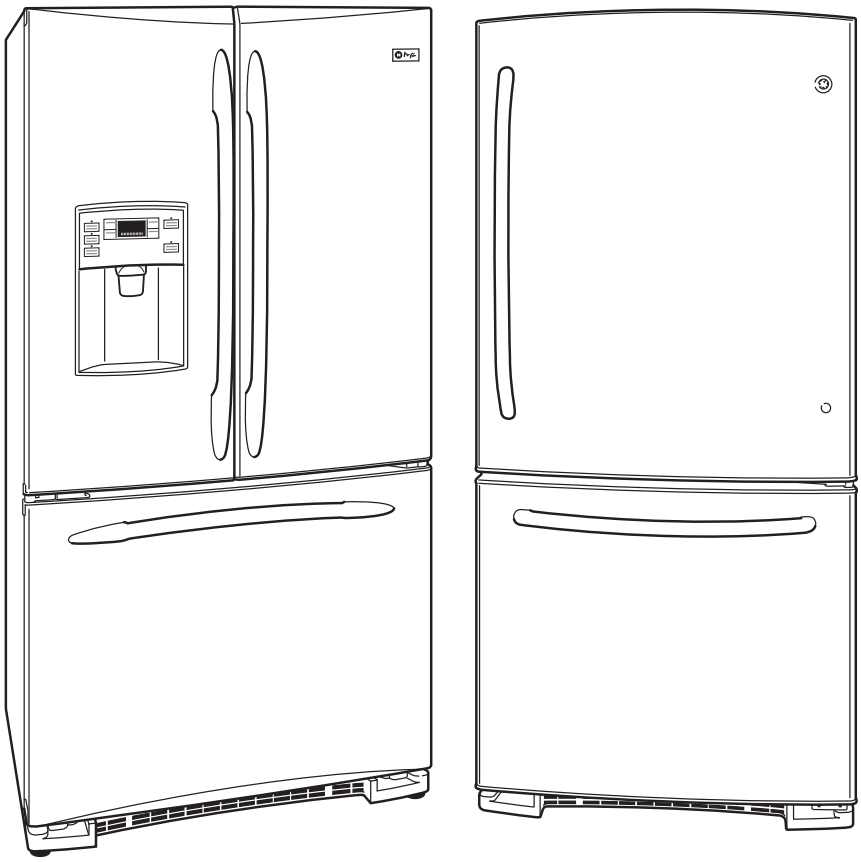
GE Consumer & Industrial

Technical Service Guide

December 2008

20-, 22- and 23-cu. ft. Bottom Mount Refrigerators

GBSC0	GFSF2
GBSC3	GFSL2
GDSC0	GFSS2
GDSC3	PDSF0
GDSL0	PFSF2
GDSL3	PDSS0
GDSS0	PFSS2



31-9179

GE Appliances
General Electric Company
Louisville, Kentucky 40225

IMPORTANT SAFETY NOTICE

The information in this service guide is intended for use by individuals possessing adequate backgrounds of electrical, electronic, and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

WARNING

To avoid personal injury, disconnect power before servicing this product. If electrical power is required for diagnosis or test purposes, disconnect the power immediately after performing the necessary checks.

RECONNECT ALL GROUNDING DEVICES

If grounding wires, screws, straps, clips, nuts, or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

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Table of Contents

Introduction

These new 20- and 22-cubic foot bottom mount refrigerators have the following features:

- TurboCool™ — Rapidly cools the refrigerator compartment in order to more quickly cool foods. *(on some models)*
- Automatic Icemaker — Produces 100 to 130 cubes in a 24-hour period. *(on some models)*
- Door Alarm — The door alarm will sound if any door is open for more than 2 minutes. *(on some models)*
- Water Dispenser — Chilled water is dispensed from the door or from the interior side wall of the refrigerator. *(on some models)*

Features may vary by model.

Nomenclature

P F S F 2 M J X A W W

Brand/Product
P - Profile

Configuration
F - French Door w/ FZ Drawer
D - FF Full Door w/FZ Drawer

Depth/Power
S - Standard Depth

Exterior
F - High Gloss Smooth
S - Stainless Steel

Cubic Feet
20 - 22 cu/ft

Interior Features/Shelves
M - Quick Space Shelves

Icemaker/Exterior
J - External Water Dispenser/ 1 Year Filter/Ice Maker

Model Year
X - 2008

Engineering Nomenclature
A - Initial Design

Exterior Color
WW - White on White
BB - Black on Black
CC - Bisque
SS - Stainless Steel

G B S C 0 H B X A R W W

Brand/Product
G - GE

Configuration
B - Bottom Freezer w/ FZ Door
D - FF Full Door w/FZ Drawer
F - French Door w/ FZ Drawer

Depth/Power
S - Standard Depth

Exterior
C - Color, L - Clean Steel, S - Stainless

Cubic Feet
20 - 22 - 23 cu/ft

Interior Features/Shelves
H - Upgrade Glass Shelves

Icemaker/Exterior
B - Ice Maker Ready

Model Year
X - 2008

Engineering Nomenclature
A - Initial Design

Engineering Nomenclature
R - Right Door Swing
L - Left Door Swing

Exterior Color
WW - White on White, BB - Black
CC - Bisque, SS - Stainless Steel
LS - Clean Steel

The nomenclature plate is located on the upper left wall of the fresh food compartment. It contains the following information:

- Model and Serial Number
- Minimum Installation Clearances
- Electrical Voltage, Frequency
- Maximum Amperage Rating
- Refrigerant Charge and Type

Nomenclature

The Mini-Manual is located behind the base grill and taped under the cabinet.

Serial Number
The first two characters of the serial number identify the month and year of manufacture.

Example: *AR123456S = January, 2008*

A - JAN	2008 - R
D - FEB	2007 - M
F - MAR	2006 - L
G - APR	2005 - H
H - MAY	2004 - G
L - JUN	2003 - F
M - JUL	2002 - D
R - AUG	2001 - A
S - SEP	2000 - Z
T - OCT	1999 - V
V - NOV	1998 - T
Z - DEC	1997 - S

The letter designating the year repeats every 12 years.

Example:
T - 1974
T - 1986
T - 1998

All Except Models GBSC0 and GBSC3

DISCONNECT POWER CORD BEFORE SERVICING
IMPORTANT - RECONNECT ALL GROUNDING DEVICES
All parts of this appliance capable of conducting electrical current are grounded. If grounding wires, screws, straps, clips, nuts or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

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ELECTRICAL SPECIFICATIONS

Temperature Control (Position FF/FZ)	37/0°F
Defrost Control (w/no door openings)	60hrs @ 40 min
Thermistor kilo-ohm resistance @	0°F 4.27
@	37°F 14.183
@	77°F 5.0
Overtemperature Thermostat	140-110°F
Defrost Thermistor	55°F
Electrical Rating: 115V AC 60 Hz	11.6 Amp
Maximum Current Leakage	0.75 mA
Maximum Ground Path Resistance	0.14 Ohms

NO LOAD PERFORMANCE

Control Position 5/5 and Ambient of 65°F to 90°F

Fresh Food, °F	34 to 40
Frozen Food, °F	-3 to 3F
Run Time, % @ 65°F	25 to 50
Run Time, % @ 90°F	50 to 80

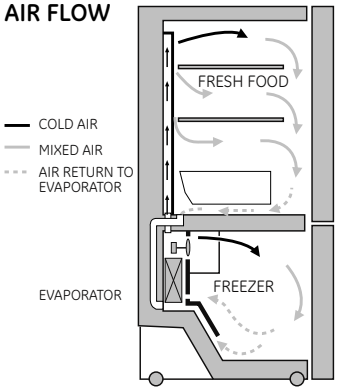
REFRIGERATION SYSTEM

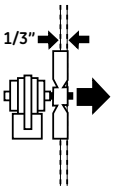
Compressor 20 Models	809 BTU/hr
Compressor 22 Models	780 BTU/hr
Minimum Compressor Capacity	22 inches Hg
Minimum Equalized Pressure	
@ 70°F	40 to 45 PSIG
@ 90°F	48 to 60 PSIG

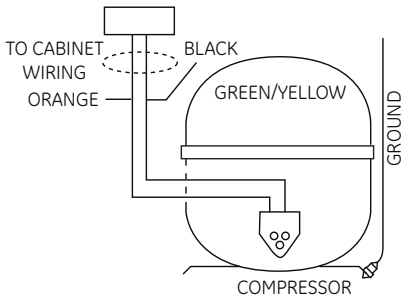
REFRIGERANT CHARGE (R134a)

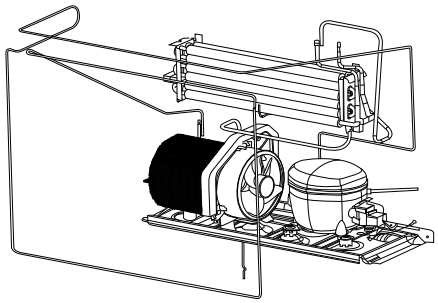
20 models	4.50 ounces
22 models	5.50 ounces

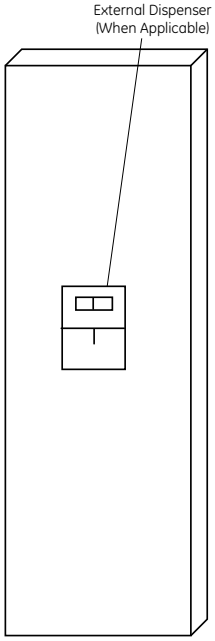
AIR FLOW

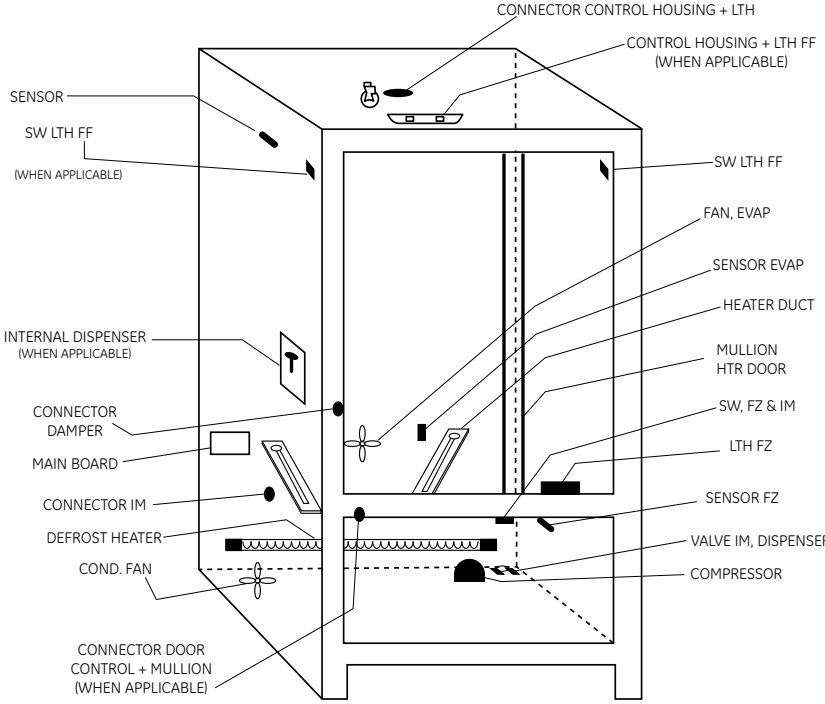












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Model GBSC0 and GBSC3

DISCONNECT POWER CORD BEFORE SERVICING
IMPORTANT - RECONNECT ALL GROUNDING DEVICES
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ELECTRICAL SPECIFICATIONS

Temperature Control (Position 5 FF/FZ)	37/0°F
Defrost Control (w/no door openings)	18hrs @ 40 min
Thermistor kilo-ohm resistance	@0°F 4.27
	@37°F 14.183
	@77°F 5.0
Defrost Thermostat	55°F
Electrical Rating: 115V AC 60 Hz	11.6 Amp
Maximum Current Leakage	0.75 mA
Maximum Ground Path Resistance	0.14 Ohms

NO LOAD PERFORMANCE

Control Position 5/5 and Ambient of 65°F to 90°F

Fresh Food, °F	34 to 40
Frozen Food, °F	-3 to 3F
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Run Time, % @ 90°F	30 to 70

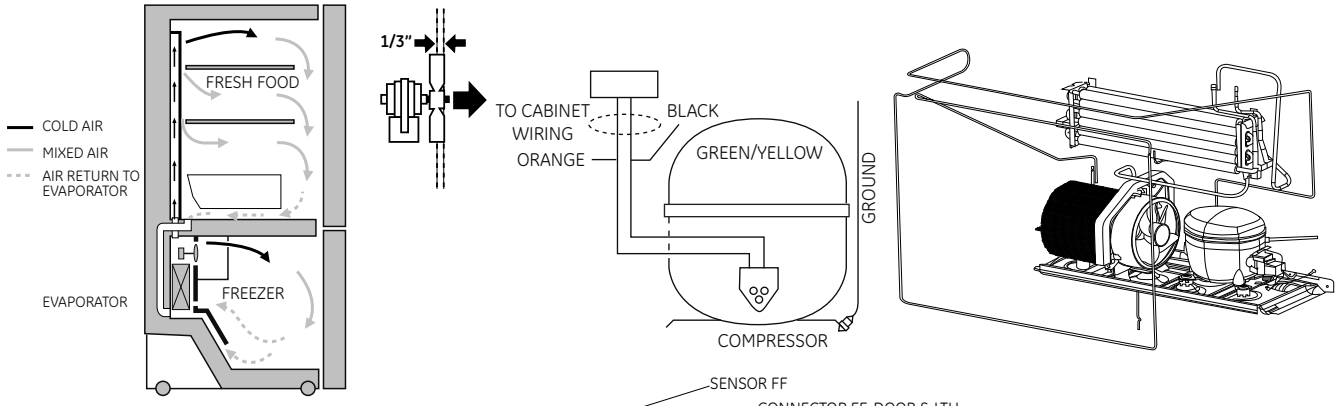
REFRIGERATION SYSTEM

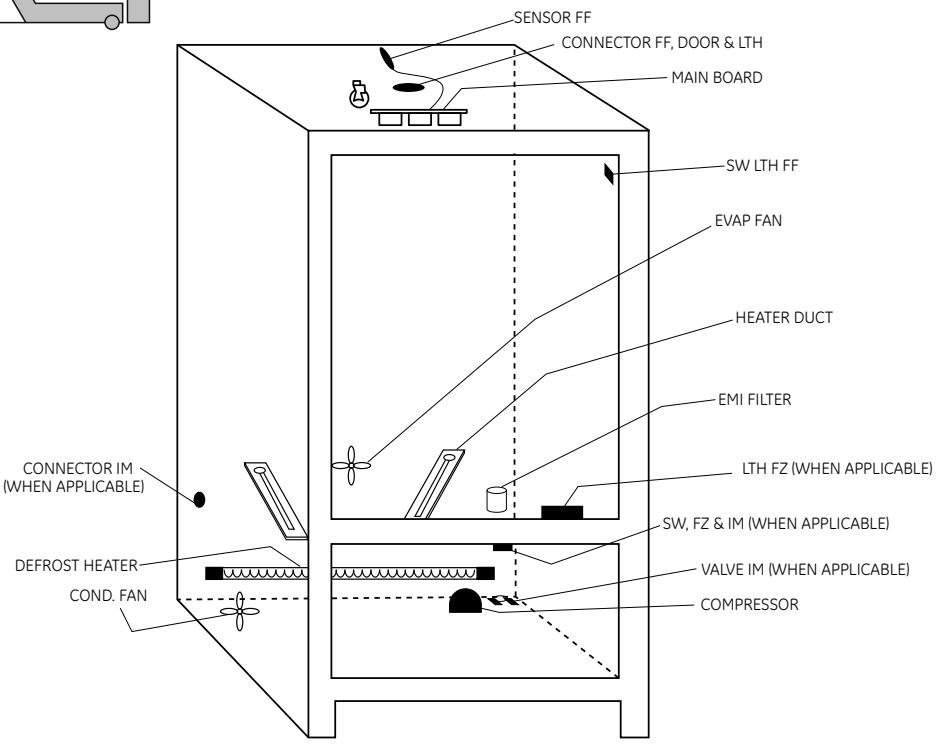
Compressor 20, 22 Models	809 BTU/hr
Minimum Compressor Capacity	22 inches Hg
Minimum Equalized Pressure	
@ 70°F	40 to 45 PSIG
@ 90°F	48 to 60 PSIG

REFRIGERANT CHARGE (R134a)

20 models	4.50 ounces
22 models	5.50 ounces

AIR FLOW





Reversing the Door Swing (Single Door Models)

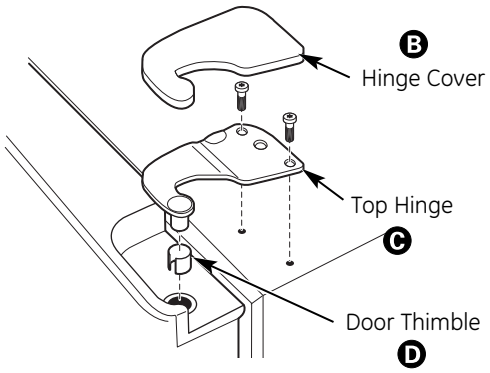
Important: Once you begin, do not move the cabinet.

Note: Door swing is not reversible on stainless steel models.

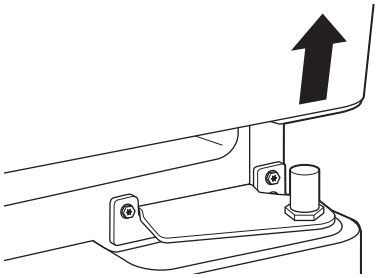
- Unplug the refrigerator from its electrical outlet. Empty all door shelves, including the dairy compartment.
- Once door swing is finalized, ensure the logo badge is properly aligned and permanently secured to the door by removing the adhesive cover on the back side. **Note**: A replacement logo badge is included in the hinge kit.

To remove the refrigerator door:

1. Tape the refrigerator door shut with masking tape.
2. Remove the hinge cover (B) on top of the refrigerator door by carefully prying it up with a putty knife, if necessary.
3. Using a 5/16-in. socket ratchet/driver, remove the bolts securing the top hinge (C) to the cabinet. Lift the hinge straight up to free the hinge pin from the socket in the top of the door.
4. Carefully remove the door thimble (D) from inside the socket. This will be used again when reinstalling the door on the other side.



5. Remove the tape and tilt the door away from the cabinet. Lift the door off the center hinge pin. Ensure that the plastic hinge pin thimble remains on the hinge pin or inside door hinge pin hole located in the bottom of the door.

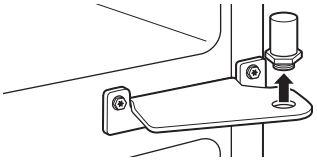


6. Set the door on a non-scratching surface with the inside up.

To remove the center hinge:

(Models without freezer door)

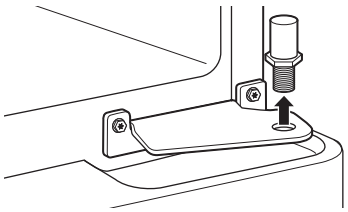
1. Remove the hinge pin from the hinge bracket. The hinge pin will be used again with the new hinge bracket for the other side.



To remove the freezer door:

(Models with freezer door)

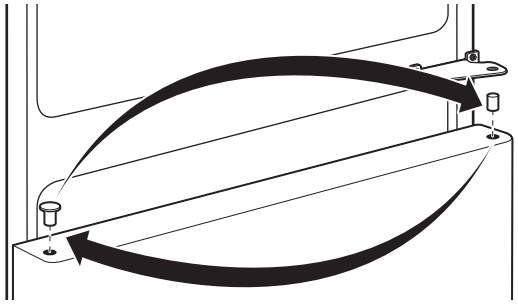
1. Tape the door shut with masking tape.
2. Remove hinge pin from hinge bracket. This will be used again with the new hinge bracket for the other side.



3. Remove the tape and tilt the door away from the cabinet. Lift the door off the bottom hinge pin.

(*Continued next page*)

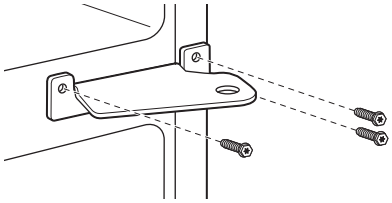
4. Remove the button plug from the left side of the door. Remove the door thimble from the right side of the door. Install the door thimble into the hole on the left and the button plug into the hole on the right.



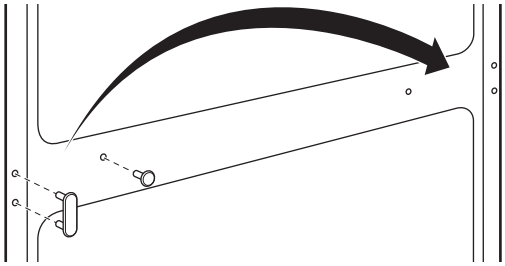
5. Set the door on a non-scratching surface, with the inside up.

To transfer the center hinge bracket:

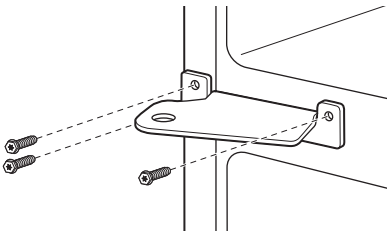
1. Using a 5/16-in. socket ratchet/driver, remove the bolts securing the center hinge to the cabinet. Set the bolts aside.



2. Transfer the plug button and screw hole cover in the hinge holes on the left side to the right side.



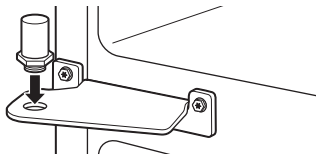
3. Install the new center hinge bracket from the kit on the left side.



To install the center hinge pin:

(Models without freezer door)

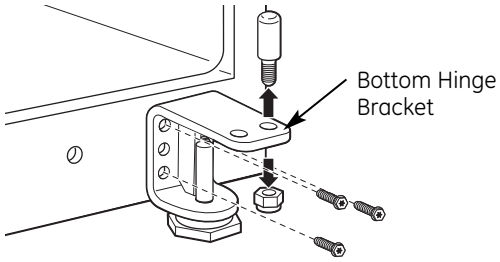
Install the hinge pin into the new hinge bracket.



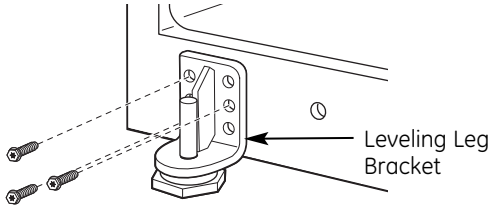
To remove the bottom hinge and leveling leg:

(Models with freezer door)

1. Using a 1/2-in. socket ratchet/driver, remove the nut and hinge pin from the hinge bracket with leveling leg. Using a 5/16-in. socket ratchet/driver, remove the screws from the bottom hinge bracket. These will be reinstalled on the other side.



2. Using a 5/16-in. socket ratchet/driver, remove the screws from the leveling leg bracket on the other side. These will be reinstalled on the opposite side.



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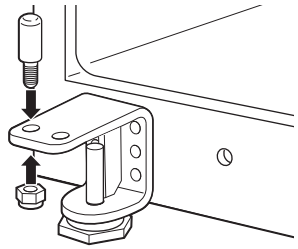
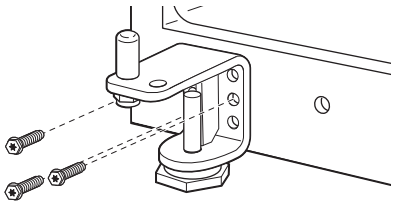
To install the bottom hinge and leveling leg:

(Models with freezer door)

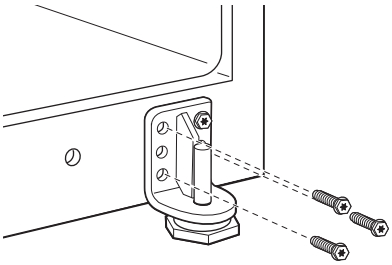
1. Using a 1/2-in. socket ratchet/driver, install the hinge pin and nut in the opposite hole on the hinge bracket with leveling leg.



