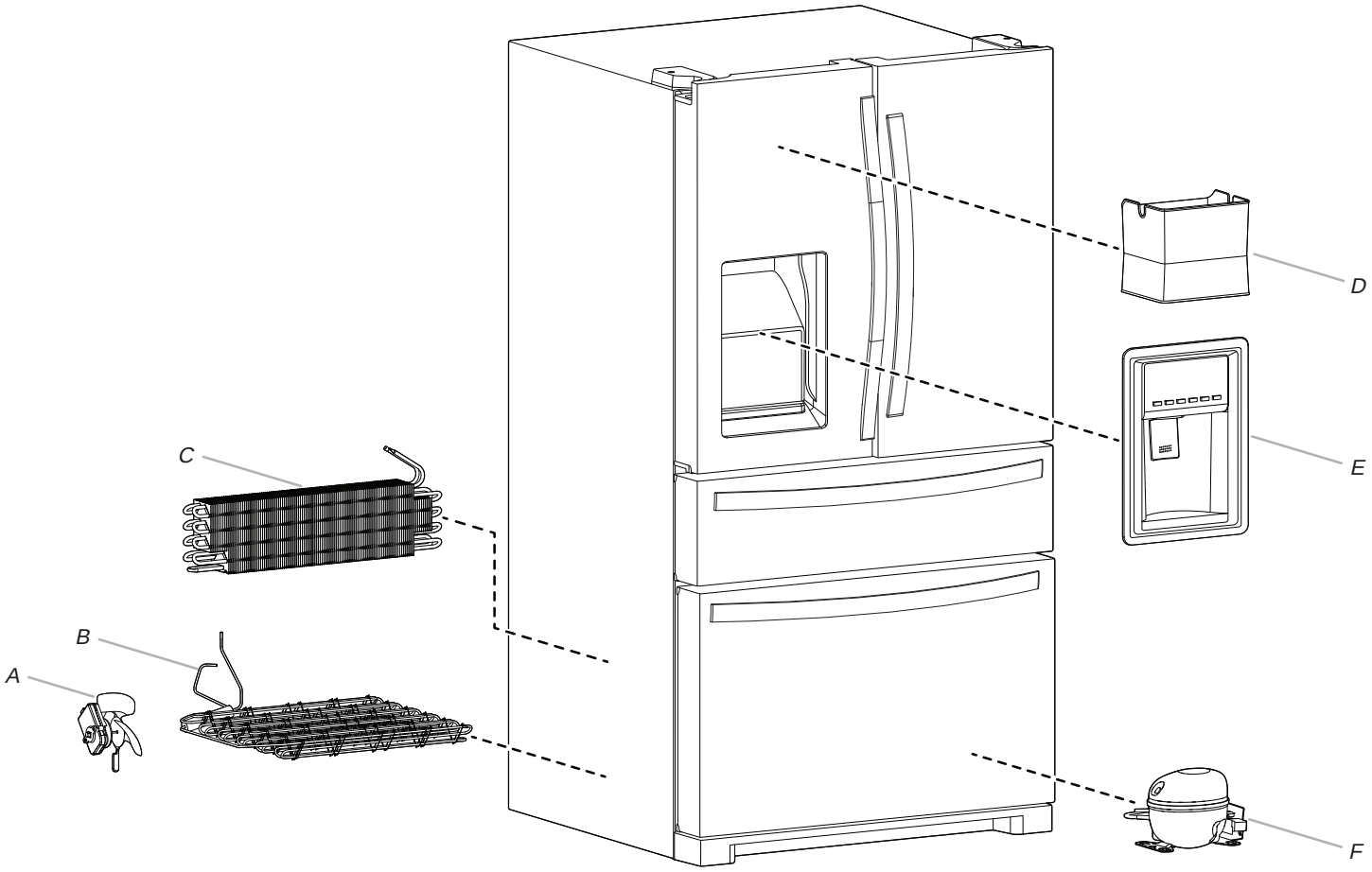
For Service Technician Use Only

		FROM	TO	VOLTAGE	CONDITIONS
POWER SUPPLY	P1	P1-1	P1-2	115 VAC	CONSTANT 115 VAC
		P1-3	P1-4		CONSTANT 115 VAC
	P2	P2-1	P2-4	14 VDC	CONSTANT 14 VDC
		P2-2	P2-5		CONSTANT 14 VDC
		P2-3	P2-6		CONSTANT 14 VDC
MAIN CONTROL	P1	P1-1	P1-2	115 VAC	CONSTANT 115 VAC
		P1-2	P1-4		CONDENSER FAN SERVICE TEST 4. 115 VAC, IF CONDENSER FAN ON.
	P2	P2-1	P1-2	115 VAC	RC OR FC DOOE OPEN = 115 V. DOORS CLOSED = 0 V.
		P2-2	P1-2		AIR BAFFLE FEEDBACK. SERVICE TEST 3, STEP 3.
		P2-3	P1-2		FC DEFROST HEATER OUTPUT, BI-METAL BYPASS. SERVICE TEST 6. 115 V, IF BI-METAL CLOSED.
		P2-4	P1-2		WATER FILTER REMOVED = 115 V. WATER FILTER INSTALLED = 0 V.
		P2-5	P1-2		AIR BAFFLE OUTPUT. SERVICE TEST 3, STEP 3.
		P2-6	P1-2		FILL TUBE/FASCIA/PANTRY HEATER OUTPUT. SERVICE TEST 19. 01 = 115 V, 02 = 0 V.
		P2-7	P1-2		FC DEFROST HEATER OUTPUT WITH BI-METAL. SERVICE TEST 6. 115 V.
	P3	P3-1	P2-1	115 VAC	RC OR FC DOOR OPEN = 115 V. DOORS CLOSED = 0 V.
		P3-3	P1-2		ICE MAKER WATER VALVE. SERVICE TEST 25. DIGIT 1 = 1 = 115 V (WATER VALVE ON)
		P3-4	P1-2		WATER DISPENSING VALVE. SERVICE TEST 25. DIGIT 2 = 1 = 115 V.
		P3-5	P1-2		LEFT RC DOOR MUST BE CLOSED = 115 V. OPEN = 0 V.
		P3-7	P3-8	130 VDC	AUGER OUTPUT. LH RC DOOR CLOSED. ACTIVATE ICE PADDLE = 130 - 140 VDC.
	P4	P4-1	P4-4	14 VDC	CONSTANT 14 VDC.
		P4-3	COMMUNICATION		
	P5	P5-1	P5-2	5 VDC	RC THERMISTOR OUTPUT = 1.5 - 5 VDC.
		P5-3	P5-4		FC THERMISTOR OUTPUT = 1.5 - 5 VDC.
	P7	P7-1	P7-2	5 VDC	ICE MAKER THERMISTOR OUTPUT = 1.5 - 5 VDC MAXIMUM.
		P7-5	P7-6	14 VDC	ICE MAKER MOTOR OUTPUT. PRESS SW3 TO ACTIVATE TEST 57. UP TO 2 MINUTES DELAY.
	P8	P8-1	P8-2	5 VDC	ICE BIN THERMISTOR OUTPUT= 1.5 - 5 VDC.
		P8-5			ICE BOX FAN PWM CONNECTION.
		P8-3	P8-4		RC EVAPORATOR THERMISTOR OUTPUT = 1.5 - 5 VDC.
		P8-7	P8-8	3-6 VDC	INVERTER OUTPUT 3-6 VDC WHEN COMPRESSOR IS RUNNING.*
	P9	P9-2	P9-3	12 VDC	SHELF LIGHTING OUTPUT.
	P12	P12-4	P1-2	115 VAC	PANTRY HEATER OUTPUT. SERVICE TEST 73. 01 = 115 VAC.
		P12-6	P1-2		ICE MAKER HEATER OUTPUT. SERVICE TEST 58. DIGIT 1 = 1 = HEATER ON (115 V).
	P13	P13-1	P13-2		3 WAY REFRIGERANT VALVE, CANNOT CHECK VOLTAGE OUTPUT.
		P13-3	P13-4		3 WAY REFRIGERANT VALVE, CANNOT CHECK VOLTAGE OUTPUT.
	P14	P14-1	P14-2	14 VDC	FC FAN MOTOR OUTPUT. SERVICE TEST 3, STEP 2.
		P14-3	P14-4		RC FAN MOTOR OUTPUT. SERVICE TEST 3, STEP 3.
		P14-7	P14-6		CONSTANT 14 VDC.

		FROM	TO	VOLTAGE	CONDITIONS
RECEIVER/EMITTER	J1	J1-1	J1-3	14 VDC	CONSTANT 14 VDC.
		J1-2	COMMUNICATION		
		J1-5	NOT USED.		
		REFER TO SERVICE TEST 15 FOR VERIFYING THE EMITTER/RECEIVER BOARDS.			
PANTRY UI	J1A	J1A-4	J1A-1	14 VDC	CONSTANT 14 VDC.
		J1A-2	COMMUNICATION		
	J3A	J3A-1	J3A-3	14 VDC	LED OUTPUT = 14 VDC, WHEN TURNED ON.
		J3A-2	J3A-4	5 VDC	PANTRY THERMISTOR OUTPUT = 1.5 - 5 VDC.
DISPENSER BOARD	J1	J1-1	J1-2	14 VDC	0 VDC WHEN WATER DISPENSER PAD IS PRESSED. 14 VDC WHEN RELEASED.
		J1-1	J1-3		ICE DISPENSER PAD IS PRESSED*, (IF J1-3 USED).
		J1-2	J1-3		ICE DISPENSER PAD IS PRESSED*, (IF J1-3 USED).
	J2	J2-1	J2-8	14 VDC	FLIPPER MULLION HEATER. SERVICE TEST 35. PRESS SW3 = 14VDC.
		J2-4	J2-6		CONSTANT 14 VDC.
		J2-7	J2-11		ICE DOOR STEPPER MOTOR IS ACTIVE* (IF USED).
		J2-7	J2-12		ICE DOOR STEPPER MOTOR IS ACTIVE* (IF USED).
		J2-7	J2-13		ICE DOOR STEPPER MOTOR IS ACTIVE* (IF USED).
		J2-7	J2-14		ICE DOOR STEPPER MOTOR IS ACTIVE* (IF USED).
	J3	J3-1	J3-2	14 VDC	0 VDC WHEN WATER DISPENSER PAD IS PRESSED. 14 VDC WHEN RELEASED.
		J3-1	J3-3		WATER DISPENSER PAD IS PRESSED* (IF J3-3 USED).
		J3-2	J3-3		WATER DISPENSER PAD IS PRESSED* (IF J3-3 USED).
	J5	J5-1	J5-3	14 VDC	CONSTANT 14 VDC.
		J5-2	COMMUNICATION		
	J6	J6-1	J6-3	14 VDC	DISPENSER LIGHT ON.
AURORA	P1	P1-1	P1-4		
		P1-3	COMMUNICATION		
	P3	P3-1	P3-2		CAVITY LIGHT (POINT LED'S) OUTPUT.
		P3-3	P3-4		CAVITY LIGHT (POINT LED'S) OUTPUT.

*Pulsing DC signal. May not be read with all meters.

For Service Technician Use Only
Component Location



A. Condenser Fan
B. Condenser
C. Freezer Evaporator
D. Ice Crusher Box
E. Front Door Dispenser Unit
F. Compressor

Multimedia Enhanced

Video Available  Look for this ICON through out Section 4.

