FOLLETT®
Innovative solutions, inspired by ice

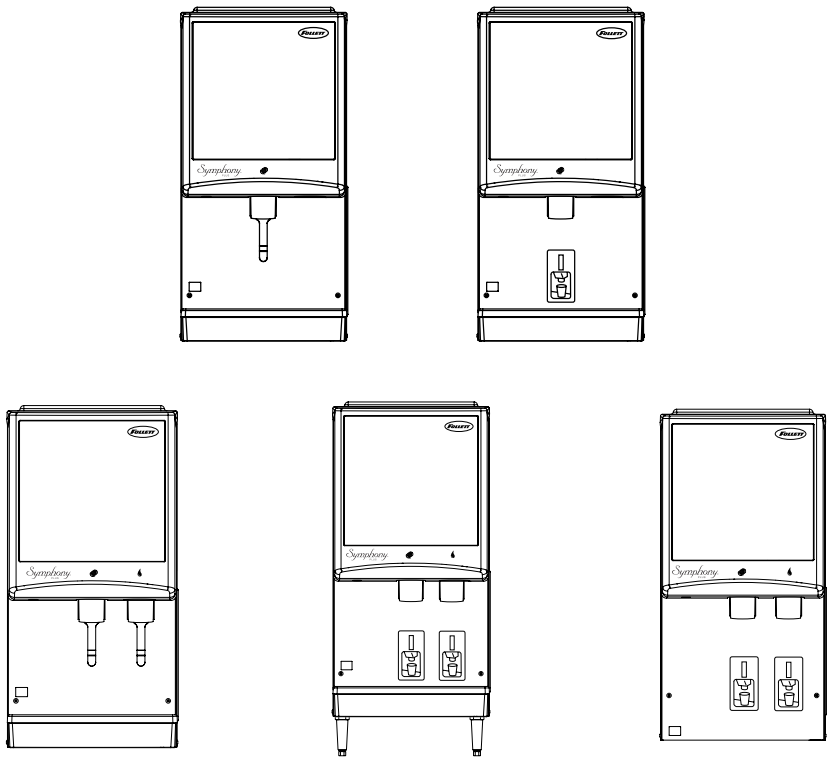
Symphony Plus™ 12 Series Ice and Water Dispensers

12CI425A, 12HI425A

Installation, Operation and Service Manual

After serial number L78614

Please visit *https://www.follettice.com/technicaldocuments* for the Operation and Service manual for your unit.



Welcome to Follett

Follett equipment enjoys a well-deserved reputation for excellent performance, long-term reliability and outstanding after-the-sale support. To ensure that this equipment delivers that same degree of service, review this guide carefully before you begin your installation.

Should you have need technical help, please call our Technical Service group at (877) 612-5086 or (610) 252-7301.

Please have your model number, serial number and complete and detailed explanation of the problem when contacting Technical Service.

Getting Started

After uncrating and removing all packing material. Inspect the equipment for concealed shipping damage. All freight is to be inspected upon delivery. If visible signs of damage exist, please refuse delivery or sign your delivery receipt "damaged." Follett Customer Service must be notified within 48 hours. Wherever possible, please include detailed photos of the damage with the original packaging so that we may start the freight claim process.

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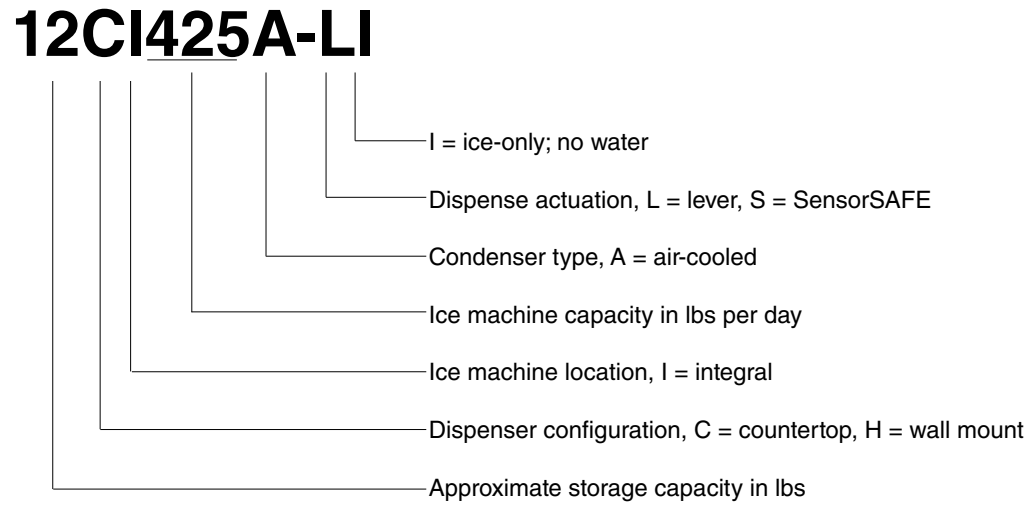
Installation and Service Videos:
www.follettice.com/servicevideolibrary

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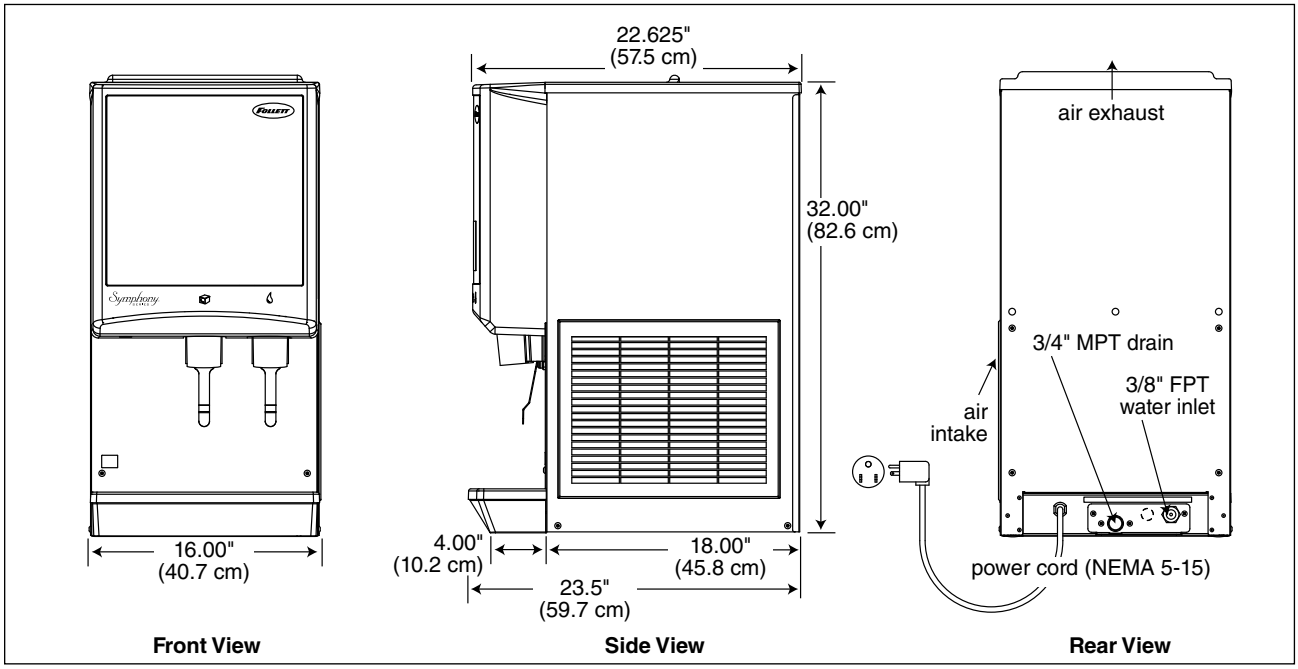
Check your paperwork to determine which model you have. Follett model numbers are designed to provide information about the type and capacity of Follett ice dispensing equipment. Following is an explanation of the different model numbers.



⚠ CAUTION!

- Do not tilt unit further than 30° off vertical during uncrating or installation.
- Dispenser bin area contains mechanical, moving parts. Keep hands and arms clear of this area at all times. If access to this area is required, power to unit must be disconnected first.
- Follett recommends a Follett water filter system be installed in the ice machine inlet water line (standard capacity #00130229, high capacity #00978957, carbonless high capacity #01050442).
- Prior to operation, clean the dispenser in accordance with instructions found in this manual.
- Ice is slippery. Be sure counters and floors around dispenser are clean, dry and free of ice.
- Do not block right side air intake or top air exhaust.

Specifications



Electrical

- 115 V, 60 Hz, 1 phase, 11.0A
- Connect to a 15A dedicated circuit.

Ambient

Air temp*	100 F/38 C Max.	50 F/10 C Min. Best performance below 80 F (27 C)
Water temp†	90 F/32 C Max.	45 F/4 C Min. Best performance below 70 F (21 C)
Water pressure (psi/bar)	70/5 Max.	10/0.7 Min.

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

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

Plumbing

	12CI425A	12HI425A
Dispenser drain	3/4" MPT	3/4" MPT
Water inlet	3/8" FNPT	3/8" FNPT

Note: Water shut-off recommended within 10 ft. (3 m) of dispenser. Drain to be hard-piped and insulated. Maintain at least 1/4" per foot (20 mm per 1 m) run of slope.

Ventilation clearances

- 6" (15.3 cm) on right side of dispenser, 6" (15.3 cm) at top, and 12" (30.5 cm) at top recommended for service.

Note: Do not block right side air intake or top air exhaust.

Dry weight

- 144 lb (65 kg)

Refrigeration system

Important: All service on refrigeration system must be performed in accordance with all federal, state and local laws that pertain to the use of refrigerants. It is the responsibility of the technician to ensure that these requirements are met.

R425 ice machine charge specifications

Model	Charge	Refrigerant type
12CI425A, 12HI425A (air-cooled)	15 oz	R404A

Refrigeration pressure data

Air-cooled ice machine capacity/24 hrs.

Ambient Air Temperature ˚F/˚C

Inlet Water Temperature ˚F/˚C

F	60	70	80	90	100	
C	16	21	27	32	38	
50	460	425	390	355	320	lbs.
10	208	193	177	161	145	kg.
60	437	405	372	340	307	lbs.
16	198	184	169	154	139	kg.
70	415	385	355	325	295	lbs.
21	188	175	161	147	134	kg.
80	405	375	345	315	285	lbs.
27	184	170	156	142	129	kg.
90	395	365	335	305	275	lbs.
32	179	166	152	138	125	kg.

Compressor data

Compressor current draw

Air-cooled

Air temp (F)	60	70	80	90	100
Comp Amperage (A)	5.8	6.1	6.2	6.2	6.3
High-side Pressure (psi)	190	220	250	290	330
Low-side Pressure (psi)	27	29	31	33	36

Locked rotor amps **48A**

Gearmotor Data	Split-Phase	PSC (permanent split capacitor)
Gearmotor current	1.8A-1.9A (nominal)	0.8A-0.9A (nominal)
Locked rotor amps	14A	7A–14A (temperature dependent)

* Dow Corning is a registered trademark of Dow Corning Corporation in the United States and other countries.

Installation

Before you begin

- All dispensers must be installed level in both directions to ensure proper operation.
- Service and ventilation clearances: 6" (15.3 cm) on right side of dispenser, 6" (15.3 cm) at top for ventilation and 12" (30.5 cm) at top recommended for service.
- Countertop units installed without legs provide the option of taking utilities out bottom or back of dispenser (on wall mount units and countertop units with legs, utilities exit from back). See counter cutout drawings for bottom exiting utilities. For installations where utilities exit through back of dispenser, refer to back view drawings.
- Wall mount models without drain pan are designed for use above sinks.
- Counter depth must allow front of sink to be a minimum of 30.00" (76.2 cm) from wall.

Installing countertop dispensers without legs

1. Position dispenser in desired location, mark dispenser outline on counter and remove dispenser.
2. Regardless of whether utilities will exit through back or bottom of dispenser, drill four 7/16" holes in counter to anchor dispenser to counter **(Fig. 1)**.
3. **For utilities exiting through bottom only:**
   (a) Make cut out **(Fig. 1).**
   (b) Move drain fitting from back of dispenser and mount **(Fig. 2)**.
   (c) Cut drain tube to length and attach to barbed connection.
   (d) Move inlet water fitting from back of dispenser and mount **(Fig. 2)**.
   (e) Cut water tubing to length and re-insert into water fitting.
4. **For all units:** Apply a thick bead approximately 1/4" (7 mm) diameter of NSF-listed silicone sealant (Dow Corning RTV-732® or equivalent) 1/4" (7 mm) inside marked outline of dispenser.
5. Carefully lower dispenser on counter in proper position and secure to counter with four (4) 3/8"-16UNC bolts.
6. Smooth excess sealant around outside of dispenser.

Fig. 1

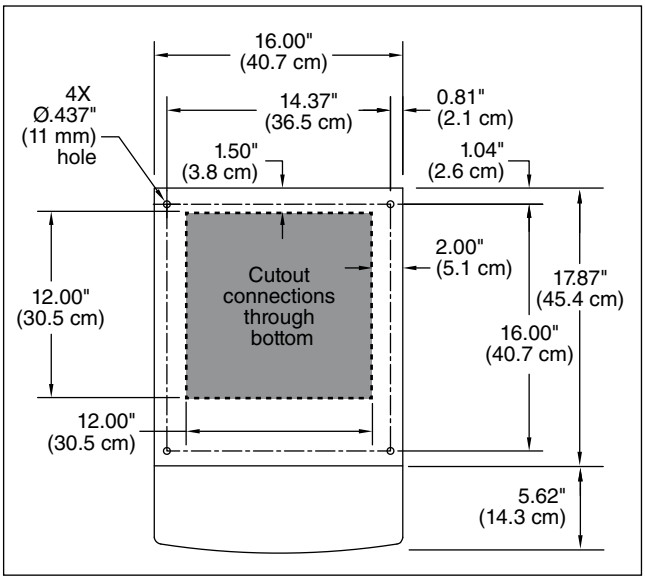
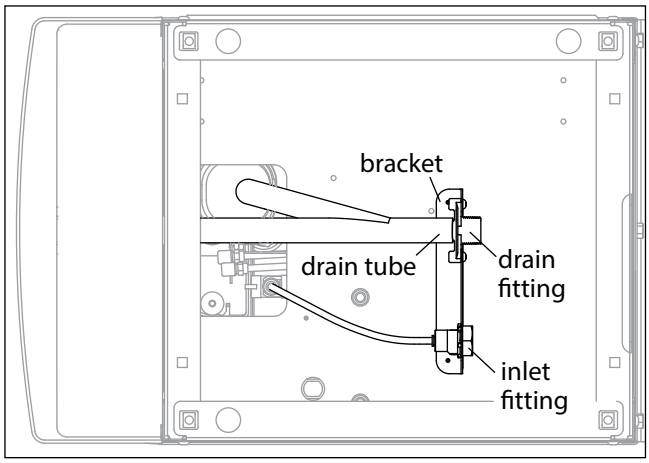


Fig. 2 - Bottom exiting utilities (countertop units)



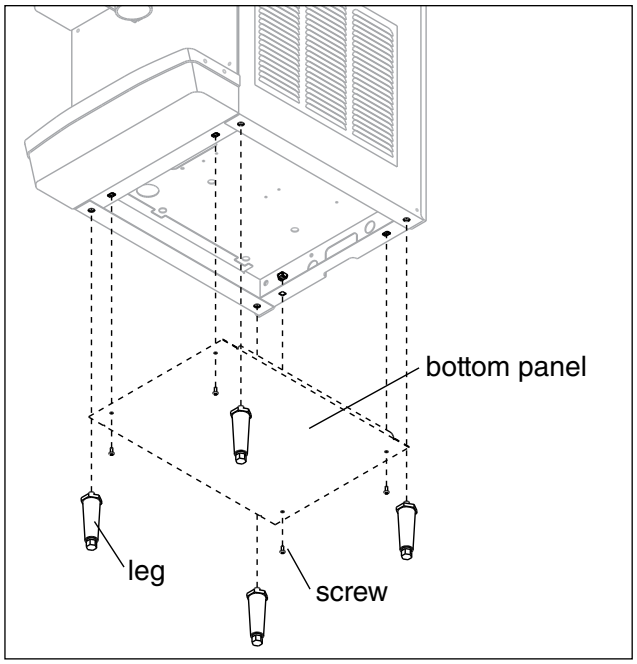
Installing countertop dispensers with legs accessory (P/N AF10LBLEGS)

⚠ CAUTION!

- Do not tilt unit further than 30° off vertical plane.
- Countertop dispensers that sit on legs (not bolted to counter) can be inadvertently moved. Care should be taken when operating and cleaning to avoid accidents.

1. Carefully tip dispenser back to expose underside and block up in place.
2. Screw legs (shipped taped to drain pan of dispenser) into dispenser bottom, taking care to seat legs securely against underside of dispenser.
3. Attach bottom panel and hardware to bottom of dispenser with supplied screws **(Fig. 3)**.
4. Position unit in desired location and adjust legs to level in both directions.
5. Make final connections.

Fig. 3 - Bottom panel and leg assembly



Installing wall mount dispensers

⚠ CAUTION!

- WALL PREPARATION: Wall and fasteners must be of sufficient strength to carry weight of unit (185 lb (83.9 kg). Hardware for this is not included.

Notes:

- SensorSAFE™ infrared dispensing is standard.

1. Recommended minimum counter depth and mounting height **(Fig. 6)** ensures that ice will drop into sink.
2. See **Fig. 6** for model dimensions. The dimensions include the 0.5" (13 mm) mounting bracket supplied with the unit.
3. Cut utility hole in wall as shown **(Fig. 5)**.
4. Mount support bracket to wall using fasteners of sufficient strength (fasteners not included, see **Fig. 4**).
5. Rough in water and drain lines (3/4" copper recommended for drain) **(Fig. 9)**.
6. Lift dispenser onto support bracket, positioning unit so that hook on back of dispenser is captured by support bracket angle **(Fig. 6)**.
7. Install two (2) supplied 3/8"-16UNC screws through bottom of support bracket into bottom of dispenser **(Fig. 4)**. Slotted holes in support bracket allow you to adjust and level the dispenser. Ensure that the top of dispenser is level or tilted slightly back toward the wall.
8. Remove bottom cover and make final connections **(Fig. 7)**.
9. Attach bottom panel and hardware to bottom of dispenser **(Fig. 8)**.
10. Clean dispenser prior to use.

Fig. 4 – Wall mount bracket and fastener requirements

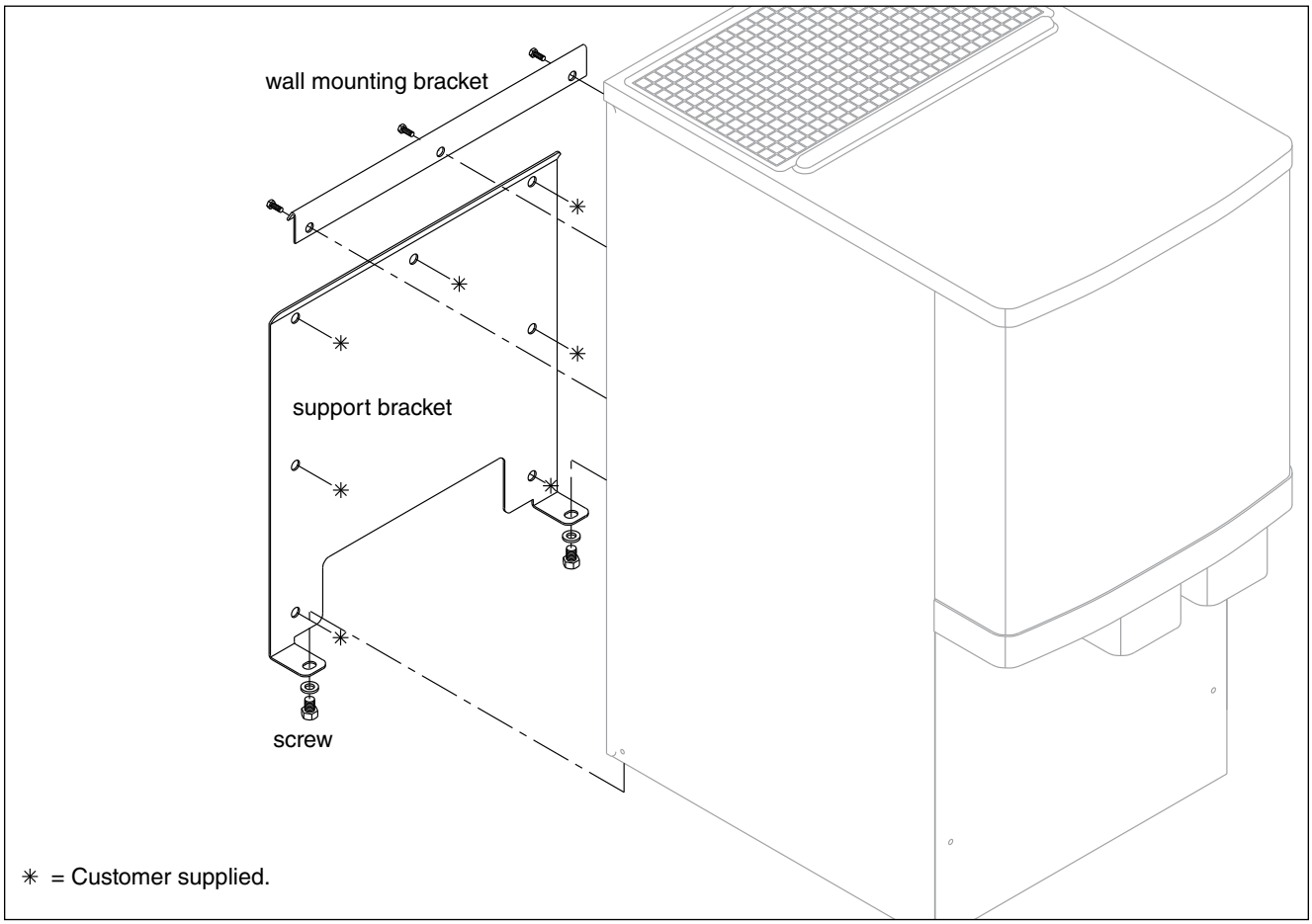


Fig. 5 – Wall mount dimensions

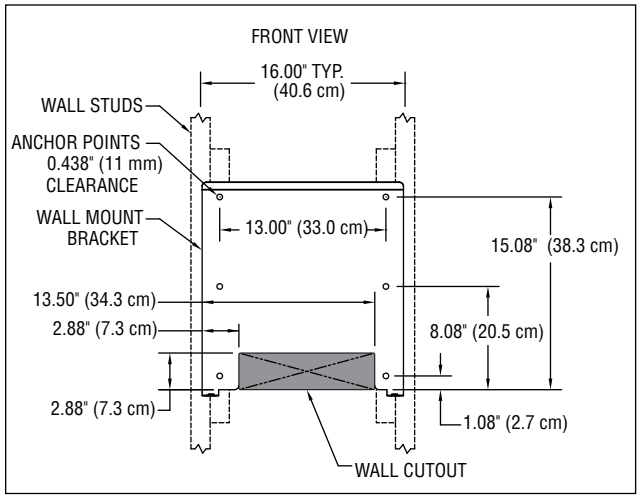
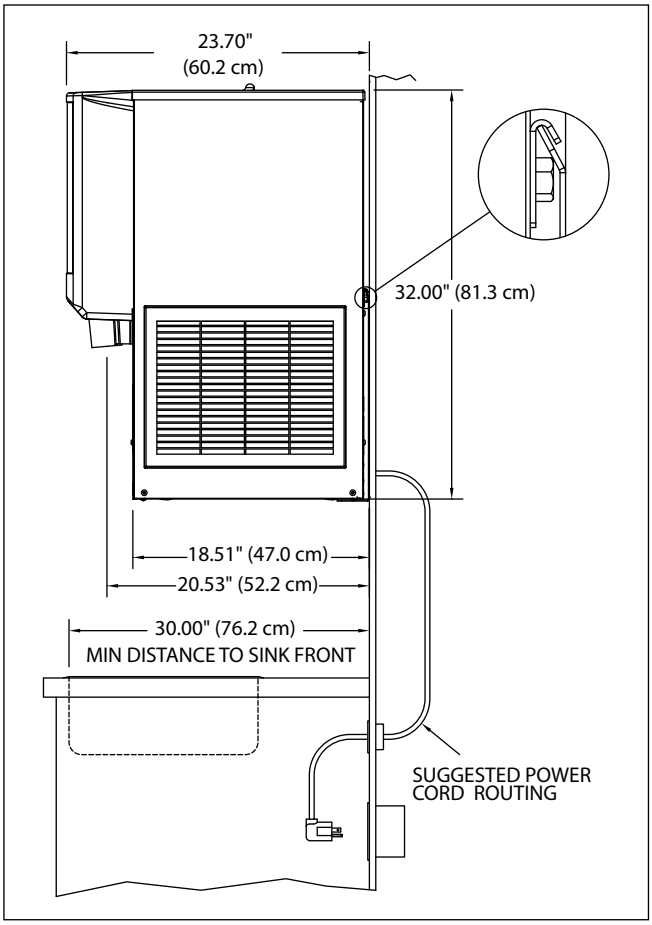


Fig. 6 – Wall mount side view



⚠ CAUTION!

- Do not rest dispenser weight on bottom of support bracket. Dispenser weight to rest on top of the support bracket **(Fig. 6)**.