2. Using a 5/16-in. socket ratchet/driver, install the hinge bracket with leveling leg on the left side of the refrigerator. The pin will be toward the outside of the refrigerator.

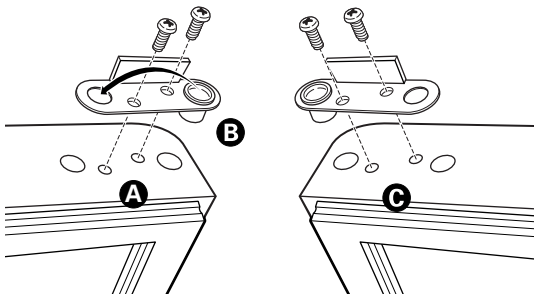


3. Using a 5/16-in. socket ratchet/driver, install the leveling leg bracket on the right side of the refrigerator.



To transfer the refrigerator and freezer door stops:

1. Remove the door stop (A) on right side of the bottom of the door by removing the two screws.
2. Move the plastic hinge hole thimble (B) to the opposite hole.
3. Install the door stop on the left side (C), making sure to line up the screw holes in the door stop with the holes in the bottom of the door.



Bottom of Refrigerator Door (Right Side)

Bottom of Refrigerator Door (Left Side)

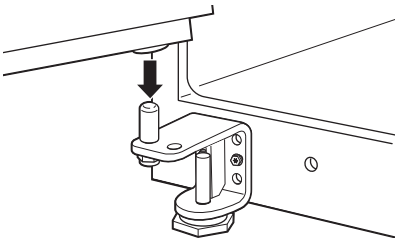
To transfer the refrigerator door handle:

Refer to ***Refrigerator Door Handle*** section for instructions.

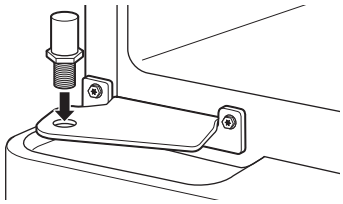
To rehang the freezer door:

(Models with freezer door)

1. Lower the freezer door onto the bottom hinge pin. Ensure that the plastic hinge pin thimble is on the hinge pin or inside the door hinge pin hole located in the bottom of the door.

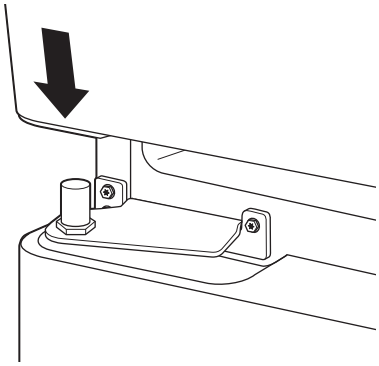


2. Straighten the door and line it up with the center hinge bracket. Install the center hinge pin with a 3/4-in. socket ratchet/driver. Turn it until it extends through the hinge bracket and into the freezer door.



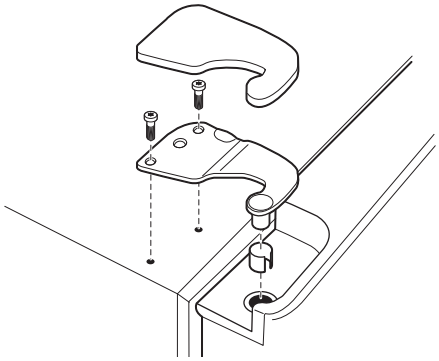
To rehang the refrigerator door:

1. Lower the refrigerator door onto the center hinge pin. Ensure that the plastic hinge pin thimble is on the center hinge pin or inside door hinge pin hole located in the bottom of the door.

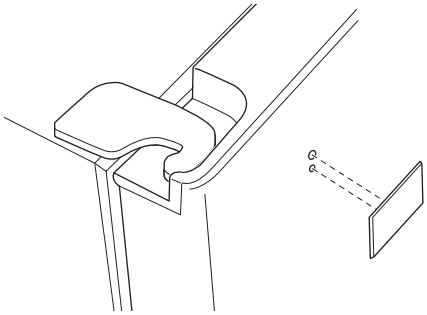


2. Insert the door thimble into the hinge hole on top of the refrigerator door and then insert the top hinge pin. Make sure the door is aligned with the cabinet. Attach the hinge to the top of the cabinet loosely with the bolts.

3. Make sure the gasket on the door is flush against the cabinet and is not folded. Support the door on the handle side and make sure the door is straight and the gap between the doors is even across the front. While holding the door in place, tighten the top hinge bolts. Replace the hinge cover.



4. Remove the adhesive backing paper and align the pins on the back of the badge with the holes in the door. Apply pressure to the badge to ensure it sticks to the door.



Removing the Doors (French Door Models)

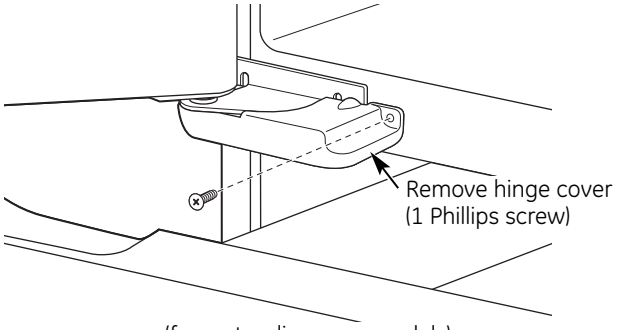
Important: Once you begin, do not move the cabinet.

Note: Door swing is not reversible.

- Unplug the refrigerator from its electrical outlet. Empty all door shelves, including the dairy compartment.

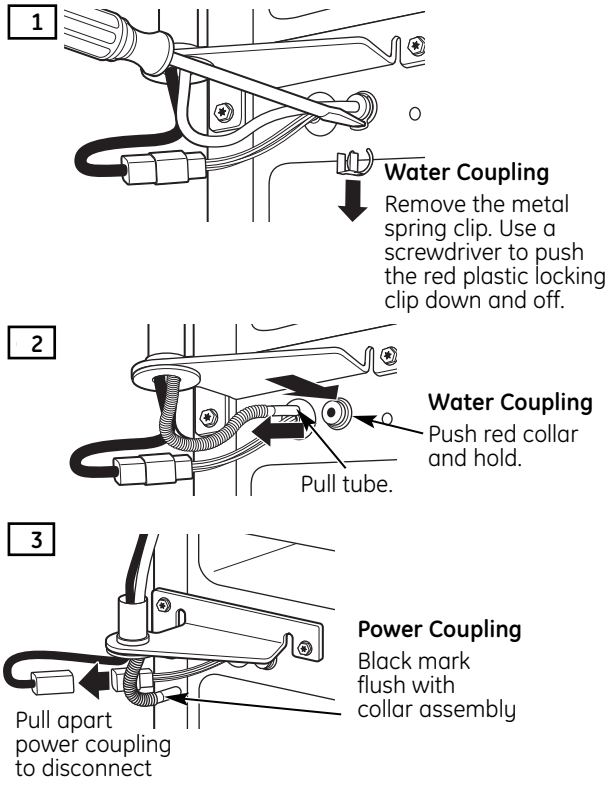
To remove the top door:

1. Tape the door shut with masking tape.
2. Start with left-hand door first. Remove the screw securing the center hinge cover, lift the hinge cover and place to the side on top of the refrigerator.

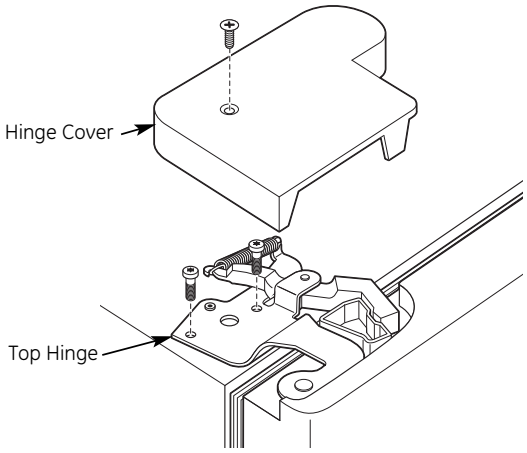


(for water dispenser models)

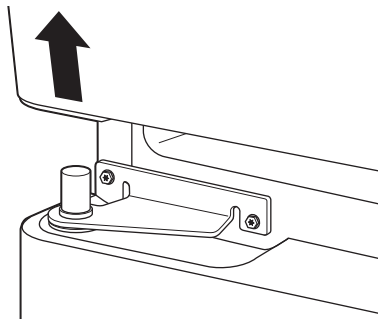
3. Remove water coupling and power coupling.



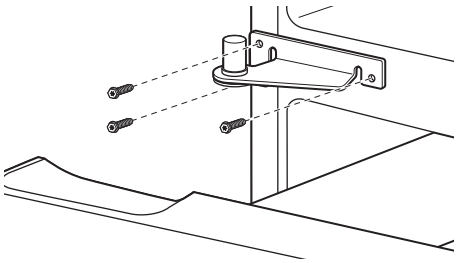
4. Remove the hinge cover on top of the refrigerator door by removing the Phillips head screw and pulling it up.
5. Using a 5/16-in. socket ratchet/driver, remove the bolts securing the top hinge to the cabinet. Then lift the hinge straight up to free the hinge pin from the socket in the top of the door.



6. Remove the tape and tilt the door away from the cabinet. Lift the door off the center hinge pin. Ensure that the plastic hinge pin thimble remains on the hinge pin or inside door hinge pin hole located in the bottom of the door.



7. Set the door on a non-scratching surface with the inside up.
8. Using a 5/16-in. socket ratchet/driver, remove the bolts securing the center hinge to the cabinet. Set the hinge and bolts aside.

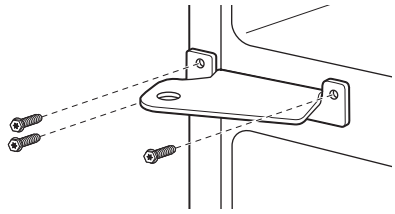


Note: Follow the same procedure on the opposite door. There are no wires, water lines or center hinge covers on the opposite side.

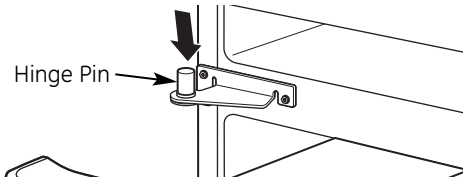
(*Continued next page*)

To replace the top door:

1. Install the center hinge on each side.

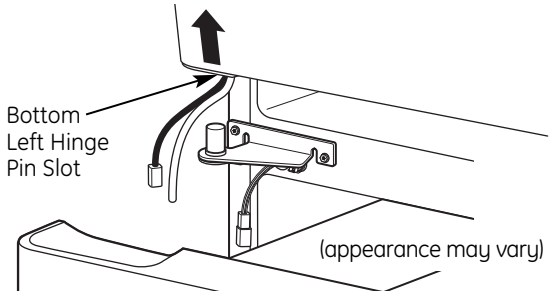


2. Lower the refrigerator door onto the center hinge pin. Ensure that the plastic hinge pin thimble is on the center hinge pin or inside door hinge pin hole located in the bottom of the door.

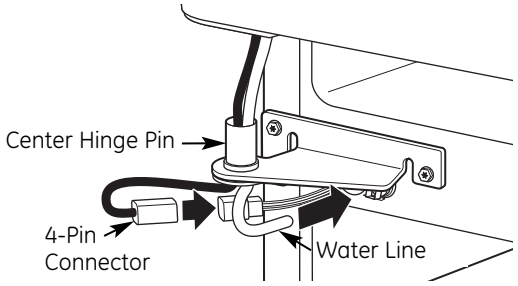


3. Securely tape the door shut with masking tape or have a second person support the door.

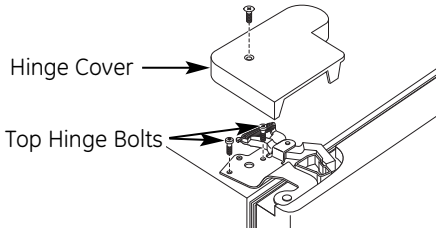
4. Route wires through bottom left hinge pin slot. Insert the top hinge pin into the hinge hole on top of the refrigerator door. Make sure the door is aligned with the cabinet and opposite door. Attach the hinge to the top of the cabinet loosely with the bolts.



5. On left-hand doors, pass the wires and water line through the center hinge pin. Then connect the water line and 4-pin connector.

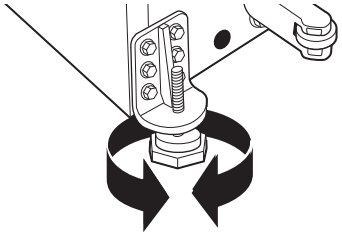


6. Make sure the gasket on the door is flush against the cabinet and is not folded. Make sure the door is straight and the gap between the doors is even across the front. While holding the aligned door in place, tighten the top hinge bolts. Replace the hinge cover and screw.

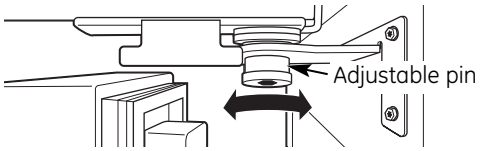


7. Follow the same procedure on the opposite door. There is no water line or hinge cover.

8. If the top of the doors are uneven, first try to raise the lowest door by turning the leveling leg on the same side as the door until the doors are even. If the unit rocks, re-adjust the leveling legs until the unit is stable.



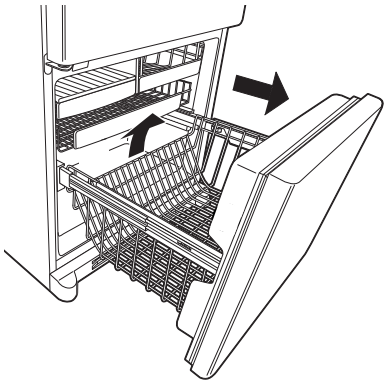
9. If the doors remain uneven, turn the adjustable pin to raise or lower the left door to match the right door. Use a 1/4-in. Allen wrench to turn the pin.



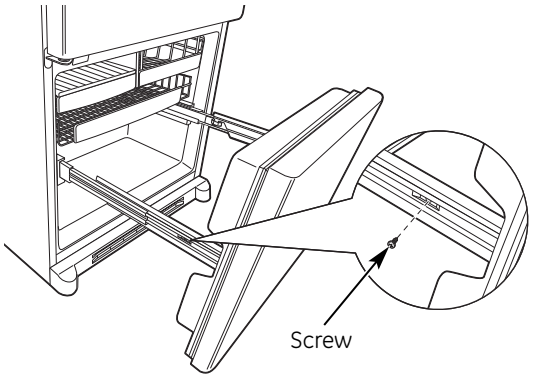
Removing the Freezer Drawer

To remove the freezer drawer:

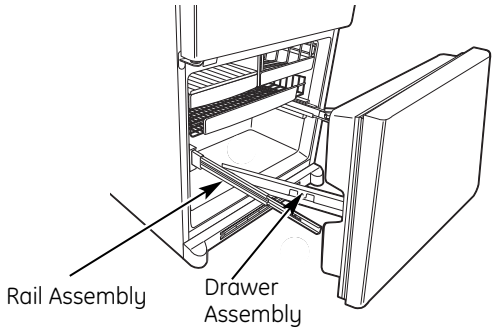
1. Open the freezer drawer until it stops. Lift up on the back of the basket and lift the basket out of the drawer.



2. Remove the 1/4-in. hex-head screw from the inside of each railing.



3. Lift up on both sides of the freezer drawer handle to separate the drawer railings from the rail assemblies.

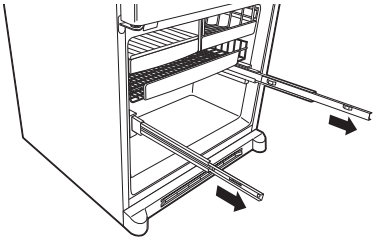


4. Set the drawer front on a non-scratching surface and push the rail assemblies back into locking position.

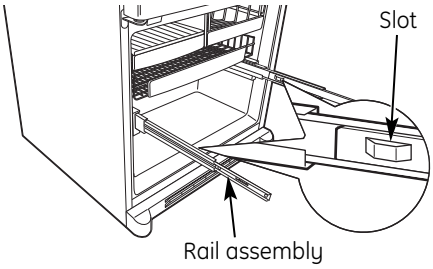
To replace the freezer drawer:

Note: Two people may be required to complete this procedure.

1. Pull out the rail assemblies to their full length on each side of the cabinet.

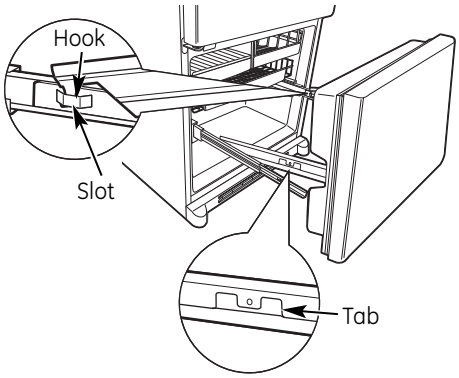


2. Locate the slots on the inside of the rail assemblies near the back.



3. Insert the hooks at the back of the drawer railings into the slots on the rail assemblies.

4. Lower the front of the drawer, making sure the tabs on the sides of the railings fit into the front slots in the rail assemblies.



5. Replace the screw on each rail assembly and replace the freezer basket by lowering it into the frame.

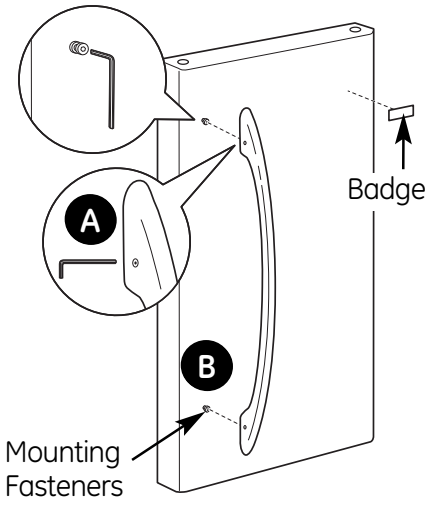
Refrigerator Door Handle

Follow instructions below to remove stainless steel handles and to remove and reverse plastic handles.

To remove a stainless steel door handle (on some models):

Using a 3/32-in. Allen wrench, loosen the set screws (A) and remove the handle (B).

Note: For Double Door models, follow the same procedure on the opposite door.

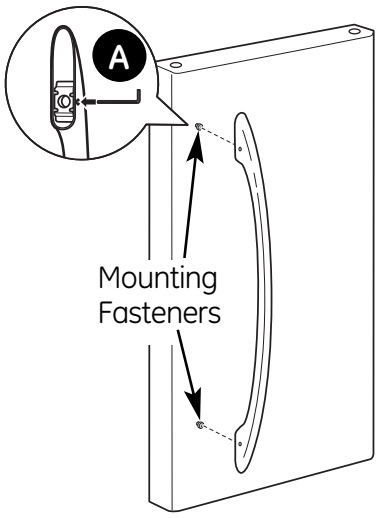


(appearance may vary)

To attach a stainless steel door handle (on some models):

Attach the handle to the handle mounting fasteners and tighten the set screws (A) with a 3/32-in. Allen wrench.

Note: For Double Door models, follow the same procedure on the opposite door.



(appearance may vary)

To remove a plastic door handle (on some models):

Note: Each plastic door handle is attached with an upper and lower fastener and locked in position by a recessed tab. Each fastener is located behind the handle and attached to the door panel.

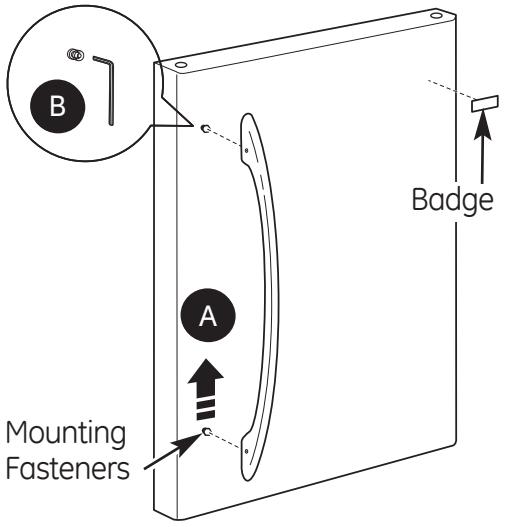
Using a flat blade screwdriver, press the tab on the top underside of the handle toward the door while sliding the handle (A) up and off of the mounting fasteners.

Reversing the plastic door handle (on some models):

Note: In the following step, ensure the tab is installed underneath the top fastener.

1. Remove the handle mounting fasteners (B) with a 3/16-in. Allen wrench. Transfer the handle mounting fasteners and tab, to the right side.
2. Remove the logo badge.
3. Remove and transfer the plug button to the left side of the fresh food door.

Note: Use a flat plastic edge to prevent damaging the door. Remove any adhesive on the door with a mild detergent. Remove the paper covering on the adhesive backing on the logo badge prior to carefully attaching the badge to the door.

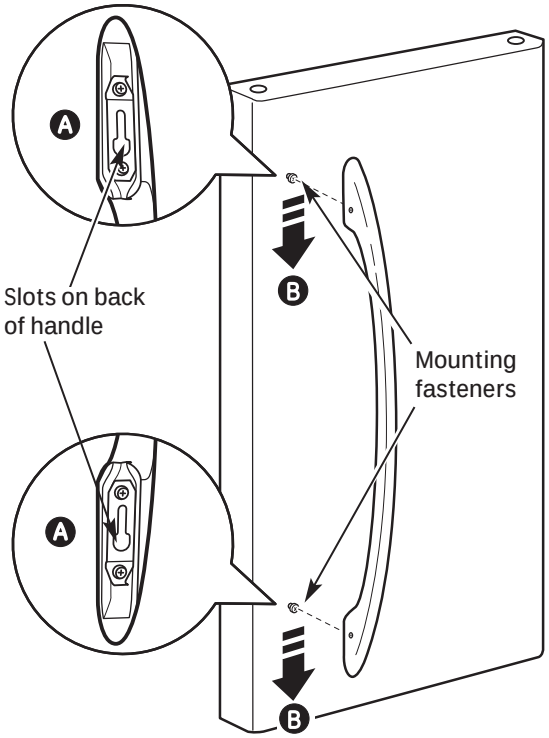


(appearance may vary)

(*Continued next page*)

To attach a plastic door handle (on some models):

1. Attach the handle to the handle mounting fasteners by aligning the slots with the handle mounting fasteners.
2. Slide handle down until it is firmly locked in position.

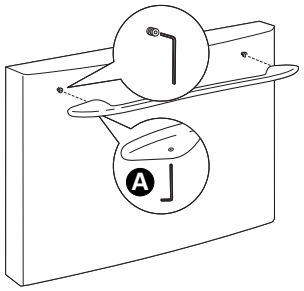


Freezer Door or Drawer Handle

To remove a freezer door or drawer handle (stainless steel and plastic):

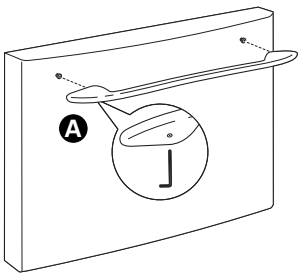
Loosen the set screws located on the underside of the handle with the 1/8-in. Allen wrench and remove the handle.

