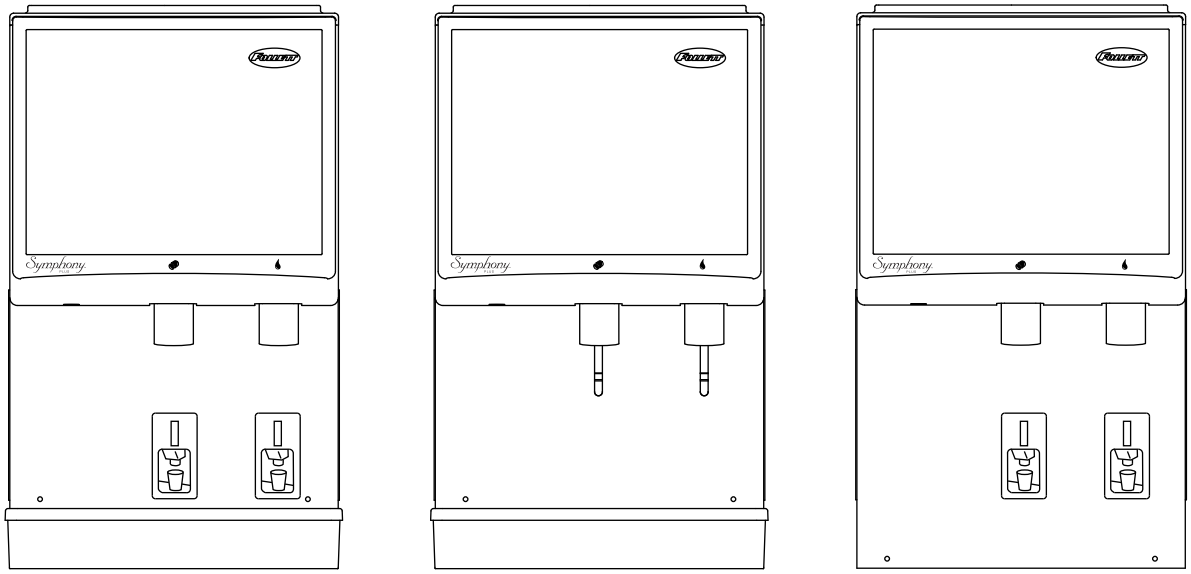
Symphony Plus™ 25 and 50 Series Ice and Water Dispensers

25CI414A/W, 25HI414A, 50CI414A/W,

Installation, Operation and Service Manual

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.

801 Church Lane • Easton, PA 18040, USA
Toll free (877) 612-5086 • +1 (610) 252-7301
www.follettice.com

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

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WARNING! Risk of fire or explosion. Flammable refrigerant used. Follow handling instruction carefully. To be repaired only by trained service Personnel.



WARNING! Do not puncture Refrigerant Tubing. Do not use this product with flammable gases or flammable solvents.



WARNING! Do not store flammable gases, flammable liquids or flammable solids in these units. Do not use FLAME to check for gas leak.



WARNING! Do not under any circumstances try to modify or repair valves, regulator, connectors, controls or any other appliance. Doing so creates the risk of a gas leak.



WARNING! Keep ventilaton openings clear of obstruction.



WARNING! Do not damage the refrigerant circuit.



WARNING! Connect to potable water supply only.



WARNING!

Installation

- Read this manual thoroughly before operating, installing or performing maintenance on the equipment. Failure to follow instructions in this manual can cause property damage, personal injury, or death.
- The ice machine contains R290 (propane) refrigerant. R290 (propane) is flammable in concentrations of air between approximately 2.1% and 9.5% by volume. R290 (propane) may burn if exposed to a heat source above 470 °C.
- Because R290 is highly flammable, a combustible gas leak detector is required when servicing R290 systems.
- This equipment contains high-voltage electricity and refrigerant charge. Installation and Service repairs are to be performed by properly trained technicians aware of the dangers of dealing with high voltage electricity and refrigerant under pressure. The technician must also be certified in proper refrigerant handling and servicing procedures.
- All lockout and tag out procedures must be followed when working on this equipment.
- A qualified person shall provide a readily accessible disconnect device incorporated into the fixed wiring.
- 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.
- Do not tilt unit further than 30° off vertical during uncrating or installation.
- This appliance is designed for commercial use.
- This equipment is intended for indoor use only. Do not install or operate this equipment in outdoor areas.
- Warranty does not cover exterior or outside installations.
- To avoid a hazard due to instability of the appliance, it must be fixed in accordance with the instructions.
- Maintain all minimum clearances. DO NOT obstruct vents or openings.
- This appliance is not suitable for installation in an area where a water jet could be used.
- Connect to potable water supply only.
- Follett recommends a Follett water filter system be installed in the ice machine inlet water line (standard capacity, high capacity, carbonless high capacity).
- We reserve the right to make product improvements at any time. Specifications and design are subject to change without notice.

Usage

- Read this manual thoroughly before operating, installing or performing maintenance on the equipment. Failure to follow instructions in this manual can cause property damage, personal injury, or death.
- User maintenance should not be done by children.
- This appliance can be operated 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.
- 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.
- Routine adjustments and maintenance procedures outlined in this manual are not covered by the warranty.
- Maintain all minimum clearances. DO NOT obstruct vents or openings.

- This appliance must not be cleaned by a water jet.
- Connect to potable water supply only.
- Ice is food. Follow recommended cleaning instructions to maintain cleanliness of delivered ice.
- Ice is slippery. Maintain counters and floors around dispenser in a clean and ice-free condition.
- We reserve the right to make product improvements at any time. Specifications and design are subject to change without notice.

Service

- Read this manual thoroughly before operating, installing or performing maintenance on the equipment. Failure to follow instructions in this manual can cause property damage, personal injury, or death.
- Review Installation section.
- This equipment contains high-voltage electricity and refrigerant charge. Installation and Service repairs are to be performed by properly trained technicians aware of the dangers of dealing with high voltage electricity and refrigerant under pressure. The technician must also be certified in proper refrigerant handling and servicing procedures.
- To reduce risk of shock, disconnect power before servicing.
- When servicing this equipment, be sure to lock the circuit breaker, and display an in-service notice.
- Repair on R290 systems must always be done in a well-ventilated area.
- 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.
- Only use parts recommended or provided by the manufacturer. Use of unapproved parts can be dangerous due to design requirements to safely use R290 (propane).
- Routine adjustments and maintenance procedures outlined in this manual are not covered by the warranty.
- Maintain all minimum clearances. DO NOT obstruct vents or openings.
- This appliance must not be cleaned by a water jet.
- Connect to potable water supply only.
- We reserve the right to make product improvements at any time. Specifications and design are subject to change without notice.

Decommissioning and Dismantling

- Read this manual thoroughly before operating, installing or performing maintenance on the equipment. Failure to follow instructions in this manual can cause property damage, personal injury, or death.
- Decommissioning and Dismantling are to be performed by properly trained technicians aware of the dangers of dealing with high voltage electricity and refrigerant under pressure. The technician must also be certified in proper refrigerant handling procedures for R290 (flammable) refrigerant.
- Review Installation section.
- Ensure area is being well-ventilated before Decommissioning and Dismantling of equipment using R290 (flammable) refrigerant.
- When servicing this equipment, be sure to lock the circuit breaker, and display an in-service notice.
- To reduce risk of shock, disconnect power before servicing.
- Utilize and maintain good safety practices and follow all applicable local, state, and federal regulations for proper decommissioning and disposal of the equipment.
- Ensure all personal protective equipment is used during the entire process.
- Ensure all necessary tools and equipment are available, including recovery equipment and cylinders.
- All containers used for recovery must have proper labelling to ensure they can be used for R290 (flammable) refrigerant.
- Before starting recovery, place refrigerants on scales. Do not overfill containers more than 80% of volume, and do not exceed working pressure of the container.
- Before using a recovery machine, ensure that it is in satisfactory working order and that the electrical components are properly sealed to prevent any type of ignition.
- Recovered refrigerant shall not be added or used in another refrigerating system or mixed into another container.
- If the compressor or compressor oils are removed, ensure it has been removed to an acceptable level so that flammable refrigerant does not remain in the lubricant.

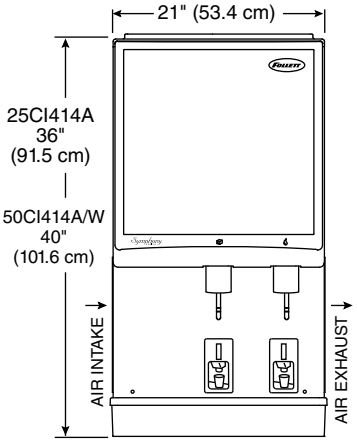
Disposal

- Follow all applicable local, state, and federal regulations for proper disposal of the equipment.
- All recovered refrigerant must be returned to an appropriate refrigerant supplier for proper disposal.
- DO NOT dispose of your appliance with household waste.

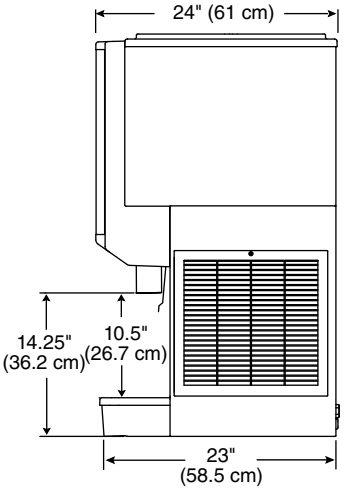
Specifications

Countertop

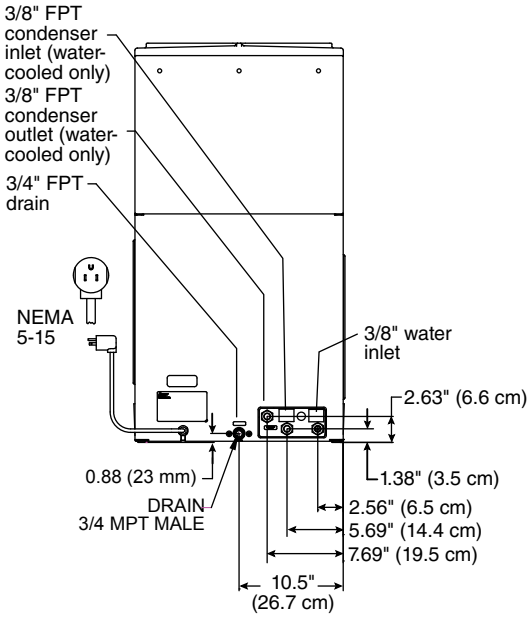
Front View



Right Side View

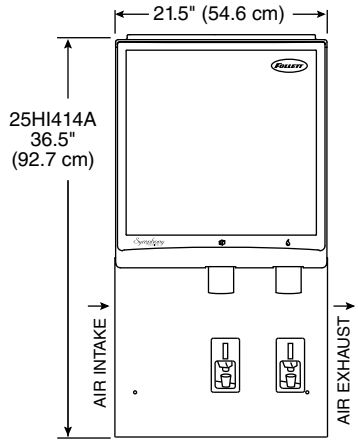


Rear View

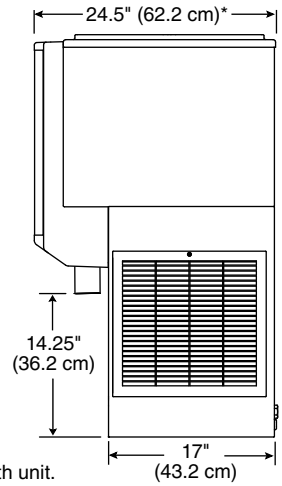


Wall mount

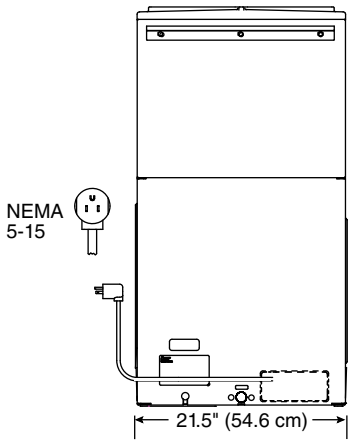
Front View



Right Side View



Rear View



* Includes 0.5" (13 mm) for bracket supplied with unit.

Electrical

- 115 V, 60 Hz, 1 phase, 11.0A
- Connect to a 15A dedicated circuit.
- Furnished with 7 ft (2 m) power cord with a 90° NEMA hospital grade 5-15 plug.

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/7 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 float reservoir.

Plumbing

	Connections 25/50CI414W	Rough-ins 25HI414A
Dispenser drain	3/4" MPT	Air-cooled 3/4" FPT
Water inlet	3/8" FPT	3/8" FPT
Condenser inlet	Water-cooled 3/8" FPT	N/A
Condenser outlet	Water-cooled 3/8" FPT	N/A

Note: Water shut-off recommended within 10 ft. (3m) 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

	Air-cooled	Water-cooled
Required for ventilation	3" (7.7 cm) right, left, rear 4" (10.2 cm) top	N/A
Suggested for service	12" (30.5 cm) top, 6" (15.3 cm) left side	12" (30.5 cm) top

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

Dry weight

- 25/50CI414A/W (countertop): 215 lbs. (98 kg)
- 25HI414A/W (wall mount): 230 lbs. (105 kg)

Water-Cooled ice machine refrigeration pressure

Discharge pressure/suction pressure

Condenser Water Temperature F/C

Inlet Water Temperature F/C

F/C	50/10	70/21	90/32	
50/10	200/22	200/24	207/25	psi
70/21	200/22	200/24	207/25	psi
90/32	200/22	200/24	207/25	psi

Compressor data

Compressor current draw

Air-cooled

Ambient air temp.	60 F/15.6 C	70 F/21.1 C	80 F/26.7 C	90 F/32.2 C
Comp Amperage	5.4A	5.6A	6.0A	6.1A
High side pressure (psi)	140	150	174	206
Low side pressure (psi)	15	17	21	26

Locked rotor amps 48A

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

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.

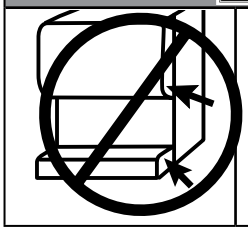
Model	Charge	Refrigerant type
25/50CI414A, 25HI414A (air-cooled)	3.49 oz (99 g)	R290
25/50CI414W (water-cooled)	1.83 oz (52 g)	R290

Installation

Before you begin

- All dispensers must be installed level in both directions to ensure proper operation.
- Provide proper ventilation clearances.
- Countertop units 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).
- Wall mount model utilities exit through back of dispenser only.
- Directions for each installation follow.

⚠ WARNING!



- DO NOT LIFT UNIT AT THESE POINTS. Panels will not support weight of unit
- Failure to follow warning may result in equipment damage or personal injury

Installing countertop dispensers with rear exiting utilities (no legs)

1. Position dispenser in desired location.
2. Mark dispenser outline on counter and remove dispenser.
3. Drill four 7/16" holes in counter to anchor dispenser to counter **(Fig. 1)**.
4. 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. Reposition dispenser on counter and secure to counter with four 3/8"-16NC bolts.
6. Smooth excess sealant around outside of dispenser.
7. Make utility connections **(Fig. 2)**.

⚠ CAUTION!

- Do not connect water-cooled condenser outlet line to the dispenser drain line.

8. Turn on water supply and check for leaks.
9. Clean dispenser and ice machine before putting into service.
10. Turn power on and allow ice machine to produce ice.

Fig. 1 Countertop anchoring locations

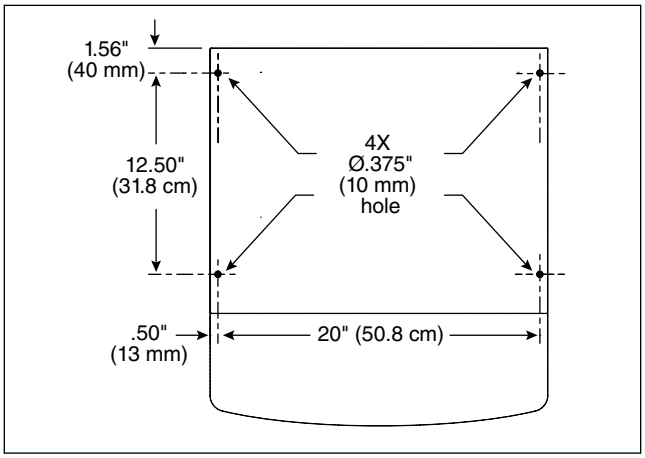
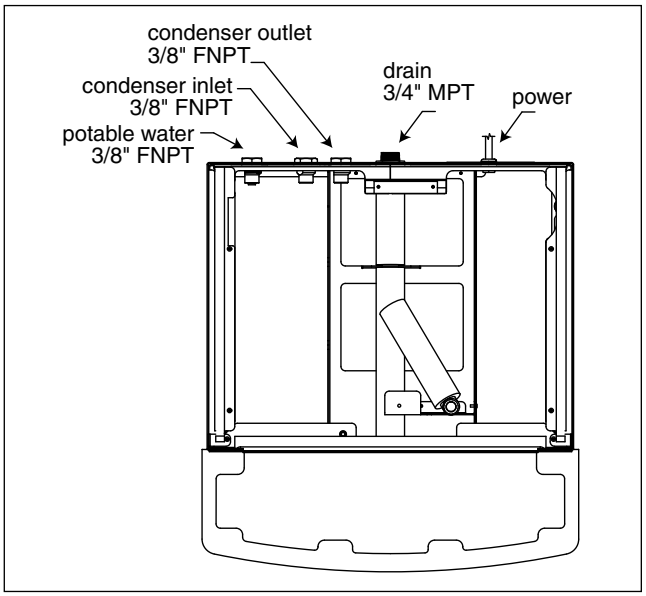


Fig. 2 Utility connections as viewed from top for countertop back access



Installing countertop dispensers with bottom exiting utilities

⚠ WARNING!

- A sturdy work surface capable of supporting the entire dispenser must be used.
- The work surface must be large enough to accommodate height of dispenser.
- Failure to provide proper support may result in personal injury.

1. Position dispenser with dispense chutes facing upward on sturdy work surface **(Fig. 3)**.
2. Move drain fitting from back of dispenser and mount **(Fig. 4.1)**.
3. Cut drain tube to length and attach to barbed connection **(Fig. 4.2)**.
4. Move inlet water fitting from back of dispenser and mount **(Fig. 4.3)**.
5. Cut water tubing to length and re-insert into water fitting**.**
6. **Water-cooled only.** Disconnect internal condenser water inlet and outlet fittings.
7. **Water-cooled only.** Relocate water inlet and outlet fittings and reconnect **(Fig. 4.4)**. **Note:** The water inlet is connected to the condenser; the outlet line is connected to the water regulating valve.
8. Raise the dispenser upright and position in desired location.
9. Mark dispenser outline on counter and remove dispenser.
10. Cut countertop utility opening and drill four 7/16" holes to anchor dispenser to counter **(Fig. 5)**.
11. 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.
12. Reposition dispenser on counter and secure to counter with four 3/8"-16NC bolts.
13. Smooth excess sealant around outside of dispenser and make utility connections through countertop cutout.

⚠ CAUTION

- Do not connect water-cooled condenser outlet line to the dispenser drain line.

14. Turn on water supply and check for leaks.
15. Clean dispenser and ice machine.
16. Turn power on and allow ice machine to produce ice.

Fig. 3

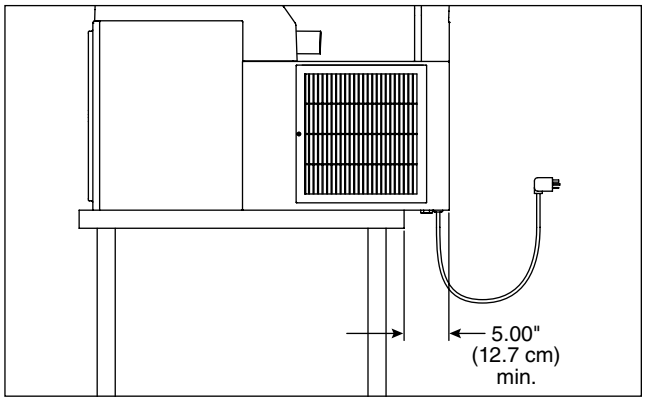


Fig. 4

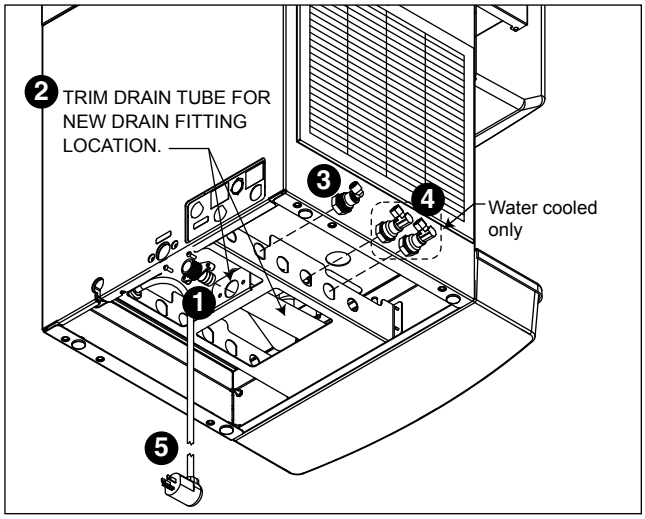
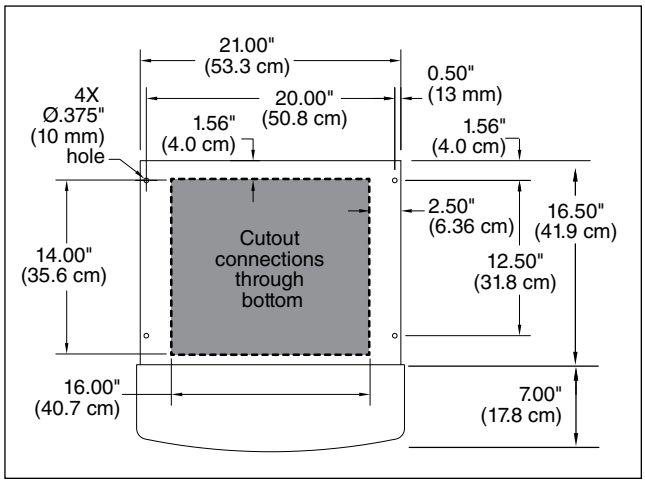


Fig. 5



Installing wall mount dispensers

⚠ WARNING!

