

Installation, Operation and Service Manual



**Following installation, please forward this manual
to the appropriate operations person.**

Contents

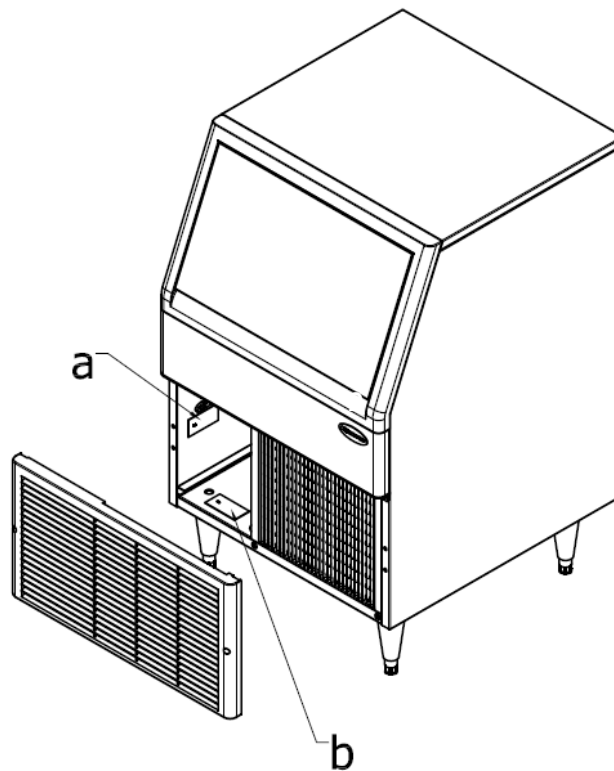
Welcome	3
Before You Begin	3
Important Safety Information	4
Specifications	4
Electrical	4
Plumbing	4
Ambient	5
Heat Rejection	5
Ice production chart	5
Dimensions	6
Water	6
Refrigeration	6
Detailed Drawing	7
Installation	8
Uncrating information	8
Undercounter installation	9
Freestanding installation	10
Start up procedure	11
Periodic Cleaning and Sanitizing	11
Service	15
Overview	15
Accessing internal components	16
Water system	17
Electrical system	19
Mechanical system	26
Refrigeration system	27
Troubleshooting	29
Replacement Parts	31

Welcome

Follett equipment enjoys a well-deserved reputation for excellent performance, long-term reliability, and outstanding after-the-sale support. To ensure that this product delivers that same degree of service, we ask that you take a moment to review this manual before beginning the installation. Should you have any questions or require technical help at any point, please call our technical service group at +48 58 785 61 40.

Before You Begin

After uncrating and removing all packing material, inspect the equipment for concealed shipping damage. If damage is found, immediately notify the shipper and contact Follett Corporation so that we can help in the filing of a claim, if necessary. If needed, the serial number of your dispenser can be found by removing the grill and locating the serial number label (a) on the bin and on the bottom of the main frame (b).



Check your paperwork to verify that you received the correct dispenser. Follett configuration numbers are designed to provide information about the type of dispenser you are receiving. The following is an explanation of the different model numbers.

S	F	C	400	A	75
Product Type	Ice Type	Voltage	IM Capacity	Condenser	Bin Capacity
S Self Contained	F Flake	C 220/60	400 up to 400 lbs.	A Air Cooled	75 75 lbs.
	M Microchewblet	D 115/60			
		E 230/50			

Important Safety Information



CAUTION!

- This appliance should be permanently connected by a qualified person in accordance with application codes.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Connect to potable water supply only.
- This appliance can be used by children aged 8 years and above and persons with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children should be supervised to ensure that they do not play with the appliance.
- **WARNING!** To avoid a hazard due to instability of the appliance, it must be fixed in accordance with the instructions.
- Warranty does not cover exterior or outside installations.
- Moving parts. Do not operate with front cover removed.
- Hot parts. Do not operate with cover removed.
- To reduce risk of shock, disconnect power before servicing.
- Drain line must be vented.
- Water supply must be treated by a scale-inhibiting filter.
- Most ice machine cleaners contain citric or phosphoric acid, which can cause skin irritation. Read caution label on product and follow instructions carefully.
- Ice is slippery. Maintain counters and floors around dispenser in a clean and ice-free condition.
- Ice is food. Follow recommended cleaning instructions to maintain cleanliness of delivered ice.

Specifications

○ Electrical

- Power supply:
 - a) 230V, 50/60 Hz, 1 phase
Maximum machine amperage 6,5A
maximum fuse 10A (SME/SMC/SFE/SFC models)
 - b) 115V 60Hz, 1 phase
Maximum machine amperage 13,0A
maximum fuse 15A (SMD/SFD models)
- Connect to dedicated fuse or breaker.
- Must be grounded - requires 3-prong outlet. Do not remove ground.
- Replacement cord instructions, If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.

○ Plumbing

3/8" OD push-in water inlet
3/4" MPT drain

Notes: 3/4" drain line must slope 1/4" per foot. Drain to be hard piped and insulated.
To prevent back flow, do not connect drains.
Water shut-off recommended within 5 feet (1,5m), drain to be hard piped and insulated.
Follett recommends installation of an activated carbon filter in ice machine inlet water line.

○ Ambient



CAUTION!

The unit is for indoor use only.

	Maximum*	Minimum*
Air Temperature†	37,8 C (100 F)	10 C (50 F)
Water Temperature	32.2 C (90 F)	7 C (40 F)
Water Pressure	70 psi	10 psi
Relative Humidity	55% at 25.5 C (78 F)	
* Use outside of these limitations is misuse and will void warranty.		
† Best performance is achieved between 27 C (80 F) and 10 C (50 F).		

○ Heat Rejection

§ 5000 BTU/hr

○ Ice production charts

Ambient Air Temperature °F/°C

		60	70	80	90	100	
F		60	70	80	90	100	
C		16	21	27	32	38	
Inlet Water Temperature °F/°C	50	510	454	397	335	273	lbs.
	10	232	206	180	152	124	kg.
	60	482	435	389	329	270	lbs.
	16	219	198	177	150	123	kg.
	70	454	417	380	323	266	lbs.
	21	206	190	173	147	121	kg.
	80	424	385	347	297	247	lbs.
	27	193	175	158	135	112	kg.
	90	394	354	313	270	227	lbs.
	32	179	161	142	123	103	kg.

Specifications (continued)

○ Dimensions

	SME400A75, SMC400A75
Width	59,5 cm (23.43")
Depth	66,0 cm (25.98")
Height	83,8 cm (32.99")
Height with legs	98,8 cm (38.90")
Unit Shipping Weight	70 kg (154 lb)

○ Clearances

§ This unit is a front breathing device. No side and back clearances needed.

○ Water



WARNING!

Connect to potable water supply only.

§ Water Mineral Content:

- TDS: greater than 5 ppm (mg/l) but less than 400 ppm (mg/l)
- Hardness: Less than 200 mg/l (12 gpg)

§ Not recommended for use with softened water

§ Ingress Protection (IP) rating: IPX0 (no protection)

○ Refrigeration



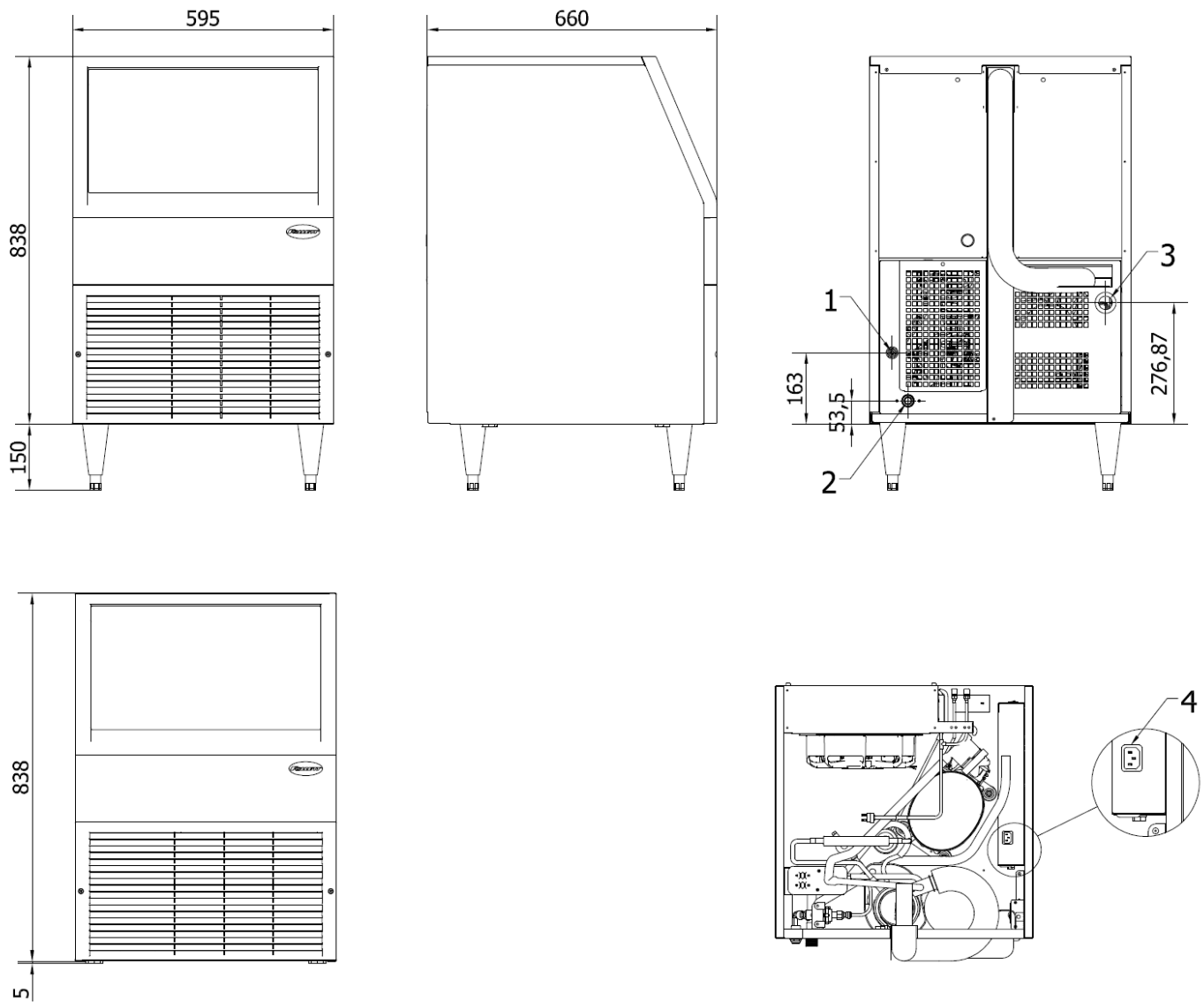
WARNING!

Do not damage the refrigerant circuit. Refrigerant can cause personal injury and/or damage dispenser.

§ Refrigerant R404a – 500 grams (17.6 oz.)

Specifications (continued)

Detailed Drawing



- 1) Water inlet
- 2) Drain outlet
- 3) Power supply cable grommet
- 4) IEC power supply socket

Installation

Uncrating information

- Carefully unpack and inspect the contents of your Follett icemaker.
- Unscrew all 4 screws to put the machine out from the skid.

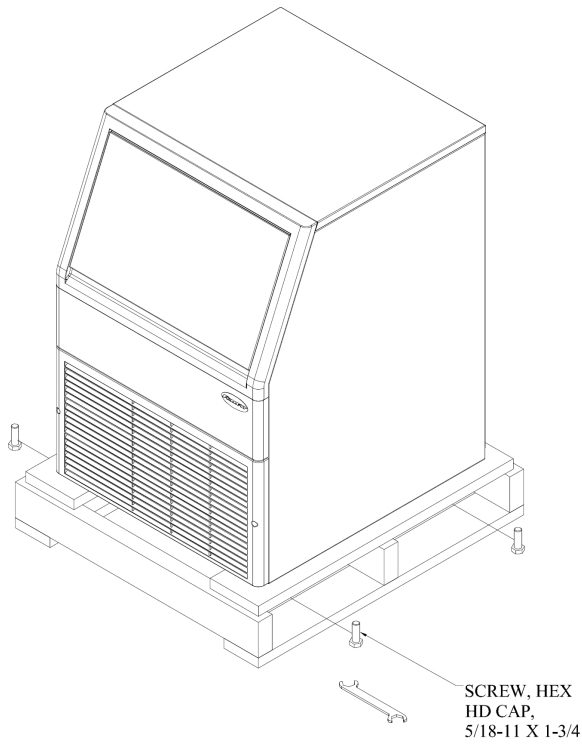


Fig. 1

- Slide the unit to one side of the skid and screw in supplied leveling feet or accessory leg set according to your machine setup

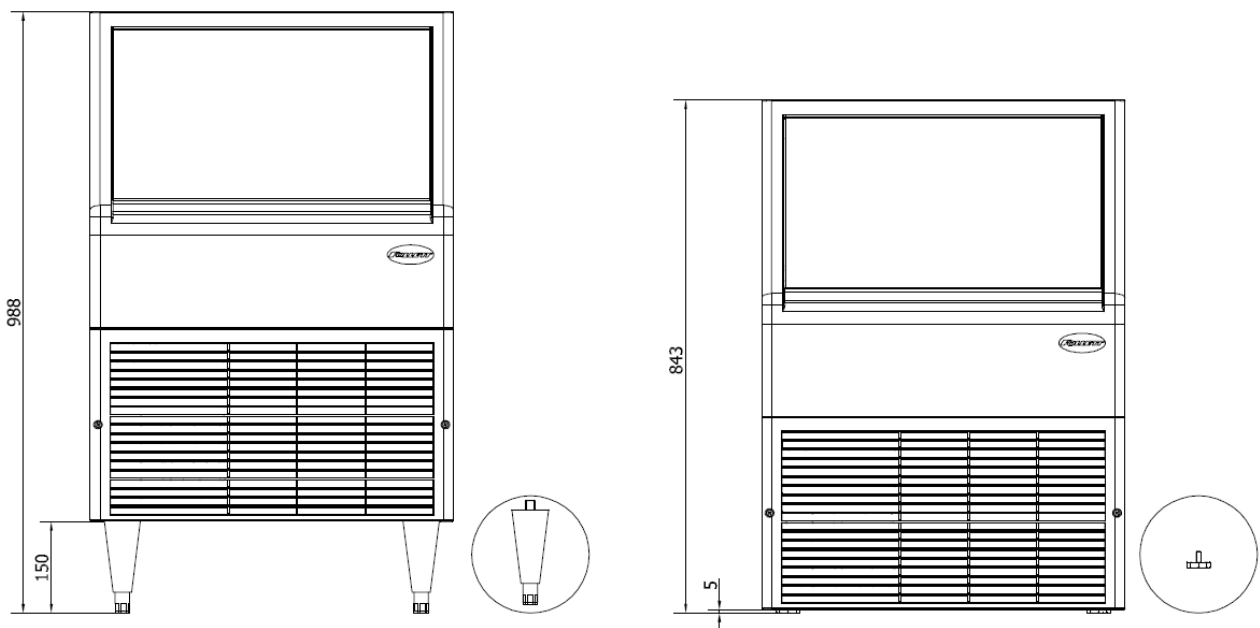


Fig. 2

Installation



CAUTION!

