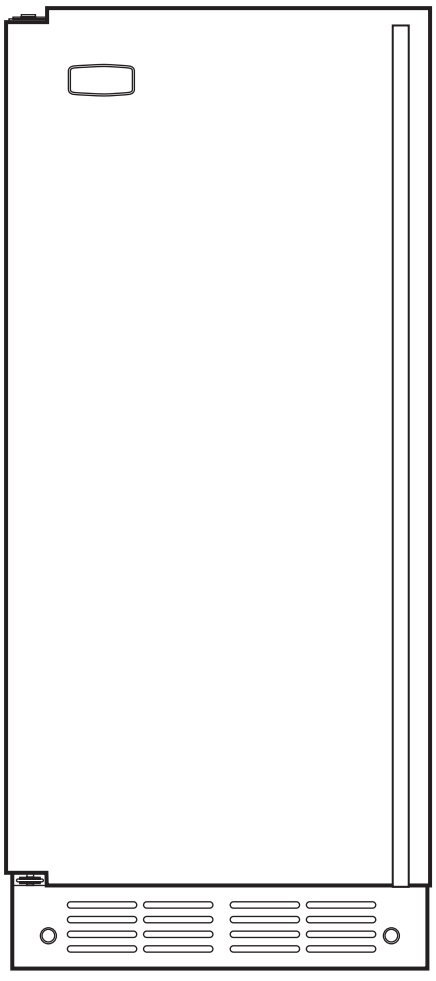
GE Appliances & Lighting

Technical Service Guide

March 2010

Monogram Under-the-Counter Icemaker

ZDIS150WSS
ZDIS150WBB
ZDIS150WWW



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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 air conditioning and heat pump experience. Any attempt to repair an air conditioning or heat pump system 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 air conditioning or heat pump systems. 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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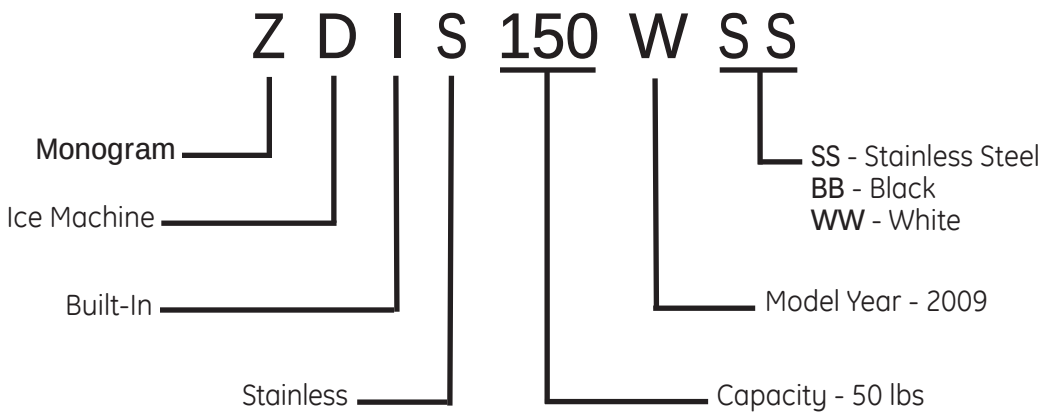
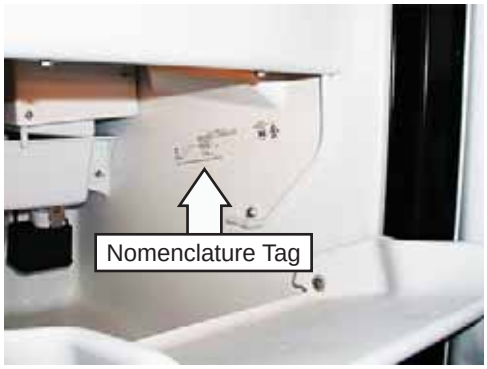
Nomenclature

Model Number





The nomenclature tag is located on the right side of the ice bin. This tag contains important information such as:

- Model/serial number
- Refrigerant charge
- Voltage rating

Note: The Mini-Manual is located behind the front cover panel. It is folded and tucked into one of the loops of the condenser coil.

Serial Number

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

Example: *AT123456S = January, 2010*

A - JAN	2010 - T
D - FEB	2009 - S
F - MAR	2008 - R
G - APR	2007 - M
H - MAY	2006 - L
L - JUN	2005 - H
M - JUL	2004 - G
R - AUG	2003 - F
S - SEP	2002 - D
T - OCT	2001 - A
V - NOV	2000 - Z
Z - DEC	1999 - V

The letter designating the year repeats every 12 years.

Example:

T - 1986
T - 1998
T - 2010

Specifications

AC Power Supply . . . . . 97 to 127 VAC (rated 115 VAC), 60 Hz
Amperage . . . . . 6.5 Amps (max)
Minimum Circuit Capacity . . . . . 15 Amps

Ice Shape . . . . . 3/4 in. x 3/4 in. Square
Ice Thickness @ Normal Setting (Approximate) . . . . . 0.32 in. (8.1 mm)
Ice Thickness @ Thin Setting (Approximate) . . . . . 0.28 in. (7.1 mm)
Ice Thickness @ Thick Setting (Approximate) . . . . . .0.3915 In. (9.9 mm)
15 In. Storage Capacity (Approximate). . . . . 25 lbs (11.3 kg)
Exterior Dimensions (W x D x H). . . . . 15 or 18 in. x 24 in. x 34 in.
(381 or 457.2 x 609.6 x 863.6 mm)
Exterior Finish . . . . . Stainless Steel or Painted Steel
Net Weight . . . . . 15 in. = 94 lbs (42.6 kg)
Cube Thickness Control . . . . . Water Level Sensor & Control Board Setting
Harvest Control . . . . . Thermistor under Evaporator
Bin Ice Level Control . . . . . Thermistor on Side of Bin
Refrigerant R134a
Ambient Temperature. . . . . 55 to 100°F
Water Pressure . . . . . 20 to 120 psig
Water Consumption (Dependent on Water Pressure) 6 to 10 gallons per 4 hours

Features and Benefits

Daily Ice Production at Ambient Temperatures

Ambient Temperature	Water Temperature 60°F (15°C)
70°F (21°C)	46 lbs (21 kg)
80°F (27°C)	47 lbs (21 kg)
90°F (32°C)	40 lbs (18 kg)
100°F (38°C)	40 lbs (18 kg)
110°F (43°C)	38 lbs (17 kg)

- Hidden Electronic Controls allow for a fully integrated look.
- Clean Sensor with LED Indicator
- Lighted Bin with Ice Scoop
- Reversible Door
- Daily Ice Production up to 50 lbs
- Water Level Sensor
- Electronic, LED Controls
- Drop-Down Door
- Clean Light
- Automatic Shut-Off

Theory of Operation

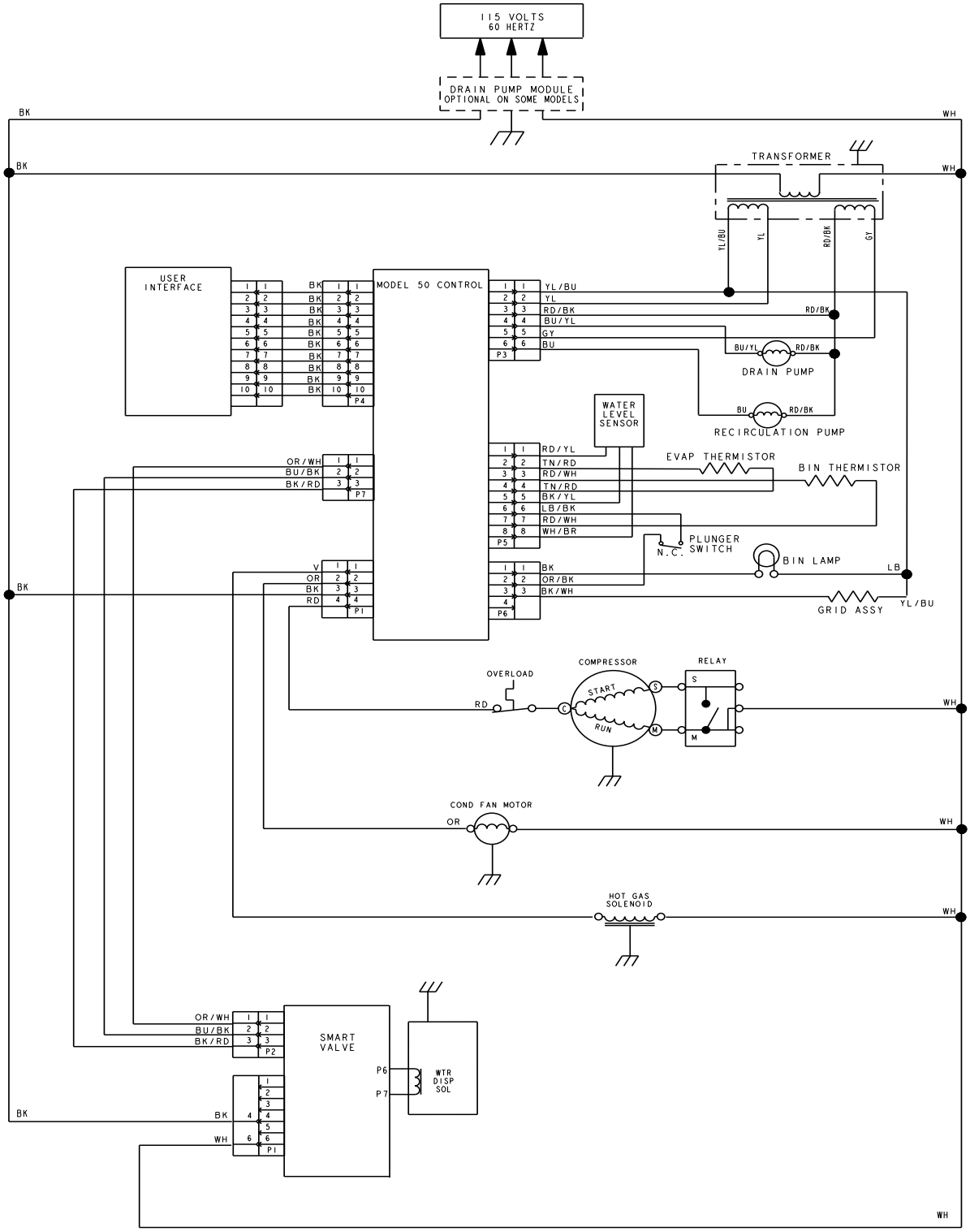
Operating Systems

There are 3 operating systems in the icemaker:

- Electrical System
- Refrigeration System
- Water System

Electrical System

The icemaker's electrical system provides power for the refrigeration and water systems and controls the operation of each component.



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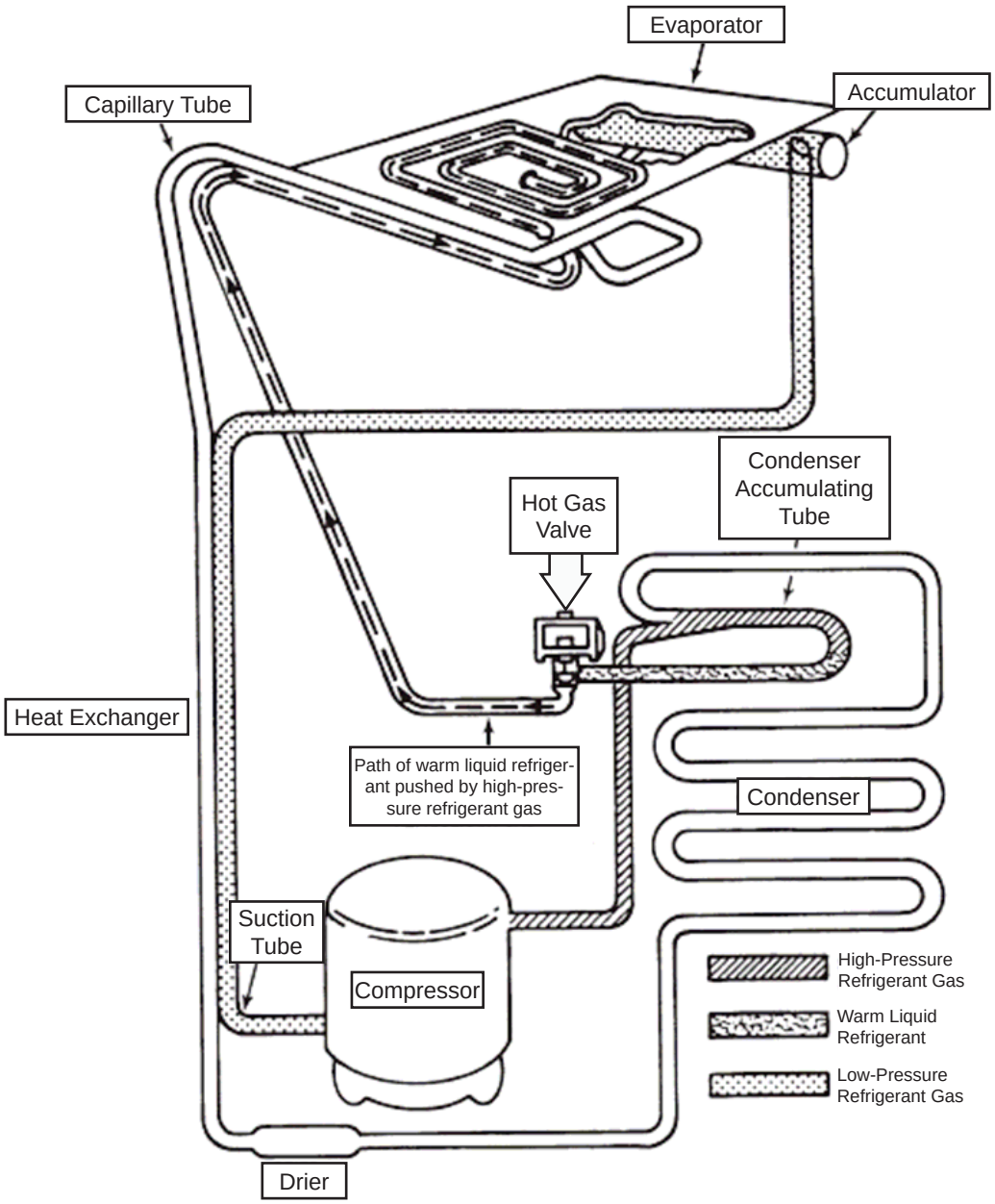
Refrigeration System

The refrigeration system is very similar to the system used in other refrigeration appliances. The refrigerant used in this unit is R134a.

There are 2 very important additions to the refrigeration system in this Icemaker: the **hot gas valve** and the **condenser accumulator tube**.

1. The **hot gas valve** allows high pressure refrigerant gas to bypass the condenser and flow through the condenser accumulator tube.
2. Hot gas pushes liquid refrigerant through the **condenser accumulator tube** into the evaporator, helping to evenly heat the evaporator plate so that the ice slab releases quickly and evenly.