Section 4: Component Access

This section provides service parts access, removal, and replacement instructions for the “Four Door Bottom Mount.”

- Machine Compartment Components
  - 3 Way Refrigerant Valve
  - Refrigerant Check Valve
  - Water Valve
  - Inverter
  - Compressor
- Accessing Refrigerator Compartment Components
  - Ice Box Fascia
  - Water Filter
  - Water Reservoir Cover
  - LED Light Modules
  - Water Reservoir and Valve Assembly
  - Temperature-Controlled (Pantry) Drawer
  - Pantry Drawer User Interface
  - Pantry Drawer Door
  - Pantry Door Bar
  - Pantry Cable and Pantry Thermistor
  - Crisper Base
  - Servicing Crisper Base
  - Vertical Mullion
  - Secondary Mullion
  - Secondary Mullion LED
  - Center Divider
  - Air Tower
  - RC Evaporator and Component Access
  - Pantry Air Damper
  - RC Evaporator Fan Motor
  - RC Evaporator Thermistor
  - RC Defrost Thermistor
  - Door Switch
- Accessing Freezer Compartment Components
  - Freezer Handle
  - Upper Basket
  - Middle Basket
  - Lower Basket
  - Top Freezer Basket Adaptor
  - Lower Basket Slides
  - FC Evaporator and Component Access
  - Door Switch
- Accessing Ice Maker and Dispenser Components
  - Water Line at the Top of the French Door
  - Ice Box Assembly
  - Ice Maker Fill-Tube
  - Ice Maker and Fan Motor
  - Dispenser

Machine Compartment Components

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

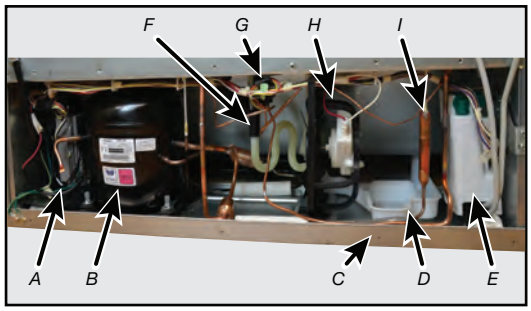
Machine Compartment Cover

1. Unplug the refrigerator or disconnect power.
2. Access the machine compartment components by removing screws holding machine compartment cover on back of refrigerator.

NOTE: The components located in the machine compartment have been used on previously manufactured bottom freezer refrigerators with these exceptions:

- 3 way refrigeration valve.
- Refrigerant check valve.

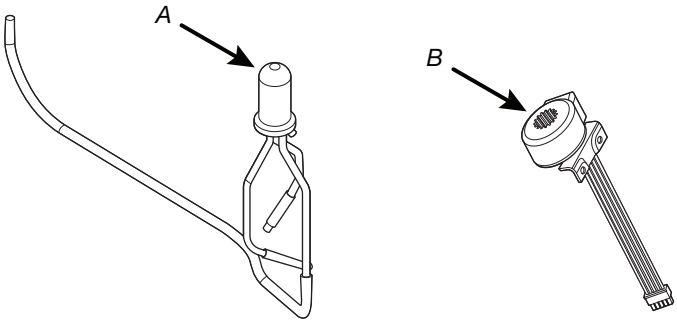
Below picture shows the components located in the machine compartment:



A. Inverter
B. Compressor
C. Check valve
D. Evaporation Pan
E. Water valve
F. Drain tube
G. 3 Way valve
H. Condenser fan
I. Drier

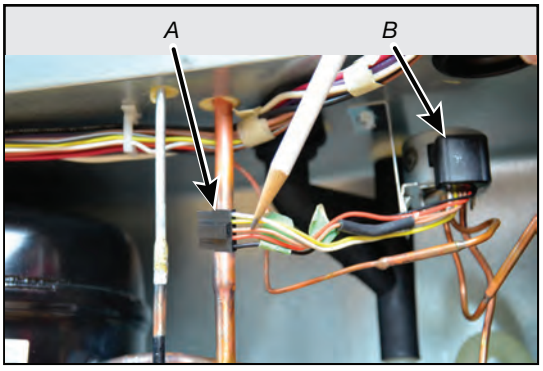
3 Way Refrigerant Valve

3. The 3 way refrigerant valve (RKV) consists of two separate components, a replaceable magnetic operating coil and the actuating valve (valve body). The valve body is part of the sealed system and requires no repair unless there is a leak at one of the joints. The magnetic operating coil is replaceable.



A. Valve Body (Part of the sealed system)
B. Magnetic Operating Coil (Replaceable)

4. Disconnect wire harness connector to coil. Straighten the three metal tabs holding the coil on the valve and then lift off.



A. Connector
B. Coil

NOTE: When replacing the magnetic coil, position the coil on the valve body and align the flexible tabs on the coil with the slots in the valve body. Firmly seat the coil and use pliers to bend tabs over to lock the coil in place.

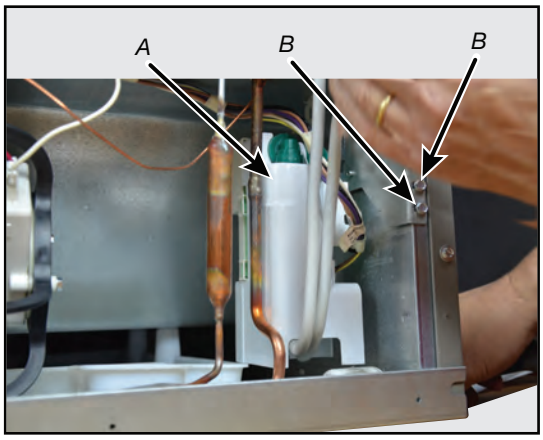
Refrigerant Check Valve

1. The refrigerant check valve is used to isolate the evaporators and prevents refrigerant flow back into the evaporator. The refrigerant check valve is part of the sealed system and requires no repair unless there is a leak at one of the joints.

Machine Compartment Components (Continued)

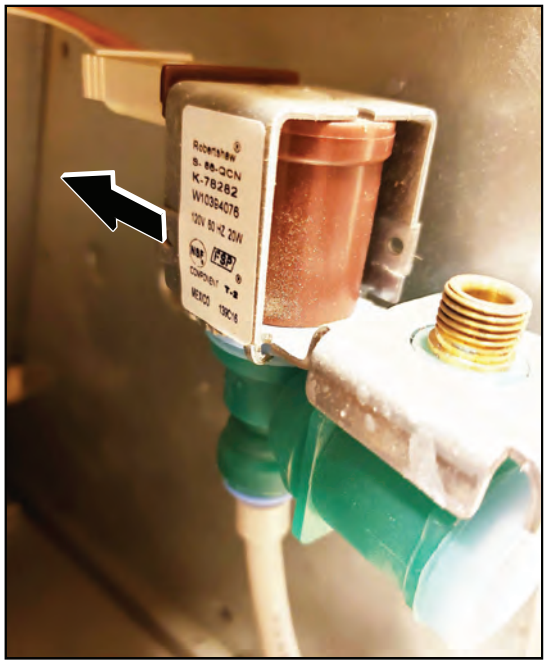
Water Valve

1. Unplug the refrigerator or disconnect power.
2. Access the water valve by removing screws holding machine compartment cover on back of refrigerator.
3. Remove the screws securing the valve to the machine compartment base.



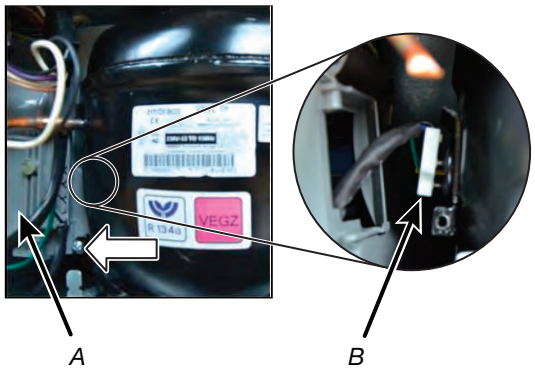
A. Water valve
B. Screws

4. Unplug the wire harnesses. Disconnect the water lines to remove the water valve.



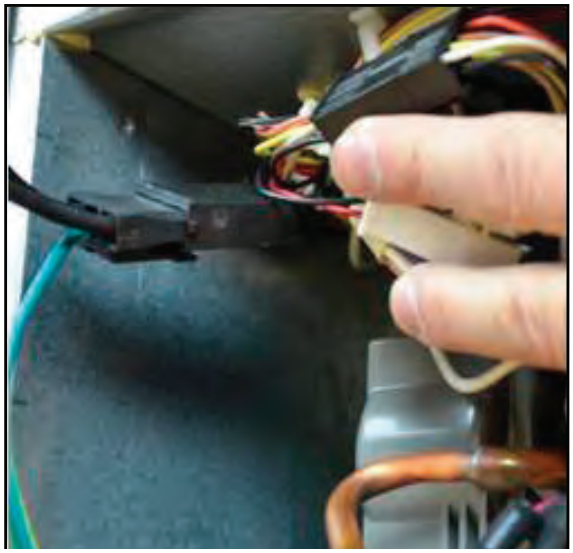
Inverter

1. Unplug refrigerator or disconnect power.
2. Access the inverter by removing screws holding machine compartment cover on back of refrigerator.
3. Remove the Phillips screw securing the inverter to the compressor terminal housing.



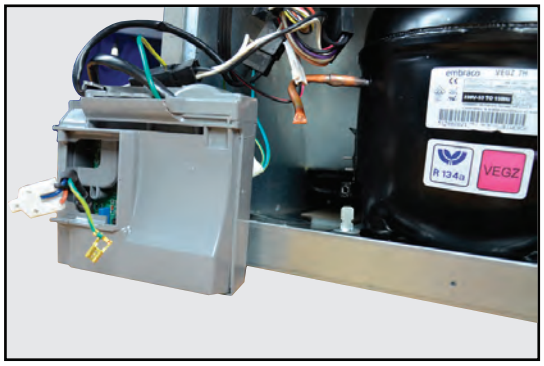
A. Inverter
B. Compressor Terminal Block

4. Position the main cabinet wiring harness out of the way to access the inverter.



Machine Compartment Components (Continued)

5. Pull the inverter away from the compressor to disconnect the green chassis ground wire and the compressor terminal block.



Compressor

6. Access the compressor terminal block as shown in below figure to make resistance checks. The compressor is part of the sealed system.