No service or maintenance should be performed until the technician has thoroughly read this service manual. Except for routine cleaning and sanitizing, only qualified technicians should attempt to service or maintain this equipment.

Under counter Installation

Installation instructions for freestanding model may be found on [page 9](#).

- Unbolt unit from skid
 - Slide the unit to one side of skid
 - Tip unit and screw in supplied leveling feet (**Fig. 2**)
 - Bin portion must be removed after uncrating (**Fig. 3**)
 - Install icemaker section first, to ease installation procedure
- a. Rough-in the electrical service and water line.
- Unit is provided with a 2.4m IEC power cord. Depending on the model it's supplied with the plug in choice of:
 - SFC, SMC Family (220/60Hz) NEMA 6-15A grounded
 - SFD, SMD Family (115/60Hz) NEMA 5-15A grounded
 - SFE, SME Family (230/50Hz) UNI SHUKO, AS 3112, BS 1363
 - Water: supply line (with shut-off valve) connects to the dispenser's (3/8" OD push-in water inlet)
- b. Connect water line and drain. Recommended routing (**Fig. 3**) allows easy access to water for cleaning and sanitizing procedure. Check if the drain cut-off valve is opened.
- c. Connect power supply.
- d. Unit must be leveled prior to operate properly
- e. Sanitize the dispenser prior to use (see [Cleaning and Sanitizing on page 11](#)).

1. 3/8" OD push-in water inlet
2. Drain fitting 3/4"
3. Power supply cord
4. Dedicated power supply circuit
5. Water shut-off valve
6. Drain line (not supplied)

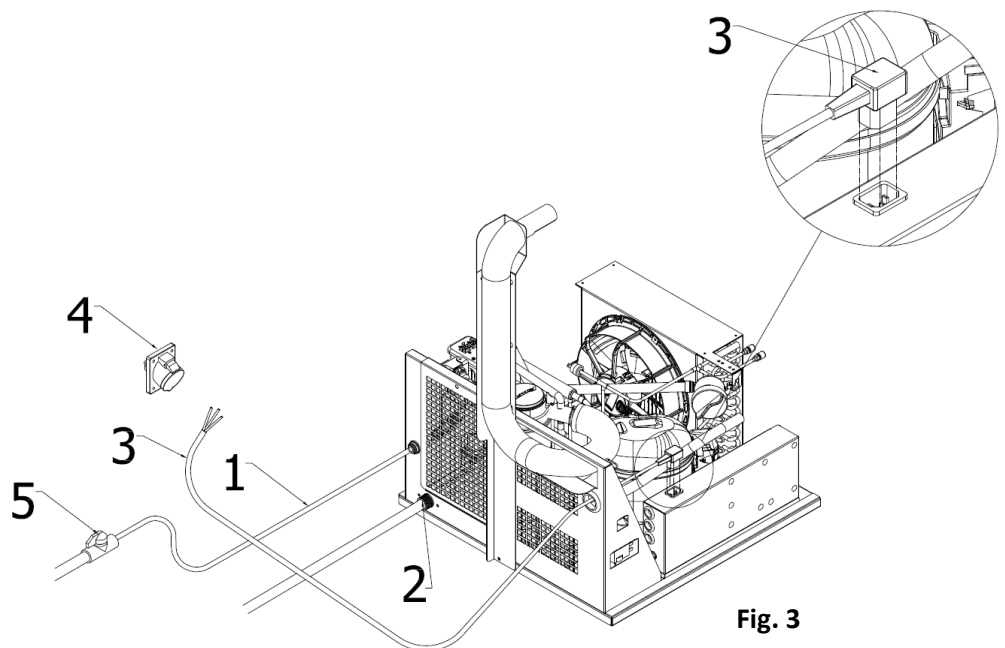


Fig. 3

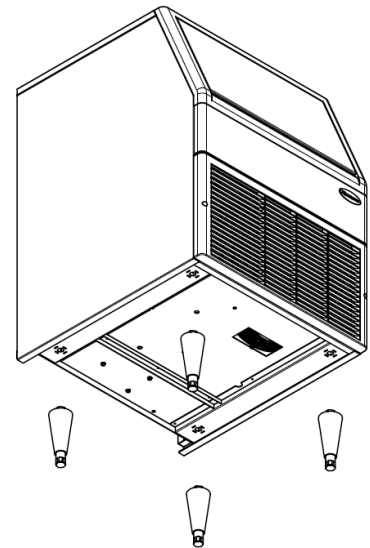
Freestanding model installation



CAUTION!

Use caution when tipping the dispenser during leg installation. Do not lay unit on back or side. DO NOT EXCEED 30° angle. Tipping more than 30° can result in compressor malfunction.

- Unbolt unit from skid
 - Slide the unit to one side of skid
 - Tip unit and screw in supplied 150mm feet accessory
- a. Rough-in the electrical service and water line.
- Unit is provided with a 2.4m IEC power cord. Depending on the model it's supplied with the plug in choice of:
 - SFC, SMC Family (220/60Hz) NEMA 6-15A grounded
 - SFD, SMD Family (115/60Hz) NEMA 5-15A grounded
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 - Water: supply line (with shut-off valve) connects to the dispenser's (3/8" OD push-in water inlet)
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- c. Connect power supply.
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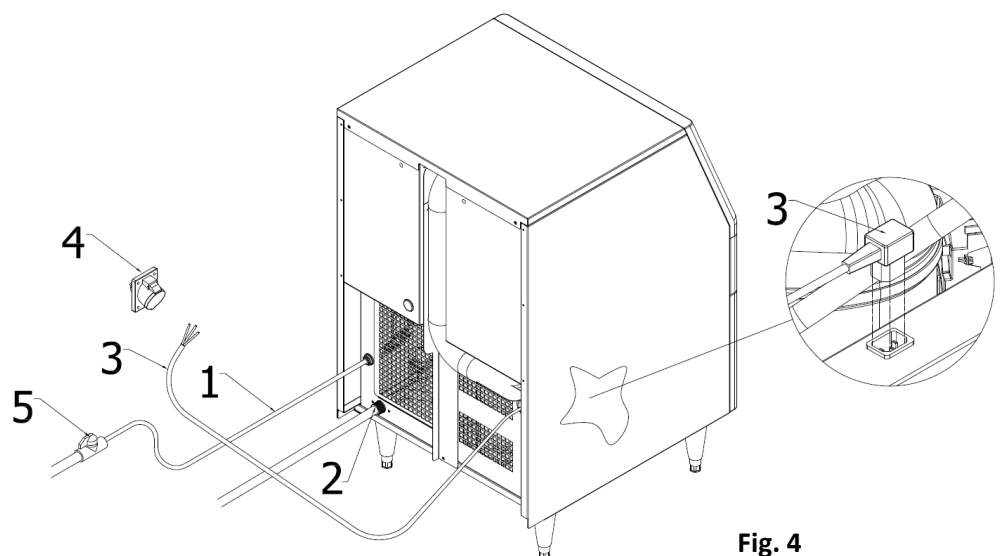


Fig. 4

Start-up procedure (installation)

Before turning power on

1. Clean and sanitize ice bin in accordance with cleaning procedure
2. Turn water to ice machine on.

After turning power on

1. Turn power to ice machine on and confirm that gearmotor, compressor and fan motor starts.
2. Check that ice begins to enter bin within approximately 10 minutes.
3. After making ice for 10 minutes, put ice against ice level control stat cap tube and check that ice machine shuts down.
4. Warm ice level control stat with your fingers and check that ice machine restarts in approximately 15 minutes. (Bin must be calling for ice.)

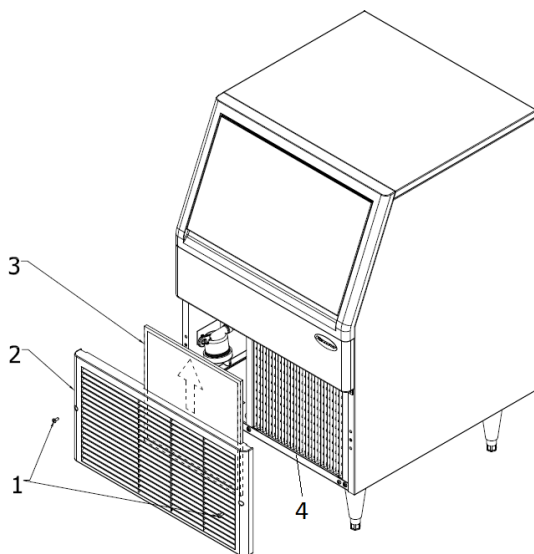
Periodic Cleaning and Sanitizing

Periodic cleaning/descaling and sanitizing of Follett's ice and water dispenser and ice machine system is required to ensure peak performance and delivery of clean, sanitary ice. The recommended cleaning procedures that follow should be performed at least as frequently as recommended and more often if environmental conditions dictate.

Cleaning of the condenser can usually be performed by facility personnel. Cleaning/descaling and sanitizing of the ice machine system should be performed by your facility's trained maintenance staff or a Follett authorized service agent. Regardless of who performs the cleaning, it is the operator's responsibility to see that this cleaning is performed according to the schedule below. Service problems resulting from lack of preventive maintenance will not be covered under the Follett warranty.

Condenser

Unit is supplied with condenser filter. At least once per month use a vacuum cleaner or stiff brush to clean condenser filter and if needed evaporator coils of lint and debris to ensure optimal performance. To access condenser filter just take out the grill cover out.



1. Crosshead screws
2. Front grille
3. Condenser filter
4. Condenser

Fig. 5

Cleaning/descaling and sanitizing

Cleaning and sanitizing should be performed at least every 6 months (more often if local water conditions dictate). For initial startup, only sanitizing is required.

WARNING!

- § For protection, rubber gloves and safety goggles (and/or face shield) should be worn when handling Cleaner or Sanitizer.
- § Do not mix Cleaner and Sanitizer together. It is a violation of federal law to use these solutions in a manner inconsistent with their labeling.
- § Do not use bleach, it will damage the dispenser.

Required Supplies

- § (1) x 7 oz. SafeCLEAN™ environmentally-friendly icemaker cleaner packets
- § Nu-Calgon IMS-II sanitizing concentrate
- § Funnel and Bucket

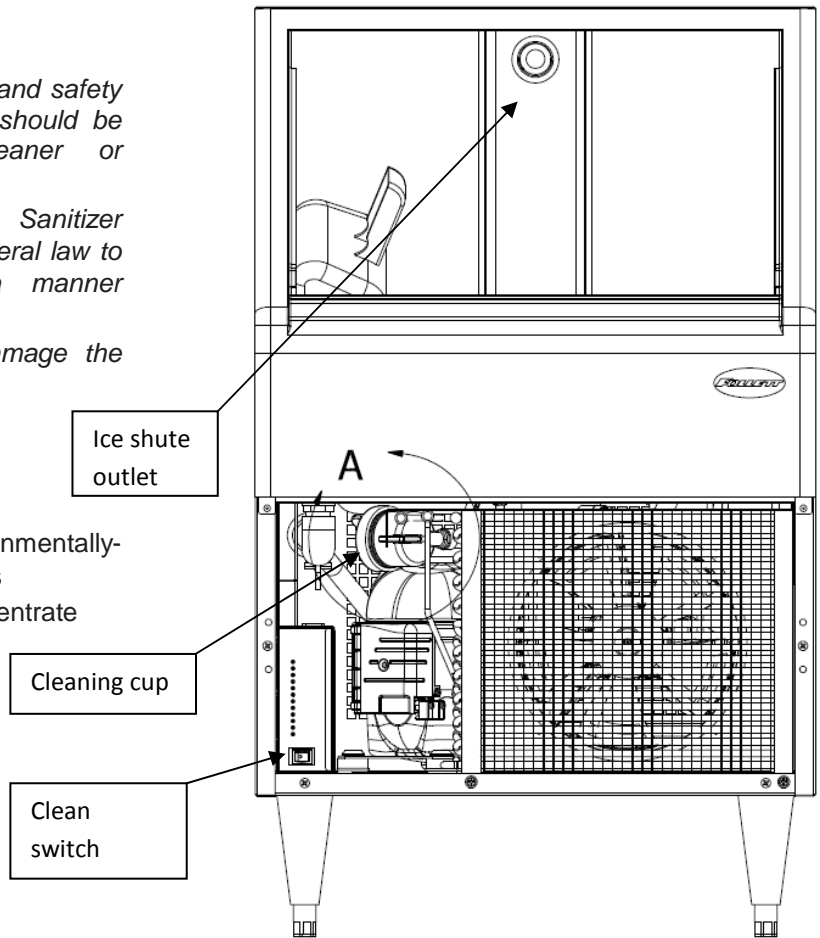
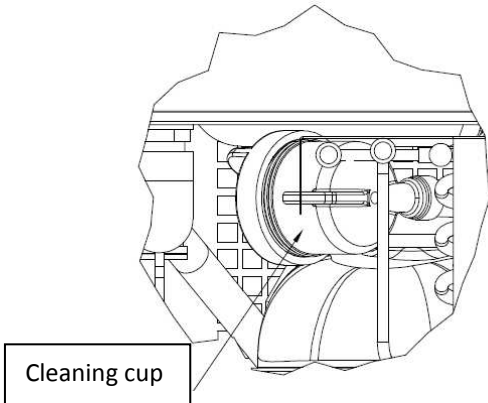


Fig. 6

Cleaning

1. Remove front grille to access internal components (Fig. 5)
2. Press clean switch on the main control box. The machine will drain and the LOW WATER and MAINTENANCE/CLN light will come on. (Fig. 7)

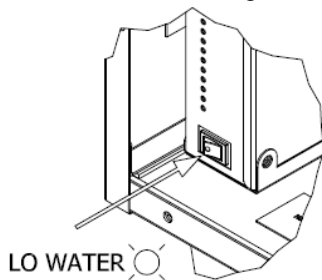


Fig. 7

3. Mix 1 gallon (3,8l) of 100F (38C) hot water and 7 ounces (198g), (one packet of Follett SafeCLEAN ice machine cleaner, part# 00132001).