- Wall mount dispensers are intended to be mounted above a sink, eliminating the need for a drain pan.
- Before beginning installation verify that the sink size and location meet the requirements shown in Fig. 6.
- If requirements are not met, a drain pan must be used to prevent ice and water from falling on counter or floor.
- FAILURE TO TAKE THESE PRECAUTIONS COULD RESULT IN SLIPS AND FALLS ON WET FLOORS

Fig. 6 – Minimum sink requirements (without drain pan), front view

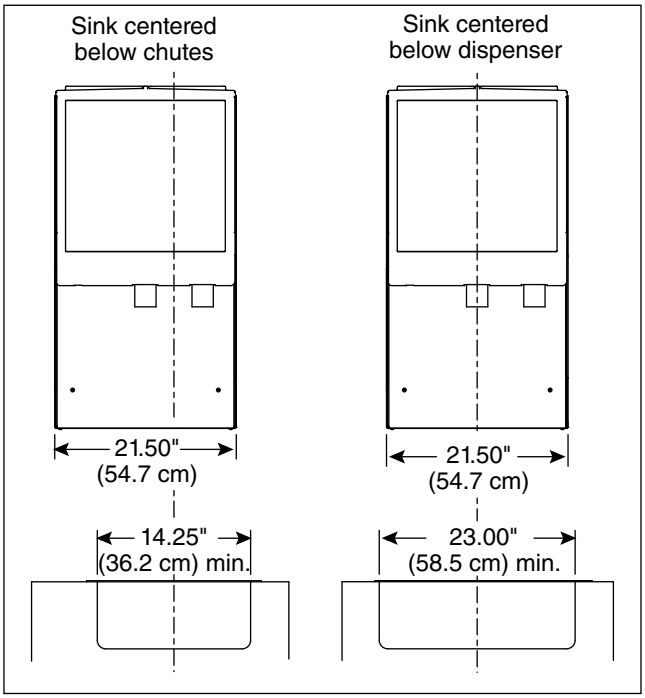
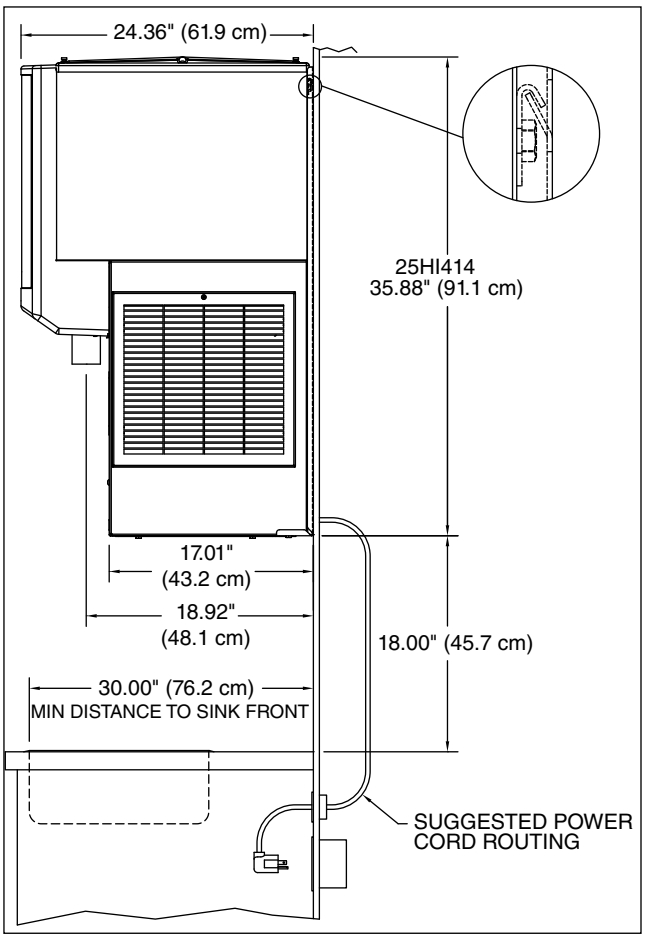


Fig. 7 – Minimum sink requirements (without drain pan), side view



1. Locate wall bracket mounting position relative to wall studs **(Fig. 8)**. Install the supplied wall bracket with six 3/8" diameter fasteners **(Fig. 10.1)**.
   Note: Three holes are available at each fastening site to allow capture of studs or supports within the wall.
2. Locate and cut utility hole **(Fig. 10.2)** in wall using **Fig. 9** dimensions.
3. Rough in utilities. Wall mount bracket dimensions can be used as a template.
   - Water: 1/2" FNPT
   - Drain: 3/4" MPT
4. Lift dispenser onto wall bracket positioning unit so that hook on back of dispenser is captured by wall bracket support angle **(Fig. 10.3)**.
5. Install two 1/4" X 20 screws through bottom of wall bracket into bottom of dispenser to secure dispenser to wall bracket **(Fig. 10.4)**.
6. Install supplied 1/2" MPT X 3/8" push-in adapter onto 1/2" FNPT water supply.

Fig. 8 – Wall bracket location guide

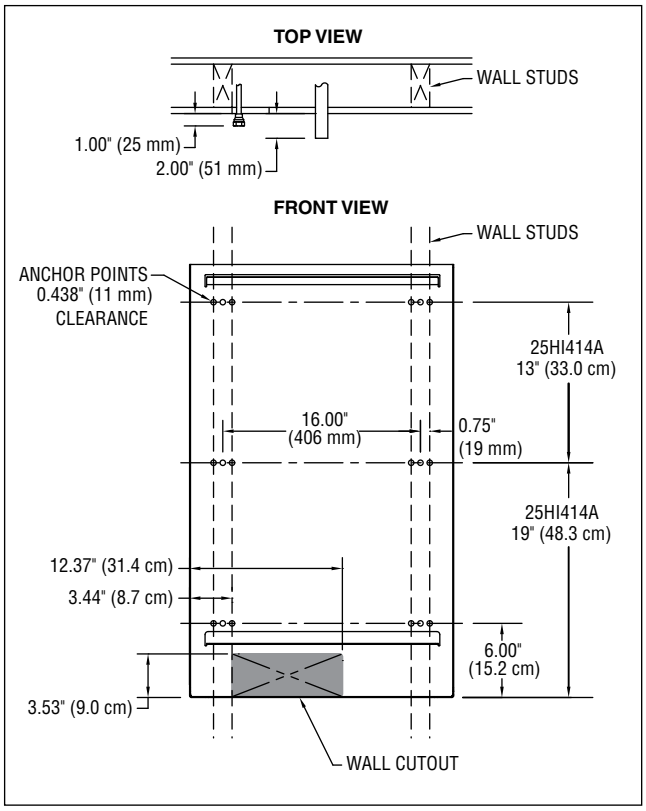


Fig. 9 – Wall mount, utility location

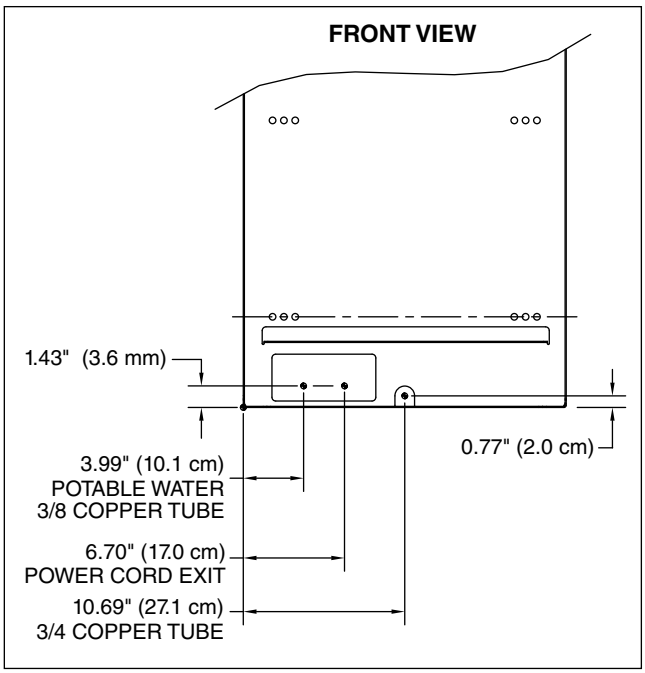
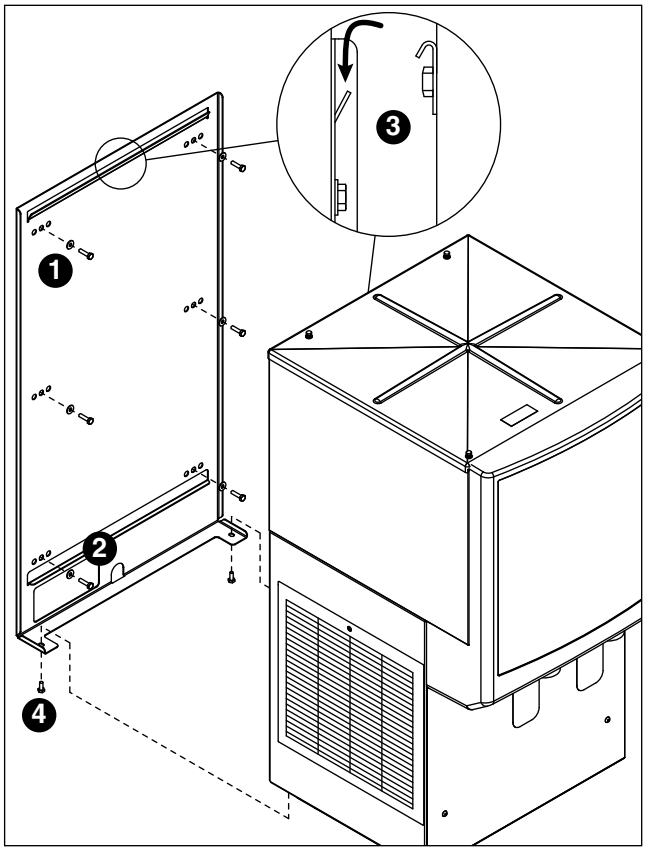
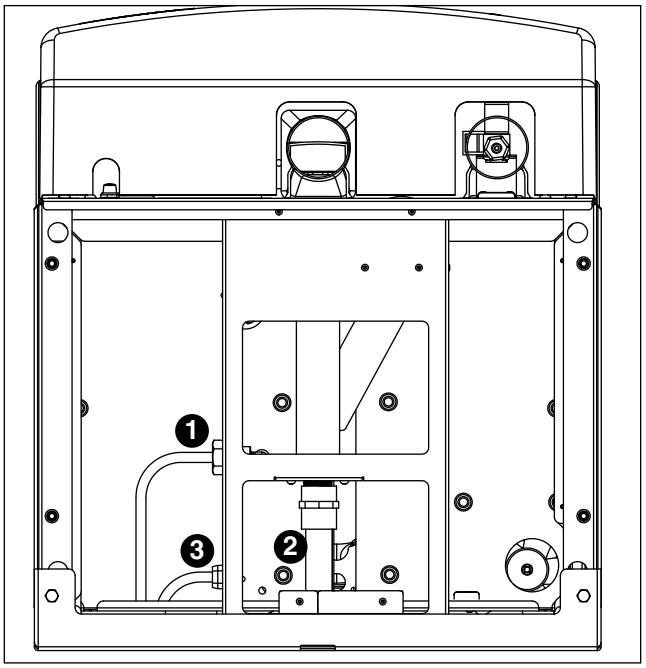


Fig. 10 – Wall mount bracket and fastener requirements



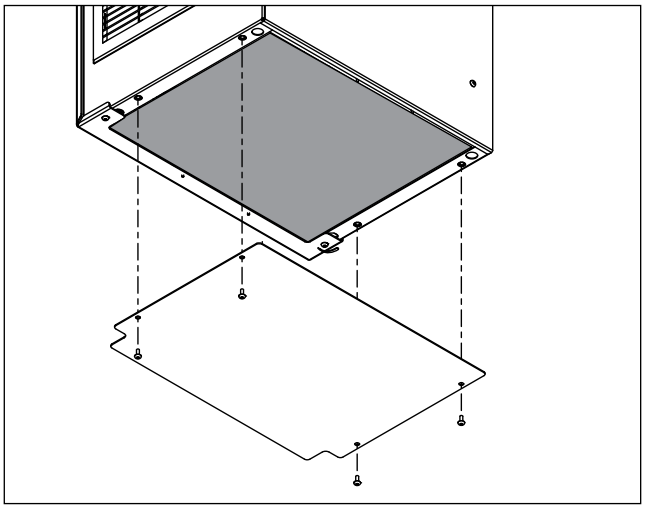
7. Connect supplied 3/8" water line between water supply and water inlet fitting **(Fig. 11.1)**.
8. Using supplied 3/4" drain tubing and barbed fittings, connect 3/4" barbed drain elbow fitting on dispenser to 3/4" FNPT drain **(Fig. 11.2)**.
9. Route power cord through utility access hole to power supply **(Fig. 11.3)**.
10. Turn on water supply and check for leaks.

Fig. 11 – Dispenser bottom view



11. Install bottom panel **(Fig. 12)**.

Fig. 12



User information

How the dispenser works

Follett's 25/50CI series automatic-load ice and water dispensers are equipped with Follett's 425 lb (181kg)/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.

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, Water Station Tube	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 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 IMS-III 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/Descaling Procedure again.
2. Remove front cover and turn OFF bin signal switch.
3. Dispense all ice from storage hopper and discard.

4. CI Models only: remove splash panel.
5. Remove hopper lid.
6. Remove water reservoir drain tube from the evaporator drain bracket and lift tube to higher level than reservoir, placing it in plastic clip at right lower front.
7. Remove lid from cleaning cup, then hang the cleaning cup on plastic clip at left front of dispenser. Set cleaning cup lide aside, but do not discard.

8. Press **CLEAN** switch. The **MAINTENANCE** light will turn on and the machine will fill and drain three times. Wait for the **LOW WATER** light to turn on.
9. Fill cleaning cup until SafeCLEAN Plus solution completely fills the reservoir (about 1 quart). Place lid back on cup. Save remainder of SafeCLEAN Plus solution.
10. **CLEANER FULL** light will turn on and machine will start cleaning cycle then rinse three times; this process takes approximately 15 minutes.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.
11. While ice machine is cleaning, clean dispenser as follows:
    - **11.1** Remove knurled nuts from front of storage hopper.
    - **11.2** Remove stud assembly, baffle, wheel, and any remaining ice.
    - **11.3** Remove dispense chutes from splash panel.
    - **11.4** Submerse drain grill in SafeCLEAN Plus solution and allow to soak to remove any scale buildup.
    - **11.5** Wipe inside of hopper lid, stud assembly, baffle, wheel, inside of storage area, dispense chutes, drain grill 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.

- **11.6** When machine is finished cleaning, the MAINTENANCE light will turn off.

12. Reinstall dispense chutes, wheel, baffle, stud assembly and knurled nuts. (See manual for correct baffle position.)

Finish cleaning – SafeCLEAN Plus only

13. 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.
14. Soak both Sani-Sponges in remaining SafeCLEAN Plus solution.
15. Insert both sponges soaked in SafeCLEAN Plus solution into nozzle one at a time.
16. 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.
17. Lower water reservoir drain tube back to evaporator drain bracket.
18. Turn ON bin signal switch. Wait for ice to push sponges through transport tube.
19. Collect sponges from ice storage bin.
20. Replace hopper lid, machine top, turn ON dispenser power and install front cover.
21. After 10 minutes, dispense all ice and discard. 12. 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.
22. Soak both Sani-Sponges in remaining SafeCLEAN Plus solution.
23. Insert both sponges soaked in SafeCLEAN Plus solution into nozzle one at a time.
24. 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.
25. Lower water reservoir drain tube back to evaporator drain bracket.
26. Turn ON bin signal switch. Wait for ice to push sponges through transport tube.
27. Collect sponges from ice storage bin.
28. Replace hopper lid, machine top, turn ON dispenser power and install front cover.
29. After 10 minutes, dispense all ice and discard.

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

13. Press CLEAN switch. The MAINTENANCE light will turn on and the machine will fill and drain three times. Wait for the LOW WATER light to turn on.

14. Remove lid from cleaning cup and fill (about 1 quart) until sanitizing solution completely fills the reservoir. Place lid back on cup. Save remainder of sanitizing solution.

15. CLEANER FULL light will turn on and machine will start sanitizing cycle, then rinse three times; this process takes approximately 15 minutes.

16. While ice machine is sanitizing, sanitize dispenser as follows:

29.7 Wipe inside of hopper lid, stud assembly, baffle, wheel, inside of storage area, dispense chutes, drain grill 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.

17. Reinstall dispense chutes, wheel, baffle, stud assembly and knurled nuts. (See manual for correct baffle position.) Reinstall dispense chutes, wheel, baffle, stud assembly and knurled nuts. (See manual for correct baffle position.)

18. When machine is finished rinsing, the **MAINTENANCE** light will turn off.

19. 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.

20. Soak one SaniSponge in remaining sanitizing solution. Insert the sponge soaked in sanitizing solution into nozzle, then insert a dry sponge into the nozzle.

21. 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.