A. Compressor terminal

Accessing Refrigerator Compartment Components

⚠ WARNING

Electrical Shock Hazard

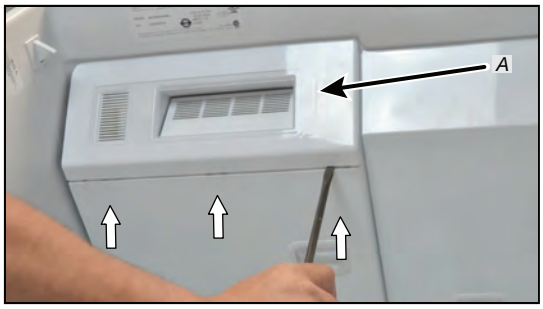
Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

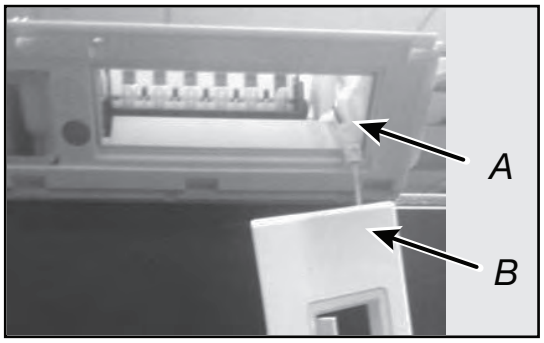
Ice Box Fascia

1. Unplug the refrigerator or disconnect power.
2. Open both refrigerator compartment doors.
3. Remove all items from top shelves.
4. Remove the top shelves by tilting it up at the front and lifting it out of the shelf supports.
5. Remove the ice box fascia using a flat blade screwdriver. Pull out bottom of fascia to disengage upper tabs.



A. Ice box fascia

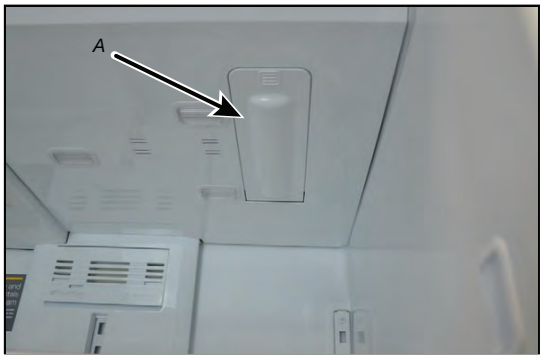
NOTE: If your ice box assembly has a revised ice box fascia with heater, you will need to disconnect the fascia heater wiring harness.



A. Fascia heater wiring harness connector
B. Ice box fascia

Water Filter

6. Find the water filter door, rotate the water filter counter-clockwise to remove.

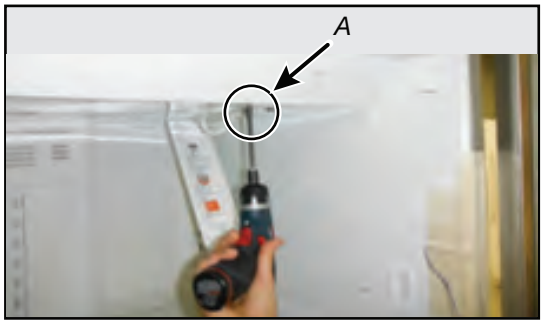


A. Water filter door

Accessing Refrigerator Compartment Components (Continued)

Water Reservoir Cover

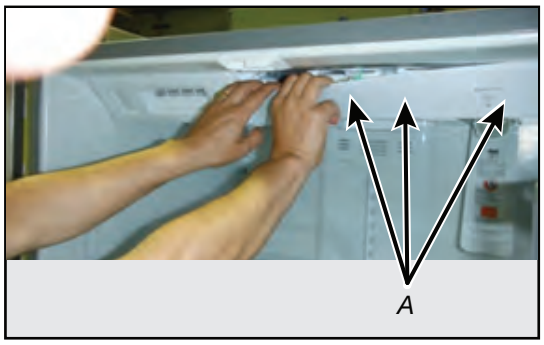
7. Using a 1/4" (6.4 mm) nut driver remove the two screws from under the water filter door.



A. Two screws

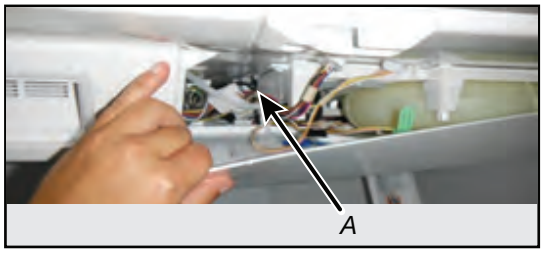
8. Starting from the ice box side, place a flat head screwdriver between the water reservoir cover and refrigerator compartment liner creating enough room to place your hand between the two.

9. Start from left to right, slide your hand between the water reservoir cover and refrigerator compartment liner to disengage the snaps.



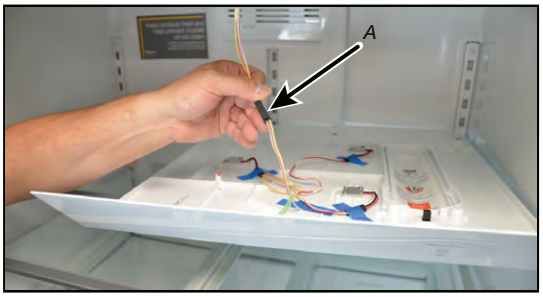
A. Snaps (not shown)

10. Disengage rear left snap.



A. Snap

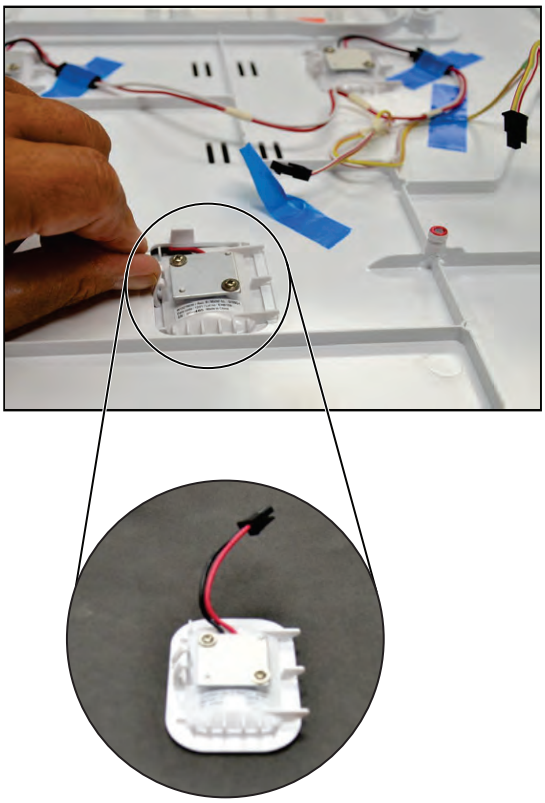
11. Slide water reservoir cover forward and disconnect LED lighting connector to remove water reservoir cover.



A. LED connector

LED Light Modules

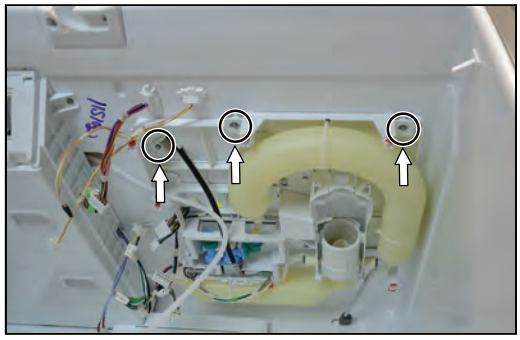
12. Lift out the LED light modules from water reservoir cover to remove LED light modules.
NOTE: To remove LED modules from bottom of ice box assembly and cabinet walls, protect the liner while using a putty knife to pry them out.



Accessing Refrigerator Compartment Components (Continued)

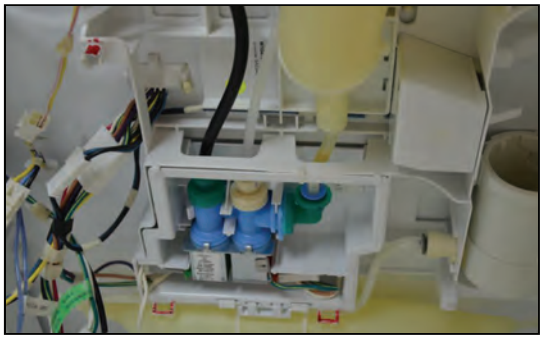
Water Reservoir and Valve Assembly

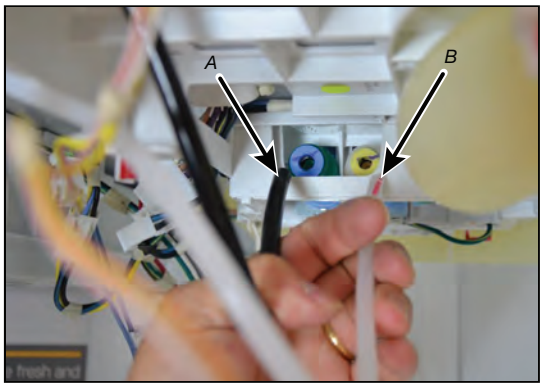
13. Remove three, 1/4" (6.4 mm) hex head screws.



14. Disconnect ice maker fill tube from the isolation valve connected to the filter head.

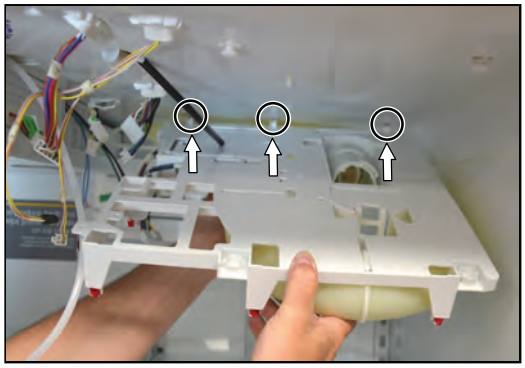
15. Disconnect electrical connections to water reservoir and valve assembly. Disconnect dispenser and ice maker fill tubes.



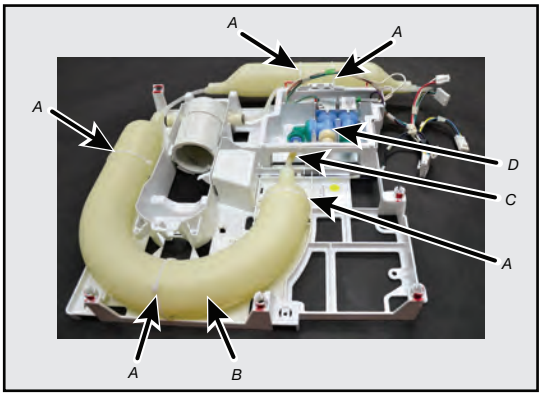


A. Dispenser fill tube
B. Ice Maker fill tube

16. Drop the front of the housing and disengage the rear tabs from the three slots in the top of the refrigerator cabinet.



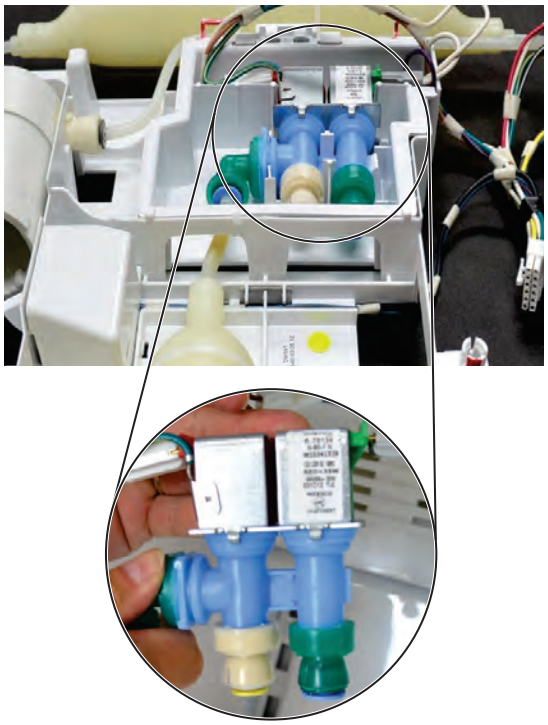
17. Disconnect 1/4" (6.4 mm) reservoir water tube from dual water valve and cut the five nylon wire ties to remove reservoir.
NOTE: Reservoir wire ties do not need to be removed to access remaining water reservoir and valve assembly components.