- Remove lid from cleaning cup and fill until cleaning solution completely fills reservoir and CLEANER FULL light turns ON.

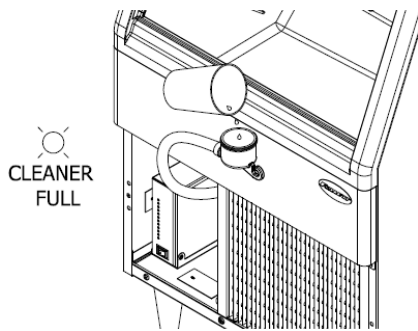


Fig. 8

- Replace lid and cup. LOW WATER light will turn off and machine will start cleaning cycle, then rinse three times in about 15 minutes. When machine is finished cleaning the CLEANER FULL and MAINTENANCE/CLN light will turn off.

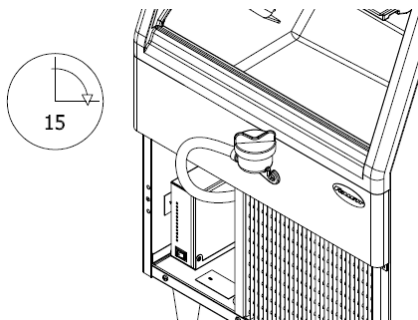


Fig. 9

Sanitizing

- Press clean switch. The machine will drain and the LOW WATER and MAINTENANCE/CLN light will come on.
- Mix 1 gallon (3,8l) of 100F (38C) hot water and 1.6 ounces (48 ml) NU-CALGON IMS-II SANITIZER. (Follett #00979674). Place one Sani-Sponge™ in remaining sanitizing solution.
- Remove lid from cleaning cup and fill until sanitizing solution completely fills reservoir.

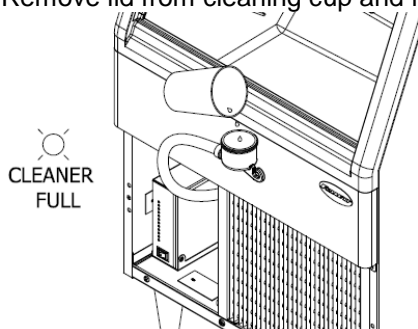


Fig. 10

- Replace lid and cup. LOW WATER light will turn off and machine will start sanitizing cycle, then rinse three times; about 15 minutes. When machine is finished sanitizing the CLEANER FULL and MAINTENANCE/CLN light will turn off.

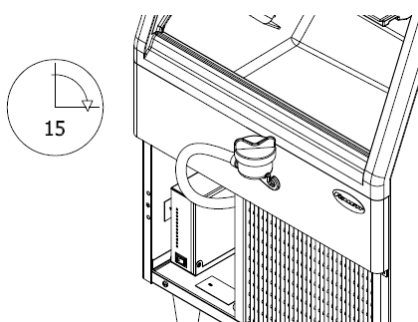


Fig. 11

Note: The next steps must be completed before machine flushes and start producing the ice!

- Using disposable food service grade gloves, insert dry Sani-Sponge™ (kit part# 00132068). Next, insert Sani-Sponge soaked in Nu-Calgon IMS-II sanitizer solution (from Step 7). Push both Sani-Sponges down ice transport tube (ice Shute outlet) with supplied pusher tube.

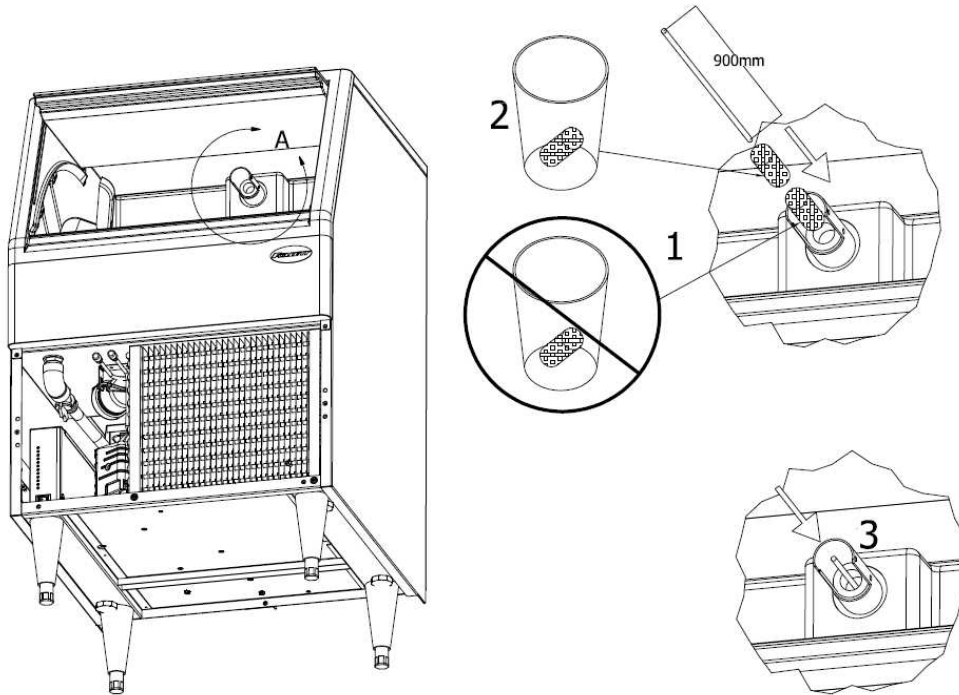


Fig. 12

- Remove and discard pusher tube

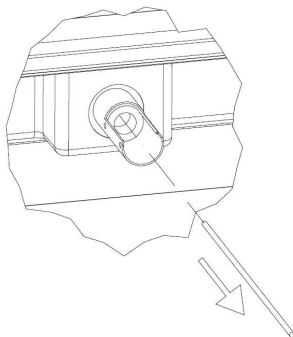


Fig. 13

- When sanitizing cycle ends, machine will start producing the ice. Ice pushes Sani-Sponges through the tube.
- Place a sanitary (2 gallon or larger) container in bin to collect Sani-Sponges and ice for 10 minutes. Collect 5.5 lbs (3kg) of ice from unit. Discard ice and Sani-Sponges (Fig. 14).

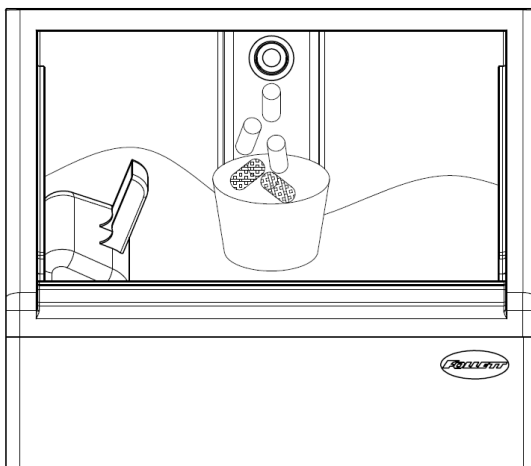


Fig. 14

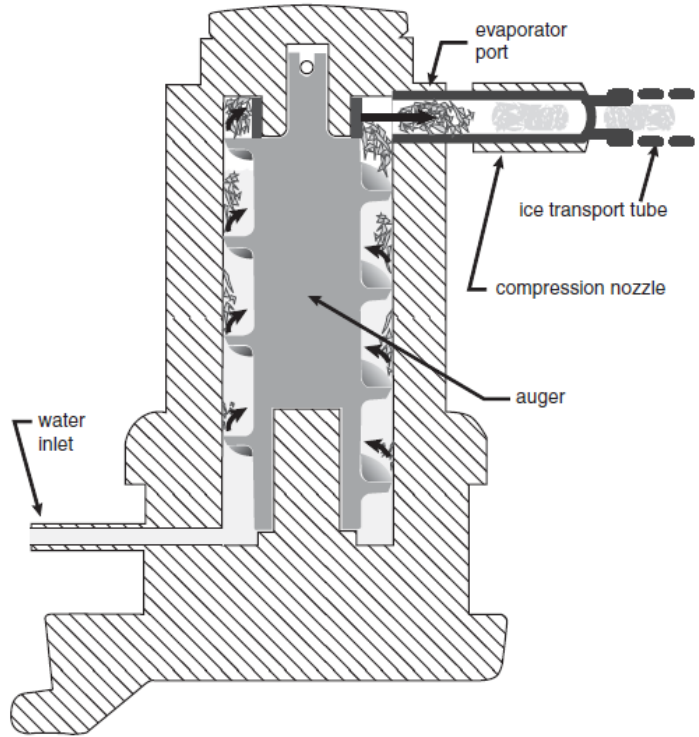
Overview

How the machine works

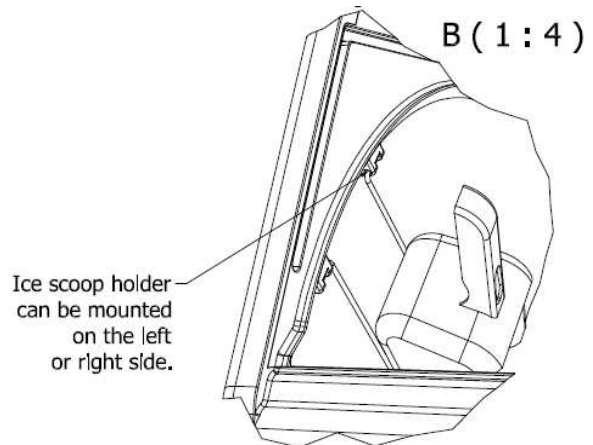
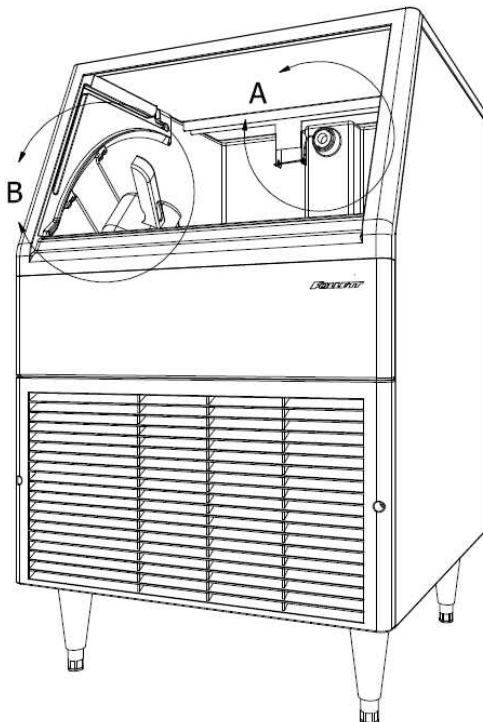
Follett's automatic-load ice machine is equipped with Follett's 400 lb (181kg)/day ice technology. In the continuous icemaking process, water freezes to the inside wall of the evaporator. A rotating stainless steel auger carries the ice to the top of the evaporator where it is compressed and extruded through an outlet port. The ice is then pushed through a tube to the integrated ice storage bin. When the bin is full, a bin thermostat opens and shuts the ice machine off.

A solid state control board located in the electrical box of the ice machine controls the normal operation of the ice machine and monitors gearmotor torque. This control board will shut down the ice machine should an overtorque condition occur. It is very important that you familiarize yourself with the operational sequences detailed in this manual before attempting to service the ice machine.

Harvest system diagram



Ice enters the integrated ice bin. Using the scoop (B) supplied with the unit, you can easily take the ice out from the bin. There is a scoop holder on the internal wall. When you empty some ice from the ice bin the thermostat cap (A) tube gets warm, machine will start to produce the ice. There is no need of turning on or off the machine during its normal operation.



Accessing Internal Components

Ice bin removal

CAUTION!

Except for routine cleaning and sanitizing, only qualified technicians should attempt to service or maintain this equipment.

Use caution when sliding out the bin.

1. Empty all the ice from the bin
2. Remove the front grill (Fig. 17)
2. Remove two screws behind the grill
3. Shut off the drain cut-off valve and remove the drain tube from the ice bin (Fig. 15)
4. Detach the capillary tube from the bracket - holder. (Fig. 16)
4. Facing the unit slide out the bin out, pulling it towards you.