Note: If the handle mounting fasteners need to be tightened or removed, use a 3/16-in. Allen wrench.



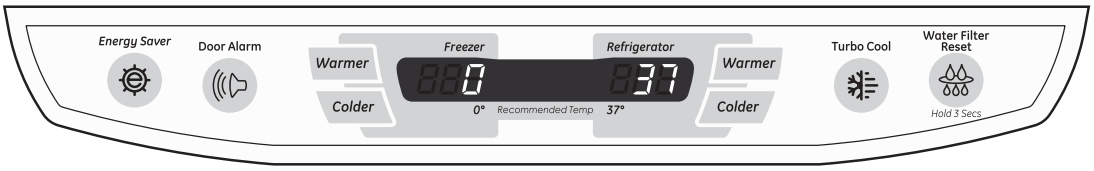
To attach a freezer door or drawer handle (stainless steel and plastic):

Attach the handle firmly to the mounting fasteners and tighten the set screws on the bottom of the handle with a 1/8-in. Allen wrench.

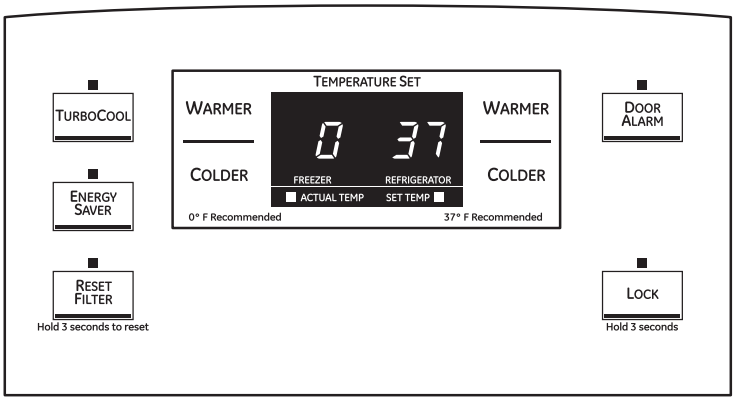


(appearance may vary)

Control Features



(on some models)



(on some models)

Note: The refrigerator is shipped with protective film covering the temperature controls. If this film was not removed during installation, remove it now.

The temperature controls are preset in the factory at **37°F** for the refrigerator compartment and **0°F** for the freezer compartment. Allow 24 hours for the temperature to stabilize to the preset recommended settings.

The temperature controls can display both the **SET** temperature as well as the actual temperature in the refrigerator and freezer. The actual temperature may vary slightly from the **SET** temperature based on usage and operating environment.

Setting either or both controls to **OFF** stops cooling in both the freezer and refrigerator compartments, but does not shut off electrical power to the refrigerator.

Changing the Temperature

For Controls-on-the-Door Models:

To change the temperature, press and release the ***WARMER*** or ***COLDER*** pad. The ***ACTUAL TEMP*** light will come on and the display will show the actual temperature. To change the temperature, tap either the ***WARMER*** or ***COLDER*** pad until the desired temperature is displayed.

For Controls Inside the Refrigerator:

Opening the door displays the actual temperature. To change the temperature, press either the **WARMER** or ***COLDER*** touch pads until the desired temperature is displayed.

Once the desired temperature has been set, the temperature display will return to the actual refrigerator and freezer temperatures after 5 seconds. Several adjustments may be required.

Each time you adjust controls, allow 24 hours for the refrigerator to reach the temperature you have set.

To turn the cooling system off, tap the **WARMER** pad for either the refrigerator or the freezer until the display shows ***OFF***. To turn the unit back on, press the ***COLDER*** pad for either the refrigerator or freezer. Then press the ***COLDER*** pad again and it will go to the preset points of **0°F** for the freezer and **37°F** for the refrigerator. Setting either or both controls to ***OFF*** stops cooling in both the freezer and refrigerator compartments, but does not shut off electrical power to the refrigerator.

Note: On models utilizing temperature control knobs, initially set both knobs at ***5***. Allow 24 hours for temperatures to stabilize. If further adjustment is needed, adjust controls one increment at a time, and allow 24 hours to reach temperatures you have set. Setting the refrigerator temperature knob to ***0*** stops cooling in both the freezer and the refrigerator compartments, but does not shut off electrical power to the refrigerator.

(*Continued next page*)

Turbo Cool

(on some models)

(on some models)

How it Works

TurboCool rapidly cools the refrigerator compartment in order to more quickly cool foods. Use ***TurboCool*** when adding a large amount of food to the refrigerator compartment, putting away foods after they have been sitting out at room temperature or when putting away warm leftovers. It can also be used if the refrigerator has been without power for an extended period.

Once activated, the compressor will turn on immediately and the fans will cycle on and off at high speed as needed for eight hours. The compressor will continue to run until the refrigerator compartment cools to approximately 34°F (1°C), then it will cycle on and off to maintain this setting. After 8 hours, or if ***TurboCool*** is pressed again, the refrigerator compartment will return to the original setting.

How to Use

Press ***TurboCool***. The refrigerator temperature display will show tc.

After ***TurboCool*** is complete, the refrigerator compartment will return to the original setting.

NOTES: The refrigerator temperature cannot be changed during ***TurboCool***.

The freezer temperature is not affected during ***TurboCool***.

When opening the refrigerator door during ***TurboCool***, the fans will continue to run if they have cycled on.

Door Alarm

(on some models)

(on some models)

About Door Alarm *(on some models)*

The door alarm will sound if any door is open for more than 2 minutes. The beeping stops when you close the door.

Energy Saver

(on some models)

(on some models)

About Energy Saver *(on some models)*

This product is equipped with an Energy Saver feature. The refrigerator is shipped with the Energy Saver feature enabled.

Over time, moisture can form on the front surface of the refrigerator cabinet and cause rust. If moisture does appear on the front surface of the refrigerator cabinet, turn off the Energy Saver feature by pressing and releasing the ***ENERGY SAVER*** pad on the control panel.

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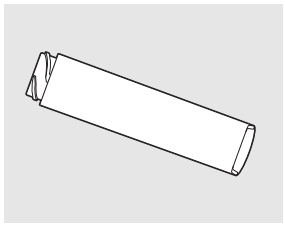
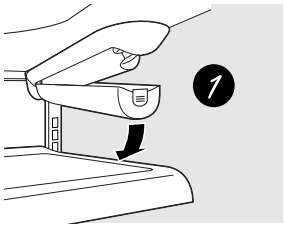
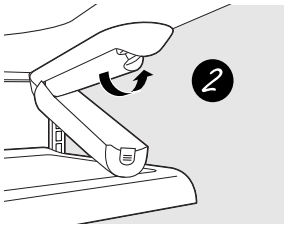
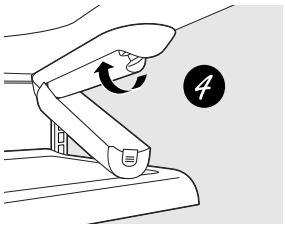
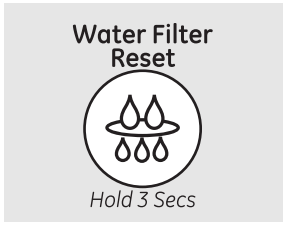


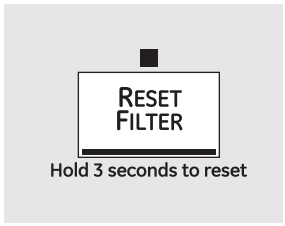








(on some models)



(on some models)

Water Filter Cartridge

The water filter cartridge is located in the back upper right corner of the refrigerator compartment.

When to Replace the Filter

There is a replacement indicator light for the water filter cartridge on the temperature display. This light will turn orange to tell you that you need to replace the filter soon. The filter cartridge should be replaced when the replacement indicator light turns red or if the flow of water to the dispenser or icemaker decreases.

Installing the Filter Cartridge

1. If you are replacing the cartridge, first remove the old one. Open the cartridge cover by pressing in on the tab at the front and pulling down.
2. Remove the cartridge by slowly rotating it counterclockwise. A small amount of water may drip down.

⚠ CAUTION: *If air has been trapped in the system, the filter cartridge may be ejected as it is removed. Use caution when removing.*

3. Remove the protective foil from the end of the cartridge.
4. Lining up the arrow on the cartridge and the cartridge holder, slowly rotate the cartridge clockwise until it stops. When the cartridge is properly installed, you will feel it "click" as it locks into place. The grip on the end of the cartridge should be positioned vertically. ***Do not overtighten***.
5. Close the cartridge cover.
6. Run water from the dispenser for 3 minutes (about 1½ gallons) to clear the system and prevent sputtering. See *To Use the Dispenser* section.
7. Press and hold the ***RESET WATER FILTER*** pad for 3 seconds.

NOTE: A newly-installed water filter cartridge may ***cause water to spurt*** from the dispenser.

Filter Bypass Plug

You must use the filter bypass plug when a replacement filter cartridge is not available. The icemaker will not operate without the filter or filter bypass plug.

Replacement Filters:

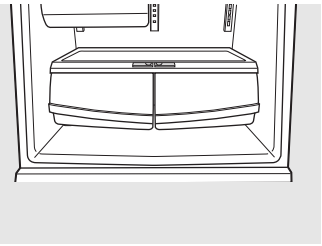
To order additional filter cartridges in the United States, visit our Website, ge.com, or call GE Parts and Accessories, 800.626.2002.

Filter Model GSWF

Customers in Canada should consult the yellow pages for the nearest Mabe Service Center.

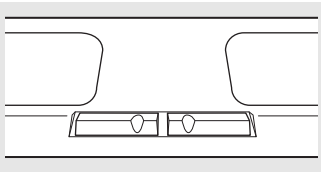
(*Continued next page*)

Not all features are on all models.



Fruit and Vegetable Crisper

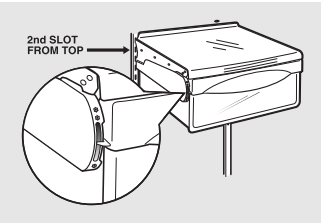
Excess water that may accumulate in the bottom of the drawers or under the drawers should be wiped dry.



Adjustable Humidity Crisper *(on some models)*

Slide the control all the way to the ***HIGH*** setting to provide high humidity recommended for most vegetables.

Slide the control all the way to the ***LOW*** setting to provide lower humidity levels recommended for most fruits.



Adjustable Temperature Deli Pan *(on some models)*

When the pan is placed in the 2nd slot from the top of the track and the lever is set at ***COLDEST,*** air from the freezer is forced around the pan to keep it very cold.

You can move the pan to any location if you don't want the extra cold storage.

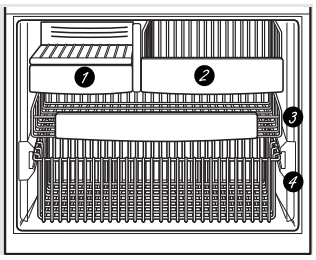
The settings can be adjusted anywhere between cold ❄ and coldest ❄❄.

When set at cold, the pan will stay at the normal refrigerator temperature.

The coldest setting provides the coldest storage area.

(*Continued next page*)

Not all features are on all models.

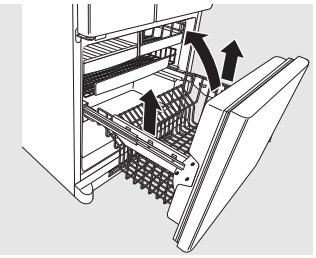


Appearance and features may vary

Freezer Shelves and Baskets

1. A shelf above the ice storage bin
2. A half-width basket
3. A shallow full-width basket
4. A deep full-width basket

NOTE: Do not fill baskets higher than the rim of the basket. This may cause baskets to stick or jam when opening or closing.



Appearance may vary

Basket Removal

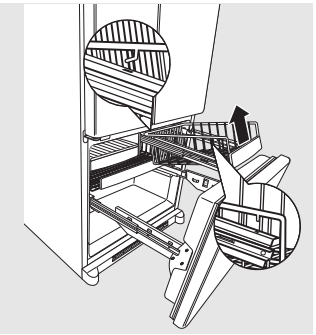
To remove the deep full-width basket on freezer drawer models:

1. Open the freezer drawer until it stops.
2. The freezer basket rests on the inside tabs on the drawer slides.
3. Lift the basket so that it is out of all 6 slide bracket tabs.
4. Tilt the basket and lift out of the drawer.

When replacing the deep full-width basket:

Tilt the basket back and lower it down into the drawer. Rotate the basket to a horizontal position and press it down into the 6 alignment tabs.

NOTE: Always be sure that the basket is seated in all 6 slide bracket tabs before sliding back into the freezer. The basket can be turned in either direction front to back and installed into the freezer.



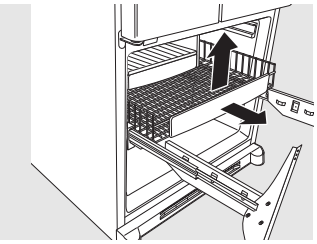
Appearance may vary

To remove the half-width basket:

1. Pull the basket out to the stop location.
2. Lift the basket up at the front to release it from the slides.
3. Lift the back up and out of the slide.

When replacing the basket, make sure that the wire tabs and wire hooks on the sides of the basket go into the slots in the top of the upper basket slides.

NOTE: Always be sure to fully close this basket.



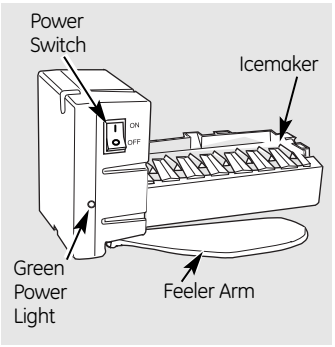
Appearance may vary

To remove the shallow full-width basket:

1. Pull the basket out to the stop location.
2. Lift the front up and over the stop location.
3. Lift the basket up and out.

(*Continued next page*)

A newly installed refrigerator may take 12 to 24 hours to begin making ice.



Automatic Icemaker *(on some models)*

The icemaker will produce seven cubes per cycle—approximately 100–130 cubes in a 24-hour period, depending on freezer compartment temperature, room temperature, number of door openings and other use conditions.

See below for how to access ice and reach the power switch.

If the refrigerator is operated before the water connection is made to the icemaker, set the power switch in the ***O (off)*** position.

When the refrigerator has been connected to the water supply, set the power switch to the ***I (on)*** position. The icemaker power light will turn green when the freezer light switch is pressed in or when the freezer door is closed.

The icemaker will fill with water when it cools to 15°F (–10°C). A newly installed refrigerator may take 12 to 24 hours to begin making ice cubes.

You will hear a buzzing sound each time the icemaker fills with water.

Throw away the first few batches of ice to allow the water line to clear.

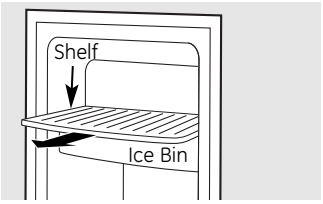
Be sure nothing interferes with the sweep of the feeler arm.

When the bin fills to the level of the feeler arm, the icemaker will stop producing ice. It is normal for several cubes to be joined together.

If ice is not used frequently, old ice cubes will become cloudy, taste stale and shrink.

NOTE: *In homes with lower-than-average water pressure, you may hear the icemaker cycle multiple times when making one batch of ice.*

NOTE: *Set the power switch to the* ***O (off)*** *position if the water supply is shut off.*

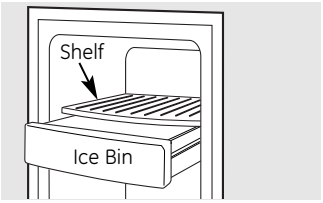


To reach the power switch.

Accessing Ice and Reaching the Power Switch

To reach the icemaker power switch, pull the shelf above the ice bin straight out. Always be sure to replace the shelf.

To access ice, simply pull the bin forward.

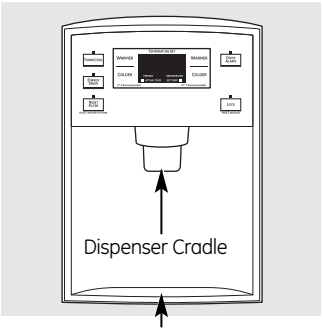


To access ice.

Icemaker Accessory Kit

If your refrigerator did not come already equipped with an automatic icemaker, an icemaker accessory kit is available at extra cost.

Check the back of the refrigerator for the specific icemaker kit needed for your model.



To Use the Dispenser *(on some models)*

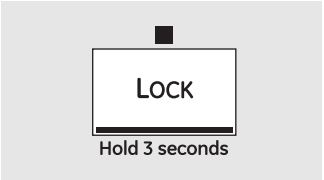
Press the glass gently against the top of the dispenser cradle.

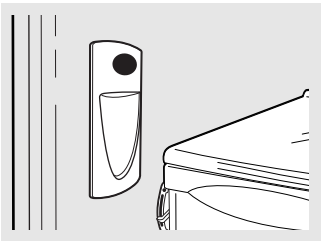
The spill shelf is not self-draining. To reduce water spotting, the shelf should be cleaned regularly.

If no water is dispensed when the refrigerator is first installed, there may be air in the water line system. Press the dispenser arm for at least two minutes to remove trapped air from the water line and to fill the water system. To flush out impurities in the water line, throw away the first six glassfuls of water.

Locking the Dispenser

Press the ***LOCK*** pad for 3 seconds to lock the dispenser and control panel. To unlock, press and hold the pad again for 3 seconds.





To Use the Internal Water Dispenser *(on some models)*

The water dispenser is located on the left wall inside the refrigerator compartment.

To dispense water:

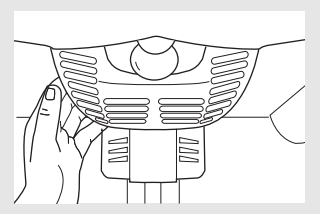
1. Hold the glass against the recess.
2. Push the water dispenser button.
3. Hold the glass underneath the dispenser for 2–3 seconds after releasing the dispenser button. Water may continue to dispense after the button is released.

If no water is dispensed when the refrigerator is first installed, there may be air in the water line system. Press the dispenser button for at least 2 minutes to remove trapped air from the water line and to fill the water system. During this process, the dispenser noise may be loud as the air is purged from the water line system. To flush out impurities in the water line, throw away the first 6 glassfuls of water.

NOTE: *To avoid water deposits, the dispenser should be cleaned periodically by wiping with a clean cloth or sponge.*

(*Continued next page*)

*Turning the control to the **0 (off)** position does not remove power to the light circuit.*

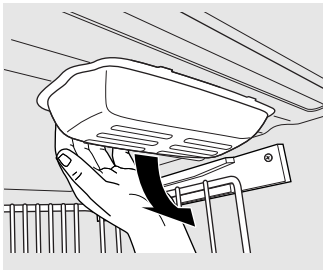


Refrigerator Lights

⚠ CAUTION: *Light bulbs may be hot.*

1. Unplug the refrigerator.
2. To remove the light shield, grasp the shield at the back and pull out to release the tabs at the back.
3. Rotate the shield down and then forward to release the tabs at the front of the shield.
4. After replacing with an appliance bulb of the same or lower wattage, replace the shield.
5. Plug the refrigerator back in.

NOTE: Appliance bulbs may be ordered from GE Parts and Accessories, 800.626.2002.

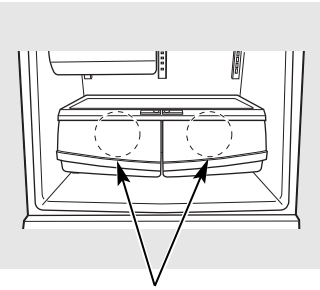


Appearance may vary

Freezer Light

⚠ CAUTION: *Light bulbs may be hot.*

1. Unplug the refrigerator.
2. The bulb is located at the top of the freezer inside a light shield. To remove the shield, grasp the shield at the back and pull out to release the tabs at the back.
3. Rotate the shield down and then forward to release the tabs at the front of the shield.
4. After replacing with an appliance bulb of the same or lower wattage, replace the shield.
5. Plug the refrigerator back in.

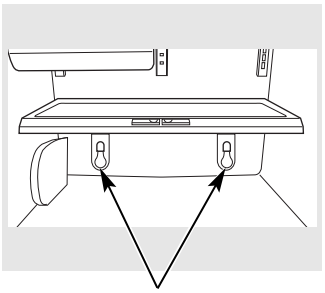


Lights are behind crisper drawers

Middle Lights

⚠ CAUTION: *Light bulbs may be hot.*

1. Unplug the refrigerator.
2. The bulbs are located behind the crisper drawers. To remove the drawers, lift up slightly while pulling the drawer past the ***stop*** location.
3. Replace the bulbs with appliance bulbs of the same or lower wattage.
4. Replace crisper drawers by sliding them gently back onto the tracks while lifting up slightly.
5. Plug the refrigerator back in.



Light Bulbs

Defrost Cycle

Note

- Refer to Pub #31-9062 for information about basic adaptive defrost.
- See *Technical Data* for defrost control electrical specifications.

All models except GBSC0 and GBSC3:

The refrigerator utilizes an adaptive defrost cycle that operates a glass enclosed heater to remove frost from the evaporator. The control board determines the length of time the heater is energized. It does this by monitoring the adaptive defrost parameters utilized by the control board.

A bi-metal safety thermostat provides a backup in the event the defrost system fails to terminate heater operation. The safety thermostat prevents the evaporator temperature from exceeding 140°F.

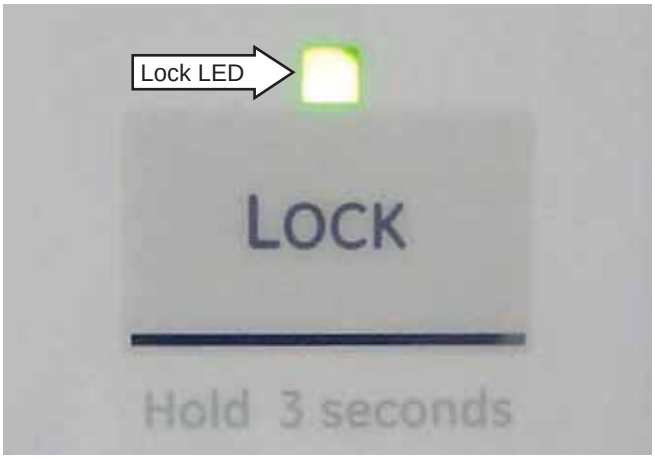
Models GBSC0 and GBSC3:

The refrigerator utilizes a fixed defrost time (18 Hrs) that operates a glass enclosed heater to remove frost from evaporator. The control board determines the length between defrost based on compressor run time.

The defrost termination is determined by the bi-metal temperature 55°F, and maximum time is 40 minutes.

Dispenser Lock

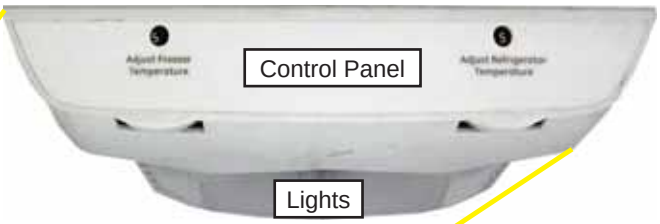
When the dispenser system is locked, actual and set temperatures can be viewed but no dispenser command will be accepted. This includes the dispenser cradle and will prevent accidental dispensing that may be caused by children or pets. If a pad or the cradle is depressed with the system locked, it will be acknowledged with three pulses of the LOCK LED accompanied by an audible tone.