22. Turn ON bin signal switch. Wait for ice to push sponges through transport tube.

23. Collect sponges from ice storage bin.

24. Replace hopper lid, base stand cover, and install dispenser front cover.

25. 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

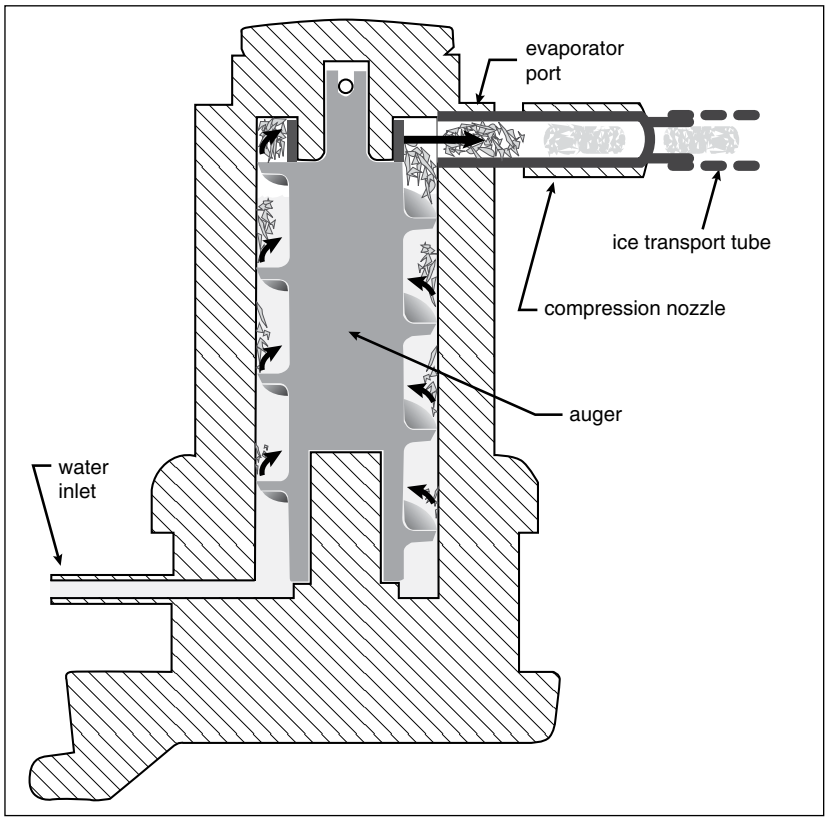
These four systems work together to accomplish the production and harvesting of ice. A problem in any one of these systems will result in improper operation of the entire ice production cycle. When troubleshooting the ice machine, it is important to analyze the entire system operation to determine which 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 13)** and level detecting sensors. Water sensing rods **(Fig. 14)** 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. 13 – Water system diagram

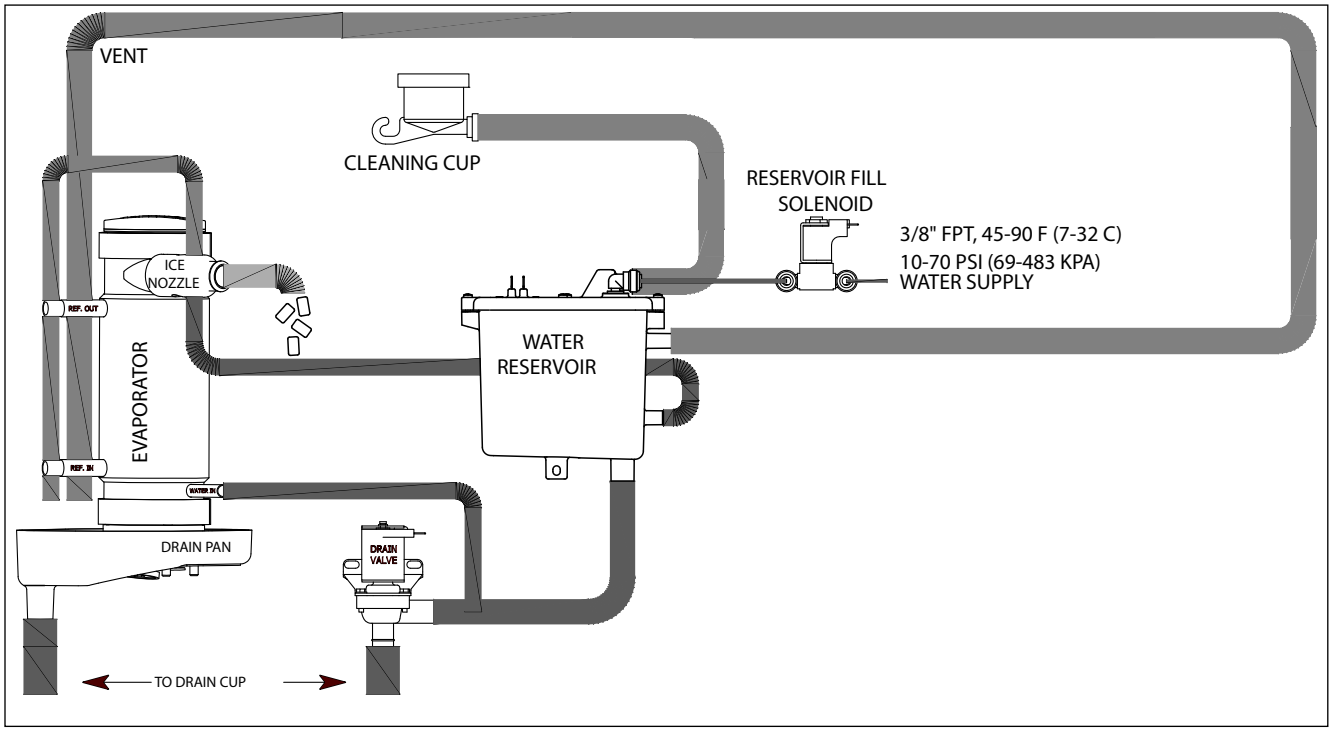
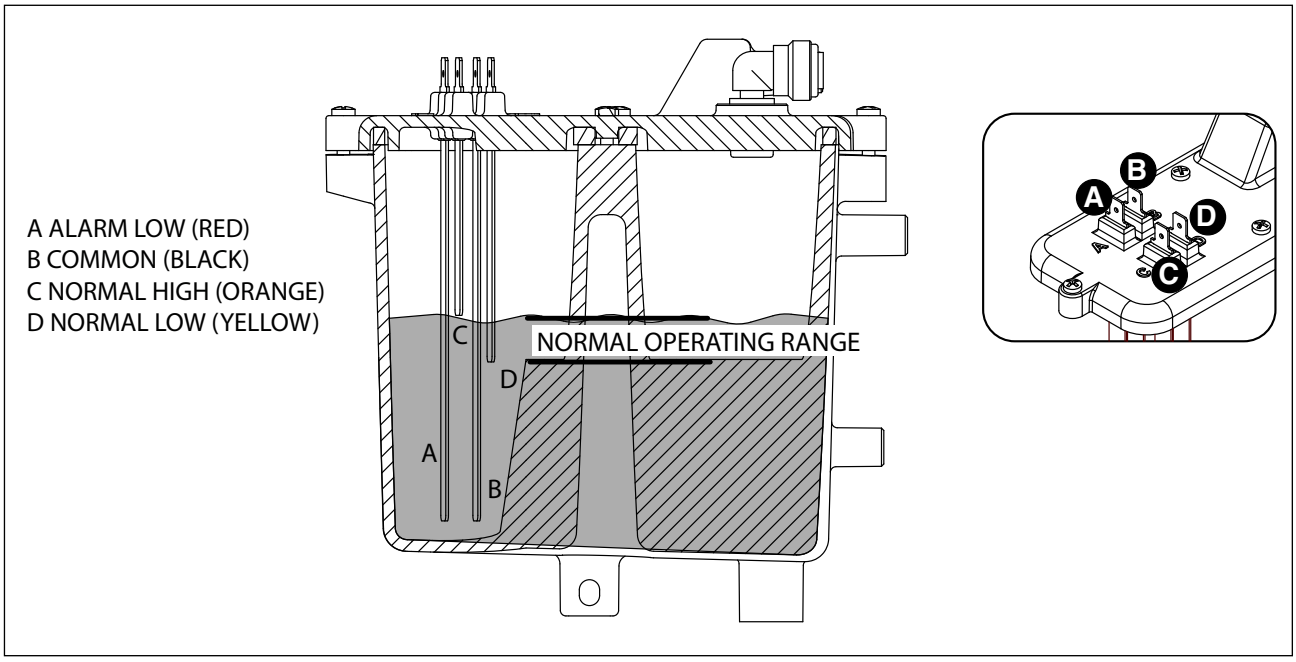


Fig. 14 – Water level diagram



Electrical box and control board

CAUTION!

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

Fig. 15 – Electrical component locations

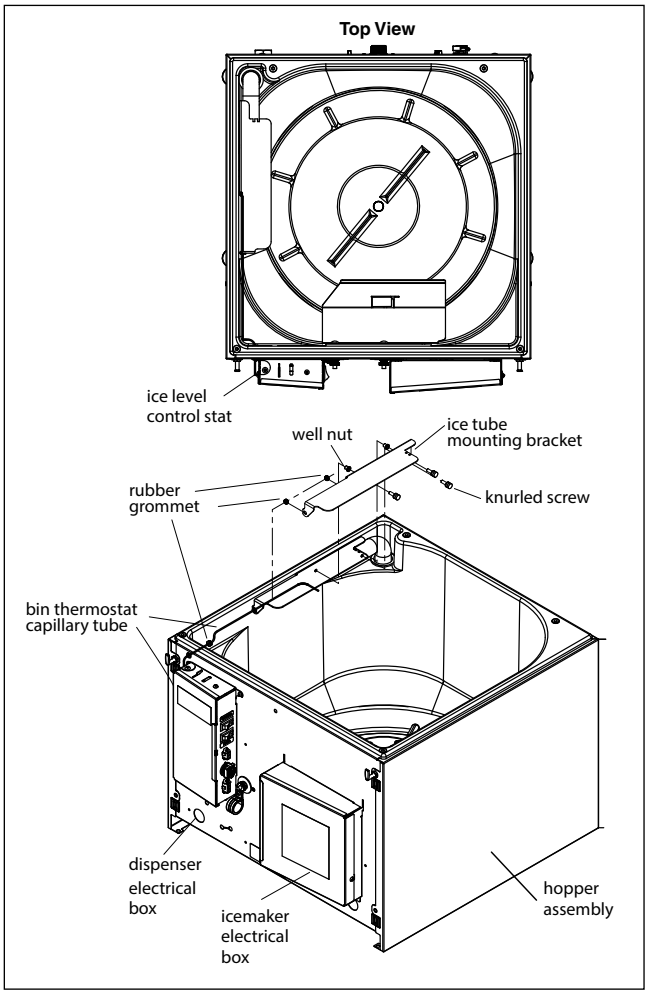


Fig. 16 – Control board dip switch settings

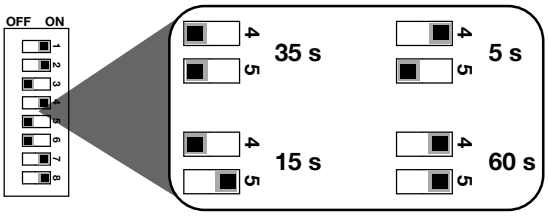
OFF POSITION **ON POSITION**

Symphony Plus 12/25/50 CI, HI, or FB; E12CI

	OFF ON	
MUST be set to off	1	MUST be set to off
Sleep cycle disabled	2	Sleep cycle enabled
SensorSAFE*	3	Lever*
Sleep cycle dispense duration	4 5	Sleep cycle dispense duration
20 min. time delay	6	60 min. time delay
Flush disabled	7	Flush enabled
Maint. timer ON	8	Maint. timer OFF

* Set according to application.

Sleep cycle dispense duration



Ice machine operational and diagnostic sequences

The wiring diagrams that follow illustrate the circuitry of Follett ice machines used with 25/50 series ice dispensers. Both normal operation (stages 1—8) and non-normal diagnostic sequences showing torque-out for use in troubleshooting are shown.

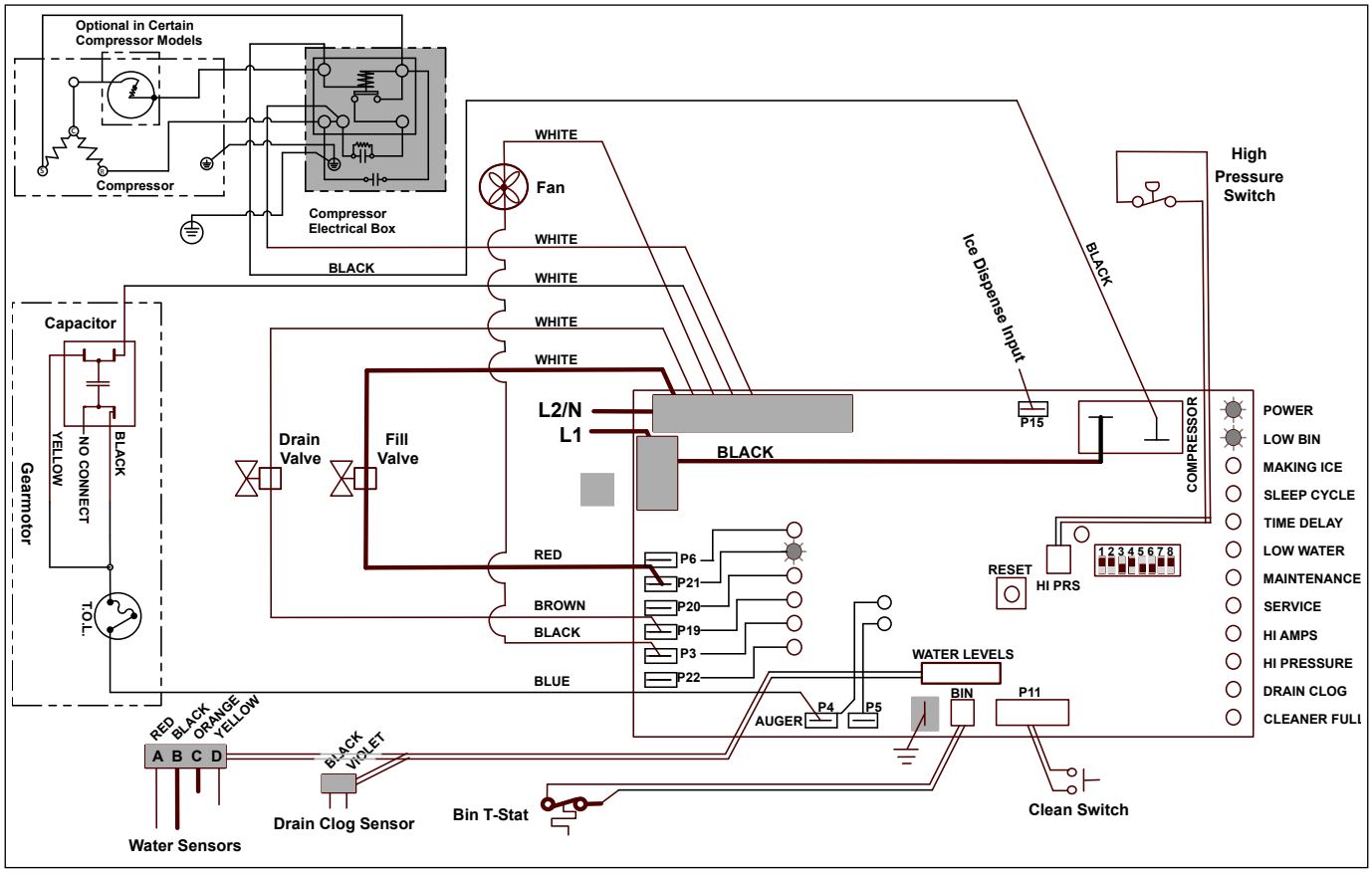
Circuitry notes

- 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.

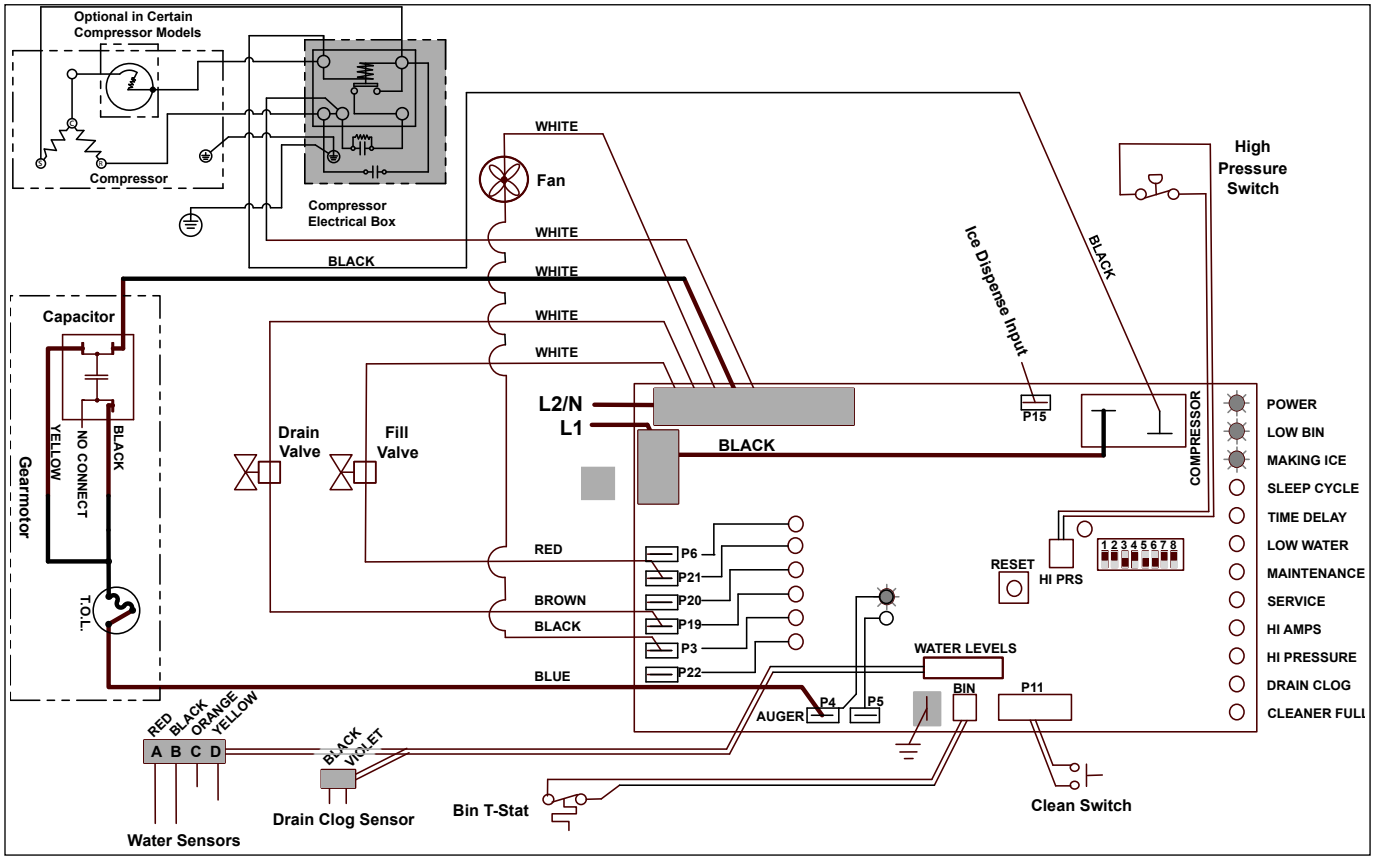
Normal operation – Stage 1

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.



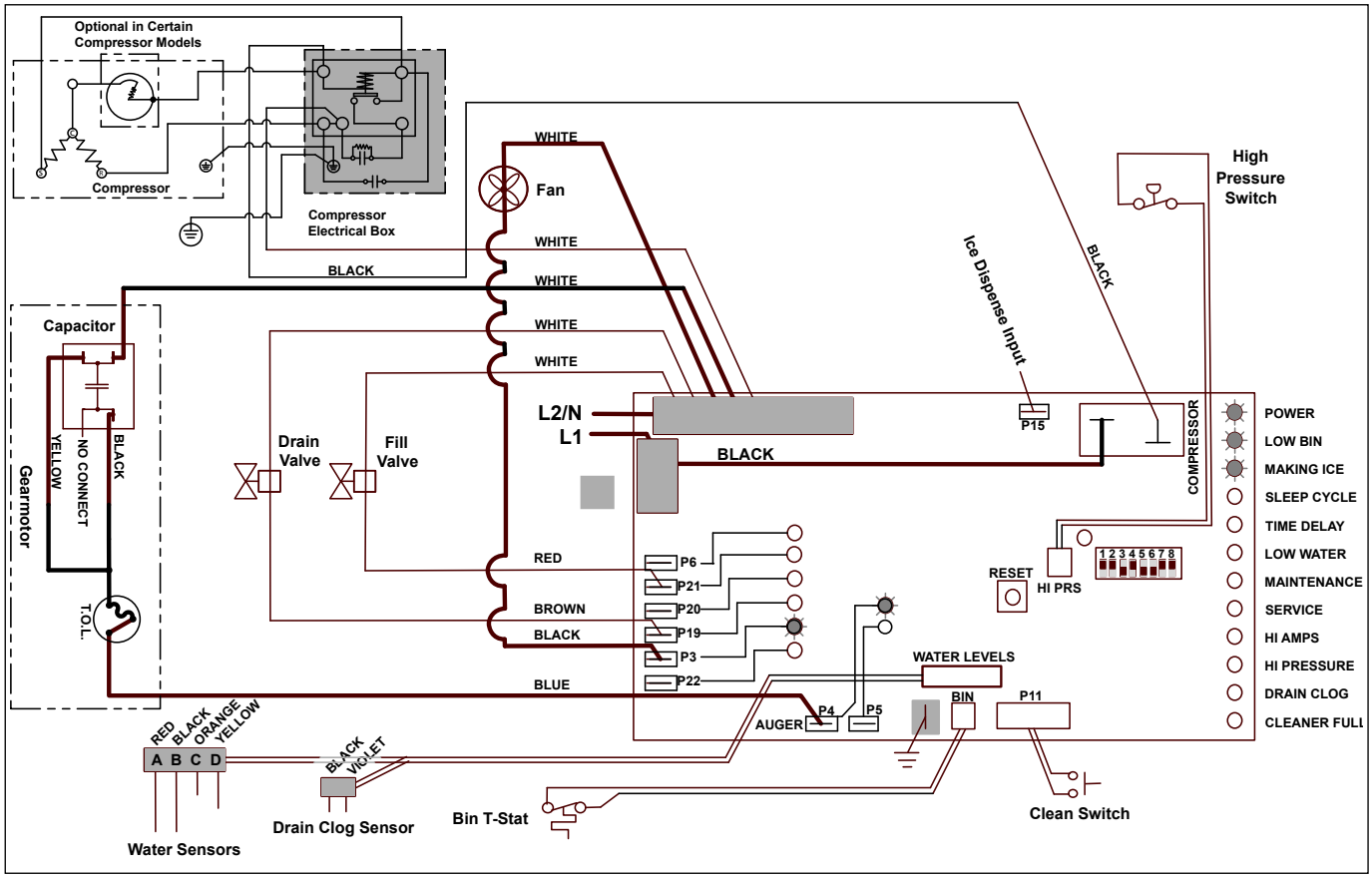
Normal operation – Stage 2

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.