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Water System

The water system provides:

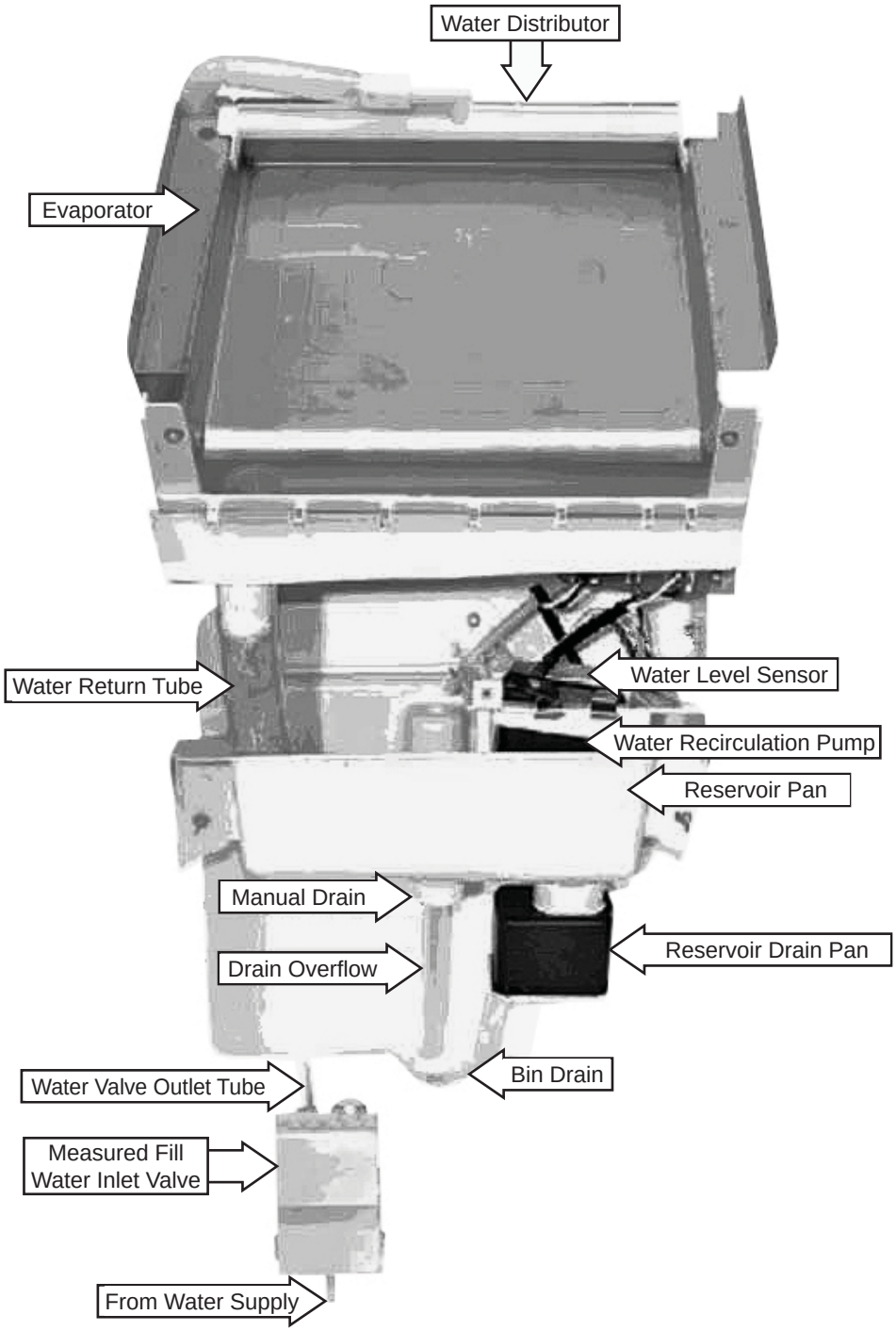
- Fresh water for ice production
- Water recirculation as ice is produced
- Water removal after ice is produced

The water system circulates water on the evaporator to freeze into ice during the freeze cycle. During the harvest cycle, it drains away minerals and contaminates. During the clean cycle, cleaning solution is circulated to clean the system of minerals and contaminates.

The hardness of the water supplied to the icemaker will affect the quality of the ice that is produced. It may also affect the operation of the water system.

A water softener, or poly-phosphate feeder, will not cure all of the problems associated with hard water, but they can be used to reduce scale buildup in the icemaker.

Water System Component Locations



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Operational Modes

There are 4 main operational modes for the icemaker:

1. Ice-making cycle (Freeze Mode)
2. Harvest
3. Clean
4. Service (Diagnostics)

Ice-Making Cycle (Freeze Mode)

There are 3 possible "Off" cycles for the icemaker. They occur when:

1. The bin is full of ice and the ON LED is illuminated (Idle Mode).
2. The OFF control pad has been held for 3 sec. (The ON LED will go out.)
3. The power is interrupted by overfill. (Model ZPK1 only with internal drain pump.)

Electrical System: Line voltage is supplied to the electrical control switches and the primary side of the step-down dual transformer. The dual transformer reduces 120 VAC to 8.75 VAC for the cutter grid and the bin light, and 12 VAC for the drain and recirculating pumps.

The electronic control board directs 12 VAC to the water recirculating and reservoir drain pumps, and 120 VAC to the hot gas solenoid, condenser fan motor, and compressor.

The measured fill water inlet valve will always have 120 VAC on the black and white wires and 14 VDC on the orange/white and black/red wires. An evaporator thermistor supplies temperature information to the electronic control to determine when to terminate the harvest cycle. A water level sensor initiates the next harvest.

Refrigeration System: The hot gas refrigerant, under high pressure, is forced through the condenser, where it changes into a liquid and flows through the drier and capillary tube into the evaporator. Under low pressure in the evaporator, the liquid refrigerant absorbs heat from the water flowing over the evaporator and the liquid refrigerant changes to gas. As a low-pressure gas, the refrigerant flows back through the suction line of the heat exchanger to the compressor.

During the freeze mode, some of the hot gas that is in the condenser accumulating tube condenses to a liquid and remains in the accumulating tube.

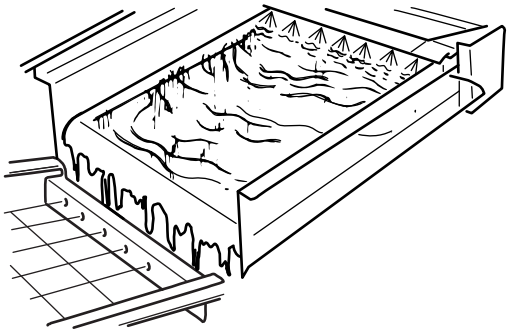
During the later stages of the freeze mode, an ice slab forms on the evaporator freezing plate. This ice slab causes some of the refrigerant passing through the evaporator to not evaporate into a gas, but remain a liquid. This liquid refrigerant settles in the accumulator. The refrigerant vapor is sucked off through the suction tube at the top of the accumulator.

This accumulated liquid refrigerant will eventually be directed to the evaporator to quickly warm the evaporator plate during the harvest mode.

Caution: It is very important that the accumulator is not tilted out of a horizontal position. If moved, it could cause compressor failure.

Water System: The water recirculation pump moves the water from the reservoir pan up to the distributor. The water flows out over the evaporator freezing plate. Water that does not freeze on the evaporator plate runs off the front edge. It falls back into the reservoir, where it is recirculated back to the water distributor.

As the ice slab forms, the minerals in the water are on the surface of the ice. The water flowing over the top of the ice slab washes these minerals back into the water reservoir pan. The water continues to recirculate until the water level in the reservoir drops below a level determined by the water level sensor. At this point, the control terminates the freeze mode and initiates the harvest mode.



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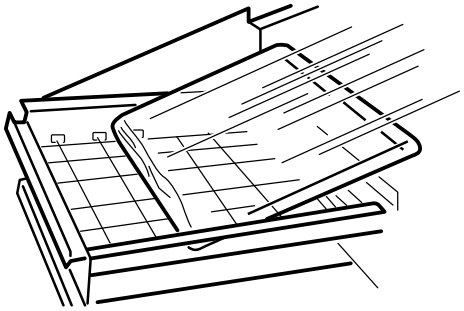
Harvest Mode

Electrical System: When the water level in the reservoir drops below the water level sensor, it signals the electronic control to terminate power to the condenser fan, and then the water recirculating pump. The reservoir drain pump is activated (on for 20 sec., off 20 sec., back on for 20 sec.), to fully drain the reservoir. Power is then supplied to the hot gas valve and a fill request is sent to the measured fill water inlet valve. The fill valve fills to the requested volume while the hot gas valve is energized for the balance of the harvest mode. If the evaporator thermistor is unplugged, the evaporator defaults to a timed 4-minute harvest.

If the water level sensor is disconnected or open, the control defaults to 25 minutes of freeze time. The cleaning indicator LED feature will not function if the water level sensor is disconnected.

Refrigeration System: The hot gas valve opens, allowing high-pressure refrigerant gas to bypass the condenser, and flow through the condenser accumulating tube. The hot gas pushes the liquid refrigerant that has accumulated in the accumulator tube up into the evaporator. The hot liquid refrigerant evenly heats the evaporator plate so that the ice slab releases quickly and evenly.

The ice slab, when released, slides off of the evaporator plate onto the cutter grid.



As a result of the hot gas flow and the ice sliding off the evaporator plate, the evaporator temperature begins to rise. When the evaporator thermistor reaches the set temperature (52°F), the unit switches to the Freeze Mode.

Water System: The reservoir drain pump is activated (on for 20 sec., off 20 sec., back on for 20 sec.) to fully drain the reservoir. When fully drained, the electronic control board sends a signal to the water valve. The signal tells the measured fill water inlet valve how much water is to be filled, allowing water to flow into the water reservoir pan. The water fill volume is determined by the ice thickness setting. Thin Ice uses 32oz (954cc), Normal Ice uses 37oz (1106cc) and Thick Ice uses 42.5oz (1258cc).

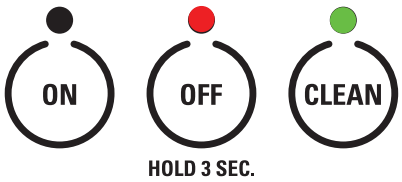
Note: Two minute maximum fill. The cycling between freeze and harvest continues until the ice bin is full. The electronic control board operates the various components and systems in the icemaker for each of the freeze and harvest modes.

Clean Mode *(CLEAN LED on Amber, then Red)*

The CLEAN LED turns from green to amber, then to red. The CLEAN LED will turn from green to amber after 50 hung slabs* or 3500 freeze cycles. The CLEAN LED will then turn to red after 70 hung slabs* or 4000 freeze cycles.

With the CLEAN LED on red and steady, the unit must be cleaned to turn it off. When the clean cycle is complete (approximately 70 minutes), the CLEAN LED will be green and the OFF LED will be red.

Select and hold the **OFF** pad for 3 seconds to turn the unit off. Then press the **ON** pad to turn the unit on. Customer instructions for Clean Cycle are on the inside of the door.



*Hung Slab: If the time between the start of a freeze cycle and the start of the harvest cycle is less than five minutes, the control will count a hung slab.

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Electrical System: The electronic control board operates the various components and systems during the clean mode. The clean mode may only be selected while the icemaker is turned off (**OFF** button held 3 sec.) at the user interface.

When the clean mode begins, the clean light flashes 1 sec. on then 1 sec. off. The circulation pump, compressor, and hot gas valve are energized for 40 min.

The measured fill water inlet valve is energized for 3 minutes, and then the recirculation pump is energized for 3 minutes. This process is repeated 5 times for a total of 30 minutes.

The electrical control board turns all components off. The CLEAN LED remains on with reservoir full.

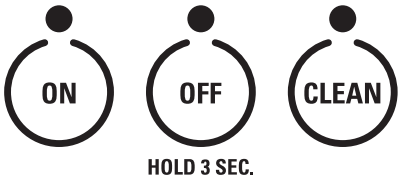
Refrigeration System: The compressor and hot gas valve operate to heat the evaporator. The evaporator thermistor will cycle the compressor off at 125°F and on at 95°F.

Water System: When the icemaker is in the CLEAN mode, the water recirculating pump circulates the cleaning solution that has been added to the reservoir up to the water distributor, across the evaporator, and back into the reservoir, where it is recirculated.

Note: Do not continue with the diagnosis of the ice maker if a fuse is blown, a circuit breaker is tripped, or if there is less than a 120-Volt power supply at the wall outlet. All units that have failed during the first few days of use should be checked for loose connections or miswiring.

User Controls

1. To start the normal ice making cycle, select *ON*.
2. To stop icemaker operation, press and hold *OFF*.



Note: The CLEAN setting is used whenever solutions are circulated through the icemaker for cleaning.

How the Icemaker Works

When you first start your icemaker, the water reservoir will fill and the system will rinse itself before starting to make ice. The rinsing process takes about 5 min.

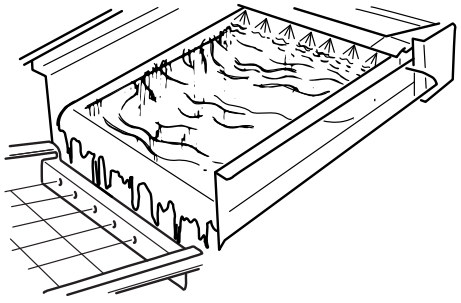
Under normal operating conditions, the icemaker will cycle on and off as needed. The ice level sensor located in the ice storage bin will monitor the ice levels.

Notes:

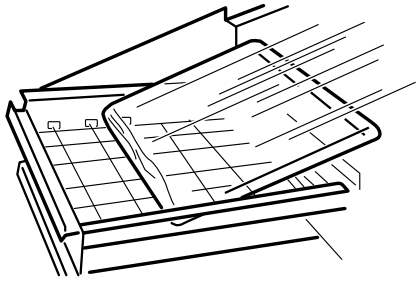
- If the water supply to the icemaker is turned off, be sure to set the icemaker control to OFF. Drain the water reservoir and leave the icemaker door open to allow it to dry completely.
- The icemaker is designed to make clear ice from the majority of water sources on a daily basis. If your results are unsatisfactory, your water may need to be filtered or treated.

Making Ice

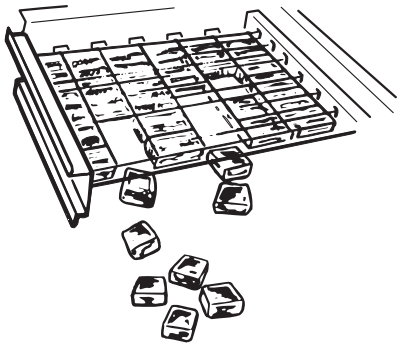
1. Water is constantly circulated over a freezing plate. As the water freezes into ice, the minerals in the water are rejected. This produces a clear sheet of ice with a low mineral content.



2. When the desired thickness is reached, the ice sheet is released and slides onto a cutter grid. The grid divides the sheet into individual cubes.



3. The water containing the rejected minerals is drained after each freezing cycle.
4. Fresh water enters the machine for the next ice-making cycle.
5. Cubes fall into the storage bin. When the bin is full, the icemaker shuts off automatically and restarts when more ice is needed. The ice bin is not refrigerated and some melting will occur. The amount of melting varies with room temperature.



Note: As the room and water temperatures vary, so will the amount of ice produced and stored. This means that higher operating temperatures result in reduced ice production.

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Caring for the Icemaker

The CLEAN light signal will illuminate yellow when the electronic control senses that the need for cleaning is approaching. At this time you need to purchase **nickel-safe ice machine cleaner** by Nu-Calgon, available at most appliance repair shops or through GE Parts and Accessories. Order part number WX08X42870. In the U.S.A., call 1-800-626-2002 or visit *Monogram.com*. In Canada call 1-800-561-3344. The CLEAN light will eventually turn red which means the icemaker must be cleaned, otherwise ice production will decrease significantly or stop altogether.