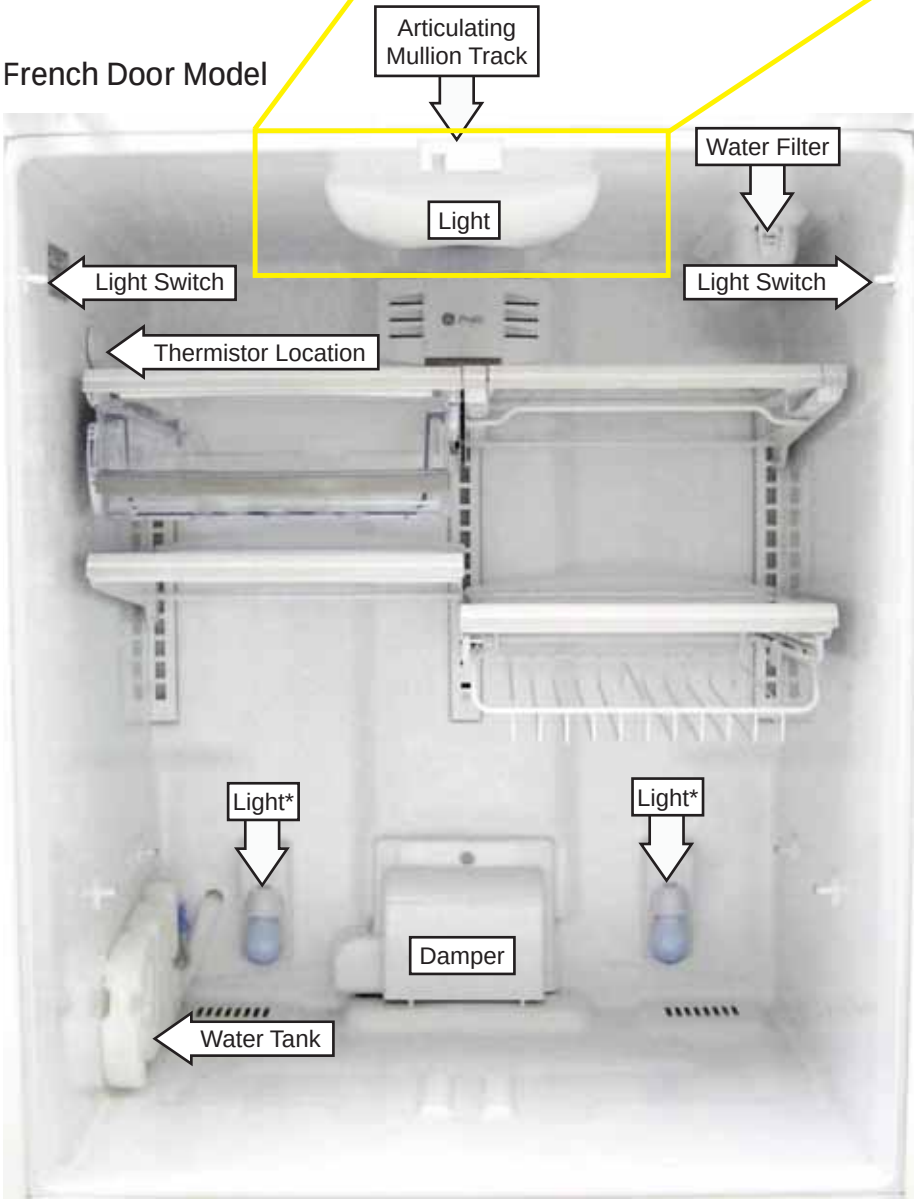
Components Locator Views

Fresh Food Compartment

Single Door Model (GBSC Models Shown)



French Door Model



Note: Single door models eliminate the articulating mullion track.

On non-dispenser models, the control panel is located in front of the light housing at the top of fresh food compartment. One of 2 different control panels is used for the GE models and a third type of control panel is used for the non-dispenser Profile models.

GE models other than GBSC

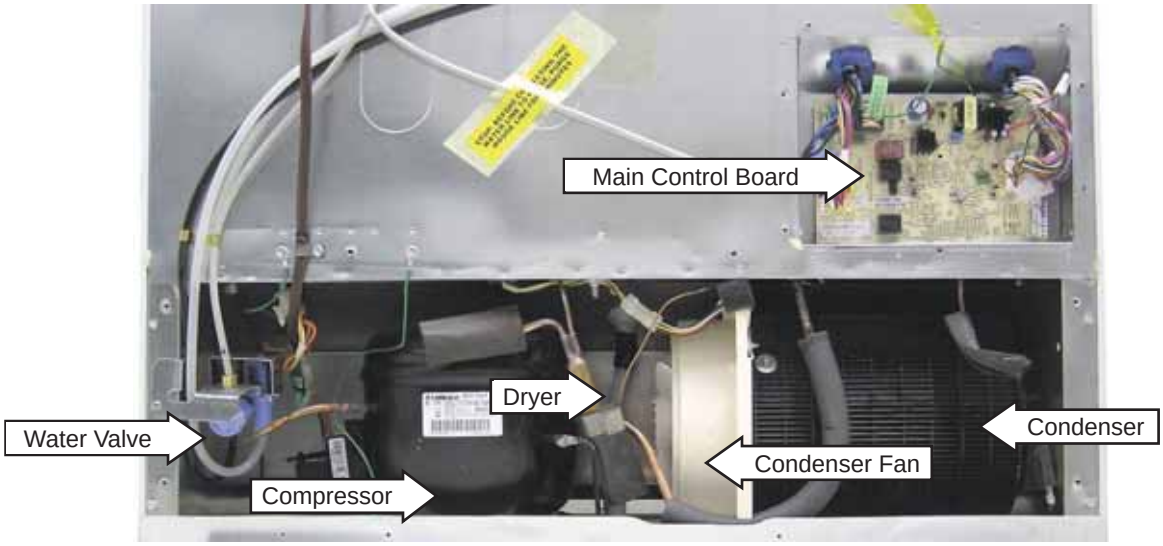
Profile models other than external dispenser

* Profile models only.

(*Continued next page*)

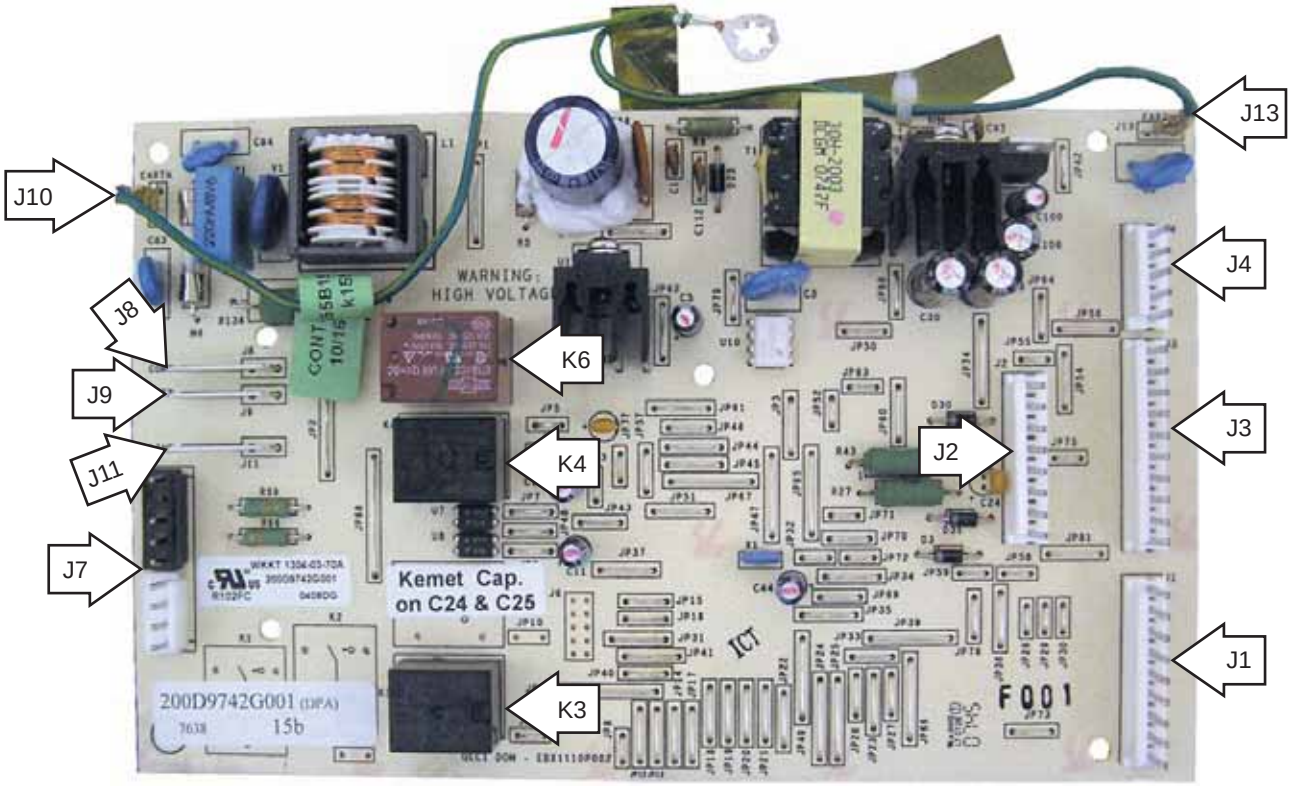
Freezer Compartment (model PFSF2 shown)

Rear View (model PFSF2 shown)



Control Board Connector Locator

Main Control Board (model PFSF2 shown)



J10 and J13 - Earth (Ground)

J8 - Line (L1) to AC Compressor

J9 - Defrost Heater, Return Duct Heaters, Over Temperature Thermostat

J11 - Line (L1)

J7 - Neutral, External Dispenser Water Valve, Fresh Food Lights and Thermostat, Freezer Lights and Thermostat

K3 - Water

K4 - Defrost

K6 - Compressor

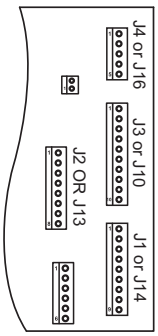
J4 - LCD Board

J3 - Damper

J1 - Fresh Food Thermistor, Freezer Thermistor Freezer Evaporator Thermistor

J2 - Evaporator Fan, Condenser Fan

Some of the low-voltage DC connector labeling on this model may differ from other models. The function and diagnostics for these connectors are identical for all models.



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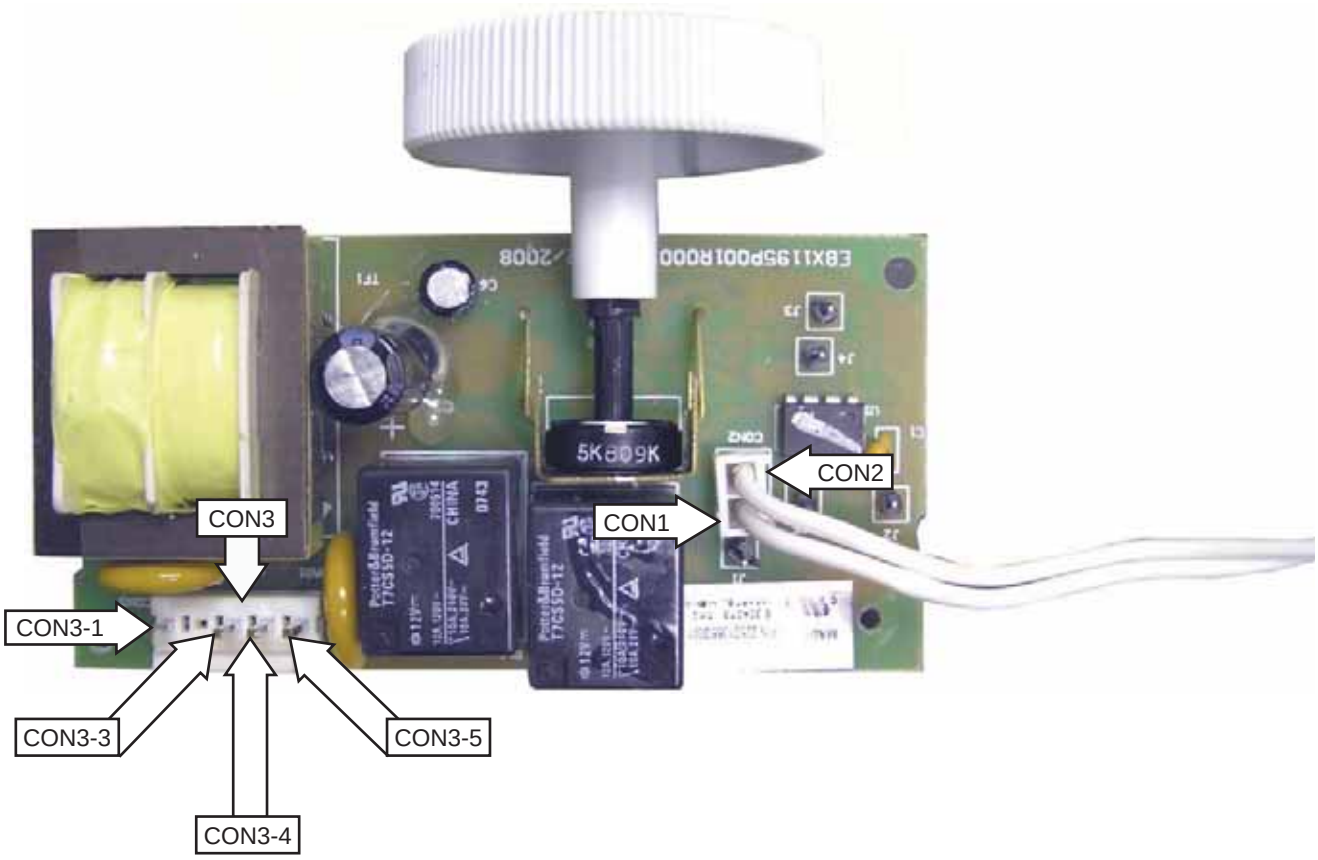
Main Control Board (models GBSC0 and GBSC3 shown)



CON1 and CON2 - Thermistor

CON3 - CON3-1 Neutral

CON3-3 EMI Filter, Refrigerator Compartment Light, Freezer Compartment Light, Icemaker

CON3-4 Defrost Heater, Return Duct Heaters

CON3-5 Compressor, Condenser Fan, Evaporator Fan

Airflow

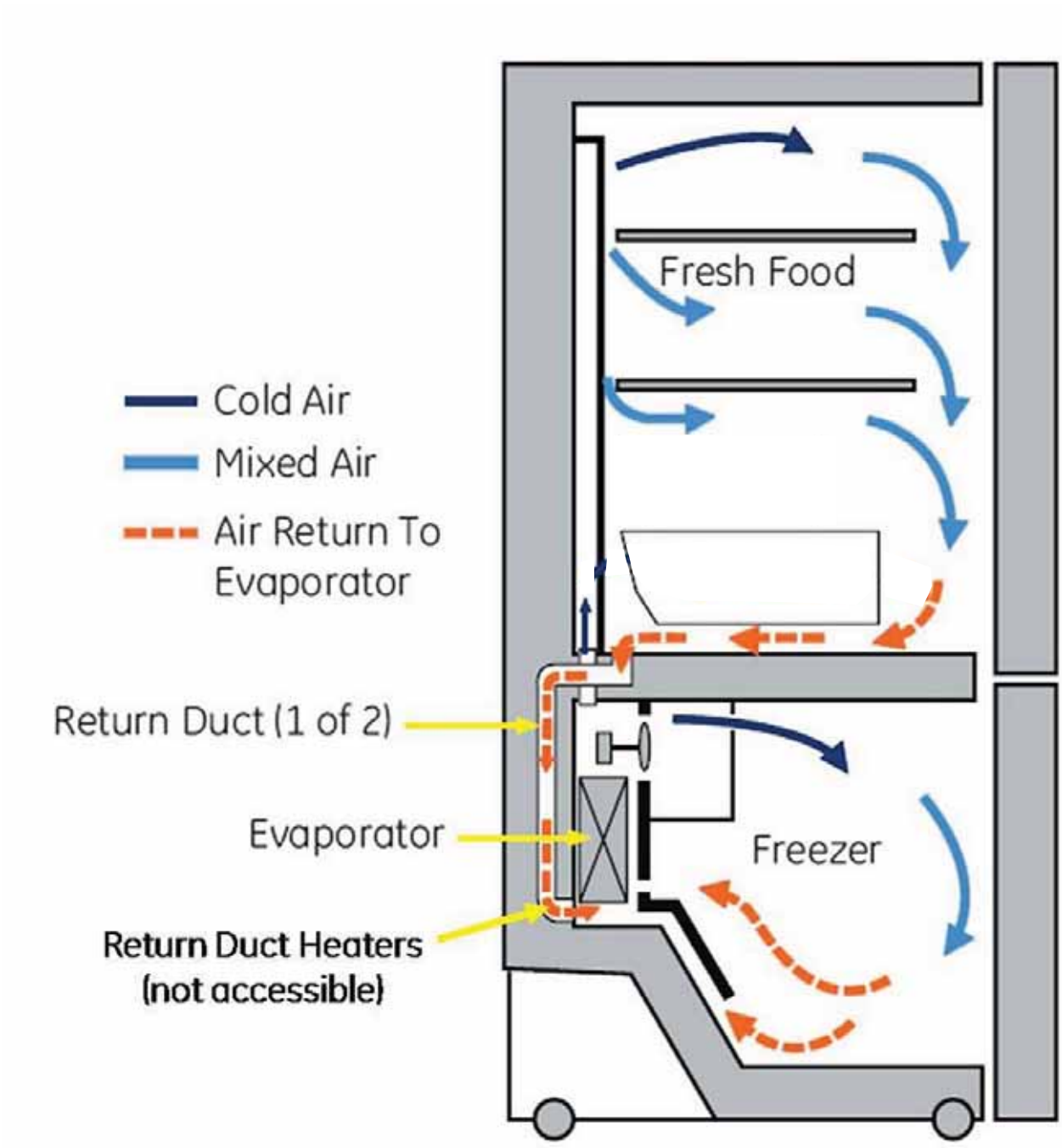
Model PFSF2

The evaporator fan forces air through the evaporator into the freezer compartment.

Air from the evaporator can also pass through the electronic damper to the air tunnel outlet, through the fresh food compartment, and return to the evaporator.

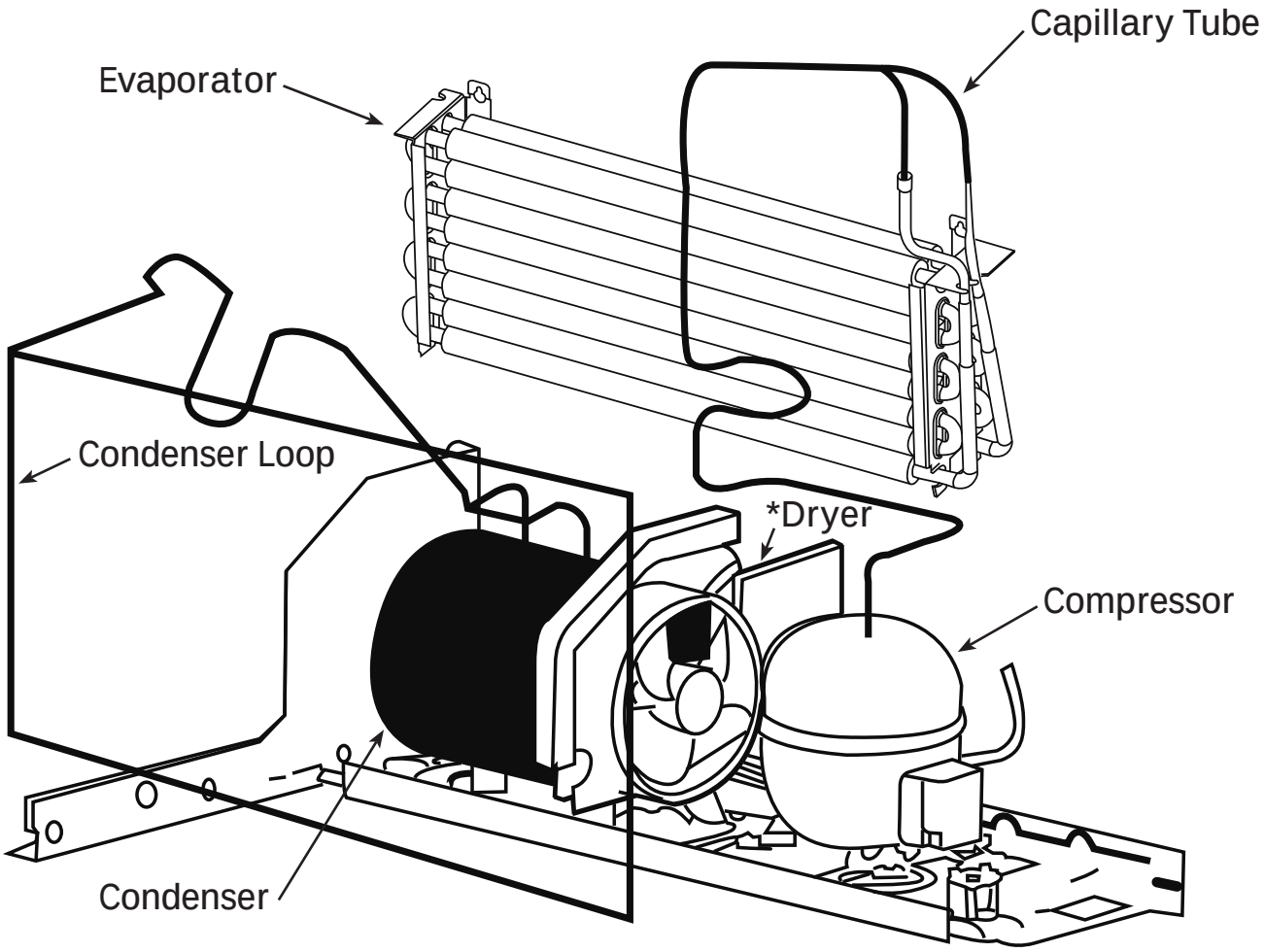
The damper is controlled by the main control board. When open, the damper allows the chilled air from the freezer to move into the fresh food compartment.

Air returns from the fresh food compartment to the freezer compartment via two vents located to the left and right of the electronic damper.



Refrigeration System

Refrigeration Components



* The dryer (not shown), is vertically positioned between the compressor and the condenser fan motor.

Replacing Evaporator Using the Brazing Method

Parts Needed:

- Freezer Evaporator
- Drier Assembly
- Access Tube (part # WJ56X61)
- Heat Shield Kit (part # WX5X8926)

Caution: A heat shield kit is required for this procedure to prevent damage to the plastic interior (liner) of the freezer compartment.

1. Unplug the refrigerator.
2. Remove the rear access cover and evacuate the sealed system.
3. Remove components necessary to expose the evaporator. (See ***Evaporator***.)
4. Note the location of the thermistor and over temperature thermostat on top of the old evaporator and remove.
5. Remove the defrost heater from bottom of evaporator and discard. Bundle remaining wires and tape high on the back wall of freezer.
6. Apply a liberal amount of thermal paste to suction line where it enters the rear wall of freezer.
7. Insert the brazing shield behind the joints of the evaporator inlet and outlet to protect the liner.
8. Use a torch to heat the joints of the evaporator inlet and outlet, separate the joints and clean the suction line and the capillary surface.
9. Loosen the 2 Phillips-head screws that hold the evaporator in place and remove the old evaporator.

Note the location of the drain probe at the bottom of the old evaporator. Transfer probe to similar location.

10. Install the new evaporator and tighten the 2 Phillips-head screws.
11. Connect the evaporator inlet and outlet to the suction line and capillary tubes.
12. Check that the thermal paste is still on the suction line where it enters the rear wall of the freezer. If not, apply paste. In addition, apply thermal paste around epoxy joints on the new evaporator to prevent the heat from damaging joint integrity.
13. Move the brazing shield behind the capillary and suction line joints. Protect the freezer floor from molten solder during brazing.
14. Angle torch so that flame is directed away from rear wall when brazing. Braze suction line and capillary to new evaporator.
15. Remove the brazing shield. Clean and inspect all joints.
16. Remove the old drier by cutting the halo loop as close as possible to the drier. Install the new drier assembly making sure that there is sufficient space between the tubing.
17. Install the access tube. Clean and inspect joints.
18. Replace the heater supplied with the evaporator. Reinstall the over temperature thermostat, thermistor, and heat transfer wires at the sides of new evaporator. Dress wiring.
19. Evacuate and charge the system. Use original factory charge quantity of R-134a. (See ***Evacuation and Charging Procedure***.)
20. Replace all component parts in the freezer.
21. Reinstall the rear access cover.