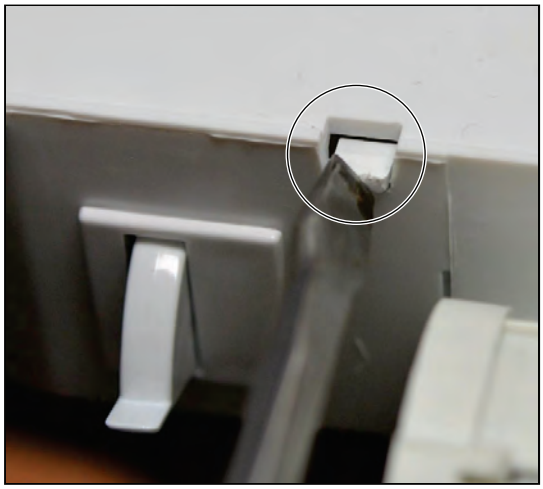
A. Wire ties
B. Reservoir
C. 1/4" (6.4 mm) reservoir water tube
D. Dual water valve

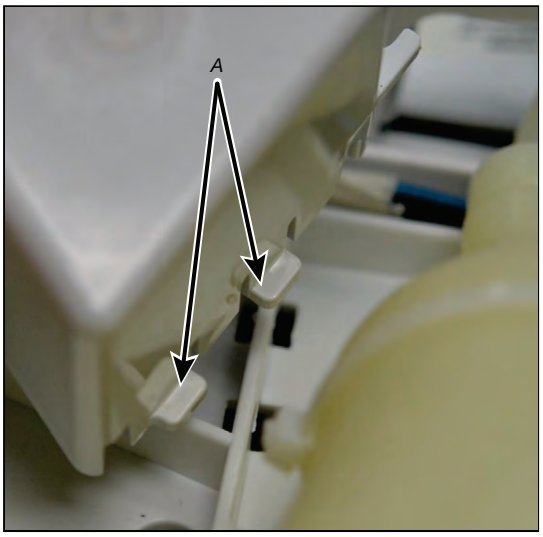
Accessing Refrigerator Compartment Components (Continued)

18. Lift dual water valve to remove.



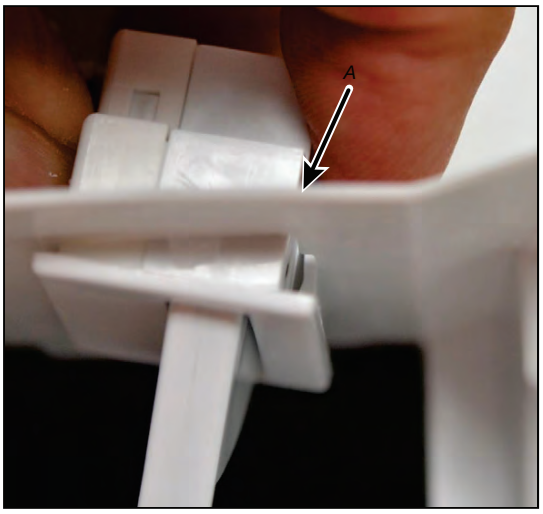
19. Press tab and lift up on filter switch cover to disengage the two tabs on opposite side to remove cover.



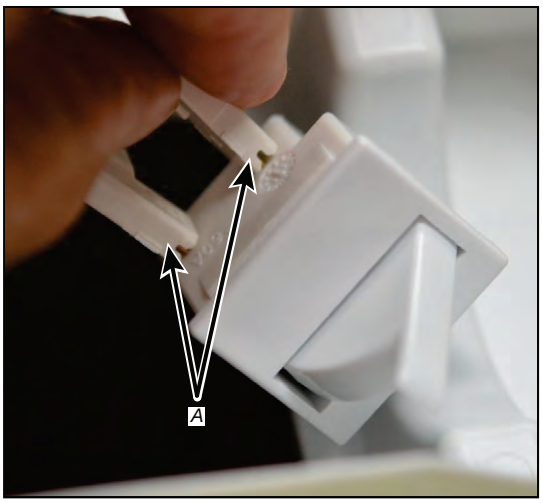


A. Tabs

20. To remove filter switch, press release tab and push the switch through, and disconnect wires.



A. Connectors



A. Release tab

Accessing Refrigerator Compartment Components (Continued)

Temperature-Controlled (Pantry) Drawer

1. Unplug the refrigerator or disconnect power.
2. Open both refrigerator compartment doors.
3. Remove all items on the bottom shelves.
4. Open the pentry drawer to its full extension.

Pantry Drawer User Interface

5. Starting from one of the sides, put a flat head screwdriver into the slot and press to release the tab.
6. Hold the released end of the board as shown in below image. Release other tabs using flat blade screwdriver.

7. Lift the pantry control board and disconnect the wiring harness.

Pantry Drawer Door

8. Lift the pantry bin.

9. Depress the tabs on the cover to remove it.

10. Unplug the harness.

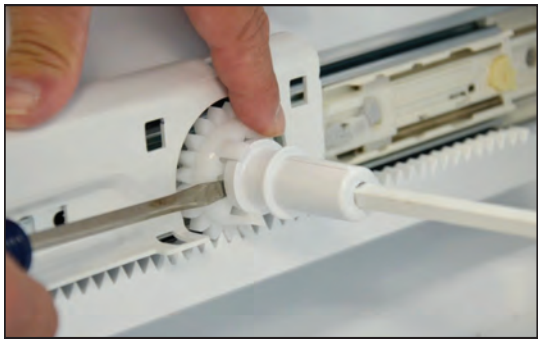
Accessing Refrigerator Compartment Components (Continued)

11. Loosen the screws on the left and right sides using the screwdriver. Remove the pantry door.

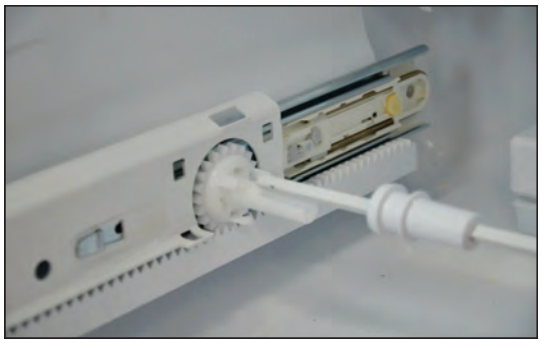
Pantry Door Bar

12. Depress tabs using a straight blade screwdriver to remove the left and right side gear covers.

13. Release the left side collar using a screwdriver..

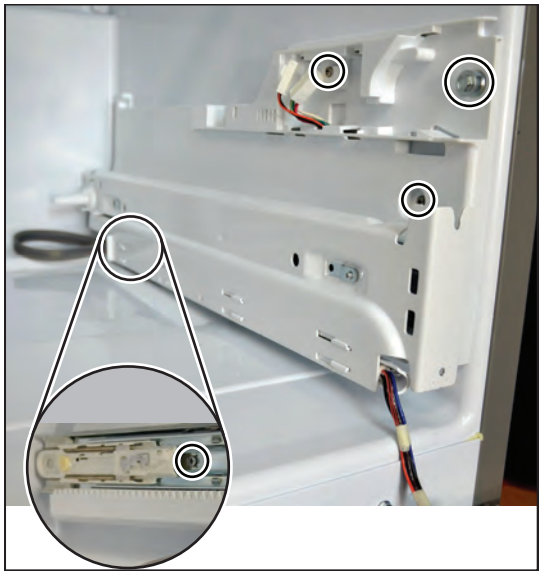


14. Lift out the pantry door bar.



Pantry Cable and Pantry Thermistor

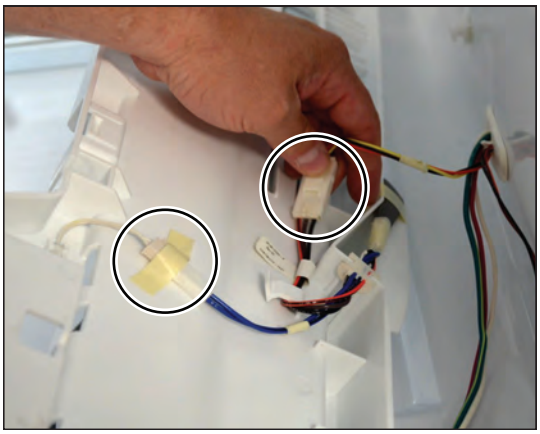
15. Pull the slide out to remove the hidden screw. Remove the remaining screws with the screwdriver.



16. Disconnect the harnesses.

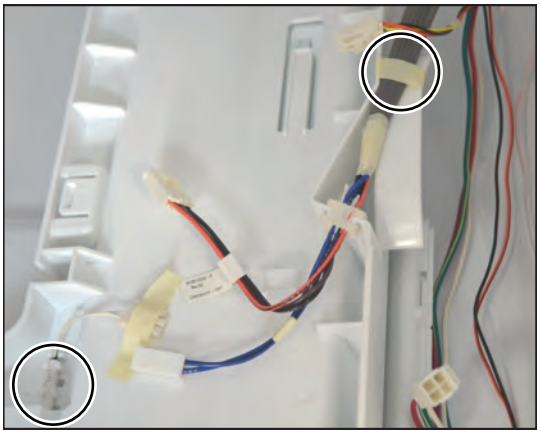
Accessing Refrigerator Compartment Components (Continued)

17. Remove the tape securing the cable in the channel.



18. Lift out the cable.

19. Remove the pantry thermistor.



20. Release the cable cover from the assembly by pressing the tabs.

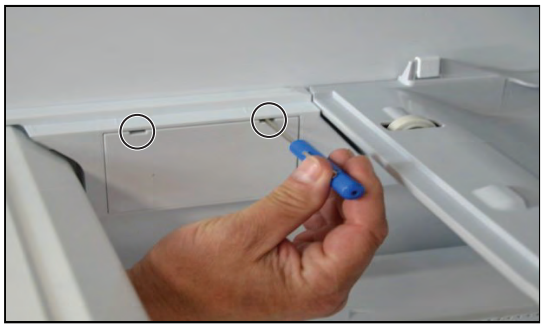
21. Remove the pantry cable.

Accessing Refrigerator Compartment Components (Continued)

Crisper Base

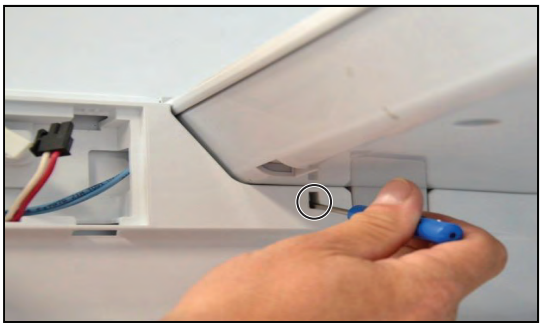
1. Complete **Refrigerator Compartment Components** instructions steps 1-10 and **Temperature Controlled (Pantry) Drawer** instructions steps 1-21.
2. Remove the foam piece on the front which pops up.