Fig. 7 – Wall mount unit bottom panel assembly

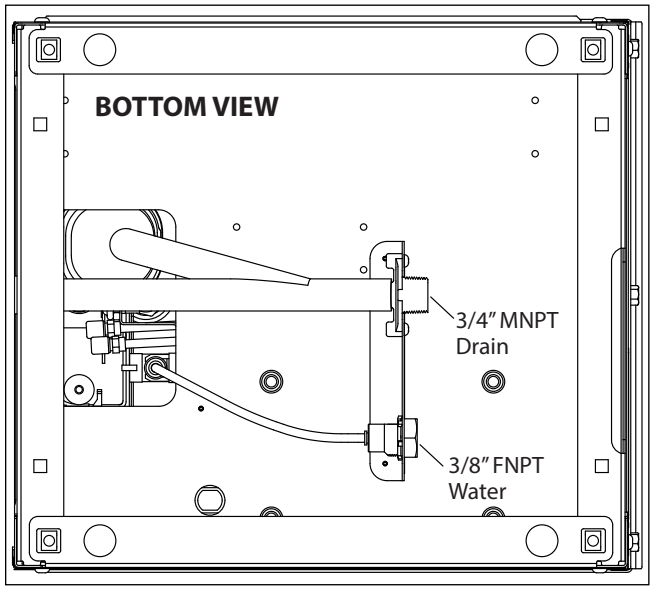


Fig. 8 – Wall mount unit bottom panel assembly

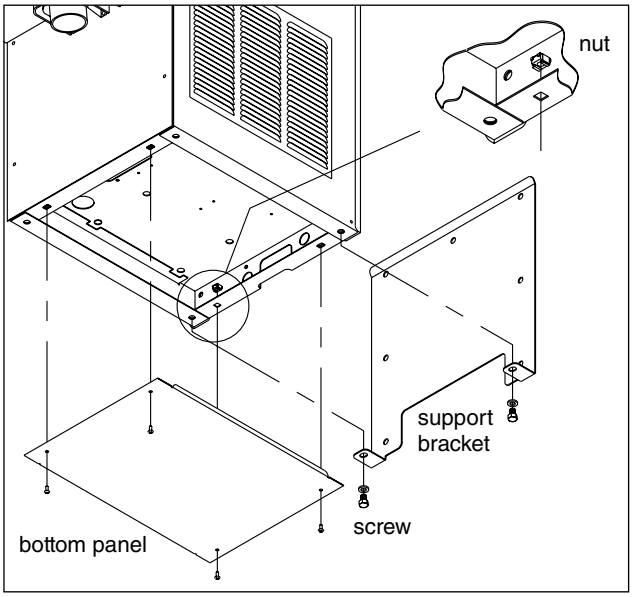
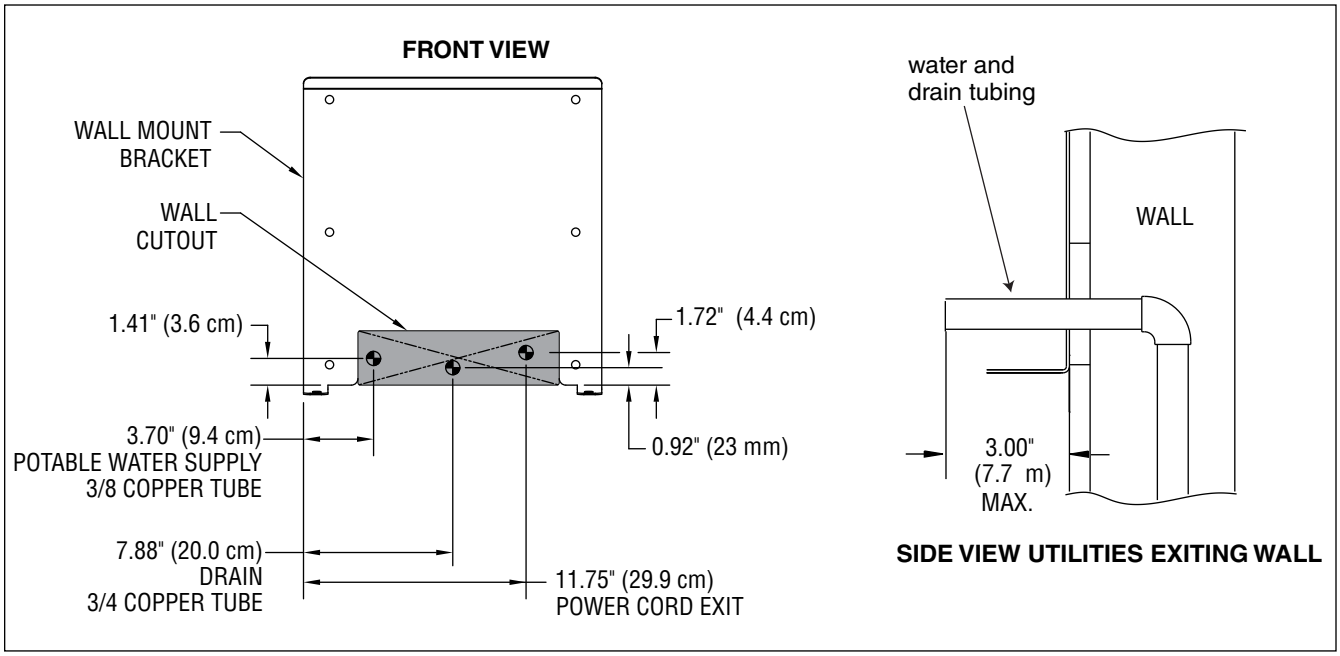


Fig. 9 – Wall mount, utility location



User information

How the dispenser works

Follett's 12 series automatic-load ice and water dispensers are equipped with Follett's 425 lb (193 kg)/day ice machine. 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 storage hopper. When the hopper is full, a bin thermostat opens and shuts the ice machine off. When the dispense mechanism is activated, a dispense motor is turned on, causing the wheel to turn. This moves ice to the dispense chute where it drops by gravity into the container held below the chute.

How SensorSAFE infrared dispensing works

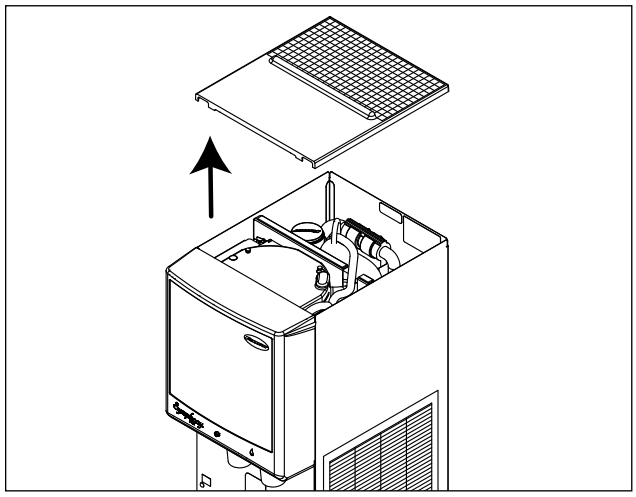
Follett's SensorSAFE infrared dispensing maximizes sanitation and minimizes the possibility of cross-contamination by eliminating physical contact between the cup or container and dispenser. Sensors in the panel use reflected infrared light to detect the presence of the container and send a signal to a control board which then activates the appropriate components for ice or water dispensing.

The SensorSAFE infrared dispensing package includes a cleaning switch under the left side of the front cover which temporarily shuts off dispensing to allow cleaning of the panel and lenses. If the switch is not turned back on after cleaning, the dispenser automatically resets after two minutes for normal operation.

SensorSAFE infrared dispensing also includes a time limit safety feature which automatically stops ice dispensing after one minute of continuous dispensing. Dispensing can be resumed by moving the container away from the dispenser and returning it to the activation zone.

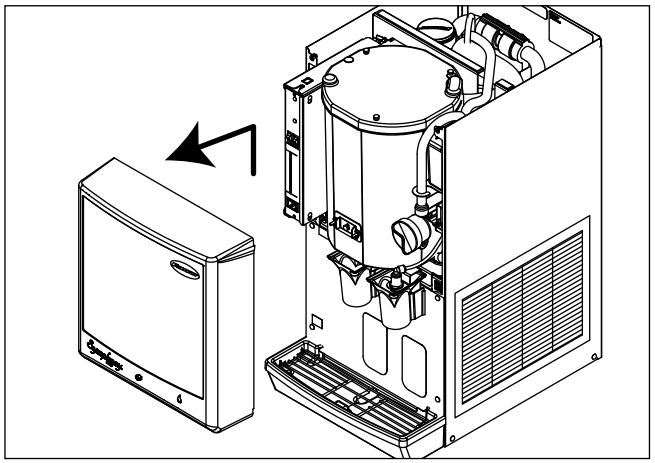
Panel removal

Fig. 10



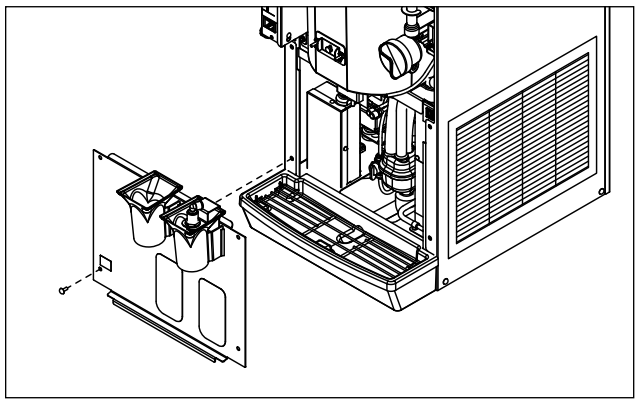
Top cover: Lift cover up and off Velcro strips.

Fig. 11



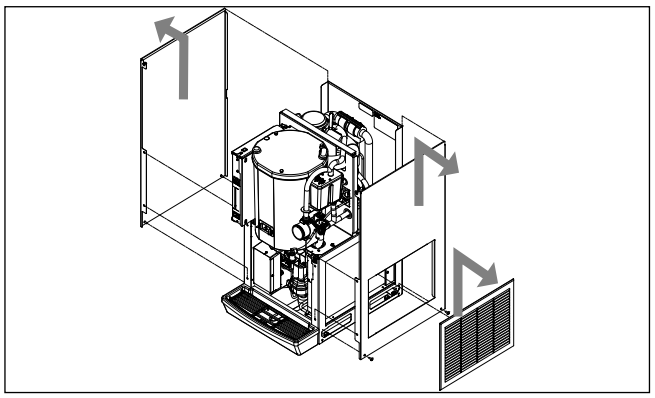
Front cover: Pull bottom of cover, then lift cover up and forward to unhook from keyhole slots.

Fig. 12



Splash panel: Remove 4 screws. Pull out bottom of panel to allow top to slide out from under hopper support lip.

Fig. 13



Side panels: Remove screws. Lift panel to disengage from back panel, then remove. Note: Before removing right hand side, remove side louver panel by lifting up and pulling forward on panel.

Cleaning and sanitizing

Follett ice machines and dispensers, and their associated cleaning and sanitizing procedures, are designed for use with potable water sources. The presence, or suspected presence, of infectious agents may call for additional measures, including the replacement of components and more comprehensive disinfection measures. Follett recommends that these cleaning and sanitizing procedures be reviewed with the appropriate infectious agent subject matter experts to assure complete remediation.

Periodic cleaning 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.

Follett recommends sanitizing the pressurized water lines prior to cleaning the ice machine/dispenser. Follett offers two kits: order P/N 01089572 when a Follett filter system with a pre-filter bowl is present, or P/N 01089580 when a Follett filter system is not present. Follow the instructions provided with the respective kits to sanitize the pressurized water lines immediately before cleaning the ice machine/dispenser.

Cleaning of the condenser can usually be performed by facility personnel. Cleaning 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.

Recommended cleaning intervals*

Symphony Plus	Frequency
Drain Line	weekly
Drain Pan/Drip Pan	weekly
Exterior	as needed
Condenser	monthly (air-cooled only)
Dispenser and Components	semi-annually
Ice Machine	semi-annually
Transport Tube	semi-annually
Ice Storage Area/Bin	semi-annually
Pressurized Water Sanitizing	semi-annually

* Ice machine and dispenser must be cleaned prior to start-up.

Weekly

CAUTION!

- Do not use solvents, abrasive cleaners, metal scrapers or sharp objects to clean any part of the dispenser.

Dispenser drain pan and drain line

- Pour 1 gal. (3.8 L) of hot tap water into drain pan to flush drains.

Splash panel front, SensorSAFE infrared dispensing

1. Deactivate dispensing by pressing and releasing clean switch located on left side of unit under top front cover.
2. Clean lens and splash panel front using a soft cloth and mild, non-abrasive, non-chlorine based cleaner.
3. Reactivate dispensing by pressing and releasing clean switch again.

Monthly

CAUTION!

- Do not use solvents, abrasive cleaners, metal scrapers or sharp objects to clean any part of the dispenser.

Condenser (air-cooled ice machine only)

- Use a vacuum cleaner or stiff brush to carefully clean condenser coils of lint and debris to ensure optimal performance.

Semi-Annually (more often if conditions dictate)

- A cleaning procedure should always include both the ice machine and dispenser.
- Icemaking system can be cleaned in place.

CAUTION!

- Wear rubber gloves and safety goggles (or face shield) when handling SafeCLEAN Plus and IMS-III solutions.
- Use only Follett approved cleaners.
- It is a violation of Federal law to use the Nu-Calgon® IMS-III solution in a manner inconsistent with its labeling.
- Do not use solvents, abrasive cleaners, metal scrapers or sharp objects to clean any part of the dispenser.

Cleaning & sanitizing tool checklist

- (1 or 2) 1.5 gallon (or larger) plastic bucket
- (2) clean cloths
- Sanitary gloves
- Safety glasses
- (2) SaniSponge™ (P/N 00131524 - single sponge)
- SafeCLEAN Plus ice machine cleaner
- [OPTIONAL] Nu-Calgon IMS-III no-rinse sanitizer (P/N 00979674 – 16 fl oz. bottle)

SafeCLEAN Plus Solution: Follow the directions on the SafeCLEAN Plus packaging to mix 1 gal. (3.8 L) of Follett SafeCLEAN Plus solution. Use 100 F (38 C) water.

[OPTIONAL] No-rinse Sanitizing Solution: Follow the directions on the Nu-Calgon IMS-III packaging to mix 1 gal. (3.8 L) of sanitizing solution. Use 100 F (38 C) water.

Ice Machine and Dispenser

Cleaning procedure

Note: Check drains and drain cup to ensure they are open and flowing freely.

1. If ice machine was running recently, ensure that the evaporator is completely free of ice before proceeding. If there is ice in the evaporator, complete steps 2-7 using only hot water to remove the ice then begin Cleaning Procedure again.
2. Remove front cover and turn OFF bin signal switch.
3. Dispense all ice from storage hopper and discard.
4. Remove top of machine and hopper lid.
5. Press **CLEAN** switch. The **MAINTENANCE** light will turn on and the machine will drain. Wait for the **LOW WATER** light to turn on.
6. Remove lid from cleaning cup and fill (about 1 quart) until SafeCLEAN Plus solution overflows from the ice transport tube into the hopper. Place lid back on cup. Save remainder of SafeCLEAN Plus solution.
7. **CLEANER FULL** light will turn on and machine will start cleaning cycle then rinse three times; this process takes approximately 15 minutes.
8. While ice machine is cleaning, clean dispenser as follows:
   a. Remove center thumbscrew, locking plate, two wingnuts and backing plate from front of storage hopper.
   b. Remove stud assembly, baffle, wheel, and any remaining ice.
   c. Remove dispense chutes from splash panel.
   d. Remove water dispense tube. Soak in SafeCLEAN Plus solution and clean thoroughly with a small brush. Rinse with clean water and reinstall.
   e. Submerse drain grille in SafeCLEAN Plus solution and allow to soak to remove any scale buildup.
   f. Wipe inside of hopper lid, stud assembly, baffle, wheel, inside of storage area, dispense chutes, drain grille and drain pan with damp cloth wrung out in SafeCLEAN Plus solution. Thoroughly rinse all parts with damp cloth wrung out with clean water.

   Note: To avoid possible damage to motor assembly, only use a damp cloth to clean storage hopper. Do not allow water to run through motor shaft hole in bottom of hopper.
9. When machine is finished cleaning, the **MAINTENANCE** light will turn off.

Finish cleaning – SafeCLEAN Plus only

10. Reinstall dispense chutes, wheel, baffle, stud assembly and knurled nuts.
11. Remove top bearing insulation. Loosen Phillips-head screw on nozzle connected to evaporator. Remove nozzle from evaporator side only, leave other side of nozzle connected to transport tube.
12. Soak one SaniSponge in remaining SafeCLEAN Plus solution.
13. Insert the sponge soaked in SafeCLEAN Plus solution into nozzle then insert a dry sponge into the nozzle.
14. Replace nozzle onto evaporator and tighten screw. Ensure drain is connected to reservoir and vent tubes are connected to evaporator drain pan. Replace top bearing insulation.
15. Turn ON bin signal switch. Wait for ice to push sponges through transport tube.
16. Collect sponges from ice storage bin.
17. Replace hopper lid, machine top, and install front cover.
18. After 10 minutes, dispense all ice and discard.

[OPTIONAL] Finish cleaning – No-rinse sanitizing with Nu-Calgon IMS-III

19. Press **CLEAN** switch. The **MAINTENANCE** light will turn on and the machine will drain. Wait for the **LOW WATER** light to turn on.
20. Remove lid from cleaning cup and fill (about 1 quart) until sanitizing solution overflows from the ice transport tube into the hopper. Place lid back on cup. Save remainder of sanitizing solution.
21. **CLEANER FULL** light will turn on and machine will start sanitizing cycle then rinse three times; this process takes approximately 15 minutes.
22. While ice machine is sanitizing, sanitize dispenser as follows:
    a. Wipe inside of hopper lid, stud assembly, baffle, wheel, inside of storage area, dispense chutes, drain grille and drain pan with damp cloth wrung out in sanitizing solution. Do not rinse off the sanitizing solution.

    Note: To avoid possible damage to motor assembly, only use a damp cloth to clean storage hopper. Do not allow water to run through motor shaft hole in bottom of hopper.
23. Reinstall dispense chutes, wheel, baffle, stud assembly and knurled nuts.
24. When machine is finished rinsing, the **MAINTENANCE** light will turn off.
25. Remove top bearing insulation. Loosen Phillips-head screw on nozzle connected to evaporator. Remove nozzle from evaporator side only, leave other side of nozzle connected to transport tube.
26. Soak one SaniSponge in remaining sanitizing solution.
27. Insert the sponge soaked in sanitizing solution into nozzle then insert a dry sponge into the nozzle.
28. Replace nozzle onto evaporator and tighten screw. Ensure drain is connected to reservoir and vent tubes are connected to evaporator drain pan. Replace top bearing insulation.
29. Turn ON bin signal switch. Wait for ice to push sponges through transport tube.
30. Collect sponges from ice storage bin.
31. Replace hopper lid, machine top, and install front cover.
32. After 10 minutes, dispense all ice and discard.

User Interface and Exterior Cabinet

- Clean stainless steel panels with stainless steel cleaner.

Service

Ice machine operation (all models)

Follett's ice machine consists of four distinct functional systems:

- Harvesting system
- Water system
- Electrical control system
- Refrigeration system

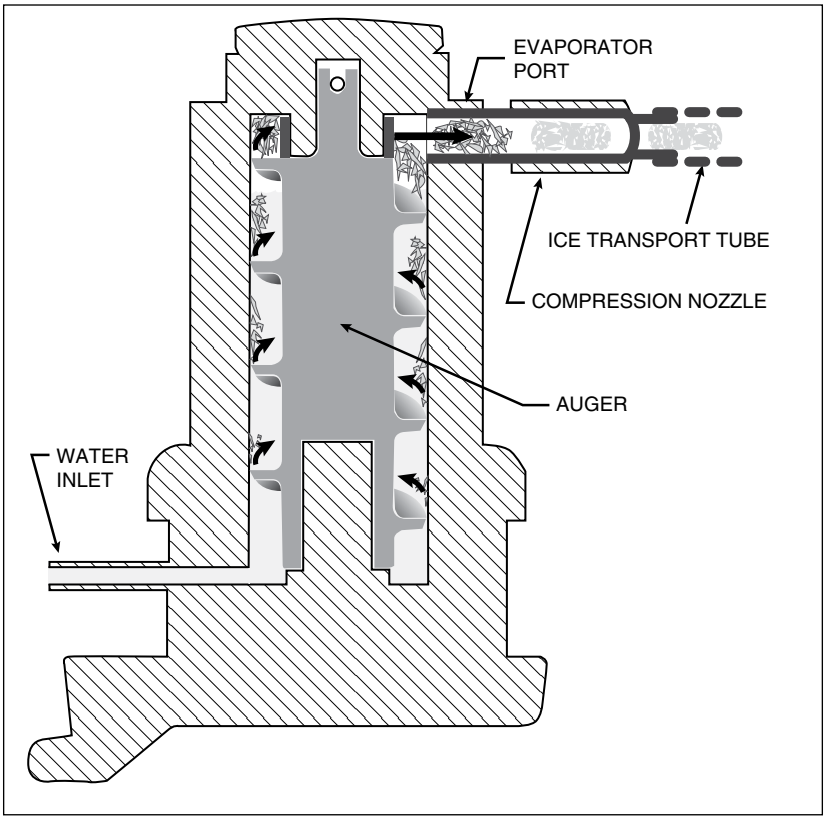
These four systems work together to accomplish the production and harvesting of ice. A problem in any one of these systems will result in improper operation of the entire ice production cycle. When troubleshooting the ice machine, it is important to analyze the entire system operation to determine which system is not functioning properly, then pinpoint the component within that system that is malfunctioning. Determine what corrective action must be taken before making any adjustments or replacing any components.

The icemaking process

The Maestro Plus ice machine uses a stainless steel jacketed evaporator and operates on a continuous freezing cycle. Water is supplied to the evaporator from the water reservoir where the water level is controlled by conductivity probes.

When the ice machine is running, a layer of ice forms on the interior surface of the evaporator. This ice is continuously removed by a slowly rotating (12 RPM) auger. The auger carries the ice upward into the cavity formed by the top bearing housing and the compression loop, where it is compressed to remove excess water. When the ice reaches the desired hardness it rotates within the cavity and is forced through a discharge port and compression nozzle and into the ice transport tube. The discharge tube and compression nozzle are slightly restricted to further compress the ice and produce the desired hardness.

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 over-torque 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.



Water system

The water level in the evaporator is controlled by a fill solenoid **(Fig. 14)** and level detecting sensors. Water sensing rods **(Fig. 15)** extend down into the reservoir at the end of the evaporator assembly. 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.

