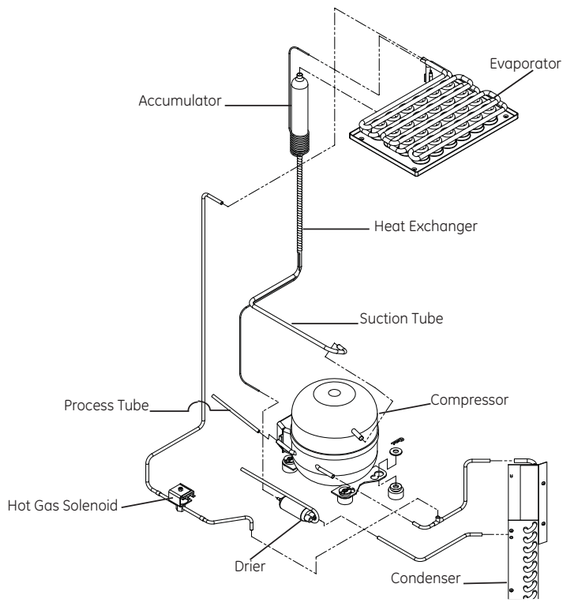
⚠ WARNING **Electrical Shock Hazard**

Failure to adhere to this important safety notice can result in serious injury or death.

- Service by a qualified service technician only.
- Disconnect power before servicing this product.
- Reconnect all grounding devices after service.
- Replace all parts and panels before operating.

Specifications	
Electrical Requirements	115V/60 Hz; 15-amp dedicated circuit
Maximum Amp Usage	5.0 amps
Voltage Limits	104V min, 126V max
Bin Control Thermostat	Cut out: 35˚F. Cut out: 45˚F
Air Temperature Limits	Min 50˚F; Max 100˚F Machine will operate best between 70˚-80˚F
Water Pressure Limits	20 – 80 psi
Water Conductivity	Greater than 10 microSiemens/cm
Water Temperature Limits	Min 40˚F; Max 100˚F
Refrigerant Charge	8 oz. 134a



Thermistor Values			
Temperature (F)	Ohms	Temperature (F)	Ohms
0°	85.3 kΩ	72°	11.31 kΩ
8°	66.4 kΩ	80°	9.3 kΩ
16°	52.7 kΩ	88°	7.7 kΩ
24°	41.1 kΩ	96°	6.4 kΩ
32°	32.6 kΩ	104°	5.3 kΩ
40°	26.1 kΩ	112°	4.5 kΩ
48°	21 kΩ	120°	3.8 kΩ
64°	13.8 kΩ	128°	3.2 kΩ

Electrical Sequence

A closed bin thermostat signals to the controller a need for ice. The controller checks for water, if water is needed, the controller opens the inlet water solenoid valve to fill the reservoir. The hot gas valve is open to equalize the refrigeration system. When the reservoir is full, the compressor, fan motor, water pump are switched on. After 5 seconds the hot gas valve shuts and ice making begins.

Water is sprayed up into the inverted cup mold. As the water is cooled and ice is begins to form in the cups, the temperature of the evaporator will begin to fall.

The freeze continues until the temperature of the thermistor attached to the evaporator outlet tube falls to about zero degrees F. At that point the controller starts a freeze cycle timer, which has a default of 10 minutes. At the end of the freeze cycle's timed portion, the controller switches to the harvest cycle.

The harvest cycle beings with the controller stopping the water pump and fan motor, while opening the hot gas valve and inlet water solenoid valve. The ice is released by the combination of discharge refrigerant gas entering the evaporator, plus inlet water that flows across the evaporator platen. The inlet water flowing across the evaporator platen, while adding heat to the evaporator is also being pre-chilled for the next freeze cycle. Ice cubes drop individually and harvest continues until the thermistor attached to the suction line reaches ~ 50 degrees F. At that point a harvest timer starts, default is 20 seconds. At the end of that time the harvest cycle ends and the freeze cycle restarts.

Bin Control

The ice machine's on and off modes are regulated by a bin thermostat. The cap tube for the bin thermostat is in the tube that holds the ice scoop. The ice machine will only begin making ice when the bin thermostat's contacts close. If the contacts re-open before the temperature of the evaporator drops below a preset point, the ice machine will stop. If the evaporator temperature is below that point when the bin thermostat contacts open, the ice machine will continue through a complete cycle and stop at the end of the harvest cycle.

Water System

The controller uses a water sensor to check for the presence of water in the reservoir. The water sensor consist of two stainless steel probes located in a holder next to the water pump. The probes sense the conductivity of the water, the higher the mineral content the better the sensor can conduct electricity.

If the controller does not sense water from the water sensor and the bin thermostat is closed the controller will power the inlet water solenoid valve to fill the reservoir. The controller will allow the water valve to operate for a maximum of 2 1/2 minutes. If water is not sensed in 2 1/2 minutes the ice machine will not proceed in making ice. The water light on the user interface will begin to blink and the controller will attempt to fill the reservoir in approximately 20 minutes sense the last attempt.