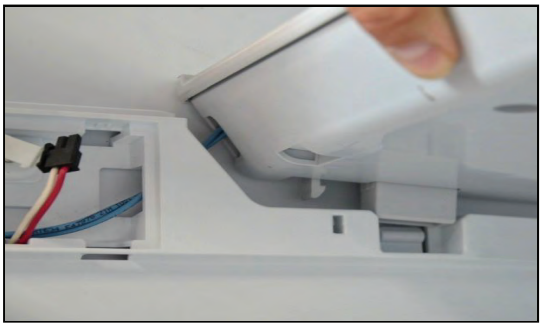
3. At the front-left side, remove the harness cover using a flat blade screwdriver.



4. Remove the harness out and unplug.

5. Release the crisper base locks on the left and right side using flat blade screwdriver.





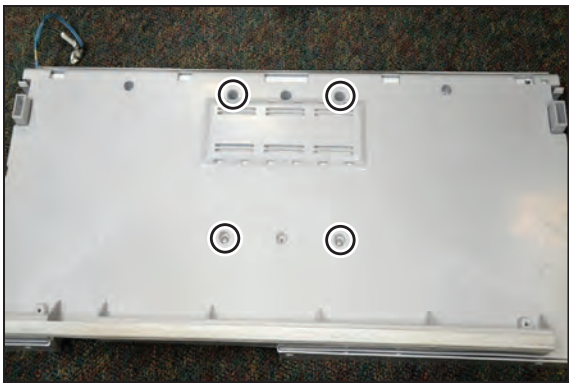
6. Remove the screws under the crisper base.

7. Lift the crisper base out.

Accessing Refrigerator Compartment Components (Continued)

Servicing Crisper Base

8. Remove the screws.

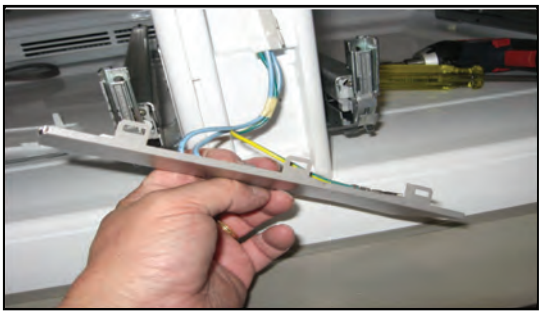


9. Release the left and right side retainers on the ends of the base assembly with the screwdriver.

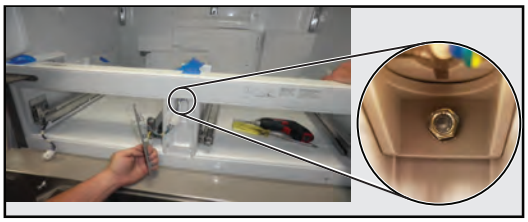
10. The wheels and heater can be serviced.

Vertical Mullion

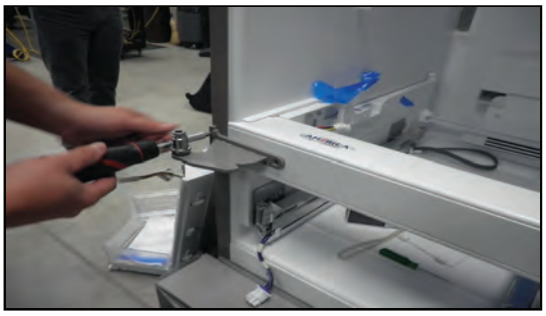
11. Gently pry at sides to pop out the vertical mullion and unhook.



12. Remove 1/4" (6.4 mm) small vertical mullion and screw at the top.



13. Remove doors and lower hinges.

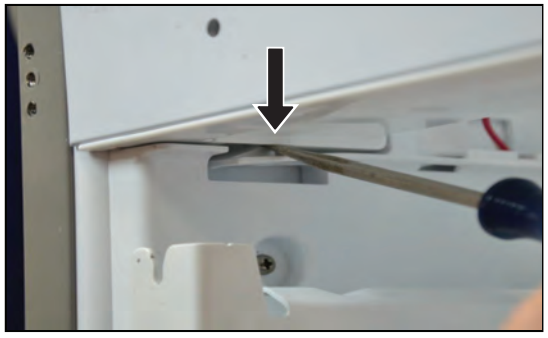


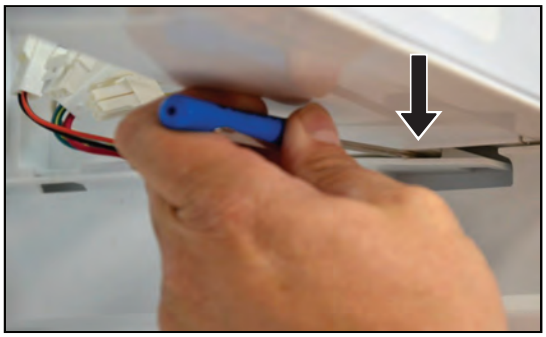
Accessing Refrigerator Compartment Components (Continued)

Secondary Mullion

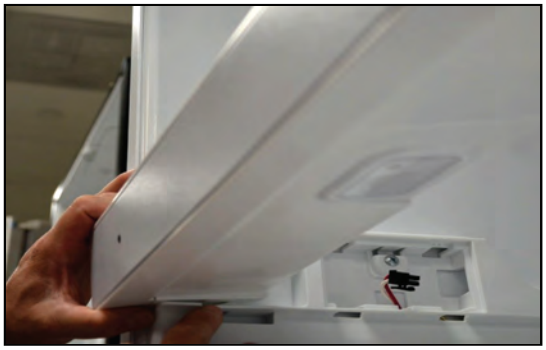
14. Press tabs to remove right side and left side harness cover. Disconnect harness.

15. Release the tabs under the mullion at the both end.





16. Slide out the secondary mullion slightly.



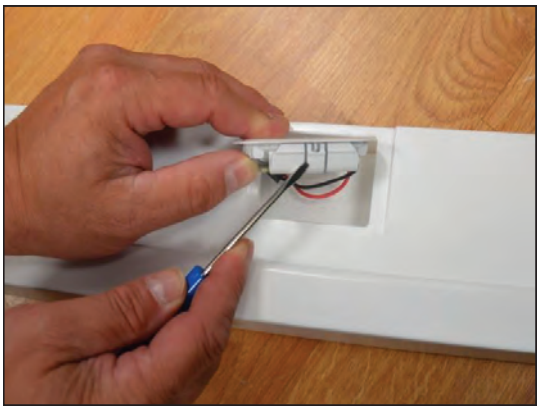
17. Remove the secondary mullion out using both hands.

Accessing Refrigerator Compartment Components (Continued)

Secondary Mullion LED

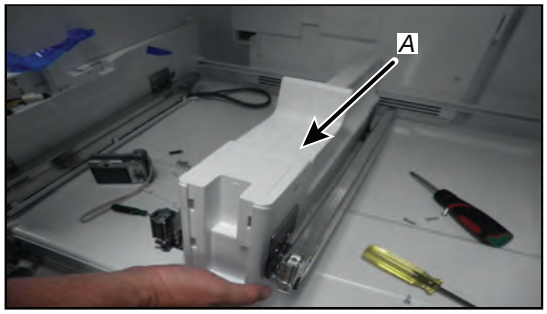
18. Insert a putty knife under the LED.

19. Push in to release the lock and pry up to remove the LED and disconnect the harness.



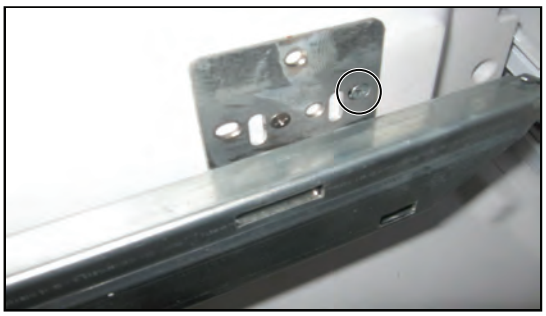
Center Divider

20. Pull forward the center divider and lift out.

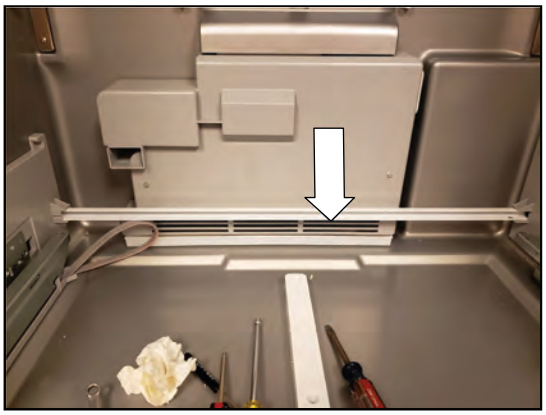


A. Center Divider

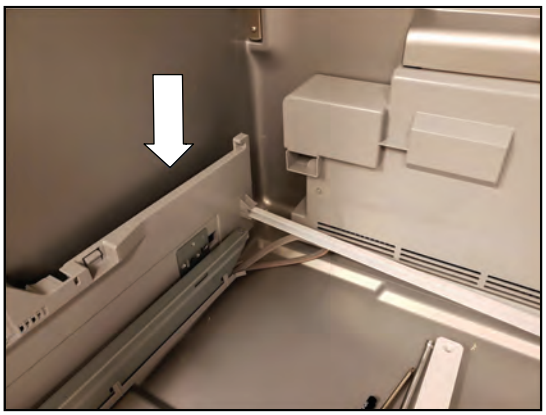
21. To remove the rails on the divider, remove the two screws holding the divider.
NOTE: When removing rails on either sides of divider there is a screw that goes into the rail on other side to help hold it. Remove this screw also.



22. Remove rear support by sliding the rail to the left and pulling the right side out and forward.



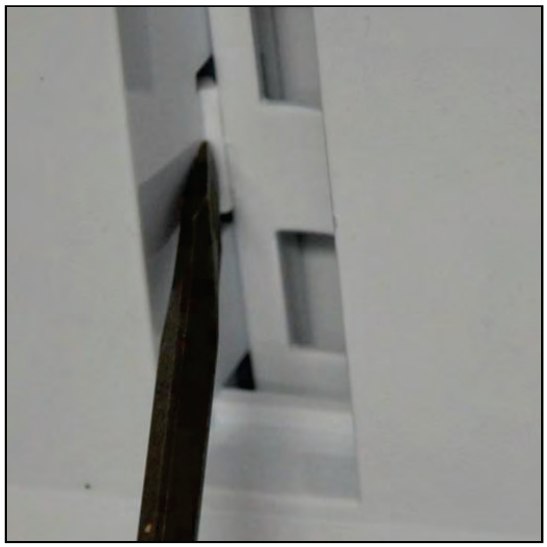
23. Remove side rail assemblies on both sides by lifting up and pulling forward.