IMPORTANT: For best results, use the entire contents of the bottle to clean the unit. (See ***Icemaker System***.) The air-cooled condenser needs to be cleaned regularly for efficient ice production and energy conservation.(See ***Cleaning the Condenser***.)

Exterior surfaces

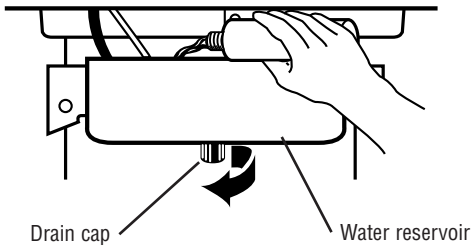
Door handles and trim—Clean with a cloth dampened with soapy water. Dry with a soft cloth. Keep the outside clean. Wipe with a clean cloth lightly dampened with mild liquid dish detergent. Dry with a clean, soft cloth. Do not wipe the icemaker with a soiled dish cloth or wet towel. These may leave a residue that can damage the finish. Do not use scouring pads, powdered cleaners, bleach or cleaners containing bleach because these products can scratch and damage the finish.

Stainless steel—Regularly clean and polish the stainless steel door panels and handles (on some models) with a commercially available stainless steel cleaner such as **Stainless Steel Magic™** to preserve and protect the fine finish. **Stainless Steel Magic** is available through GE Parts and Accessories, 800.626.2002, or monogram.com. Order part number WX10X15. Do not use appliance wax or polish on the stainless steel.

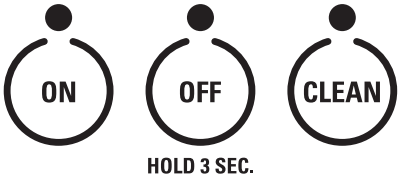
Icemaker System

Note: To remove stubborn buildup, pour a small amount of cleaning solution on a non-scratching, blue Scotch-Brite™ pad. Using ***only*** front-to-back motions, clean the top of the plate, the sidewalls, and the front edge of the evaporator. The front-to-back motion is important to avoid scratches that could keep the ice slab from sliding off the evaporator plate.

1. Press and hold the ***OFF*** button for 3 seconds.
2. Wait 5 to 10 minutes for the ice to fall into the storage bin. Remove all ice from the storage bin.
3. Unscrew the drain cap from the bottom of the water reservoir located inside the storage bin as shown. Allow the water to drain completely.



4. Replace the drain cap.
5. For best results, use the entire 16 oz. bottle of **nickel-safe ice machine cleaner**. Follow all safety precautions on the bottle. Pour one bottle of solution into the water reservoir. Fill the bottle twice with tap water and pour it into the water reservoir.
6. Press and hold the CLEAN button for 3 sec. The CLEAN light will begin to blink, indicating that the cleaning cycle is in process. The cleaning time is approximately 70 min.



7. When the indicator light becomes solid and remains lit, the cleaning cycle is complete. During the cleaning cycle, the system will both clean and rinse itself.
8. After the cleaning cycle is complete, remove the drain cap from the water reservoir to see if any cleaning solution, green in color, is left in the water reservoir. If cleaning solution drains from the water reservoir, you should run the clean cycle again adding only tap water to the reservoir. Be sure to replace the drain cap before running the cycle again. If the cap is not securely tightened, water can leak, causing thin ice or no ice.

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Note: Severe scale buildup may require repeated cleaning with a fresh quantity of cleaning solution.

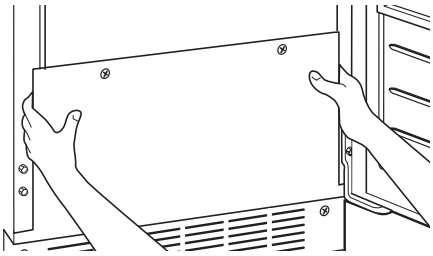
9. Press the *ON* button for 3 sec. to resume ice production.

Cleaning the Condenser

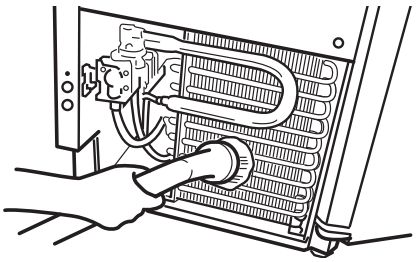
For best performance, brush or vacuum lint and dirt from the condenser at least once a year. A dirty or clogged condenser:

- Uses more energy.
- Prevents proper airflow.
- Reduces ice-making capacity.
- Causes higher-than-recommended operating temperatures, which may lead to component failure.

1. Unplug the icemaker or disconnect power.
2. Remove the 2 screws in the lower access panel and the 2 screws from the base grille area of the front panel support. Pull forward to remove the lower access panel.
3. Pull the bottom forward and then pull down to remove the lower access panel.



4. Remove dirt and lint from the condenser fins and the unit compartment with a brush attachment attached to a vacuum cleaner.



5. Replace the lower access panel using the 4 screws.
6. Plug in the icemaker or reconnect power.

Reverse-Osmosis System

IMPORTANT: The performance of the icemaker may be affected when connected to a reverse-osmosis system. An RO system may also reduce water pressure and affect the fill cycle, which is dependent on time and flow. The reduced water pressure may cause the reservoir not to fill and flush properly during the ice-making cycle. The pressure of the water supply coming out of a reverse-osmosis system going to the measured fill water inlet valve of the icemaker needs to be between 30 and 120 psi.

If a reverse-osmosis water filtration system is connected to your cold water supply, the water pressure to the reverse-osmosis system needs to be a minimum of 40 psi. The reverse-osmosis system must provide 1 gal. of water per hour to the icemaker for proper icemaker operation.

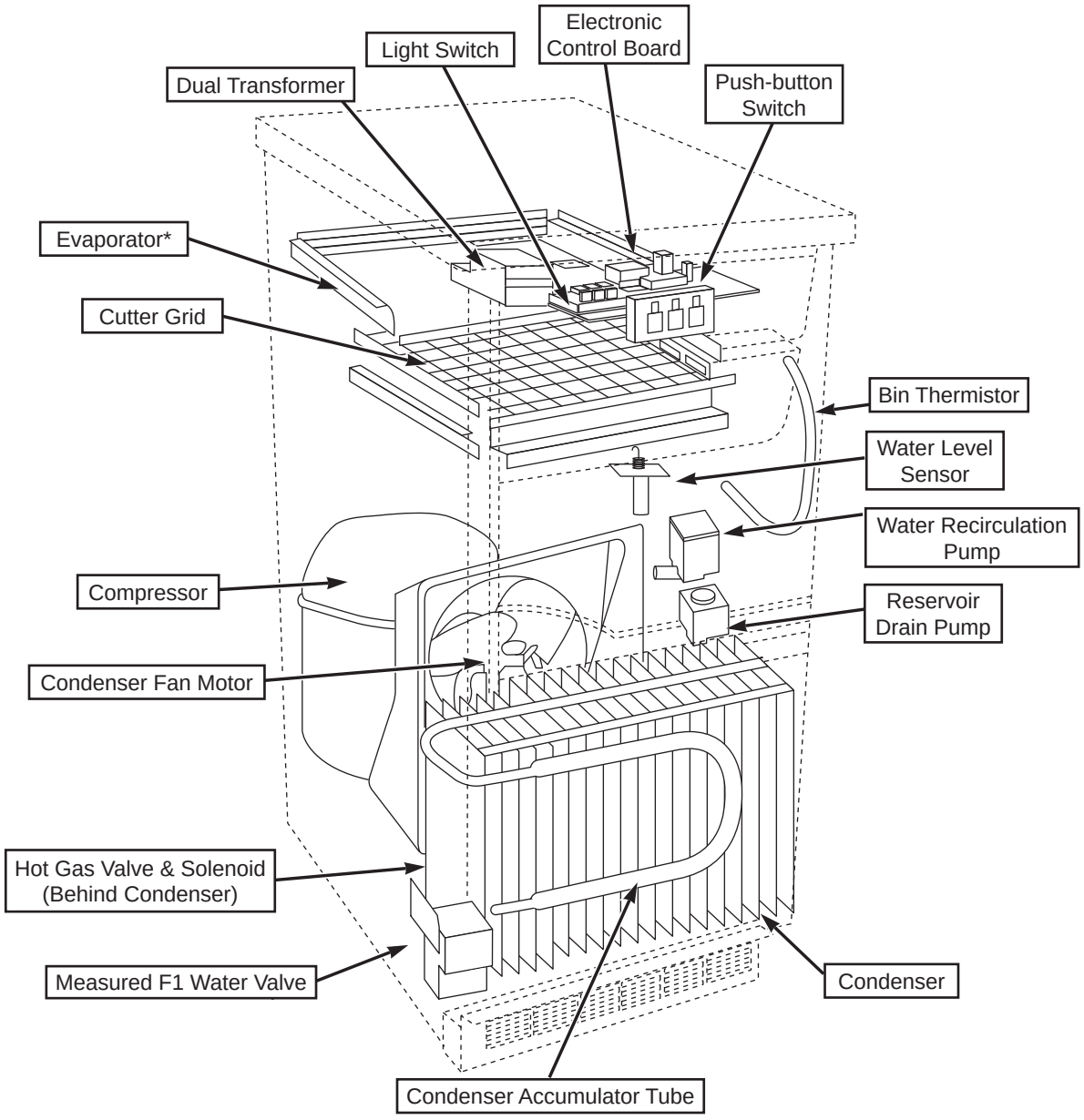
Note: Do not use copper tubing when the icemaker is connected to a reverse-osmosis water system.

Problem Solving Chart

PROBLEM	POSSIBLE CAUSE
CLEAN INDICATOR LIGHT ON CONTROL PANEL IS YELLOW	• It will soon be time to clean the icemaker. You will need WX08X42870 Nickel Safe Ice Machine Cleaner to clean the icemaker. See *Care and Cleaning–Care for your Icemaker*.
CLEAN INDICATOR LIGHT ON CONTROL PANEL IS RED	• It is time to clean the icemaker. See *Care and Cleaning–Icemaker System* section.
ICEMAKER DOES NOT OPERATE	• Power cord is not plugged into a live outlet. • The control is set at OFF. • The fuse is blown/circuit breaker is tripped. Replace fuse or reset the breaker. • ZPK1 Auxiliary Kit fault. • Drain line kinked or blocked.
ICE CUBES HAVE ODOR/TASTE	• High mineral content in the water supply. Water may need to be filtered or treated. • Food items stored in ice bin. Do not store any foods in the ice bin. • Packaging materials were not removed. Make sure that all packaging materials were removed at the time of installation. • Ice storage bin needs cleaning. • Scale has built up in the icemaker. If there is white scale buildup in the icemaker's water or freezing system, you should clean the icemaker. See *Care and Cleaning—Icemaker System*.
ICEMAKER IS ON, BUT DOESN'T PRODUCE ICE	• The control is set at OFF. • Water supply is turned off or not connected. • Condenser is dirty. Dirt or lint may be blocking the airflow through the condenser. See *Care and Cleaning—Condenser*. • Scale has built up in the icemaker. If there is white scale buildup in the icemaker's water or freezing system, you should clean the icemaker. See *Care and Cleaning—Icemaker System*. • Check for a kink in the drain hose from the ZPK1 Drain Pump Kit to the house drain. • Water supply has been interrupted. • Have a plumber check for a clogged water valve. • Room temperature is colder than normal. Room temperature must be above 55˚F (13˚C). Otherwise, bin thermostat may sense cold room temperature and shut off even though the bin is not full of ice. Also, unit may not restart once it does shut off.
ICEMAKER IS ON, BUT PRODUCES LITTLE OR NO ICE	• Condenser is dirty. Dirt or lint may be blocking the airflow through the condenser. See *Care and Cleaning—Condenser*. • Scale has built up in the icemaker. If there is white scale buildup in the icemaker's water or freezing system, you should clean the icemaker. See *Care and Cleaning—Icemaker System*. • Water is leaking from the water reservoir because the drain cap is not secure. Make sure the drain cap is securely tightened. Refer to illustration in *Care and Cleaning—Icemaker System* section. • Room temperature is too hot. Room temperatures of more than 90˚F (32˚C) will reduce ice production.
ICEMAKER PUMPS CONTINUOUSLY, BUT PRODUCES NO ICE	• The ice sheet is trapped on the cutter grid. Shut off the icemaker for at least one hour to allow the ice sheet to melt. Turn the icemaker back on. The icemaker will reset itself and start a new cycle after flushing water through the system. **NOTE:** Follow the directions in the *Care and Cleaning—Icemaker System* section to clean with the Nickel Safe Ice Machine Cleaner.
ICE IS THIN, SOFT OR CLUMPED	• High mineral content in the water supply. Water may need to be filtered or treated. • Scale has built up in the icemaker. Clean your icemaker. See *Care and Cleaning—Icemaker System* section. • The ice bin is not refrigerated, so ice not regularly used will melt and form clumps. Break the clumps with the ice scoop provided.
ICEMAKER SOUNDS	• After an ice-making cycle, you may hear ice cubes dropping into the storage bin. • Water is circulated by a pump through the icemaker during the entire ice-making cycle. Water is added once per ice-making cycle. • The compressor may cause a clicking or chirping sound when attempting to restart. • The flow of refrigerant through the refrigerating system may make a gurgling sound like boiling water. • A "whooshing" sound may indicate the water supply is not connected properly, the water supply is turned off or the drain cap is loose.

(Continued next page)

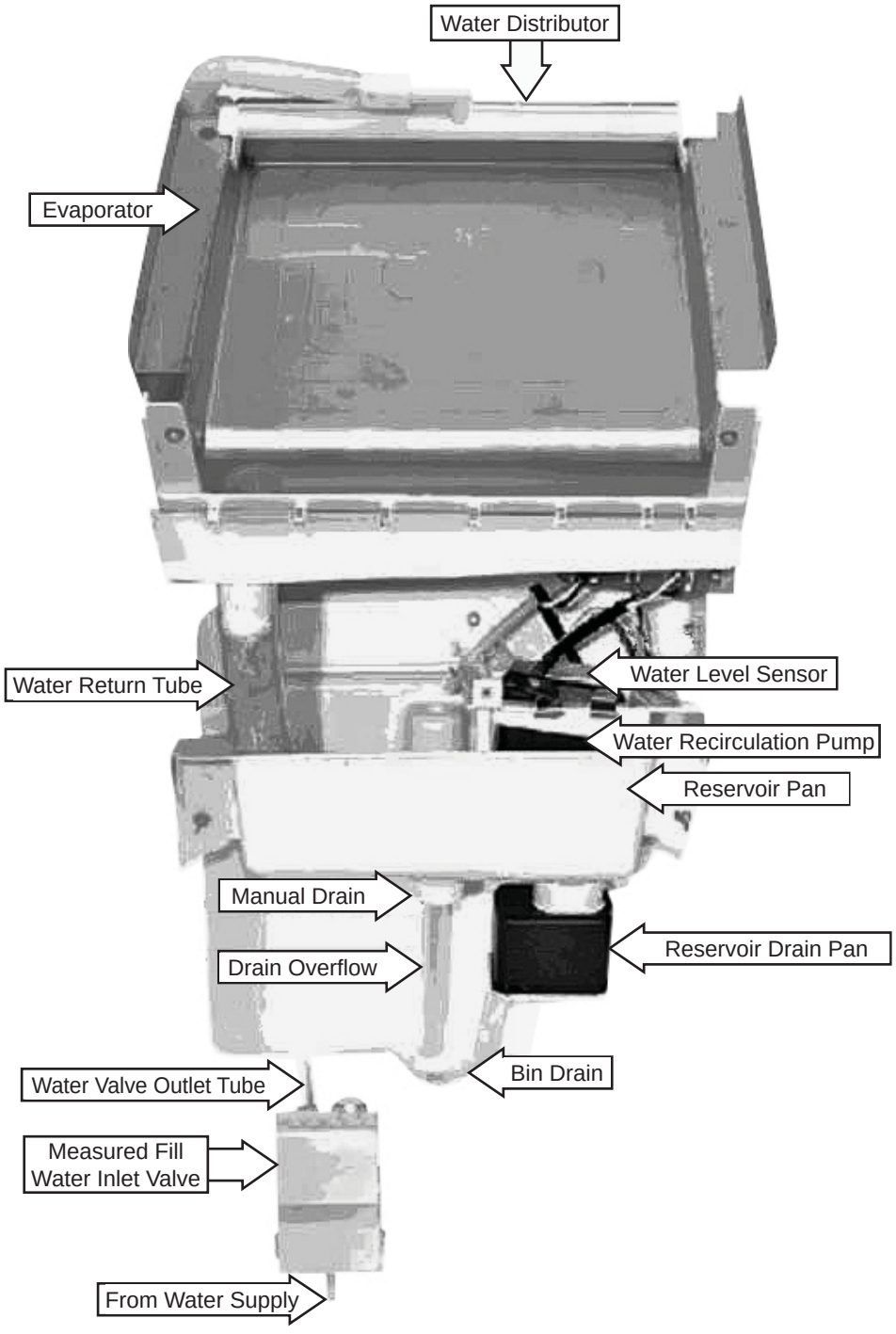
Component Locator



* The evaporator thermistor is located on tubing below the evaporator.