Reservoir water dilution

The process of making ice from circulating water causes the pure water to freeze first, because pure water freezes at a warmer temperature. The remaining water will develop an increasing concentration of minerals. The mineral rich water in the reservoir is diluted with fresh water every cycle. The controller adds enough water to fill the reservoir and extra water to overfill it. The extra water drains through the standpipe in the reservoir.

Harvest Time Adjustment

The harvest time can be adjusted so that all the ice harvests during the cycle, plus a few seconds extra. This is done by a button press sequence.

NOTE: Do not set harvest time shorter than the actual time it takes to release all the cubes.

To adjust harvest time:

1. Shut the machine off by holding the On/Off button in until it shuts off (ice making light off).
2. Press and hold the On button again for 5 seconds, then release (ice making light will switch off).
3. View the lights and compare to the table below.
4. Select the amount of change.
5. Push and release the clean button until the correct light pattern is displayed.
6. Push and release the On button to select the setting.
7. Push and release On/Off to return to ice making.

Harvest Time Table			
	ON/OFF	**WATER**	**CLEAN**
Default	OFF	OFF	OFF
Add 10 seconds	ON	OFF	OFF
Add 20 seconds	OFF	ON	OFF
Add 30 seconds	OFF	OFF	ON
Add 40 seconds	ON	ON	ON
Minus 10 seconds	FLASH	OFF	OFF
Minus 20 seconds	OFF	FLASH	OFF
Minus 30 seconds	OFF	OFF	FLASH
Minus 40 seconds	FLASH	FLASH	FLASH

Cube Size Adjustment

The cube size can be adjusted by changing the amount of freezer cycle time. This is done by a button press sequence.

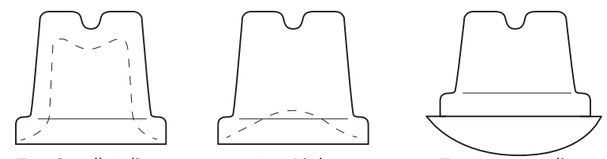
NOTE: There is only one correct cube size. See illustration.

To adjust cube size:

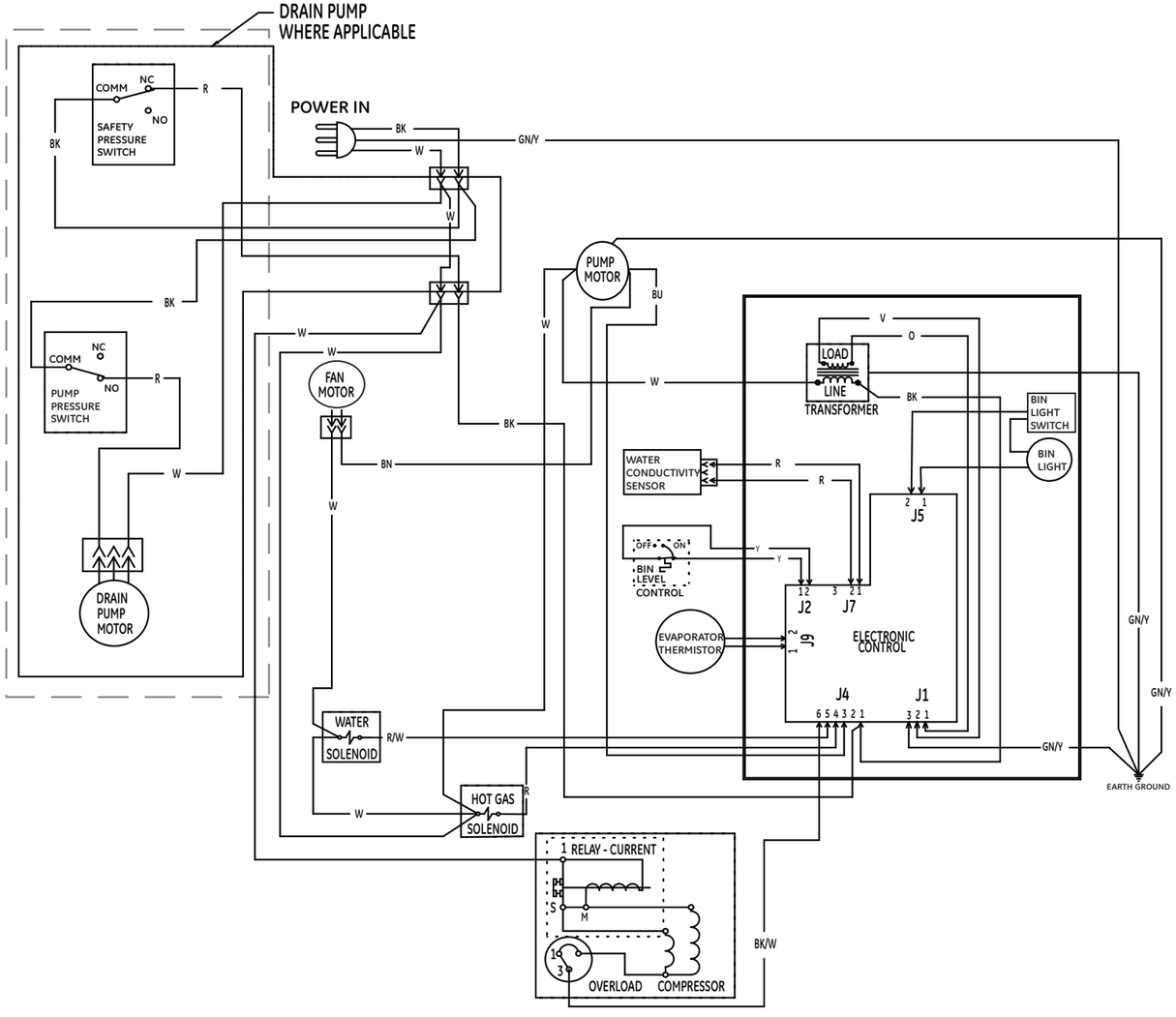
1. Shut the machine off. If it's off on bin full press and release the On/Off button once, switching the ice making light off. If the machine is making ice, hold the On/Off button in until the ice making light is off.
2. Press and hold the clean button for 5 seconds (light on), then release (light out).
3. View the lights. Compare to the table below.
4. Select the amount of change.
5. Push and release the On/Off button until the correct light pattern is displayed.
6. Push and release the clean button to select that setting.
7. Push and release On/Off to return to ice making.