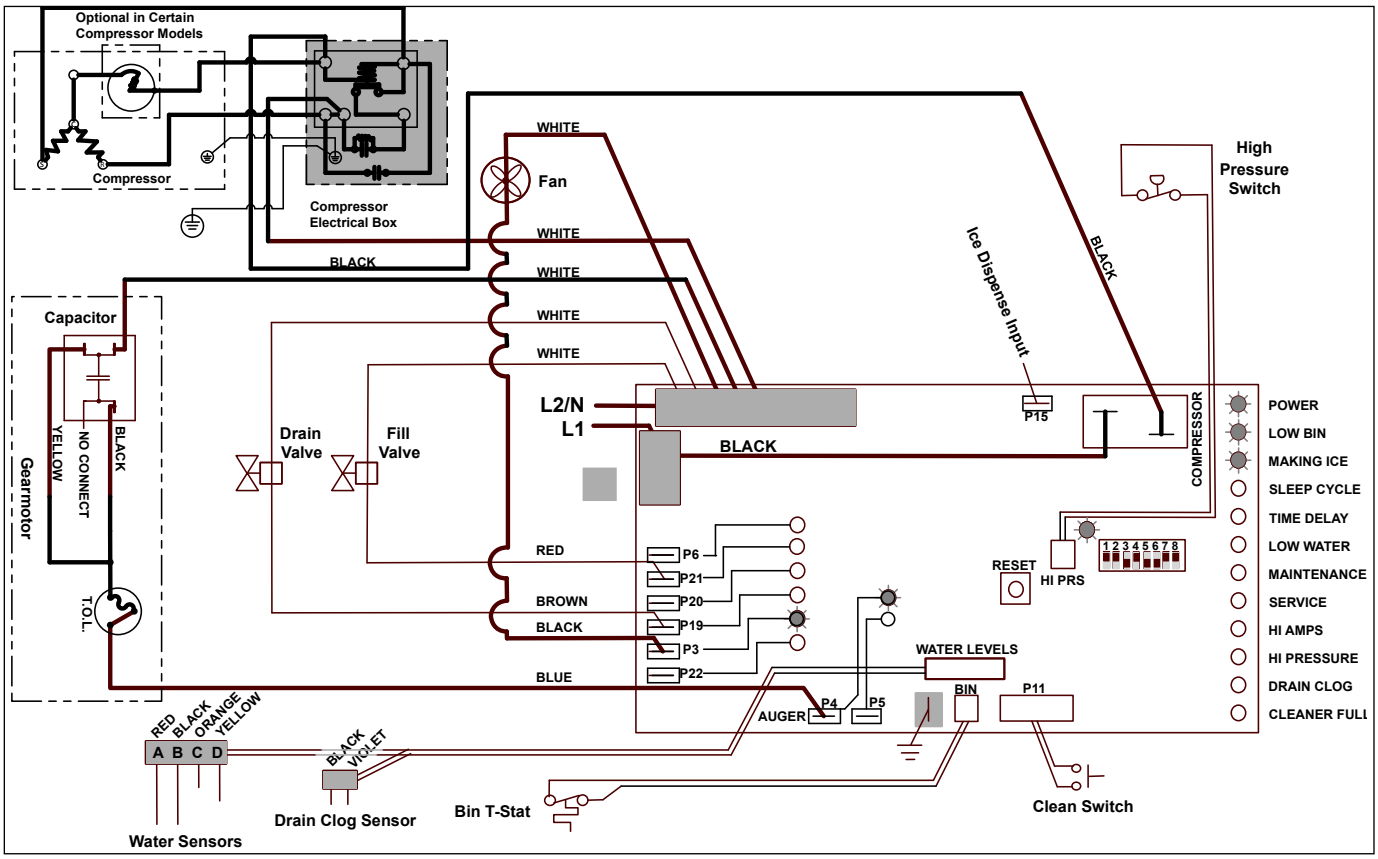
Normal operation – Stage 3

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

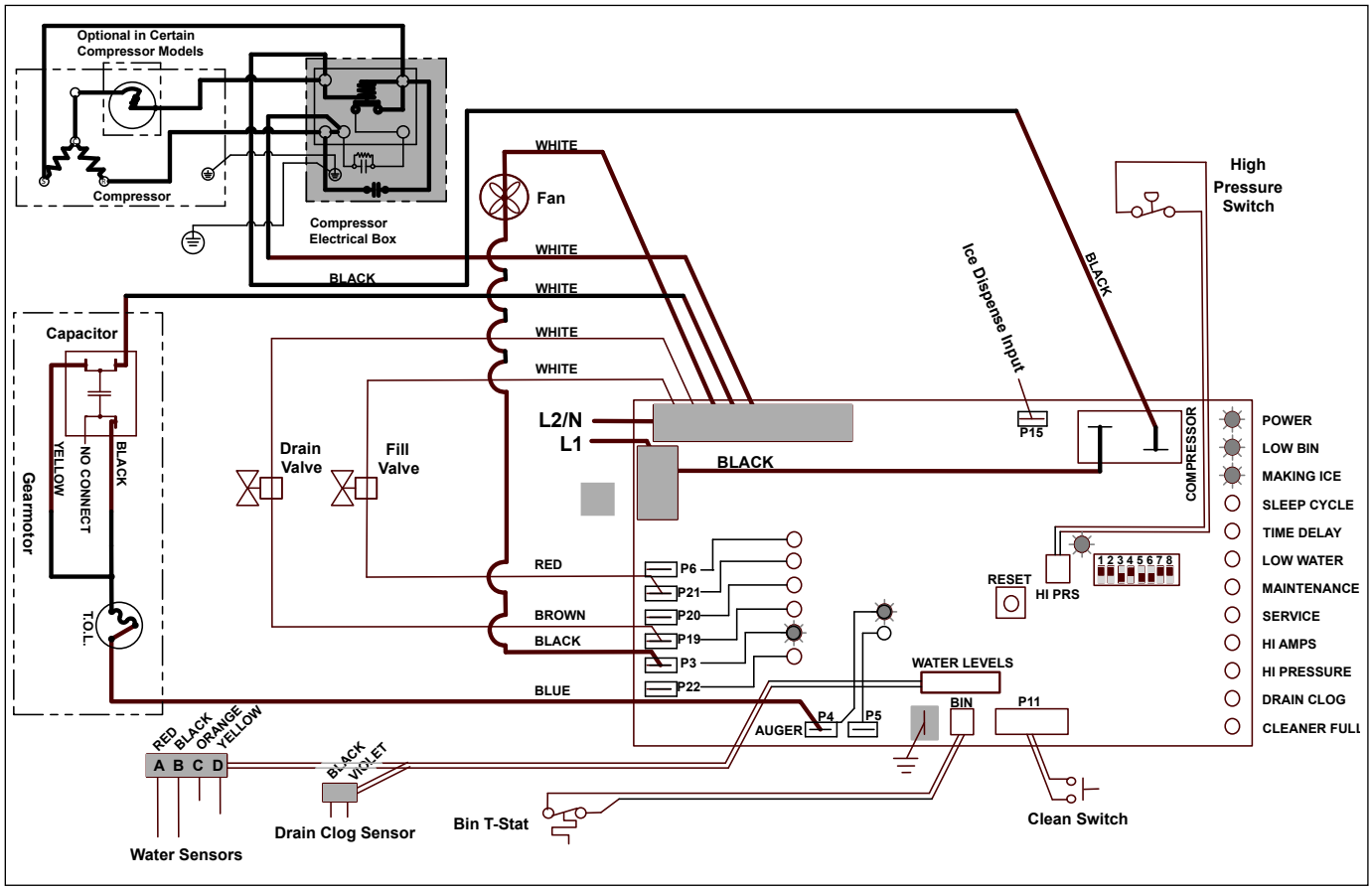
One second (1 s) after the fan comes on, the **COMPRESSOR** output comes on. The compressor circuit uses both run and start capacitors along with a potential start relay. The start winding is energized through the run capacitor, and through the start capacitor and the normally closed contacts of the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



Normal operation – Stage 5

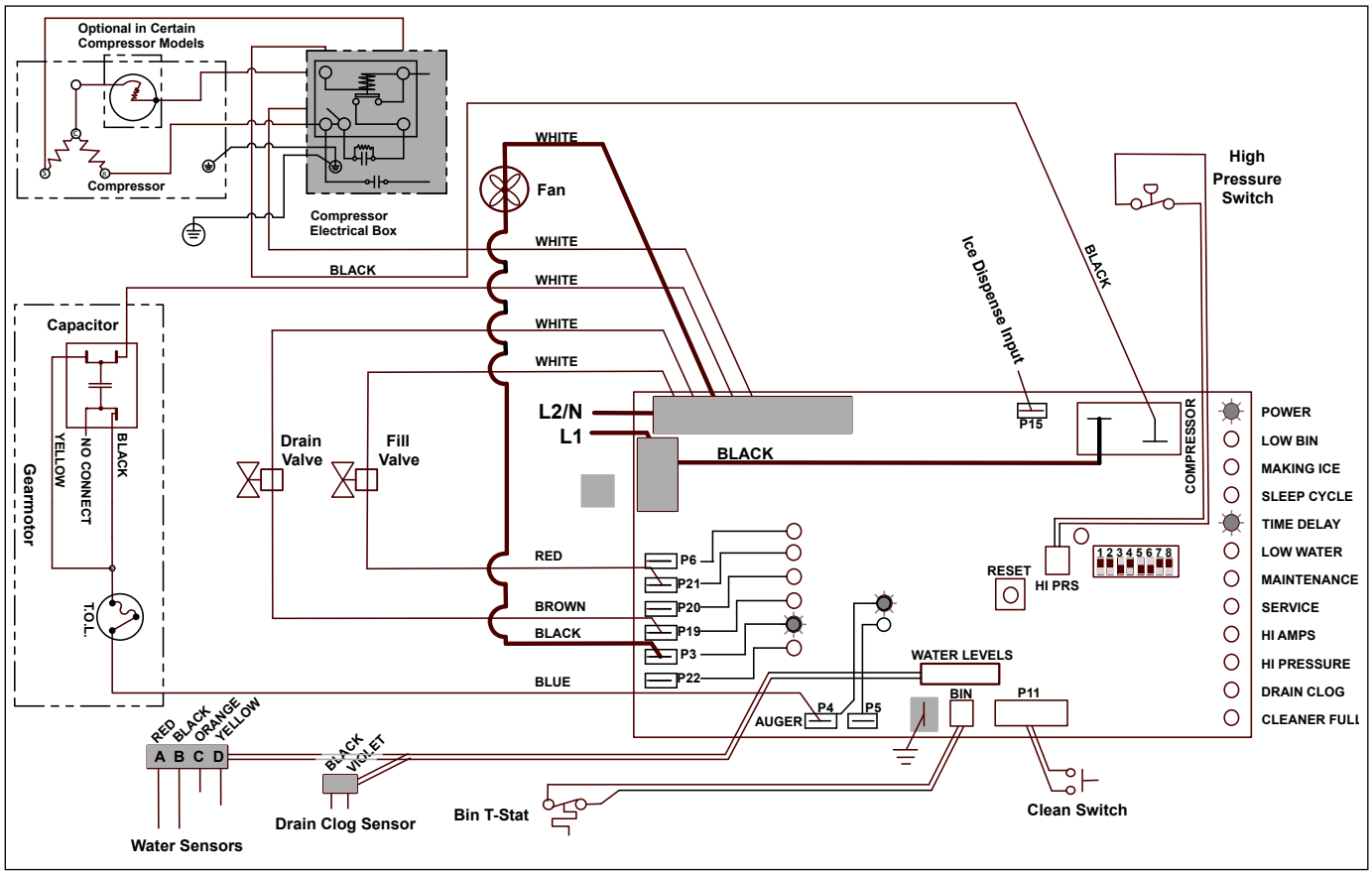
As the compressor comes up to normal running speed, its start winding generates a voltage potential across the relay's coil. This energizes the coil to open the contact and drop out the start capacitor.

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.



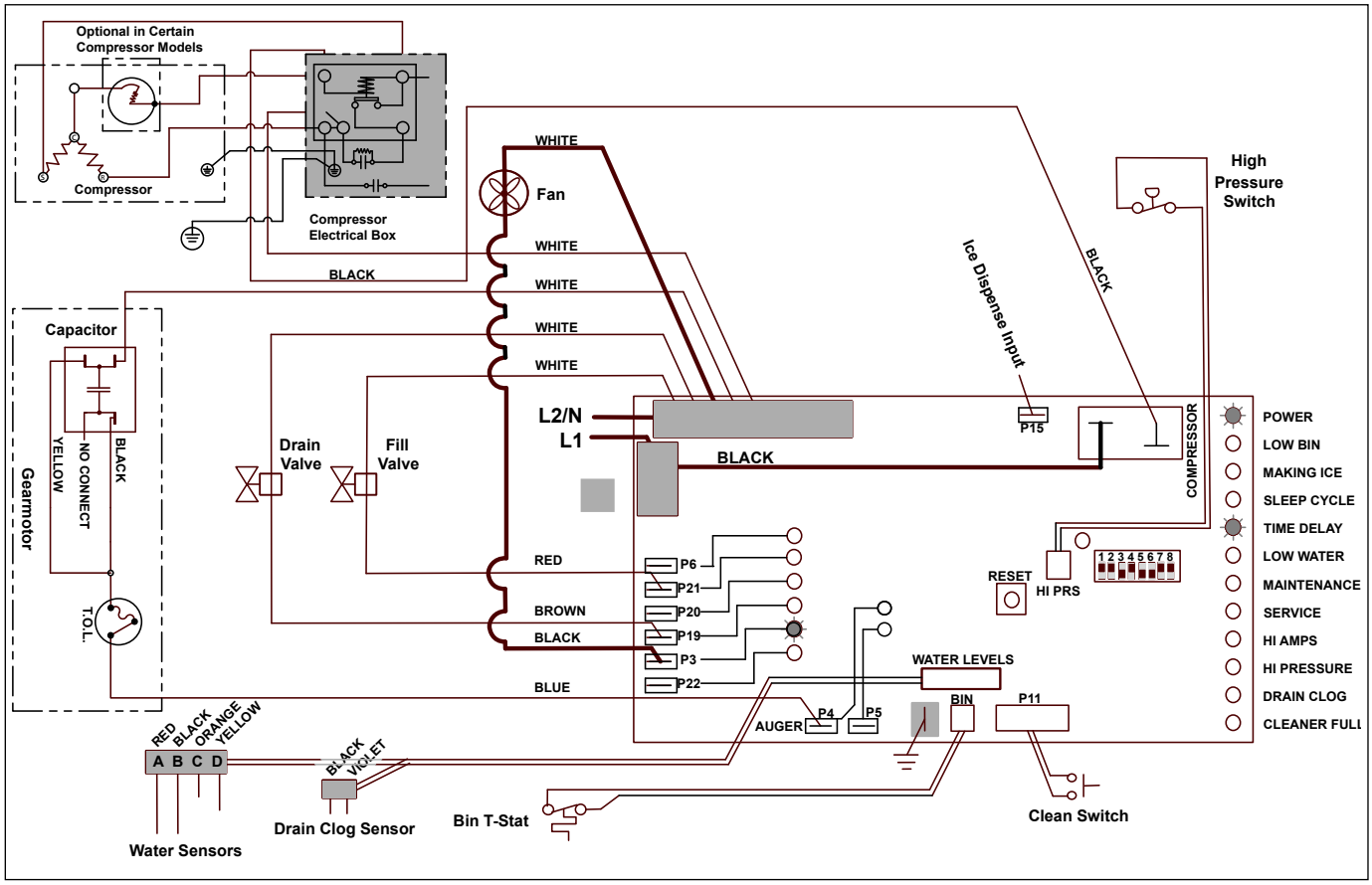
Normal operation – Stage 6

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



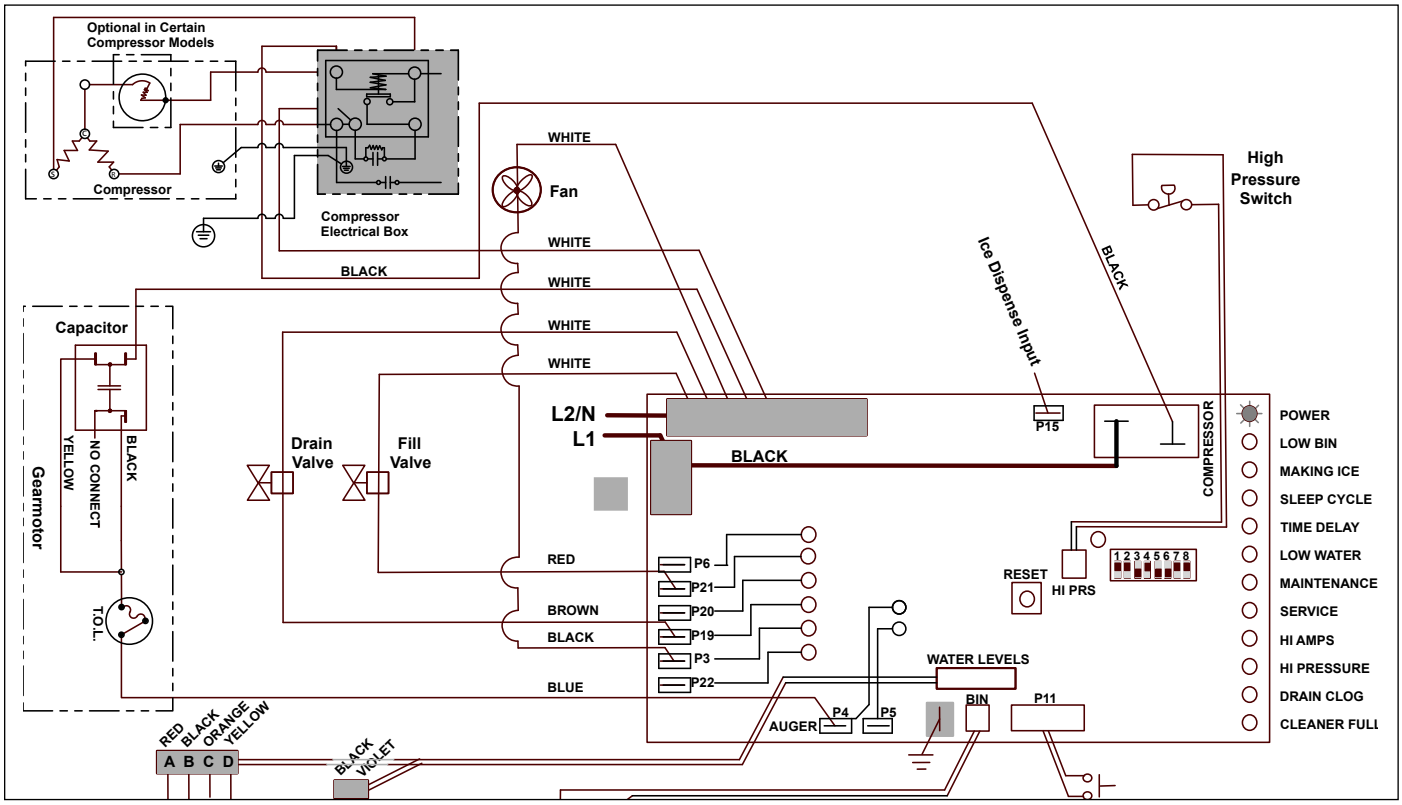
Normal operation – Stage 7

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.