(Continued next page)

Water System Component Locations



Door and Gasket

Note: If unit has a handle attached to the top of the door it must be removed to access the hinge screw.

To remove the door, remove the large screw from the top of the icemaker door, pull the door open, and lift the door off the bottom hinge.

Note: Be sure to check the new gasket for a proper seal after it is installed.

To remove the door gasket, open the icemaker door and pull the gasket out of the door track.

Bin Light Bulb

Remove two 1/4-in. hex-head screws from the bottom of the cutter grid cover and pull the cover from the ice machine.

Reach in and above the cutter grid to the depression in the bottom of the control assembly. Grasp the bulb and pull straight down.

The bulb is a #917 auto type (12V) and can be purchased locally.

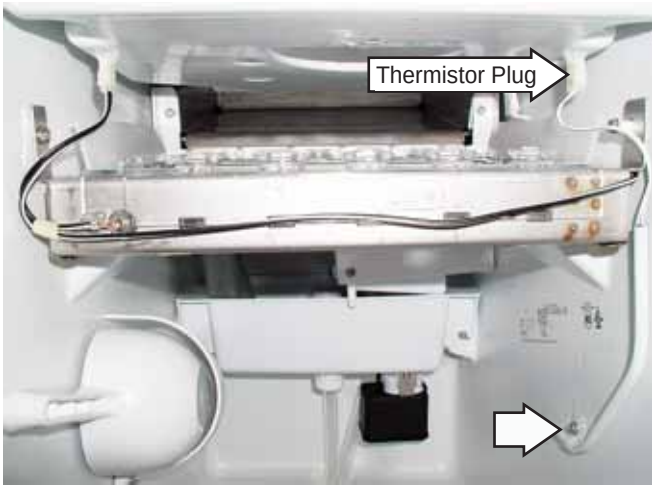
Bin Thermistor

To remove the bin thermistor:

Remove two 1/4-in. hex-head screws from the bottom of the cutter grid cover and pull the cover from the ice machine.

Disconnect the thermistor plug from the bottom of the control panel.

Remove the hex-head screw and clamp securing the thermistor to the side wall and remove thermistor.



The bin thermistor should read 12.49 KΩ at room temperature.

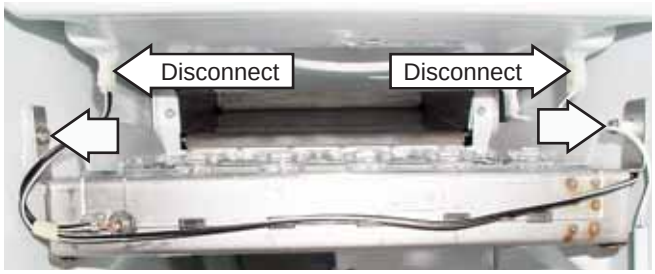
°F	°C	Thermistor Resistance
0	-18	81,715 - 99,874 Ω
10	-12	59,422 - 72,627 Ω
32	0	30,266 - 36,992 Ω
50	10	18,219 - 22,267 Ω
70	21	10,280 - 12,564 Ω
90	32	6,387 - 7,807 Ω

Cutter Grid

To remove the cutter grid:

1. Remove two 1/4-in. hex-head screws from the bottom of the cutter grid cover and pull the cover from the ice machine.

2. Disconnect the cutter grid and bin thermistor connectors from the bottom of the control housing.
3. Remove the 2 hex-head screws from both sides of the cutter grid, (Note that the longer screw and white spacer are on the right side.)

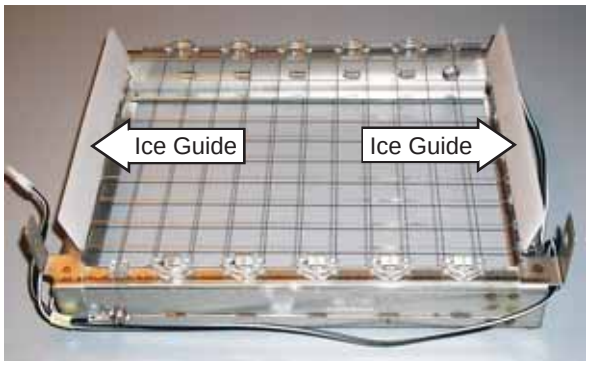


Note: Take care not to scratch the icemaker liner.

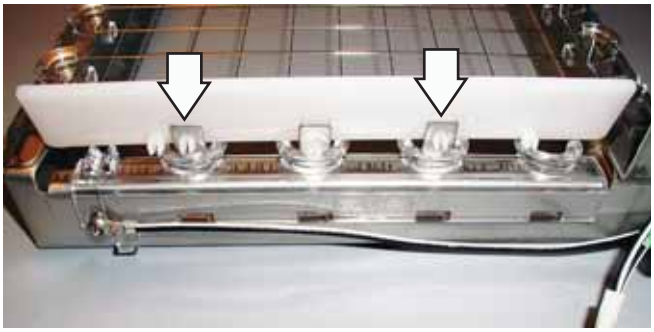
4. Slide the cutter grid forward and out of the unit and place it on a protected work surface.
5. Remove the spacer from the right cutter grid bracket tab.

(Continued next page)

6. Unsnap the 2 ice guides, if necessary, from the cutter grid tabs. (There should be a slight outward tilt after the guides are installed.)

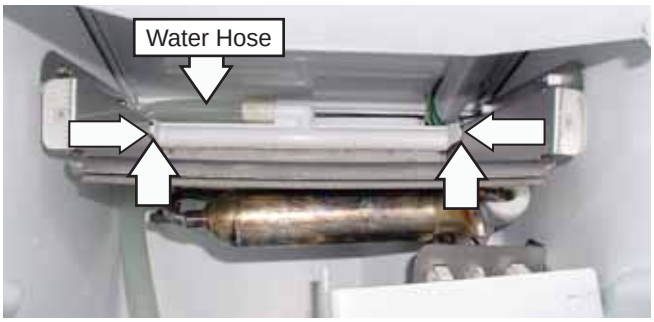


7. Bend the metal tabs outward, if necessary.



Water Distributor

1. Remove the cutter grid from the unit. See (*Cutter Grid*.)
2. Pull out on the left and right water distributor retainers, and remove the tabs from the slots in the evaporator.
3. Pull the distributor forward and remove the water hose.



Evaporator Thermistor

To remove the evaporator thermistor:

1. Remove the cutter grid. (See *Cutter Grid*.)
2. Disconnect the evaporator thermistor from the bottom of the control housing.
3. Remove the 2 hex-head screws from the water trough and pull the trough from the unit.

4. Reach behind the accumulator, and unclip the evaporator thermistor.
5. When installing, snap the thermistor onto the evaporator tubing behind the accumulator.

Electronic Control Housing Components

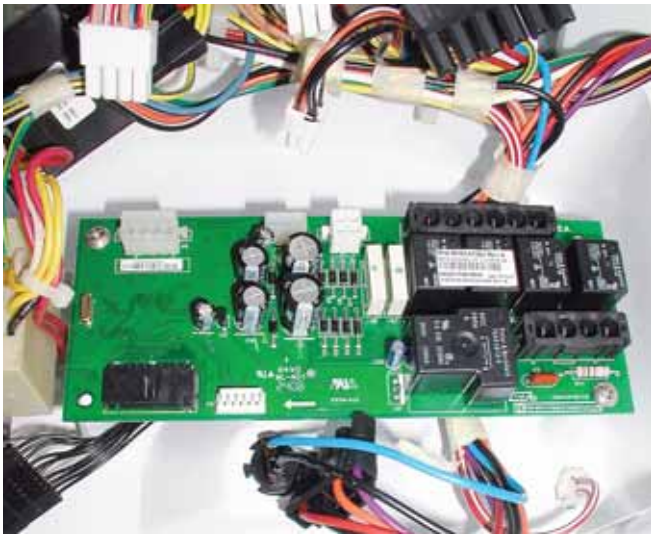
Note: The control housing components consist of:

- Electronic control board
- Dual transformer
- Light switch
- Push-button switch assembly

1. Remove the cutter grid cover and the cutter grid. (See ***Cutter Grid***.)
2. Disconnect the 2 thermistor connectors. (See ***Bin Thermistor*** and ***Evaporator Thermistor***.)
3. Remove the 4 hex-head screws from the control housing and lower the housing to access the components.

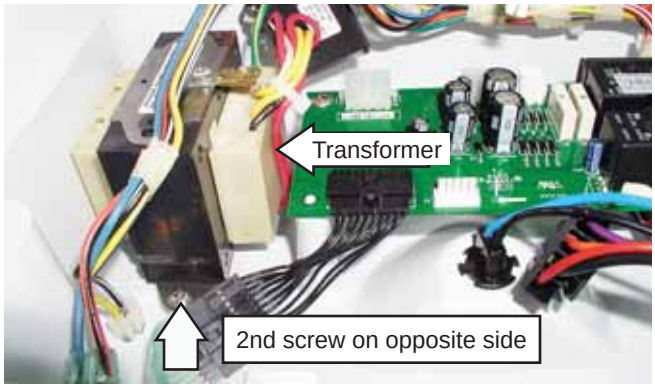
To Remove the Electronic Control Board

1. Disconnect the 6 harness connectors from the board terminals.
2. Remove the 2 mounting screws and remove the electronic control board.



To Remove the Dual Transformer

1. Disconnect the 6-pin wire connector from the harness.
2. Remove the 2 mounting screws from the transformer bracket.
3. Disconnect the green ground wire from its terminal.



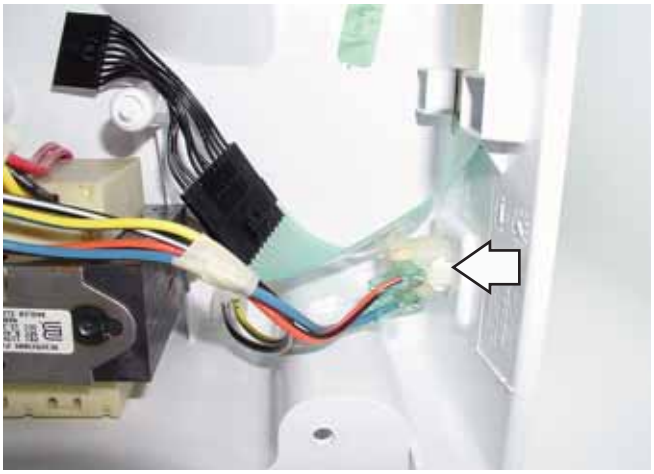
To Remove the Light Switch/Push-Button Assembly

Note: If the switch assembly or light switch is replaced, the replacement part and decorative overlay must be ordered using the model number of the icemaker. The service replacement switch is not supplied with a decorative overlay

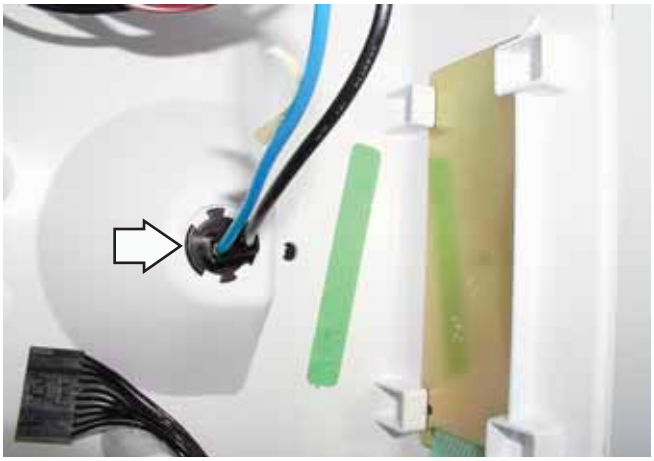
1. Peel off the decorative overlay from the front of the control housing.

(Continued next page)

2. Disconnect the Molex plug from switch assembly.



3. Press the back of switch assembly and push the switch assembly out of the housing.



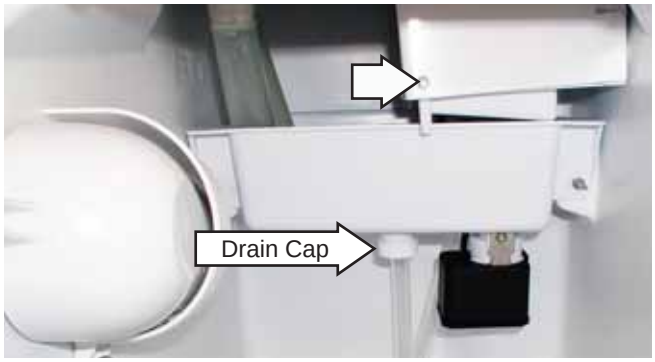
Water Recirculation Pump

Remove the ice from the storage bin prior to removing the recirculation pump.

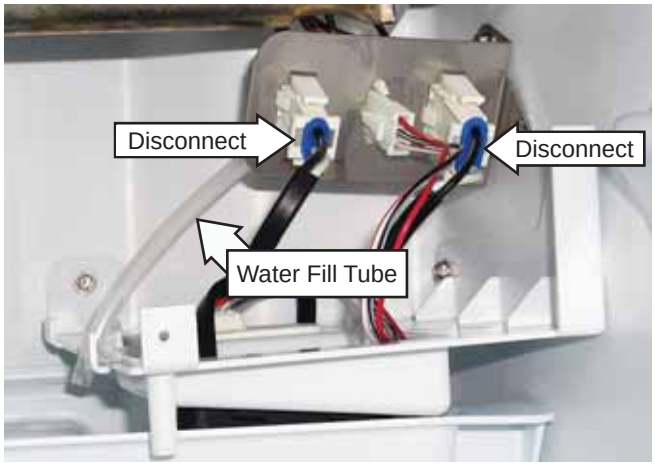
Note: Pump operates on 12 VAC and has a resistance of 3.8Ω.