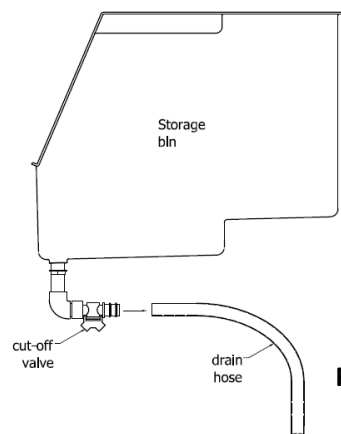


Fig. 15

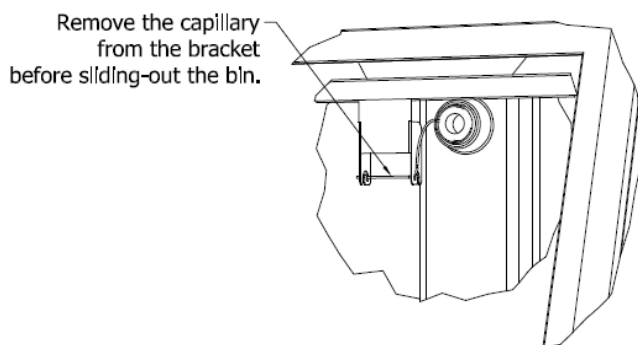


Fig. 16

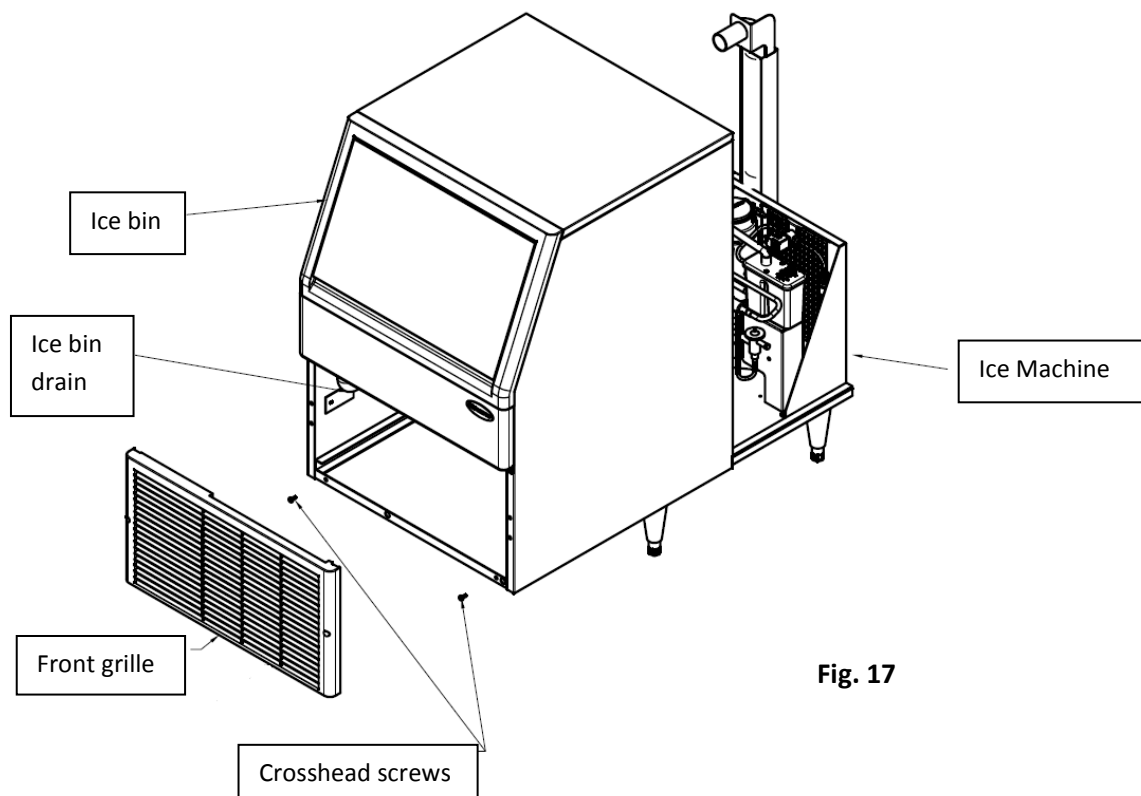


Fig. 17

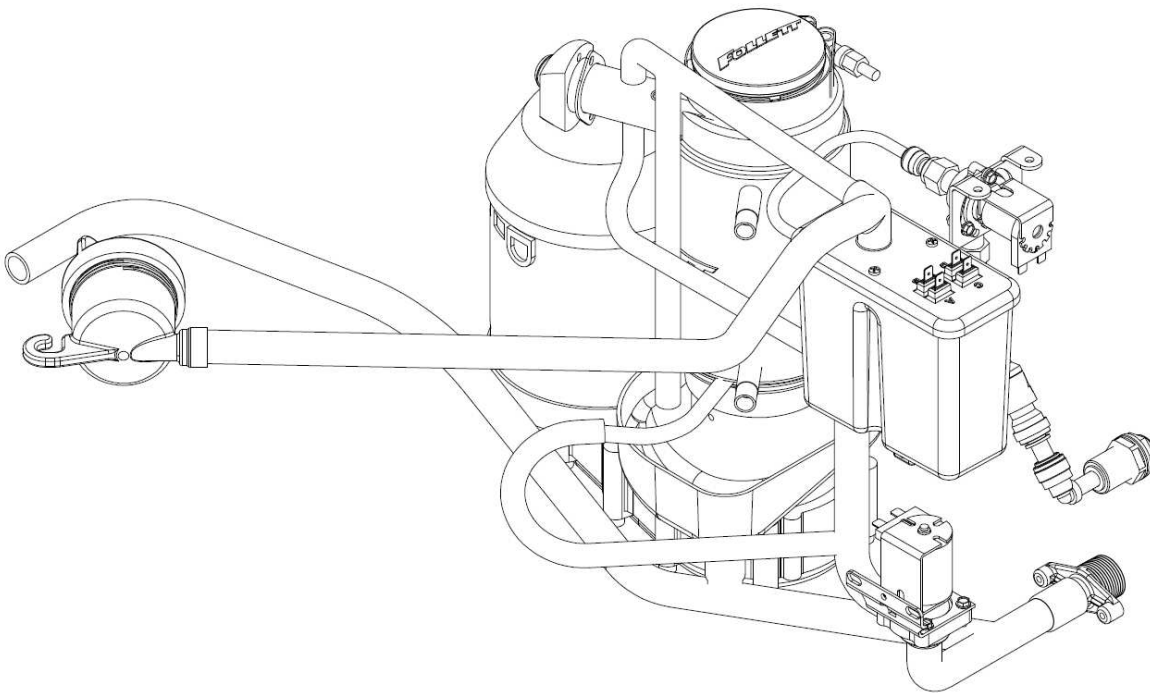
Water system

The water level in the evaporator is controlled by a feed solenoid and level detecting sensors. Referencing the diagram below, water sensing rods extend down into the reservoir. The system works via electrical conductivity as follows:

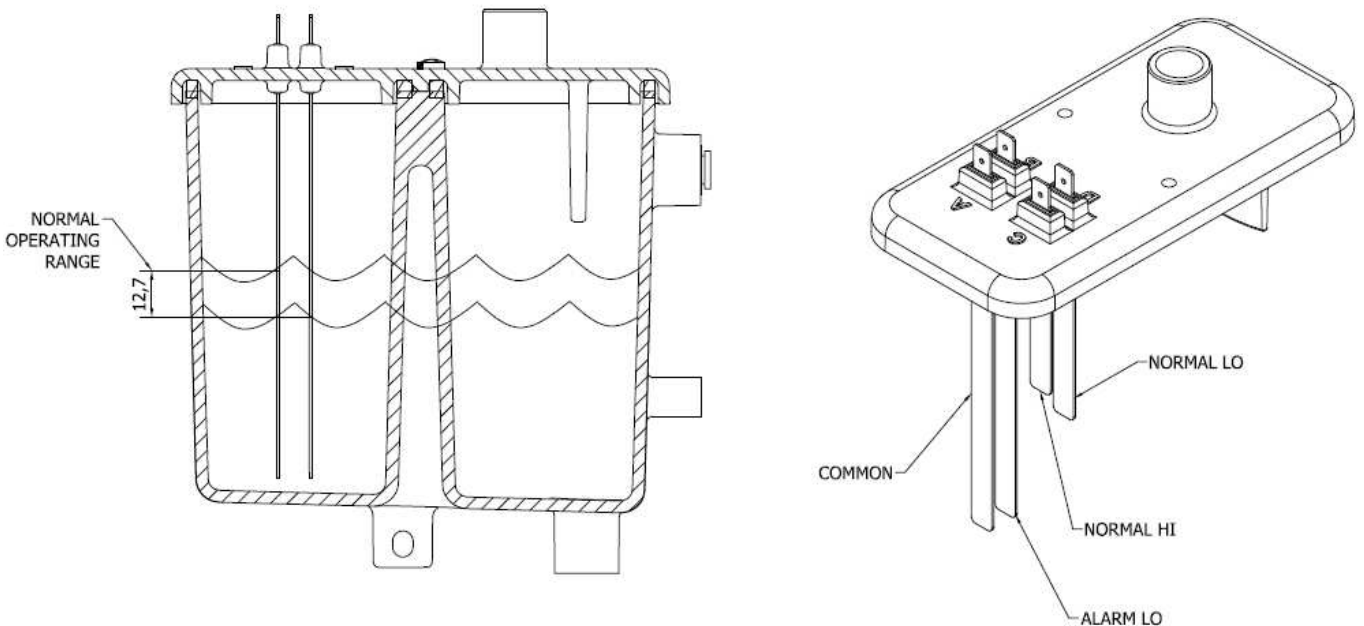
One of the longest probes is a common. When water is between any of the other probes and the common, the PC board will sense the activation. During normal operation, the water level rises and falls between the Normal High and Normal Low sensors. As water is consumed to make ice, the level will fall until the Normal Low sensor is exposed, triggering the water feed solenoid on. Water will fill until the Normal High sensor is activated.

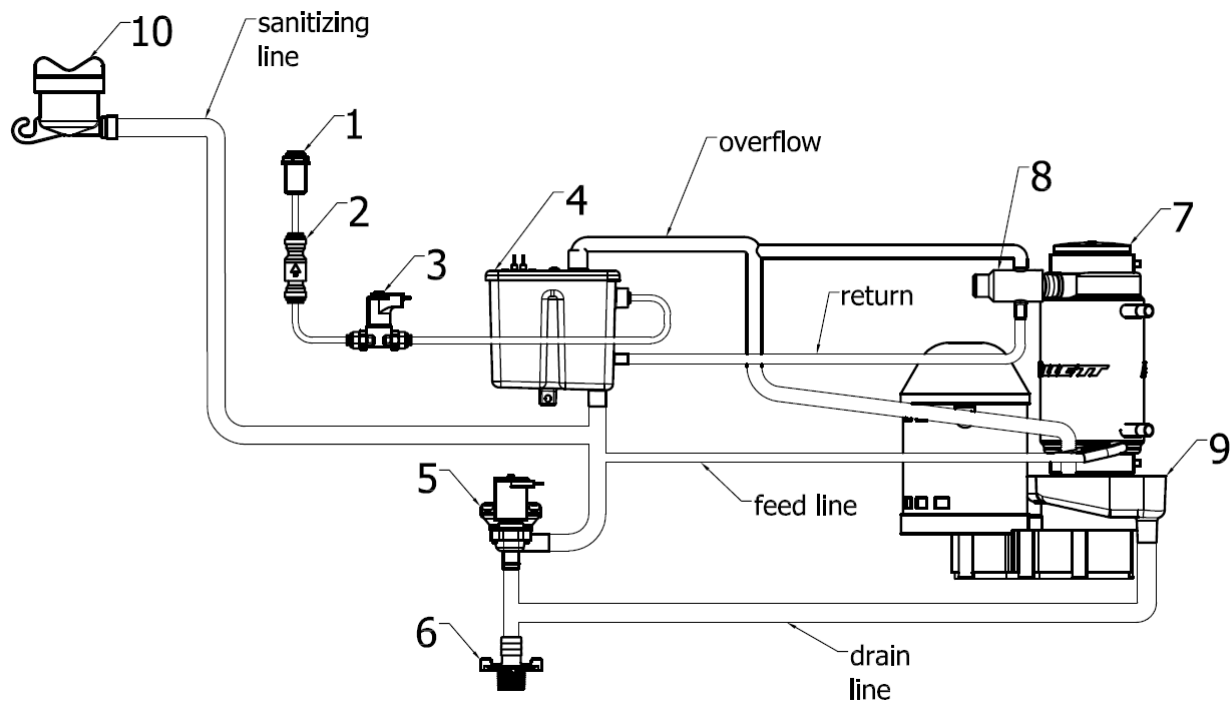
Note: The potable water dissolved solids content must be greater than 10 ppm for the water control system to function properly. If using reverse osmosis water filtration system, ensure T.D.S level is greater than 10 ppm.

Water system diagram



Water level diagram





1. Push in water inlet
2. Check valve
3. Water feed solenoid valve
4. Water reservoir
5. Purge valve
6. Drain outlet
7. Evaporator and gearmotor assembly
8. Ice compression nozzle
9. Drain pan
10. Cleaning cup, sanitizer

Electrical system

Normal control board operation

The PC board indicator lights provide all the information necessary to determine the machine's status. Green indicator lights generally represent "go" or normal operation; Yellow indicators represent normal off conditions; Red indicators generally represent alarm conditions, some of which will lock the machine off.

A flashing green light labeled POWER indicates power to the machine. All other normal operation status indicators are covered as follows:

Ice machine disposition	Operating conditions
Legend ● ON ○ OFF	● ON or OFF ⊗ FLASHING
1. Ice machine is making ice ○ CLEANER FULL ○ NOT USED ○ HI PRESSURE ○ HI AMPS ○ SERVICE ○ MAINTENANCE/CLN ○ LOW WATER ○ TIME DELAY ○ SLEEP CYCLE ● MAKING ICE ● LOW BIN ⊗ POWER ON	1. Normal operation
2. Ice machine is not making ice ○ CLEANER FULL ○ NOT USED ○ HI PRESSURE ○ HI AMPS ○ SERVICE ○ MAINTENANCE/CLN ○ LOW WATER ● TIME DELAY ○ SLEEP CYCLE ○ MAKING ICE ● LOW BIN ⊗ POWER ON	2. Normal time delay. When the bin fills with ice, the LOW BIN light goes out momentarily and the refrigeration and auger drive systems immediately shut down (Note: The fan motor will continue to run for 10 minutes to cool condenser) The TIME DELAY light comes on, initiating the time delay period. When the time delay expires, the machine will restart provided that the LOW BIN light is on.

Error faults:

The PC board monitors various operating parameters including high pressure, auger gearmotor amperage limits, and low water alarm conditions.

A soft error can either be automatically reset should the condition rectify, or if power is cycled. Should an error occur, consult the troubleshooting guide in this manual or a Follett service technician.

Soft errors:

HI AMPS: The PC board monitors the amperage of the auger motor. Should the gear motor experience current draw above the allowable limit, the machine will shut down and the TIME DELAY and HI AMP will be illuminated. After the time delay the machine will restart and the TIME DELAY and HI AMP will clear.

LO WATER: During operation, the water level cycles between the normal low and normal high sensors. Should the water be shut off to a running machine, a soft error will occur. The error sequence is as follows: During operation, the water level falls to the normal low sensor, and when it does the water feed solenoid is energized. If water is not detected at the normal low sensor within 10 seconds, a soft error will occur. The machine will shut down, but the water feed solenoid will remain energized. Should water return, it will fill to the normal low sensor and the machine will resume normal operation. The error will clear automatically.

HI PRESSURE: Should the refrigeration pressure rise above 425 psi, the machine will shut down and the TIME DELAY and HIGH PRESSURE will be illuminated. After the time delay, and if the pressure has fallen back below the reset point of 295 psi, the machine will restart and the TIME DELAY and HIGH PRESSURE will clear.

Relay output indication:

Each relay on the board has an indicator light associated with its output. For example, when the relay for the water feed solenoid is energized, the adjacent indicator light glows green.

Flushing logic

Flush on fly: For every one (1) hour of ice making time, the machine will open the drain valve for a duration of 60 seconds. While the drain valve is open, the machine will continue to make ice and the water feed valve will cycle to maintain water level.