Accessing Refrigerator Compartment Components (Continued)

Air Tower

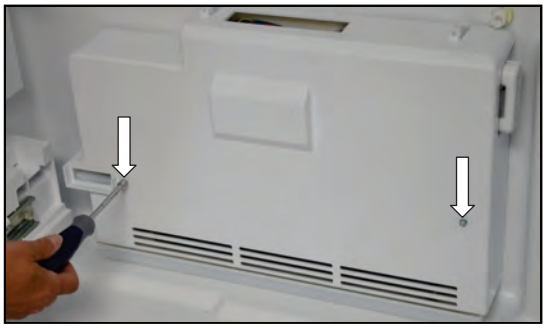
1. Complete **Refrigerator Compartment Components** instructions steps 1-10 and **Temperature Controlled (DELI) Drawer** instructions steps 1-6.
2. Remove any remaining items and shelves in Refrigerator Compartment.
3. Release 6 locking tabs, there are two tabs at 3 locations along the center shelf rail.

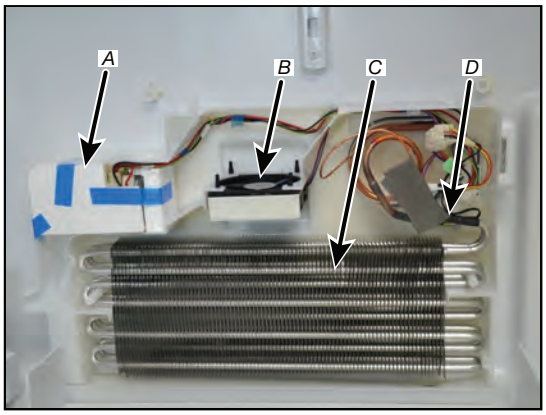


4. Drop down the air tower and remove.

RC Evaporator and Component Access

5. Remove two, 1/4" (6.4 mm) hex head screws to remove RC evaporator cover to access RC evaporator and evaporator components.



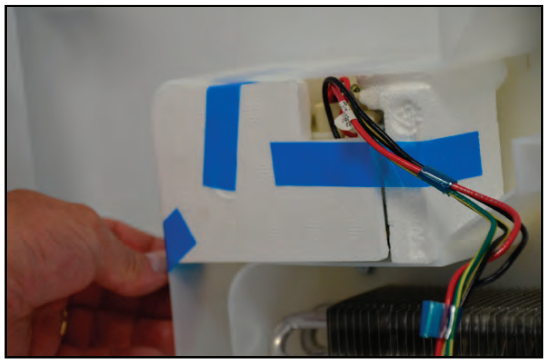


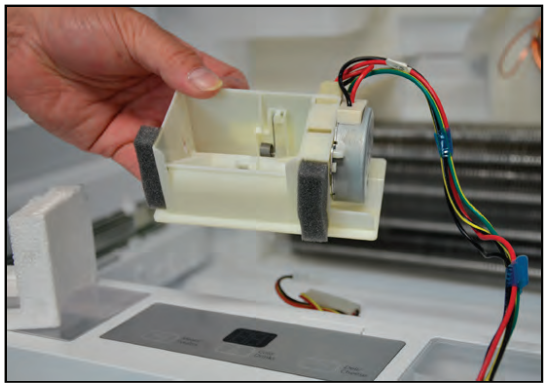
A. Pantry air damper
B. RC evaporator fan motor
C. Evaporator
D. RC evaporator thermistor

Accessing Refrigerator Compartment Components (Continued)

Pantry Air Damper

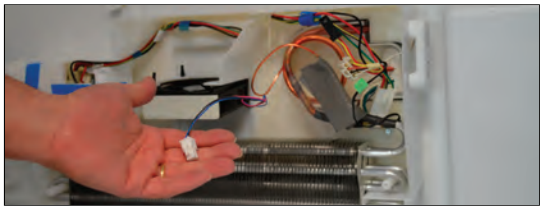
6. Remove tape to access pantry air damper.



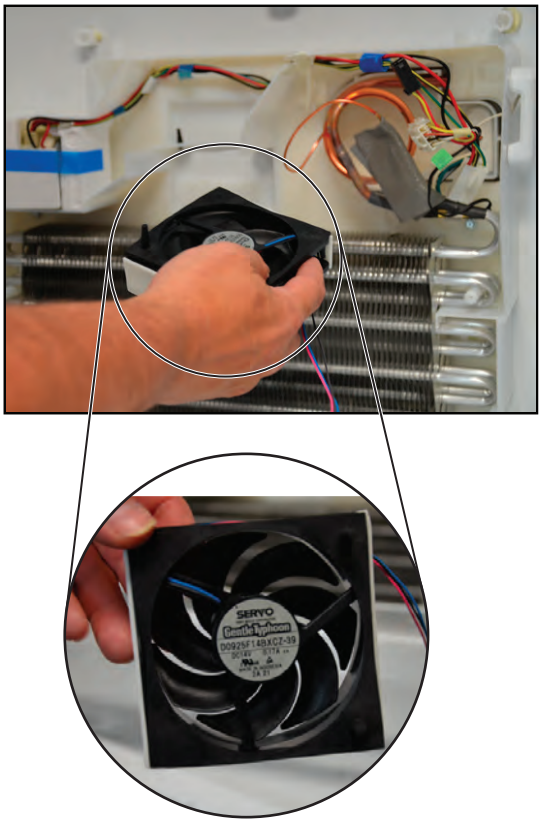


RC Evaporator Fan Motor

7. Disconnect wire harness.

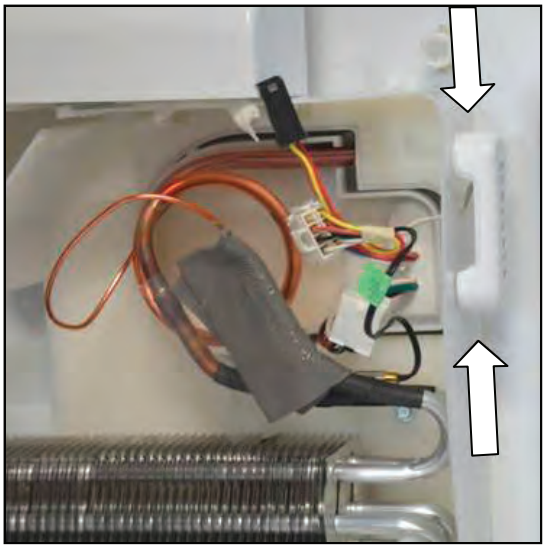


8. Separate the fan motor from the housing. There are four rubber isolators that secure the motor to the housing. Remove the fan motor.

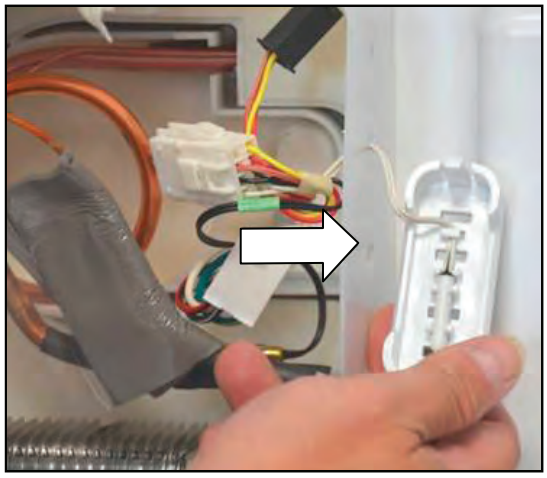


RC Evaporator Thermistor

9. Grasp the top and bottom of the thermistor housing and depress while you pull out on the housing. The evaporator thermistor is part of the RC wiring harness.

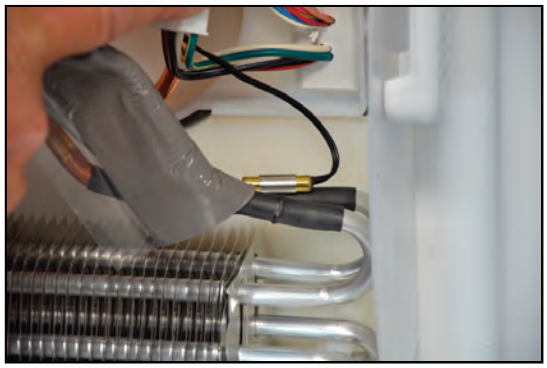


Accessing Refrigerator Compartment Components (Continued)



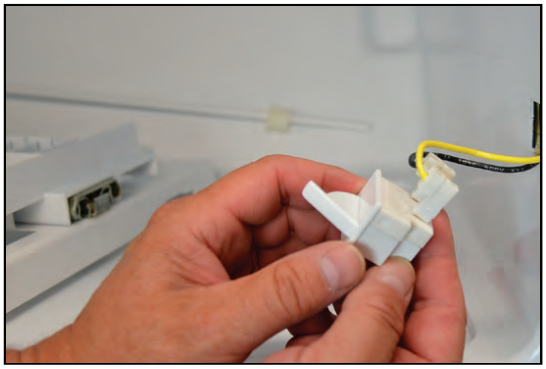
RC Defrost Thermistor

10. RC defrost thermistor clips on the evaporator coil and senses the coil temperature. The defrost thermistor is part of the RC wiring harness. To replace, order the wiring harness.



Door Switch

1. To remove the door switch from the cabinet wall, protect the liner while using a putty knife to pry it out. Disconnect harness connectors.



Accessing Freezer Compartment Components

⚠ WARNING

Electrical Shock Hazard

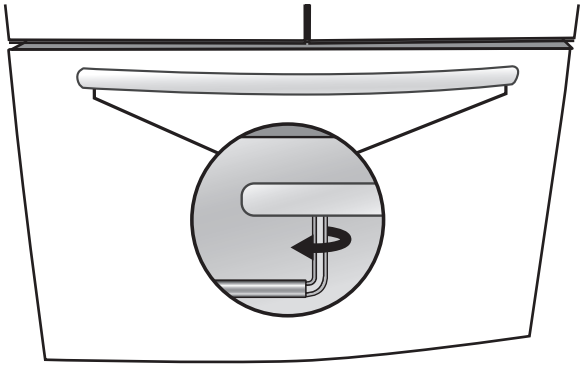
Disconnect power before servicing.

Replace all parts and panels before operating.

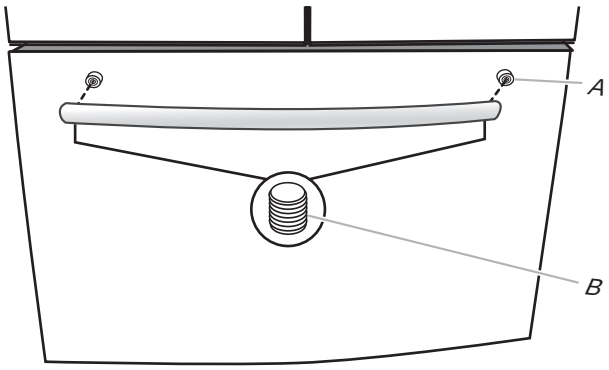
Failure to do so can result in death or electrical shock.

Freezer Handle

1. While holding the handle, insert the short end of the hex key into a setscrew hole and slightly rotate the hex key until it is engaged in the setscrew.