To remove the water recirculation pump:

1. Unscrew the drain cap from the reservoir, drain the water, and replace the cap tightly.
2. Remove the hex-head screw from the water recirculation pump shield and remove the shield.



3. Disconnect the water fill tube from the pump mounting bracket.
4. Disconnect the wire recirculation and drain pump connectors from the harness block.



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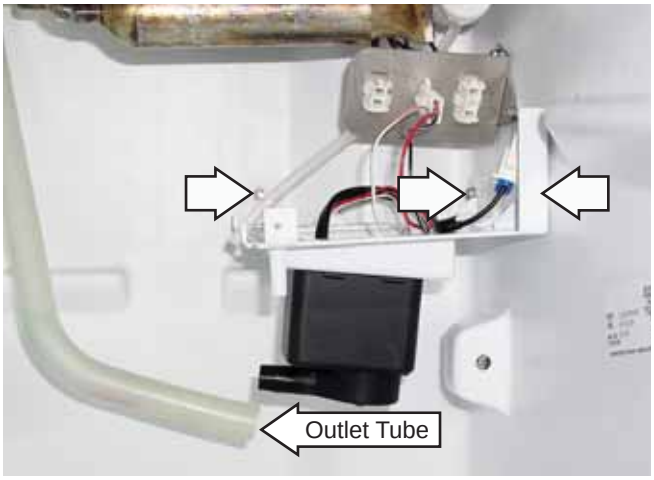
5. Remove the 2 thumbscrews from the reservoir and remove the reservoir from the icemaker.

6. Remove the recirculation pump outlet tube.
7. Remove 3 hex-head screws from the pump mounting bracket and remove the pump/water level sensor assembly.

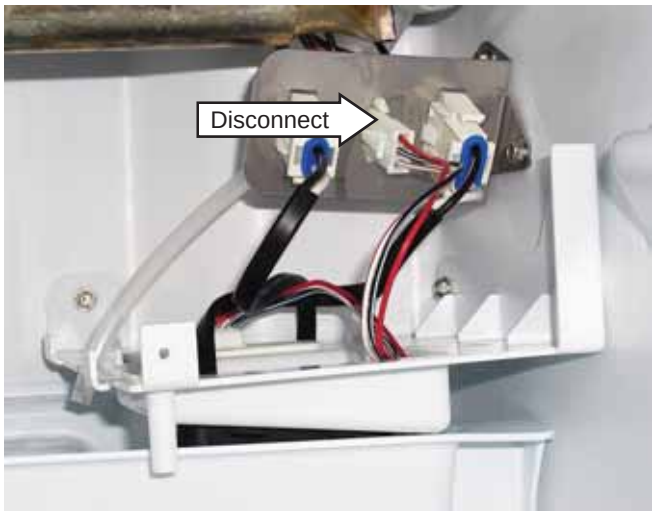


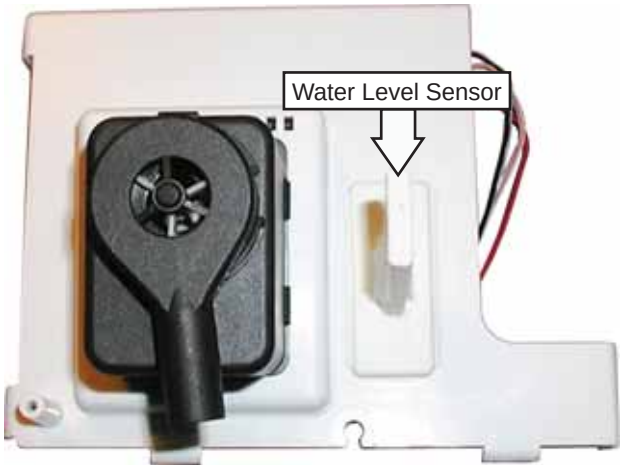
Water Level Sensor

Remove the ice from the storage bin prior to removing the recirculation pump.

To remove the water level sensor:

1. Remove the hex-head screw from the water recirculation pump shield and remove the shield. (See ***Water Recirculation Pump***.)
2. Disconnect the water level sensor electrical connection.
3. Remove the retaining clips, if present.
4. Pull the sensor up and out of the bracket.





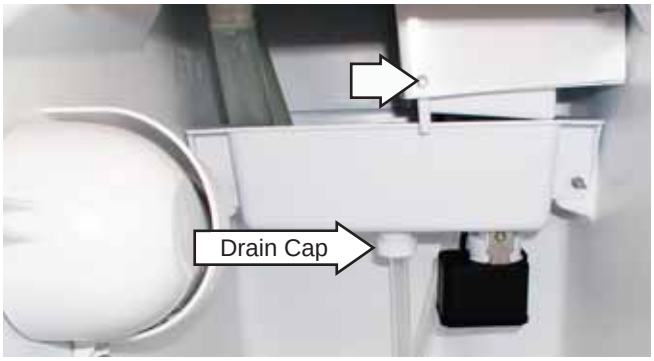
Reservoir Drain Pump

Remove the ice from the storage bin prior to removing the recirculation pump.

Note: Pump operates on 12VAC and has a resistance of 3.8Ω.

To remove the reservoir drain pump:

1. Unscrew the drain cap from the reservoir, drain the water, and replace the cap tightly.
2. Remove the recirculating pump cover hex-head screw.



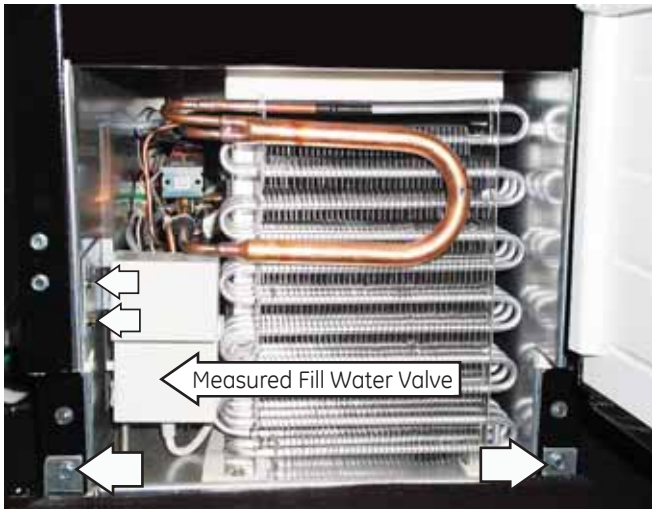
3. Disconnect the reservoir drain pump electrical connection.
4. Remove the pump-retaining Phillips-head screw and bracket.
5. Rotate the pump 1/4 turn and pull it down and out of the reservoir.

Condenser Fan Motor

To remove the condenser fan motor:

1. Disconnect the water and drain lines from the icemaker and remove the unit from its installation.
2. Remove the 4 hex-head screws from the front panel and remove the panel.

3. Remove the two 5/16-in. screws from the front of the cabinet.
4. Remove 2 hex-head screws from the measured fill water valve bracket.
5. Allow the valve to drop down out of the way.



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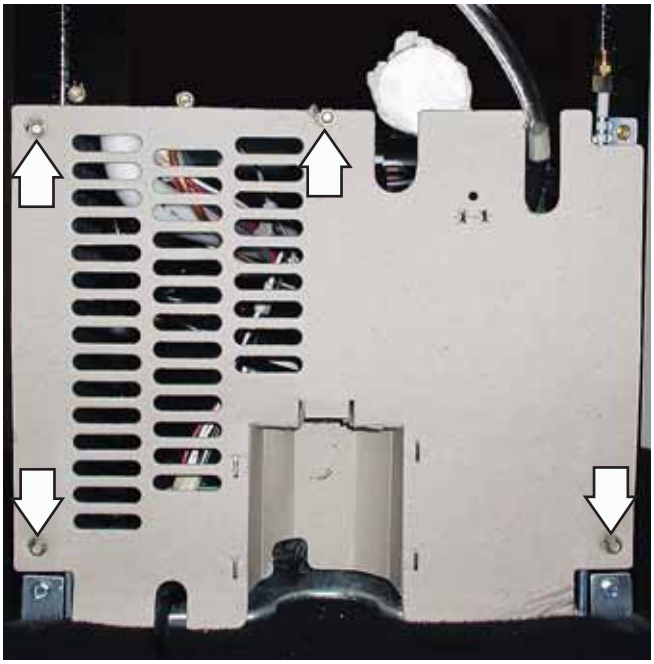
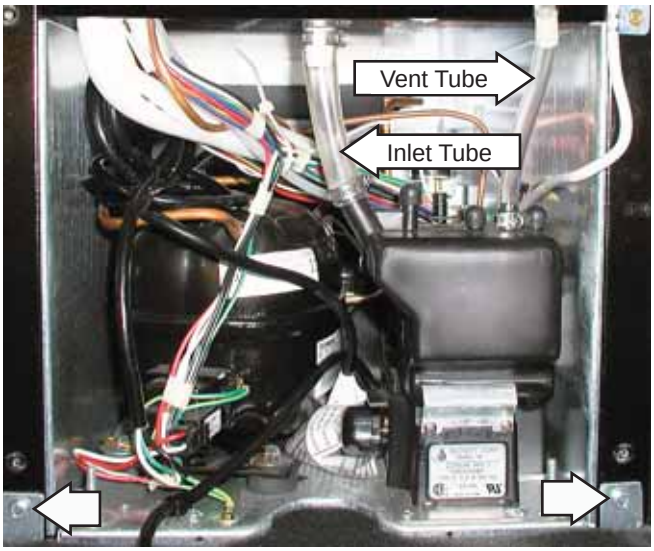
6. From the back of the unit, remove the 4 hex-head screws from the unit compartment cover and remove the cover.



7. Remove the two 5/16" screws from the rear of the cabinet.

Note: If the unit you are servicing is not equipped with an internal drain pump, skip the next step.

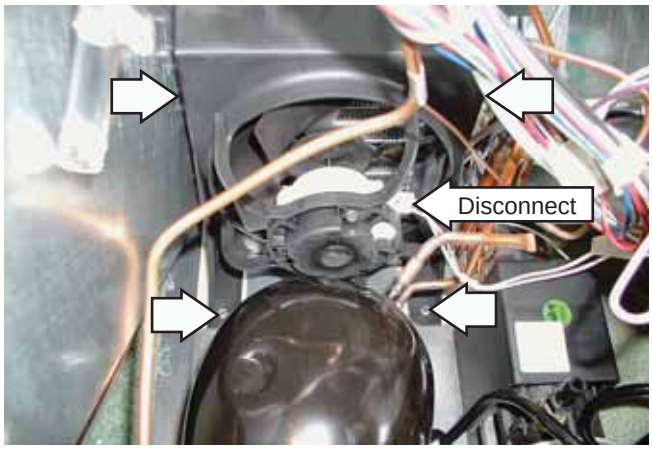
8. Disconnect the inlet tube and the vent tube from the internal drain pump.



9. Tilt the front of the cabinet back until you can access the 2 side screws on the condenser fan motor shroud, and secure the cabinet so that it cannot tip forward or backward.

10. Disconnect the wire connector from the condenser fan motor.

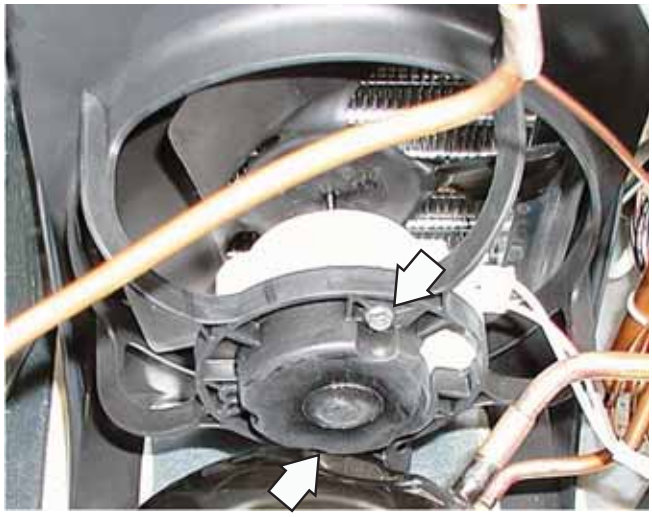
11. Remove the 4 screws (2 bottom and 2 side) from the condenser fan motor shroud. Slide the shroud assembly back towards the compressor, and then lift and remove the assembly from the unit.



12. Remove condenser fan motor blade by pulling the fan blade straight off the shaft.

Note: Make sure when reinstalling the fan blade that the blade is seated completely on the motor shaft.

13. Remove the 2 hex-head screws from the condenser fan motor and remove the motor from the shroud.

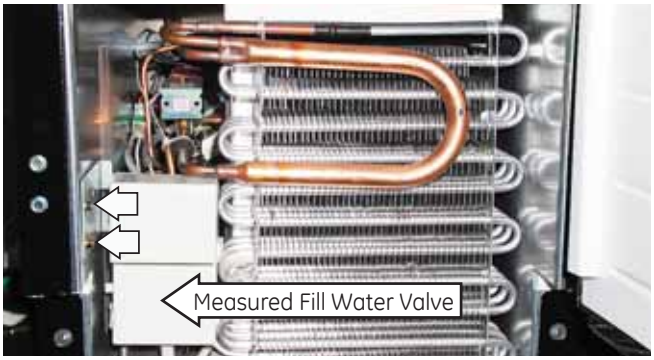


Measured Fill Water Valve

To remove the measured fill water valve:

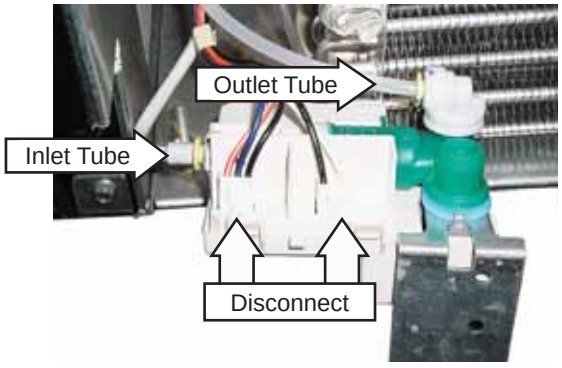
1. Turn the water supply off to the icemaker.
2. Remove the 4 hex-head screws from the front panel and remove the panel.

3. Remove the 2 hex-head screws from the measured fill water valve bracket.



Note: Place a pan or towel under the valve to catch the water.

3. Disconnect the water inlet and outlets tubing from the quick-disconnect fittings on the measured fill water valve.
4. Disconnect the 2 electrical connectors from the valve.