Fig. 14 – Water system diagram

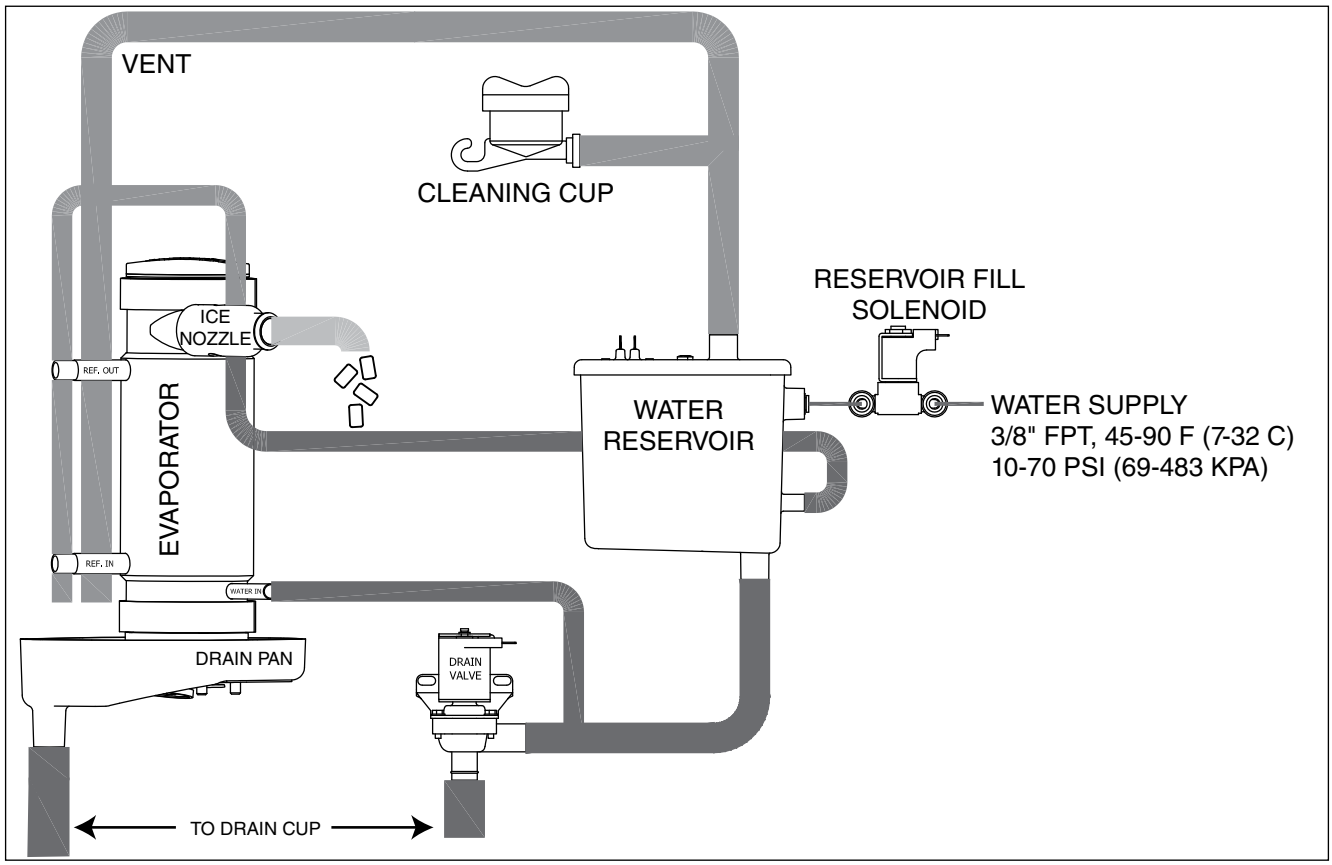
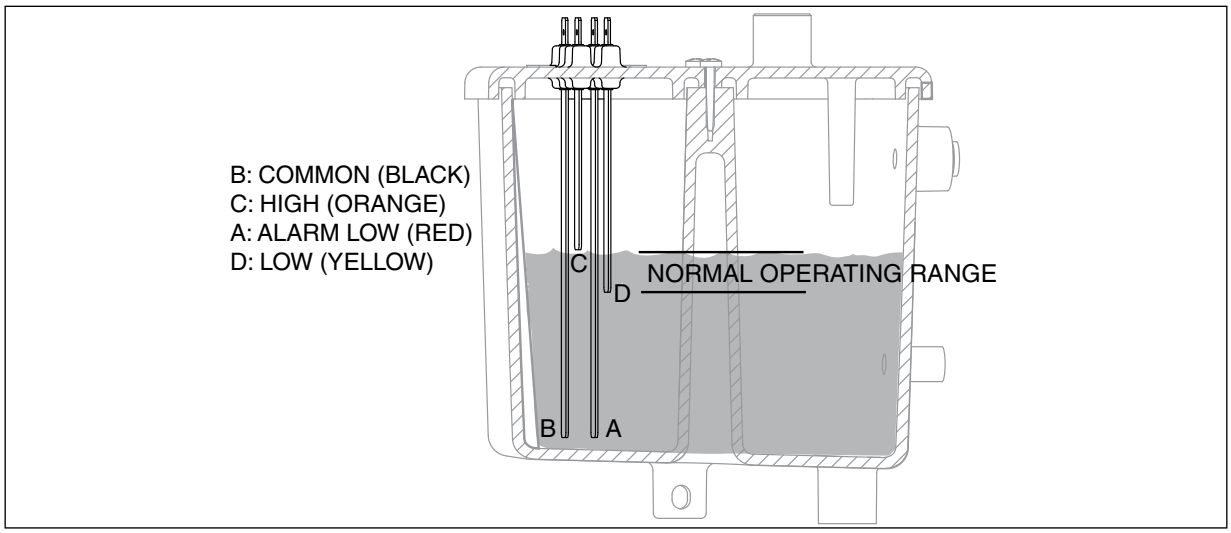


Fig. 15 – Water level diagram

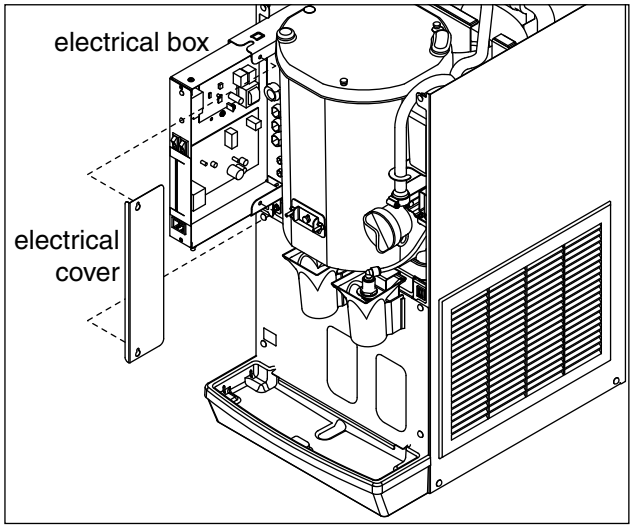


Access to electrical box and control board

The 12 series electrical box has been designed to slide out for easy access to the control board and more convenient troubleshooting.

1. Remove top and front panels of dispenser (for panel removal instructions see page 12).
2. Remove electrical box cover.
3. Pull electrical box toward front of unit.

Fig. 16



Electrical system

ATTENTION!

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

Normal control board operation

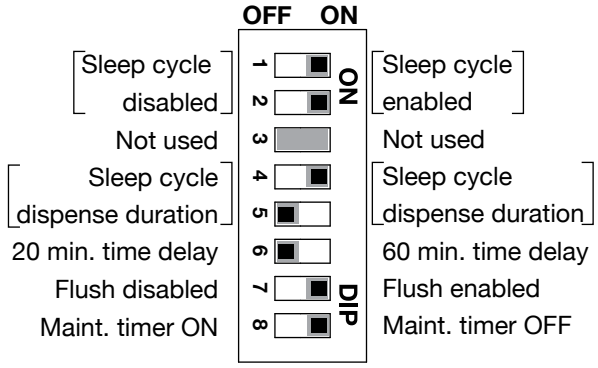
The PC board indicator lights provide all the information necessary to determine the machine's status. Green indicator lights generally represent “go” or normal operation; Yellow indicators represent normal off conditions; Red indicators generally represent alarm conditions, some of which will lock the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

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

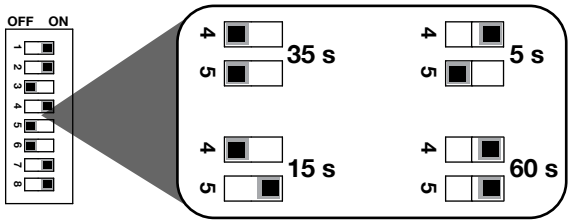
Ice machine disposition	Operating conditions
Legend: ● ON ○ OFF ◐ ON or OFF ⊗ FLASHING	
1. Ice machine is making ice. CLEANER FULL ○ · HI PRESS ○ · HI AMPS ○ · SERVICE ○ · MAINT/CLEAN ○ · LOW WATER ○ · TIME DELAY ○ · SLEEP CYCLE ○ · MAKING ICE ● · LOW BIN ● · POWER ON ⊗	1. **Normal running.**
2. Ice machine is not making ice. CLEANER FULL ○ · HI PRESS ○ · HI AMPS ○ · SERVICE ○ · MAINT/CLEAN ○ · 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.

Control board DIP switch settings

OFF POSITION **ON POSITION**



Sleep cycle dispense duration



Relay/triac 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

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, flush again and refill, 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.

Error faults

The Maestro Plus PC board monitors various operating parameters including high pressure, auger gearmotor amperage limits, clogged drain, and low water alarm conditions. There are two types of errors namely “hard” or “soft.” A hard error is one that shuts the machine off and will not allow restart until the reset button is pressed. Even cycling power will not reset a hard error. 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:

Note: For all soft errors, the ice machine will remain off for 1 hour.

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 and TIME DELAY and LOW WATER LEDs will be lit. After time delay, the solenoid will energize and remain energized until the water level is sufficient for restart.

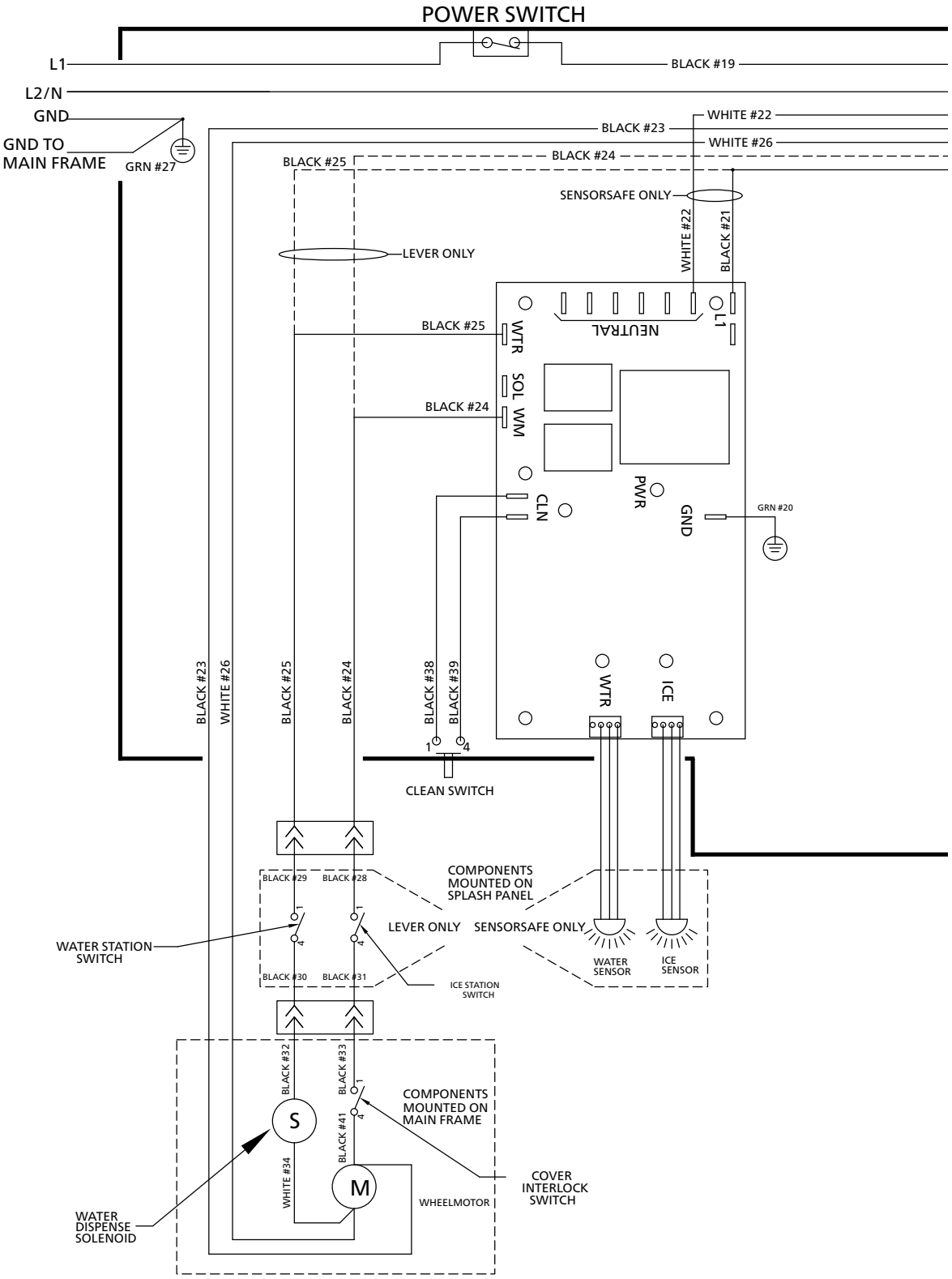
HI PRESSURE: Should the refrigeration pressure rise above 425 psi, the machine will shut down and the TIME DELAY and HIGH PRESSURE will be illuminated. After the time delay, and if the pressure has fallen back below the reset point of 295 psi, the machine will restart and the TIME DELAY and HIGH PRESSURE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

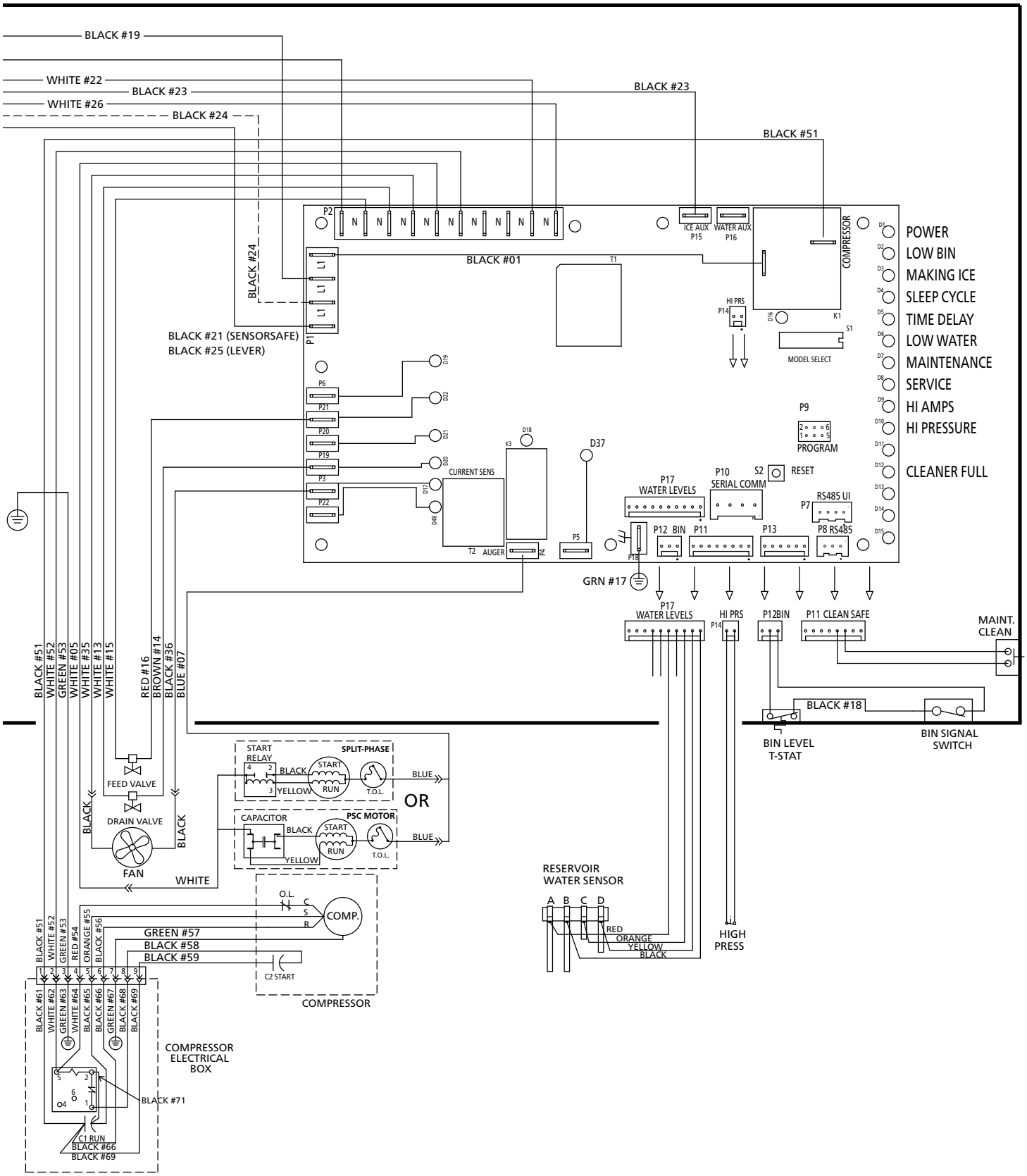
HI AMPS: The PC board monitors the amperage of the auger motor. Should the gear motor experience current draw above the allowable 3A limit or no current draw (0A), the machine will shut down and the TIME DELAY and HI AMP will be illuminated. After the time delay the machine will restart and the TIME DELAY and HI AMP will clear.

Hard error:

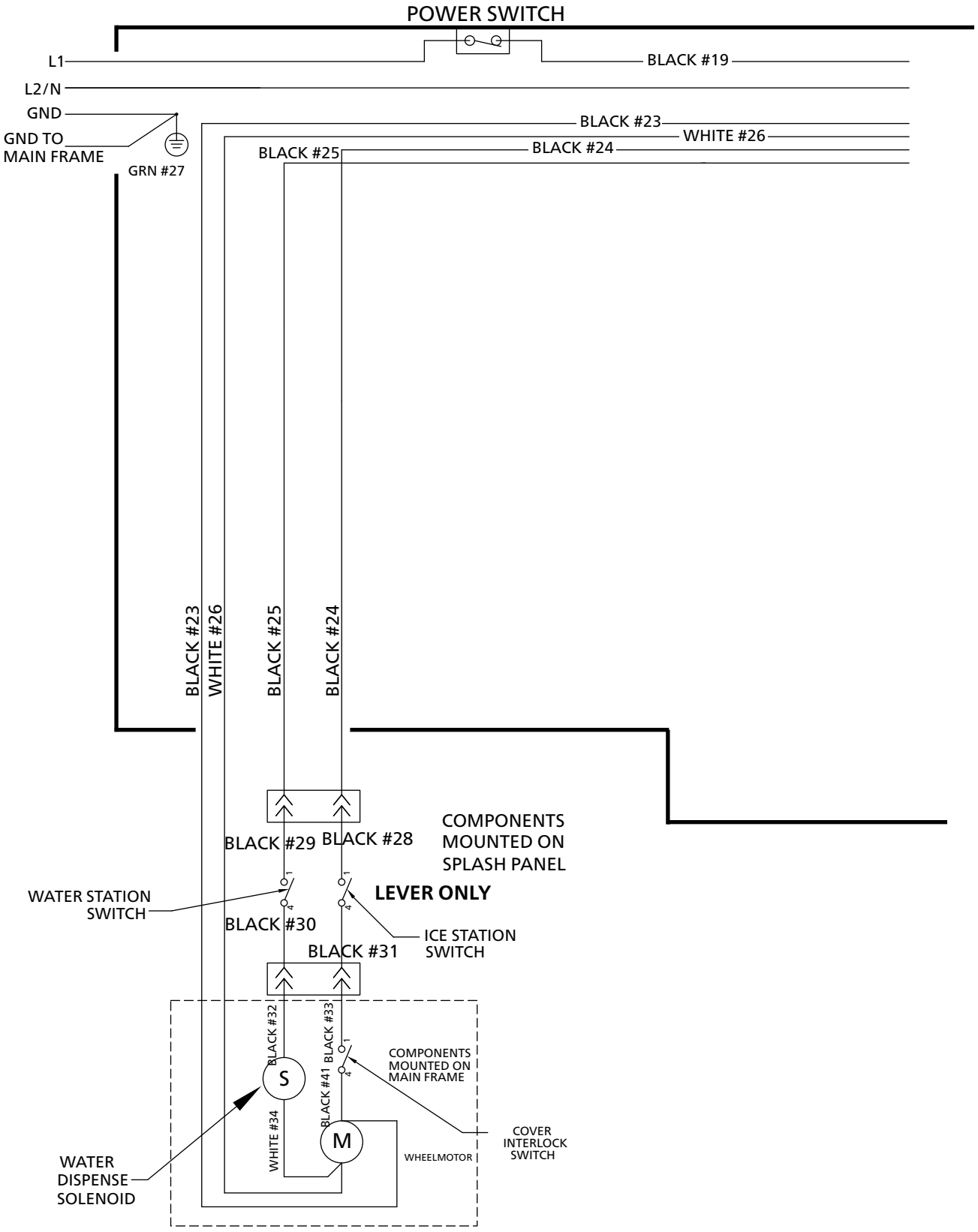
HI AMPS: If a second hi-amp error occurs within 1 hour of the initial hi-amp error, the ice machine will shut off and the reset on the board must be pressed to clear the error. If a second hi-amp has occurred, the HI AMP LED only will be illuminated.

Wiring diagram

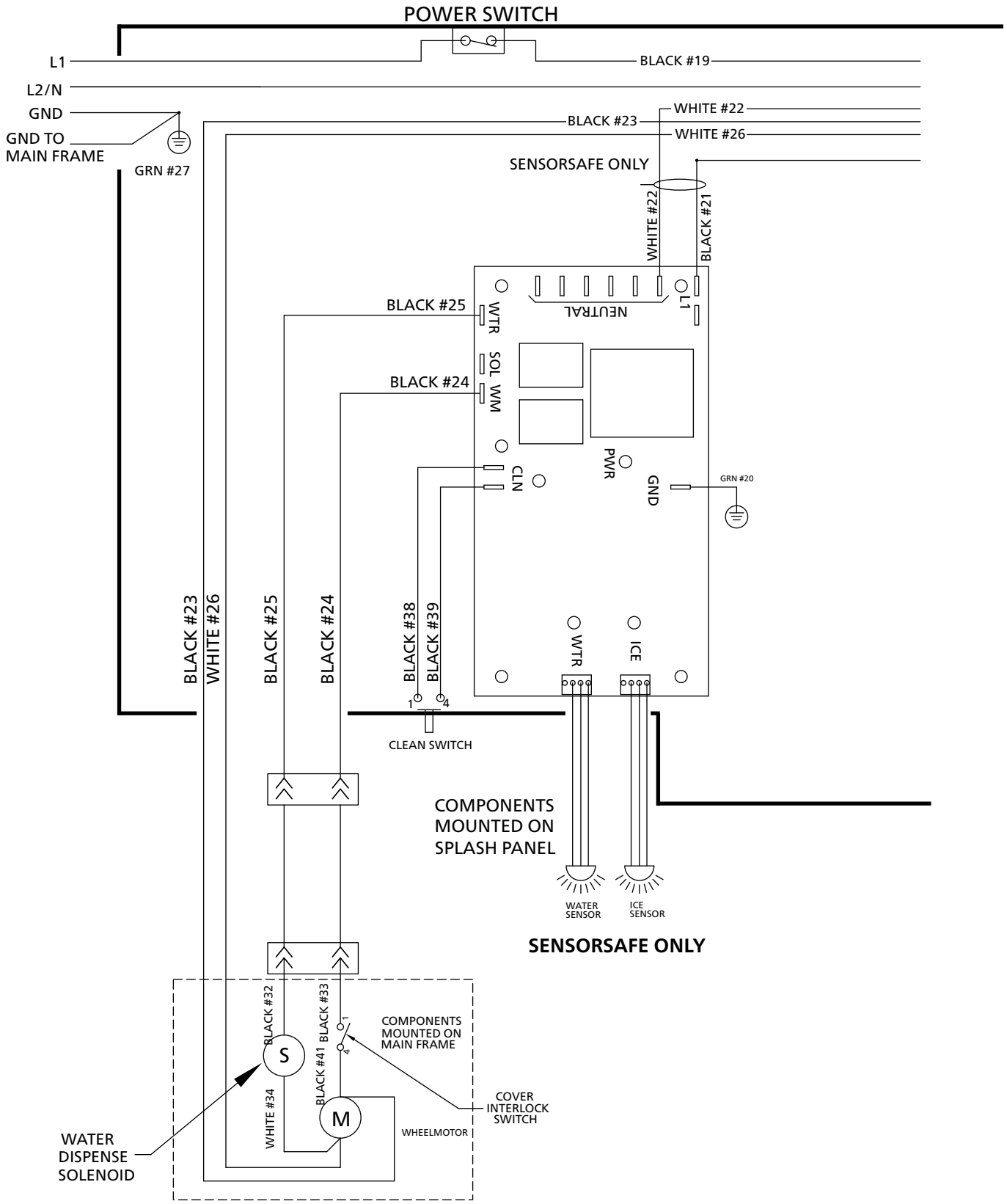



BLACK #19
WHITE #22
BLACK #23
WHITE #26
BLACK #24
BLACK #51
BLACK #23
BLACK #24
BLACK #01
BLACK #21 (SENSORSAFE)
BLACK #25 (LEVER)
P2
P1
L1
L1
L1
ICE AUX P15
WATER AUX P16
COMPRESSOR
T1
HI PRS P14
D16
K1
S1
MODEL SELECT
POWER
LOW BIN
MAKING ICE
SLEEP CYCLE
TIME DELAY
LOW WATER
MAINTENANCE
SERVICE
HI AMPS
HI PRESSURE
CLEANER FULL
P6
P21
P20
P19
P3
P22
CURRENT SENS
K3
D18
D37
P9
PROGRAM
P10
SERIAL COMM
S2
RESET
P17
WATER LEVELS
RS485 UI
P7
P12 BIN
P11
P13
P8 RS485
P5
P4
T2
AUGER
P18
GRN #17
P17
WATER LEVELS
HI PRS
P14
P12BIN
P11 CLEAN SAFE
MAINT. CLEAN
BLACK #18
BIN LEVEL T-STAT
BIN SIGNAL SWITCH
BLACK #51
WHITE #52
GREEN #53
WHITE #05
WHITE #35
WHITE #13
WHITE #15
RED #16
BROWN #14
BLACK #36
BLUE #07
FEED VALVE
DRAIN VALVE
FAN
BLACK
BLACK
WHITE
START RELAY
SPLIT-PHASE
BLACK
YELLOW
START
RUN
T.O.L.
BLUE
OR
CAPACITOR
PSC MOTOR
BLACK
YELLOW
START
RUN
T.O.L.
BLUE
O.L.
C
S
R
COMP.
GREEN #57
BLACK #58
BLACK #59
C2 START
COMPRESSOR
RESERVOIR WATER SENSOR
A B C D
RED
ORANGE
YELLOW
BLACK
HIGH PRESS
BLACK #51
WHITE #52
GREEN #53
RED #54
ORANGE #55
BLACK #56
BLACK #61
WHITE #62
GREEN #63
WHITE #64
BLACK #65
BLACK #66
GREEN #67
BLACK #68
BLACK #69
COMPRESSOR ELECTRICAL BOX
BLACK #71
C1 RUN
BLACK #66
BLACK #69

Wiring diagram - Lever only



Wiring diagram - SensorSAFE only



Ice machine operational and diagnostic sequences

The wiring diagrams that follow illustrate the circuitry of Follett ice machines used with 12 series ice dispensers. Both normal operation (stages 1–8) and non-normal diagnostic sequences showing torque-out for use in troubleshooting are shown.