2. Using a right to left motion loosen the setscrew a quarter-turn at a time.



A. Shoulder screw
B. Setscrews inside the handle

3. Repeat steps 1 and 2 for the other setscrew. Slowly pull the handle away from the door or drawer.
4. If necessary, use a Phillips screwdriver to remove the shoulder screws from the door.

Upper Basket

1. Open the freezer drawer to its full extension.
2. Release the retainers on the right and left sides of the basket.
3. Lift out the upper basket by pressing in both the retainers.

Middle Basket

4. Insert a wide blade screwdriver from the top.

5. Force out the top of the slide as you insert a narrow blade screwdriver into the hole and force the stop out.

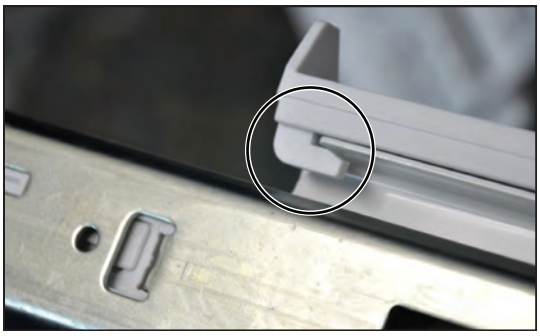
6. Do the above step 2 for the right side.
7. Lift out the basket.

Accessing Freezer Compartment Components (Continued)

Lower Basket

8. Lift the front of the basket up.

9. Push back to disengage the basket from the rail.

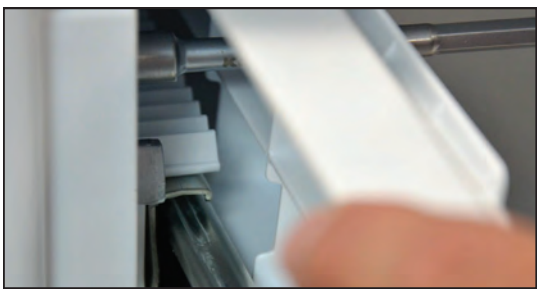


10. Take the basket out.

Top Freezer Basket Adaptor

11. Pull out the rail and align the hole in slide with 1/4" (6.4 mm) screw in the rail.

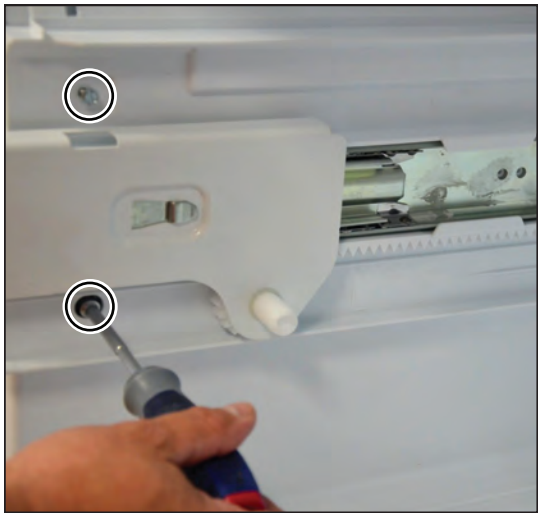
12. Remove the screw with the screwdriver.



13. Pull out the assembly and remove the basket adaptor.

Lower Basket Slides

14. Remove the screws with the screwdriver on the front side of the rail.

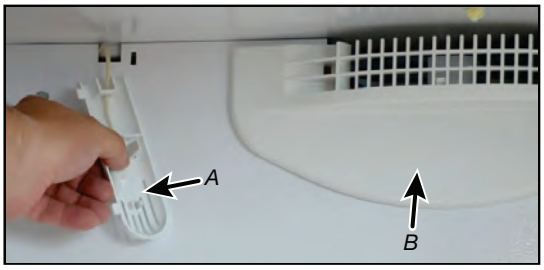


15. Pull the slide backward to disengage the slots in the rail from the plastic pegs in the cabinet.

Accessing Freezer Compartment Components(Continued)

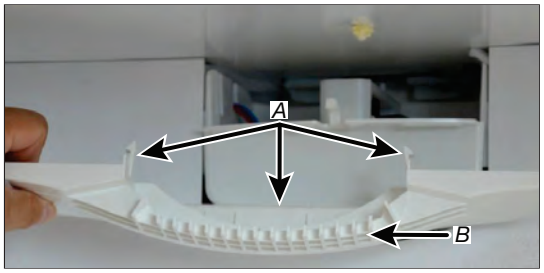
FC Evaporator and Component Access

1. Complete **Upper Basket, Middle Basket and Lower basket** instructions steps 1-10.
2. Remove the thermistor cover by releasing the two tabs on the right side. The freezer thermistor connector can be accessed behind the FC evaporator cover.



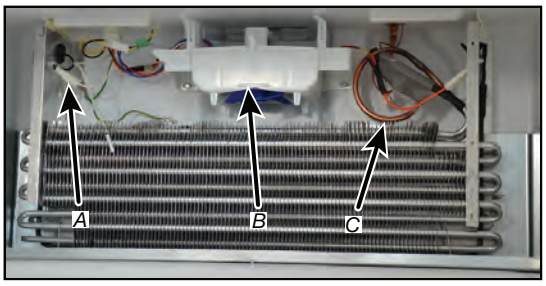
A. Thermistor cover
B. Fan cover

3. Release the two tabs and then the center tab on the fan cover.



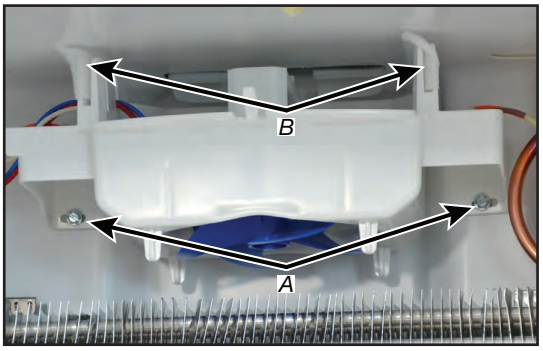
A. Tabs
B. Fan cover

4. Remove the four, 1/4" (6.4 mm) screws to remove FC evaporator cover to access FC evaporator and evaporator components.



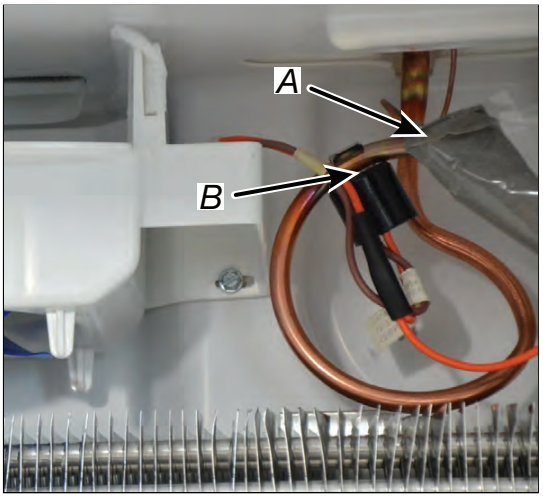
A. Freezer thermistor connector
B. Freezer fan assembly
C. Freezer Bimetal

5. Remove two screws to remove the fan assembly. When installing fan make sure foam gaskets are in place.



A. Screws
B. Foam gaskets

6. Remove noise mastic tape to access bimetal before installing. Unclip the bimetal from the suction line.



A. Mastic
B. Bimetal

Door Switch

1. To remove the door switch from the cabinet wall, protect the liner while using a putty knife to pry it out. Disconnect harness connectors.

Accessing Ice Maker and Dispenser Components

⚠ WARNING

Electrical Shock Hazard

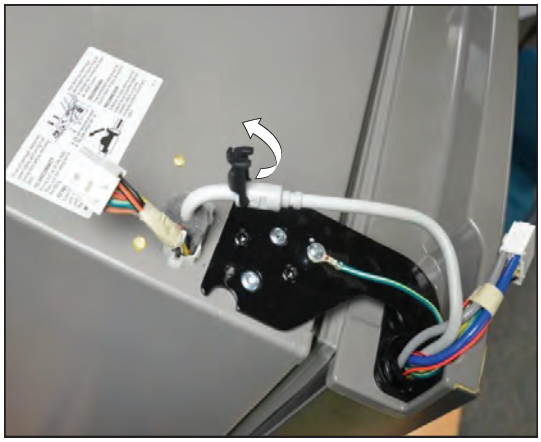
Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Water Line at the Top of the French Door

1. Unplug the refrigerator or disconnect power.
2. Remove the hinge cover and unplug the wire harness.
3. Lift the lock on the connector.

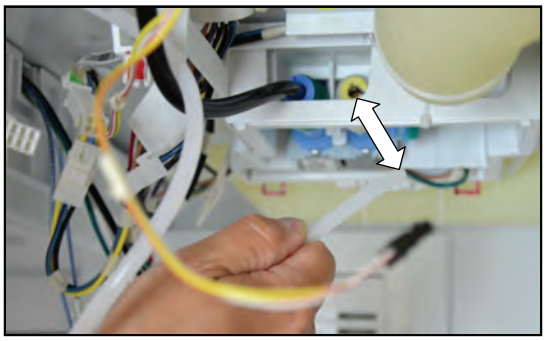


4. Disconnect the water line.
5. Remove the screws and the hinge.

Ice Box Assembly

1. Complete the steps 1-11 from **Refrigerator Compartment Components** instructions .
2. Disconnect electrical connections to ice box assembly.

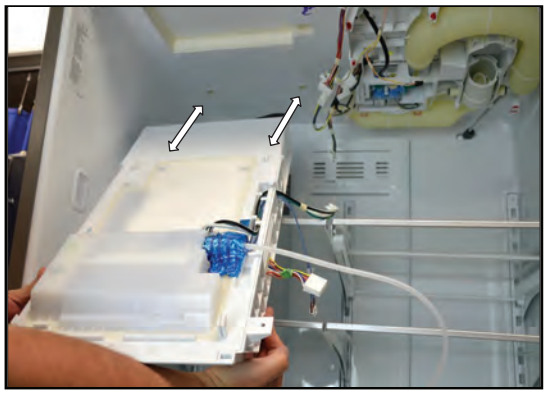
3. Disconnect ice maker fill tube from water valve.



4. Locate the two 1/4" (6.4 mm) screws attaching the ice box assembly and remove using 1/4" (6.4 mm) nut driver while supporting ice maker.

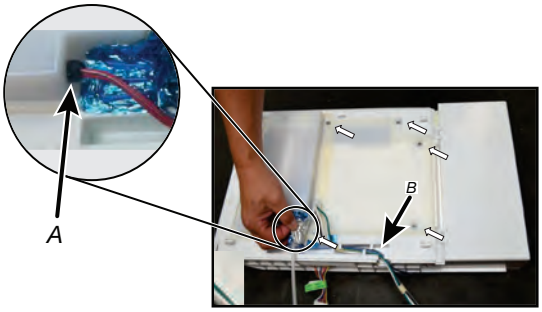
Accessing Ice Maker and Dispenser Components (Continued)

5. Drop down the front of the ice maker assembly and slide out to disengage the two tabs from the slots in the top of the cabinet.