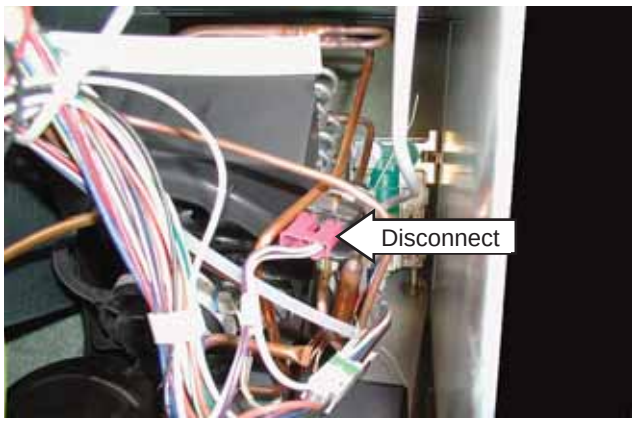


Hot Gas Solenoid

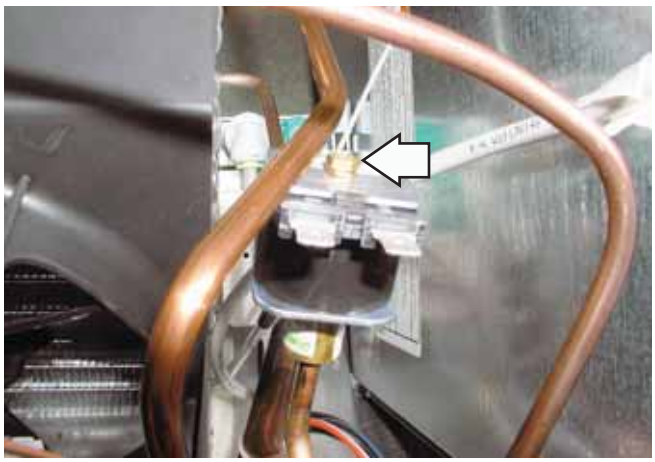
To remove the hot gas solenoid:

1. Tip the cabinet back and securely prop it up to access the hot gas valve solenoid.

2. Disconnect the 2-wire connector from the solenoid terminals.



3. Remove the 7-mm hex-head screw from the solenoid and lift the solenoid off the hot gas valve.

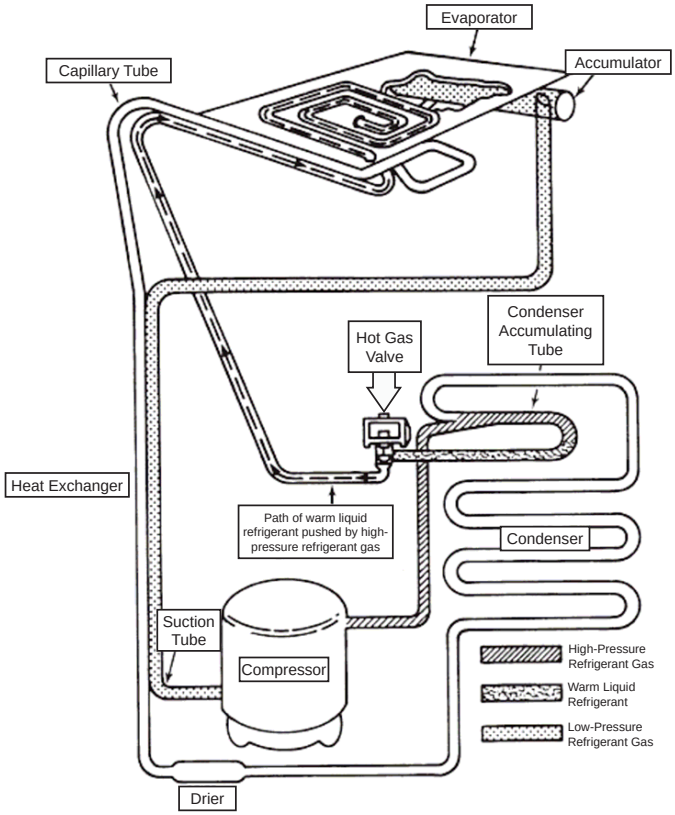


Hot Gas Valve

To remove the hot gas valve:

1. Remove the solenoid from the hot gas valve. (See *Hot Gas Solenoid*.)
2. Access the sealed system and discharge the refrigerant into an approved recovery system.
3. Unbraze the hot gas valve from the tubing.

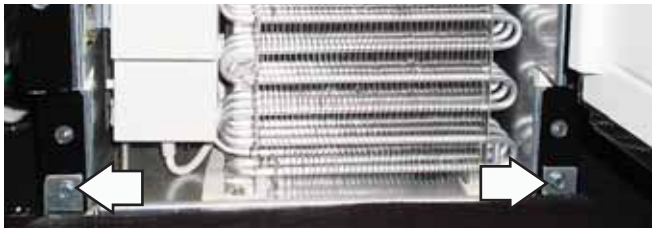
Caution: When installing the new hot gas valve, use a generous amount of thermal heat trap paste between the valve and tubing joints to protect the valve when brazing.



Compressor

To remove the compressor:

1. Unplug icemaker or disconnect power.
2. Open the icemaker door.
3. Remove the ice from the storage bin.
4. Disconnect the water and drain lines from the icemaker and remove the unit from its installation.
5. At the front and rear of the unit, remove the 4 hex-head screws from the unit outer compartment cover and remove the cover.



6. To remove the terminal cover, use a flat blade screwdriver. Insert the screwdriver under the clip to unsnap and remove it.

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7. Remove the wires from the ground terminal, the overload protector terminal, and the relay terminal.
8. Pull the overload protector and relay from the compressor pins.

9. Pull the 2 clips off the rear studs of the compressor.
10. Tip the front of the cabinet back and prop it up.
11. Access the sealed system and discharge the refrigerant into an approved recovery system.
12. Cut the suction and discharge lines from the compressor.

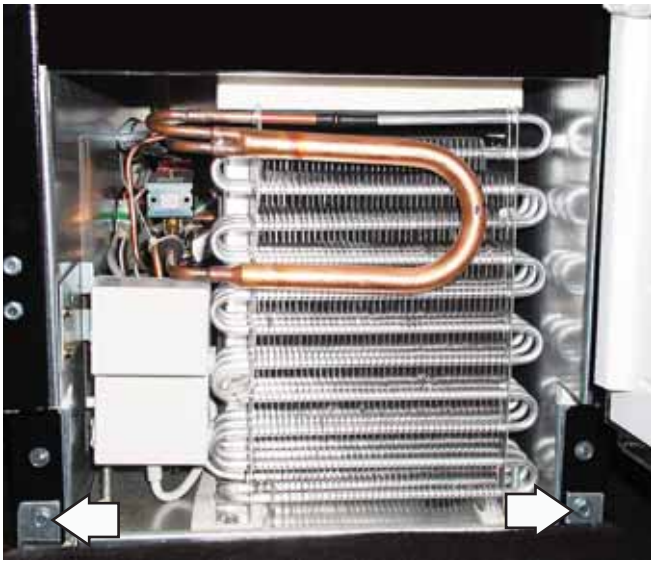
Caution: Do not use a torch to remove the drier filter.

13. Cut the drier filter from the system.
14. Unbraze the compressor suction and discharge joints from the tubing.
15. Pull the clips off the compressor mounting studs.
16. Lift the compressor off the 4 mounting studs and remove it from the unit.
17. Remove the 4 metal spacers and rubber isolators from the compressor stud locations.

Condenser

To remove the condenser:

1. Unplug ice maker or disconnect power.
2. Tip the front of the cabinet back and prop it up.
3. Remove the 4 condenser fan motor screws from the fan motor shroud. Pull the motor assembly back away from the condenser as far as possible, but do not remove it.
4. Remove the 2 mounting screws from the condenser bracket flanges.



5. Access the sealed system and discharge the refrigerant into an approved recovery system.
6. Unbraze the 2 condenser joints from the tubing.

Evaporator

To remove the condenser:

1. Unplug the ice maker or disconnect the power.

Note: If unit has handle attached to top of door it must be removed to access hinge screw.

2. Remove the top door screw from the icemaker door, and pull the door off the bottom hinge.
3. Remove the ice from the storage bin.
4. Remove the cutter grid and the evaporator thermistor from the unit. (See ***Cutter Grid*** and ***Evaporator Thermistor***.)
5. Disconnect the bin thermistor connector from the bottom of the control housing.
6. Remove the two 5/16-in. hex-head screws from the top hinge and remove the hinge.

7. Remove the 2 front and 2 rear screws from the cabinet top.

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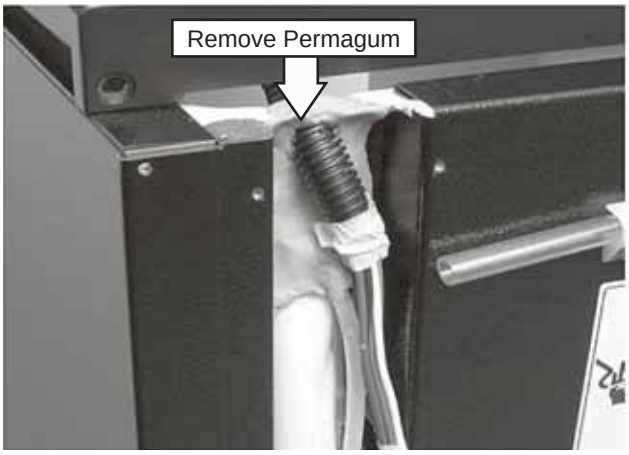
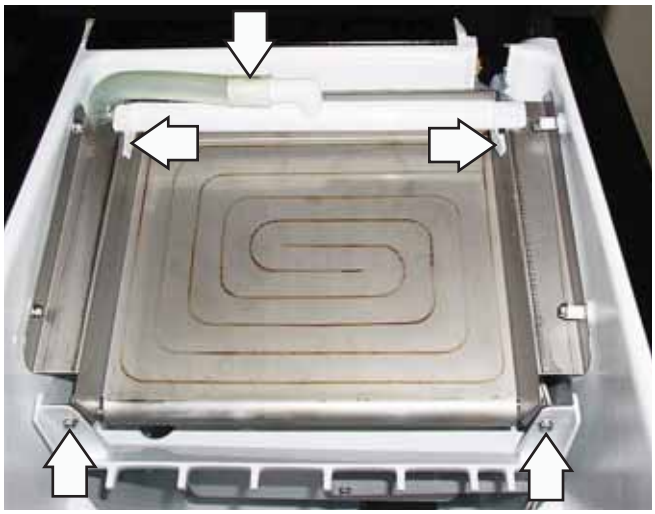
8. Lift the cabinet top and position it forward on top of the unit, and then remove the permagum from around the electrical throughput.



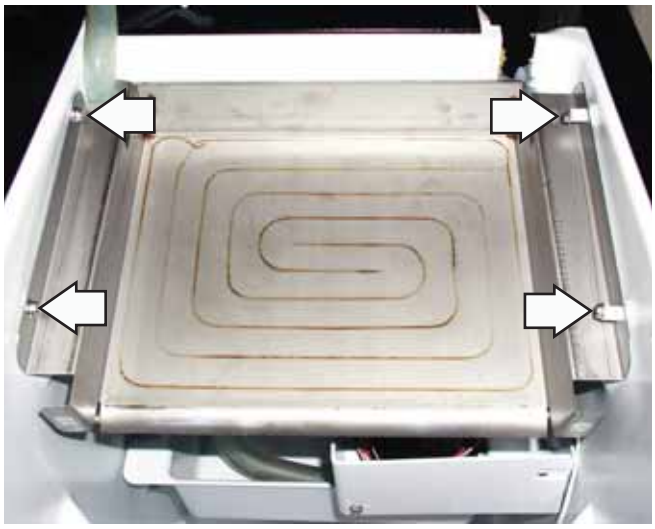
Note: In the photo above, the rear channel cover has been removed for clarity.

9. From the rear of the unit, remove the 6 hex-head screws from the channel cover and remove the cover.
10. Remove the 4 hex-head screws from the unit compartment cover and remove that cover.

11. Lift the cabinet top off the unit and stand it on the floor near the rear of the unit.
12. Remove the hex-head screw from the water recirculation pump shield and remove the shield.
13. Pull out on the left and right water distributor retainers and remove the tabs from the slots in the evaporator.
14. Disconnect the hose from the water distributor and remove the water distributor.



14. Remove the 4 Phillips-head screws from the evaporator, and then carefully lift the evaporator just high enough to remove the 2 right spacers.



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15. Lift the evaporator and its connecting tubing high enough from the unit to access the tubing underneath.

16. Access the sealed system and discharge the refrigerant into an approved recovery system.
17. Unbraze (or cut) the evaporator from the tubing at the following locations:
    - Suction line at the compressor
    - Hot gas line at the hot gas valve
    - Cut the capillary tube at the drier filter

Component Testing

Before testing any of the components, perform the following checks:

- Control failure can be the result of corrosion on connectors. Therefore, disconnecting and reconnecting wires will be necessary throughout test procedures.
- All tests/checks should be made with a VOM or DVM having a sensitivity of 20,000 Ω per volt DC, or greater.
- Check all connections before replacing components. Look for broken or loose wires, failed terminals, or wires not pressed into connectors far enough.
- Resistance checks must be made with power cord unplugged from outlet, and with wiring harness or connectors disconnected.

Bin and Evaporator Thermistors

Note: For the most accurate measurement, immerse the thermistor in ice water for 5 minutes and then use the 32°F/0°C reading in the chart below.

°F	°C	Thermistor Resistance
0	-18	81,715 - 99,874 Ω
10	-12	59,422 - 72,627 Ω
32	0	30,266 - 36,992 Ω
50	10	18,219 - 22,267 Ω
70	21	10,280 - 12,564 Ω
90	32	6,387 - 7,807 Ω

Cutter Grid

Leads are 4 Ω to 5 Ω at 8.4 VAC

Dual Transformer

- Primary black and white leads are 3.5 Ω to 4.5 Ω at 120 VAC.
- Secondary yellow and yellow leads are 0.11 Ω to 0.14 Ω at 8.4 VAC.
- Secondary red and red leads are 0.14 Ω to 0.18 Ω at 12 VAC.

Water Recirculation Pump and Reservoir Drain Pump

Leads are 3.6 Ω at 12 VAC.

Condenser Fan Motor

Run the service mode. Check for the proper operation of the condenser fan motor, 185 Ω at 120 VAC.

Water Level Sensor

Run the service mode. Check for the proper operation of the water level sensor. The Service LED should stay on solid when the water level sensor is immersed in water. When the water level sensor is out of the water, the Service LED should blink.

Hot Gas Valve Solenoid

Leads are 365 Ω to 390 Ω at 120 VAC.

Measured Fill Water Valve

Run the service mode. The connector with black and white wires should read 120 VAC. The orange/white wire to the black/red wire should read 14 VDC.

Compressor, Overload Protector, and Relay

To test the compressor windings:

- Common (C) pin to the Start (S) pin should read 8 to 11 Ω.
- Common (C) pin to the Run (M) pin should read 2 to 3 Ω.

To test the relay:

1. Position the relay with the coil facing down.
2. Insert the tip on one of the ohmmeter test leads into the Run (M) pin socket, and touch the other ohmmeter lead to the spade terminal. The meter should indicate a closed circuit (0 Ω).
3. Move the tip of the ohmmeter test lead from the spade terminal into the Start (S) pin socket. Leave the other ohmmeter lead at the Run (M) location. The meter should indicate an open circuit (infinite).
4. Turn the relay over so that the coil faces up.
5. With the tip of the ohmmeter test leads at the Start (S) and Run (M) pin sockets, the meter should indicate a closed circuit (0 Ω).