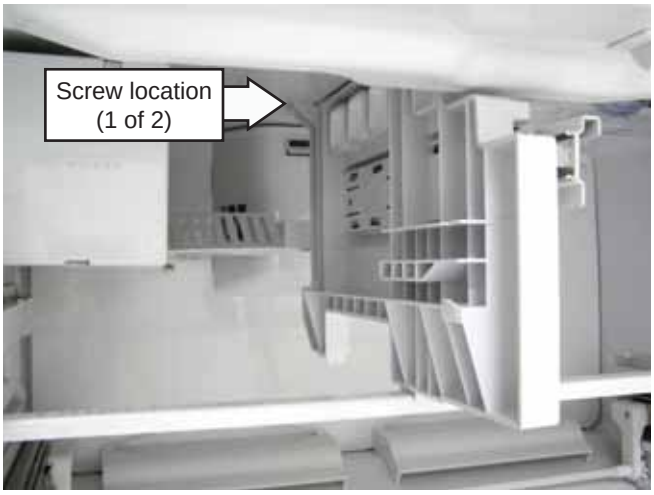
Icemaker

The following components must be removed in the appropriate order to remove the icemaker:

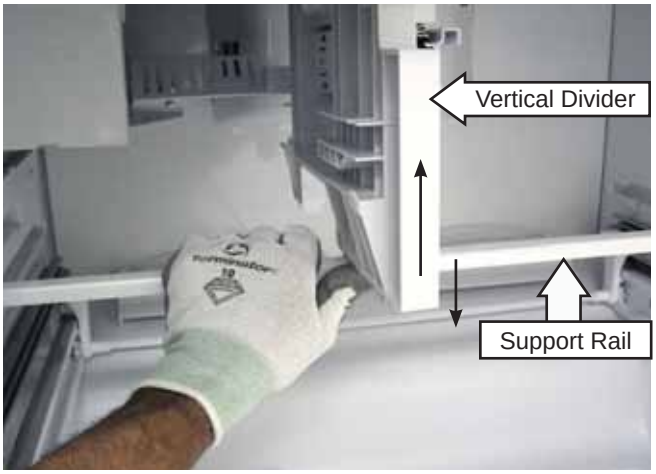
1. Unplug the refrigerator.
2. Open the freezer door or remove the freezer drawer. (See ***Removing the Freezer Drawer***.)
3. Remove the ice bucket and freezer baskets. (See ***Control Features***.)

Note: The top of the vertical divider on some models is inserted in a molded recess in the freezer ceiling. The bottom of the divider has a front tab that is captured in a notch in the support rail.

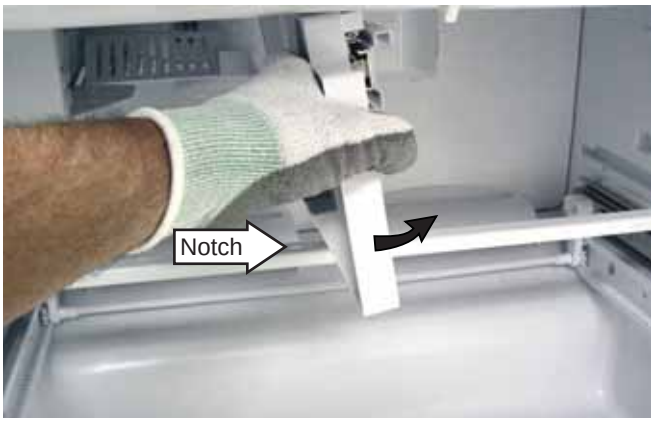
4. Remove the vertical divider from the support rails:
   a. Remove the two 1/4-in. hex-head screws (1 on each side) from the top rear of the vertical divider.



   b. Release the front of the vertical divider by pressing down on the support rail while pressuring the front of the divider up.



   c. Carefully rotate the divider slightly counterclockwise to clear the tab from the notch in the rail.



Note: When installing the vertical divider, position the top of the divider into the recess in the freezer ceiling before positioning the bottom over the notch in the support rail.

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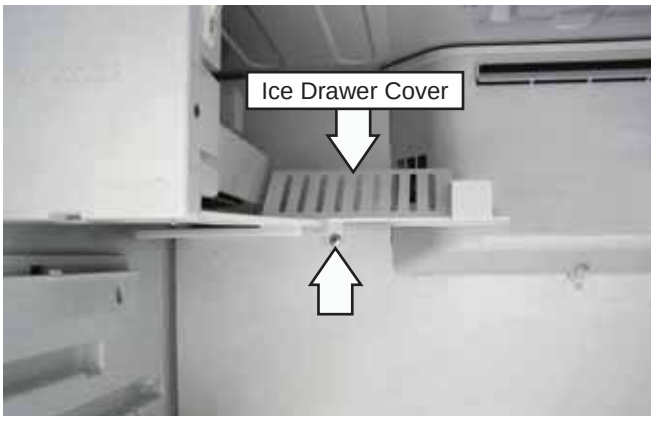
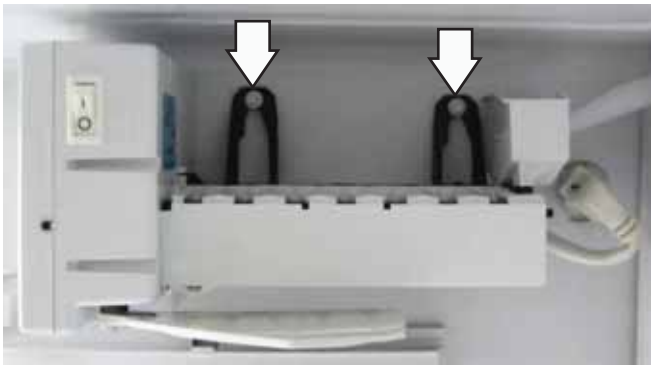
5. Remove the Phillips-head screw and the ice drawer cover from the evaporator cover (model PFSF2).



Note: When installing the ice drawer cover, engage the slot on the rear of the ice drawer cover with the tab on the evaporator cover.

6. Loosen the two 1/4-in. hex-head screws, then lift and remove the icemaker from the mounting bracket.



7. Using a small flat blade screwdriver, expand the 2 clips and disconnect the icemaker wire harness from the cabinet.

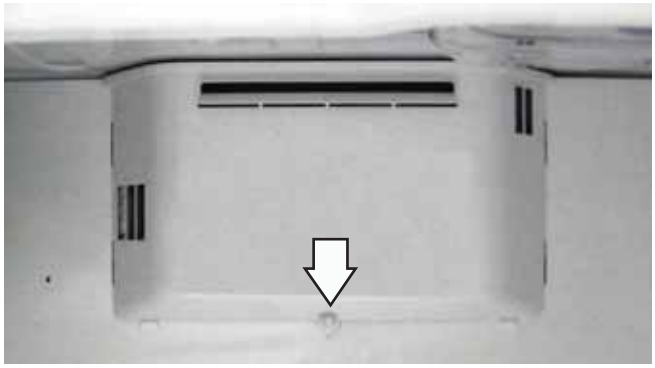
Evaporator

The following components must be removed in the appropriate order to access the evaporator:

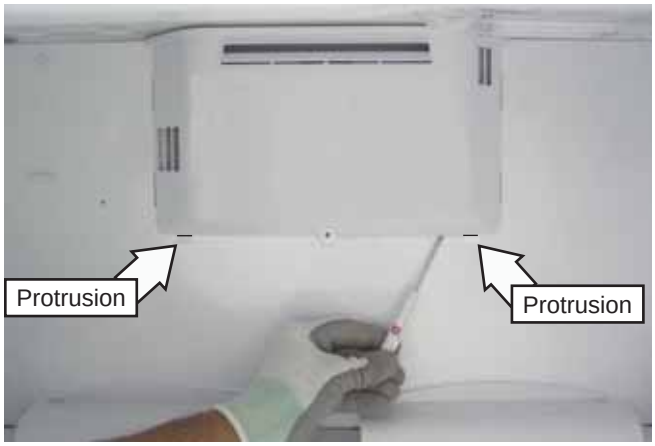
1. Remove the icemaker, if equipped. (See *Icemaker*.)

Note: The evaporator fan cover is attached to the evaporator cover with a hex-head screw and 4 tabs that engage slots in the evaporator cover.

2. Remove the 1/4-in. hex-head screw from the fan cover.



3. Using a small flat blade screwdriver, carefully pry the bottom corners of the cover out and pull down the cover past the 2 protrusions in the evaporator cover.



4. Slide the cover toward the right, then pull the cover out from the slots in the evaporator cover.

Note: The following steps, 5 through 8 or 9, may not apply to some models. Proceed to step 9 or 10 where applicable.

5. Extend both drawer rails to the fully open position.

(*Continued next page*)

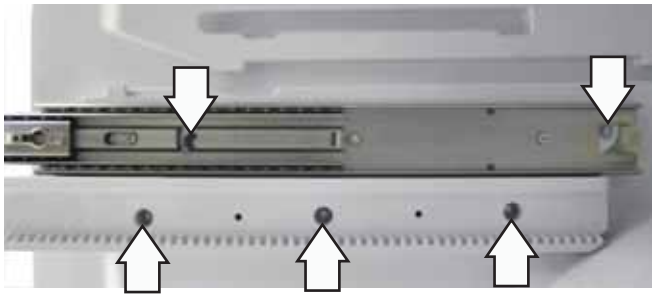
6. Using a 3/16-in. flat blade screwdriver, remove the 1/4-in. slotted hex-head screw from the recess in either wheel sprocket arm. (Left wheel sprocket arm shown.)

7. Pull the wheel sprocket arm straight out from the track.

Caution: To prevent uneven drawer closure and drawer rail assembly damage, install the wheel sprocket arm in a position parallel to the opposite sprocket arm.

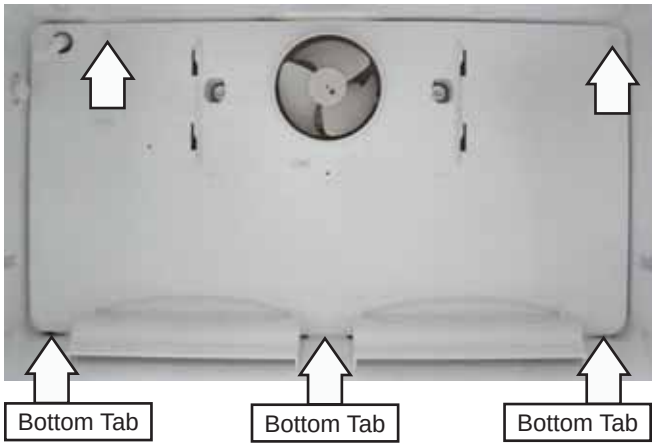
8. Pull out the wheel sprocket arm and wheel sprocket axel from the opposite drawer rail assembly.

9. Remove the five recessed 1/4-in. hex-head screws that attach each drawer rail assembly to the freezer side walls.



Note: The evaporator cover is attached to the evaporator compartment with two 1/4-in. hex-head screws, 3 bottom tabs, and 5 snap tabs located on the back of the cover.

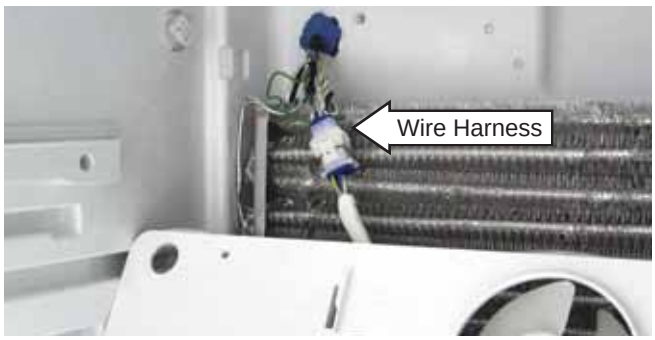
10. Remove the two 1/4-in. hex-head screws from the evaporator cover.



11. Pull the right side of the evaporator cover out, then maneuver the left side out from the icemaker fill tube (if present), and harness receptacle.

12. Lower the evaporator cover. Reach behind the top left corner, pull up, and release the fan wire harness from the retainer clip attached to the cover.

13. Disconnect the wire harness.



Evacuation and Charging Procedure

Refer to Service Guide #31-9118 for complete instructions on replacing the freezer and fresh food evaporators. Refer to Service Guide #31-9067 for complete instructions on using the LOKRING method of installing an evaporator.

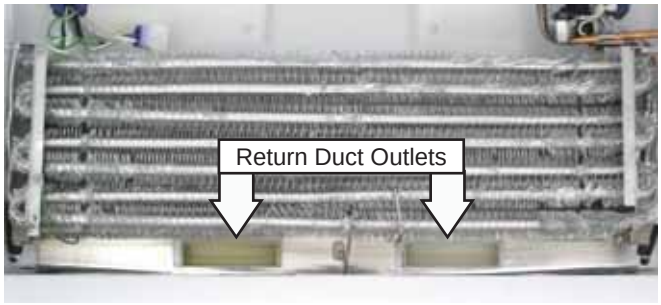
WARNING

- Be careful when using a torch inside the plastic cabinet. Use approved safety equipment and protect the liner from damage with the heat shield kit (part #WX5X8926), which includes the heat shield and thermal paste. The thermal paste is available separately (part #WX5X8927).
- Before cutting or using a torch on refrigerant tubes, recover the refrigerant from the system, using approved recovery equipment.
- Never charge new refrigerant through the purge valve. This valve is always located on the high-pressure side of the system.
- Never apply heat from any source to a container of refrigerant. Such action will cause excessive pressure in the container.
- Always wear goggles when working with refrigerants and nitrogen holding charge in some replacement parts. Contact with these gases may cause injury.

1. Attach the hose from the R-134a charging cylinder to the process tube port on the compressor.
2. Evacuate the system to a minimum 20-in. vacuum using the refrigerator compressor and recovery pump, which is attached to the new drier assembly.
3. Turn off the recovery pump. Close the ball valve on the hose connected to the high-pressure side port connection. Add 3 ounces of R-134a refrigerant to the system. Let the refrigerator operate and circulate the refrigerant for 5 minutes.
4. Open the ball valve. Recover the purge/sweep charge using the recovery pump and the refrigerator compressor until a 20-in. vacuum is attained. Close the ball valve and remove the recovery hose.
5. Charge the system with the exact amount of R-134a refrigerant specified.
6. Disconnect the power cord to the refrigerator. This allows the pressure to equalize. After 3 to 5 minutes, the low-pressure side will be positive and then, the hose-to-charging port can be disconnected.
7. Using an electronic leak detector, check all brazed joints and both schrader ports. Reinstall caps to schrader ports.

Return Duct Heaters

A return duct heater has been added to each of the 2 fresh food compartment return air ducts. The heaters prevent water from freezing and blocking the airflow in the ducts. Restricted ducts can cause warm fresh food temperatures. (See ***Airflow***.)



The heaters operate with 120 VAC and each heater has an approximate resistance value of 440 Ω. The heaters are in a parallel circuit consisting of 2 duct heaters and the defrost heater. The line voltage wires of the duct heaters are connected to the blue wire of the defrost heater. The neutral wires of the heaters go through the overtemperature thermostat (model PFSF2), or the defrost thermostat (model GBSC0). The 2 duct heaters are energized (along with the defrost heater), during the defrost cycle when the overtemperature thermostat (model PFSF2), or the defrost thermostat (model GBSC0) is closed.

Return Duct Heaters Test

If open duct heaters are suspected, perform the following:

1. With the overtemperature thermostat (model PFSF2), or the defrost thermostat (model GBSC0) closed, on the main control board, test for approximately 27 Ω (the equivalent resistance of this parallel circuit) between J9 and J7-9 (model PFSF2), or CON3-1 to CON3-4 (model GBSC0).

2. For a resistance reading other than approximately 27 Ω, remove the evaporator cover. (See ***Evaporator***.) Disconnect both leads from the defrost heater. Insert a volt ohm meter into the disconnected leads. A reading of approximately 220 ohms at 70°F indicates both heaters are good.

Note: The return duct heaters are integral to the foamed in place internal ductwork of the refrigerator and are not replaceable.

Defrost Heater

The defrost heater is a single-tube, glass-enclosed radiant heater. It is held in place by 2 tabs on the evaporator (1 on each side) and by a ceramic and wire support.

The defrost heater has an approximate resistance value of 31 Ω.

If an open defrost heater is suspected, perform step #1 of the return duct heaters test. (See ***Return Duct Heaters***.)

For a resistance reading other than approximately 27 Ω, remove the evaporator cover. (See ***Evaporator***.) Disconnect both leads from the defrost heater. Connect a volt ohm meter to the heater terminals and check for the resistance value of approximately 31 Ω.

To remove the defrost heater:

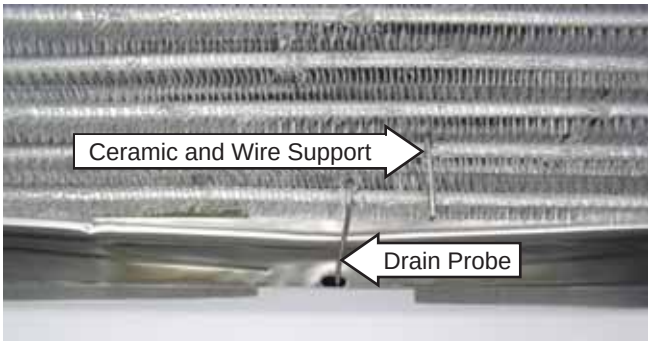
1. Access the freezer evaporator. (See ***Evaporator***.)

Note

- During defrost, the drain probe assists in preventing the drain from icing closed. During assembly, the probe must be installed on the evaporator and inserted in the drain to prevent drain freeze-up.

- A ceramic and wire support prevents the heater from sagging and touching the metal drain trough if the glass is broken.

2. Remove the ceramic and wire support, and the drain probe from the evaporator.

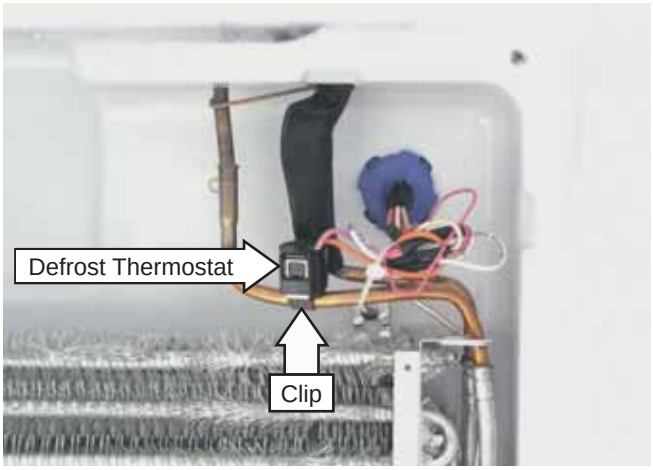


3. Bend the aluminum tabs back (located at each end of the defrost heater) and lower the heater out of the evaporator.

4. Disconnect 2 lead wires and remove the heater.

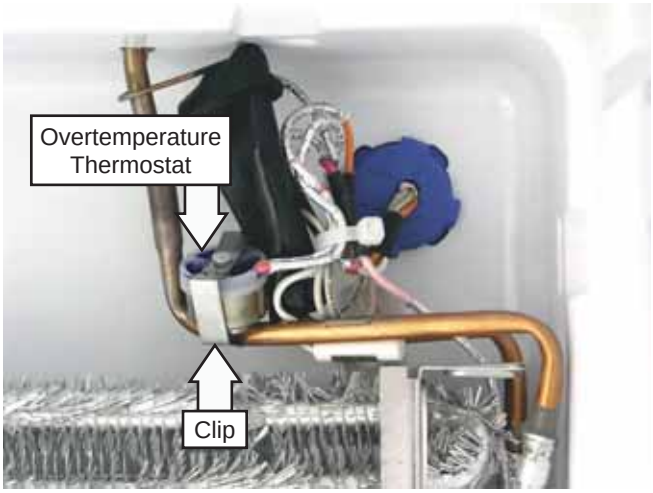
Defrost Thermostat

The defrost thermostat will open its contacts and de-energize the heater whenever the evaporator temperature reaches approximately 55°F. The thermostat contacts will close at approximately 32°F. The thermostat is attached to the evaporator with a metal clip.



Overtemperature Thermostat

The overtemperature thermostat will open its contacts and de-energize the heater whenever the evaporator temperature reaches approximately 140°F. The thermostat contacts will close at approximately 110°F. The thermostat is attached to the evaporator with a metal clip.



Thermistors

Thermistor Resistance		
Temperature (°F)	Temperature (°C)	Resistance in Kilo-Ohms
-40	-40	166.8K Ω
-31	-35	120.5K Ω
-22	-30	88K Ω
-13	-25	65K Ω
-4	-20	48.4K Ω
5	-15	36.4K Ω
14	-10	27.6K Ω
23	-5	21K Ω
32	0	16.3K Ω
41	5	12.7K Ω
50	10	10K Ω
59	15	7.8K Ω
68	20	6.2K Ω
77	25	5K Ω
86	30	4K Ω
95	35	3.2K Ω
104	40	2.6K Ω
113	45	2.2K Ω
122	50	1.8K Ω
131	55	1.5K Ω
140	60	1.2K Ω

Note: To accurately test a thermistor, place the thermistor in a glass of ice and water (approximately 33°F) for several minutes and check for approximately 16K Ω.

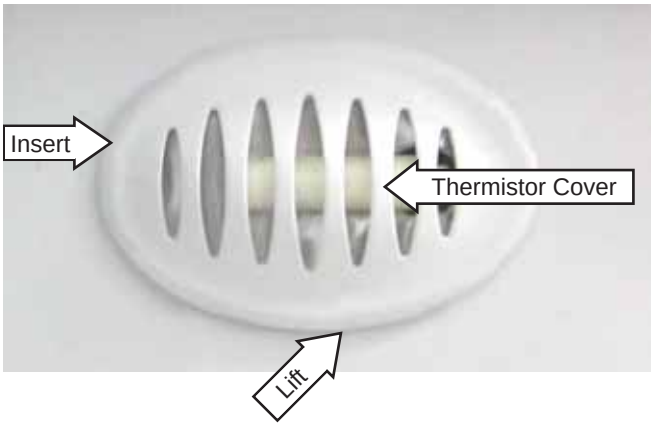
Fresh Food and Freezer Thermistors Model PFSF2

The fresh food thermistor is located in the left wall of the fresh food compartment. The freezer thermistor is located in the right wall of the freezer compartment.

Note: The fresh food and freezer thermistors are removed in the same manner.

(*Continued next page*)

To remove the thermistor cover, insert a flat-blade screwdriver under the front of the cover and gently lift the bottom edge until it releases from the compartment wall.



Evaporator Thermistor

The evaporator thermistor is clipped to the suction tube line of the evaporator. See ***Evaporator*** for accessing instructions.

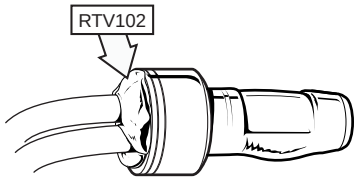
Fresh Food Thermistor Model GBSC0

The fresh food thermistor is located in the control housing in the fresh food compartment. It is necessary to remove the control housing to access the fresh food thermistor. (See ***Control Housing (Model GBSC0)***.).

To remove the thermistor, pull off the foam cover and foil shield from the inside of the control housing.