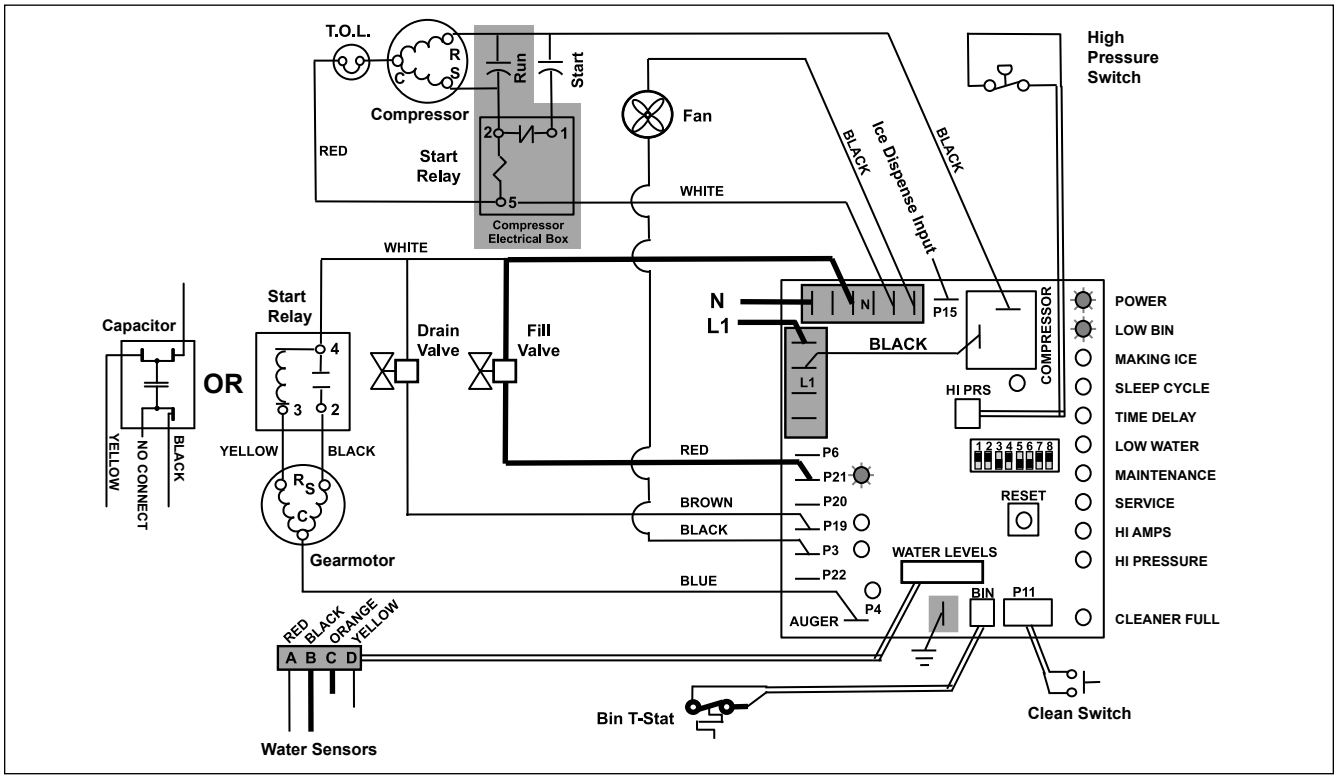
Circuitry notes

- Bin signal is contact closure only - **DO NOT SUPPLY POWER**.

Note: The operation stage descriptions that follow are based on the unit containing the split-phase gear motor.

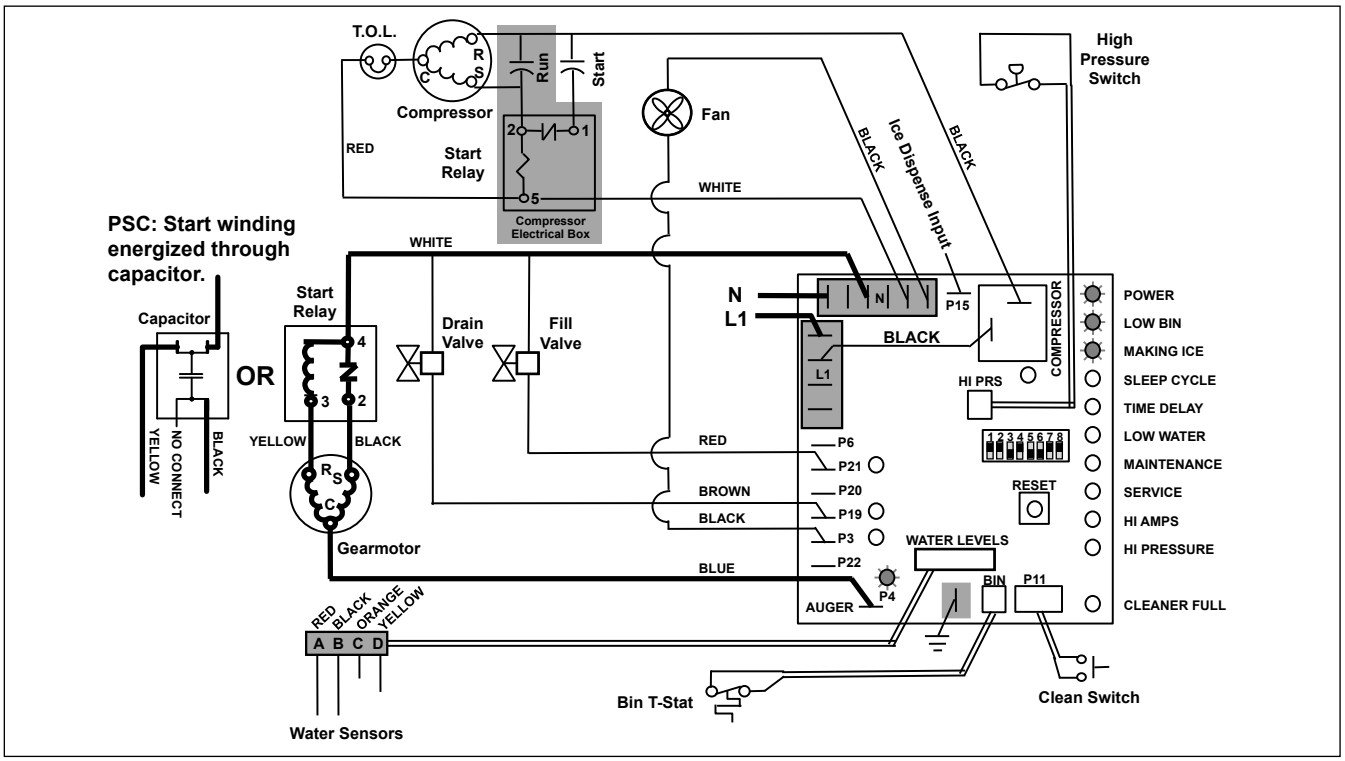
Normal operation – Stage 1

Power is supplied to L1 of the control board, the **POWER** LED light begins flashing. The ice level bin thermostat in the dispenser is closed and calling for ice, supplying contact closure to the control board. The **LOW BIN** LED will be on. The control board will now go through the start-up sequence. The board checks the water sensors (located in the reservoir) for continuity between the common probe (B) and the high probe (C). If continuity is not sensed, the water fill valve (P21) is energized.



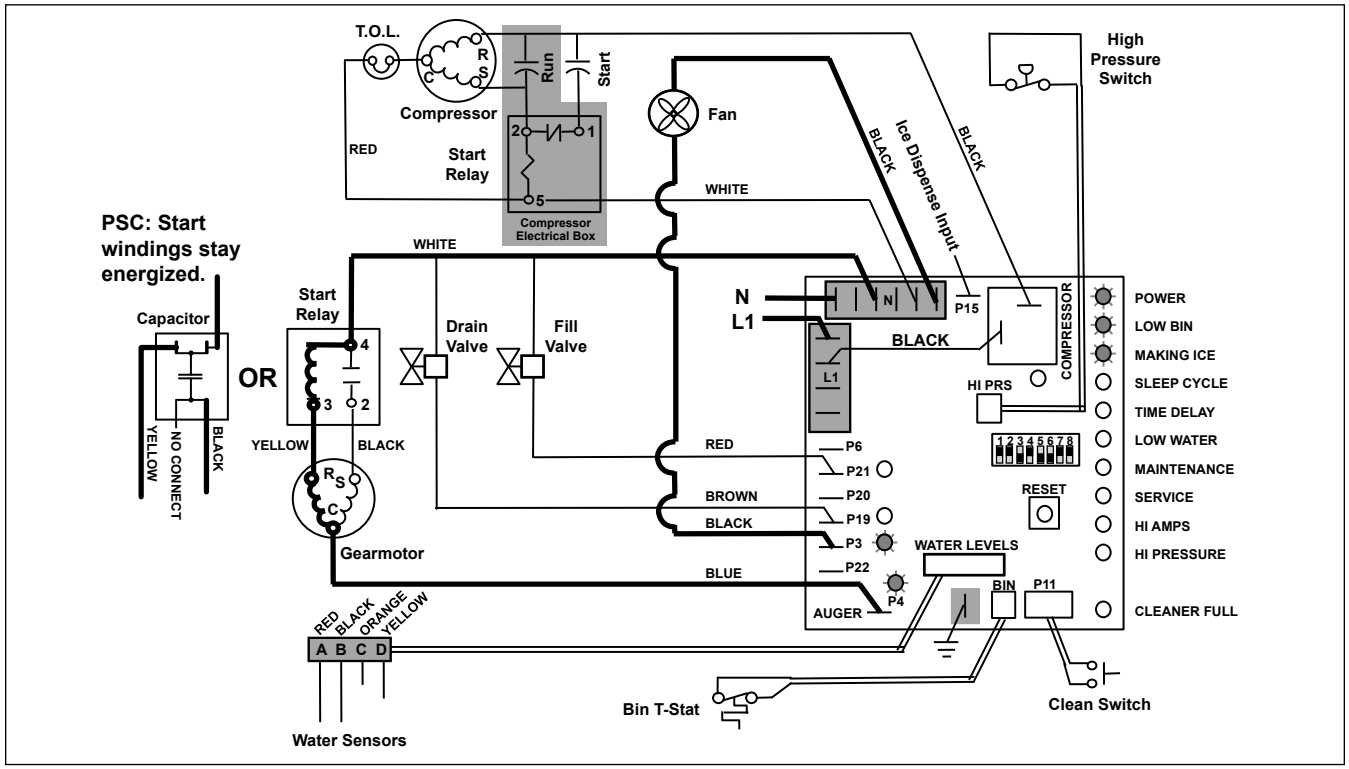
Normal operation – Stage 2

When continuity is seen between B and C, the water valve de-energizes, the AUGER output (P4) comes on along with the **MAKING ICE** LED. The auger gearmotor's start windings are energized through a current style start relay that is pulled in by the initial high current draw of the gearmotor.



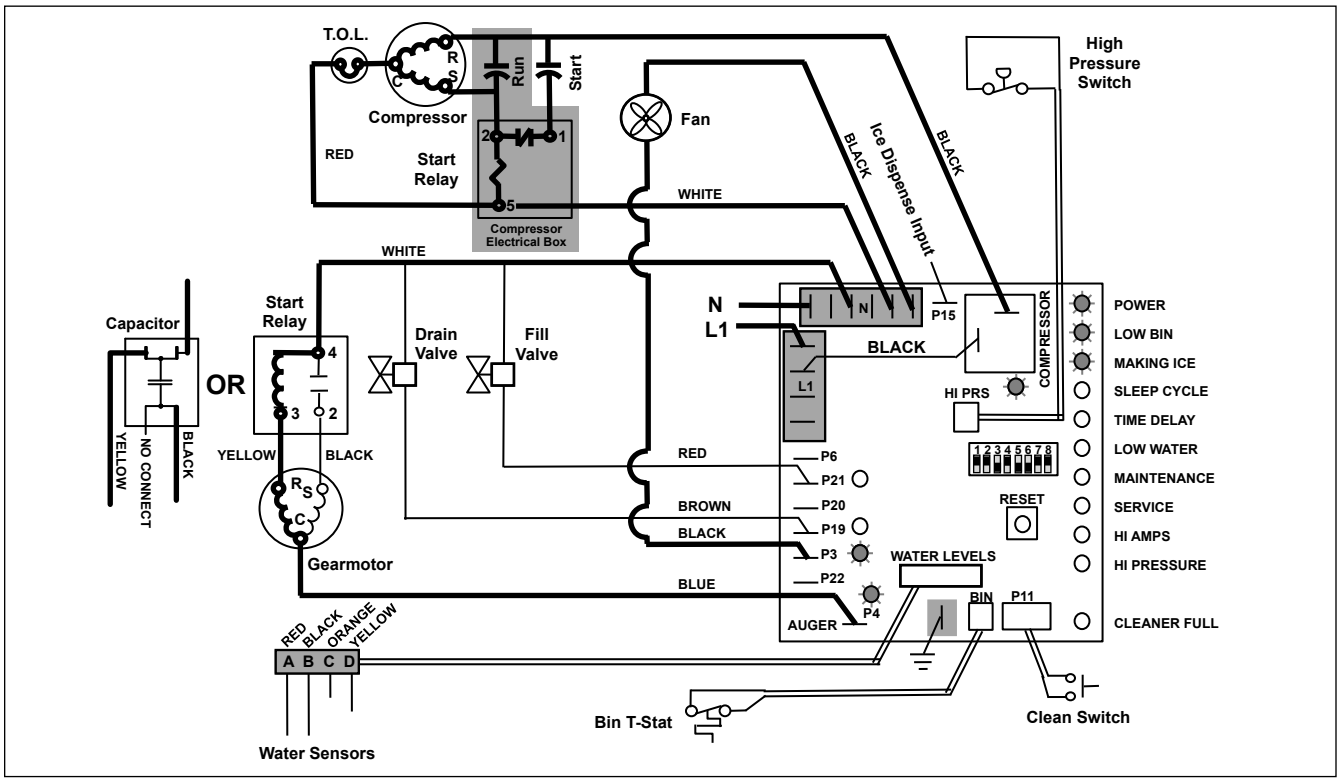
Normal operation – Stage 3

After the initial high current draw drops off, the gearmotor start relay contacts open, dropping out the start winding. The condenser fan output (P3) comes on 0.5 seconds later.



Normal operation – Stage 4

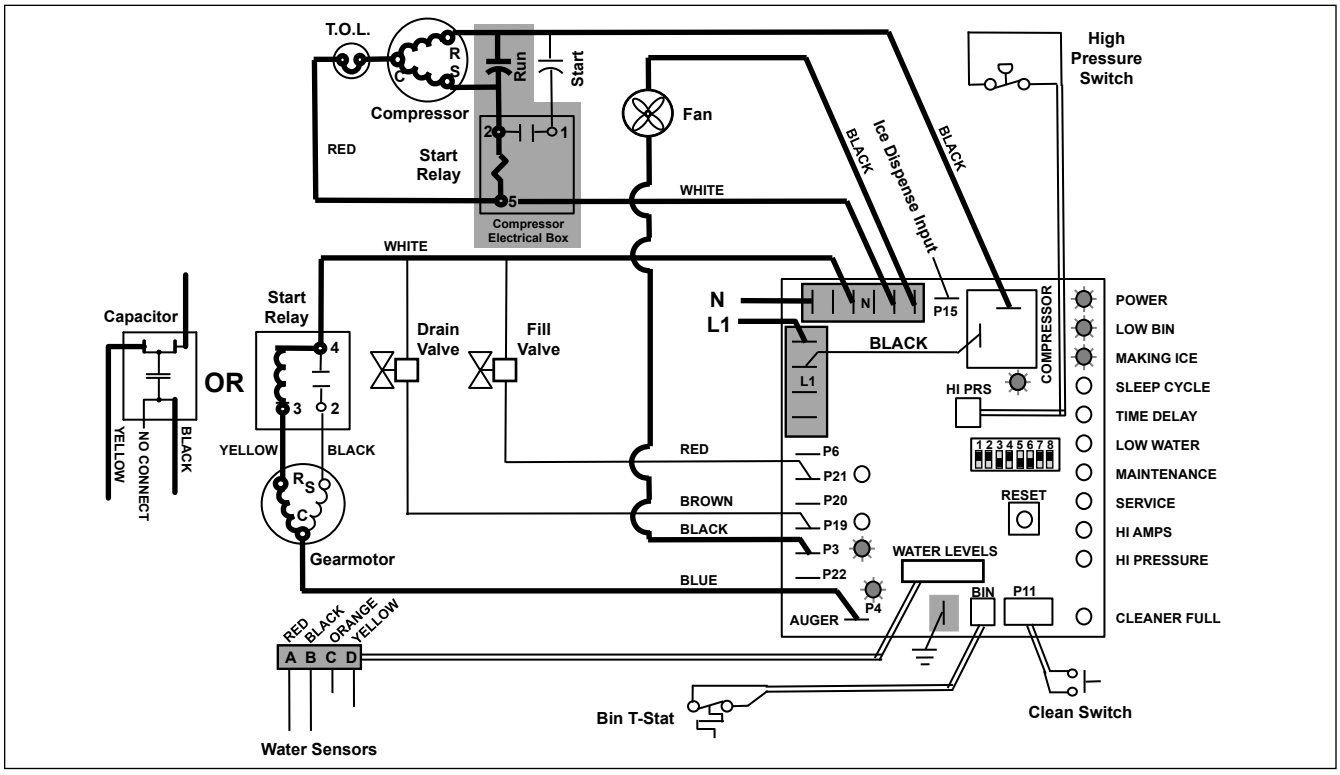
One second (1 s) after the fan comes on, the **COMPRESSOR** output comes on. The compressor circuit uses both run and start capacitors along with a potential start relay. The start capacitor in energized through the normally closed contacts of the start relay.



Normal operation – Stage 5

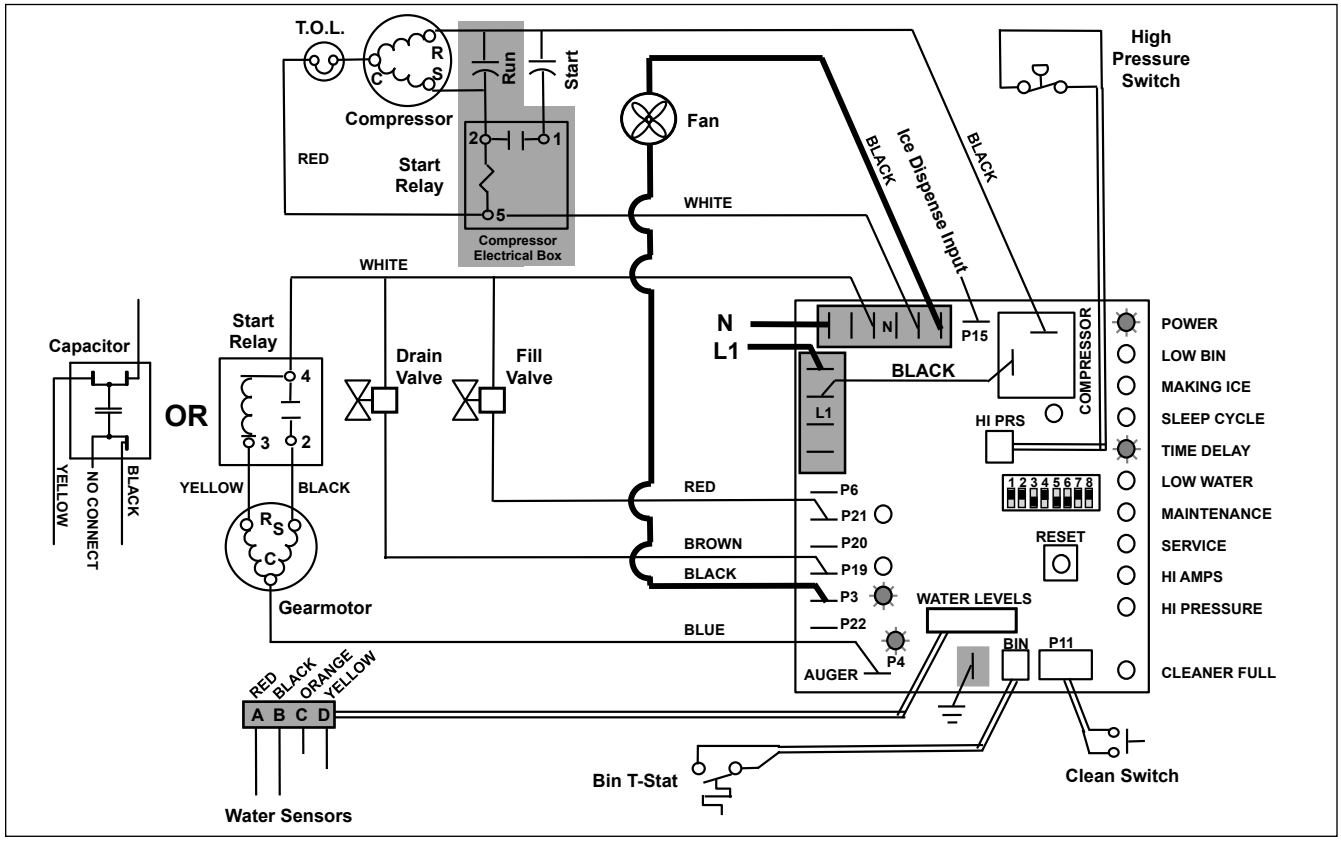
As the compressor comes up to normal running speed, its start winding generates a voltage potential across the relay's coil. This energizes the coil to open the contact and drop out the start capacitor.

The ice machine is now in a normal ice making mode. The ice machine will produce ice until the bin level control in the ice dispenser is satisfied.



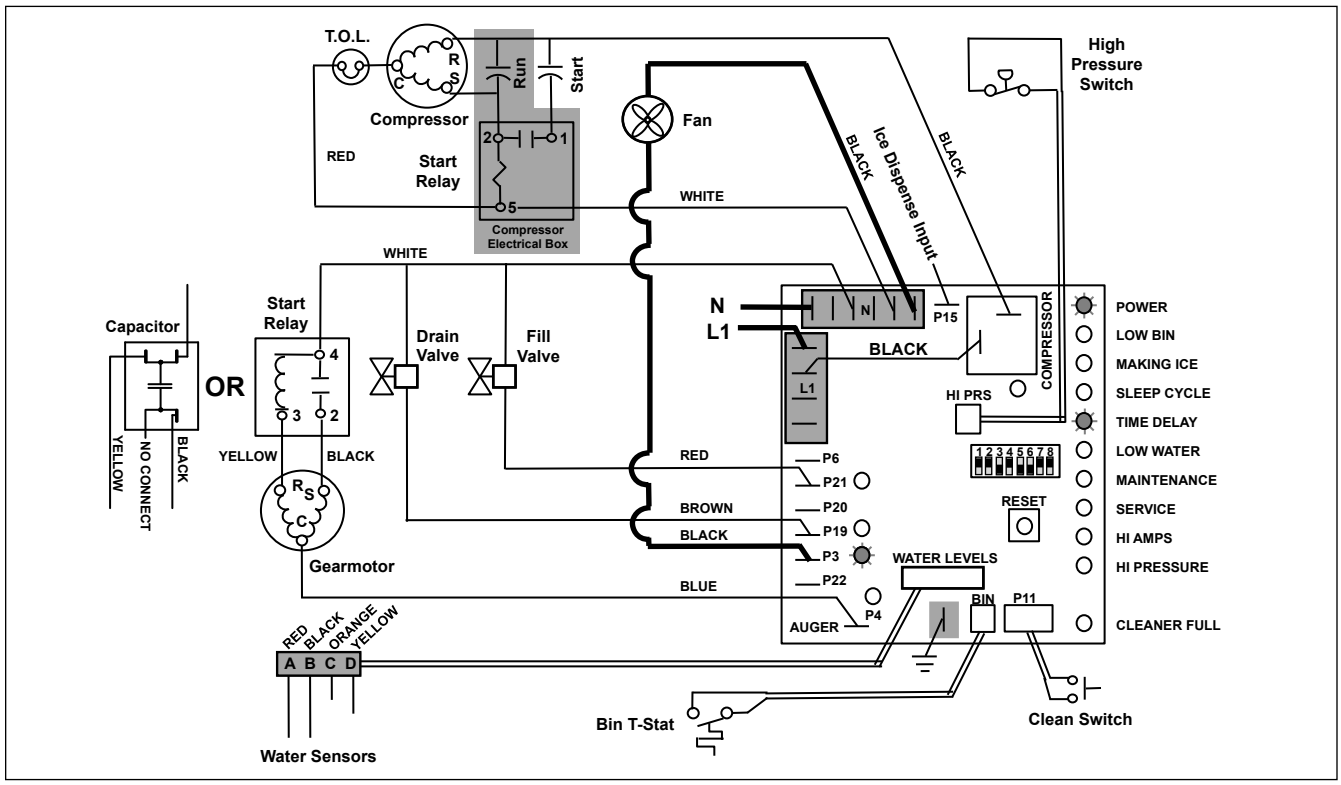
Normal operation – Stage 6

Once the bin thermostat control opens, the **LOW BIN** LED goes out. After a 10 second delay the compressor output turns off, the **MAKING ICE** LED goes out and the **TIME DELAY** LED comes on.