(Continued next page)

BOARD CONNECTOR	WIRE COLORS	COMPONENT	OHMs	VOLTAGE	TO	WIRE COLORS
P1-1	Vl	Hot Gas Coil	385	120 v ac	White on trans	
P1-2	Or	Condenser Fan Motor	185	120 v ac	White on trans	
P1-3	2 Bk	Line in & line to transformer	3.5 to 4.5	120 v ac	White on trans	
P1-4	Rd	Compressor		120 v ac	White on trans	
P3-1	Yl/Bk	Grid & Transformer	20	8.4 v ac	**P6-3**	Bk/Wh
P3-1	Lt Bl	Bin Light		8.4 v ac	**P6-1**	Bk
P3-2	Yl	Transformer	.11 to .14	8.4 v ac	**P3-1**	Yl/Bk
P3-3	Rd/Bk	Recirculate Pump	3.6	12 v ac	**P3-6**	Bl
P3-3	Rd/Bk	Reservoir Drain Pump	3.6	12 v ac	**P3-4**	Bl/Yl
P3-3	Rd/Bk	Rd/Bk to Rd on Trans	.14 to .18	12 v ac	**P3-5**	Gray
P3-4	DkBl/Yl	Resevoir Drain Pump	3.6	12 v ac	**P3-3**	Rd/Bk
P3-5	Gy	Rd on Trans	.14 to .18	12 v ac	**P3-3**	Rd/Bk
P3-6	Bl	Recirculate Pump	3.6	12 v ac	**P3-3**	Rd/Bk
P5-1	Rd/Yl	Water Level Sensor	See Page 40			
P5-2	Tn/Rd	Evaporator Thermister	See Page 32		**P5-4**	Tn/Rd
P5-3	Rd/Wh	Bin Thermister	See Page 32		**P5-7**	Rd/Wh
P5-4	Tn/Rd	Evaporator Thermister	See Page 32		**P6-2**	Or/Bk
P5-5	Bk/Yl	Water Level Sensor	See Page 40			
P5-6	Bl/Bk	Light Switch			**P6-2**	Or/Bk
P5-7	Rd/Wh	Bin Thermister	See Page 32		**P5-3**	Rd/Wh
P5-8	Wh/Br	Water Level Sensor	See Page 40			
P6-1	Bk	Light	Door Open	8.4 v ac	**P3-1**	Lt Bl
P6-2	Or/Bk	Light Switch			**P5-6**	Bk/Bl
P6-3	Bk/Wh	Grid	20		**P3-1**	Yl/Bk
P6-4	BLANK					
P7-	Or/Wh	Measured Fill Water valve		14 v dc	**P7**	Bk/Rd
P7-	Bl/Bk	Measured Fill Water valve			Communication	
P7-	Bk/Rd	Measured Fill Water valve		14 v dc	**P7**	Or/Wh

Brown	BR	White	Wh	Black	Bk	Blue	Bl
Light Blue	Lt Bl	Orange	Or	Yellow	Yl	Grey	Gy
Red	Rd	Tan	Tn	Violet	Vl	Dark Blue	Dk Bl

(Continued next page)

Component Connectors

COMPONENT	CONNECTOR BOARD	WIRE COLORS	TO	WIRE COLORS	OHMs	VOLT AGE
Bin Light	**P3-1**	Lt Bl	**P6-1**	Bk		8.4 v ac
Bin Thermistor	**P5-3**	Rd/Wh	**P5-7**	Rd/Wh	See Page 32	
Compressor	**P1-4**	Rd	White wire on trans			120 v ac
Condenser Fan Motor	**P1-2**	Or	White wire on trans		185	120 v ac
Evaporator Thermistor	**P5-2**	Tn/Rd	**P5-4**	Tn/Rd	See Page 32	
Grid	**P6-3**	Bl/Wh	**P3-1**	Yl/Bk	20	8.4 v ac
Hot Gas Coil	**P1-1**	Vl	White wire on trans		385	120 v ac
Light	**P6-1**	Bk	**P3-1**	Lt BL	Door Open	8.4 v ac
Light Switch	**P5-6**	Bl/Bk	**P6-2**	Or/Bk	Closed/Door Open	
Line in & line to trans	**P1-3**	2 Bk	White wire on trans		3.5 to 4.5	120 v ac
Measured Fill Water valve	**P7-**	Or/Wh	**P7**	Bk/Rd		14 v dc
Measured Fill Water valve	**P7-**	DkBl/Bk	Communication			
Recirculate Pump	**P3-3**	Rd/Bk	**P3-6**	Bl	3.6	12 v ac
Reservoir Drain Pump	**P3-3**	Rd/Bk	**P3-4**	Bl/Yl	3.6	12 v ac
Transformer/Board Conn.	**P3-5**	Gy	**P3-3**	Rd/Bk	.14 to .18	12 v ac
Transformer/Board Conn.	**P3-2**	Yl	**P3-1**	Yl/Bk	.11 to .14	8.4 v ac
Transformer	**Black/White Wires**					120 v ac
Transformer	**Red Wires**					12 v ac
Transformer	**Yellow Wires**					8.4 v ac
Water Level Sensor	**P5-1**	Rd/Yl			See Page 40	
Water Level Sensor	**P5-5**	Bk/Yl			See Page 40	
Water Level Sensor	**P5-8**	Wh/Br			See Page 40	

Brown	BR	White	Wh	Black	Bk	Blue	Bl
Light Blue	Lt Bl	Orange	Or	Yellow	Yl	Grey	Gy
Red	Rd	Tan	Tn	Violet	Vl	Dark Blue	Dk Bl

Flush Mode: (Start-up Cycle) (6 minutes maximum)

The Flush Mode begins:

- Every time the user plugs the icemaker in.
- The interface is changed from **OFF** to **ON**.
- When the icemaker is turned on after the completion of the **CLEAN** cycle, or
- On auxiliary drain pump models only, power cycled off due to water touching the overfill contact. This is often due to slow or blocked drain, or a blocked vent hose.

When the power is applied or the icemaker is turned **ON** at the user interface:

- Water valve fills 45 oz. Maximum fill time is 2 minutes.
- Recirculation pump runs for 1 minute.
- Reservoir drain pump is on for 20 sec., off for 20 sec., then on for 20 sec.
- Water valve fills to the selected volume. Maximum fill time is 2 minutes.
- Enter freeze mode

Freeze Mode: (Ice-Making)

Note: If the water level drops below the sensor before 5 minutes, the control counts a Hung Slab. If the water level sensor is not detected, the control sets a 25-minute freeze time.

Time in this mode is dependent on the water level in the reservoir. There is no minimum time. The maximum time is 25 minutes. Compressor, condenser fan, and recirculation pump are all energized.

Water continues to recirculate until the water level in the reservoir drops below a level determined by the water level sensor. At this point, the control terminates the freeze mode and initiates the Harvest Mode.

Harvest Mode

The time in this mode will be 2 to 17 minutes, dependent on the condition of the evaporator thermistor.

The compressor and hot gas valve is on for a minimum of 1 minute.

Note: There is a 4-min. fixed cycle time if the evaporator thermistor is disconnected or open.

Harvest Mode: Bin Not Full

When the bin thermistor reads greater than 36°F:

- Reservoir drain pump is on for 20 sec., off 20 sec., then back on for 20 sec.
- Measured water fill is requested. Compressor and hot gas valve are on until: evaporator thermistor reads greater than 52°F and more than 1 minute, but less than 16 minutes have passed; or after 4 minutes if the evaporator thermistor is unplugged or open.

Harvest Mode: Bin Full

The time in this mode with the bin full will be a minimum of 5 minutes. The mode continues as long as the bin is full and the bin thermistor remains less than 36°F.

Compressor and hot gas valve are on until the evaporator thermistor is greater than 52°F and more than 1 minute but less 16 minutes have passed; or after 4 minutes if the evaporator thermistor is unplugged or open.

Idle Mode:

Time in this mode is dependent on the temperature at the bin thermistor.

Bin Not Full (Bin Thermistor Greater than 36°F)

The control sends a reservoir fill request and Freeze Mode begins.

(Continued next page)

Harvest Failure Mode:

If while in Harvest Mode, the evaporator thermistor is less than 52°F and more than 16 minutes have passed, Harvest Failure Mode will occur and the OFF LED will flash 3 blinks. This mode will continue until the failure is corrected.

1. OFF LED is flashing 3 blinks: Look for an evaporator thermistor that has not reached 52°F. This may be due to an evaporator thermistor being unplugged or open, a loose or improperly positioned thermistor, a hot gas failure, a sealed-system leak, or a restriction.
2. OFF LED is flashing 2 blinks: Look for a disconnected or open bin thermistor.

Note: The bin thermistor is constantly checked during the Flush Mode, the end of each Freeze Mode, Harvest Modes, and Idle Mode.

Clean Mode:

Note: The customer instructions for clean cycle is on the inside of door.

The Clean Mode may only be selected while the icemaker is turned off (OFF pad held 3 sec.) at the user interface.

Clean Mode is a 70-minute cycle:

- When Clean Mode begins, The CLEAN light flashes 1 sec. on, 1 sec. off.
- The circulation pump, compressor, and hot gas valve are energized for 40 minutes.
- The water valve is energized for 3 minutes, and then the recirculation pump for 3 minutes. This is repeated 5 times for total of 30 minutes.
- All components off, CLEAN LED remains on with reservoir full.

Note: At the end of the Clean Mode, the icemaker will stay off. CLEAN LED will be on green and OFF LED on red. The reservoir is to be drained by the consumer prior to restarting the icemaker. The consumer must press OFF for 3 sec. before selecting ON.

Troubleshooting

Problem	Probable Cause	Test Procedure - Action
Will not run	No power at wall outlet	Check circuit breaker/ fuses
	No power at auxiliary drain pump power outlet	Check for kinked drain hose, blocked screen, blocked vent hose, or vent outlet
	Disconnected selector switch	Reconnect and check for proper operation
	Loose connections at selector switch or control board	Repair connections
	No power through power cord	Check continuity of power cord and replace if open
	Room temperature below 55°F (13°C)	Bin thermistor has unit shut off, customer instruction
	Ice touching bin thermistor	Normal operation
Will not make ice. Water reservoir is empty. Evaporator is cold with thin or no ice slab.	Water supply turned off	Turn on water supply
	Loose or missing reservoir cap	Tighten or replace
	Water slide return to out of reservoir	Reposition tube
	Inlet tube out of position and missing reservoir	Reposition tube
	Water inlet tube frozen near evaporator	Thaw and reposition tube
	Defective inlet water valve	Test and repair or replace
	An ice slab only partially released from evaporator and water was bridged down into the bin (hung slab)	Look for interference with cutter grid and clean the evaporator plate.

(Continued next page)

Problem	Probable Cause	Test Procedure - Action
Will not make ice. Water reservoir is empty. Evaporator is cold with 3/4-inch thick or larger ice slab.	Slab will not release during harvest due to scale buildup	Clean evaporator plate
	Defective or disconnected hot gas valve	Test and repair or replace
	Defective hot gas valve	Test and repair or replace
	Room temperature over 100°F (38°C)	Customer instruction
Will not make ice. Water reservoir is full. Evaporator is cold with thin, partial, irregular or no ice slab.	Seeping water valve condenser is hot	Replace water valve
	Partial refrigerant leak or restriction (u-shaped slab)	Check for leak/restriction and repair or replace defective component
	Blocked condenser or stalled fan motor	Clean condenser, repair or replace motor
	Tube not attached to outlet of recirculating pump	Re-attach tube
	Defective recirculating pump	Repair or replace the pump motor assembly
	Partially blocked water distributor	Clean distributor and evaporator
Will not make ice. Water reservoir is full. Evaporator is warm.	Compressor is not running	Test compressor, relay and overload
	Blocked condenser or stalled fan motor	Clean condenser, repair or replace motor
	Unit is in the start-up mode	Wait 5 minutes and re-check
Poor ice production.	Room temperature below 55°F (13°C)	Bin thermistor has unit shut off, customer instruction
	Seeping water valve condenser is hot	Replace water valve
	Slow or defective drain or drain pump causing water to back up into the bin	Repair or replace drain or drain pump

(Continued next page)

Problem	Probable Cause	Test Procedure - Action
Too much ice in bin	Defective bin thermistor	Replace
Noisy	Banging sound	The slab dropping off the plate and ice dropping from the cutter grid into an empty bin are normal sounds
	Grinding, cavitating sound	The reservoir is empty. Look for a partially released slab, interference with cutter grid, etc., and clean the evaporator plate.
	Grinding, cavitating sound from recirculation pump	If the reservoir is full, replace the pump
	Noisy drain pump	Repair or replace
Ice freezing together in the bin	Normal	This is normal with low customer usage
Cloudy, poor-tasting ice	Poor water quality	
Off LED flashing 2 blinks	Open or disconnected bin thermistor or thermistor wiring	Test thermistor and wiring harness or reconnect
Off LED flashing 3 blinks	Defective, loose, or mis-positioned evaporator thermistor	Test thermistor and wiring harness or reconnect

Service Test Mode (Diagnostic Mode)

Note: Drain the reservoir before entering service test mode.

1. Turn the icemaker ON.
2. Within 10 sec. of power on, press and hold the *ON* and the *CLEAN* pads. (Release both pads when all user interface LEDs begin to flash.)
3. Within 5 sec. of all LEDs flashing, press and release the *OFF* pad.

This begins manual diagnostics. The OFF pad is used to advance through each step. To exit the manual diagnostics, press the *ON* pad.

Note: If no pad is pressed within 5 sec., the product goes into the automatic diagnostic mode used at the assembly plant. Each component is cycled for 5 sec.

Service Test Mode Chart

After pressing the OFF pad to enter manual diagnostics, all LEDs will illuminate for 5 sec. The controls will then automatically move to the Bin Thermistor test. Use the OFF pad to advance.

ORDER	COMPONENT	ON LED	OFF LED	CLEAN LED
	Entry Into Test Mode	**On**	**On**	**On**
1 **Off** pad to advance	**Bin Thermistor**	**On Solid OK 2 Blinks Open 4 Blinks Short**	**Off**	**Off**
2 **Off** pad to advance	**Evaporator Thermistor**	**Off**	**Off**	**On Solid OK 2 Blinks – Open 4 Blinks – Short**
3 **Off** pad to advance	**Water Valve 4 Minute Timeout Clean Button Press Will Advance to Step 6**	**Off**	**Blinking Reservoir Empty**	**On**
3 **Continued sensor check**	**Water Level Sensor**	**Off**	**On (confirms sensor operation)**	**On**
4 **Off** pad to advance	**Recirculation Pump**	**On**	**On**	**On**
5 **Off** pad to advance	**Reservoir Drain Pump**	**On**	**Off**	**Off**
6 **Off** pad to advance	**Compressor and Condenser Fan**	**On Solid While Cooling**	**Blinking When Evap. Thermistor Reaches 4.5 °F; Full Frost Pattern Should be Visible**	**On**
7 **Off** pad to advance	**Compressor and Hot Gas Valve**	**On Solid While Heating**	**On Solid While Heating Blinking When Evap. Thermistor Reaches 52° F**	**On Solid While Heating**
8 **Off** pad to advance	**Twice Ice**	**Off**	**Off**	**On Solid – No Delay Blinking – 10 Min. Delay Between Cycles Press Clean Button to Cycle Between Settings**
9 **Off** pad to advance	**Ice Thickness**	**Off**	**2 Blinks – Thin 4 Blinks – Normal 6 Blinks – Thick Press Clean Button to Cycle Between Settings**	**Off**

(Continued next page)

Thermistor Error Displays (OFF LED 2 or 3 Blinks During Normal Operation)

When the **OFF** LED blinks 2 or 3 times, an error is indicated. These errors will occur at any time during normal operation if a thermistor fails.

2 Blinks — **OFF** LED is blinking twice in repeating intervals. This signifies a bin thermistor failure.

- Check that the bin thermistor is plugged in to the control box.
- Check that the bin thermistor is not open or shorted. Replace the thermistor if it is open or shorted.

3 Blinks — **OFF** LED is blinking three times in repeating intervals. This signifies a harvest failure.

- Check that the evaporator thermistor is connected to the sealed-system tubing.
- If the thermistor is plugged in, ensure that it is fully connected to the control box. (The icemaker will operate on a timed cycle if the evaporator thermistor is unplugged.)
- Check the resistance of the thermistor. If the thermistor checks good, look for a hot gas failure, a sealed system leak, or a restriction.