Replacement

Should a thermistor require replacement, use plastic bell connectors (part # WR01X10466). Fill each connector with RTV102 silicone then splice a new thermistor into the harness as shown in the illustration.



Freezer and Fresh Food Light Thermostats

The freezer and fresh food light thermostats interrupt power to the lights when the thermostat temperature reaches 175°F. Power is restored when the thermostat temperature cools to 155°F.

Each thermostat is attached to the back of each light housing with an 11/32-in. nut.

To access the freezer light thermostat (models GBSC0 and PFSF2), and fresh food light thermostat (model PFSF2), it is necessary to remove the light cover and light housing. The freezer light housing is held in place by a single Phillips-head screw. The fresh food light housing is held in place by 3 Phillips-head screws.

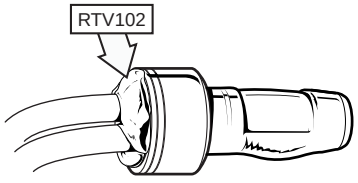
Note: It is necessary to remove the freezer light bulb to access the freezer light housing screw.

Fresh Food Light Housing (model PFSF2 shown)

To access the fresh food light thermostat on model GBSC0, it is necessary to remove the control housing. (See ***Control Housing (Model GBSC0).***)

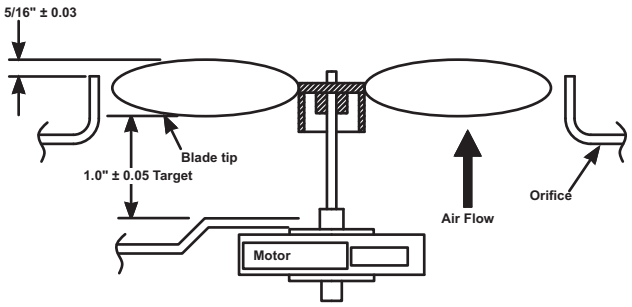
Replacement

Should a thermostat require replacement, use plastic bell connectors (part # WR01X10466). Fill each connector with RTV102 silicone then splice a new thermostat into the harness.



Evaporator Fan

The position of the fan blade in relation to the shroud is important.



AC DC Evaporator Fan Motor

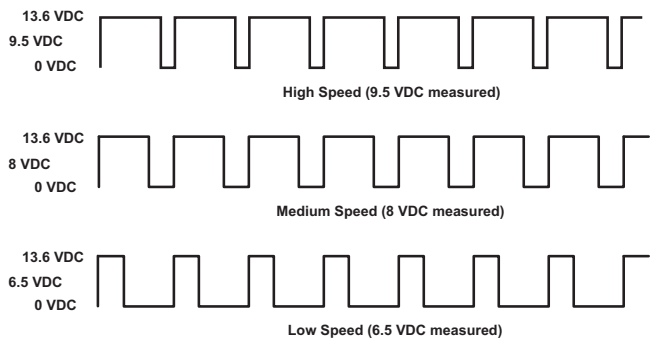
The AC DC evaporator fan motor is connected in parallel with the compressor and condenser fan motor. The AC DC evaporator fan motor utilizes 115 VAC and operates when the compressor and condenser fan motor are running.

DC Evaporator Fan Motor

The DC evaporator fan is the same fan used on previous models; however, a significant difference is that the main control board neither requires nor receives input from the fan feedback/rpm (blue) wire. The fan utilizes a permanent magnet, 4-pole, DC motor that operates at three different speeds: high, medium, and low.

The speed of the fan is controlled by the voltage output from the main control board. Voltage output from the main control board to the fan is 13.6 VDC; however, to regulate the speed of the fan, the main control board uses pulse width modulation (PWM).

When operating, voltage is sent in pulses (much like a duty cycle) as opposed to an uninterrupted flow. This pulsing of 13.6 VDC produces effective voltage being received at the motor, which is equivalent to a reduction in voltage.



(*Continued next page*)

Fan speed is selected and maintained by the main control board regulating the length and frequency of the 13.6 VDC pulse. Temperature can cause some fan speed variation. Fan speed can vary +/- 5%, depending on the temperature, with higher temperatures causing slightly higher speeds.

The evaporator fan has a 4-wire connection:

White Wire (DC Common)

The white wire is the DC common wire used for testing. During repairs, DC polarity must be observed. Reversing the DC polarity causes a shorted motor and/or board.

Red Wire (Supply)

Each motor uses an internal electronic controller to operate the motor. Supply voltage from the main control board remains at a constant 13.6 VDC.

Blue Wire (Feedback/RPM)

On previous Arctica models, the blue wire reported rpm (speed) information to the main control board for speed control purposes. On this model, the board does not require or read any feedback information from the fan motor.

Yellow Wire (Signal)

The yellow wire is the input wire from the main control board. The main control board provides 6.5 VDC effective voltage for low speed, 8 VDC effective voltage for medium speed, and 9.5 VDC effective voltage for high speed. The fan operates in low speed only when the fresh food thermistor is satisfied.

Note: When testing these motors:

- You cannot test with an ohmmeter.
- DC common is not AC common.
- Verify 2 voltage potentials:
  a. Red to white - power for internal controller
  b. Yellow to white - power for fan
- Observe circuit polarity.
- Motors can be run for short periods using a 9 volt battery. Connect the white wire to the negative (-) battery terminal only. Connect the red and yellow wires to the positive (+) battery terminal.

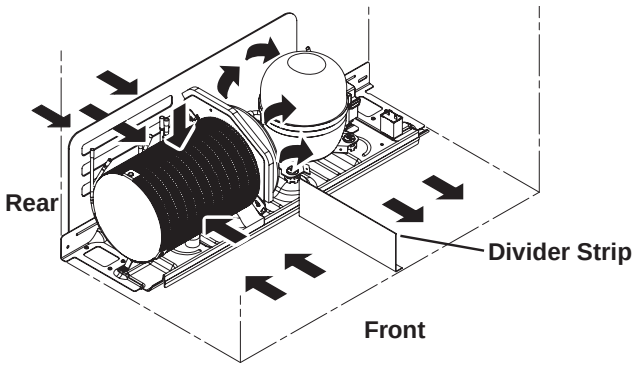
Note: It is necessary to remove the evaporator cover to access the evaporator fan.

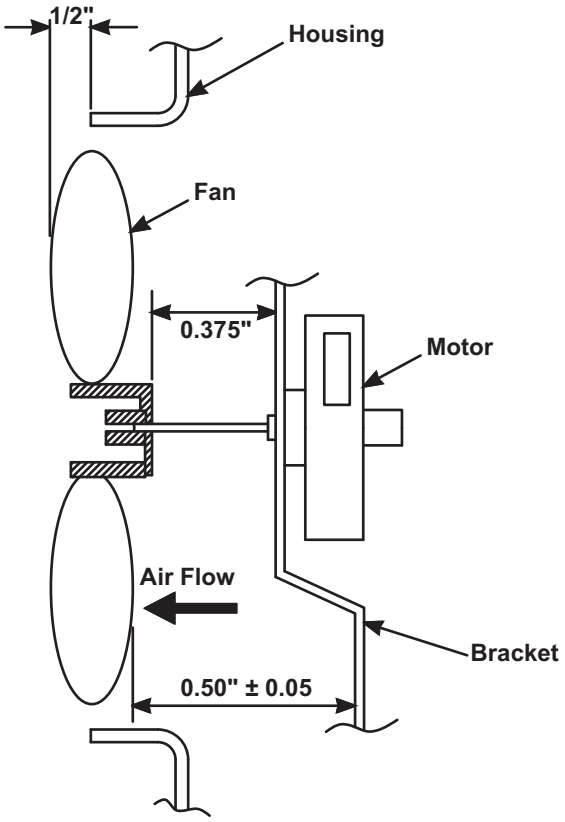
Condenser Fan

The fan is mounted in the machine compartment with the no-clean condenser. The fan and fan shroud are mounted on one end of the condenser, and the other end of the condenser is blocked.

When the fan is operating, air is pulled from the center of the condenser, drawing air in through the coils. The air is then exhausted over the compressor and out the right side of the refrigerator.

Inlet air is available through the left front and left rear of the machine compartment. A rubber divider strip underneath the refrigerator divides the inlet and outlet sides of the machine compartment.





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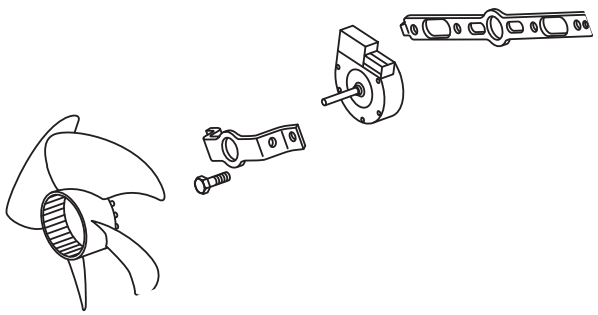
The rear access cover must be tightly fitted to prevent air from being exhausted directly out of the rear of the machine compartment, bypassing the compressor.

The condenser fan is mounted with screws to a fan shroud and mounting bracket that is attached to the condenser.



AC DC Condenser Fan Motor

The AC DC condenser fan motor is connected in parallel with the compressor and evaporator fan motor. The AC DC condenser fan motor utilizes 115 VAC and operates when the compressor and evaporator fan motor are running.

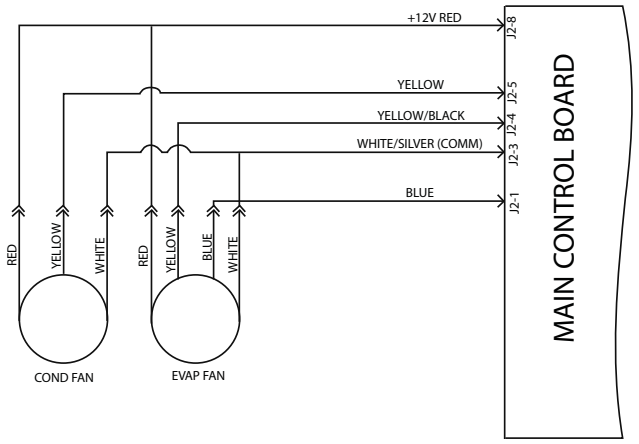
DC Condenser Fan Motor

The DC condenser fan speed corresponds with compressor speed (low, medium, high) to minimize pressure variations in the sealed system except when the freezer temperature is 20°F above the set point. If this condition exists (such as during initial startup), the condenser fan operates at super high speed while the compressor operates at medium speed.

The speed of the fan is controlled by the voltage output from the main control board. Voltage output from the control board to the fan is 13.6 VDC; however, to regulate the speed of the fan, the main control board uses pulse width modulation (PWM).

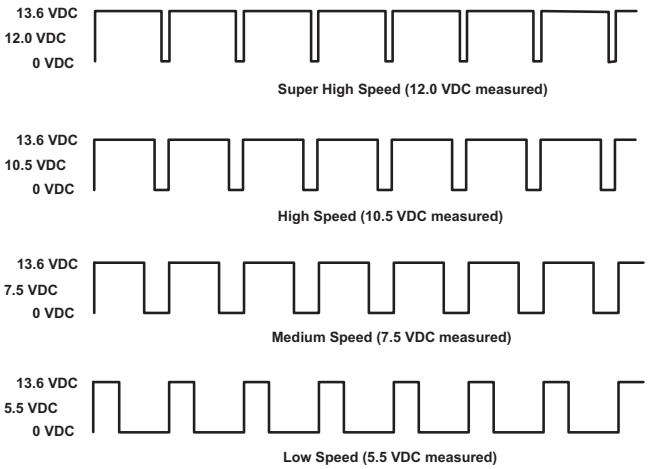
When operating, voltage is sent in pulses (much like a duty cycle) as opposed to an uninterrupted flow. This pulsing of 13.6 VDC produces effective voltage being received at the motor, which is equivalent to a reduction in voltage.

Fan speed is selected and maintained by the main control board regulating the length and frequency of the 13.6 VDC pulse.



Temperature can cause some fan speed variation. Fan speed can vary +/- 5%, depending on the temperature, with higher temperatures causing slightly higher speeds.

Condenser fan speed is controlled by Pulse Width Modulation (PWM), the same method used to control fan speeds for the evaporators.



Damper Duct Assembly

Model PFSF2

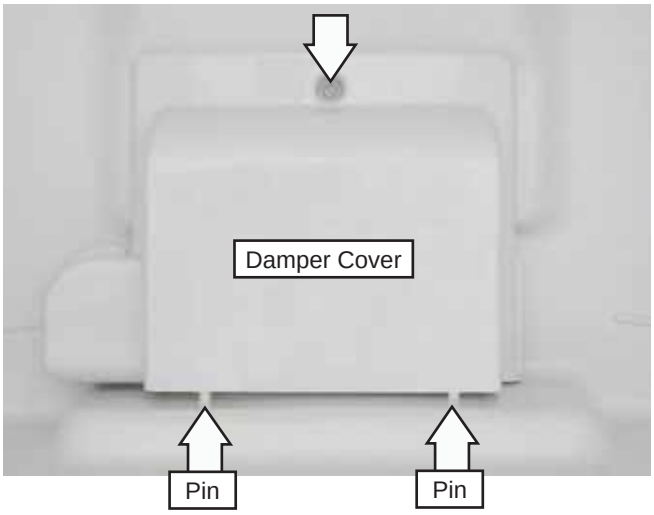
A motorized damper duct assembly is used to control airflow from the freezer into the fresh food compartment. It is located on the back wall of the fresh food compartment, behind the fruit and vegetable crisper drawers. The damper assembly consists of a 12-VDC motorized damper sealed inside the styrofoam damper duct, inlet and outlet gaskets, and a plastic cover. The assembly is held in place with one 1/4-in. hex-head screw at the top, and 2 pins at the bottom that fit into the liner.

To remove the fresh food damper:

1. Remove the fruit and vegetable crisper drawers and the crisper drawer cover and frame assembly.

Caution: The glass inserted in the crisper drawer cover and frame may easily separate. Care should be taken when removing the crisper drawer cover and frame assembly.

2. Remove the 1/4-in. hex-head screw from the top of the damper cover.



3. Tilt the damper assembly toward the front of the refrigerator, then pull up the damper assembly.

4. Disconnect the damper motor wire harness.

5. Separate the damper duct from the damper cover.

(*Continued next page*)

Motorized Damper Open

Motorized Damper Closed

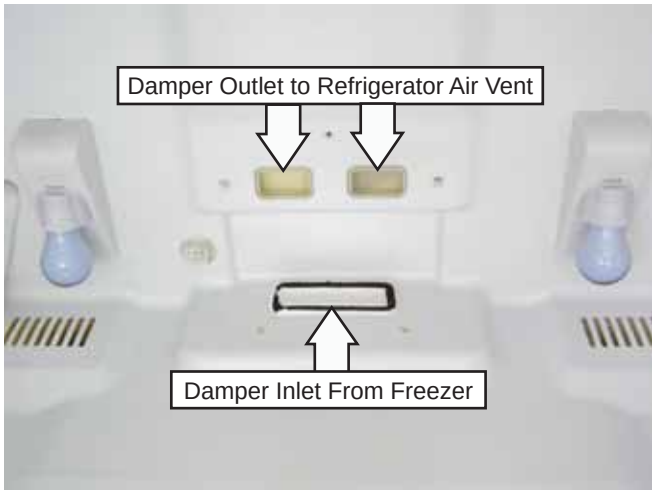
Motorized Damper Removed

Model GBSC0

A non-motorized damper duct assembly is used to deliver airflow from the freezer into the control housing. It is located on the back wall of the fresh food compartment, behind the fruit and vegetable crisper drawers.

Note: To prevent moisture and ice from accumulating in the fresh food compartment:

- Place the damper duct inlet gasket between the damper assembly and the floor of the refrigerator compartment.
- Place the damper duct outlet gasket between the back of the damper assembly and the back wall of the refrigerator compartment.



Control Housing (Model GBSC0)

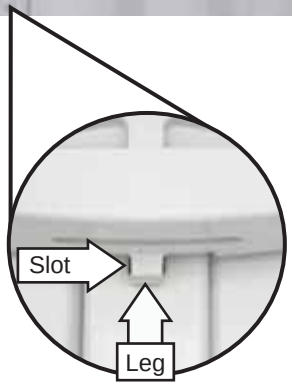
The control housing is located at the top of the refrigerator compartment. (See ***Component Locator Views***.) The control housing contains the main control board, refrigerator compartment thermistor, air control, light, and light thermostat.

To remove the control housing:

1. Remove the two recessed Phillips-head screws that attach the control housing to the ceiling of the refrigerator compartment.

2. Lower the housing and disconnect the wire harness.

Note: When installing the control housing, ensure the housing leg is placed in the top slot in the center track.



Air Control (Model GBSC0)

An air control is used to direct airflow to the refrigerator and freezer compartments. It consists of a damper and damper shaft. The damper is located on the back of the control housing and the damper shaft is attached to the inside of the control housing. Airflow can be adjusted by the freezer temperature control knob located on the front of the housing.

To remove the air control:

1. Remove the control housing. (See ***Control Housing***.)

2. Place the control housing bottom-side down on a protective surface.

Control Housing Removed

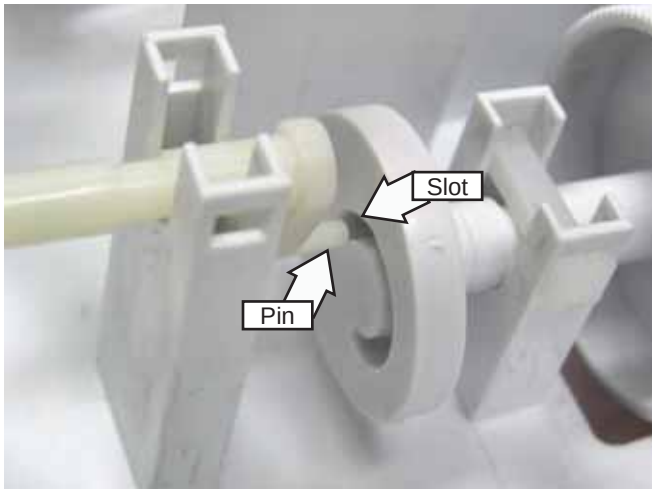
(*Continued next page*)

3. Compress the tabs on the bar clip that holds the damper shaft to the shaft retainer. Slide the bar clip toward the outside of the housing.

4. Carefully lift and release the damper shaft from the 2 shaft guides.

5. Pull back and remove the damper and damper shaft from the housing.

Note: When installing the damper shaft to the shaft retainer, make sure that the pin on the front of the shaft engages the slot on the back of the freezer temperature control knob.



(*Continued next page*)

Note: After installing the damper shaft, rotate the freezer temperature control knob and check that the damper is open in knob position #1 and is closed in knob position #9.

Damper Open

Damper Closed

Main Control Board

Model PFSF2

The main control board is located in a recess in the back of the refrigerator, above the machine compartment, (See ***Component Locator Views***.) It is attached to the recess with 4 compression tabs. To access the board, it is necessary to remove the nine 1/4-in Phillips-head screws and the cover from the recess.

Model GBSC0

The main control board is located inside the control housing, (See ***Component Locator Views***.) The board is covered with a foil shield and attached to the housing with 3 Phillips-head screws. To access the main control board, it is necessary to remove the control housing. (See ***Control Housing***.)

Single-Speed Compressor

The compressor is a reciprocating type. Refer to the mini-manual for the BTU/hour rating and the compressor capacity test specification.

To verify that the compressor is running:

WARNING: During normal operation, the single-speed compressor may be hot. Use caution to avoid injury and wear Kevlar® gloves or equivalent protection.

Disconnect power from the unit. Wait 3 to 5 minutes for pressure to equalize. Place a hand on the chassis, near the compressor. Reconnect power and feel for a vibration when the compressor tries to start.

Note: The single-speed compressor will start right away if pressure is equal.

A ¼-in. O.D. copper process tube is provided for access to the low-pressure side of the refrigeration system.

Refer to the compressor replacement instructions included with the replacement compressor. Evacuate and recharge the system using currently accepted procedures. (See ***Evacuation and Charging Procedure***.)

Water Valve

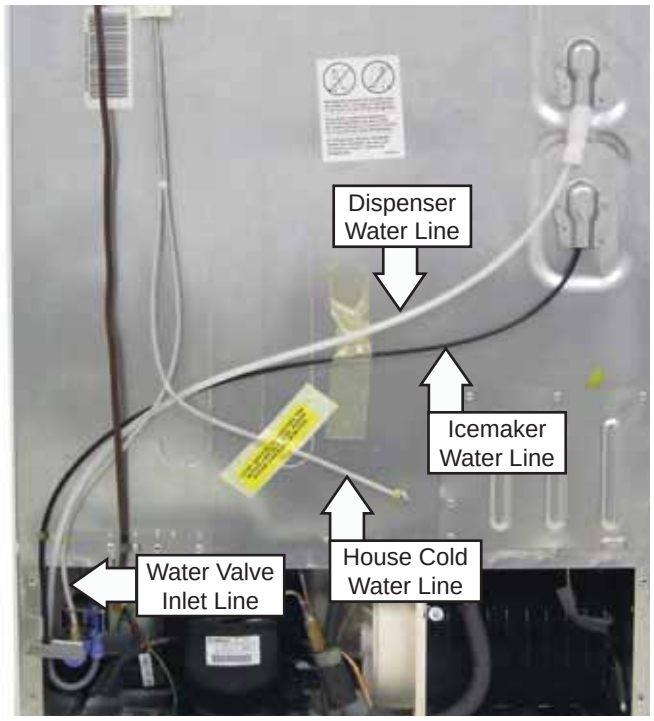
The water valve is mounted in the left section of the machine compartment.

The incoming water line is routed up the back of the refrigerator cabinet, into the fresh food compartment, through the water filter cartridge) (part # GSWF), out of the fresh food compartment, and into the inlet of the water valve.

From the water valve, 2 low-pressure water lines independently supply water to the icemaker and water tank.

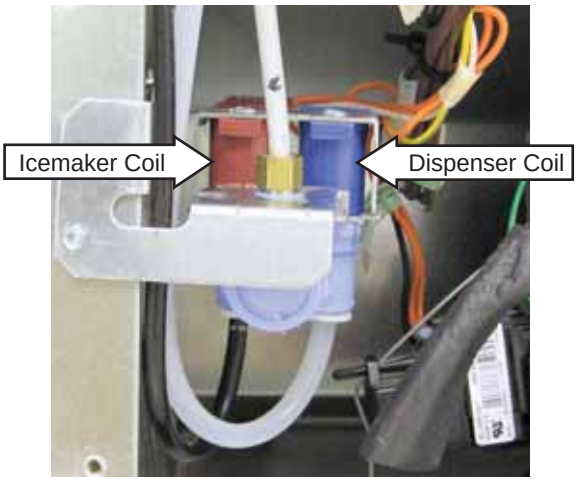
The icemaker water line is routed from the water valve, up the back of the refrigerator cabinet, into the freezer compartment, and into the icemaker. The water tank line is routed from the water valve, up the back of the refrigerator cabinet, and into the fresh food compartment, where it is attached to the water tank. The water tank holds approximately 35 oz. of water.

The door dispenser supply line is routed from the cold water tank, through the liner, to the left side door hinge, and into the left side door to the dispenser.



The dispenser valve (blue coil) delivers filtered water through the water tank to the dispenser. The coil has a resistance of approximately 320 Ω.

The icemaker valve (red coil) delivers filtered water directly to the icemaker. The coil has a resistance of approximately 180 Ω.



The dispenser coil receives 120 VAC from J11 (when dispenser paddle is pushed) and J7, pin #9 (neutral).