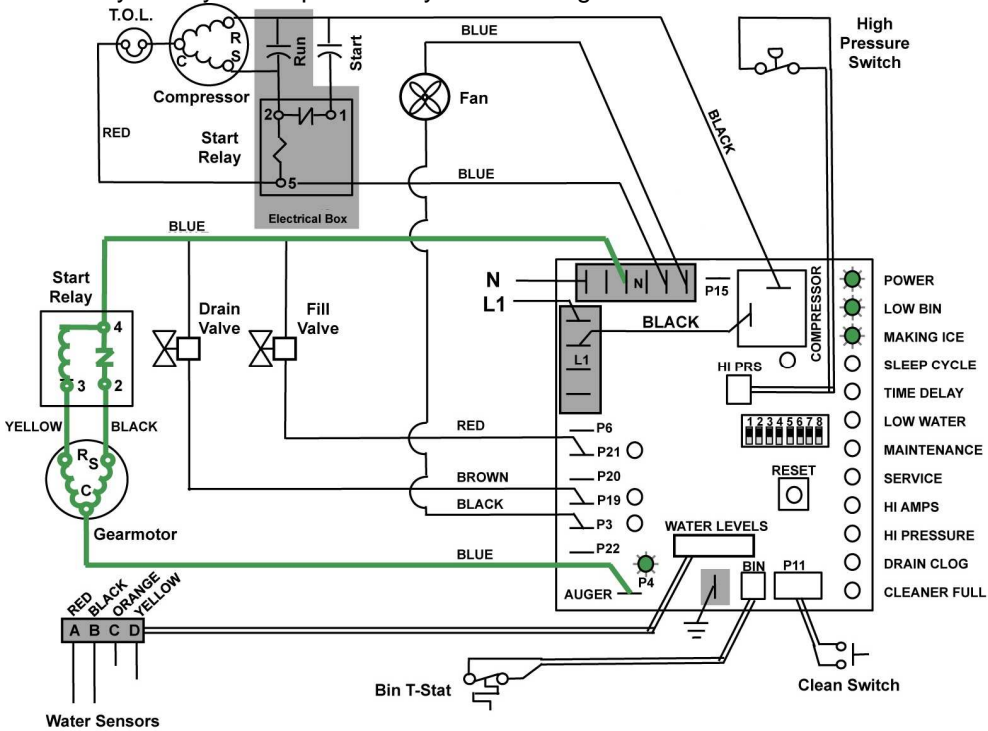
Off cycle: At the completion of off-cycle time delay, the machine checks for a cumulative one (1) hour of ice making time since the last **off-cycle** flush. If the cumulative ice making time exceeds one (1) hour, the machine will open the drain valve for 60 seconds to drain the evaporator in its entirety. It will then refill with water and begin making ice. If the ice making time is less than 1 hour, the machine will start and begin making ice without draining the evaporator.

Starting procedure

The wiring diagrams which follow illustrate the circuitry of Follett integrated ice machine during starting procedure.

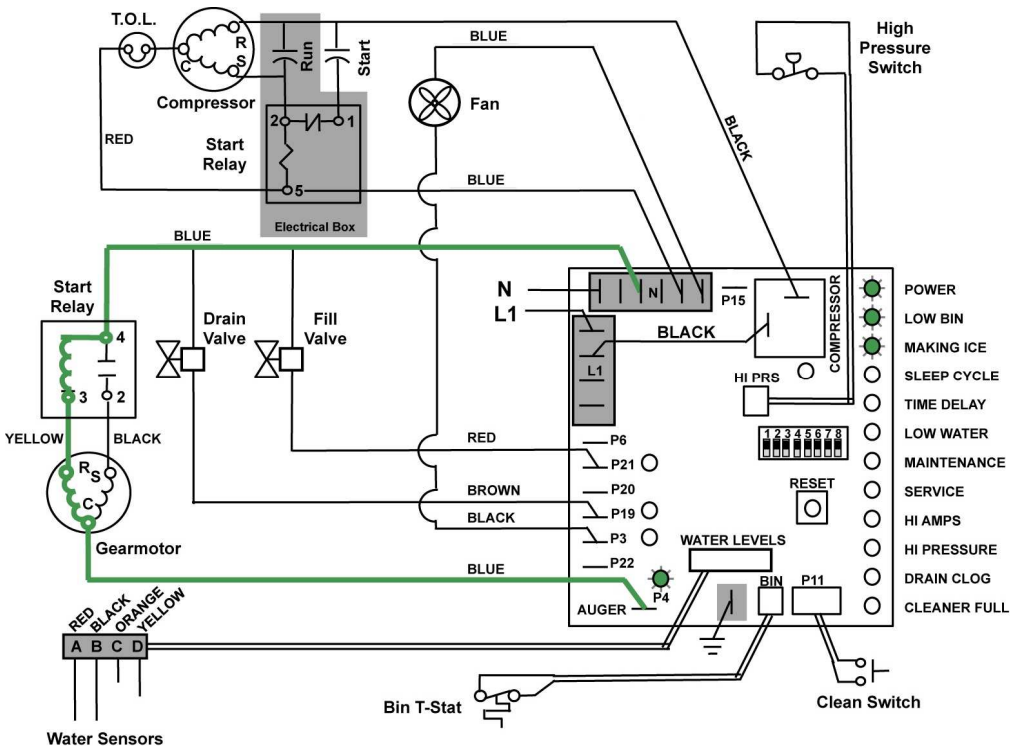
Normal operation – Stage 1

Power is supplied to L1 of the control board. The ice level control in the dispenser is closed and calling for ice (LOW BIN). The control board will now go through the start-up sequence. The gearmotor start winding is started through a current style relay that is pulled in by the initial high current draw



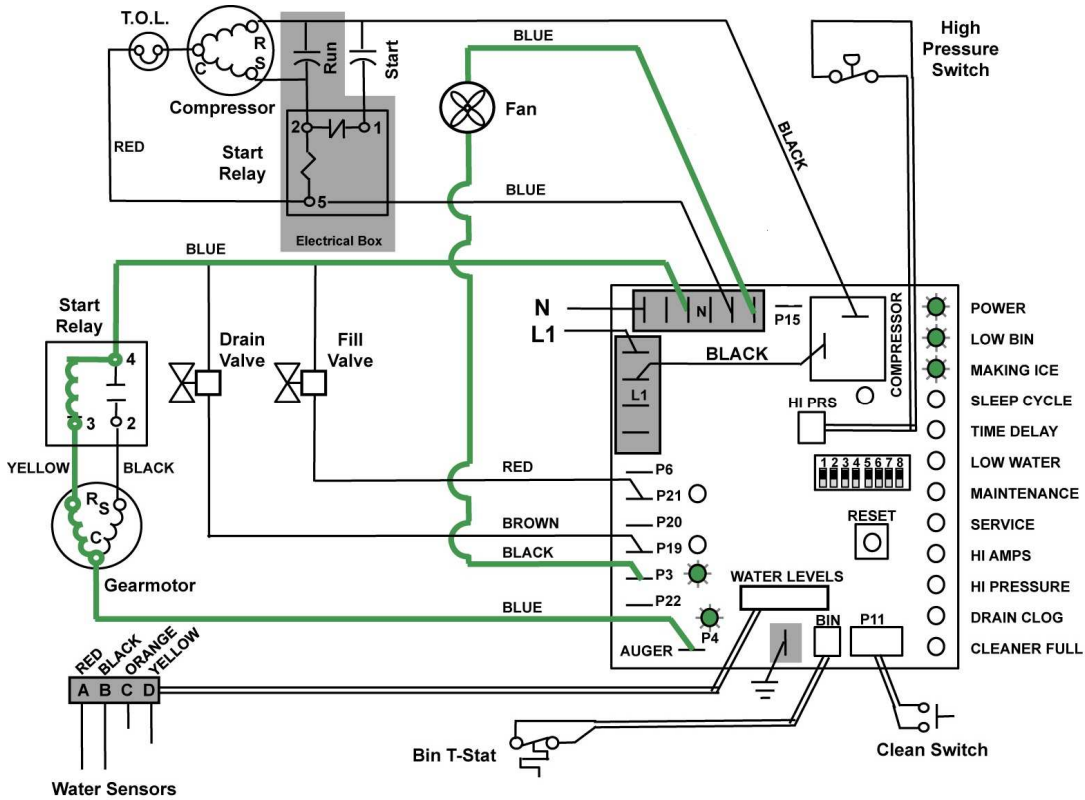
Normal operation – Stage 2

After the initial high current draw drops off, the gearmotor start relay contacts open dropping out the start winding.