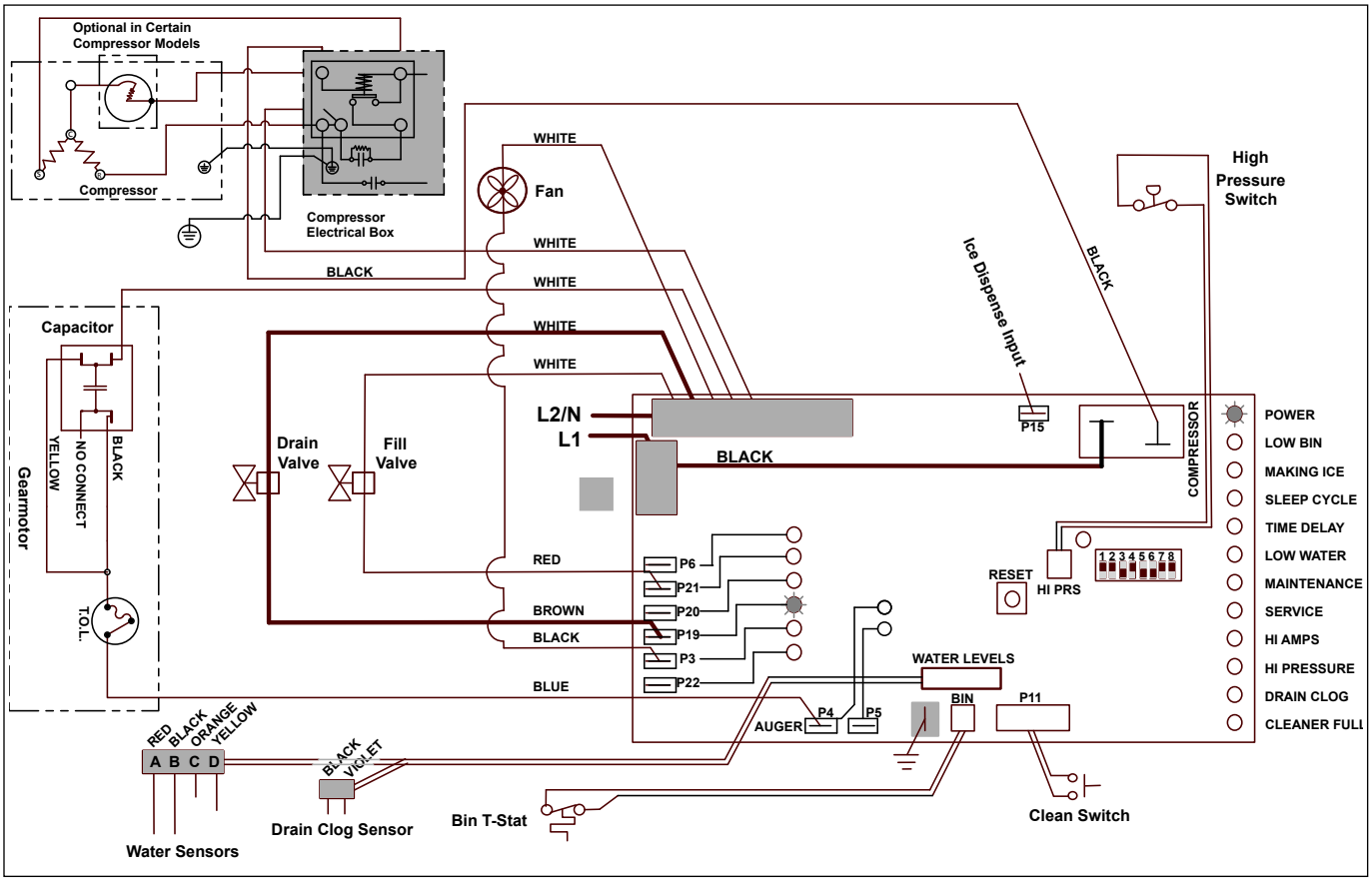


Quiet Night/Sleep cycle (Symphony Plus only)

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)

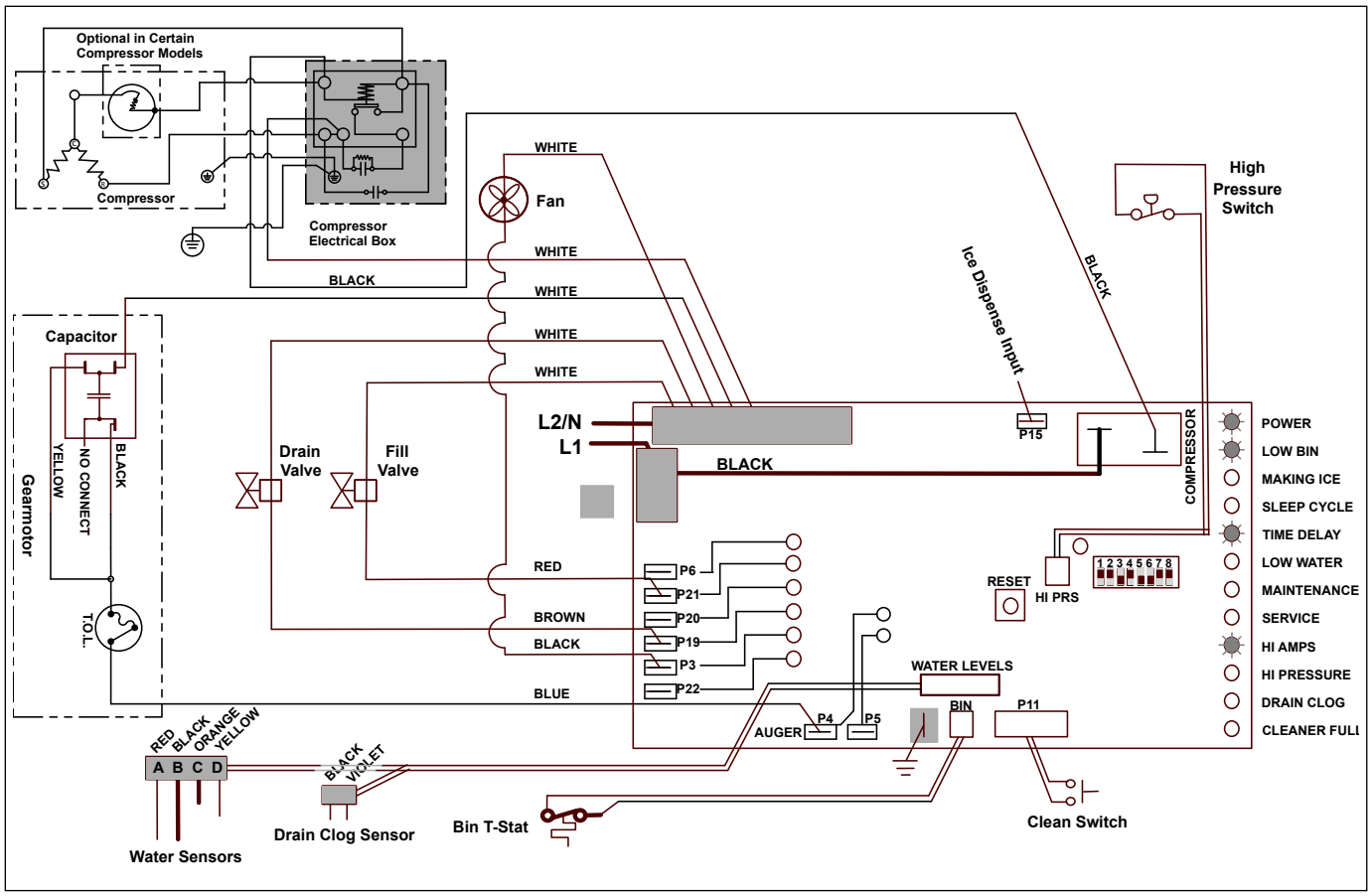
At the completion of the 20 minute time delay, the machine checks for a cumulative one hour of ice making time since the last off-cycle flush. If the cumulative ice making time exceeds one hour, the machine will energize the drain valve P19 for 60 seconds to drain the evaporator. It will then refill 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

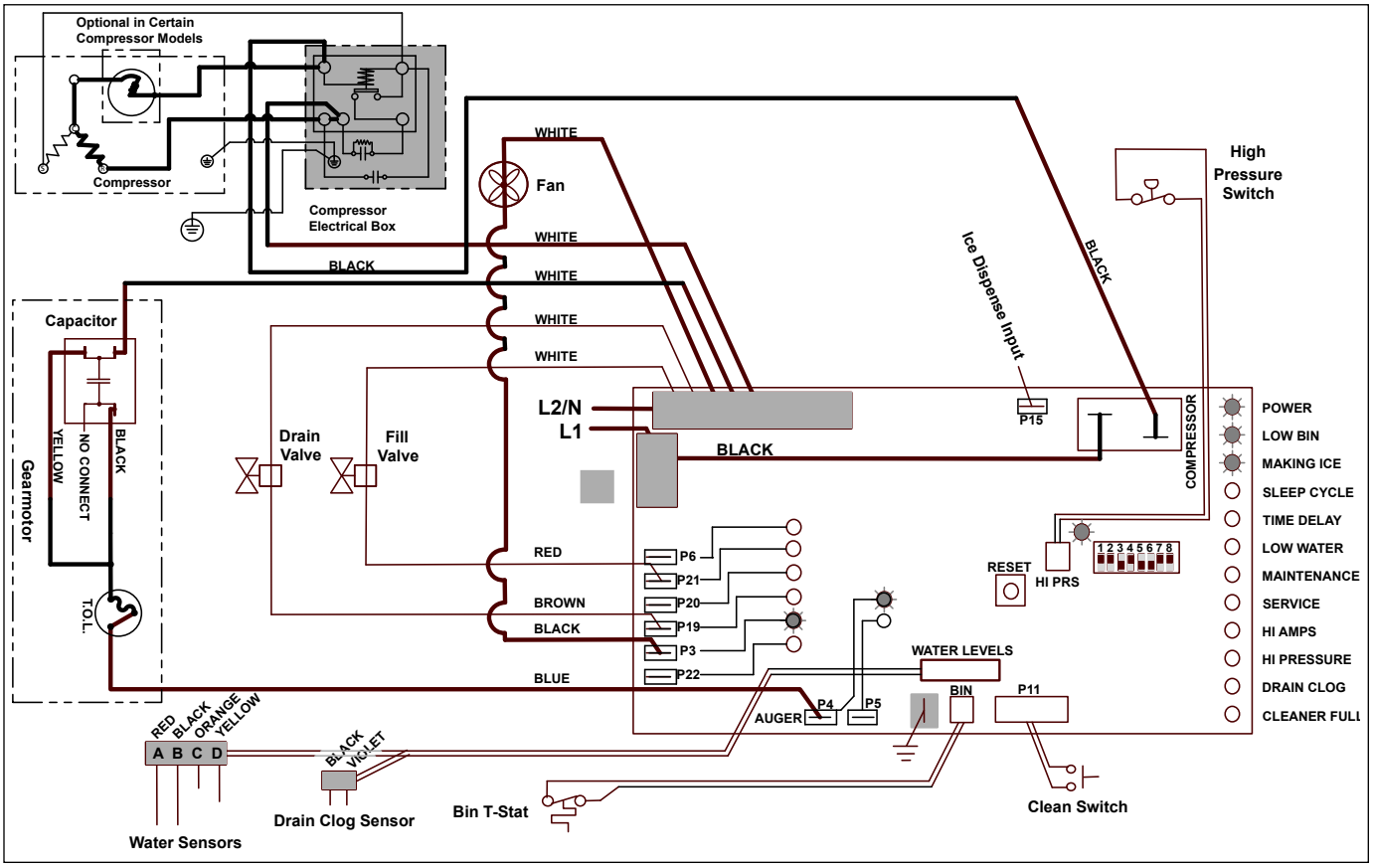
High gearmotor amps – Stage 1

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.



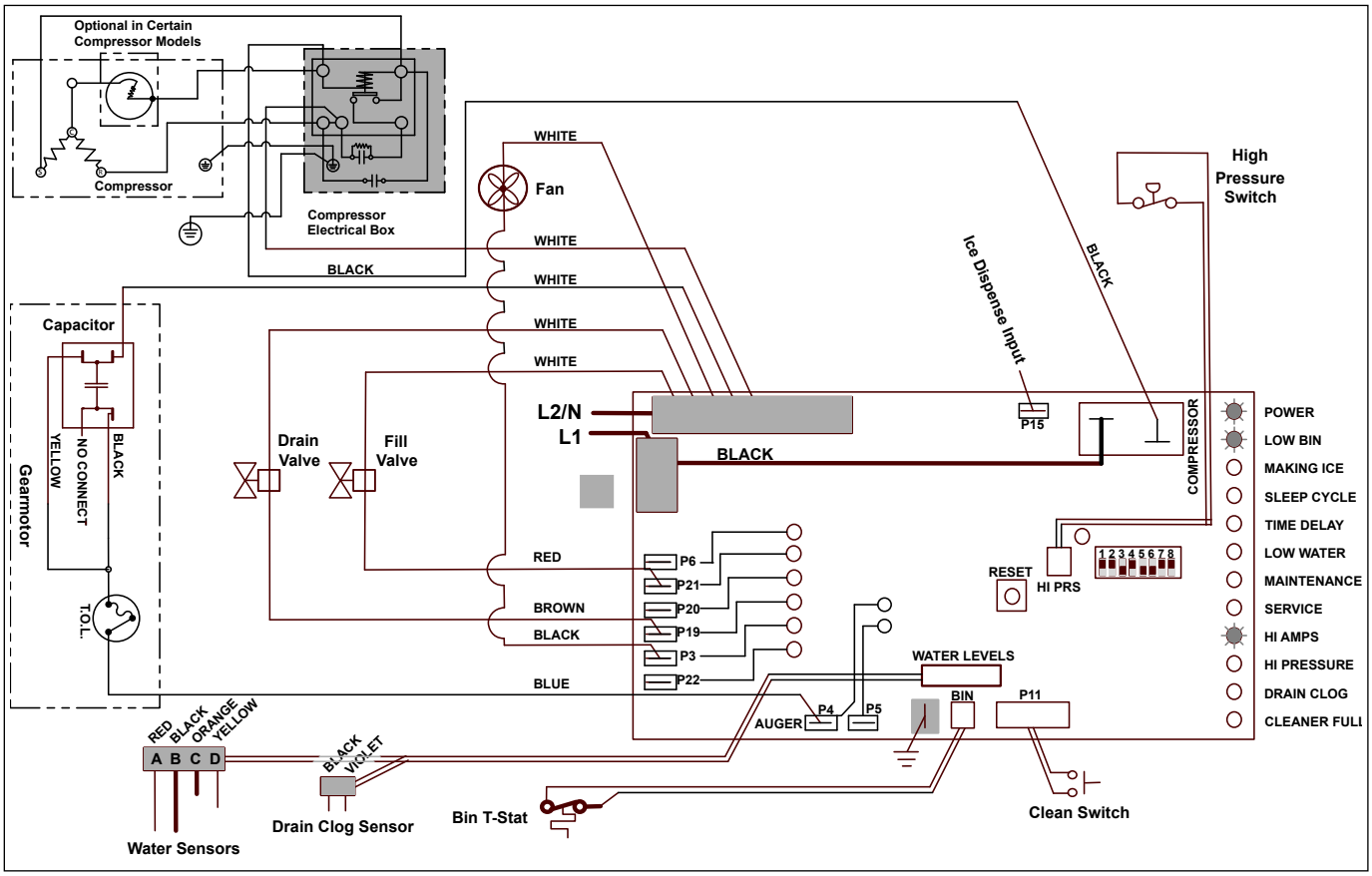
High gearmotor amps – Stage 2

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.



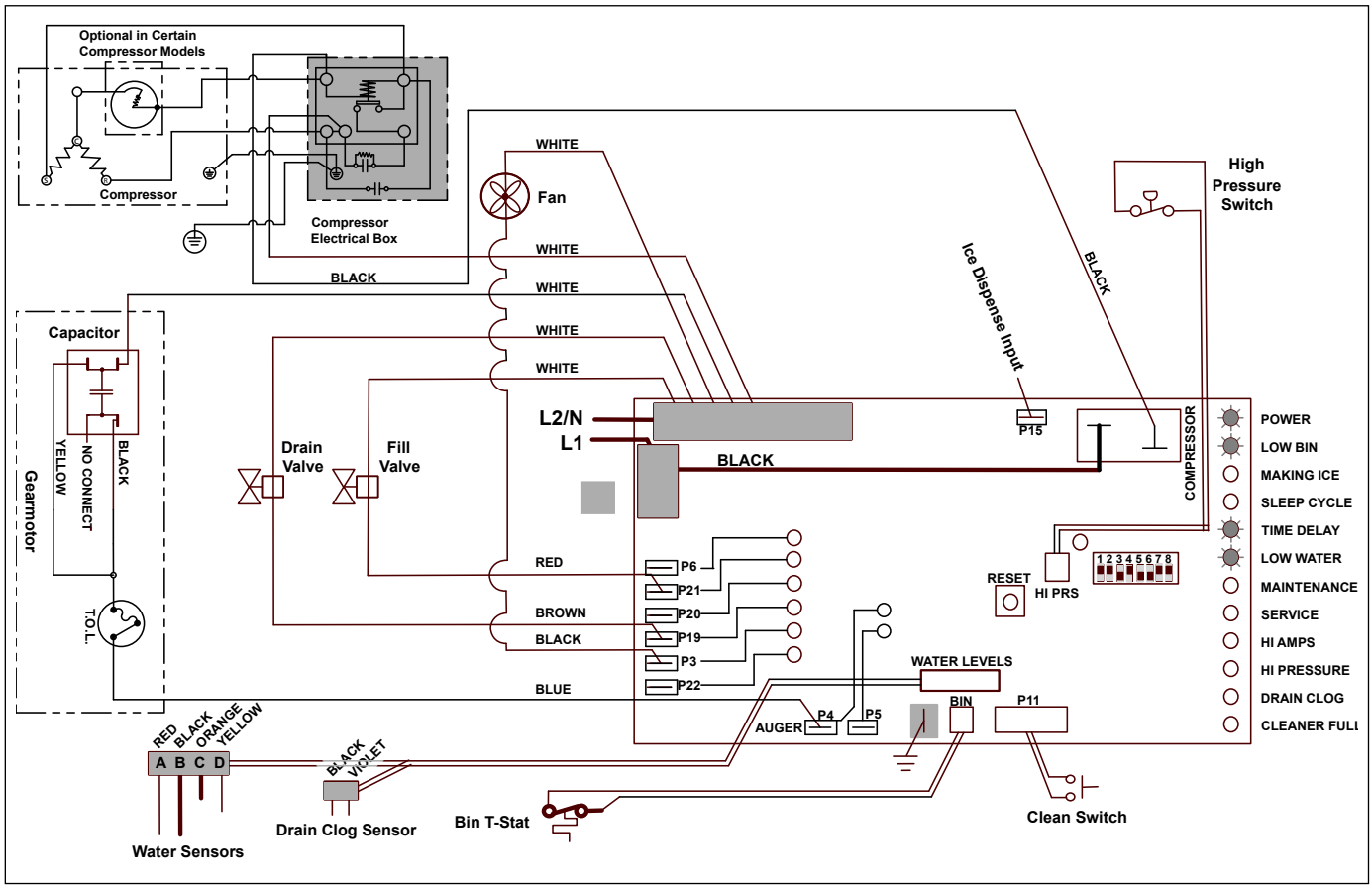
High gearmotor amps – Stage 3

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.



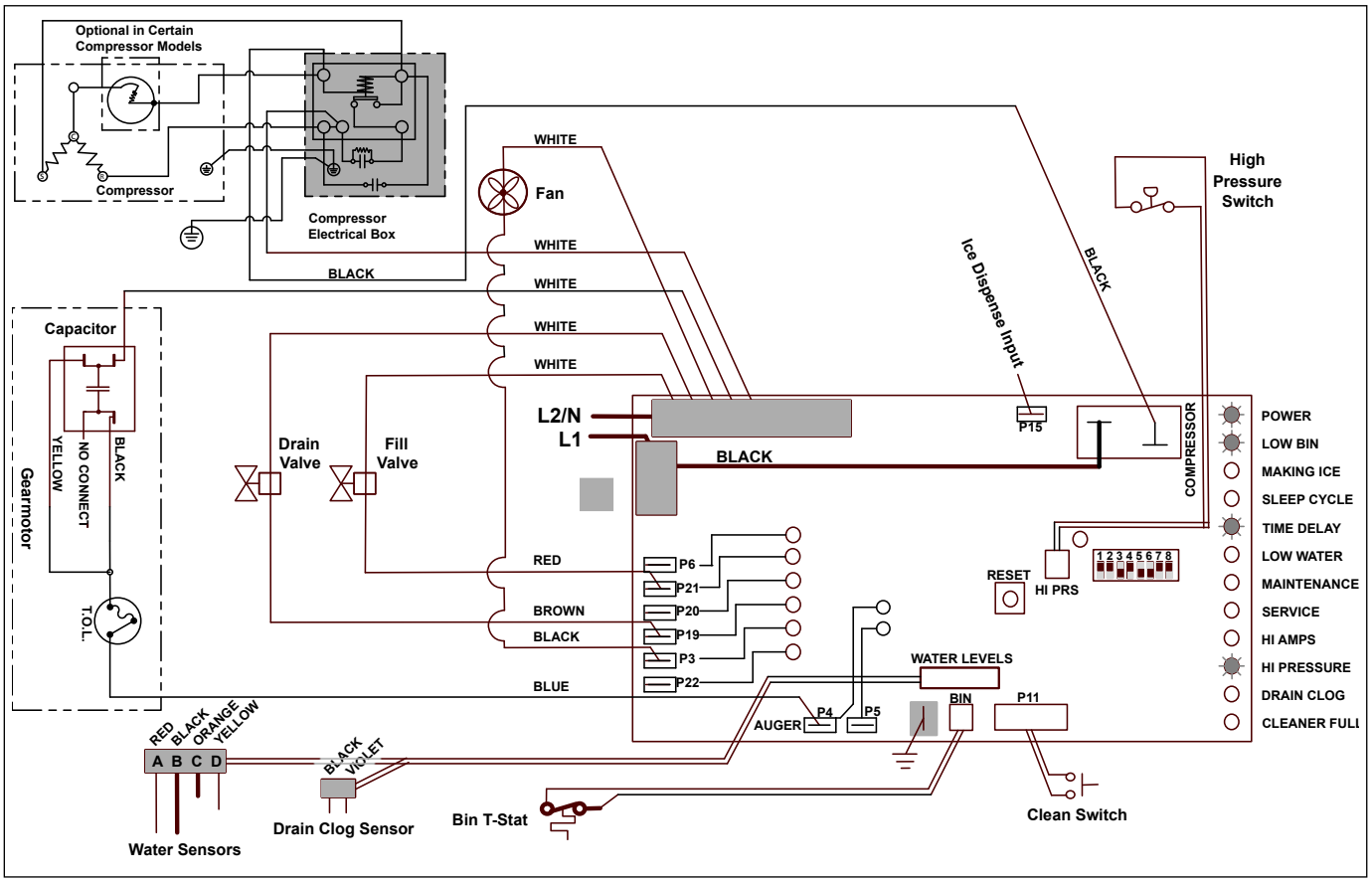
Loss of water

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.