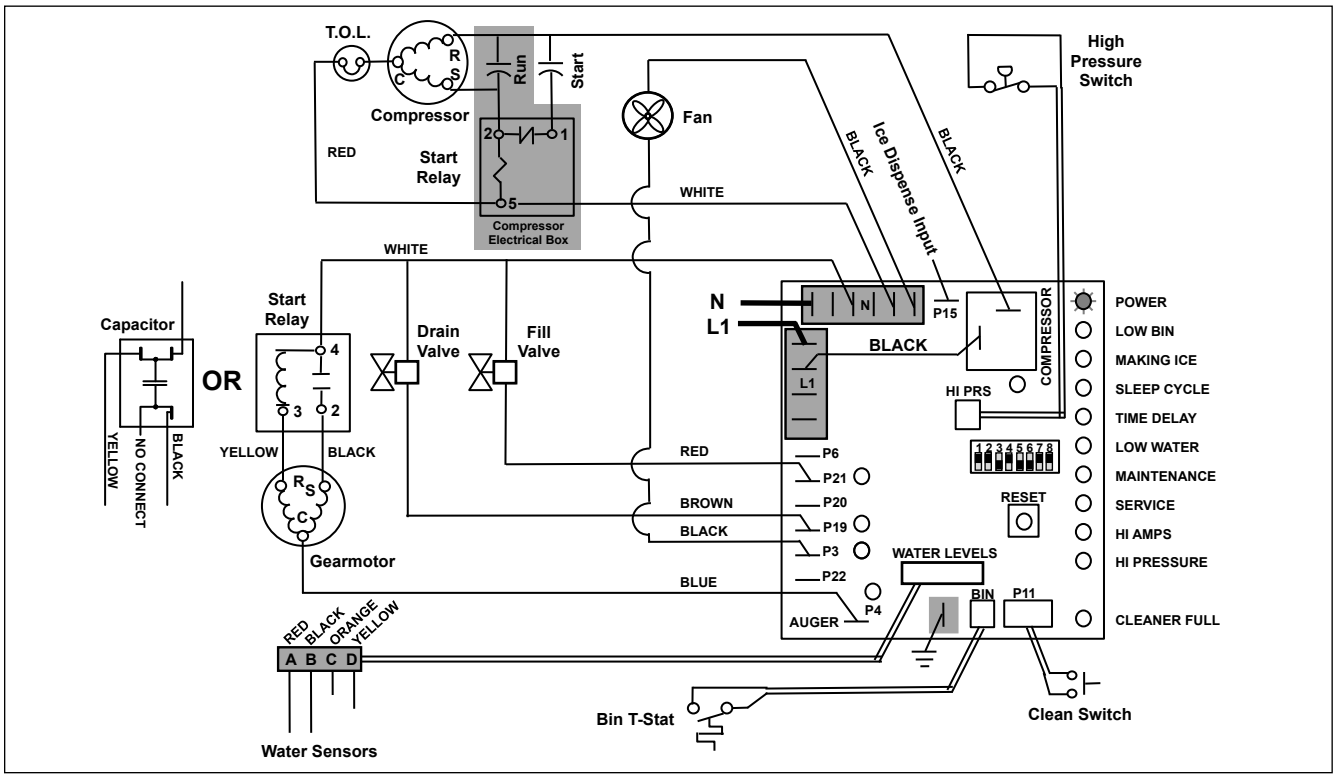
Normal operation – Stage 7

The fan motor continues for 10 minutes before shutting off. The **TIME DELAY** LED remains on for 20 minutes. The ice machine will not start while the **TIME DELAY** LED is on. To restart the ice machine for troubleshooting purposes, depress the reset button to clear the control board.



Normal operation – Stage 8

When the dwell time of 20 minutes has expired, the **TIME DELAY** LED goes off. If 5 seconds of ice has been dispensed and the **SLEEP CYCLE** LED (Symphony Plus only) is off, the ice machine will go through the normal start-up sequence when the bin level control signals the control board for ice.

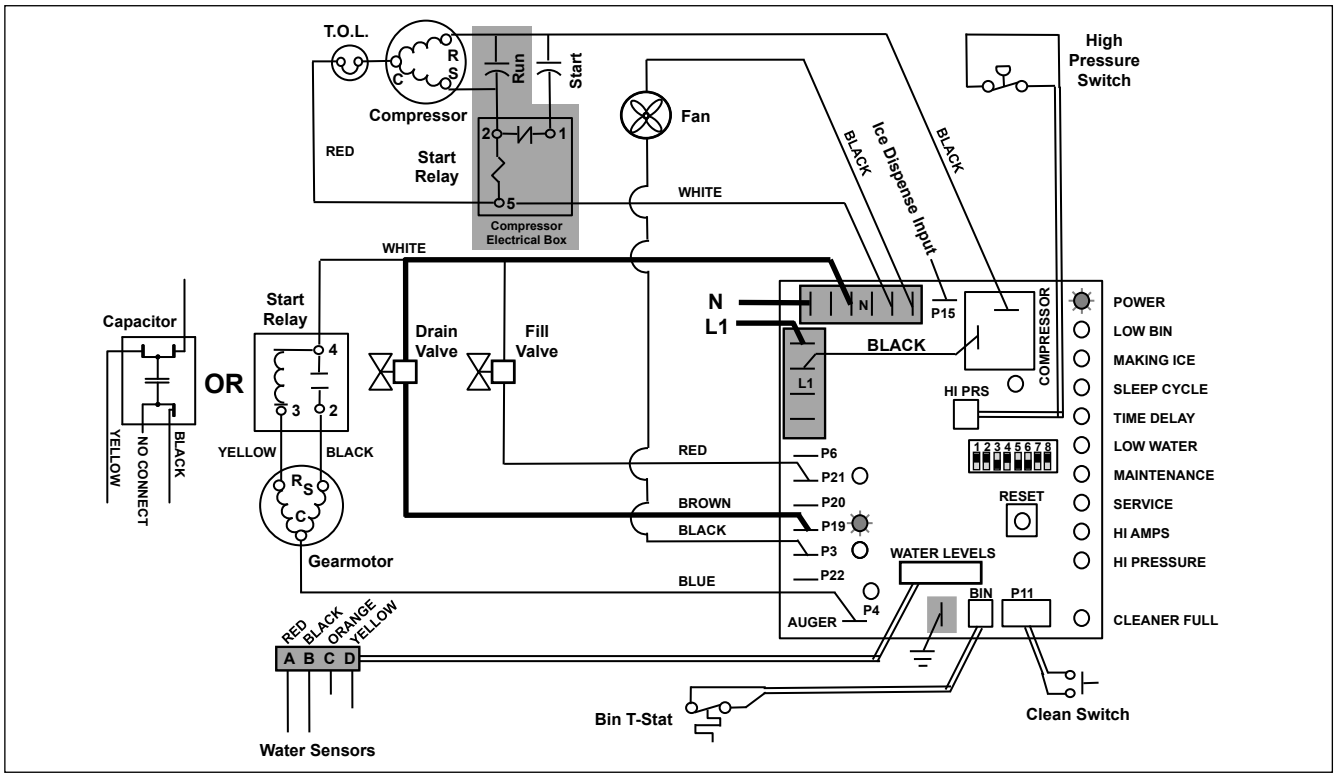


Quiet Night™/Sleep cycle (Symphony Plus only)

The board monitors ice dispensing through a line voltage input to P15. If the ice dispense has not be initiated for more than 5 seconds during the 20 minute time delay, the **SLEEP CYCLE** LED comes on. The machine will stay off for 12 hours unless 5 seconds of dispensing is seen. After 12 hours, the **SLEEP CYCLE** LED goes out and the ice making will resume if the bin thermostat is closed. The sleep cycle dispense duration is adjustable using the DIP switches on the control board.

Self-flushing (when enabled)

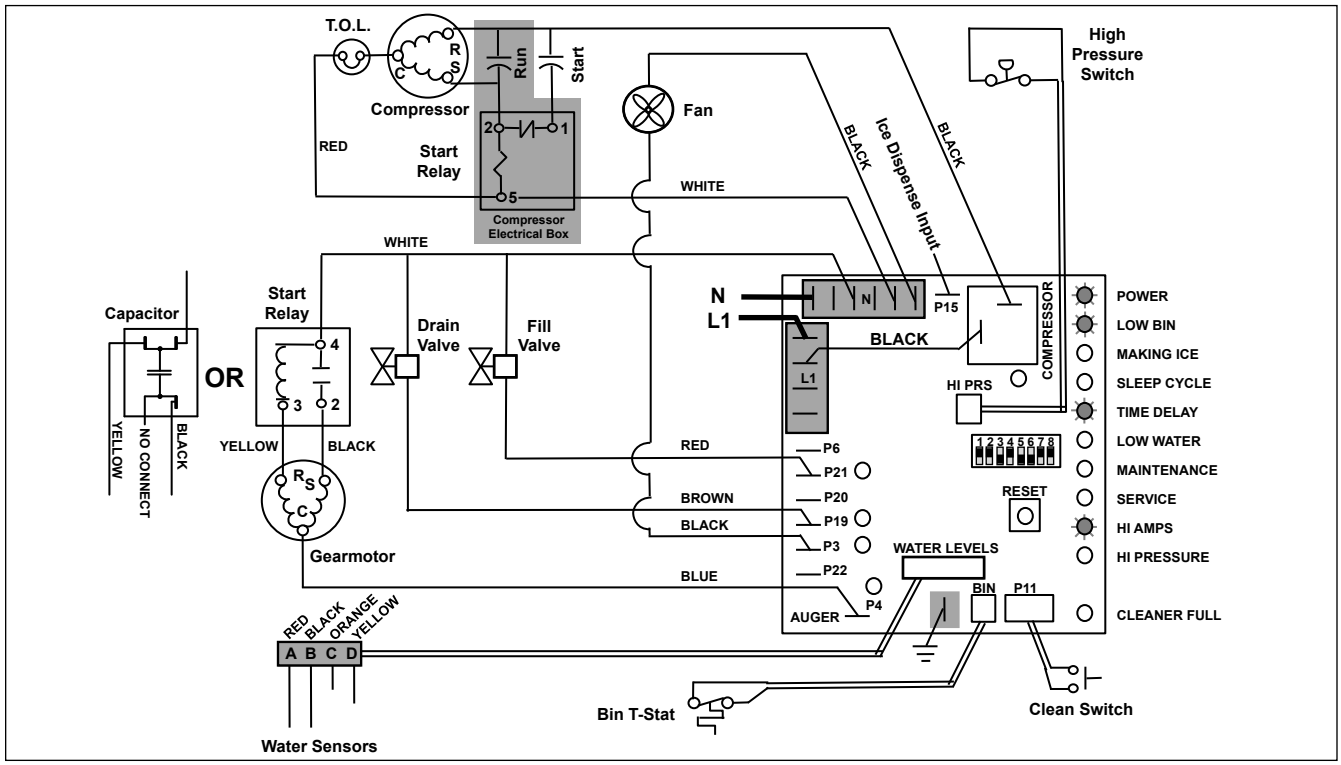
At the completion of the 20 minute time delay, the machine checks for a cumulative one hour of ice making time since the last off-cycle flush. If the cumulative ice making time exceeds one hour, the machine will energize the drain valve P19 for 60 seconds to drain the evaporator. It will then refill with water, flush again, refill and begin making ice if the **LOW BIN** LED is on. If the ice making time is less than 1 hour, the machine will start and begin making ice without draining the evaporator.



Diagnostic stages

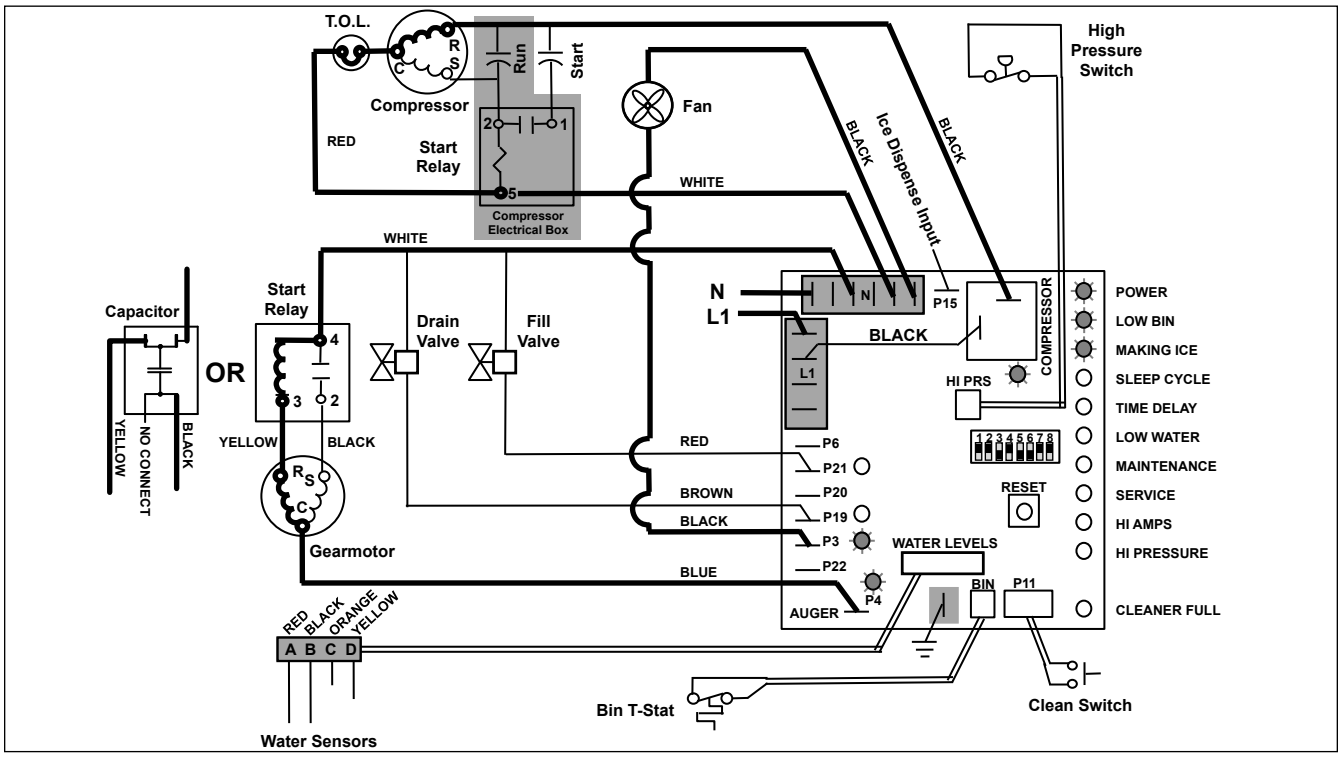
High gearmotor amps – Stage 1

The **HI AMPS** error and **TIME DELAY** LEDs are on indicating that the control board has sensed an over-torque condition at the P4 terminal (more than 3 amps from the gearmotor) or no current draw (0A) and shut the ice machine down (strike one). The **HI AMPS** and **TIME DELAY** LEDs will remain on for 60 minutes after an over-torque condition has occurred. The ice machine will remain off as long as these two LEDs are on. After the 60 minute time delay, these LED lights turn off, and the control board will try to go through a normal start-up sequence.



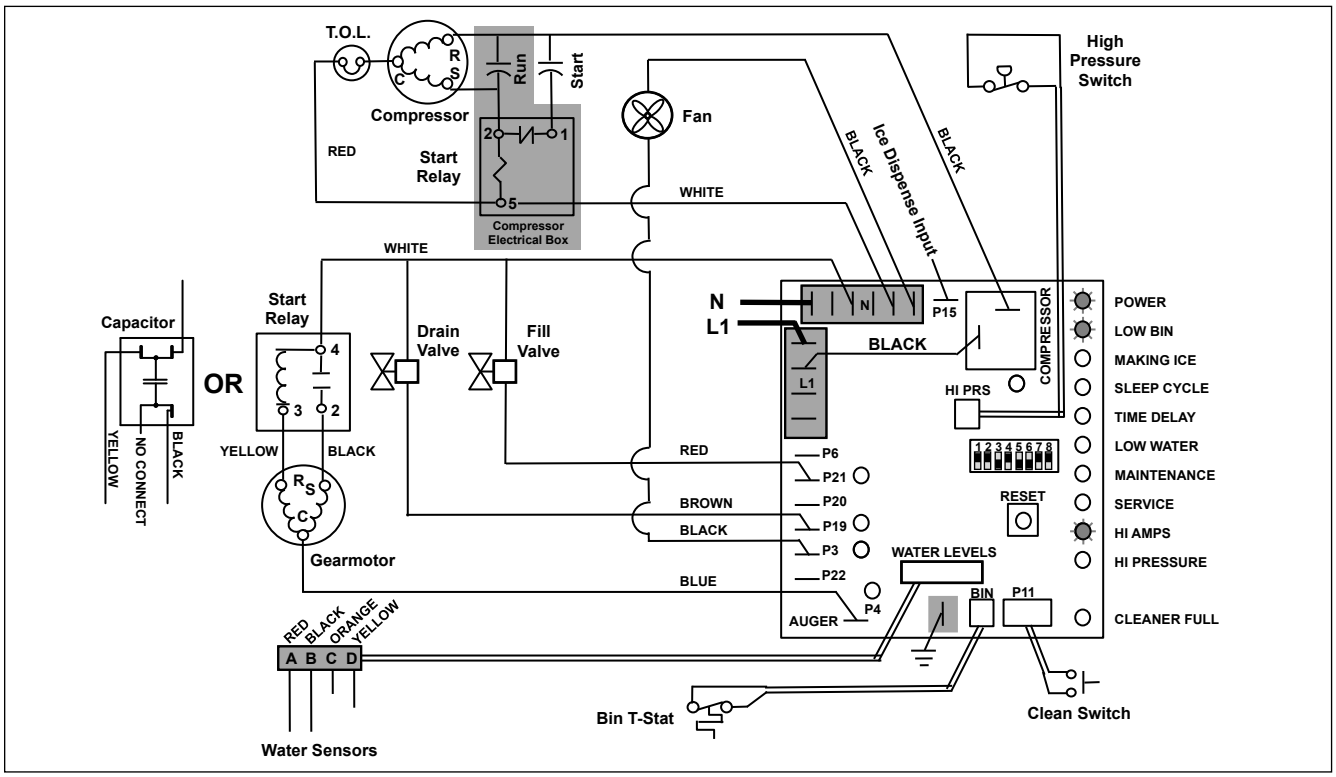
High gearmotor amps – Stage 2

If the restart is successful the board will continue to monitor the current draw on P4 for 60 minutes looking for a second high amps (above 3A) occurrence. If the ice machine runs without problems for 60 minutes and no additional torque errors occur, the ice machine will continue normal operation.



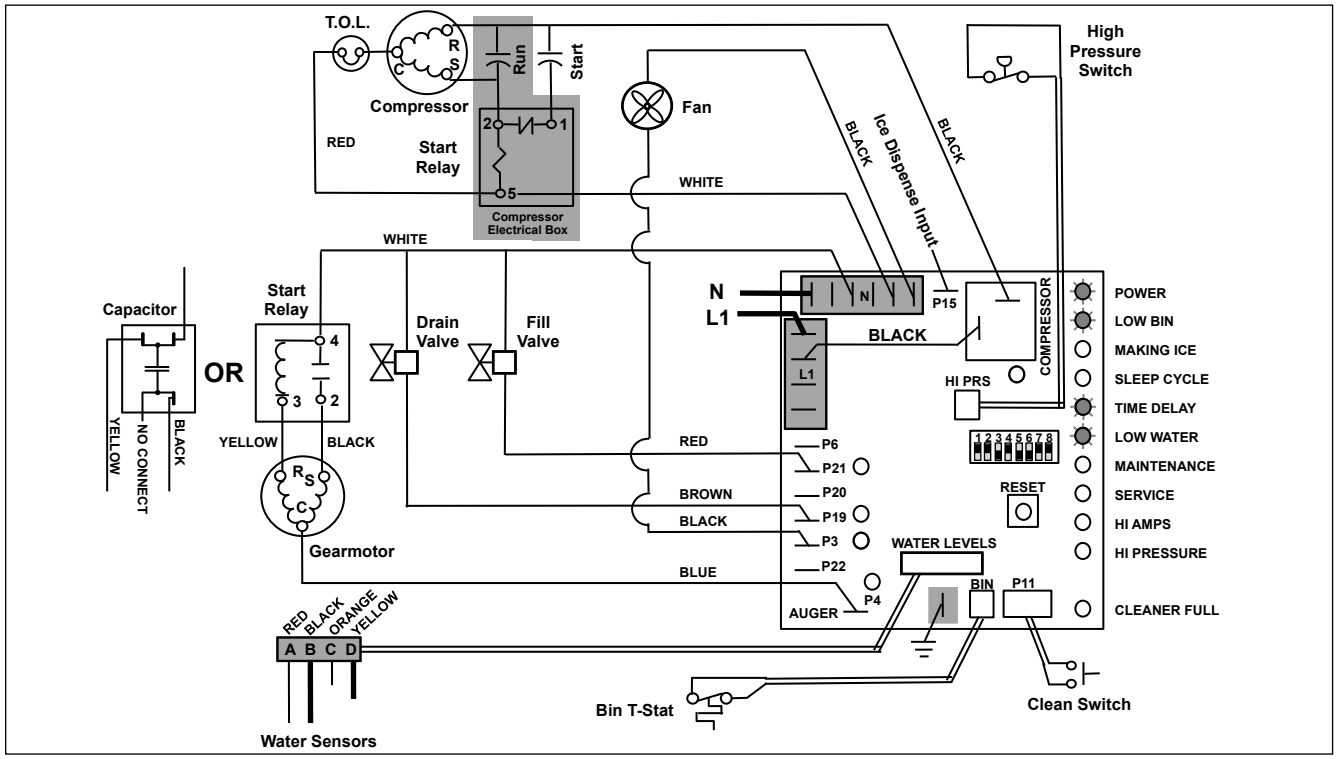
High gearmotor amps – Stage 3

If a second occurrence happens during the 60 minute monitoring period, the **HI AMPS** LED will come on again and shut the machine down (strike two). The **HI AMPS** LED (without the **TIME DELAY** LED) will indicate to the technician that two consecutive over-torque situations have occurred. The ice machine is shut down at this time and locked out. It will not restart unless the manual reset button is depressed while power is on.



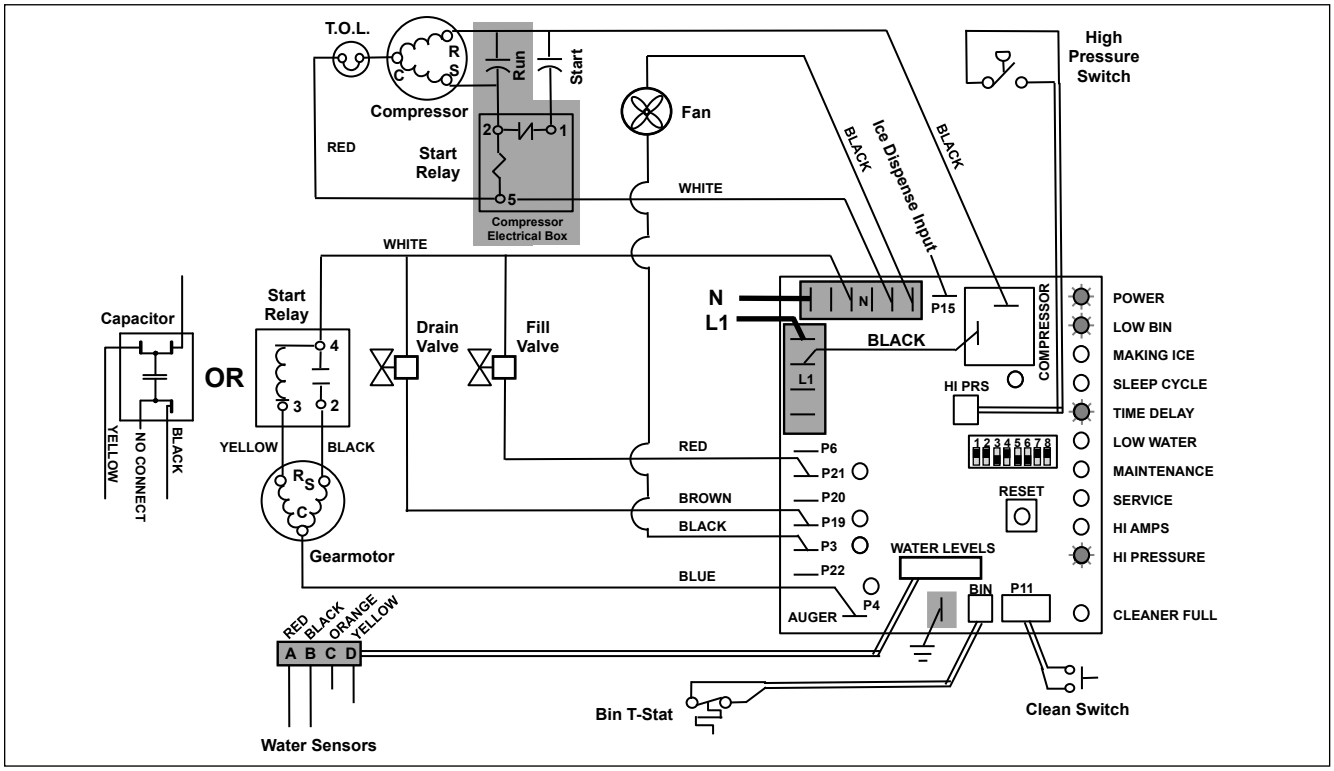
Loss of water

During operation, the water level cycles between the normal low (D) and normal high (C) water probes - the fill valve (P21) cycling on and off. If continuity is not detected between the common probe (B) and normal low (D) within 10 seconds, the **LOW WATER** and **TIME DELAY** LEDs will come on and the machine will shut down for the one hour time delay period. After the time delay, the fill valve will re-energize and wait for continuity between the common probe and normal high before restarting. **LOW WATER** LED will remain ON until the water level is satisfied.