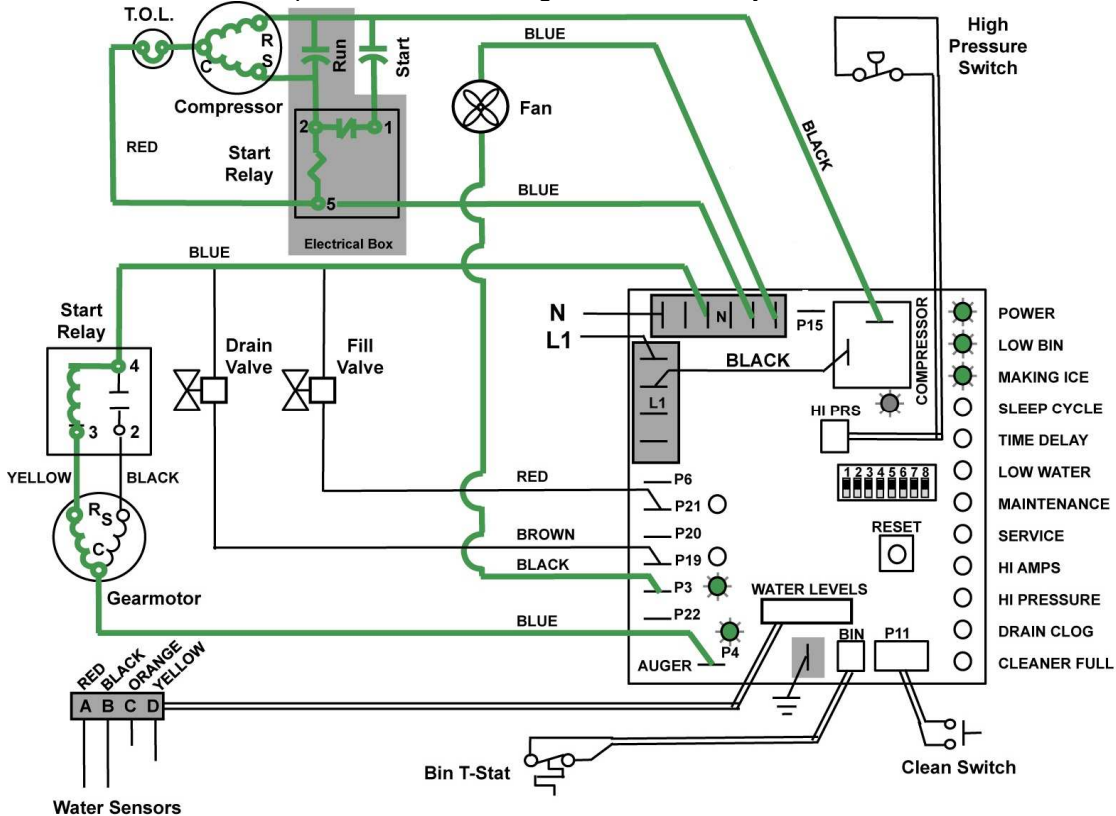
Normal operation – Stage 3

In time of 0,5s the condenser fan starts



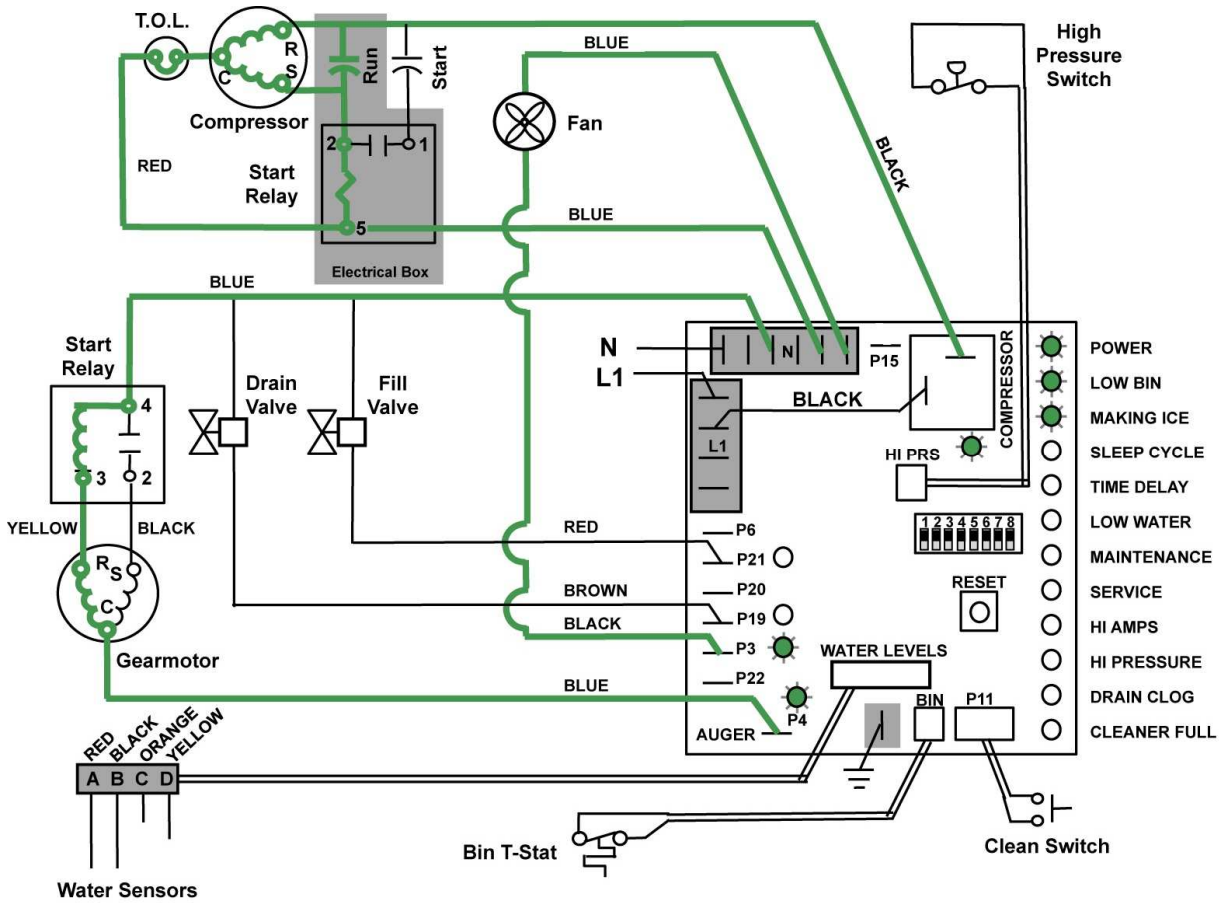
Normal operation – Stage 4

In the time of 1,5s the compressor starts running thru its start relay

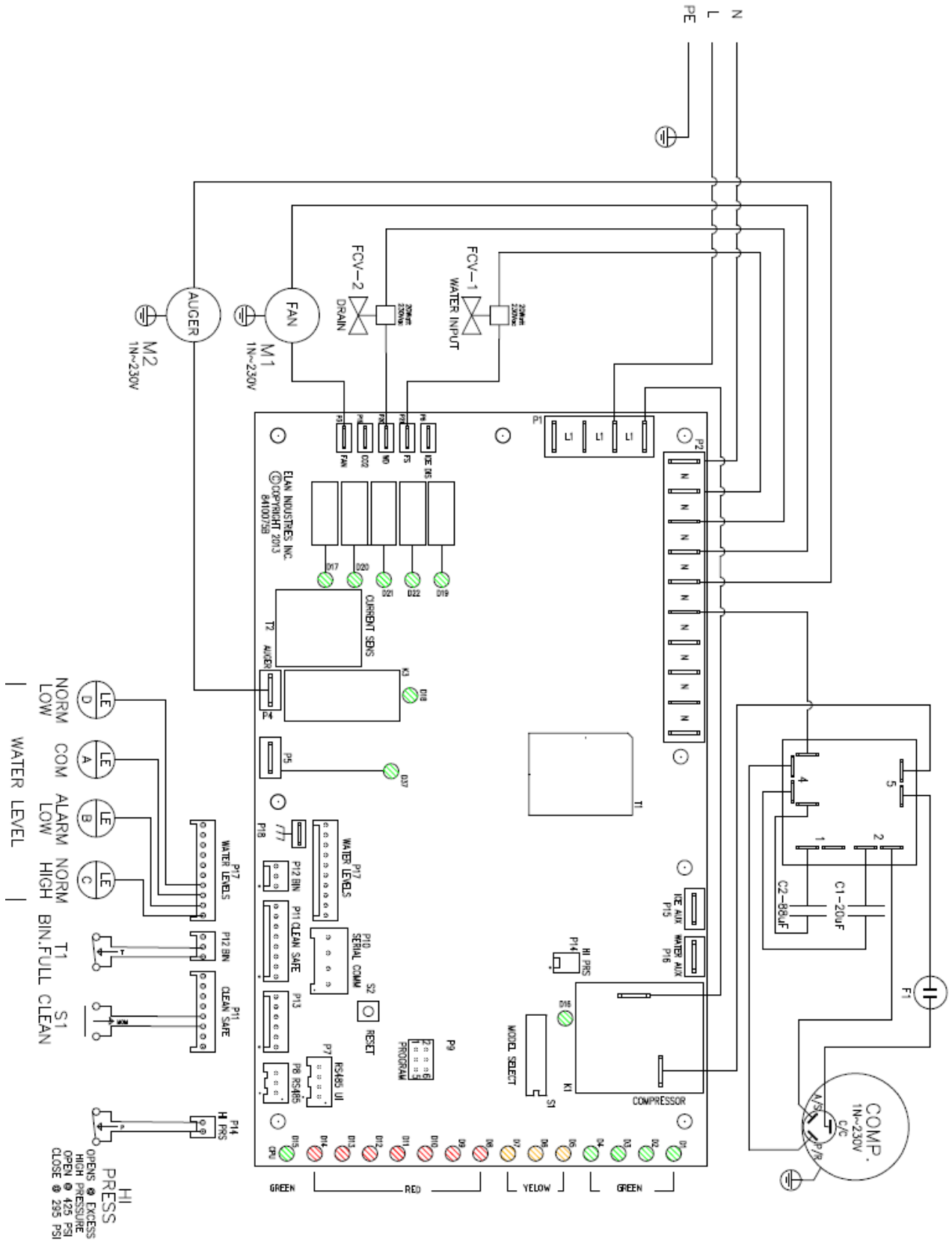


Normal operation – Stage 5

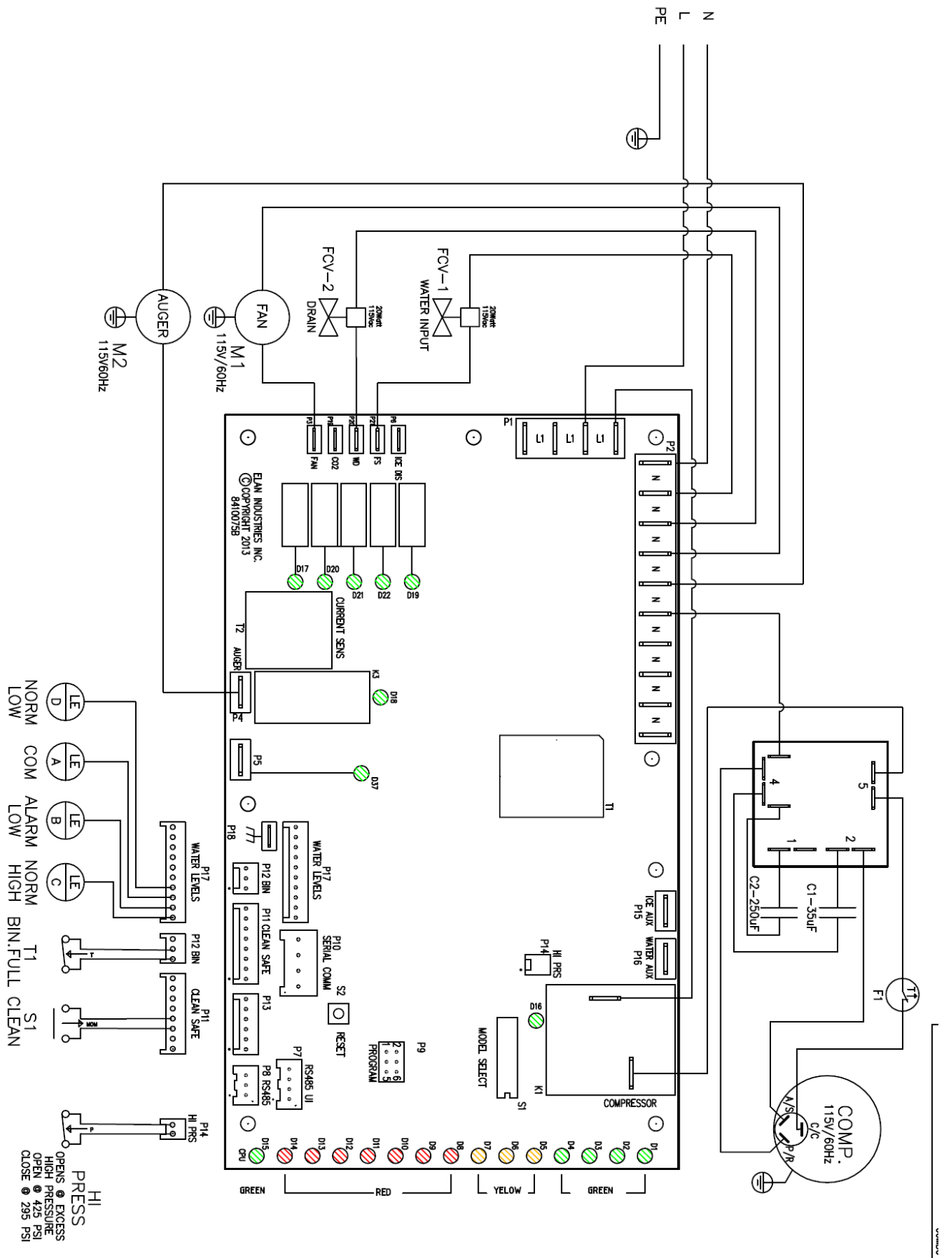
As the compressor comes up to normal running speed, the compressor start relay contacts open, dropping out the start winding of the compressor.



Wiring diagram 230V



Wiring diagram 115V



Mechanical system

Evaporator disassembly (Fig. 7)

1. Press CLEAN SWITCH to purge evaporator
2. Disconnect power to ice machine when LOW WATER lights.
3. Shut off water to ice machine.
4. Disconnect plastic tubing from evaporator water inlet, drain pan stub, compression nozzle tubing and reservoir overflow tubing from secured clip.
5. Disconnect ice transport tube from compression nozzle.

Note: No compression nozzle on SFC, SFD, SFE series flake ice machines.

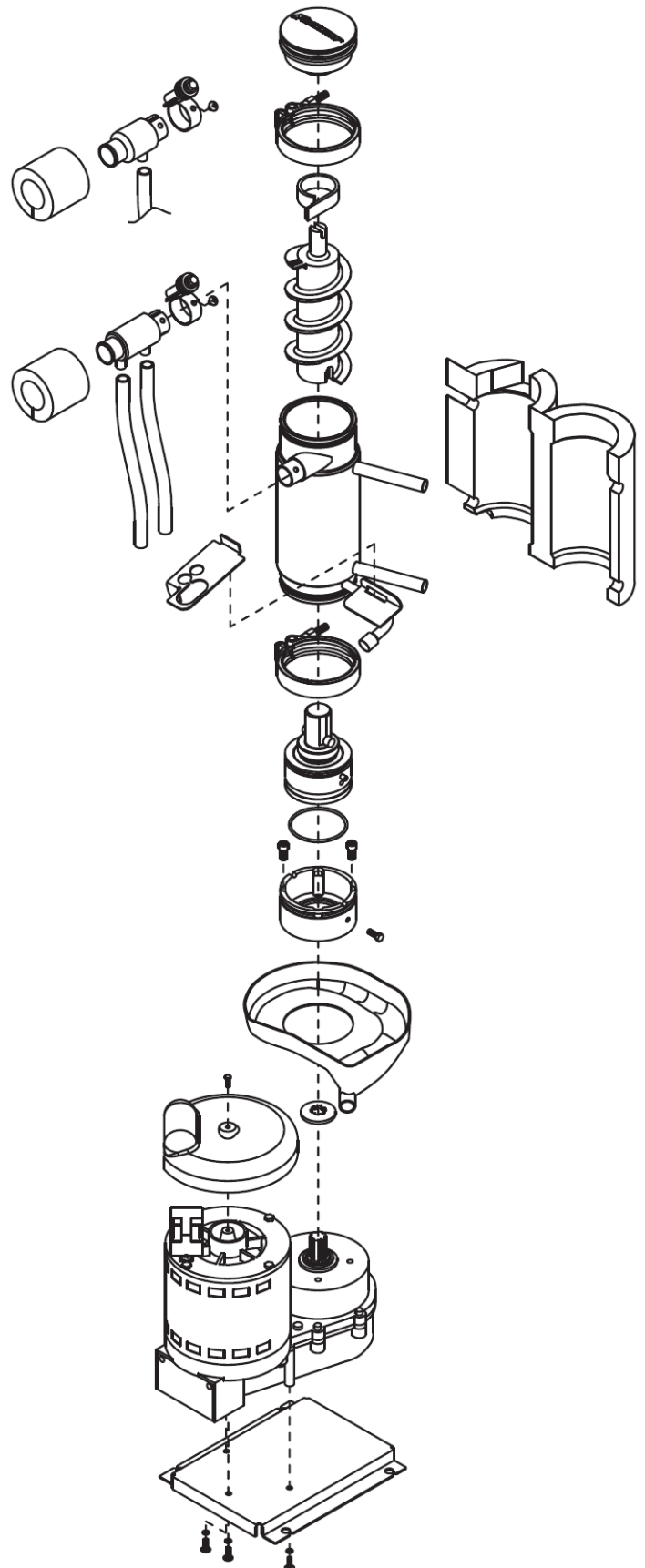
6. Loosen nut and remove upper vee band coupling from top of evaporator.
7. Lift top bearing assembly straight up with a slight rotating motion and remove.
8. Remove ice compression loop located at top of auger.
9. Lift auger straight up and out of evaporator.
10. Remove nut and lower vee band coupling from bottom of evaporator.
11. Lift evaporator to clear bottom bearing assembly.
12. Loosen hex head bolt in side of mounting base with 5/16 wrench and lift lower bearing assembly.
13. Remove condensate shield.
14. Remove 4 Allen head machine screws holding mounting base to gearbox.
15. If replacing evaporator, remove compression nozzle from evaporator port.

Evaporator reassembly (Fig. 7)

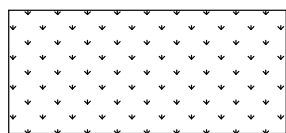
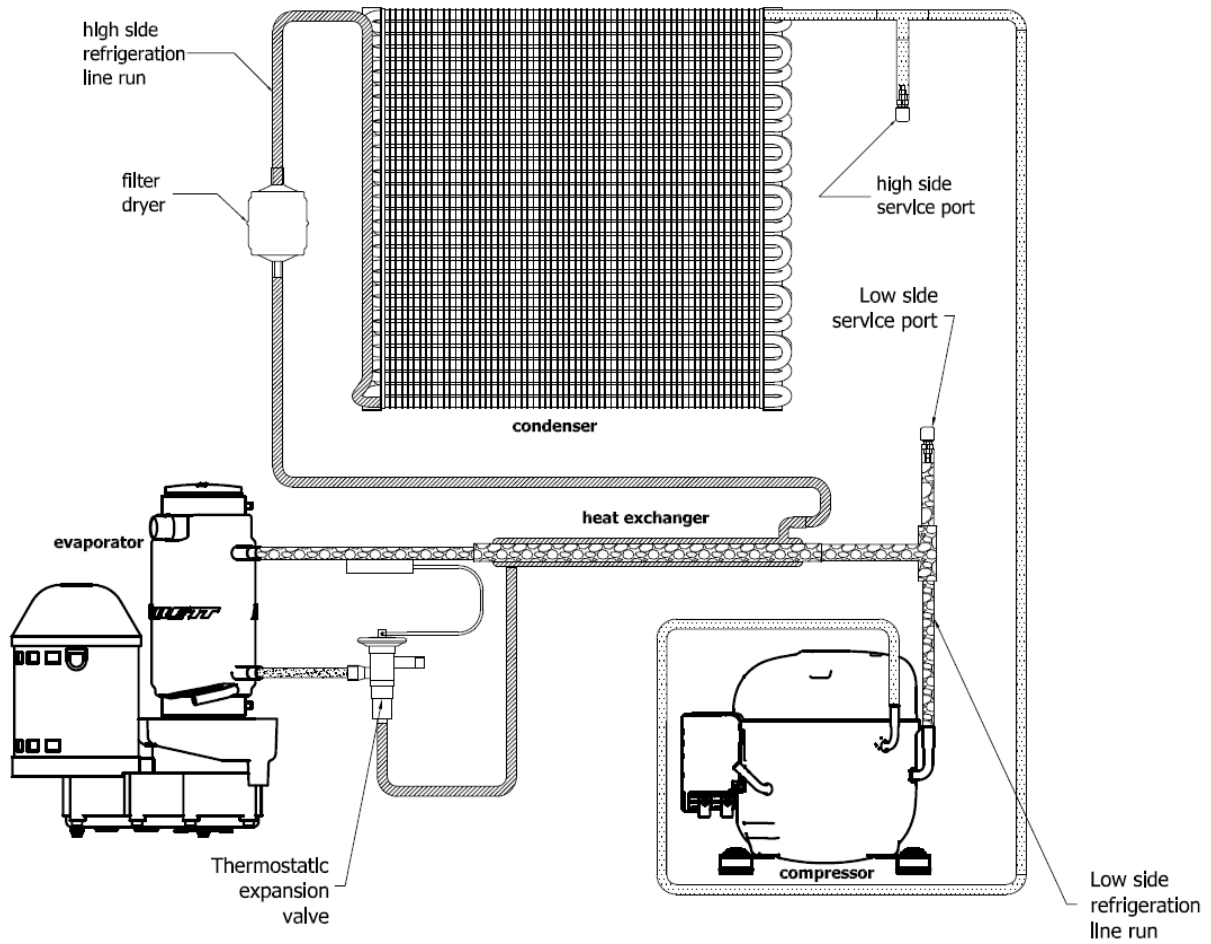
1. Clean gearmotor boss, output shaft and shaft well.
2. Install drain pan and evaporator mounting base.
3. Fill gearmotor shaft well with food-grade grease (Fig. 8).
4. Install condensate shield and seat against gearmotor boss.
5. Install mounting base O ring in groove in evaporator mounting base.
6. Lower bottom bearing assembly into evaporator mounting base.
7. While maintaining a downward pressure on bottom bearing assembly, tighten hex head bolt with a 5/16 wrench.
8. Position evaporator over lower bearing assembly and align grooves with pins in bearing assembly.
9. Install vee band clamp and nut and tighten to 70 in/lb.
10. Place auger in center of evaporator and rotate to mate with drive pin.
11. Install ice compression loop, orienting loop as shown in Fig. 7.