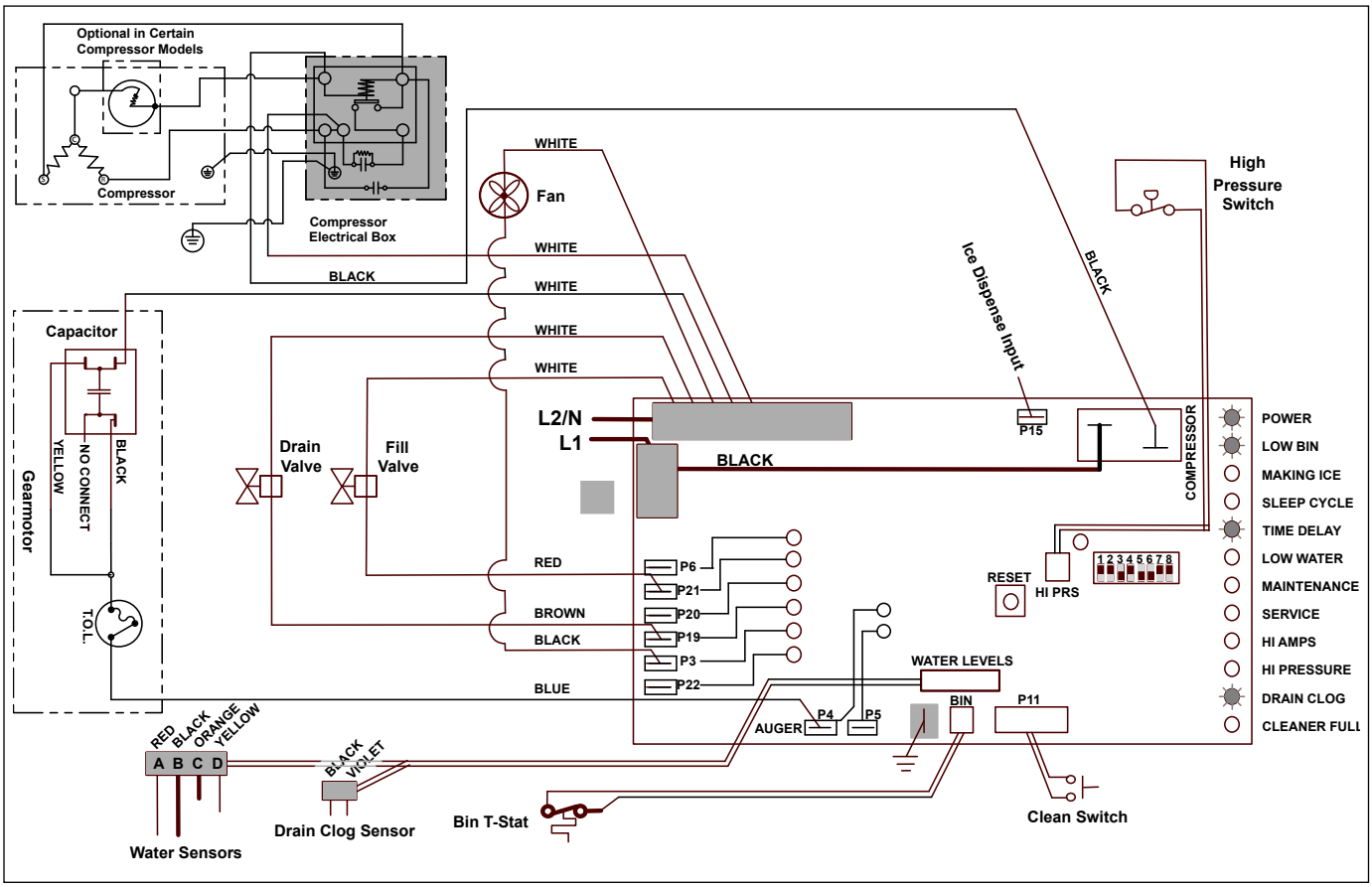
High refrigerant pressure

Should the refrigeration discharge 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 detects 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.

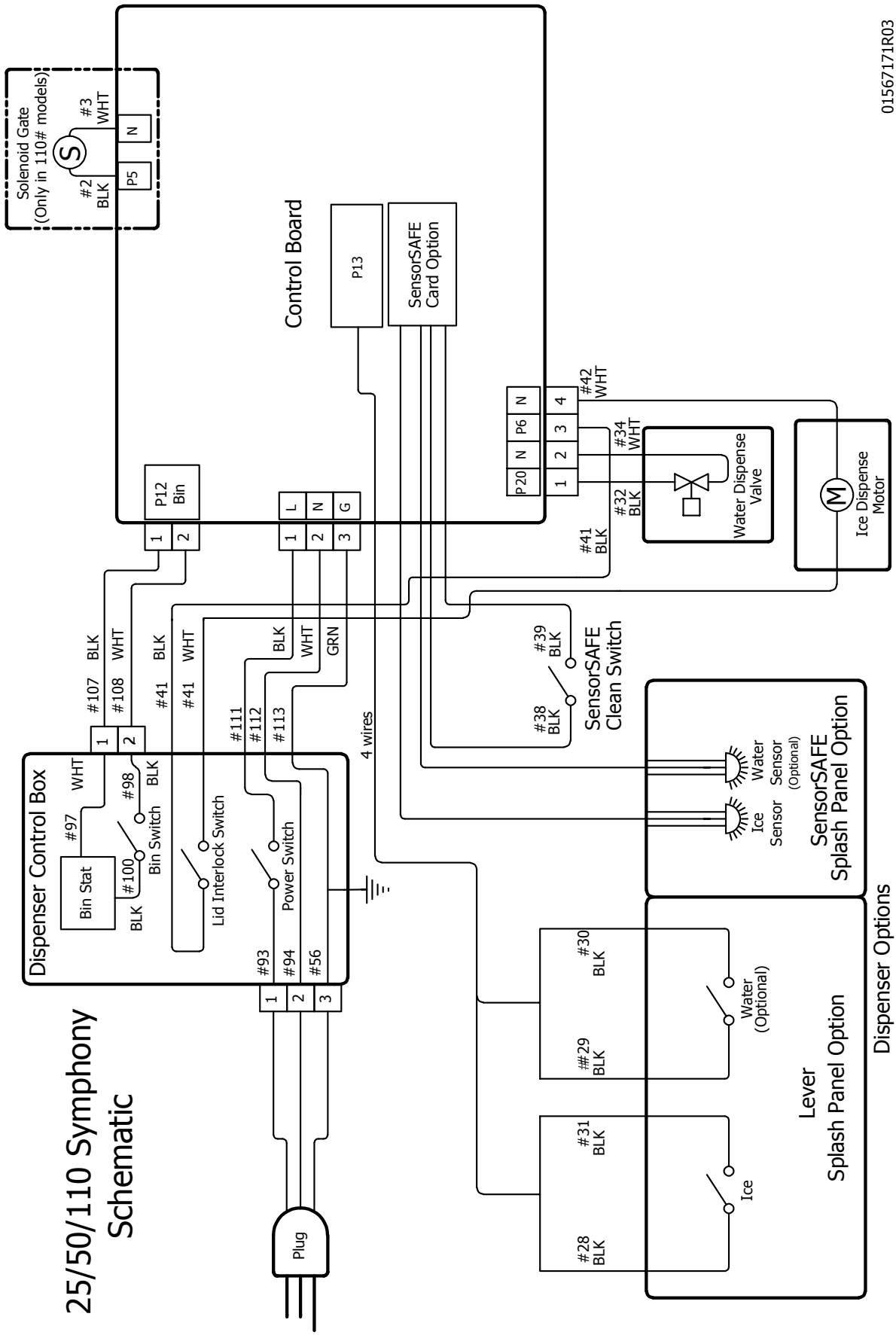


Service

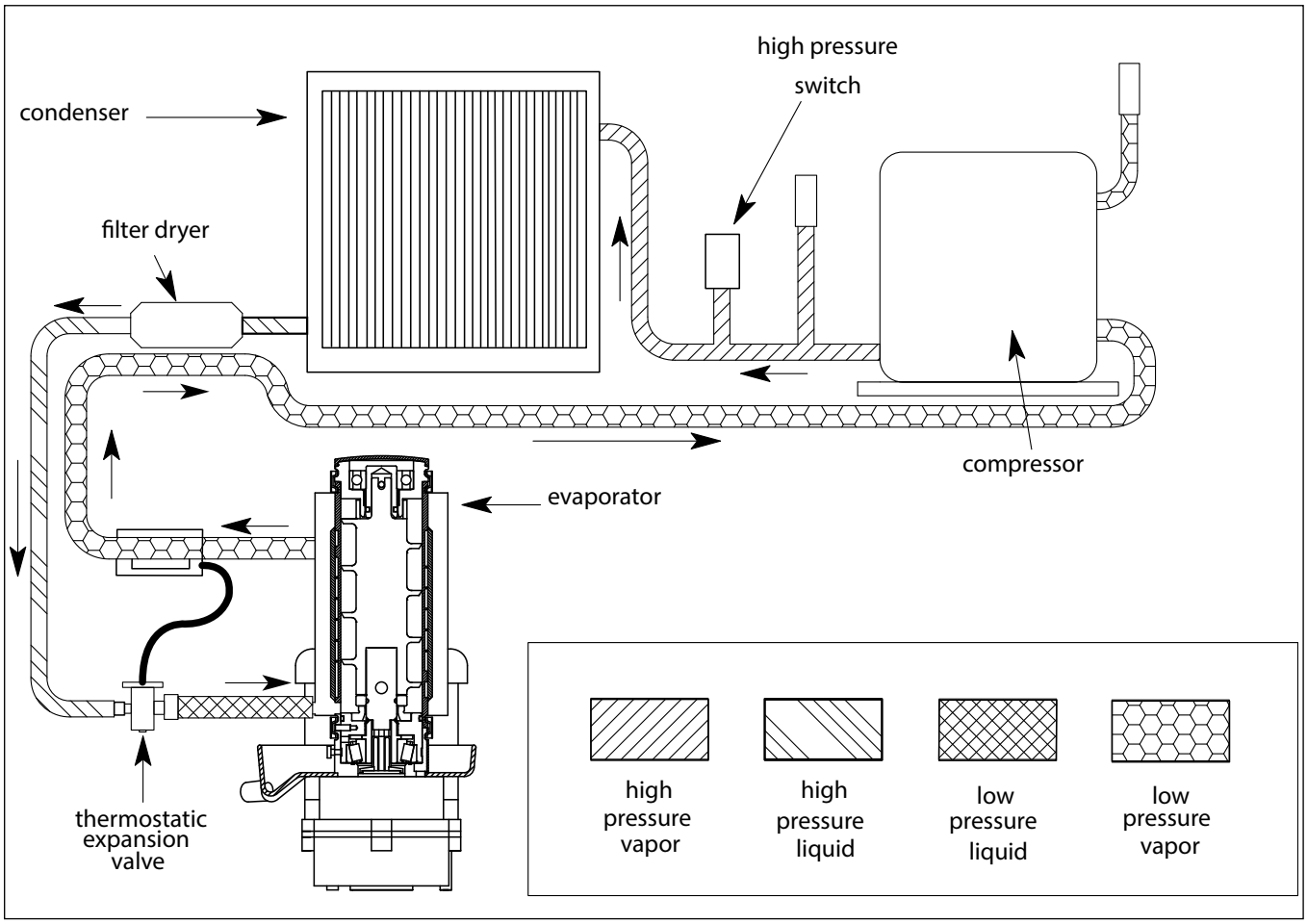
If continuity is seen between the two drain clog sensor probes, the **SERVICE** LED will come on and the machine will shut down. The machine will not restart unless the manual reset button is depressed while power is on.



Electrical control system schematic



Refrigeration cycle



Air-Cooled ice machine capacity/24hrs.

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	437.5	405	372.5	340	307.5	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.

Water-Cooled ice machine capacity/24hrs.

Condenser Water Temperature F/C

Inlet Water Temperature F/C							
F	**50**	**60**	**70**	**80**	**90**	**100**	
C	**10**	**16**	**21**	**27**	**32**	**38**	
50	486	465	443	422	400	389	lbs.
10	220	211	201	191	181	176	kg.
60	464	445	425	406	386	367	lbs.
16	210	202	193	184	175	166	kg.
70	443	425	408	390	372	358	lbs.
21	201	193	185	177	169	162	kg.
80	422	406	389	373	356	340	lbs.
27	191	184	176	169	161	154	kg.
90	400	385	371	356	341	326	lbs.
32	181	175	168	161	155	148	kg.

Water-Cooled ice machine refrigeration pressure

Discharge pressure/suction pressure

Condenser Water Temperature F/C

Inlet Water Temperature F/C				
F/C	**50/10**	**70/21**	**90/32**	
50/10	280/27	285/29	290/31	psi
70/21	280/27	285/29	290/31	psi
90/32	280/27	285/29	290/31	psi

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 23).

Compressor data

Compressor current draw

Air-cooled

Ambient air temp.	60 F/15.6 C	70 F/21.1 C	80 F/26.7 C	90 F/32.2 C
Comp Amperage	5.4A	5.6A	6.0A	6.1A
High side pressure (psi)	140	150	174	206
Low side pressure (psi)	15	17	21	26

Locked rotor amps 48A

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

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.

Model	Charge	Refrigerant type
25/50CI414A, 25/50HI414A (air-cooled)	3.49 oz	R290
25/50CI414W (water-cooled)	1.83 oz	R290

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.

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 that 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. 4. Defective control board. 5. Defective wiring.	1. Turn on or replace the defective switch. 2. Replace defective switch. 3. Verify voltage at motor and replace wheel motor if defective. 4. Jumper pins 1 & 2 on connector P13. a. Control board output LED, D19 should light. Replace board, if D19 does not come on. b. D19 comes on but no voltage at wheel motor. Move connector from P6 to L1, if motor runs, replace control board. 5. Ohm check wiring going from lever switch to P13 pins 1 & 2. Ohm check wiring from P6 to wheel motor and neutral wire to neutral on control board. Repair or replace as needed.
Dispense wheel rotates continuously.	Dispense switch contacts are welded together.	Replace dispense switch.
Ice machine runs continuously.	Faulty or incorrectly positioned bin thermostat.	Check for proper positioning. If thermostat does not open when ice is placed on capillary tube, replace thermostat.
Does not dispense water.	1. Power switch off/faulty. 2. Faulty water dispense switch. 3. Water dispense solenoid malfunction. 4. Defective control board. 5. Defective wiring.	1. Turn on or replace the defective switch. 2. Replace defective switch. 3. Verify voltage at water dispense solenoid and replace water dispense solenoid if defective. 4. Jumper pins 3 & 4 on connector P13. a. Control board output LED, D21 should light. Replace board, if D21 does not come on. b. D21 comes on but no voltage at wheel motor. Move connector from P20 to L1, if motor runs, replace control board. 5. Ohm check wiring going from lever switch to P13 pins 3 & 4. Ohm check wiring from P20 to wheel motor and neutral wire to neutral on control board. Repair or replace as needed.

SensorSAFE model troubleshooting guide

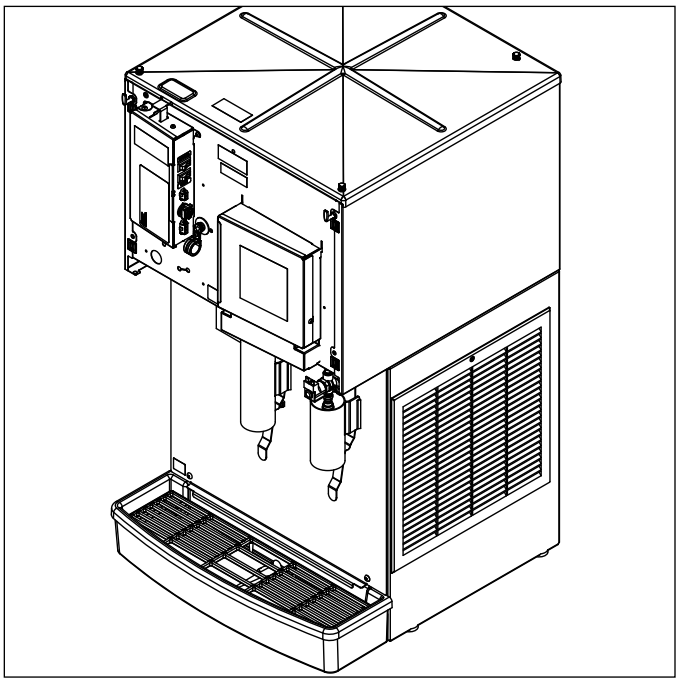
Problem	Indicators	Corrective Action
Does not dispense ice.	1. Power switch off or faulty. 2. Power on but no ice dispensing 3. Faulty ice dispense sensor. 4. Wheel motor malfunction. 5. Defective control board/ daughter card. 6. Defective wiring.	1. Turn on or replace the defective switch. 2. Verify daughter card is properly aligned and inserted with pins on the control card and bin lid jumper is installed. 3. Follow the steps below for ice dispensing. a. If ice and water dispenser, switch connectors going from sensors to daughter and if problem follows to opposite input, replace defective sensor. b. Once switched, if problem stays with same input, jumper pins 3 & 4 on daughter card ice connector and the control board output LED, D19 should light. Replace board, if D19 does not come . 4. Verify 120 vac at motor and replace wheel motor if defective. 5. D19 comes on but no voltage at wheel motor. Move connector from P6 to L1, if motor runs, replace control board. 6. Ohm check wiring from P6 to wheel motor and neutral wire to neutral on control board. Repair or replace as needed.
Does not dispense water	1. Power switch off/faulty. 2. Faulty water dispense sensor. 3. Water dispense solenoid malfunction or defective control board/daughter card. 4. Defective wiring.	1. Turn on or replace the defective switch. 2. Follow the steps below for water dispensing. a. If ice and water dispenser, switch connectors going from sensors to daughter and if problem follows to opposite input, replace defective sensor. b. Once switched, if problem stays with same input, jumper pins 3 & 4 on daughter card water connector and the control board output LED, D21 should light. Replace control board/daughter card, if D21 does not come on. If D21 comes on, move connector from P20 to L1, if solenoid energizes, replace control board. 3. Verify 120 VAC at solenoid and replace if present. 4. Ohm check wiring going from water solenoid to P20 terminal on control board. Ohm check wiring from water solenoid neutral wire to neutral on control board. Repair or replace as needed.
Ice machine runs continuously.	Faulty or incorrectly positioned bin thermostat.	Check for proper positioning. If thermostat does not open when ice is placed on capillary tube, replace bin thermostat.

Ice machine removal instructions

CAUTION!

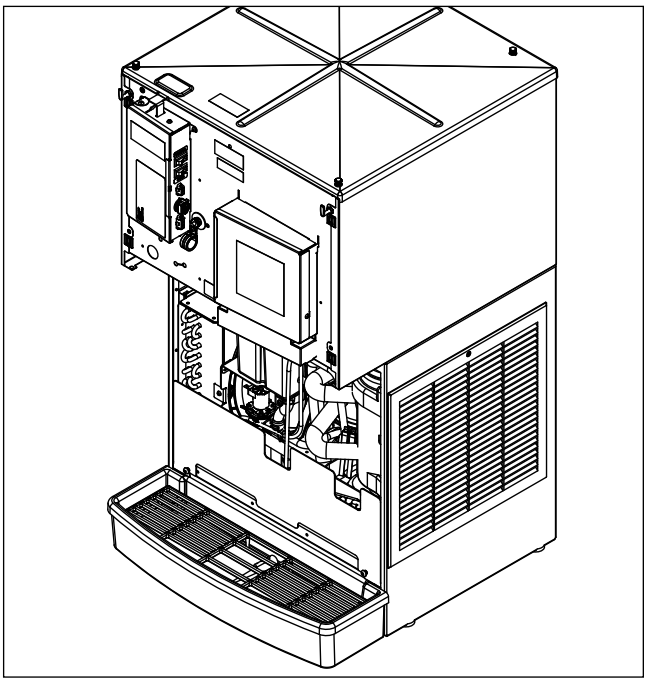
- Disconnect power to unit before putting hands or arms in storage area or attempting any repair or service to equipment.