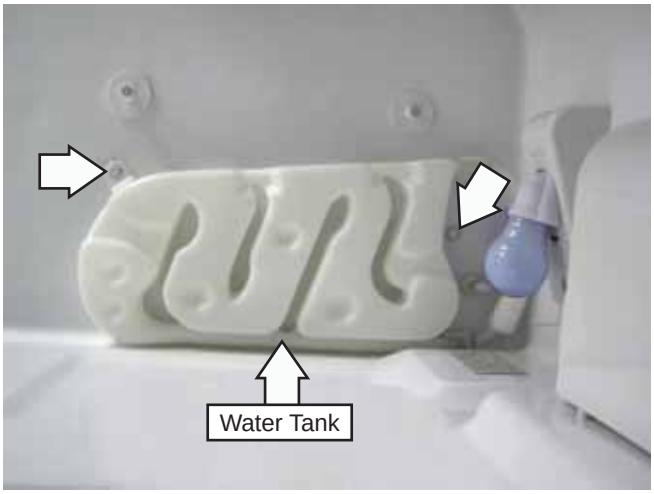
The icemaker coil receives 120 VAC from J11 (when the icemaker is calling for fill water and freezer drawer is closed) and J7, pin #9 (neutral).

Water Tank

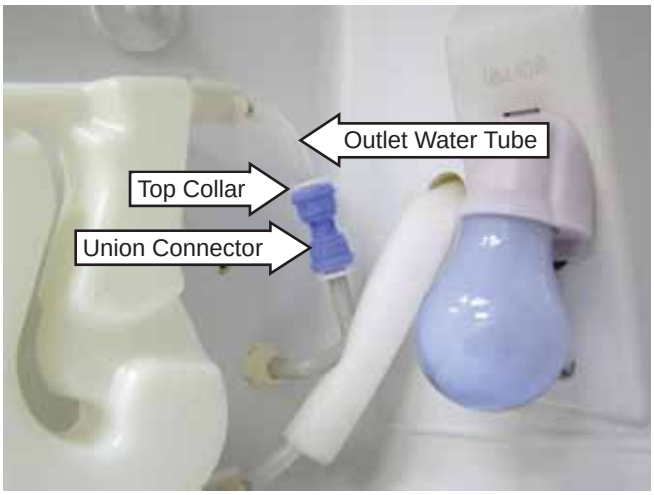
The water tank is located in the refrigerator compartment, near the bottom left corner. The inlet water tube is permanently attached to the water tank. The outlet water tube is connected at the tank, using a union connector.

To remove the water tank:

1. Remove the fruit and vegetable crisper drawers and the crisper drawer cover and frame assembly.
2. Remove the two 1/4-in. hex-head screws that attach the water tank to the left sidewall of the refrigerator compartment.



3. Disconnect the water tank outlet tube from the union connector by pressing in the top collar and pulling out the tubing.

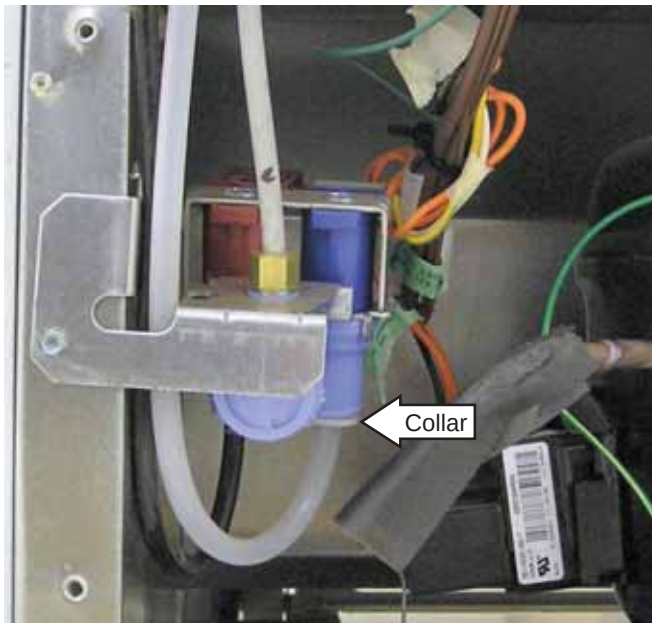


Note: When installing the water tank, push the outlet tube firmly into the union connector. Make sure that the black mark is flush with the top of the collar.

4. Remove the six 1/4-in. hex-head screws and the machine compartment cover.

Note: Water will remain in the tank and inlet tube even when the tank appears empty. Use care to avoid water spills.

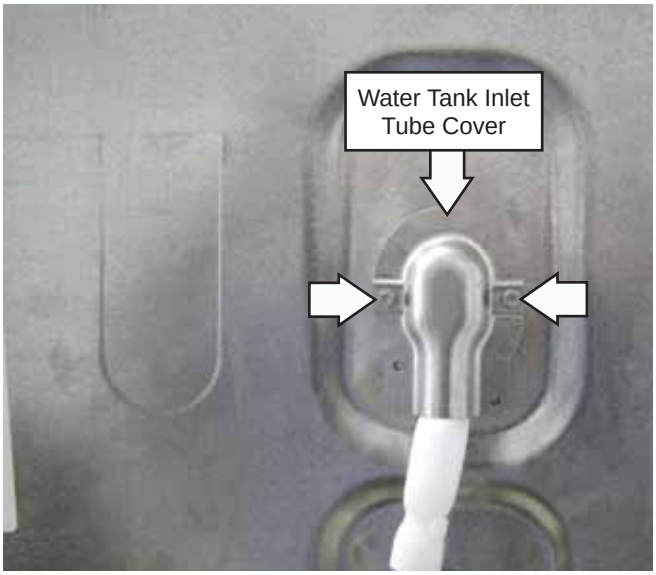
5. Disconnect the water tank inlet tube from the water valve by pressing in the collar and pulling the tubing out.



(*Continued next page*)

Note: When installing the water tank inlet tube, push the inlet tube firmly into the water valve. Make sure that the black mark on the tube is flush with the bottom of the collar.

6. Remove the two 1/4-in. hex-head screws that attach the water tank inlet tube cover to the rear of the refrigerator.



7. Remove the water tank and inlet tubing from the refrigerator compartment.

Water Dispenser and Interface

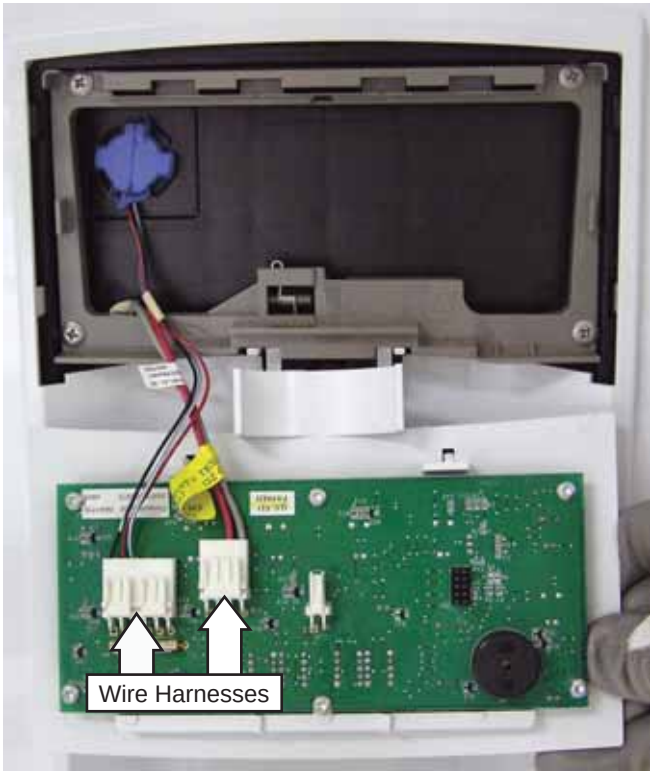
The water dispenser assembly incorporates the interface used for temperature control and features. The interface has 2 tabs that hold it to the dispenser shield. The tabs are located above 2 slots located behind the bottom of the interface.

To remove the water dispenser assembly:

1. Using a flat-blade screwdriver, push up on each tab, then pry the bottom of the interface away from the dispenser recess.

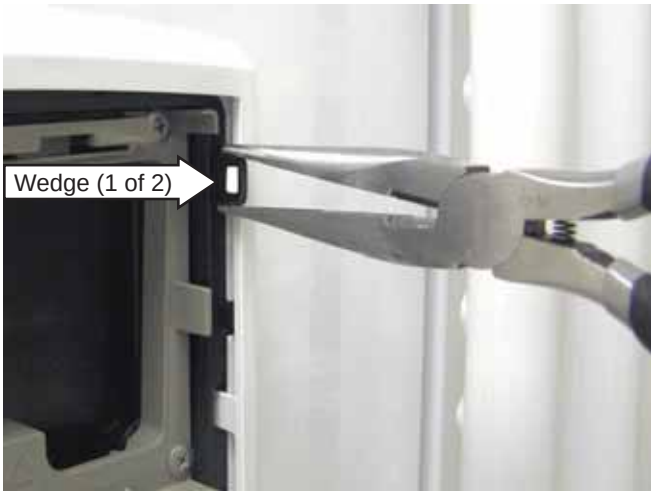
(*Continued next page*)

2. Carefully lower the interface and disconnect the 2 wire harnesses.

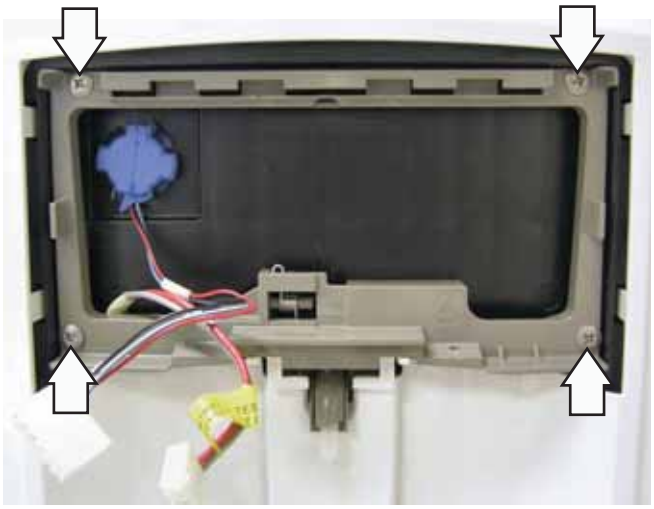


Note: There are 2 plastic wedges (1 on each side), that help hold the top of the trim flush against the door panel. If the wedges are not installed, the trim will fit loosely.

3. Using a pair of long-nose pliers, pull out the 2 plastic wedges.



4. Remove the 4 Phillips-head screws and the dispenser shield from the dispenser recess.

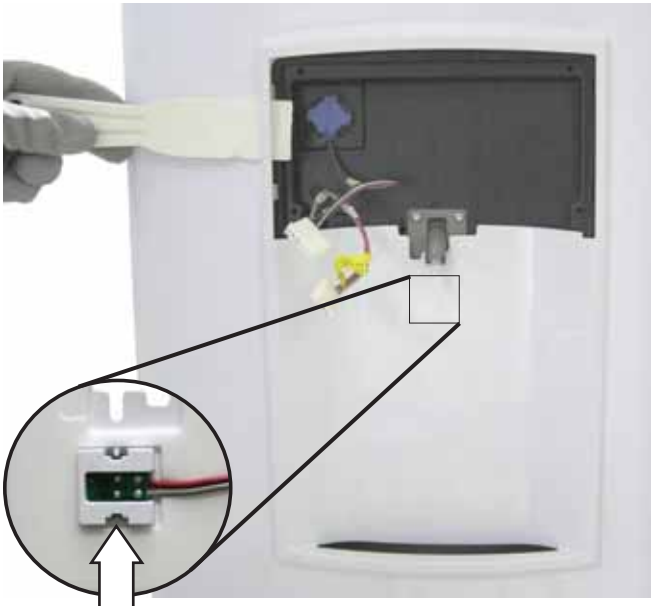


5. Lift and remove the spill shelf from the bottom of the recess.

Note: The dispenser trim is held to the dispenser recess by 5 retaining tabs along each side and 2 at the top.

6. Using your hands or a plastic putty knife, carefully lift or pry the dispenser trim away from the dispenser recess.

Note: The paddle switch is permanently attached to the back of the dispenser trim. The trim and paddle switch are replaced as an assembly.



Articulating Door Mullion (French Door Models)

The articulating door mullion is attached to the left side door, and provides a movable center mullion that maximizes access to the fresh food compartment. With both refrigerator doors closed or only the right side door opened, the mullion stays in position. When the left side door is opened, the spring-loaded mullion is activated to fold against the handle side of the door liner.

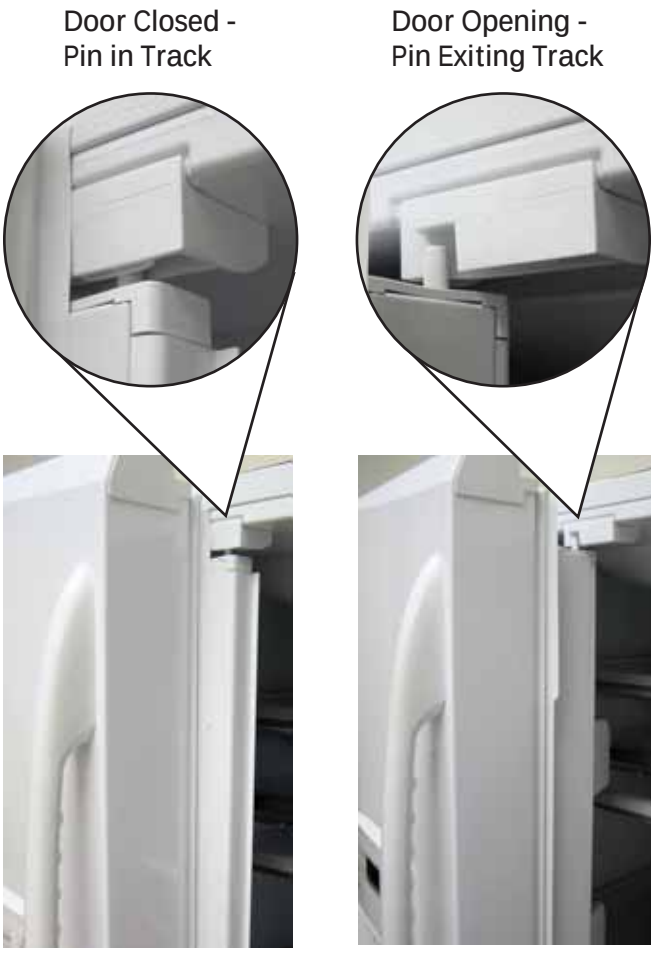
The pin on top of the mullion and the track, located at the top center front of the refrigerator, ensure proper mullion bar alignment upon closure of the left side door.

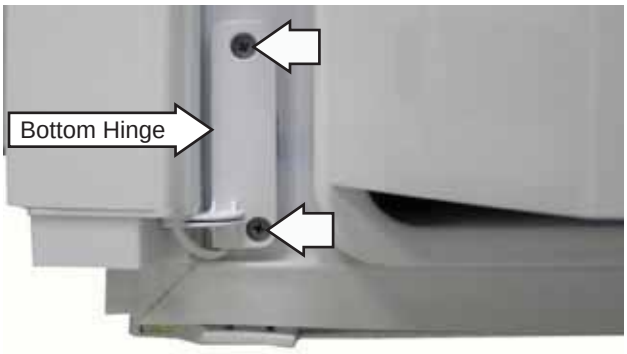
The articulating door mullion consists of the mullion, heater, internal spring, and 2 hinges. It is available only as an assembly.

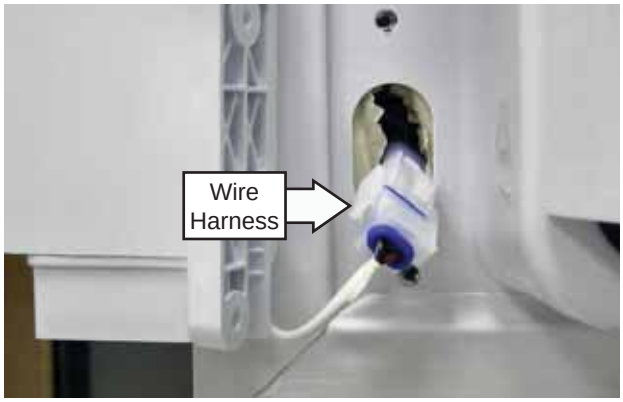
Note: If the Energy Saver light is lit, then the heaters in the vertical and horizontal mullions are disabled.

The heater operates on 13.6 VDC when both doors are closed. It is necessary to close the right side door and close the left side light switch to test for the operating voltage of 13.6 VDC. The resistance of the heater is approximately 24 Ω.

To replace the articulating door mullion assembly, it is necessary to remove the 2 Phillips-head screws from the top and bottom hinges. The wire harness can be pulled out from the recess in the bottom of the door and disconnected.





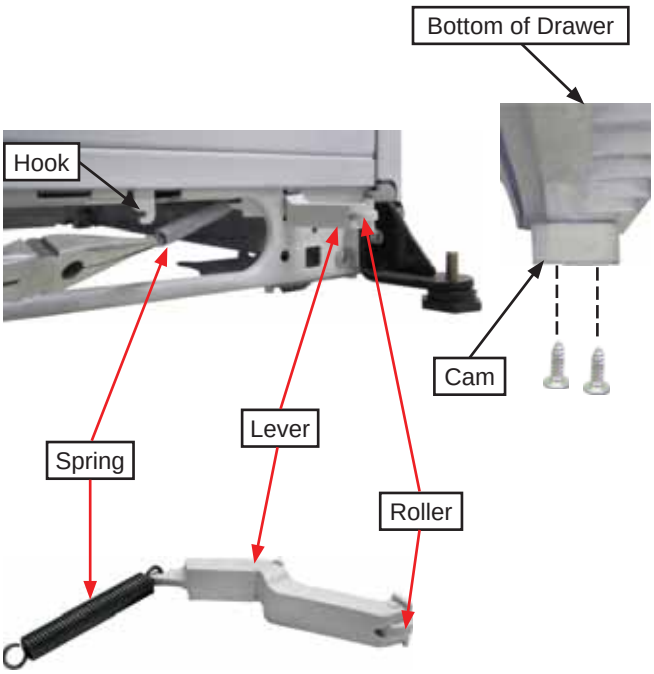


Drawer Closure Mechanisms

Two self-closing freezer drawer cam and lever mechanisms automatically pull the drawer shut when it's within 1-inch of the closed position. The closure mechanisms are located on the lower corner areas of the drawer and cabinet.

Each closure mechanism consists of a lever, spring, and cam. The lever is attached with a spring to a hook in the base channel. The cam is mounted to the bottom of the drawer with two T-20 Torx screws. The lever interacts with the cam to complete the closing of the drawer.

A pair of pliers can be used to remove the spring from the hook. The spring and lever can then be pulled out through the hole in the base channel.



Note: Each door closer cam can be installed incorrectly. Ensure each cam is installed on the bottom of the drawer with the hooked end towards the center of the drawer.

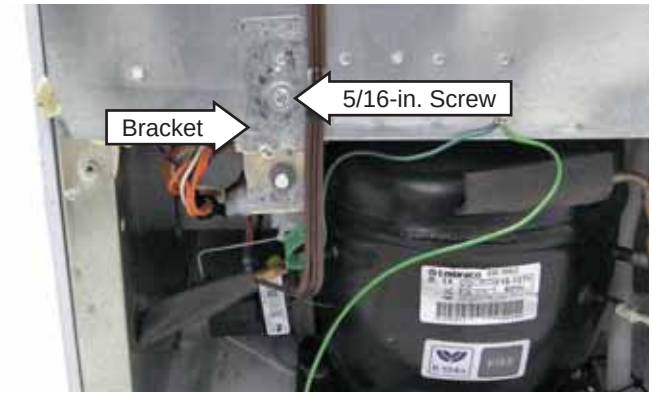
Bottom View of Drawer and Right Side Cam

EMI Filter (Model GBSC0)

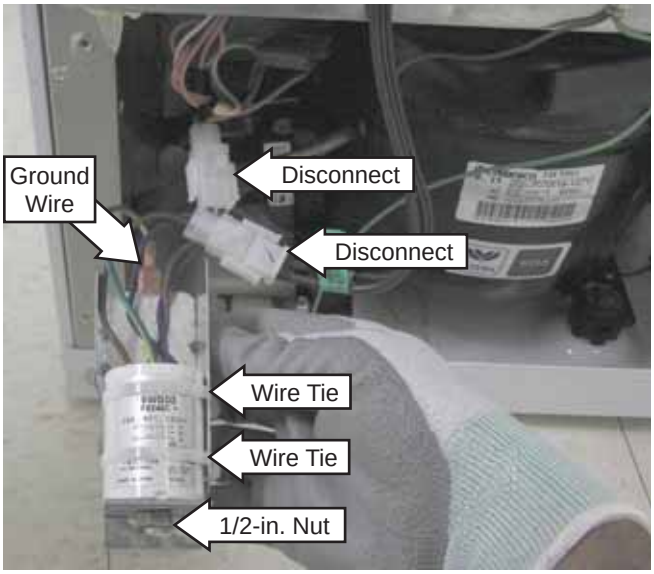
The EMI Filter is accessed from the back of the refrigerator and is located on the left side of the compressor.

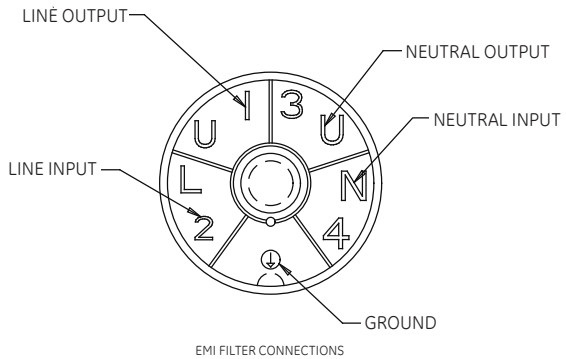
To remove the EMI filter:

1. Remove the 5/16-in. hex-head screw that attaches the bracket to the cabinet.



2. Pull the bracket out and disconnect the wire harnesses and ground wire. Remove the plastic ties and the 1/2-in. nut.





EMI FILTER CONNECTIONS

Troubleshooting

Control Diagnostics Using the Temperature Display

The temperature display has a self-diagnosis mode that can be accessed and will help the technician to test certain functions of the temperature display, defrost heater, damper, and interior fans. This mode can aid the service technician in quickly identifying failed or improper operation of certain components and systems.

Control diagnostics using the display does not use error codes to identify problems. Instead, the temperature display allows access to components or systems to be checked if a problem is detected.

The temperature display must be in an active mode before entering the self-diagnosis test. If the display is blank, press any temperature button once, then release it. The display will show actual temperatures.

Enter the diagnostic mode by pressing both the freezer temperature (*COLDER* and *WARMER*) pads and the refrigerator temperature (*COLDER* and *WARMER*) pads simultaneously. All four pads must be held for approximately 3 seconds. Blinking "00"s in both the freezer and refrigerator sections of the display indicate the refrigerator has entered the test mode. Remove fingers within 5 seconds and press any pad to lock-in the test mode. The blinking "00"s will change over to solid (non-blinking) "0"s when the test mode is locked-in. Failure to lock-in the test mode within 30 seconds will time out the test and return the refrigerator to the normal cooling mode.