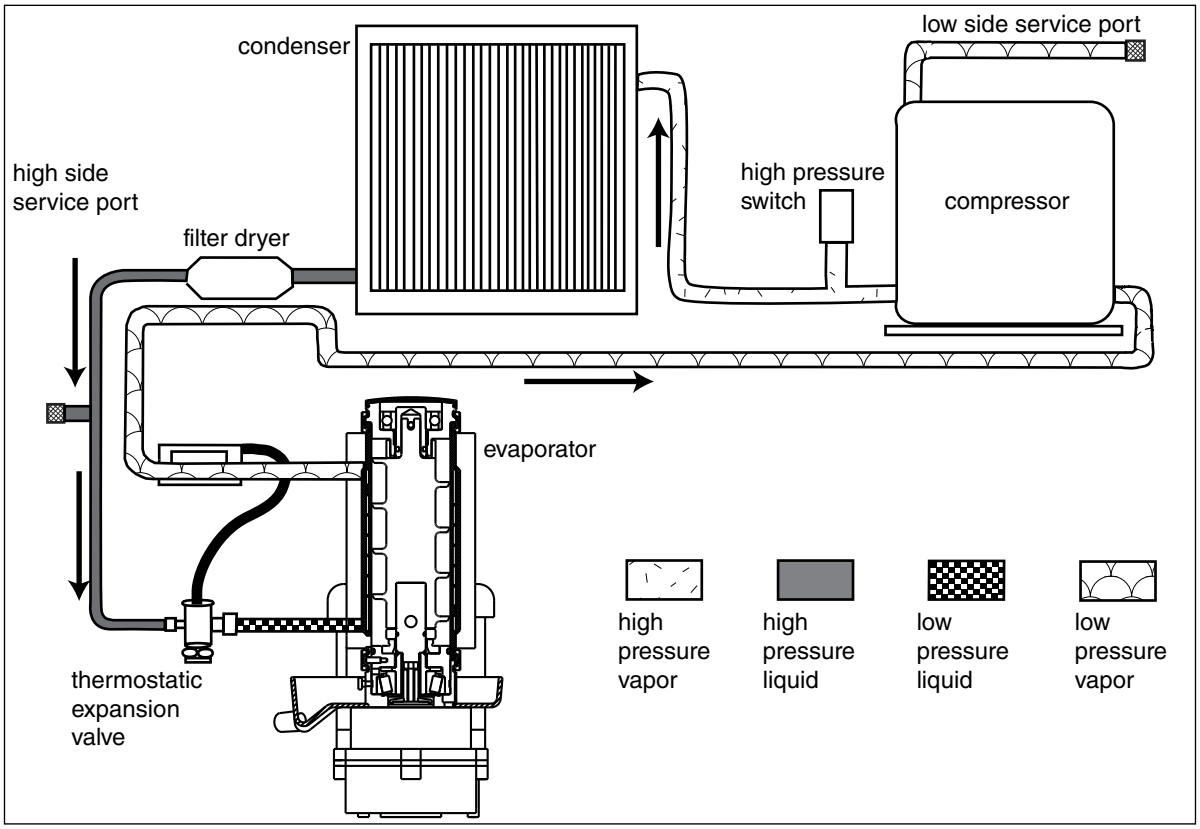
High refrigerant pressure

Should the refrigeration pressure rise above 425 psi, the high pressure switch contacts will open. The board sees the open circuit and the **HIGH PRESSURE** and **TIME DELAY** LEDs will come on, the machine shuts down. After the one hour time delay, the machine will attempt to restart. If the pressure has fallen below the reset point of 295 psi and the board see the contacts closed, the machine will resume normal operation. If the contacts are still open after the restart, the board will again go into **HIGH PRESSURE** and **TIME DELAY**, cycling until contact closure is seen.



Refrigeration system

Important: All service on refrigeration system must be performed in accordance with all federal, state and local laws that pertain to the use of refrigerants. It is the responsibility of the technician to ensure that these requirements are met. **Refrigeration cycle**



Refrigeration pressure data

Air-cooled ice machine capacity/24 hrs.

Ambient Air Temperature ˚F/˚C

Inlet Water Temperature ˚F/˚C

F	60	70	80	90	100	
C	16	21	27	32	38	
50	460	425	390	355	320	lbs.
10	208	193	177	161	145	kg.
60	437	405	372	340	307	lbs.
16	198	184	169	154	139	kg.
70	415	385	355	325	295	lbs.
21	188	175	161	147	134	kg.
80	405	375	345	315	285	lbs.
27	184	170	156	142	129	kg.
90	395	365	335	305	275	lbs.
32	179	166	152	138	125	kg.

Compressor data

Compressor current draw

Air-cooled

Air temp (F)	60	70	80	90	100
Comp Amperage (A)	5.8	6.1	6.2	6.2	6.3
High-side Pressure (psi)	190	220	250	290	330
Low-side Pressure (psi)	27	29	31	33	36

Locked rotor amps **58.8A**

Gearmotor data	**Split-Phase**	**PSC (permanent split capacitor)**
Gearmotor current	1.8A-1.9A (nominal)	0.8A-0.9A (nominal)
Locked rotor amps	14A	7A-14A (temperature dependent)

R425 ice machine charge specifications

Model	Charge	Refrigerant type
12CI425A, 12HI425A (air-cooled)	15 oz	R404A

CAUTION!

- Recharging of unit at other than factory specifications will void ice machine warranty.

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 valves and both manifold and shut down the vacuum pump. 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.

Ice capacity test

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

1. Remove top panel and hopper lid of unit.
2. Weigh and record weight of container used to catch ice.
3. Run ice machine for at least 15 minutes.
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 8 oz = 6.5 lbs).
8. Calculate production using following formula:

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

9. Calculated amount per 24 hours should be checked against rated capacity for same ambient and water temperatures in Ice Production Table (see page 31).

Dispenser troubleshooting

⚠ CAUTION!

- Disconnect power to unit before putting hands or arms in storage area or attempting any repair or service to equipment.

Before calling for service

1. Check that no ice is in the dispenser bin area.
2. Check that congealed ice is not causing a jam
3. Check that all switches and circuit breakers are on
4. Check that all drains are clear.
5. Check water is supplied.

Lever model troubleshooting guide

Problem	Indicators	Corrective Action
Does not dispense ice.	1. Power switch off or faulty. 2. Faulty dispense switch. 3. Wheel motor malfunction.	1. Check switch – turn on or replace if faulty. 2. Replace switch. 3. Check motor and replace
Dispense wheel rotates continuously.	Dispense switch contacts are burned out.	Replace dispense switch.
Ice machine runs continuously.	Faulty or incorrectly positioned bin stat.	Check for proper positioning. If stat does not open when ice is placed on capillary tube, replace stat.
Does not dispense water.	1. Faulty water solenoid valve. 2. Faulty dispense switch. 3. Power switch off or faulty.	1. Replace water solenoid valve. 2. Replace dispense switch. 3. Check switch - turn on or replace if faulty.

SensorSAFE model troubleshooting guide

Problem	Action	SensorSAFE Board LED Status			Corrective Action
		PWR	CLN	ICE/ WTR	
Does not dispense ice and/or water.	Check LEDs on the SensorSAFE control board.	OFF	OFF	OFF	Check circuit breakers and power switch. Restore power or replace defective switch.
		ON	ON	OFF	Press clean switch on lower left side of electrical enclosure to return board to normal operation.
	Place cup under drop zone (in front of lens)	ON	OFF	OFF	Troubleshoot appropriate lens/sensor and replace if required (see lens/sensor troubleshooting).
		ON	OFF	ON	Verify power on appropriate output terminal (WTR or WM) on control board and replace board if required. If board tests okay, troubleshoot appropriate dispenser component.
Dispenses ice and/or water continuously.	Check LEDs on control board.	ON	OFF	ON	Troubleshoot appropriate lens/sensor and replace if required (see lens/sensor troubleshooting).
		ON	OFF	OFF	If there is power on any output terminal 9WTR or WM) on control board, replace board.

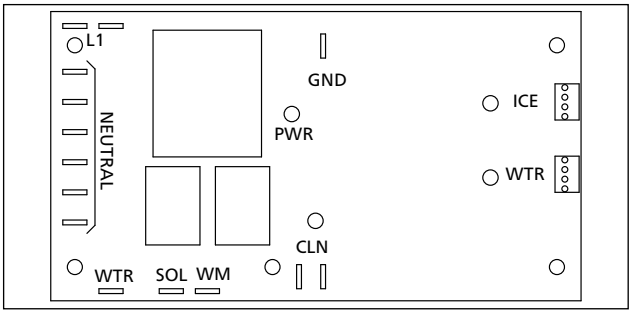
SensorSAFE board guide

LEDs, when illuminated, indicate the following: PWR (board power), CLN (clean button pressed WTR and WM outputs disabled), ICE (ice dispensing activated), WTR (water dispensing activated).

Terminals: L1 (incoming power, hot), L2 (neutral terminals), WTR (power terminal for water solenoid), WM (power terminal for wheelmotor), CLN (terminals for clean cycle switch).

Note: SOL terminal not used in 12 series dispensers.

Fig. 17



Lens/sensor troubleshooting

1. Turn dispenser power switch off and remove splash panel.
2. Disconnect wires from WTR and WM terminals on board.
3. Gently remove sensor/mounting block from splash panel.
4. Inspect lens and sensor, clean if necessary.
5. Restore dispenser power and test sensor by passing hand in front of sensor.
6. If LED on board turns on, sensor is operational. Re-assemble dispenser.
7. If LED does not come on switch sensor leads on board and retest.
8. If opposite LED comes on – replace defective board.
9. If opposite LED does not come on – replace defective sensor.

Disassembly and replacement instructions

Dispense wheel removal

1. Remove all ice from storage area of dispenser.
2. Remove center thumbscrew **(Fig. 18.1)**, locking plate **(Fig. 18.2)**, two wingnuts **(Fig. 18.3)** and backing plate **(Fig. 18.4)** from front of storage hopper (see drawing at right).
3. Remove threaded rod **(Fig. 18.5)**, agitator **(Fig. 18.6)**, baffle **(Fig. 18.7)**, and wheel **(Fig. 18.8)** in this sequence.

Wheelmotor removal

1. Remove dispense wheel.
2. Remove four (4) dispenser motor bracket mounting screws and washers **(Fig. 19.1)**.
3. Remove (4) screws holding motor to mounting bracket **(Fig. 19.2)**.

Fig. 18

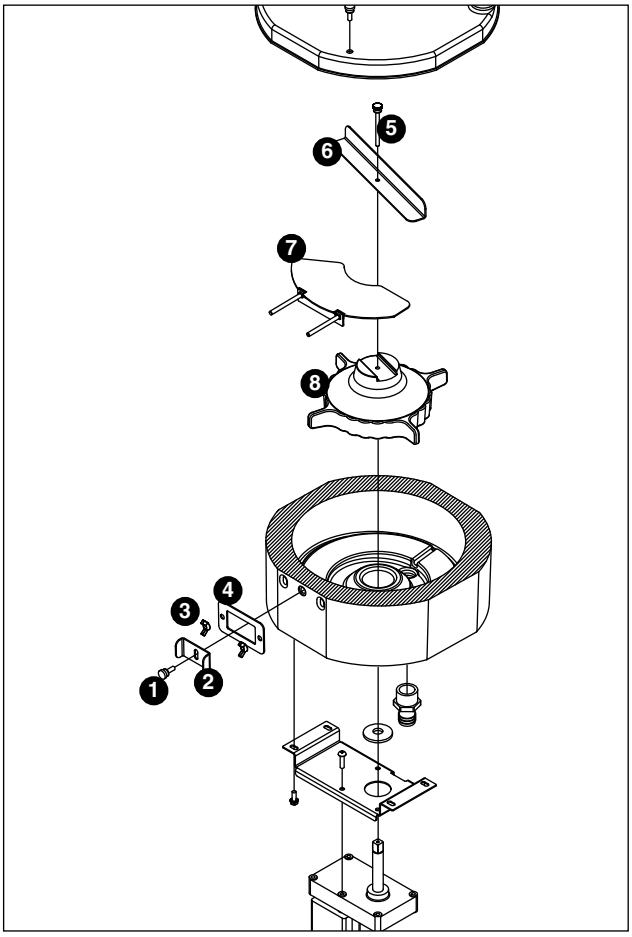
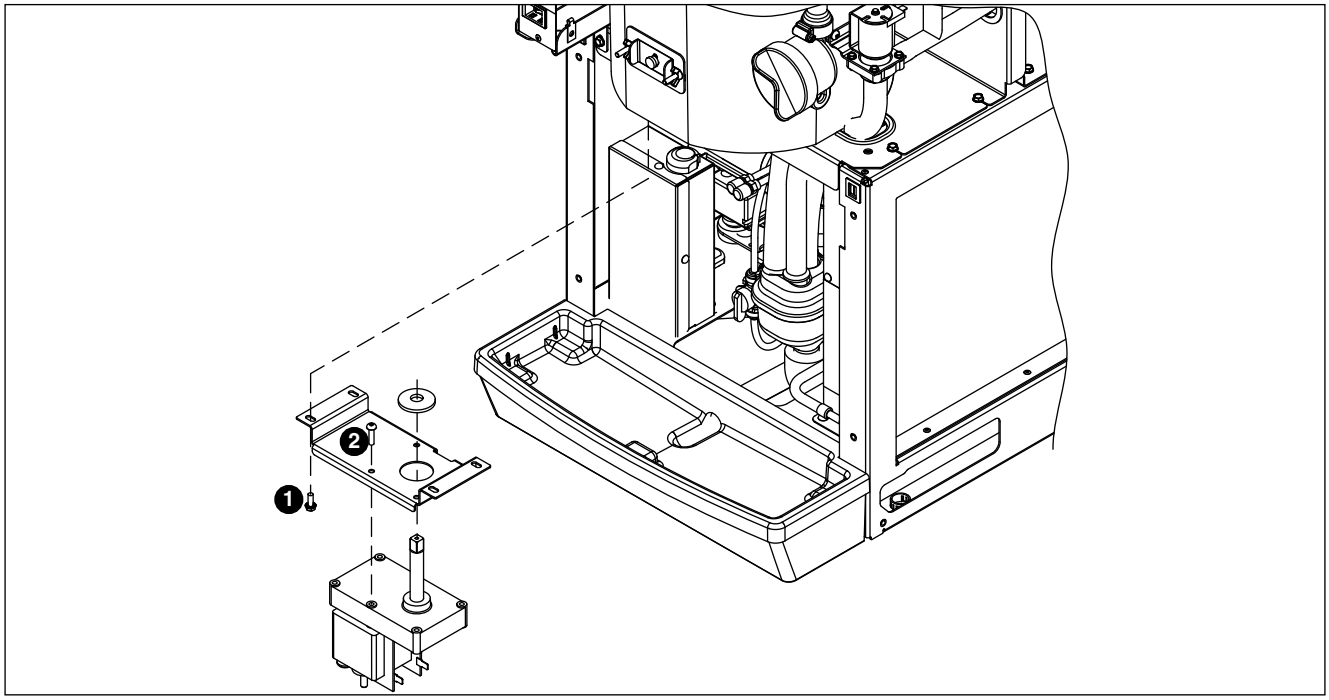


Fig. 19

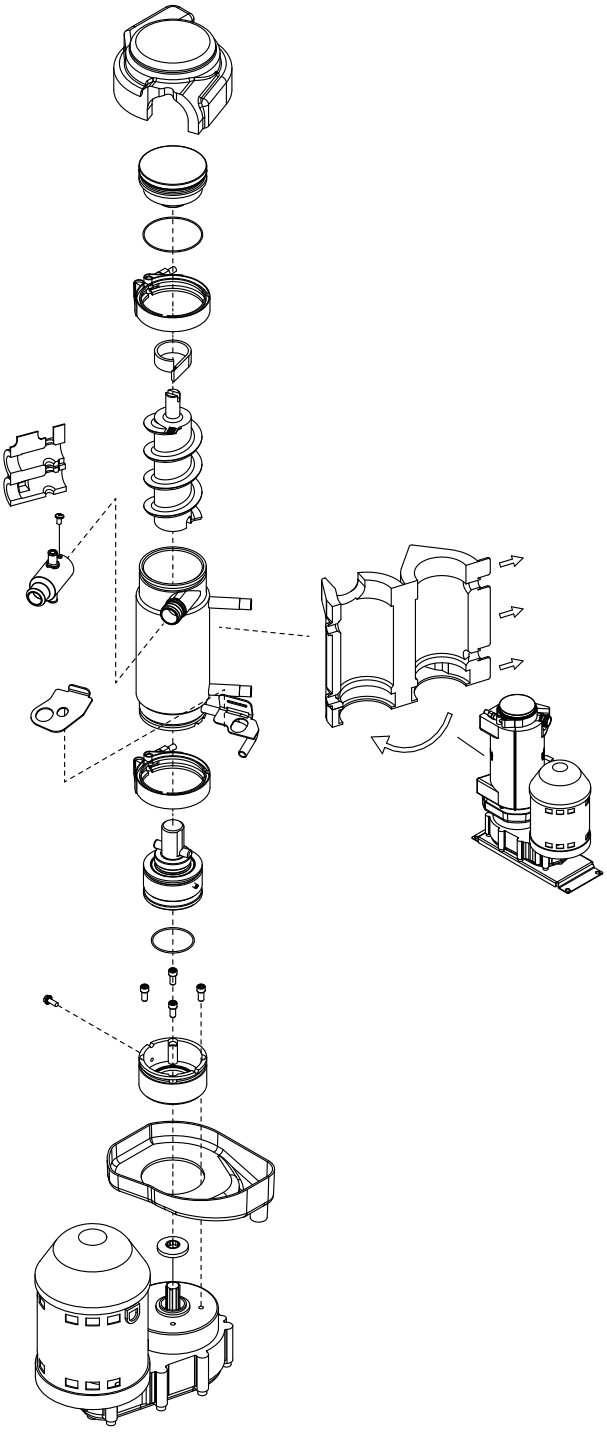


Evaporator disassembly

Note: The upper bearing, lower bearing and auger assemblies must be replaced as assemblies. The bottom and top bearing assemblies cannot be field assembled to factory specifications.

1. Press **CLEAN** switch.
2. Wait for **LOW WATER** light to illuminate.
3. Turn OFF power.
4. Remove top bearing insulation.
5. Remove compression nozzle insulation.
6. Disconnect vent and drain tube from nozzle.
7. Disconnect compression nozzle from evaporator.
8. Disconnect evaporator water feed line.
9. Remove nut and upper vee band coupling from top of evaporator.
10. Lift top bearing assembly straight up with a slight rotating motion and remove.
11. Remove ice compression loop located at top of auger.
12. Lift auger straight up and out of evaporator.
13. Remove nut and lower vee band coupling from bottom of evaporator.
14. Lift evaporator to clear bottom bearing assembly.
15. Loosen hex head bolt in side of mounting base with 5/16 wrench and lift lower bearing assembly.
16. Remove condensate shield.
17. Remove 4 Allen head machine screws holding mounting base to gearbox.

Fig. 20



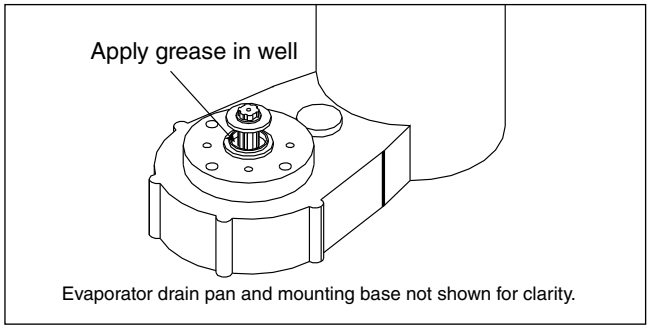
Evaporator reassembly

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. 21)**.
4. Install condensate shield and seat against gearmotor boss.
5. Install bearing O ring in groove in evaporator mounting base.
6. *While maintaining firm downward pressure on bottom bearing assembly*, tighten hex head bolt with a 5/16 wrench.
7. Position evaporator over lower bearing assembly and align grooves with pins in bearing assembly.
8. Install vee band clamp and nut to 70 in/lb. **(Fig. 22)**.
   Note: Clamp **must be oriented as shown** in order for the insulation to be placed properly.
9. Place auger in center of evaporator and rotate to mate with drive pin.
10. Install ice compression loop, orienting loop.
11. Install upper bearing and seal assembly, rotating bearing to slip pin into auger slot.
12. Install upper vee band clamp and nut to 70 in/lb.
13. Install compression nozzle and tubing.
14. Secure ice transport tube with clamp **(Fig. 23.1)**.
    Note: Clamp **must be oriented as shown** in order for the insulation to be placed properly.
15. Install compression nozzle insulation **(Fig. 23.2)**.
16. Install vent and drain tube **(Fig. 23.3)**.
17. Install top bearing insulation **(Fig. 23.4)**.

Gearmotor replacement

1. Disassemble evaporator.
2. Disconnect the wire connectors.
3. Remove 4 screws holding gearmotor mounting plate to base of ice machine and lift gearbox and motor clear of ice machine.
4. Remove machine screws holding mounting plate to motor.
5. Install new motor in reverse order.

Fig. 21



Evaporator drain pan and mounting base not shown for clarity.

Fig. 22

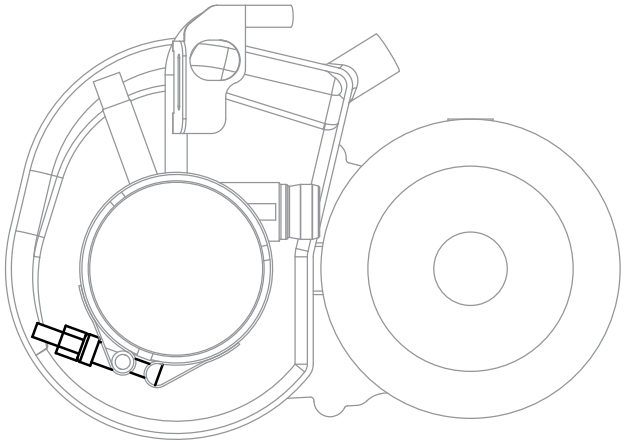
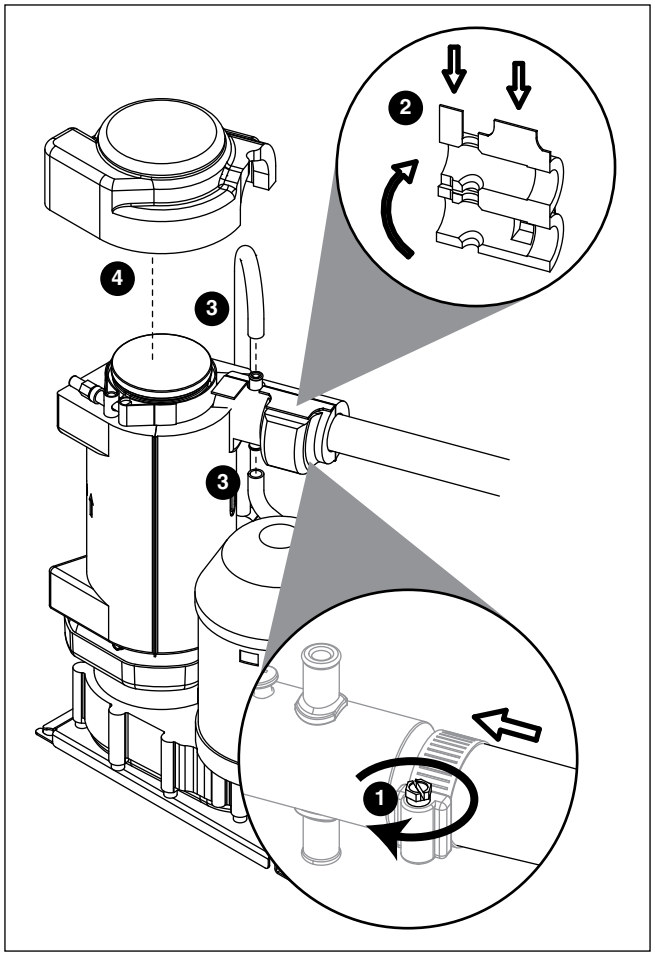


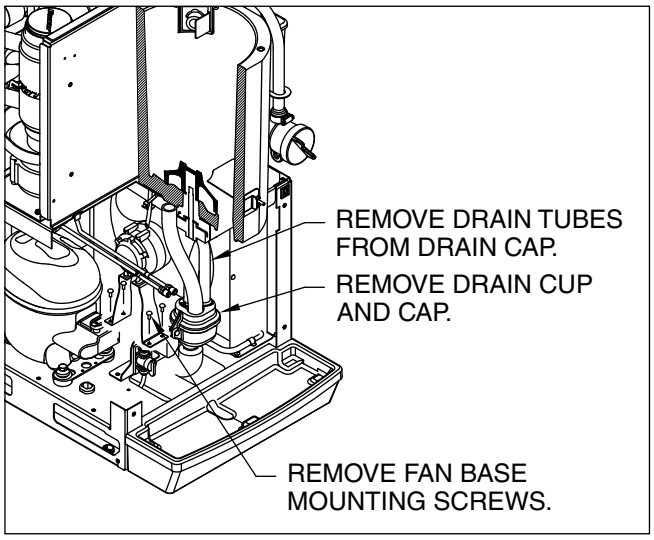
Fig. 23



Fan removal

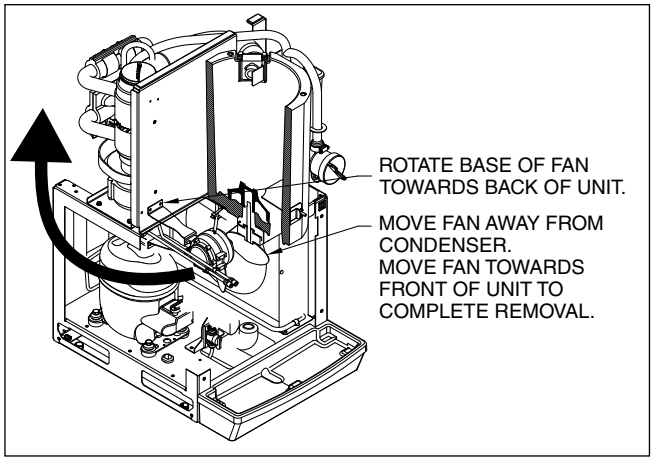
1. Remove 4 fan mounting screws and 3 drain tubes from bracket.