Models with Internal Drain Pumps (ZPK1)

The power cord on the internal drain pump is connected to a 120 VAC wall outlet. The icemaker is then connected to the 120 VAC outlet on the drain pump. If the drain pump fails, or if the drain becomes blocked, power is shut off to the 120 VAC outlet on the drain pump.

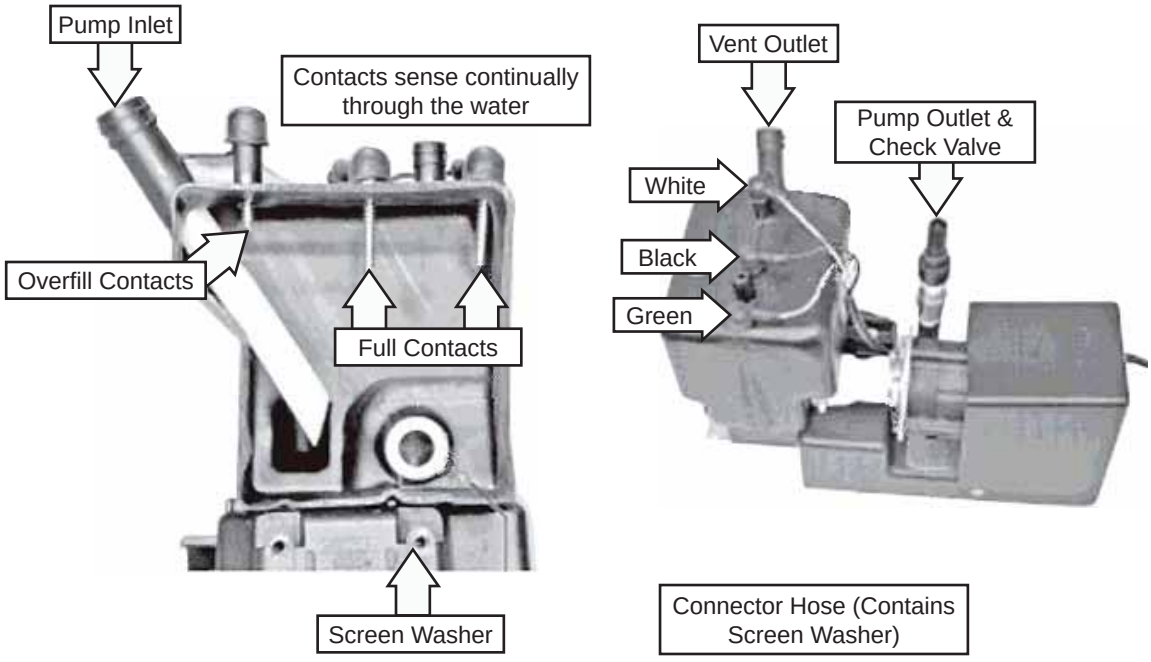
When the unit is first plugged in, the drain pump will run for 20 sec. The power can be disconnected and reconnected to verify that the pump is operating properly.

Water from the icemaker reservoir, or melting ice from the bin, drains down the bin drain tube into the pump inlet, and then into the drain pump chamber. As the water level rises, it bridges the **Full** contacts, and the pump starts to run.

The pump discharges the water through the outlet and the check valve. When the **Full** connection is removed, the pump runs for an additional 12 sec. to empty the tank.

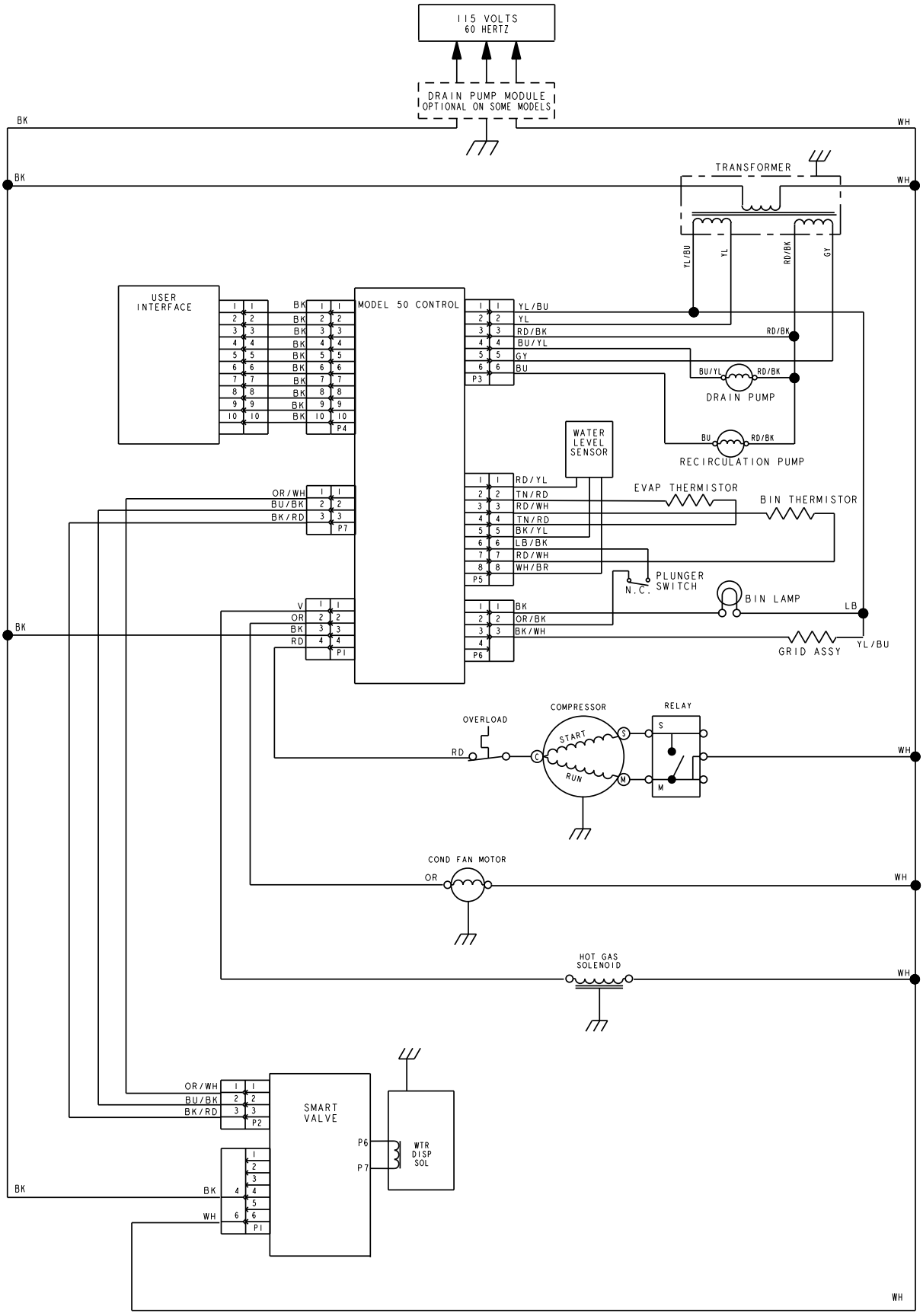
If the water level in the drain pump continues to rise, due to a slow or blocked drain or a blocked vent hose, and touches the **Overfill** contact, power will be turned off to the drain pump 120 VAC outlet, causing the icemaker to turn off.

Internal Drain Pump



Schematics and Strip Circuits

Refer to the mini-manual attached to the unit.



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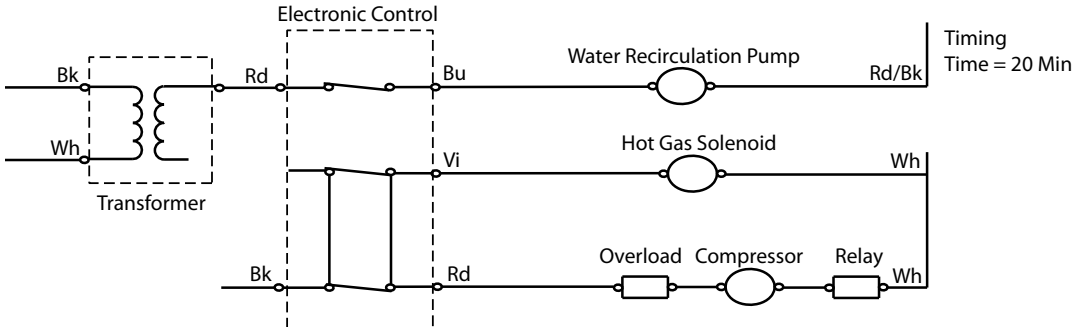
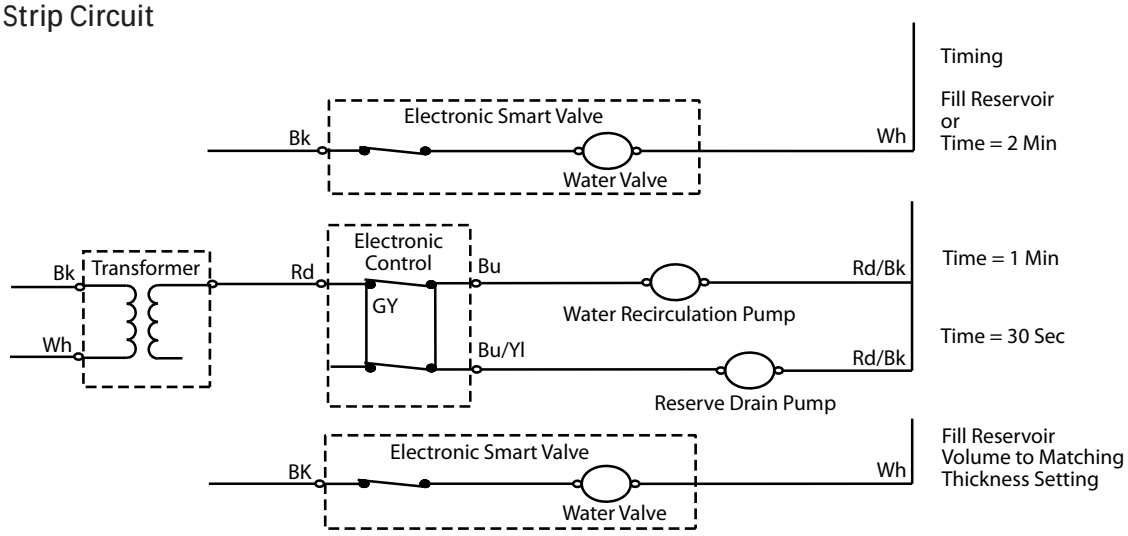
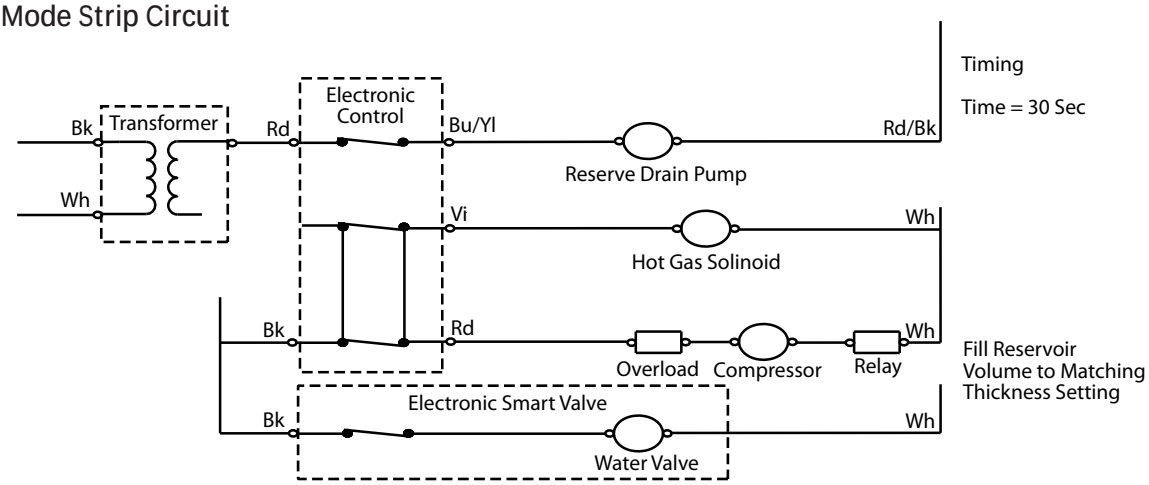
Clean Mode Strip Circuit



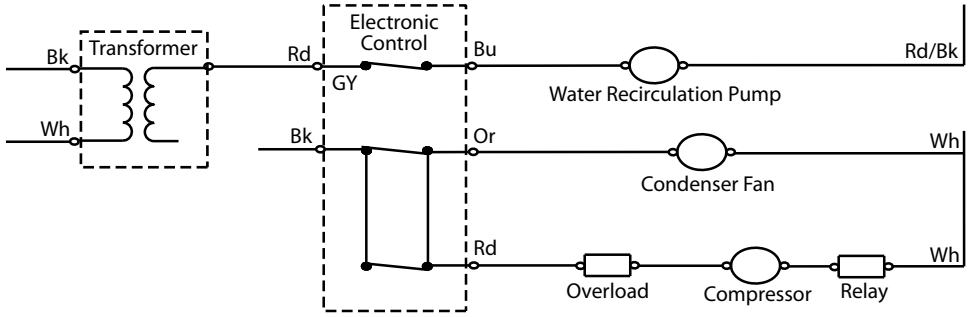
Flush Mode Strip Circuit



Ice Making Mode Strip Circuit



Harvest Mode Strip Circuit



Warranty

What Is Covered:

From the Date of the Original Purchase

Limited One-Year Warranty:

For one year from date of original purchase, we will provide, free of charge, parts and service labor in your home to repair or replace any part of the icemaker that fails because of a manufacturing defect.

Limited Five-Year Warranty:

For five years from date of original purchase, we will provide, free of charge, parts and service labor in your home to repair or replace any part of the sealed icemaking system (the compressor, condenser, evaporator and all connecting tubing) that fails because of a manufacturing defect.

This warranty is extended to the original purchaser and any succeeding owner for products purchased for ordinary home use in the 48 mainland states, Hawaii, Washington, D.C. or Canada. 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 is the same except that it is LIMITED because you must pay to ship the product to the service shop or for the service technician's travel costs to your home.

What GE Will Not Cover:

Service trips to your site to teach you how to use the product.

Improper installation, delivery or maintenance.

If you have an installation problem, or if the icemaker is of improper cooling capacity for the intended use, contact your dealer or installer. You are responsible for providing adequate electrical connecting facilities.

In commercial locations, labor necessary to move the unit to a location where it is accessible for service by an individual technician.

Failure or damage resulting from corrosion due to installation in an environment containing corrosive chemicals.

Replacement of fuses or resetting of circuit breakers.

Failure of the product resulting from modifications to the product or due to unreasonable use, including failure to provide reasonable and necessary maintenance.

Failure or damage resulting from corrosion due to installation in a coastal environment, except for models treated with special factory-applied anti-corrosion protection as designated in the model number.

Damage to product caused by improper power supply voltage, accident, fire, floods or acts of God.

Incidental or consequential damage to personal property caused by possible defects with this icemaker.

Damage caused after delivery.

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 use within the USA and Canada. 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 site.

Some states or provinces 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 or province to province. To know what your legal rights are, consult your local, state or provincial consumer affairs office or your state's Attorney General.

Warrantor: General Electric Company. Louisville, KY 40225