FZ Display	FF Display	Mode	Comments
0	1	Showroom Mode	When activated, a tone will sound briefly and the display will flash 1 time. The cooling system stops operation. All HMI functions will operate normally.
0	2	Display Combined HMI Software Version	Temperature to main controls communications test. A coded software version is displayed. Dispenser model will show two numbers. See Note 1. Internal display model will test for Pass/Fail. Should show "P". If the format is violated, the display will read "99".
0	3	Display Main Control Software Version	Temperature to dispenser communications test. A coded software version is displayed. Dispenser model will show two numbers. See Note 1. Internal display model will show "F" (no dispenser board). If the format is violated, the display will read "99".
0	4	Combined HMI to Main communications	Dispenser to main controls communications test. Dispenser model will test for Pass/Fail. Should show "P". Internal display will show "F" (no dispenser board).
0	6	HMI Self Test	Illuminates all LEDs and numerical segments. FF and FZ displays will initially display "88". Pressing temperature pads will change initial display. Remaining pads pressed will toggle the LED associated with that pad. Filter pad repeatedly pressed will toggle red, green, and amber LEDs. To exit HMI Self Test, press and hold both FF temperature pads simultaneously for 3 seconds, then release. (Exits test mode)
0	7	Sensor Self Test	Checks each thermistor in order and displays "P" for pass, "0" for open circuit, or "S" for shorted circuit. See Note 2.

(*Continued next page*)

FZ Display	FF Display	Mode	Comments
1	0	Open Damper	Damper will open, pause briefly, and then close.
1	1	Fan Speed Test	Cycles through each fan for 5 seconds.
1	2	100% Run Time	This mode runs the sealed system 100% of the time. This test will automatically time out after 1 hour of run time. A refrigerator reset may exit this mode.
1	3	Enter Pre-chill	This places the freezer in pre-chill mode essentially issuing a "Force Prechill" command to the main control. It will return to normal operation on its own. This command will be ignored if the refrigerator is set to OFF/ Standby mode.
1	4	Toggle the State of Defrost	Each time any button on the temperature board other than four temperature adjust buttons is pressed, the status of the FZ defrost heater will toggle. See Note 3.
1	5	Refrigerator Reset	Causes a soft reset to occur at both the Combined HMI and the Main board.
1	6	Test Mode Exit	Causes a soft reset to occur at the Combined HMI board. Note: This will not terminate test modes that the main board is maintaining as a result of the service diagnostics mode. To terminate test modes, Refrigerator Reset should be used.
1	7	Degree C/F	Internal display model only. Used to set the temperature unit of measure. The current mode is displayed on the FF display ("C" of "F"). Use either of the FF slew keys to adjust the mode. Press any key other than the FF slew keys to set the unit of measure to the displayed selection.

Note 1: The first two digits are numbers. The second two digits are numbers that correspond to a letter (01=a, 02=b, 03=c,...26=z). For example, 61 and 9= a software version of 61i. 41 and 10=a software version of 41j.

Note 2: Display order: #1 = Fresh Food Thermistor, #02 = No Thermistor installed at this location, #3 = Freezer Thermistor, #4 = Evaporator Thermistor. 05 displayed = No Thermistor installed at this location.

Note 3: The heater will not come on if the evaporator thermistor is above 70°F.

(*Continued next page*)

Performance Data Sheet

SmartWater Filtration System - GSWF Cartridge

This system has been tested according to NSF/ANSI 42/53 for reduction of the substances listed below. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI 42/53.*
(100% safety factors built in for unmetered usage)

Standard No. 42: Aesthetic Effects								
Parameter	**USEPA MCL**	**Influent Average**	**Influent Challenge Concentration**	**Effluent**		**% Reduction**		**Min. Required Reduction**
				Average	**Maximum**	**Average**	**Minimum**	
Chlorine	—	1.845 mg/L	2.0 mg/L±10%	< 0.05 mg/L	0.05 mg/L	> 97.29%	96.43%	≥ 50%
T & O	—	—	—	—	—	—	—	—
Particulate**	—	143,333 #/mL	at least 10,000 particles/mL	29.83 #/mL	140 #/mL	99.98%	99.91%	≥ 85%

Standard No. 53: Health Effects								
Parameter	**USEPA MCL**	**Influent Average**	**Influent Challenge Concentration**	**Effluent**		**% Reduction**		**Min. Required Reduction**
				Average	**Maximum**	**Average**	**Minimum**	
Turbidity	1 NTU***	10.3 NTU***	1±1 NTU***	0.106 NTU	0.14 NTU	98.97%	98.61%	0.5 NTU
Cysts	99.95% Reduction	200,000 #/L	Minimum 50,000 L	0	0	> 99.99%	> 99.99%	> 99.95%
Lead at pH 6.5	0.015 mg/L	0.15 mg/L	0.15 mg/L±10%	< 0.001 mg/L	< 0.001 mg/L	> 99.33%	> 99.33%	0.010 mg/L
Lead at pH 8.5	0.015 mg/L	0.14 mg/L	0.15 mg/L±10%	0.001 mg/L	0.003 mg/L	> 99.29%	97.86%	0.010 mg/L
Lindane	0.0002 mg/L	0.0216 mg/L	0.002 mg/L±10%	< 0.00002 mg/L	< 0.00002 mg/L	99.07%	98.75%	0.0002 mg/L
Atrazine	0.003 mg/L	0.008 mg/L	0.009 mg/L±10%	< 0.002 mg/L	< 0.002 mg/L	> 76.12%	> 66.67%	0.003 mg/L

** Tested using a flow rate of 0.5 gpm; pressure of 60 psig; pH of 7.5 ± 0.5; temp. of 68° ± 5°F (20° ± 3°C)*
*** Measurement in Particles/ml. Particles used were 0.5-1 microns*
**** NTU=Nephelometric Turbidity units*

Operating Specifications

- Capacity: certified for up to 750 gallons (2,838 l); up to six months
- Pressure requirement: 40–120 psi (2.8–8.2 bar)
- Temperature: 33–100ºF (0.6–38ºC)
- Flow rate: 0.5 gpm (1.9 lpm)

General Installation/Operation/Maintenance Requirements

- Flush new cartridge at full flow for 3 minutes to purge out trapped air.
- Replace cartridge when flow becomes too slow.

Special Notices

- Installation instructions, parts and service availability, and standard warranty are included with the product when shipped.
- This drinking water system must be maintained according to manufacturer's instructions, including replacement of filter cartridges.
- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts.
- The contaminants or other substances removed or reduced by this water treatment system are not necessarily in your water.
- Check for compliance with the state and local laws and regulations.
- Note that while the testing was performed under standard laboratory conditions, actual performance may vary. Systems must be installed and operated in accordance with manufacturer's recommended procedures and guidelines.

System tested and certified by NSF International against Standard 42 for the reduction of chlorine, taste and odor, particulate Class I and Standard 53 for the reduction of cyst, lead, Lindane, Atrazine and turbidity.

NSF®

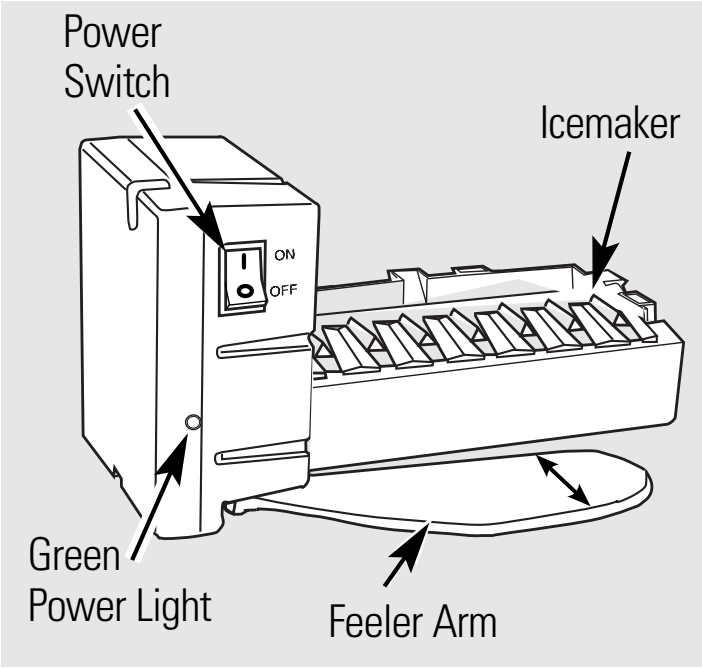
Manufactured for: General Electric Company, Louisville, KY 40225

Icemaker Service Test Mode

The electronic icemaker has a service test mode that can be utilized by the service technician in order to test basic operation of the icemaker. The service test mode consists of a harvest cycle followed immediately by a water fill. The harvest cycle is entered, regardless of icemaker temperature or arm position.

To enter the service test mode:

1. Turn the power switch to the off position and wait 20 seconds. (The green power light will be unlit.)
2. Turn the power switch to the on position. (The green power light will be lit.)
3. Push the feeler arm from the out position to the in position and back again 3 times and only 3 times within 20 seconds.

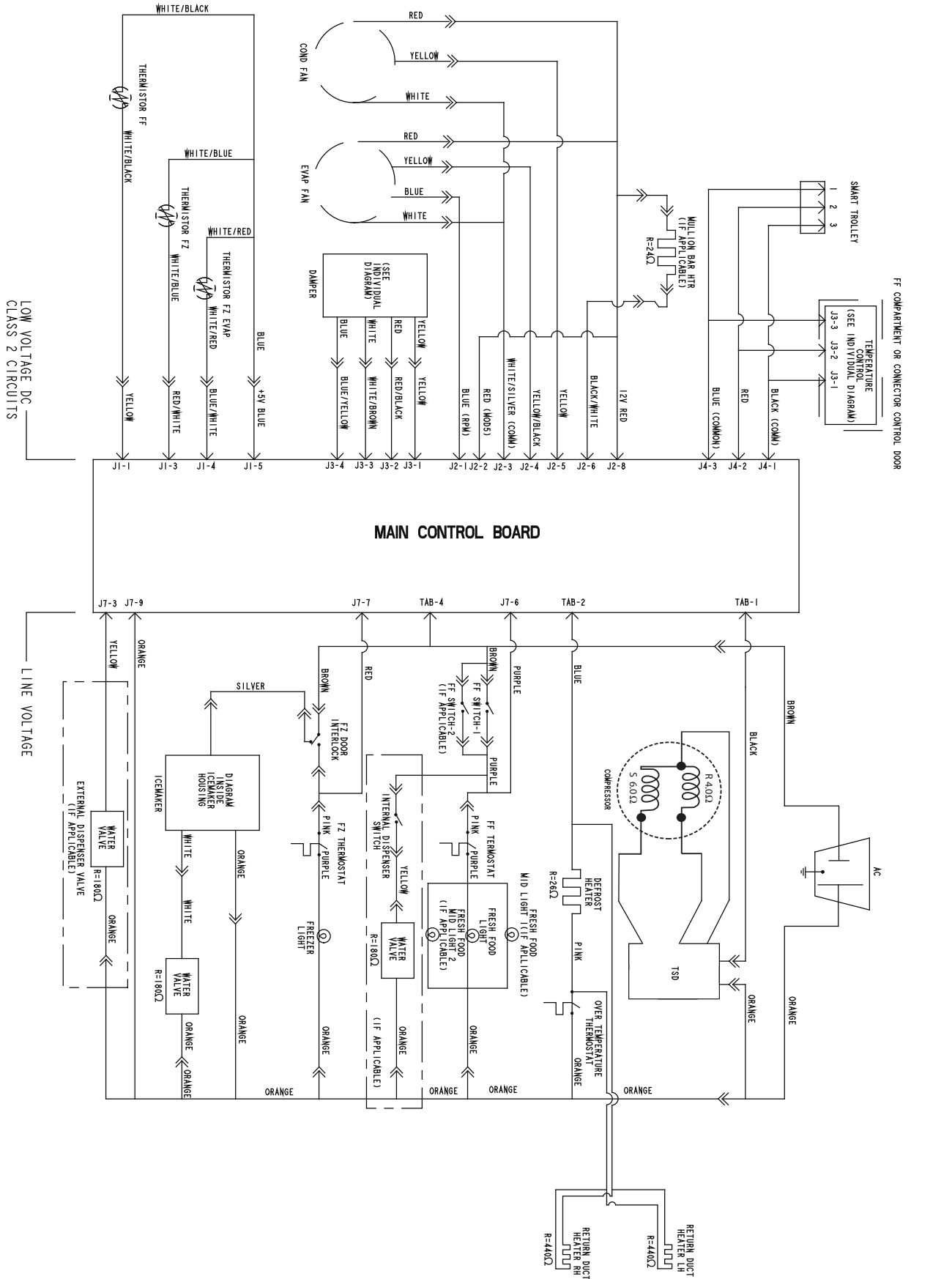


Note: If the icemaker has already started a harvest cycle and the arm is moving, it may be impossible to properly move the arm and enter the service mode without allowing it to reset and power up again. If the icemaker is allowed to go through it's normal harvest cycle, it will take 10-15 minutes after it dumps the ice for water to enter the icemaker.

While in the harvest mode, the heater will remain on for a minimum of 20 seconds. The water fill cycle will initiate the first fill (5.1 seconds) without waiting for the mold to prechill. Only one water fill occurs during the service mode. The icemaker will exit the service test on its own and enter the normal freeze cycle.

Schematic

Model PFSF2



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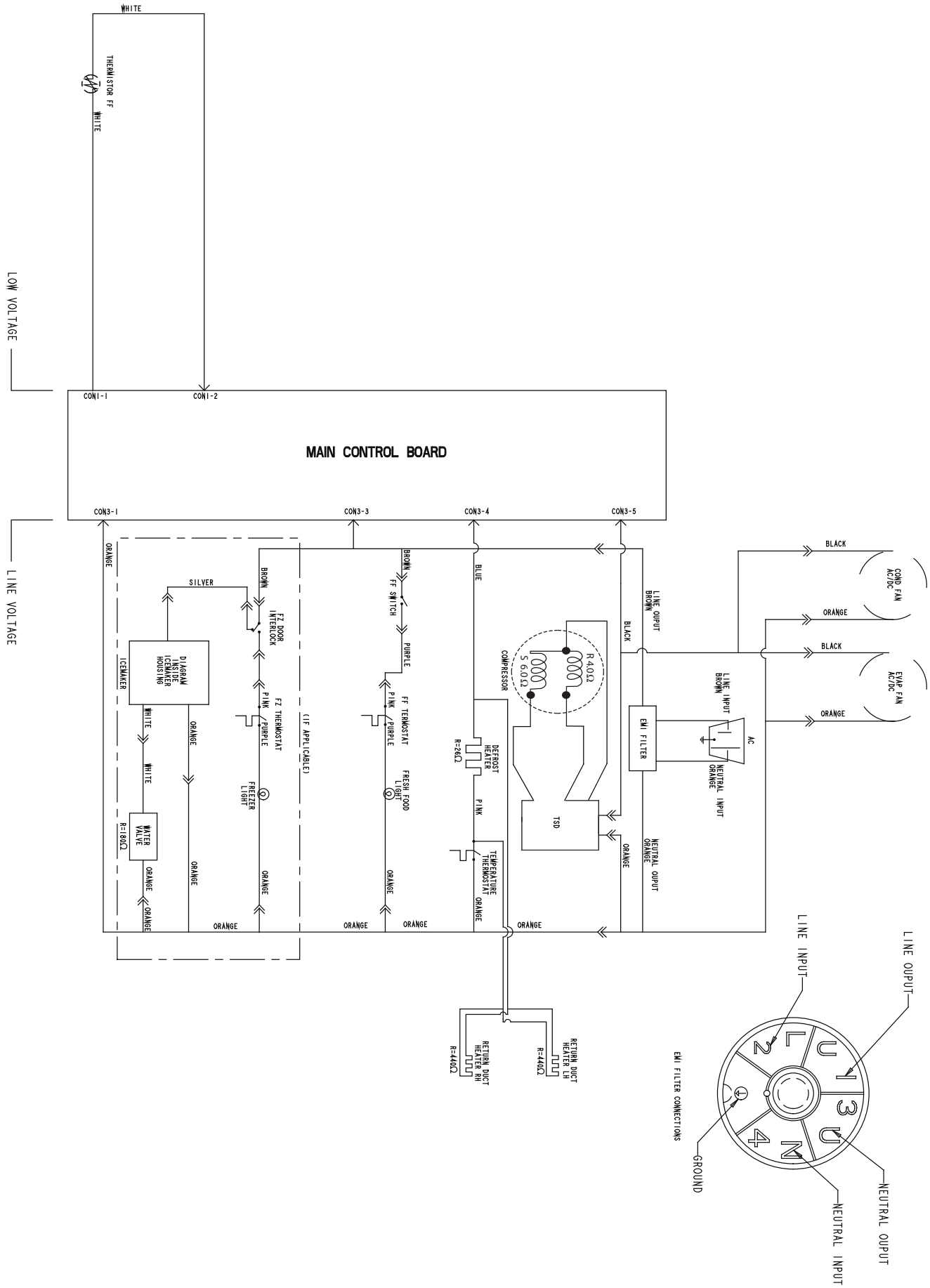
Model GBSC0


WHITE
THERMISTOR FF
WHITE
LOW VOLTAGE
CON1-1
CON1-2
MAIN CONTROL BOARD
CON3-1
CON3-3
CON3-4
CON3-5
LINE VOLTAGE
ORANGE
SILVER
BROWN
FZ DOOR INTERLOCK
DIAGRAM INSIDE ICEMAKER HOUSING
ICEMAKER
PINK
PURPLE
FZ THERMOSTAT
FREEZER LIGHT
WHITE
WATER VALVE
R=180Ω
(IF APPLICABLE)
BROWN
FF SWITCH
PURPLE
PINK
PURPLE
FF THERMOSTAT
FRESH FOOD LIGHT
BLUE
R 4.0Ω
S 6.0Ω
COMPRESSOR
DEFROST HEATER
R=26Ω
PINK
TEMPERATURE THERMOSTAT
ORANGE
TSD
LINE OUPUT
BROWN
BLACK
EMI FILTER
NEUTRAL OUPUT
ORANGE
LINE INPUT
BROWN
NEUTRAL INPUT
ORANGE
AC
BLACK
COND. FAN AC/DC
ORANGE
BLACK
EVAP. FAN AC/DC
ORANGE
RETURN DUCT HEATER RH
R=44Ω
RETURN DUCT HEATER LH
R=44Ω
LINE INPUT
LINE OUPUT
EMI FILTER CONNECTIONS
GROUND
NEUTRAL OUPUT
NEUTRAL INPUT

Warranty

All warranty service provided by our Factory Service Centers, or an authorized Customer Care® technician. To schedule service, on-line, visit us at ge.com, or call 800.GE.CARES (800.432.2737). Please have serial number and model number available when calling for service.

Staple your receipt here. Proof of the original purchase date is needed to obtain service under the warranty.

For The Period Of:	***GE Will Replace:***
GE and GE PROFILE MODELS:	
One Year *From the date of the original purchase*	***Any part*** of the refrigerator which fails due to a defect in materials or workmanship. During this ***limited one-year warranty,*** GE will also provide, ***free of charge,*** all labor and related service to replace the defective part.
Thirty Days *(Water filter, if included) From the original purchase date of the refrigerator*	***Any part*** of the water filter cartridge which fails due to a defect in materials or workmanship. During this ***limited thirty-day warranty,*** GE will also provide, ***free of charge,*** a replacement water filter cartridge.
GE PROFILE MODELS ONLY:	
Five Years *(GE Profile models only) From the date of the original purchase*	***Any part of the sealed refrigerating system*** (the compressor, condenser, evaporator and all connecting tubing) which fails due to a defect in materials or workmanship. During this ***limited five-year sealed refrigerating system warranty,*** GE will also provide, ***free of charge,*** all labor and related service to replace the defective part in the sealed refrigerating system.

What GE Will Not Cover:

- **Service trips to your home to teach you how to use the product.**
- **Improper installation, delivery or maintenance.**
- **Failure of the product if it is abused, misused, or used for other than the intended purpose or used commercially.**
- **Loss of food due to spoilage.**
- **Replacement of house fuses or resetting of circuit breakers.**
- **Damage caused after delivery.**
- **Replacement of the water filter cartridge, if included, due to water pressure that is outside the specified operating range or due to excessive sediment in the water supply.**
- **Replacement of the light bulbs, if included, or water filter cartridge, if included, other than as noted above.**
- **Damage to the product caused by accident, fire, floods or acts of God.**
- **Incidental or consequential damage caused by possible defects with this appliance.**
- **Product not accessible to provide required service.**

EXCLUSION OF IMPLIED WARRANTIES—Your sole and exclusive remedy is product repair as provided in this Limited Warranty. Any implied warranties, including the implied warranties of merchantability or fitness for a particular purpose, are limited to one year or the shortest period allowed by law.

This warranty is extended to the original purchaser and any succeeding owner for products purchased for home use within the USA. If the product is located in an area where service by a GE Authorized Servicer is not available, you may be responsible for a trip charge or you may be required to bring the product to an Authorized GE Service location for service. In Alaska, the warranty excludes the cost of shipping or service calls to your home.

Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To know what your legal rights are, consult your local or state consumer affairs office or your state's Attorney General.

Warrantor: General Electric Company. Louisville, KY 40225

(*Continued next page*)

CUSTOMER WARRANTY

(for customers in Canada)

Your refrigerator is warranted to be free of defects in material and workmanship.

What is covered	How Long Warranted (From Date of Sale)	Parts Repair or Replace at Mabe's Option	Labour
Compressor	GE Profile: Ten (10) Years GE and All Other Brands: One (1) Year	GE Profile: Ten (10) Years GE and All Other Brands: One (1) Year	GE Profile: Five (5) Years GE and All Other Brands: One (1) Year
Sealed System (including evaporator, condenser tubing and refrigerant)	GE Profile: Five (5) Years GE and All Other Brands: One (1) Year	GE Profile: Five (5) Years GE and All Other Brands: One (1) Year	GE Profile: Five (5) Years GE and All Other Brands: One (1) Year
All Other Parts	One (1) Year	One (1) Year	One (1) Year

TERMS AND CONDITIONS:

This warranty applies only for single family domestic use in Canada when the Refrigerator has been properly installed according to the instructions supplied by Mabe and is connected to an adequate and proper utility service.

Damage due to abuse, accident, commercial use, and alteration or defacing of the serial plate cancels all obligations of this warranty.

Service during this warranty period must be performed by an Authorized Mabe Service Agent.

Neither Mabe nor the Dealer is liable for any claims or damages resulting from failure of the Refrigerator or from service delays beyond their reasonable control.

To obtain warranty service, purchaser must present the original Bill of Sale. Components repaired or replaced are warranted through the remainder of the original warranty period only.

This warranty is extended to the original purchaser and any succeeding owner for products purchased for home use within Canada. In home warranty service will be provided in areas where it is available and deemed reasonable by Mabe to provide.

This warranty is in addition to any statutory warranty.

WHAT IS NOT COVERED:

- Owner is responsible to pay for service calls related to product installation and/or teaching how to use the product.
- Damage to finish must be reported within 48 hours following the delivery of the appliance.
- Damage to finish after delivery.
- Improper installation—proper installation includes adequate air circulation to the refrigeration system, adequate electrical, plumbing and other connecting facilities.
- Replacement of house fuses or resetting of circuit breakers.
- Replacement of light bulbs.
- Damage to product caused by accident, fire, floods or acts of God.
- Loss of food due to spoilage.
- Proper use and care of product as listed in the owner's manual, proper setting of controls.
- Product not accessible to provide required service.
- WARRANTOR IS NOT RESPONSIBLE FOR CONSEQUENTIAL DAMAGES.

EXCLUSION OF IMPLIED WARRANTIES—Your sole and exclusive remedy is product repair as provided in this Limited Warranty. Any implied warranties, including the implied warranties of merchantability or fitness for a particular purpose, are limited to one year or the shortest period allowed by law.

IMPORTANT

Keep this warranty and your bill of sale as proof of original purchase and purchase date.
Please have serial number and model number available when calling for service.

Mabe Service is available coast to coast. If further help is needed concerning this warranty, contact:

Manager, Consumer Relations
Mabe Canada Inc., Consumer Service
1 Factory Lane, Suite 310
Moncton, New Brunswick E1C 9M3
1.800.561.3344

Staple your receipt here. Proof of the original purchase date is needed to obtain service under the warranty.