Fig. 24

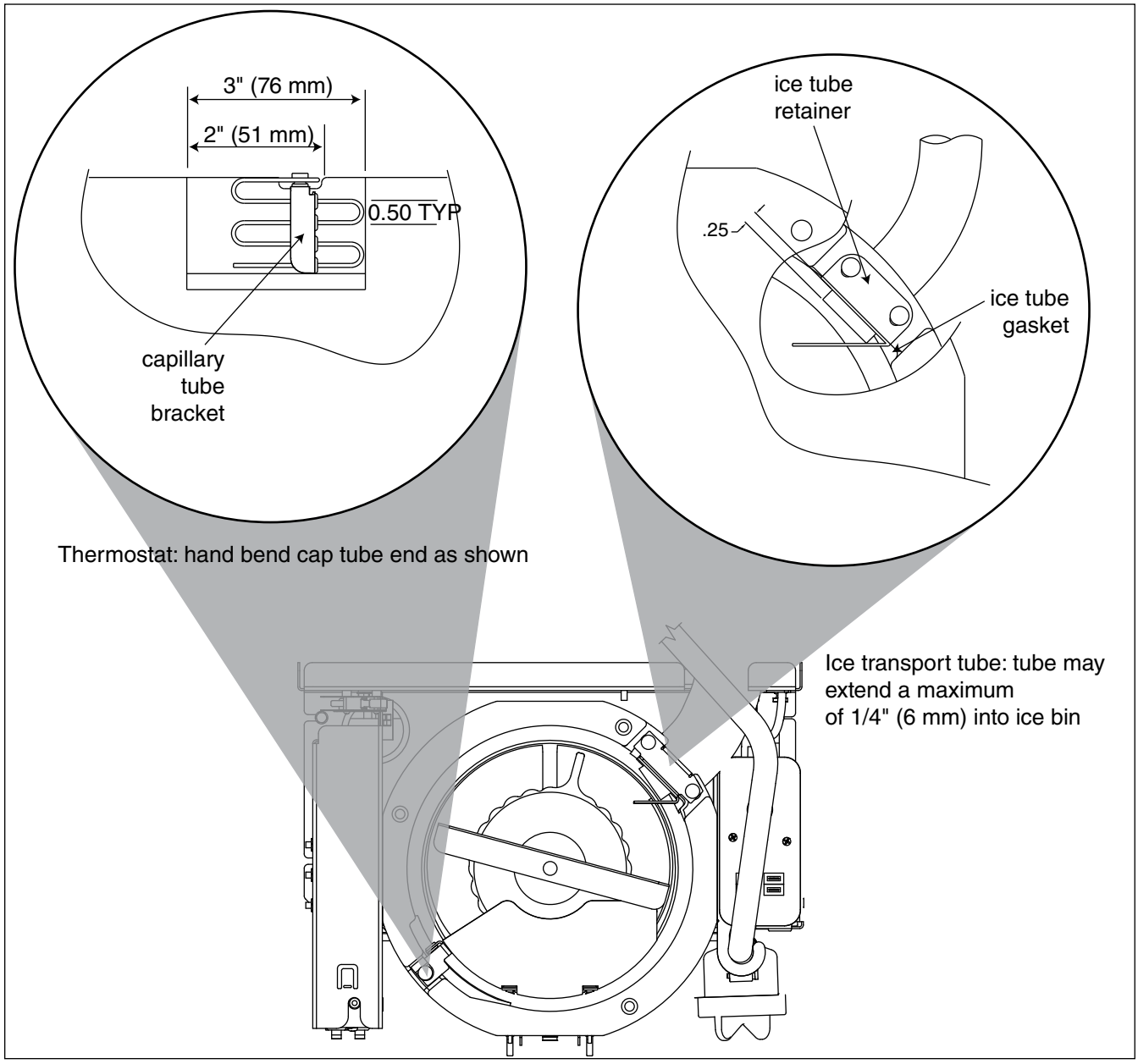


2. Rotate fan mounting bracket toward back of unit and pull fan assembly toward front of unit.

Fig. 25



Thermostat and ice transport tube replacement

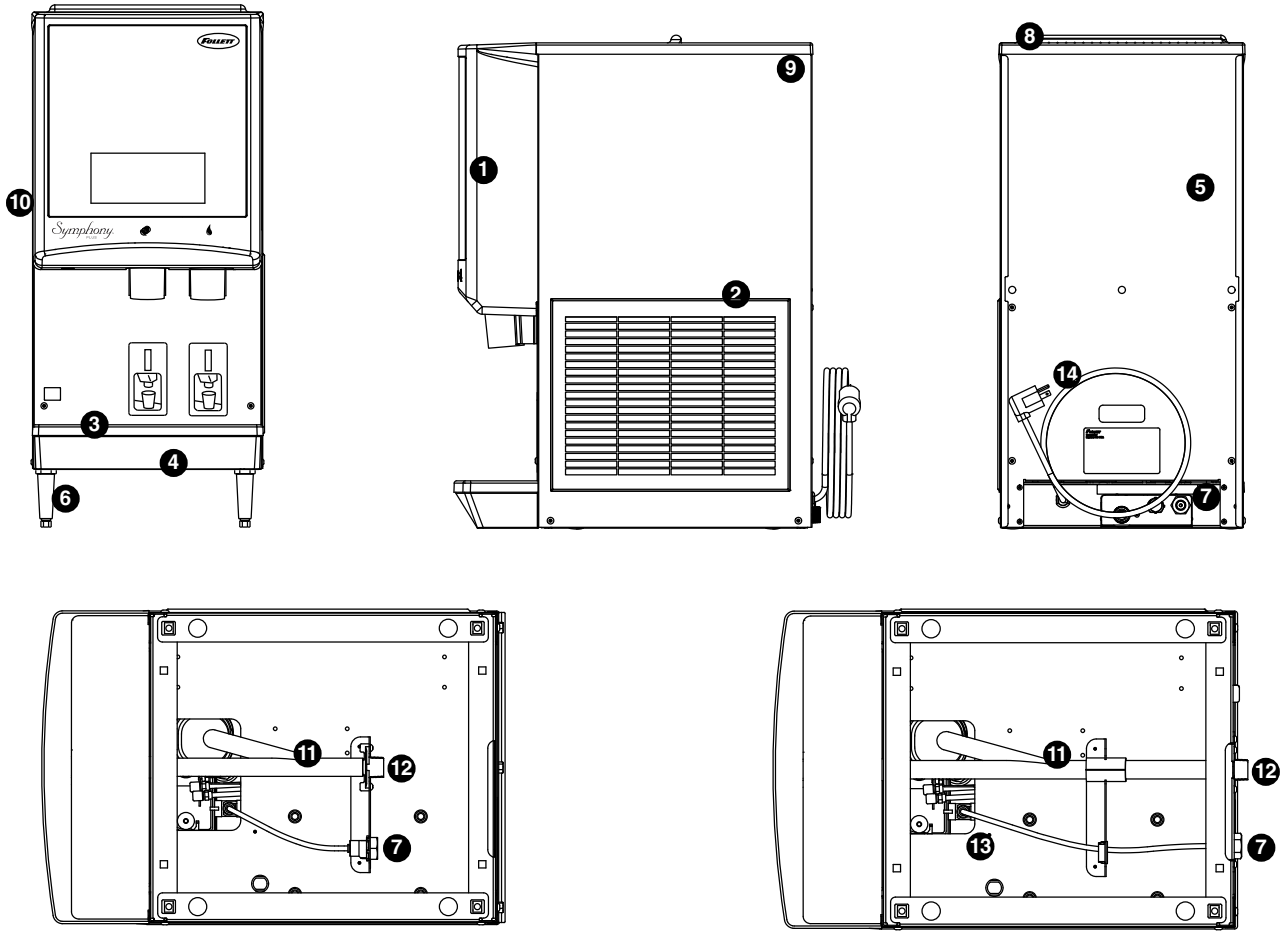


Ice transport tube replacement

1. Refer to **Fig. 23**.

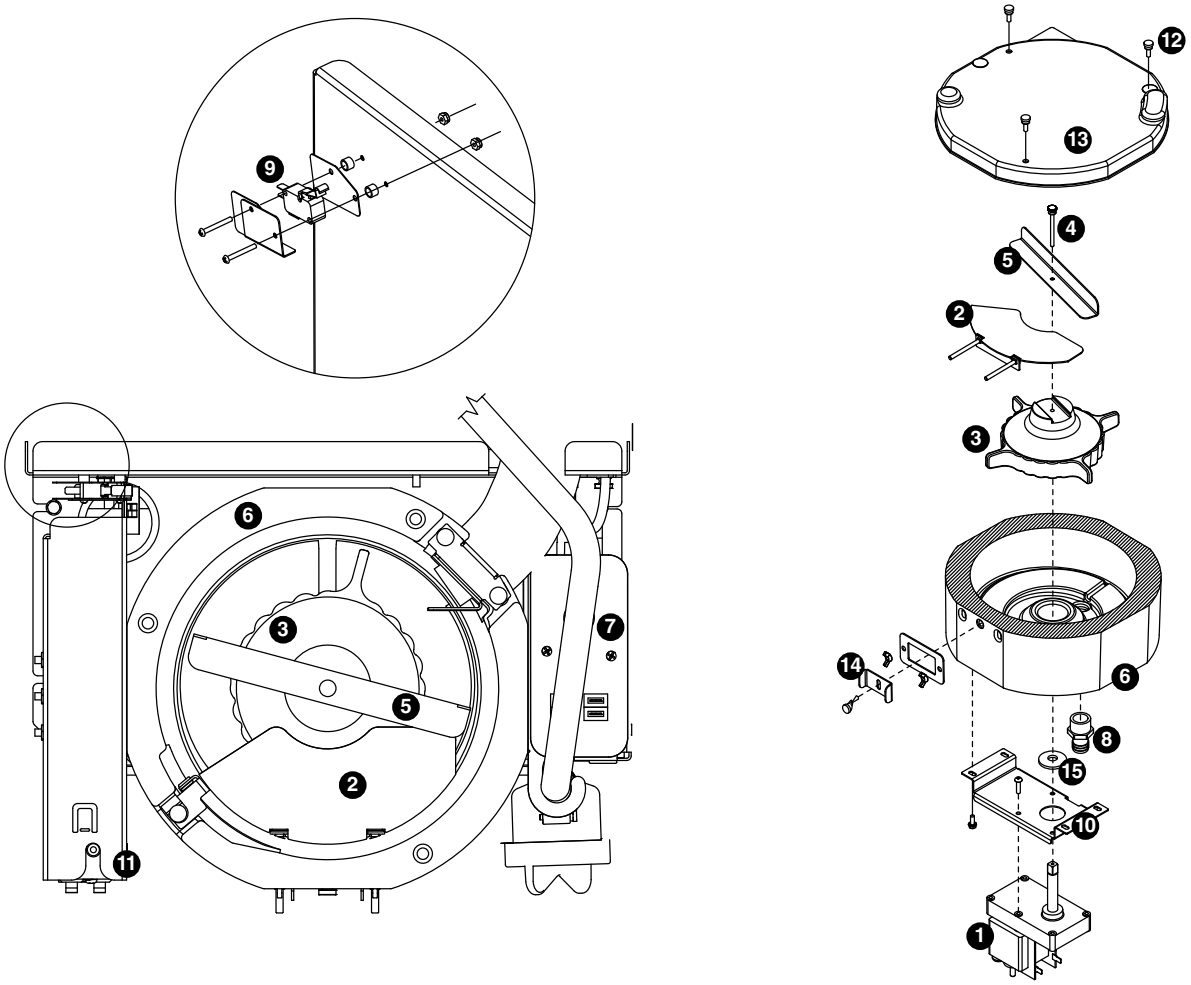
Replacement parts

Dispenser exterior



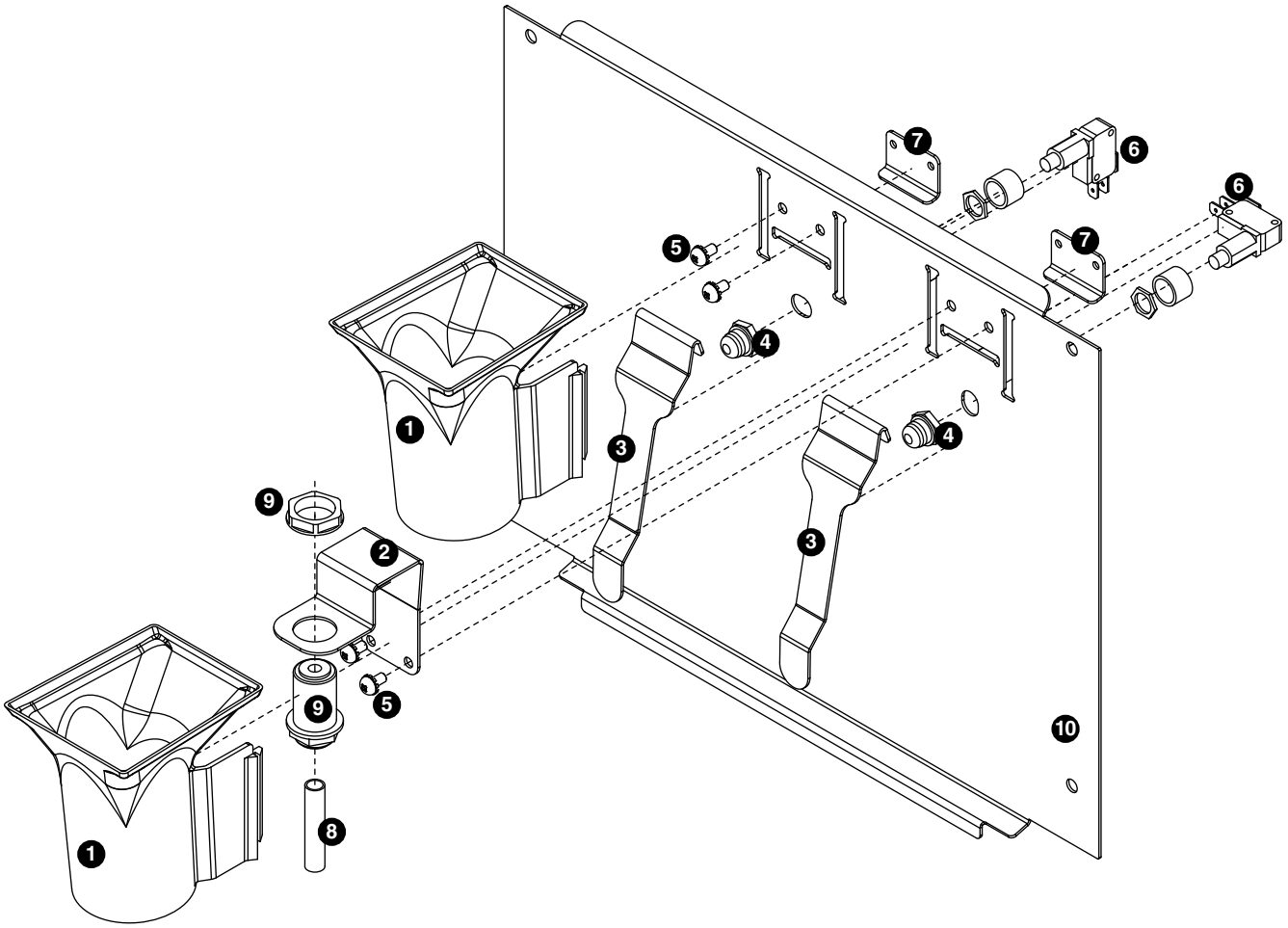
Reference #	Description	Part #
1	Cover, front, ice and water	01064575
Not shown	Cover, front, ice only	01064583
2	Louver, intake, plastic	00967117
Not shown	Grille, drain pan, gray plastic	01051614
3	Drain pan, plastic	00967059
4	Drain pan assembly (includes hardware, pan and grille)	502410
5	Panel, rear	01220904
6	Leg kit, 4" (10.2 cm), adjustable – set of 4	502399
7	Fitting, water inlet, brass 3/8" FPT x 1/4" john guest	01065275
8	Lid, top panel, plastic	00967091
9	Panel, right side	01220888
10	Panel, left side	01220896
11	Tube, drain pan/collector cup	01065390
12	Fitting, drain	00109728
13	Valve, 1/4" john guest	01035526
14	Cord and plug, power	01035682
Not shown	Bracket, wall 16" (40.6 cm)	502873
Not shown	Clip, valve	01035534
Not shown	Grille, drain pan - case of 12	01071224

Wheelmotor and drive system



Reference #	Description	Part #
1	Motor, wheel, long shaft (includes gear motor shield)	502580
2	Baffle, ice (securing hardware, part# 00167973, included)	502414
3	Wheel with Agion, agitator	502387
4	Rod, threaded (includes knurled nut)	502390
5	Agitator, rotating	502386
See page 41	Bracket, capillary tube	502406
See page 41	Retainer, ice tube	00977314
See page 41	Gasket, ice tube	00977322
6	Assembly, hopper with Agion (includes drain fitting)	502413
7	Reservoir body (includes fasteners)	01230622
8	Fitting, hopper drain, 3/4 MPT, 3/4" barb fitting	207095
9	Switch, interlock	502416
10	Support plate, motor	502423
11	Cover, electrical box	502408
12	Screws, 10-32 x 1/2 (6 needed)	201022
13	Hopper lid with hopper lid safety switch actuation	00951541
Not shown	Hopper lid, dispenser top cover, safety switch actuation (Before SN# B72959)	207809
14	Hardware, baffle securing	00167973
15	Shield, gear motor	502537

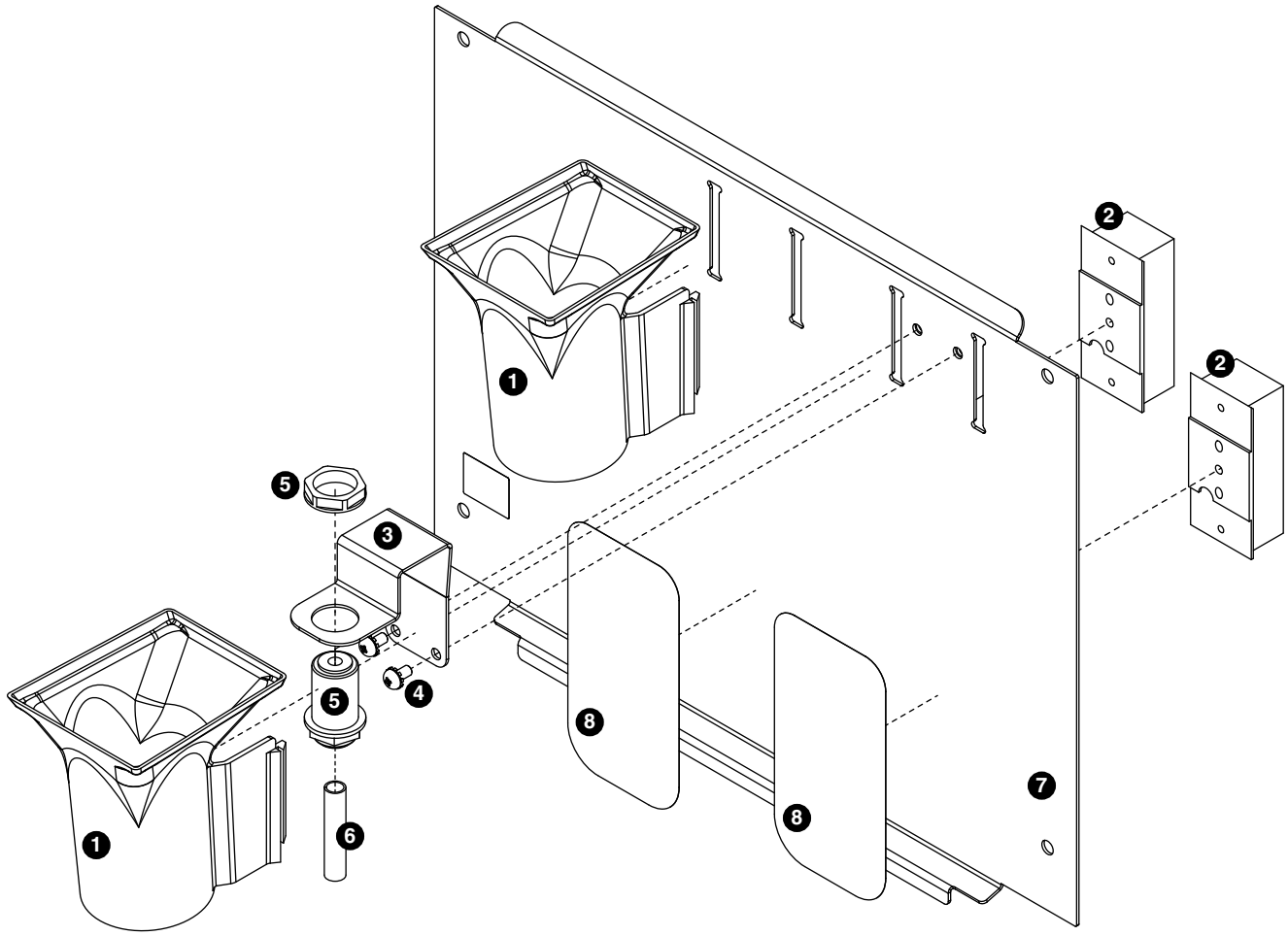
Dispense chute and splash panel (models with lever dispensing)



Reference #	Description	Part #
1	Chute, ice or water (with Agion® antimicrobial product protection[1])	00967760
2	Support, water tube	00960682
3	Lever	00976845
4	Boot, dispense switch button	502418
5	Screw, panel	00982421
6	Switch, dispense	00981217
7	Bracket, lever support	00958793
8	Tube, water solenoid	502420
9	Fitting, bulkhead (with nut)	00976787
Not shown	Splash panel (ice only)	01161256
10	Splash panel	00969980

[1] Disclaimer: Antimicrobial protection is limited to the treated components and does not treat water or ice.
Agion is a registered trademark of Sciessent LLC.

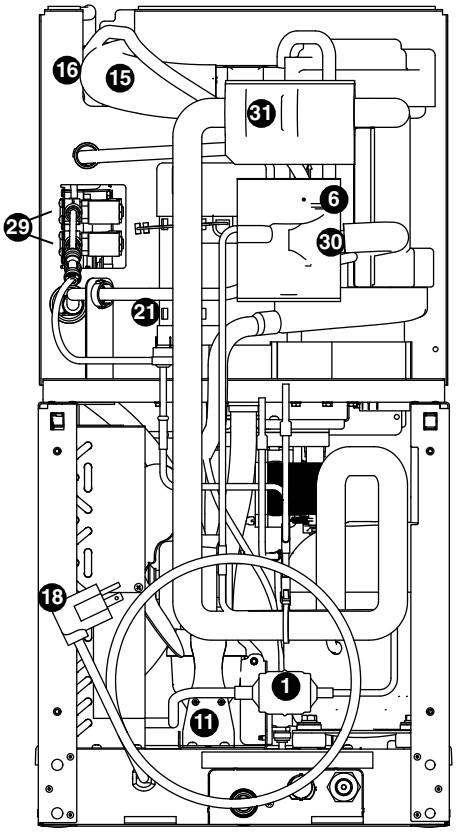
Dispense chute and splash panel (models with SensorSAFE infrared dispensing)



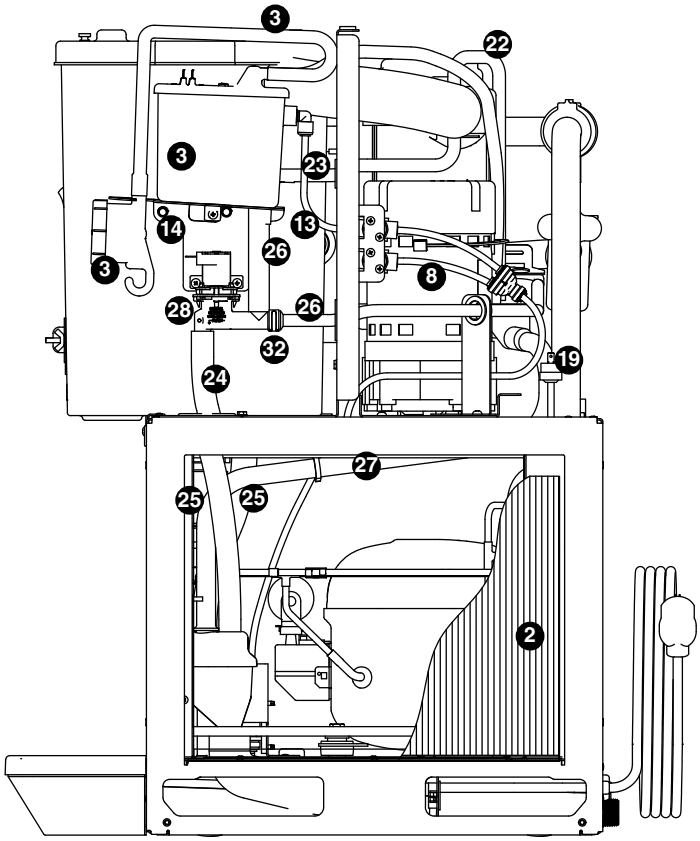
Reference #	Description	Part #
1	Chute, ice or water (with Agion)	00967760
2	Sensor (includes lens and Ty-rap*)	00122978
3	Support, water tube	00960682
4	Screw, panel	00982421
5	Fitting, bulkhead (with nut)	00976787
6	Tube, water solenoid	502420
Not shown	Splash panel, without drain pan (includes 2 Ty-raps and 2 lenses)	00981357
7	Splash panel, (includes 2 Ty-raps and 2 lenses)	01161264
8	Lens, sensor (each)	502690
Not shown	Splash panel, ice only (includes 1 Ty-raps and 1 lens)	01161272
9	Solenoid, assembly (includes fittings, screws)	00981209

* Ty-rap is a registered trademark of Thomas & Betts International, Inc.