Note: No compression nozzle on SFC, SFD, SFE series flake ice machines.

12. Install upper bearing and seal assembly, rotating bearing to slip pin into auger slot.
13. Install upper vee band clamp and nut and tighten to 70 in/lb.
14. If evaporator was replaced, reinstall compression nozzle.



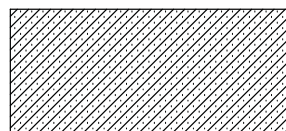
Refrigeration system



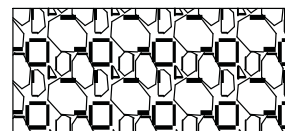
HIGH PRESSURE VAPOR



LOW PRESSURE LIQUID



HIGH PRESSURE LIQUID



LOW PRESSURE VAPOR

HIGH PRESSURE LIQUID

Refrigeration charge

All service on refrigeration systems must be performed in accordance with all federal, state and local laws. It is the responsibility of the technician to ensure that these requirements are met. Recharging ice machine to other than factory specifications will void the warranty.

R404A ice machine charge specifications

Model Charge Refrigerant type

SME400A75; SMC400A75; SMD400A75; SFE400A75; SFC400A75; SFD400A75 - 17.6 oz (500g) R404A

Refrigerant replacement requirements

1. Non-contaminated refrigerant removed from any Follett refrigeration system can be recycled and returned to the same system after completing repairs. Recycled refrigerant must be stored in a clean, approved storage container. If additional refrigerant is required, virgin or reclaimed refrigerant that meets ARI standard 700-88 must be used.
2. In the event of system contamination (for example, a compressor burn out, refrigerant leak, presence of non condensibles or moisture), the system must be repaired, evacuated and recharged using virgin or reclaimed refrigerant that meets ARI standard 700-88.
3. Follett Corporation does not approve of recovered refrigerants. Improper refrigeration servicing procedures will void the factory warranty.

Evacuation

Evacuate the system to a level of 500 microns. When the 500 micron level is reached, close all valves. Allow the system to sit for approximately 20 minutes. During this period the system pressure should not rise. If the system pressure rises and stabilizes there is moisture in the system and further evacuation is needed. If the pressure continues to rise check the system for leaks.

Ambients

	Minimum	Maximum
Air temperature ¹	50° F/ 10° C	100° F/37.8° C
Water temperature ²	45° F/ 7° C	90° F/32.2° C

¹Ambient air temperature is measured at the air-cooled condenser coil inlet.

²Ambient water temperature is measured in the ice machine water reservoir.

Ice capacity test

Ice machine production capacity can only be determined by weighing ice produced in a specific time period.

1. Replace all panels on ice machine.
2. Run ice machine for at least 15 minutes.
3. Weigh and record weight of container used to catch ice.
4. Catch ice for 15 or 20 minutes.
5. Weigh harvested ice and record total weight.
6. Subtract weight of container from total weight.
7. Convert fractions of pounds to decimal equivalents (ex. 6 lbs 8oz = 6.5 lbs).
8. Calculate production using following formula:

$$\frac{1440 \text{ min.} \times \text{wt. of ice produced}}{\text{Total test time in minutes}} = \text{Production capacity/24h}$$

9. Calculated amount per 24 hours should be checked against rated capacity for same ambient and water temperatures in Ice Production Tables.

Troubleshooting

Ice machine disposition	Possible casuses	Corrective action
Legend		
	● ON ○ OFF ◐ ON or OFF	⊗ FLASHING
1. Ice machine is in running condition but not making ice <input type="radio"/> CLEANER FULL <input type="radio"/> NOT USED <input type="radio"/> HI PRESSURE <input type="radio"/> HI AMPS <input type="radio"/> SERVICE <input type="radio"/> MAINTENANCE/CLN <input type="radio"/> LOW WATER <input type="radio"/> TIME DELAY <input type="radio"/> SLEEP CYCLE <input checked="" type="radio"/> MAKING ICE <input type="radio"/> LOW BIN <input type="radio"/> POWER ON	1. Defective compressor 2. Defective start relay 3. Defective start capacitor 4. Defective run capacitor 5. Defective main contactor 6. No output from PC BOARD 7. Machine in Purge Cycle	1. Replace compressor 2. Replace start relay 3. Replace start capacitor 4. Replace run capacitor 5. Replace main contactor 6. Replace PC board 7. Check for purge operation
2. Machine in TIME DELAY without full bin <input type="radio"/> CLEANER FULL <input type="radio"/> NOT USED <input type="radio"/> HI PRESSURE <input type="radio"/> HI AMPS <input type="radio"/> SERVICE <input type="radio"/> MAINTENANCE/CLN <input type="radio"/> LOW WATER <input checked="" type="radio"/> TIME DELAY <input type="radio"/> SLEEP CYCLE <input type="radio"/> MAKING ICE <input type="radio"/> LOW BIN <input type="radio"/> POWER ON	1. Damaged or improperly installed thermostat (open)	1. Replace or reposition thermostat
3. Ice machine is not making ice. HI AMPS <input type="radio"/> CLEANER FULL <input type="radio"/> NOT USED <input type="radio"/> HI PRESSURE <input checked="" type="radio"/> HI AMPS <input type="radio"/> SERVICE <input type="radio"/> MAINTENANCE/CLN <input type="radio"/> LOW WATER <input checked="" type="radio"/> TIME DELAY <input type="radio"/> SLEEP CYCLE <input type="radio"/> MAKING ICE <input type="radio"/> LOW BIN <input type="radio"/> POWER ON	1. Poor water quality causing ice to jam auger 2. Ice transport tube damaged or bended 3. Gearmotor is unplugged 4. Intermittent drive output from PC board. Evaporator will freeze causing HI AMPS error.	1. Clean ice machine 2. Inspect ice transport tube. Replace if needed 3. Plug in Gearmotor 4. Replace PC board
4. Ice machine is not making ice. HI PRESSURE <input type="radio"/> CLEANER FULL <input type="radio"/> NOT USED <input checked="" type="radio"/> HI PRESSURE <input type="radio"/> HI AMPS <input type="radio"/> SERVICE <input type="radio"/> MAINTENANCE/CLN <input type="radio"/> LOW WATER <input checked="" type="radio"/> TIME DELAY <input type="radio"/> SLEEP CYCLE <input type="radio"/> MAKING ICE <input type="radio"/> LOW BIN <input type="radio"/> POWER ON	1. High ambient temperatures >100F (38C) 2. Poor ventilation or air circulation 3. Clogged condenser or condenser filter 4. Fan not working properly. No air flow. <ul style="list-style-type: none"> • Blocked fan blades • No fan output from PC board • Faulty fan motor 	

<p>5. Ice machine is making ice. Excessive water in bin from transport tube</p> <ul style="list-style-type: none"> <input type="radio"/> CLEANER FULL <input type="radio"/> NOT USED <input type="radio"/> HI PRESSURE <input type="radio"/> HI AMPS <input type="radio"/> SERVICE <input type="radio"/> MAINTENANCE/CLN <input type="radio"/> LOW WATER <input type="radio"/> TIME DELAY <input type="radio"/> SLEEP CYCLE <input checked="" type="radio"/> MAKING ICE <input checked="" type="radio"/> LOW BIN <input checked="" type="radio"/> POWER ON 	<ol style="list-style-type: none"> 1. Failed water sensors. Processor assumes there is no water when there is water 2. Blocked reservoir vent. 3. Defective water feed solenoid valve. Stuck in open position. 	<ol style="list-style-type: none"> 1. Clean or replace water probe assembly. Check wiring connections. 2. Clean or replace vent tubes 3. Replace water feed solenoid valve.
<p>6. Ice machine is not making ice. LOW WATER</p> <ul style="list-style-type: none"> <input type="radio"/> CLEANER FULL <input type="radio"/> NOT USED <input type="radio"/> HI PRESSURE <input type="radio"/> HI AMPS <input type="radio"/> SERVICE <input type="radio"/> MAINTENANCE/CLN <input checked="" type="radio"/> LOW WATER <input checked="" type="radio"/> TIME DELAY <input type="radio"/> SLEEP CYCLE <input type="radio"/> MAKING ICE <input checked="" type="radio"/> LOW BIN <input checked="" type="radio"/> POWER ON 	<ol style="list-style-type: none"> 1. Water supply is insufficient 2. Low water pressure. 3. Defective water feed solenoid valve. Stuck in closed position. 4. No water feed output from pc board 	<ol style="list-style-type: none"> 1. Restore water supply and check water filters. If evaporator was completely empty the reset button may have to be pressed to restart the ice machine 2. Ice machine will eventually start when water reaches normal LO level 3. Replace water feed solenoid valve 4. Replace PC Board

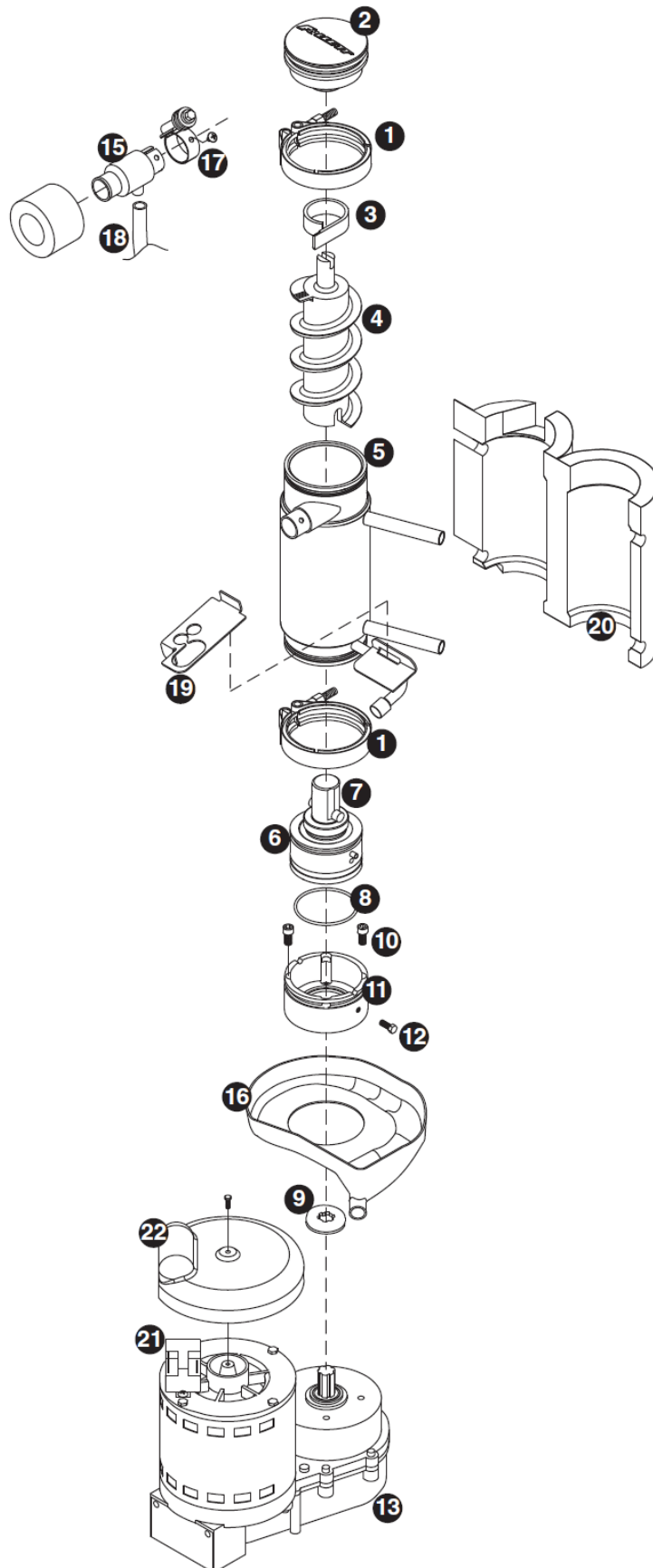


ATTENTION!

To prevent circuit breaker overload, wait 15 minutes before restarting this unit. This allows the compressor to equalize and the evaporator to thaw.