Fig. 17 – All models



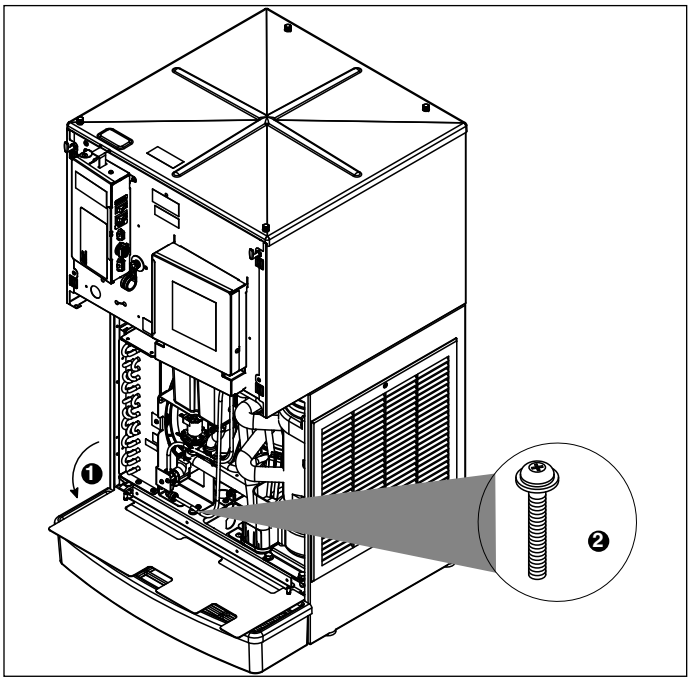
1. Dispense all ice and remove front cover **(Fig. 17)**.

Fig. 18 – All models



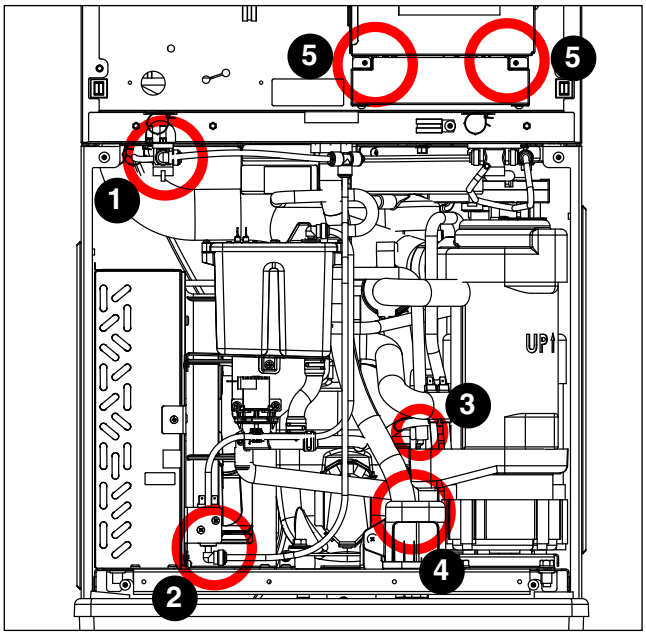
2. Remove splash panel **(Fig. 18)**.

Fig. 19 – All models



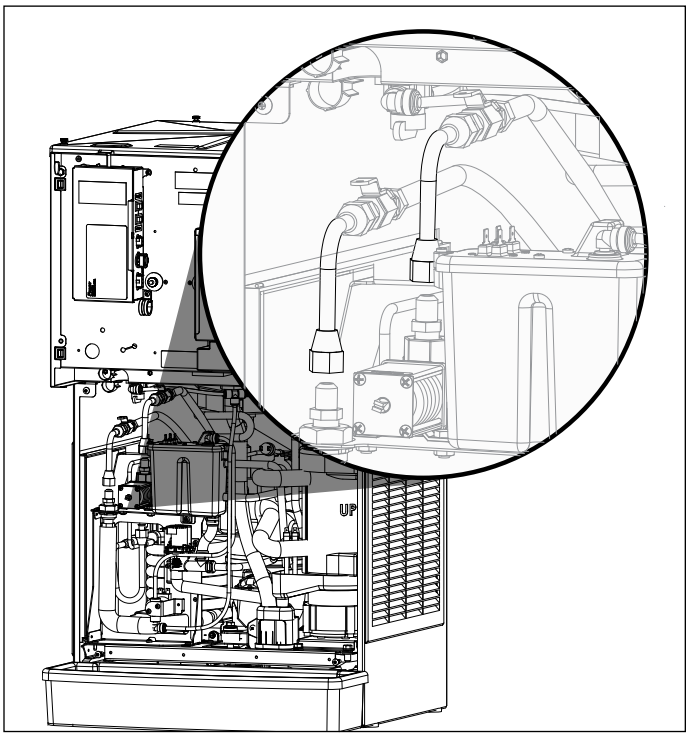
3. Lower drain pan protector **(Fig. 19.1)**. Remove and discard shipping screw **(Fig. 19.2)**.

Fig. 20



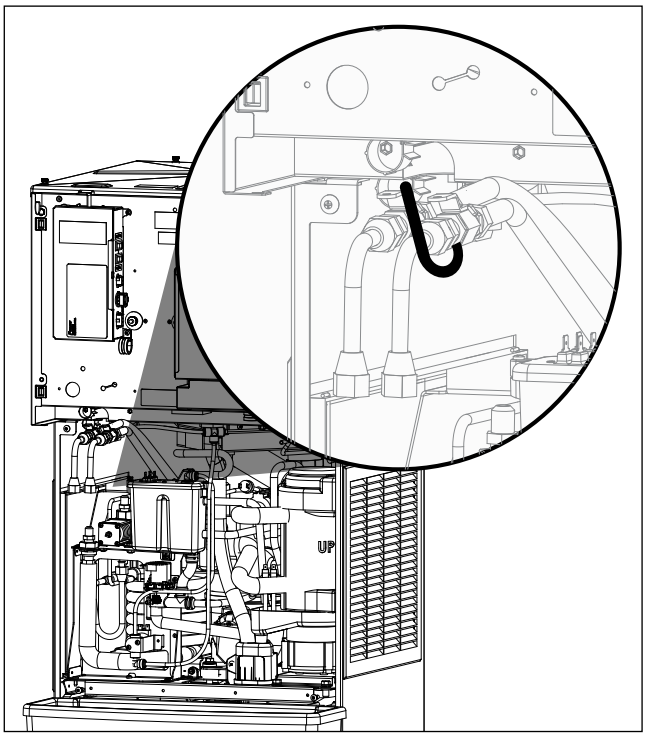
4. Close main water shut off valve **(Fig. 20.1)**.
5. Disconnect water line to fill solenoid **(Fig. 20.2)**.
6. Remove bin drain tube **(Fig. 20.3)**.
7. Remove drain cup **(Fig. 20.4)**.
8. Remove screws securing bottom of ice machine electrical box **(Fig. 20.5)**.

Fig. 21 – Water-cooled only



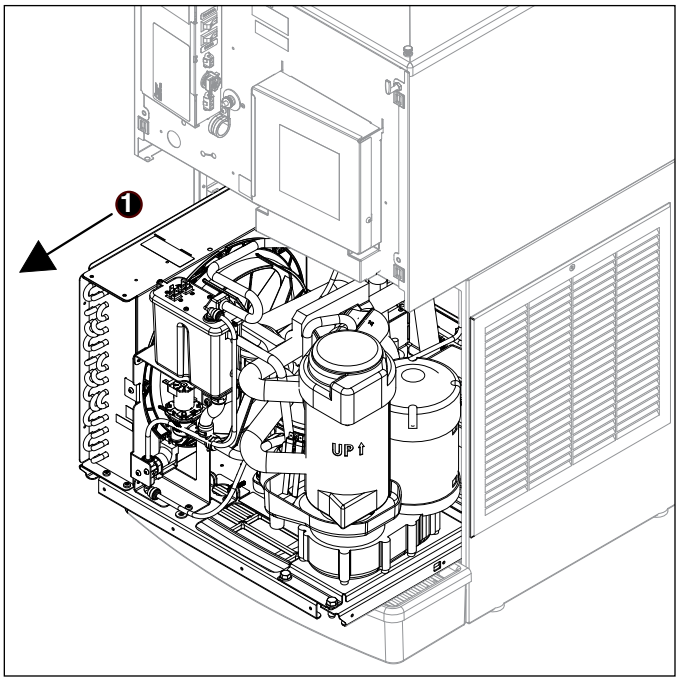
9. Shut off inlet and outlet valves to water-cooled condenser and disconnect fittings **(Fig. 21)**.

Fig. 22 – Water-cooled only



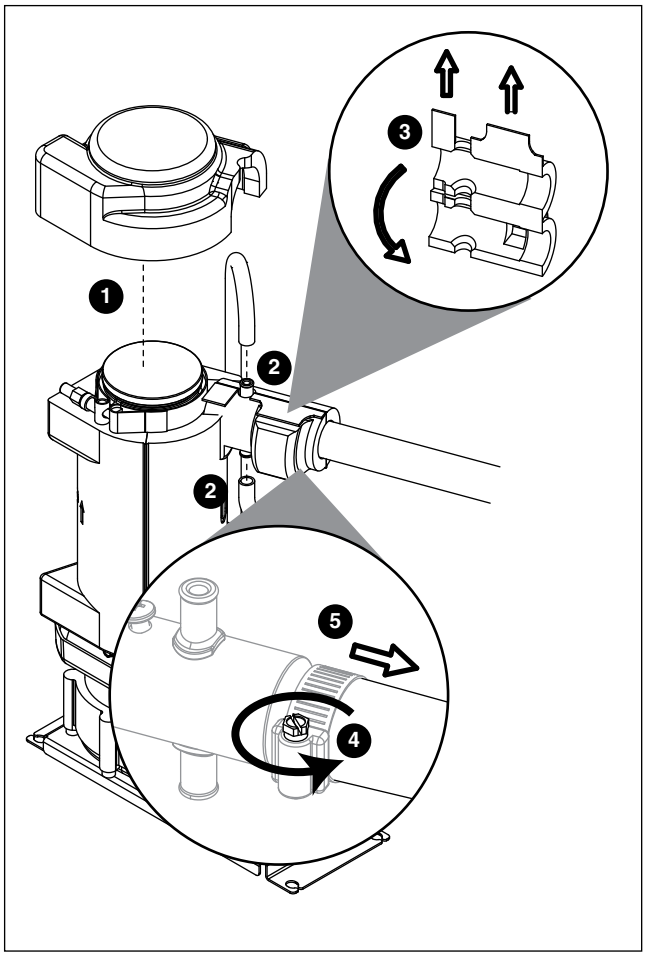
10. Lift and position water-cooled lines into hook **(Fig. 22)**.

Fig. 23 – All models



11. Partially slide ice machine from dispenser **(Fig. 23.1)**.
12. Disconnect power and bin signal twist lock connectors from ice machine electrical box.

Fig. 24 – All models



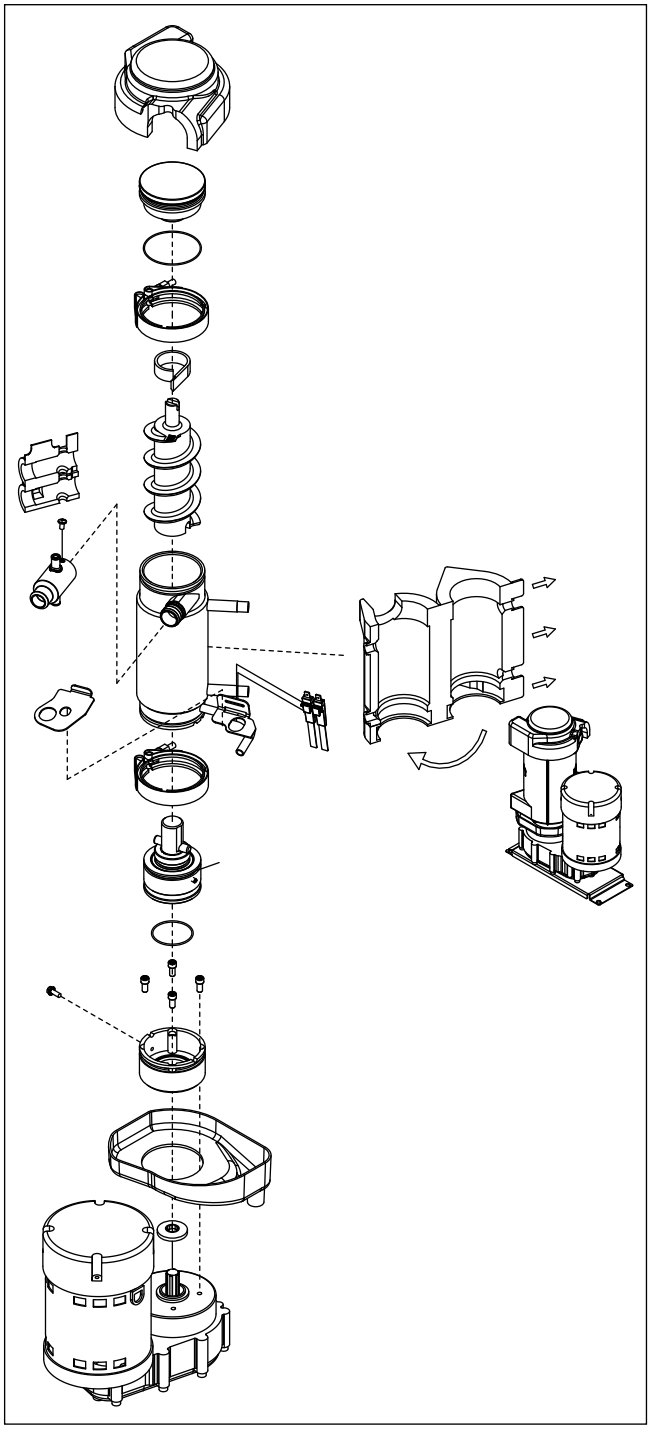
13. Remove insulation cap **(Fig. 24.1)**.
14. Remove vent and drain tube **(Fig. 24.2)**.
15. Remove nozzle insulation **(Fig. 24.3)**.
16. Loosen ice tube hose clamp **(Fig. 24.4)**.
17. Remove ice tube **(Fig. 24.5)**.
18. Place ice machine electrical box on top of ice machine and slide out ice machine.

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. Disconnect power to ice machine.
2. Shut off water to ice machine.
3. Drain evaporator and float tank.
4. Disconnect plastic tubing from evaporator water inlet.
5. Remove top bearing insulation.
6. Disconnect vent and drain tube from nozzle.
7. Remove compression nozzle insulation.
8. Disconnect compression nozzle tubing and reservoir overflow tubing from secured clip.
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 four Allen head machine screws holding mounting base to gearbox.
18. If replacing evaporator, remove compression nozzle from evaporator port.

Fig. 25



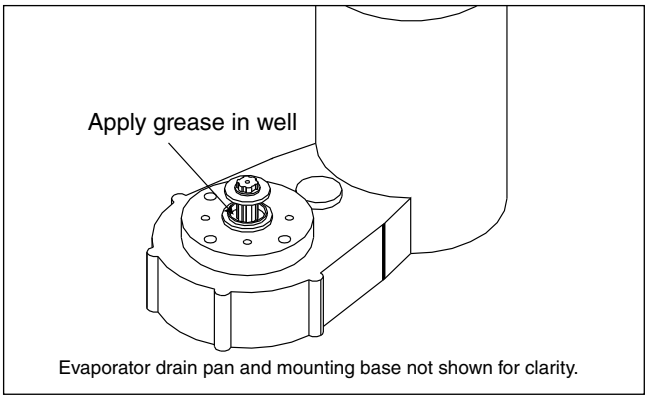
Evaporator reassembly

1. Clean gearmotor boss, output shaft and shaft well.
2. Install drain pan and evaporator mounting base.
3. Fill gear motor shaft well with food grade grease **(Fig. 26)**.
4. Install condensate shield and seat against gear motor boss.
5. Install bearing O ring in groove in evaporator mounting base.
6. Lower bottom bearing assembly into evaporator mounting base.
7. *While maintaining firm 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 to 70 in/lb. **(Fig. 27)**.
   Note: Clamp must be oriented as shown in order for the insulation to be placed properly.
10. Place auger in center of evaporator and rotate to mate with drive pin.
11. Install ice compression loop, orienting loop.
12. Install upper bearing and seal assembly, rotating bearing to slip pin into auger slot.
13. Install upper vee band clamp and nut to 70 in/lb.
14. Install evaporator insulation.
15. Install compression nozzle and tubing.
16. Secure ice transport tube with clamp **(Fig. 28.1)**.
    Note: Clamp must be oriented as shown in order for the insulation to be placed properly.
17. Install compression nozzle insulation **(Fig. 28.2)**.
18. Install vent and drain tube **(Fig. 28.3)**.
19. Install top bearing insulation **(Fig. 28.4)**.

Gearmotor replacement

1. Disassemble evaporator as described previously.
2. Disconnect the wire connectors.
3. Remove four screws holding gear motor 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. 26



Evaporator drain pan and mounting base not shown for clarity.

Fig. 27

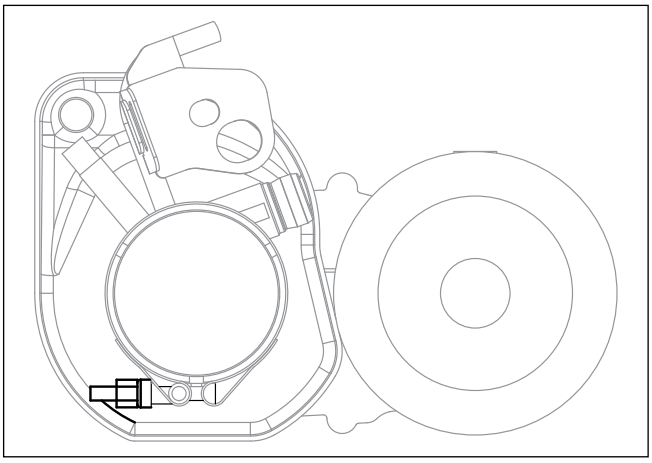
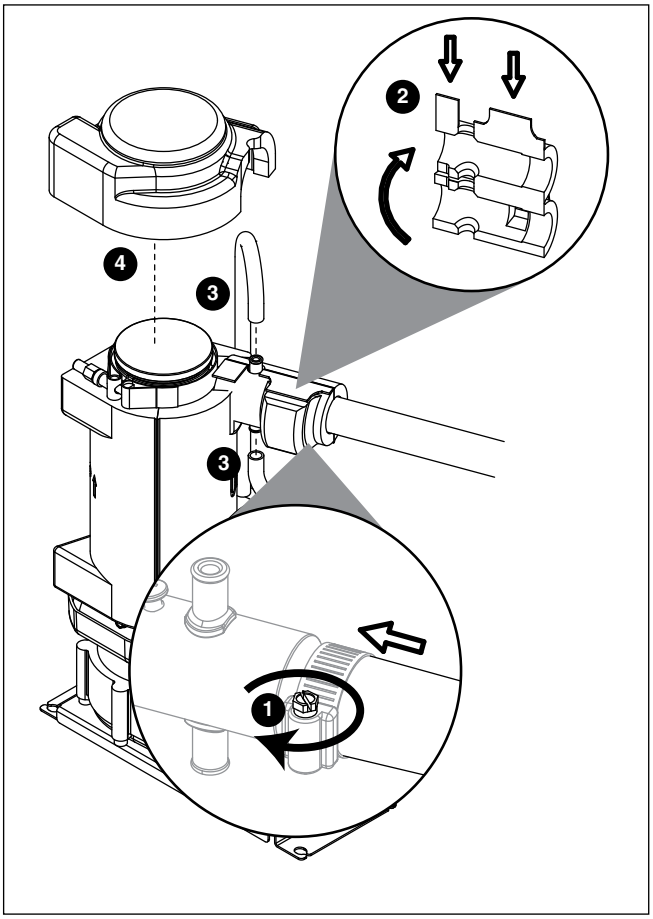
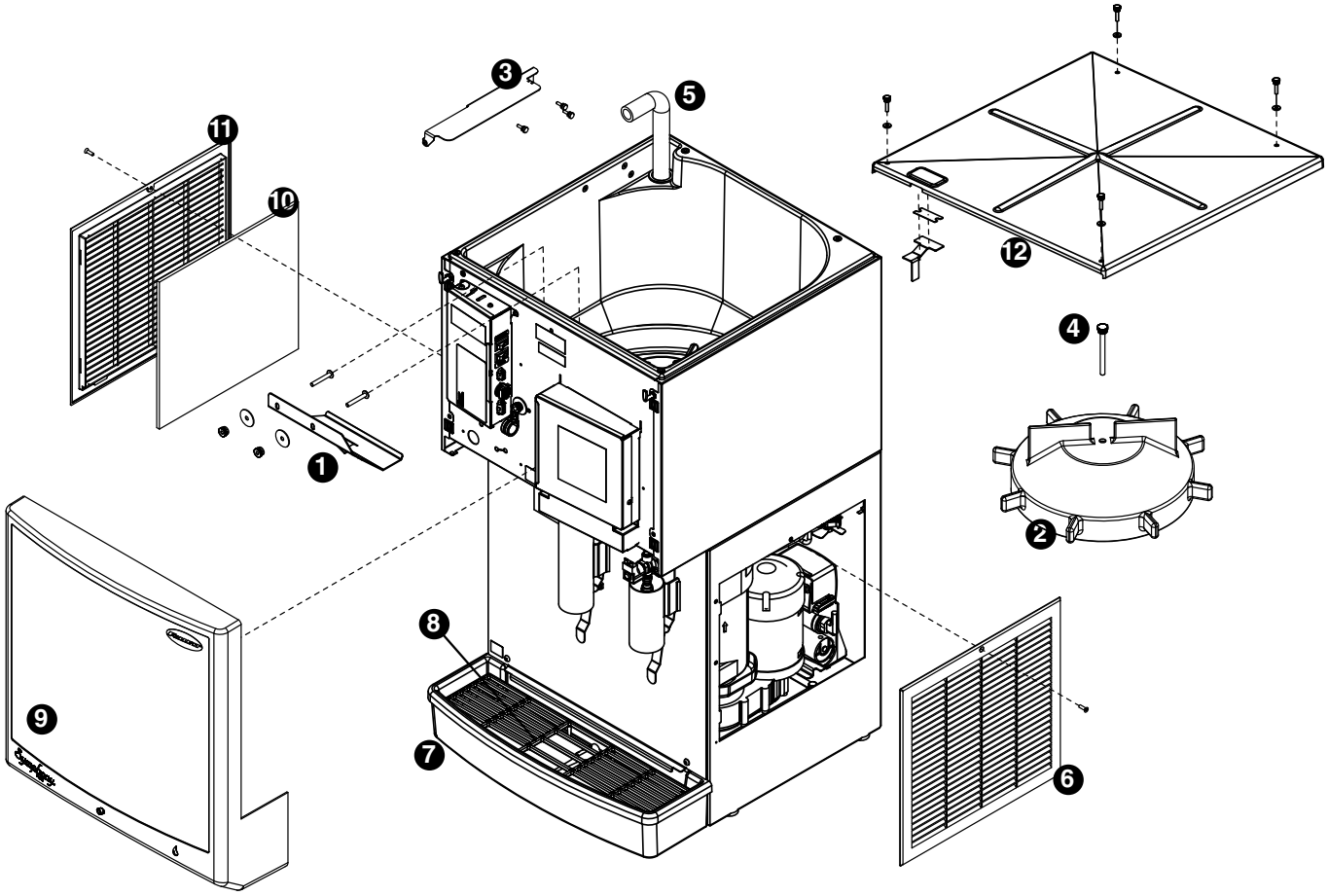