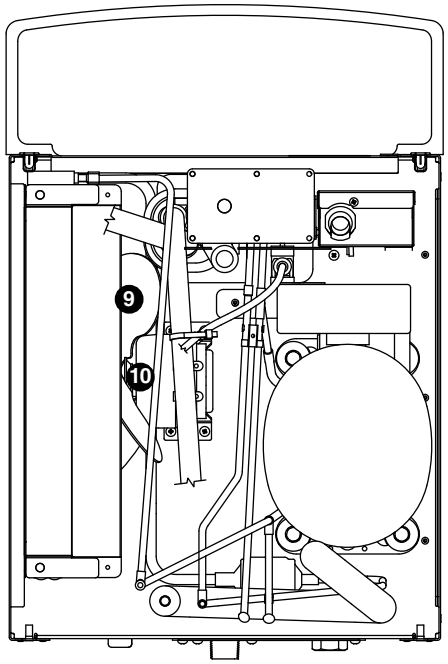
Ice machine components



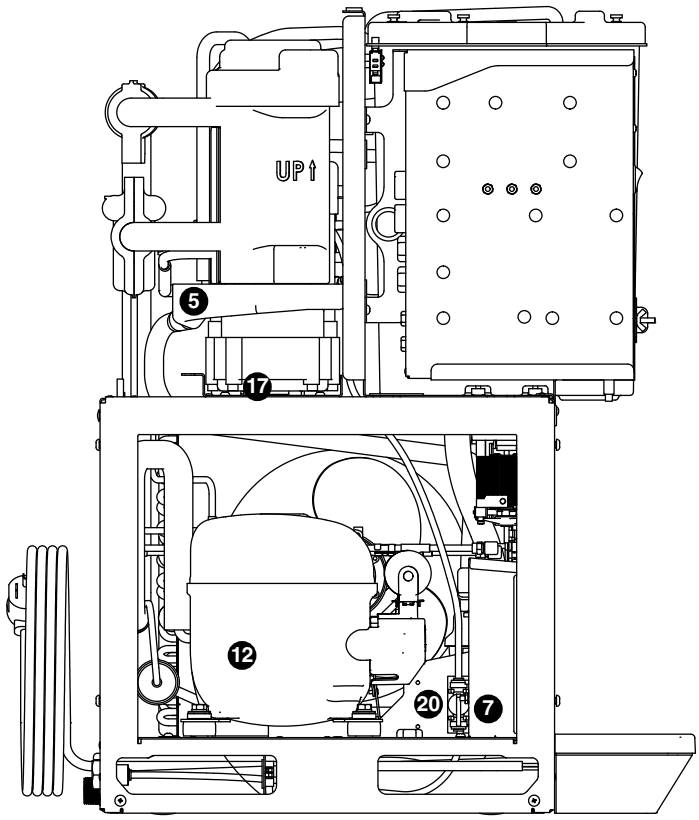
Rear view



Right side view



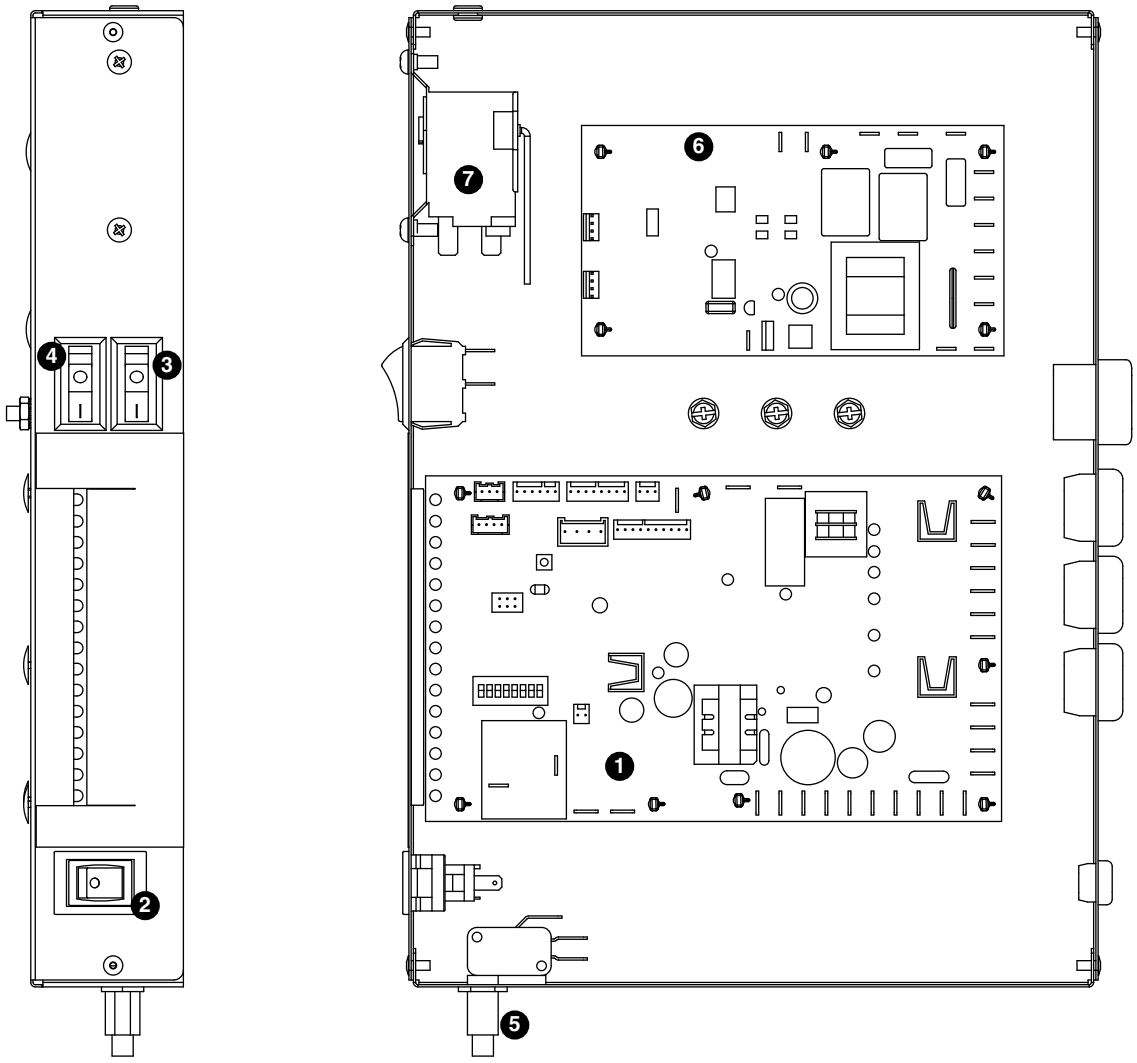
Top view (lower section)



Left side view

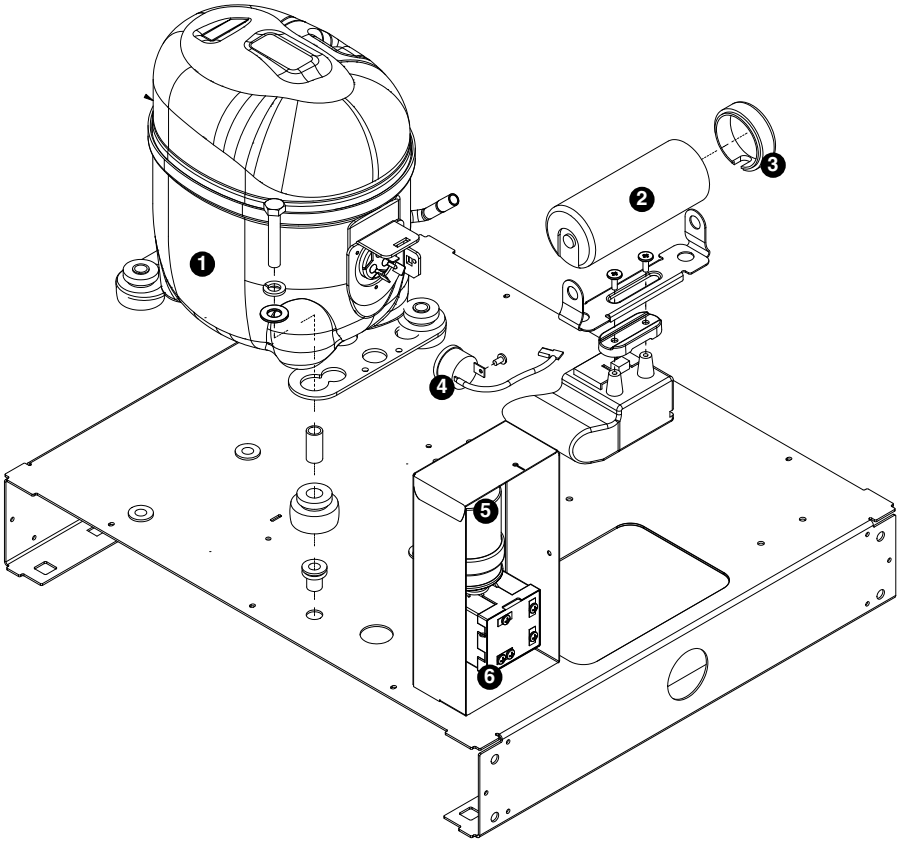
Reference #	Description	Part #
1	Drier	502724
2	Coil, condenser (includes shroud)	01065317
3	Reservoir (includes lid, gasket, fasteners, clean and vent tubing, cleaning cup)	01230622
Not shown	Gasket, reservoir	00990978
4	Evaporator (see page 50 for detailed drawing)	—
5	Drain pan, evaporator	502727
6	Valve, expansion, thermal	502726
7	Valve, shut-off, water, plastic, 1/4"	01035526
8	Gearbox & motor, 115 V, 60 Hz (includes 307192)	00142034
9	Fan blade	500474
10	Motor, fan, 115 V, 60 Hz	500672
11	Bracket, fan motor	01067107
Not shown	Overload, compressor, 115 V, 60 Hz	01027572
12	Compressor, 115 V, 60 Hz	01065259
13	Tubing, polypropylene, reservoir supply (sold by the foot)	502079
14	Bracket, reservoir	01065408
15	Tube, ice transport	00168112
16	Insulation, ice tube, 12" (30.5 cm) required	501176
17	Bracket, gearmotor mounting	307192
18	Cord and plug, power	01035682
19	Hi-pressure cut-out	00117077
20	Clip, water shut-off valve	01035534
21	Fitting, flow divider, 1/4" tubing (After serial number L78614)	01352491
Not shown	Gasket, ice hose	00977322
22	Tubing, nozzle vent	01148691
23	Tubing, nozzle drain	01148790
24	Tubing, purge	01054790
25	Tubing, bin	01054782
26	Tube, fill/purge - reservoir-solenoid-evaporator feed (includes hose clamp)	01261536
27	Tubing, evaporator drain pan	01054154
28	Solenoid, purge	01261510
29	Solenoid, fill, dispense (After serial number L78614)	01352483
30	Insulation, TEV	502830
31	Insulation, TEV bulb	00106534
32	Clamp, hose	01281450

Electrical components



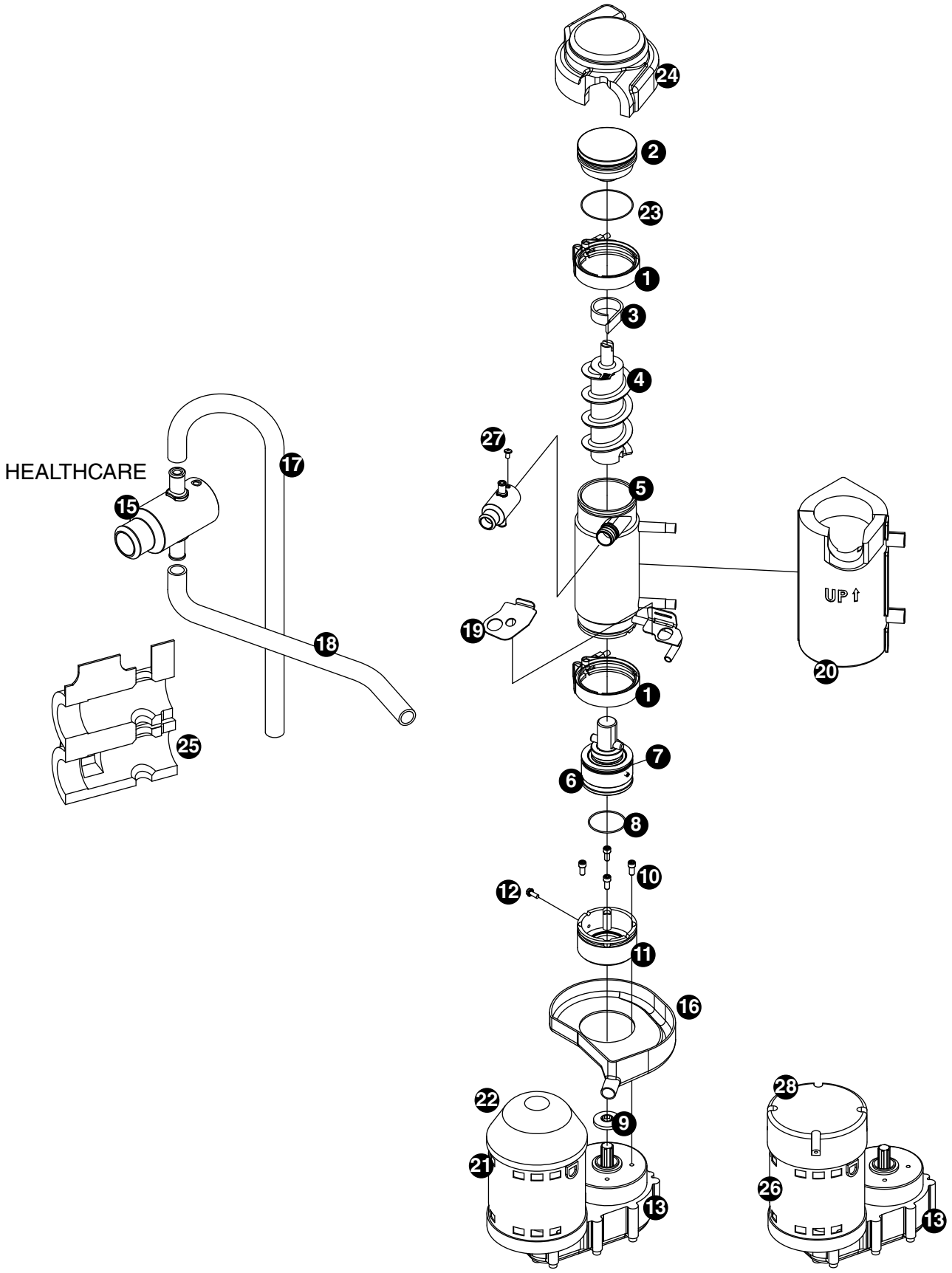
Reference #	Description	Part #
1	Board, control circuit, 115 V, 60 Hz	01064708
2	Switch, clean	01229418
3	Switch, rocker, power	502209
4	Switch, rocker, bin signal	502209
5	Switch, cleaning, SensorSAFE models	502409
6	Control board, SensorSAFE models	502242
7	Bin thermostat	500514

Compressor



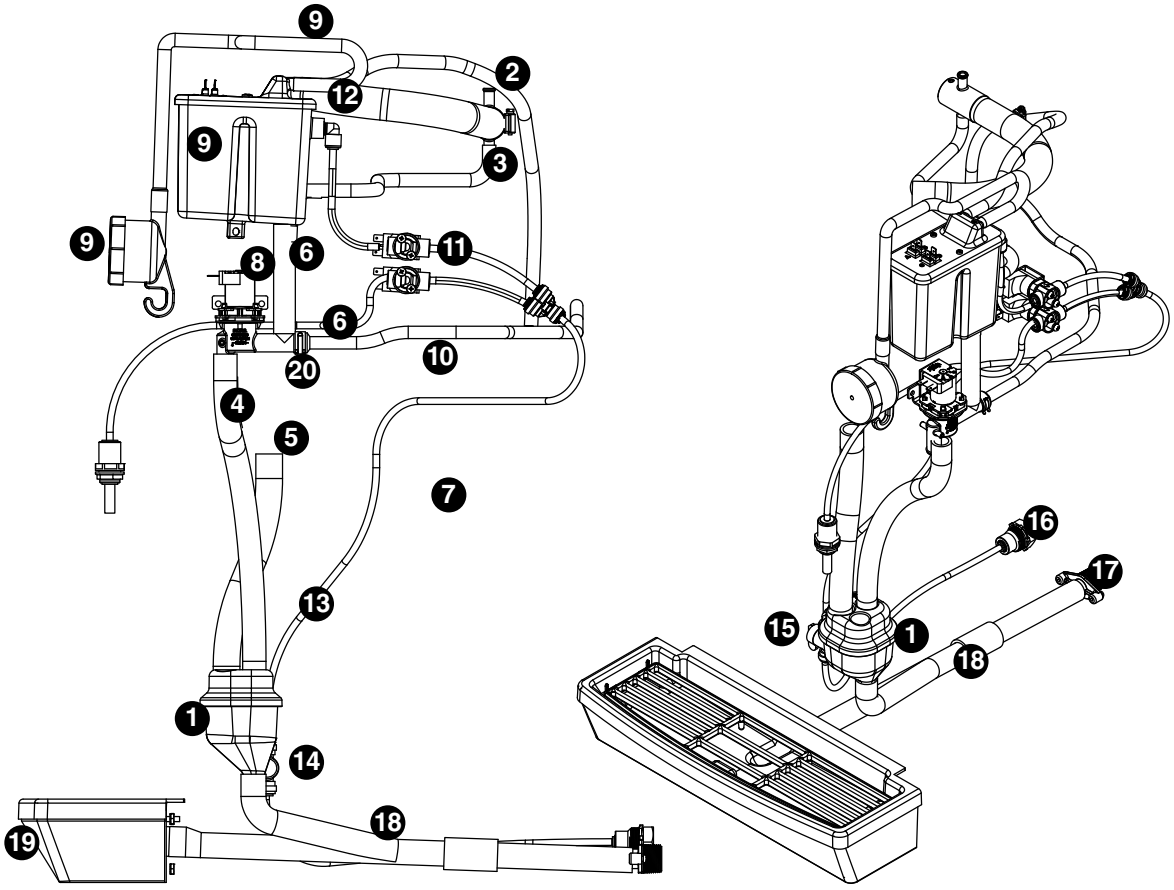
Reference #	Description	Part #
1	Compressor, 120 V (includes start cap, run cap, and start relay)	01065259
2	Capacitor, start	01026145
3	Cap, end	01027556
4	Overload, compressor	01027572
5	Capacitor, run	00997759
6	Relay, start	00997726

Evaporator replacement parts



Reference #	Description	Part #
1	Coupling, vee band, includes nut	502735
2	Bearing assembly, top	502736
3	Loop, ice compression, beveled	502110
4	Auger (see below for Flaker-specific components)	502737
5	Evaporator (includes insulation jacket, and top bearing insulation)	01064658
6	Bearing assembly, bottom (includes O rings and condensate shield)	502738
7	O ring, bearing housing	500496
8	O ring, mounting base	501063
9	Shield, condensate	500744
10	Screw, Allen 1/4 20 x 1/2 (set of 4)	501080
11	Mounting base, evap. (includes 501063)	502733
12	Bolt, mounting base	502227
13	Gearbox & motor (includes mounting base)	00142034
Not shown	Mounting base, gearbox	01067693
15	Compression nozzle, with single drain	01064674
16	Drain pan, evaporator	502727
17	Tube, compression nozzle vent	01148691
18	Tube, compression nozzle, single drain	01148790
Not shown	Grease, Mobil FM222, 14 oz	501111
19	Bracket, vent hoses	01007087
20	Insulation jacket, evaporator	01049592
21	Relay, gearmotor	00142042
22	Cover, black plastic	01012228
23	O ring, top bearing	01064963
24	Insulation, top bearing	01049600
25	Insulation, compression nozzle, single drain	01049584
26	16 µF Capacitor (for PSC motor only)	01103142
27	Screw, compression nozzle	00956250
28	Cover, aluminum	01106376
Not shown	O-ring, compression nozzle	00988097

Water supply and drains



Reference #	Description	Part #
1	Cup, drain	01064690
2	Tube, nozzle vent	01148691
3	Tube, nozzle drain	01148790
4	Tube, purge	01054790
5	Tube, bin	01054782
6	Tube, fill/purge - reservoir-solenoid-evaporator feed (includes hose clamp)	01261536
7	Tube, evaporator drain pan	01054154
8	Solenoid, purge	01261510
9	Reservoir (includes lid, gasket, fasteners, clean and vent tubing, cleaning cup)	01230622
10	Fitting, flow divider, 1/4" tubing (After serial number L78614)	01352491
11	Solenoid, fill, dispense (After serial number L78614)	01352483
12	Fitting, 1/4" stem x 1/4" push-in	00121699
13	Tubing, 1/4"	502079
14	Clip, 1/4" valve	01035534
15	Valve, 1/4"	01035526
16	Fitting, 3/8" FPT x 1/4" push-in	01065275
17	Fitting, 3/4" MPT x 3/4" barb	00109728
18	Tube, drain pan/collector cup	01065390
19	Drain pan	00967059
Not shown	Bracket, drain cup	01051945
20	Clamp, hose	01281450

Water treatment accessories for Symphony Plus ice and water dispensers

Reference #	Description	Part #
Standard capacity filter system		
Not shown	Follett QC4-FL4S water filter system (includes FL4S primary cartridge and head, coarse pre-filter and head, pressure gauge, flushing valve; assembled and installed on mounting bracket), one per ice machine	00130229
Not shown	Follett FL4S primary replacement cartridge	00130245
Not shown	Water filter cartridge – primary, carton of 6	00954297
Not shown	Everpure coarse pre-filter cartridge	00130211
Not shown	Water pre-filter cartridge – pre-filter, carton of 12	00954305
High capacity filter system		
Not shown	High capacity water filter system (one per ice machine)	00978957
Not shown	High capacity water filter cartridge – primary, single	00978965
Not shown	High capacity water filter cartridge – primary, carton of 6	00978973
Not shown	Water pre-filter cartridge – pre-filter, single	00130211
Not shown	Water pre-filter cartridge – pre-filter, carton of 12	00954305
Carbonless high capacity filter system		
Not shown	Carbonless high capacity water filter system (one per ice machine) – Horizon™ and MaestroPlus series ice machines	01050442
Not shown	Carbonless high capacity water filter cartridge – primary, single	01050426
Not shown	Carbonless high capacity water filter cartridge – primary, carton of 6	01050434
Not shown	Water pre-filter cartridge – pre-filter, single	00130211
Not shown	Water pre-filter cartridge – pre-filter, carton of 12	00954305
Other filtration		
Not shown	Claris hardness removal filtration system	00986059
Not shown	Replacement filter for Claris system	00985127
Not shown	Reverse osmosis system, 200 gallons per day	00986034
Not shown	Replacement reverse osmosis cartridge	00985085
Not shown	Replacement reverse osmosis pre-filter	00985077
Not shown	Cleaning plug for reverse osmosis system	00985119
Not shown	Cleaning cartridge for reverse osmosis system	00985101
Water pressure		
Not shown	Water pressure regulator (25 psi)	501781
Cleaning/Sanitizing		
Not shown	SafeCLEAN Plus, case of 6	01149954
Not shown	SafeCLEAN Plus, case of 24	01149962
Not shown	Sponge, sanitary, each	00131524
Not shown	**IMS-III sanitizing concentrate**	
	16 oz bottle	00979674
	Case of 12 x 16 oz bottles	01038652
	Sponge, sanitary, pack of 24	01075431

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