Cube Size Change Table			
	ON/OFF	**WATER**	**CLEAN**
Default	OFF	OFF	OFF
Add 1 minute	ON	OFF	OFF
Add 2 minutes	OFF	ON	OFF
Add 3 minutes	OFF	OFF	ON
Add 4 minutes	ON	ON	ON
Minus 1 minute	FLASH	OFF	OFF
Minus 2 minutes	OFF	FLASH	OFF
Minus 3 minutes	OFF	OFF	FLASH
Minus 4 minutes	FLASH	FLASH	FLASH

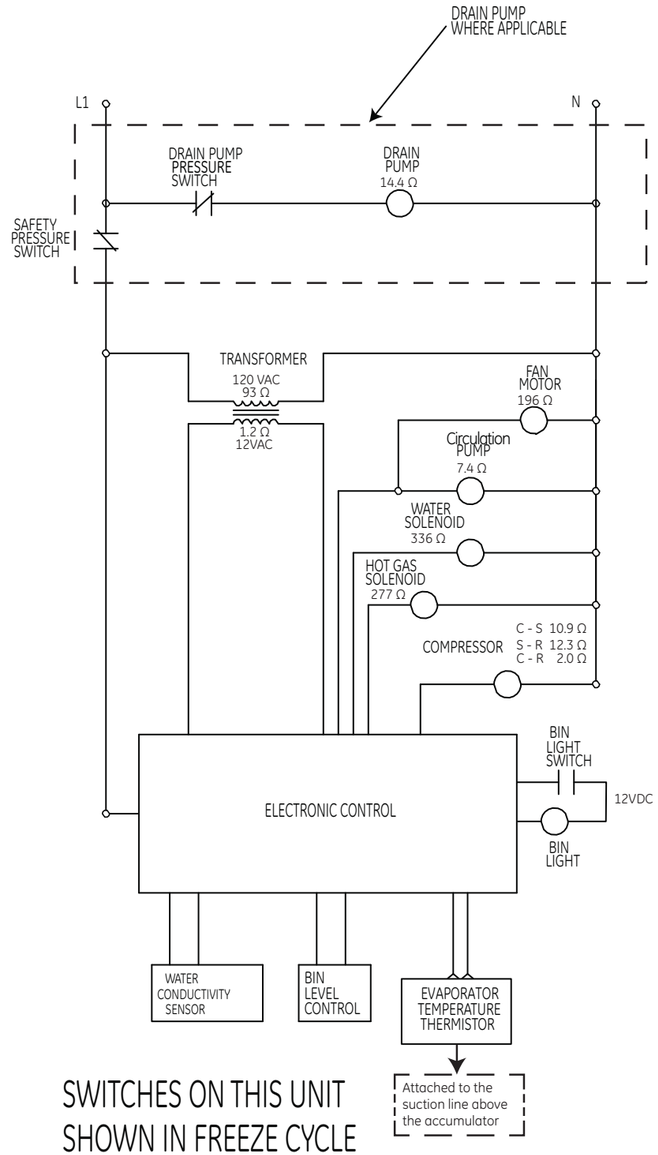
Side Views of Cubes



Too Small, Adjust Cycle Longer | Just Right | Too Large, Adjust Cycle Shorter



Schematic Diagram



SWITCHES ON THIS UNIT
SHOWN IN FREEZE CYCLE
WITH DRAIN PUMP IN OPERATION
AND BIN DOOR CLOSED