Replacement parts

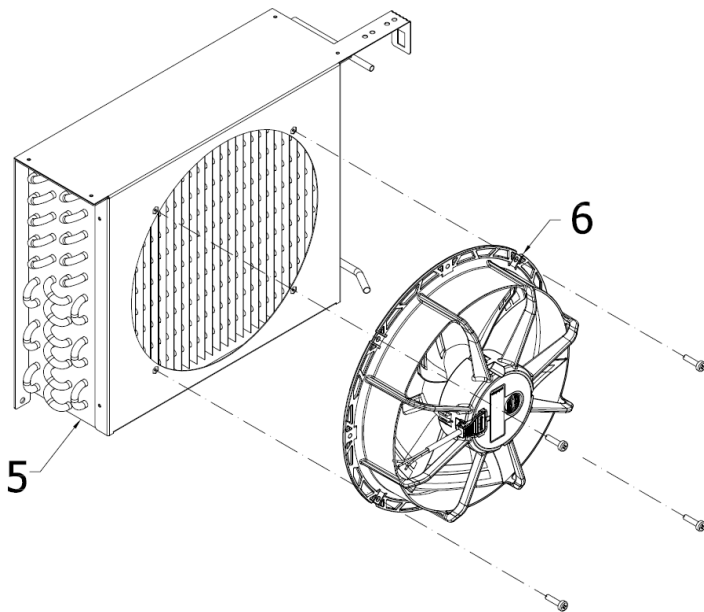
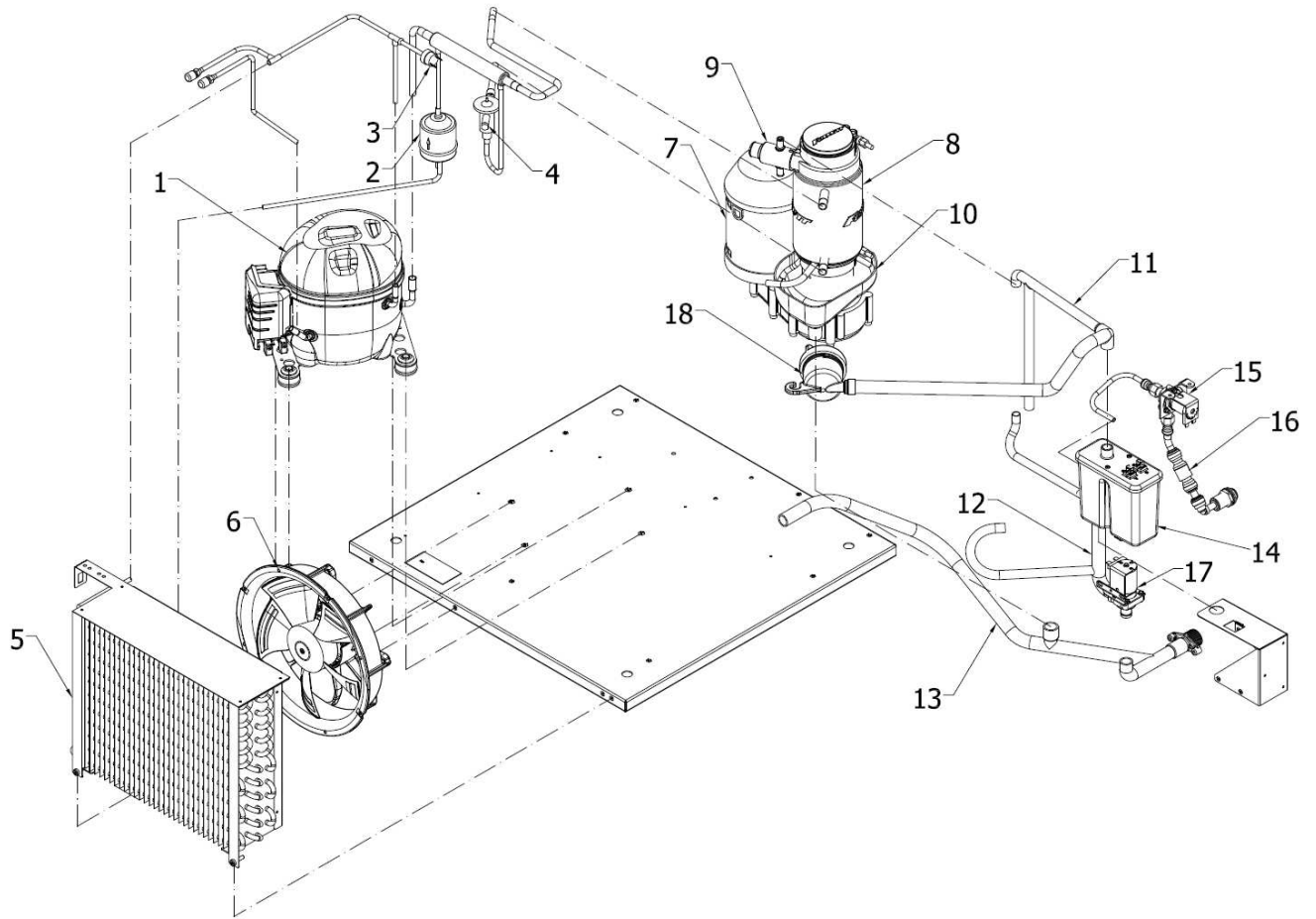
Evaporator assembly



Service (continued)

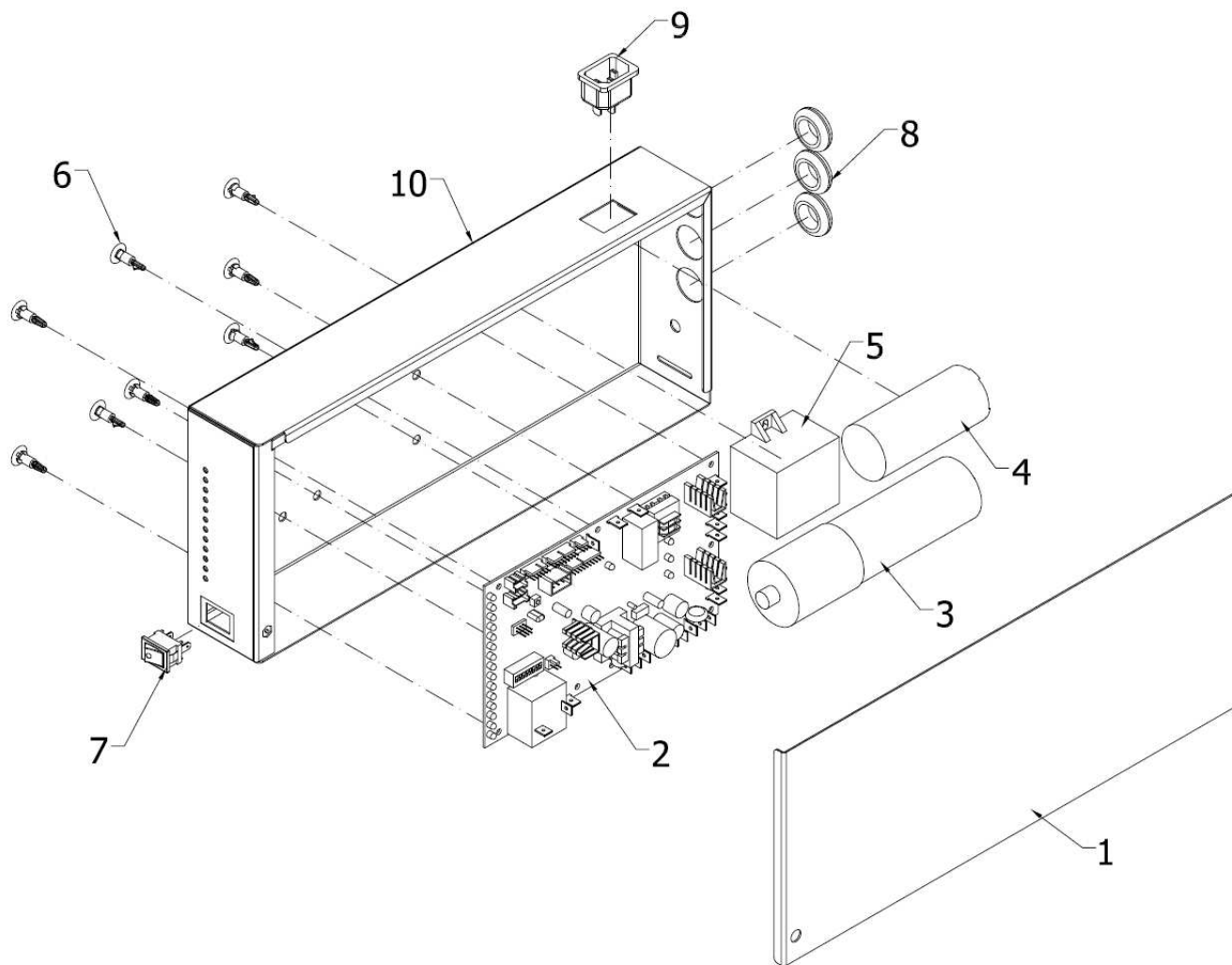
Reference #	Description	Part #
1	Coupling, vee band, includes nut	502735
2	Bearing assembly, top	502736
3	Loop, ice compression, beveled	502110
3	Loop, ice compression, notched (Flaker component)	00124115
4	Auger	502737
4	Auger , with paddle (Flaker component)	00171405
5	Evaporator assembly with insulation	502725
6	O-ring, bearing housing	500496
9	Bearing assembly, bottom	502738
10	O-ring, mounting base	501063
11	Shield, condensate	500744
12	Screw, Allen ¼ 20 x ½ (set of 4)	501080
13	Gearbox & motor	00142034
Not shown	Mounting base, gearbox	502729
15	Compression Nozzle, with single drain	502221
16	Drain pan, evaporator	00181990
17	Clamp, compression nozzle and screw	502226
18	Tubing	500680
Not shown	Grease	501111
19	Bracket, drain hose	502739
20	Insulation jacket, evaporator	502740
21	Relay, gearmotor	00142042
22	Cover, metal	502744
22	Cover, plastic	01012228

Components assembly



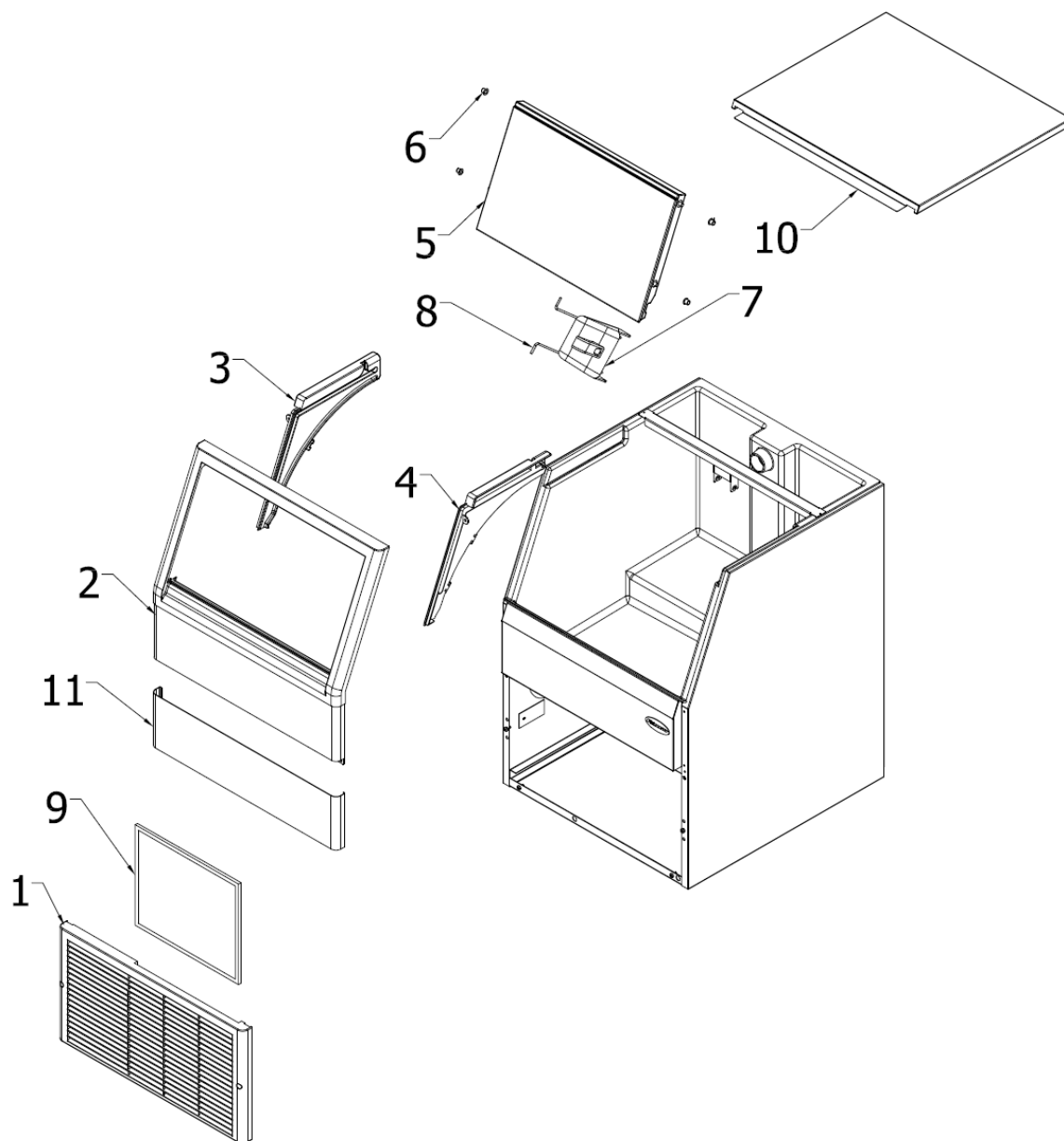
Reference #	Description	Part #
1	Compressor, 230V 50Hz	01060755
1	Compressor, 220V 60Hz	01056019
1	Compressor, 115V 60Hz	01056001
2	Filter, dryer	00177527
3	High pressure switch	00117077
4	Expansion valve	01033174
5	Condenser	01060235
6	Condenser fan 230V 50/60Hz	01060110
6	Condenser fan 115V 50/60Hz	01060102
7, 8	Evaporator and gearmotor assembly 115V	
7, 8	Evaporator and gearmotor assembly 115V	
9	Ice compression nozzle	
10	Drain pan	00181990
11	Sanitizer tubing	01056233
12	Purge tubing	
13	Drain line tubing	
14	Water reservoir assembly	00989988
15	Water feed solenoid valve 230V	00130831
15	Water feed solenoid valve 115V	00128116
16	Check valve	
17	Purge valve 230V	00991216
17	Purge valve 115V	00991190
18	Cleaning cup	00924035

Electrical box



Reference #	Description	Part #
1	Side cover	01061118
2	Main board 115V	01056019
2	Main Board 230V	01056001
3	Capacitor, compressor start	
4	Capacitor, gearmotor start	
5	Relay, compressor start	
6	Mounting pin clip	
7	Clean switch	
8	grommet	00177907
9	Power supply IEC inlet	
10	Electric box frame	01061092

External Components



Reference #	Description	Part #
1	Front grille	01056357
2	Frame, door assembly	01056365
3	Door slide guider, left	01056373
4	Door slide guider, right	01056381
5	Sliding doors	01056399
6	Doors roller	01056407
7	Scoop	01056415
8	Scoop holder	01056423
9	Condenser filter	01056431
10	Top cover, lid	01056449
11	Blende cover, front	01056456