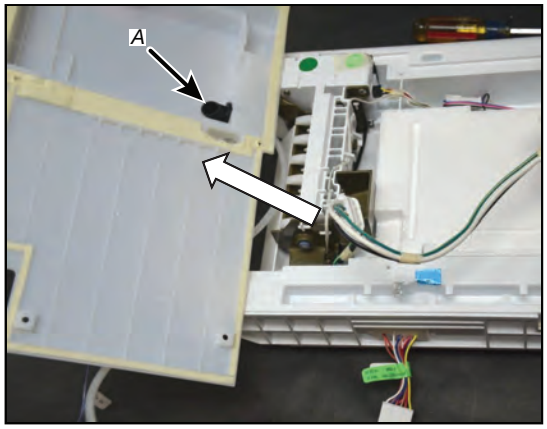
Ice Maker Fill-Tube

6. Remove foil fill tube heater from the ice maker fill-tube on the ice box. Remove all wires from channel on ice box assembly.
   NOTE: Some models have an ice box fascia with fascia heater wired through the foil fill tube heater, you may need to remove the fascia heater wires and grommet from the ice box cover.

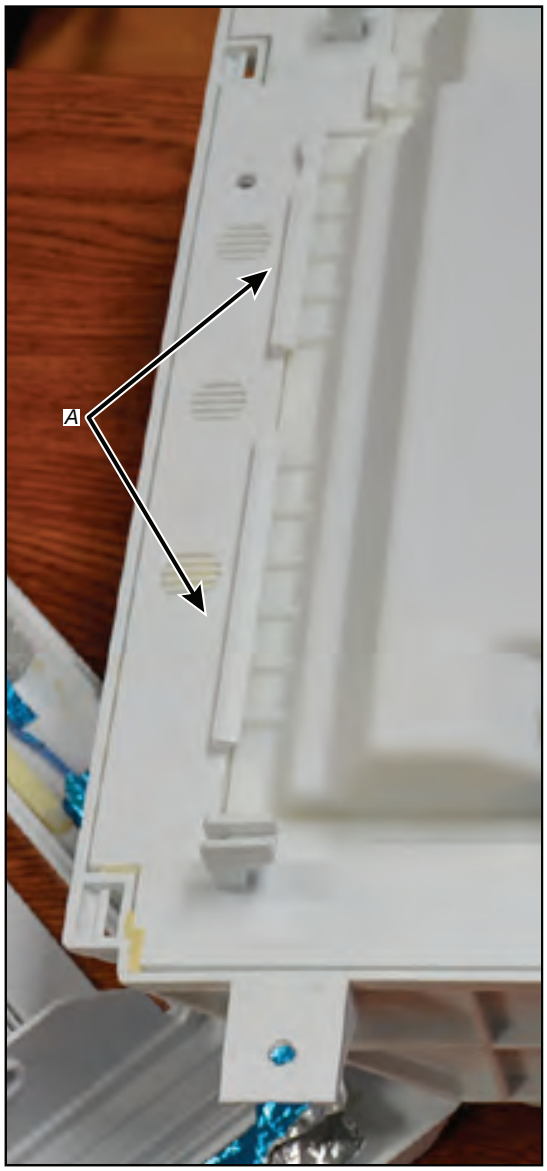


A. Grommet
B. Channel

7. Use a straight blade screwdriver to remove five, 1/4" (6.4 mm) screws securing the ice box cover to the ice box assembly.
8. Remove ice box cover while guiding ice maker harness through slot in ice box cover. Note lip for reassembly.

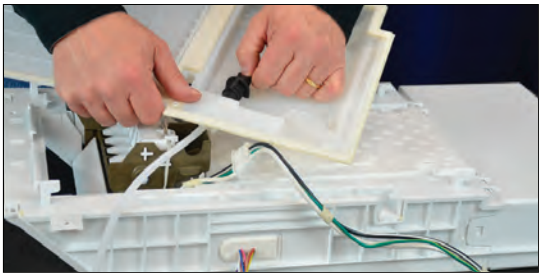


A. Slot



A. Lip

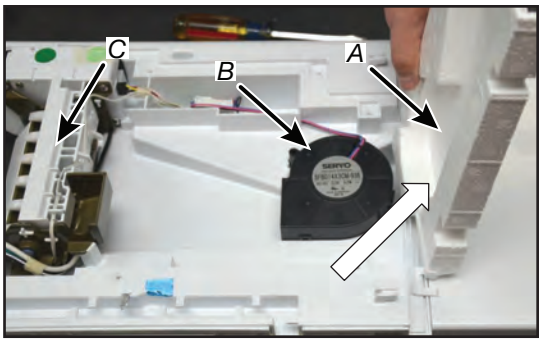
9. Remove ice maker fill tube by pushing into ice box cover and pulling through hole.



Accessing Ice Maker and Dispenser Components (Continued)

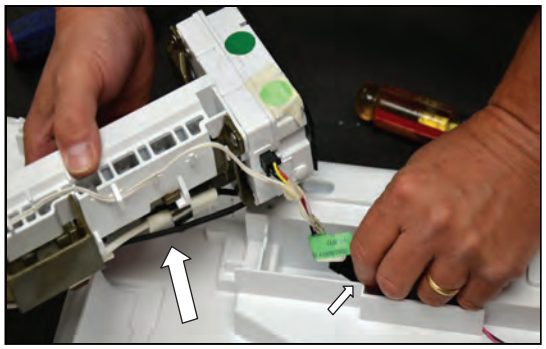
Ice Maker and Fan Motor

10. Remove foam block.

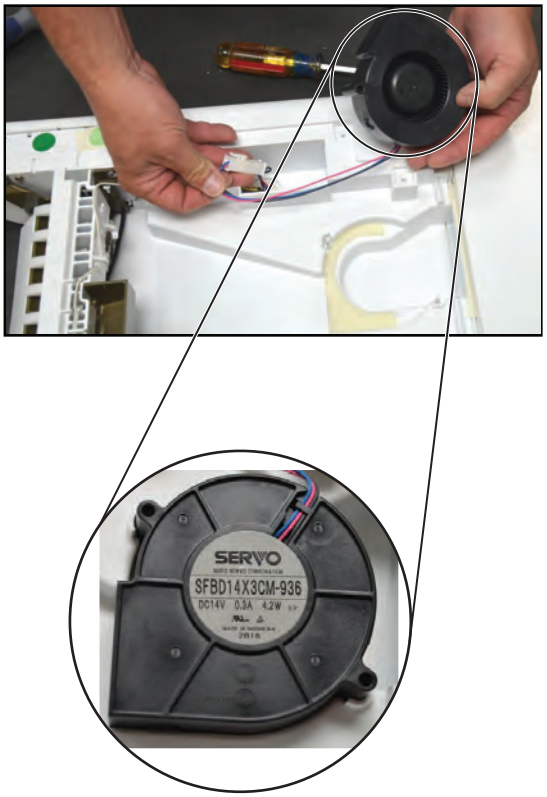


A. Foam Block
B. Fan Motor
C. Ice Maker

11. Lift out ice maker and disconnect the wire harness.



12. Lift out the fan motor and disconnect the wire harness.

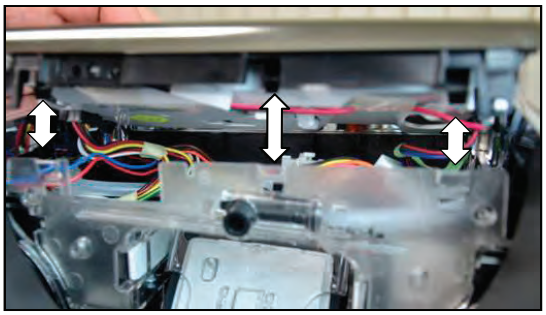


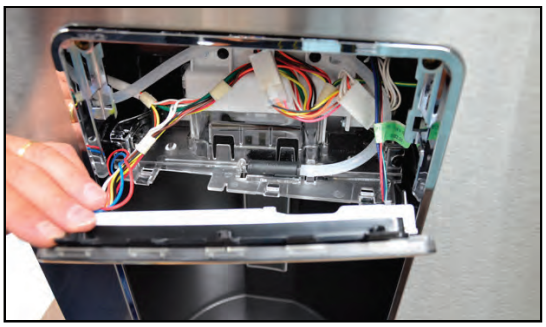
Accessing Ice Maker and Dispenser Components (Continued)

Dispenser

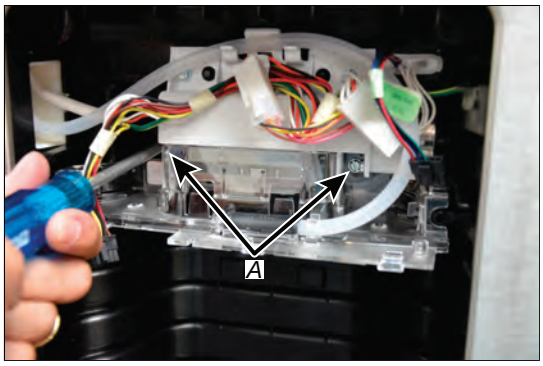
1. Insert a small screwdriver to press black tabs on underside of UI in these 3 locations to remove user interface (UI) assembly.

2. Pull out and lower UI, then disconnect board from wire harness connectors to remove.



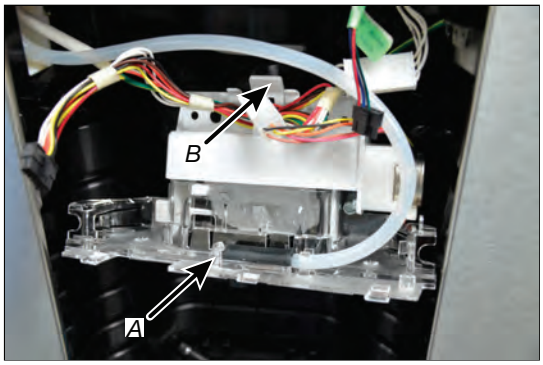


3. To remove ice door assembly, remove the two screws securing assembly to refrigerator door.



A. Screws

4. Disconnect dispenser hose by removing hose from locater channel and then by locating and depressing the tab to release.



A. Tab
B. Locater channel

5. Pull out the assembly to service.

Notes

PRODUCT SPECIFICATIONS & WARRANTY INFORMATION SOURCES

IN THE UNITED STATES:

FOR PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION CALL:

FOR WHIRLPOOL PRODUCTS: 1-800-253-1301

FOR TECHNICAL ASSISTANCE WHILE AT THE CUSTOMER'S HOME CALL:

THE TECHNICAL ASSISTANCE LINE: 1-800-832-7174

HAVE YOUR STORE NUMBER READY TO IDENTIFY YOU AS AN AUTHORIZED IN-HOME SERVICE PROFESSIONAL

FOR LITERATURE ORDERS (CUSTOMER EXPERIENCE CENTER):

PHONE: 1-800-851-4605

FOR TECHNICAL INFORMATION AND SERVICE POINTERS:

www.servicematters.com

IN CANADA:

FOR PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION CALL

1-800-461-5681

FOR TECHNICAL ASSISTANCE WHILE AT THE CUSTOMER'S HOME CALL:

THE TECHNICAL ASSISTANCE LINE: 1-800-488-4791

HAVE YOUR STORE NUMBER READY TO IDENTIFY YOU AS AN AUTHORIZED IN-HOME SERVICE PROFESSIONAL