Fig. 28



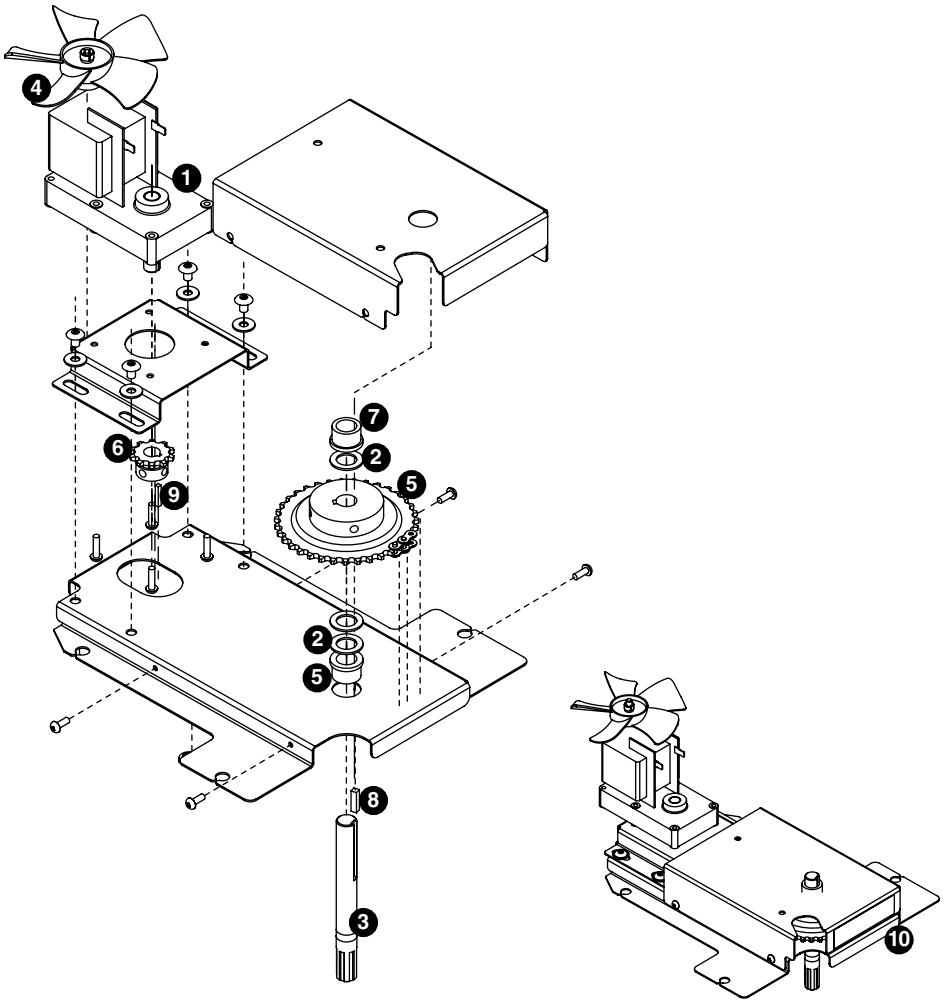
Replacement parts

Dispenser exterior



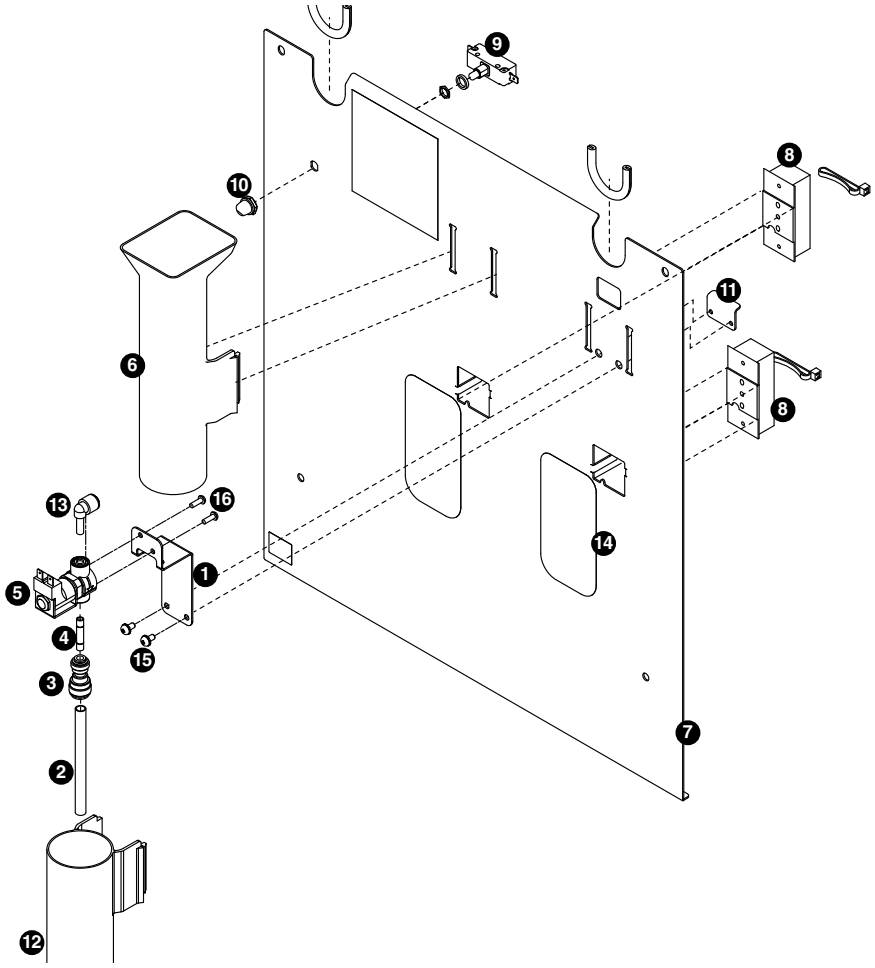
Reference	Description	Part #
1	Baffle, ice	501608
2	Wheel, dispense (includes 501612)	502821
3	Bracket, ice tube	502712
4	Rod, threaded (includes knurled nut)	501612
5	Ice transport tube, 25 series	00196030
5	Ice transport tube, 50 series	00196048
6	Louver, exhaust	00192963
7	Drain pan	502682
8	Grille, drain pan, gray plastic	01050277
9	Cover, front 25 series, ice and water	01072735
9	Cover, front 50 series, ice and water	01072750
9	Cover, front 25 series, ice only	01072743
9	Cover, front 50 series, ice only	01072768
10	Air filter	00184275
11	Louver, intake (includes 00184275)	00192955
12	Lid, hopper, secured	01572148
Not shown	Hopper, assembly, 25 series	00953281
Not shown	Hopper, assembly, 50 series	00953299
Not shown	Drain tube, ice storage hopper	01054576
Not shown	Drain pan protector	00195974
Not shown	Wall mount bracket and cover plate	00902080
Not shown	Grille, drain pan, gray plastic, case of 12	01071232

Wheel motor and drive system



Reference #	Description	Part #
1	Wheel motor, 120V, 60Hz	501861
2	Washer, thrust	501026
3	Shaft, drive (includes key and stud)	501619
4	Fan blade, wheel motor	501607
Not shown	Chain, pitch 67, link	01168781
5	Sprocket, drive shaft, 35T (includes drive shaft key)	502692
6	Sprocket, wheel motor, 10T	501019
7	Bearing, drive shaft	501024
Not shown	Connecting link, chain	500799
8	Key, drive shaft	500367
9	Key, wheel motor	205991
10	Dispenser drive assembly (parts 1-9 above)	00192971

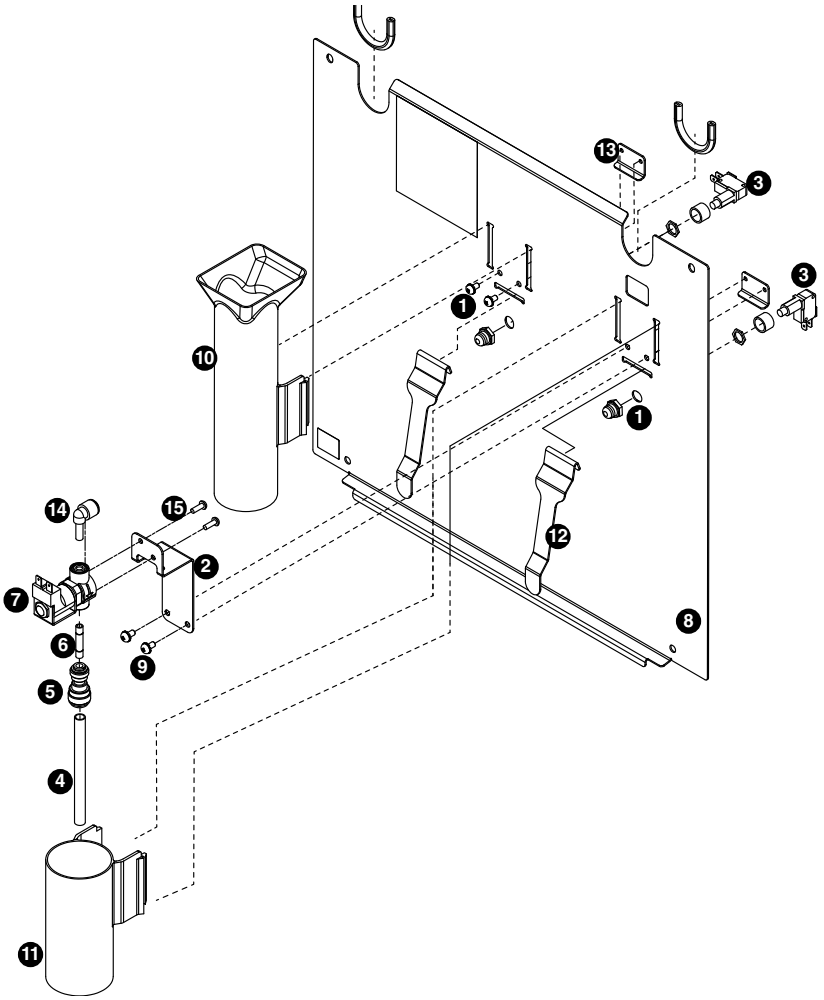
Dispense chute and splash panel (models with SensorSAFE infrared dispensing)



Reference #	Description	Part #
1	Bracket, water solenoid	01230655
2	Tube, water station	00187682
3	Fitting, 1/4" tube to 3/8" tube	01230671
4	Tube, connector, 1/4" stainless steel	01352517
5	Solenoid valve, water, 120 V, 60Hz	01352483
6	Chute, ice (with Agion®)	00984831
7	Splash panel, SensorSAFE dispense with drain pan (includes 2 lenses)	01352616
7	Splash panel, SensorSAFE dispense with drain pan, ice only (includes 1 lens)	01352624
7	Splash panel, SensorSAFE dispense, no drain pan (includes 2 lenses)	01352632
7	Splash panel, SensorSAFE dispense, no drain pan, ice only (includes 1 lens)	01352640
8	Sensor, ice or water dispense	00195982
9	Clean switch, SensorSAFE (includes boot)	502359
10	Boot, clean switch button (mounts on 502359 switch)	501841
11	Bracket, water valve	00958793
12	Chute, water (with Agion)	00984898
13	Elbow, 1/4"	00121699
14	Lens, sensors	00977983
15	Screw, bracket	00982421
16	Screw, valve	01352582
Not shown	Tubing, water station, thermoplastic, 1/4" OD (sold by the foot)	502079
Not shown	Kit, dispense solenoid	01352590

[1] Disclaimer: Antimicrobial protection is limited to the treated components and does not treat water or ice.
Agion is a registered trademark of Agion Technologies, Inc, Wakefield, MA, USA.

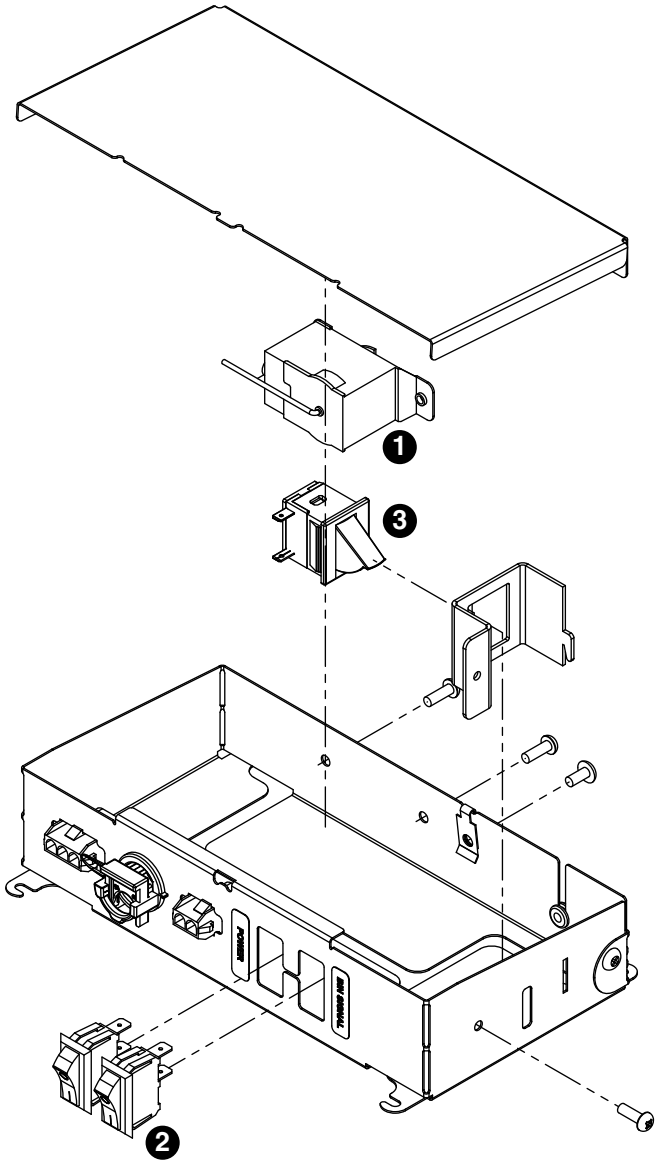
Dispense chute and splash panel (models with lever dispensing)



Reference #	Description	Part #
1	Boot, dispense switch button (mounts on 00981217 switch)	502418
2	Bracket, water solenoid	01230655
3	Switch, dispense, ice or water, lever actuated (includes boot)	00981217
4	Tube, water station	00187682
5	Fitting, 1/4" tube to 3/8" tube	01230671
6	Tube, connector, 1/4" stainless steel	01352517
7	Solenoid valve, water, 120 V, 60Hz	01352483
8	Splash panel, lever dispense	01352657
8	Splash panel, lever dispense, ice only	01352665
9	Screw, bracket	00982421
10	Chute, ice (with Agion antimicrobial product protection1)	00984831
11	Chute, water (with Agion)	00984898
12	Lever, dispense	00976845
13	Bracket, lever	00958793
14	Elbow, 1/4"	00121699
15	Screw, valve	01352582
Not shown	Tubing, water station, thermoplastic, 1/4" OD (sold by the foot)	502079
Not shown	Kit, dispense solenoid	01352590

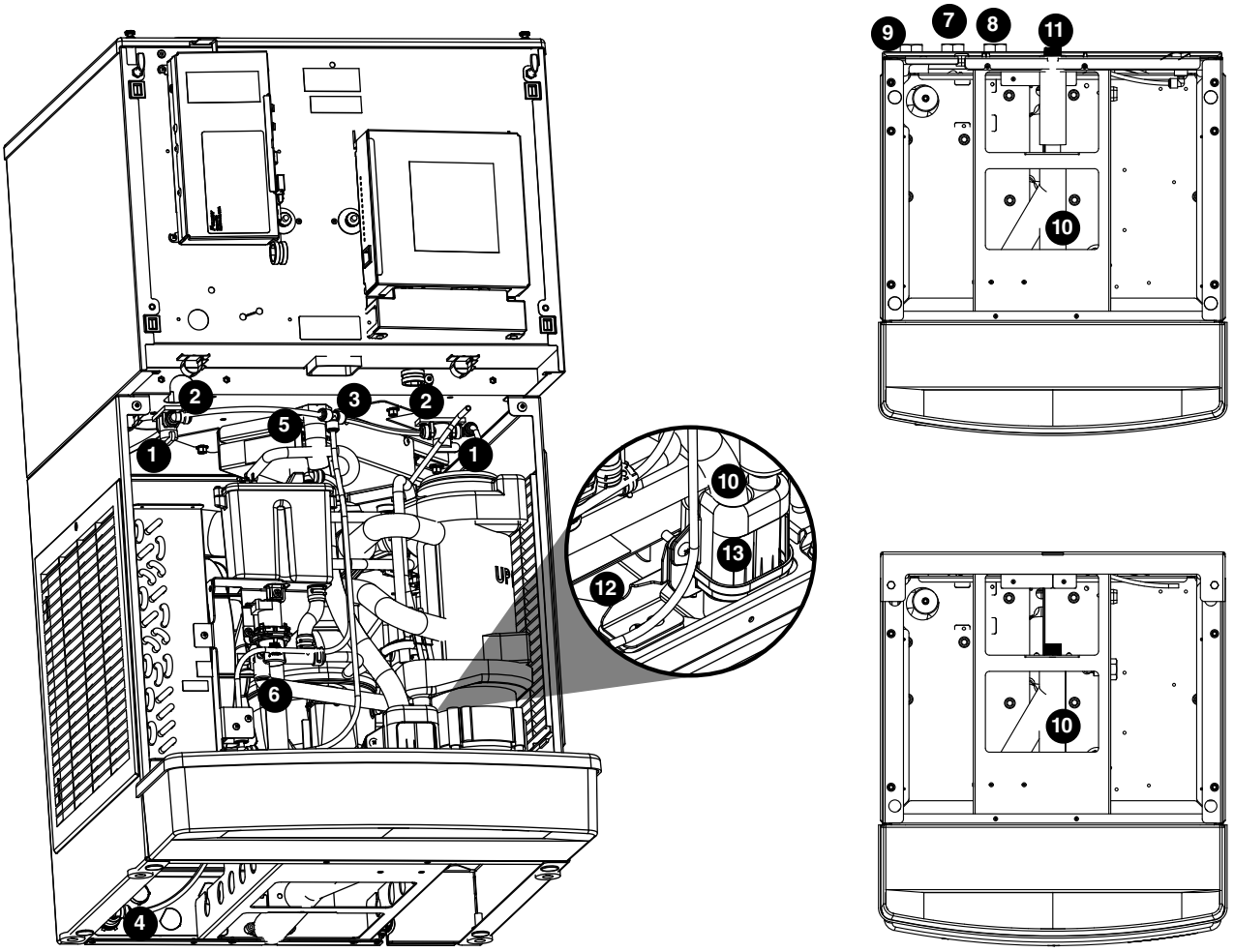
* Ty-rap is a registered trademark of Thomas & Betts International, Inc.

Dispenser electrical box



Reference #	Description	Part #
1	Thermostat	500514
2	Switch, dispenser power	502209
2	Switch, ice machine bin signal	502209
3	Bin interlock switch	01541044
Not shown	Cord and plug, ice machine power (dispenser box to ice machine box)	01215128
Not shown	Cord and plug, bin signal (dispenser box to ice machine box)	01215144
Not shown	Power cord	01027655

Water and drain



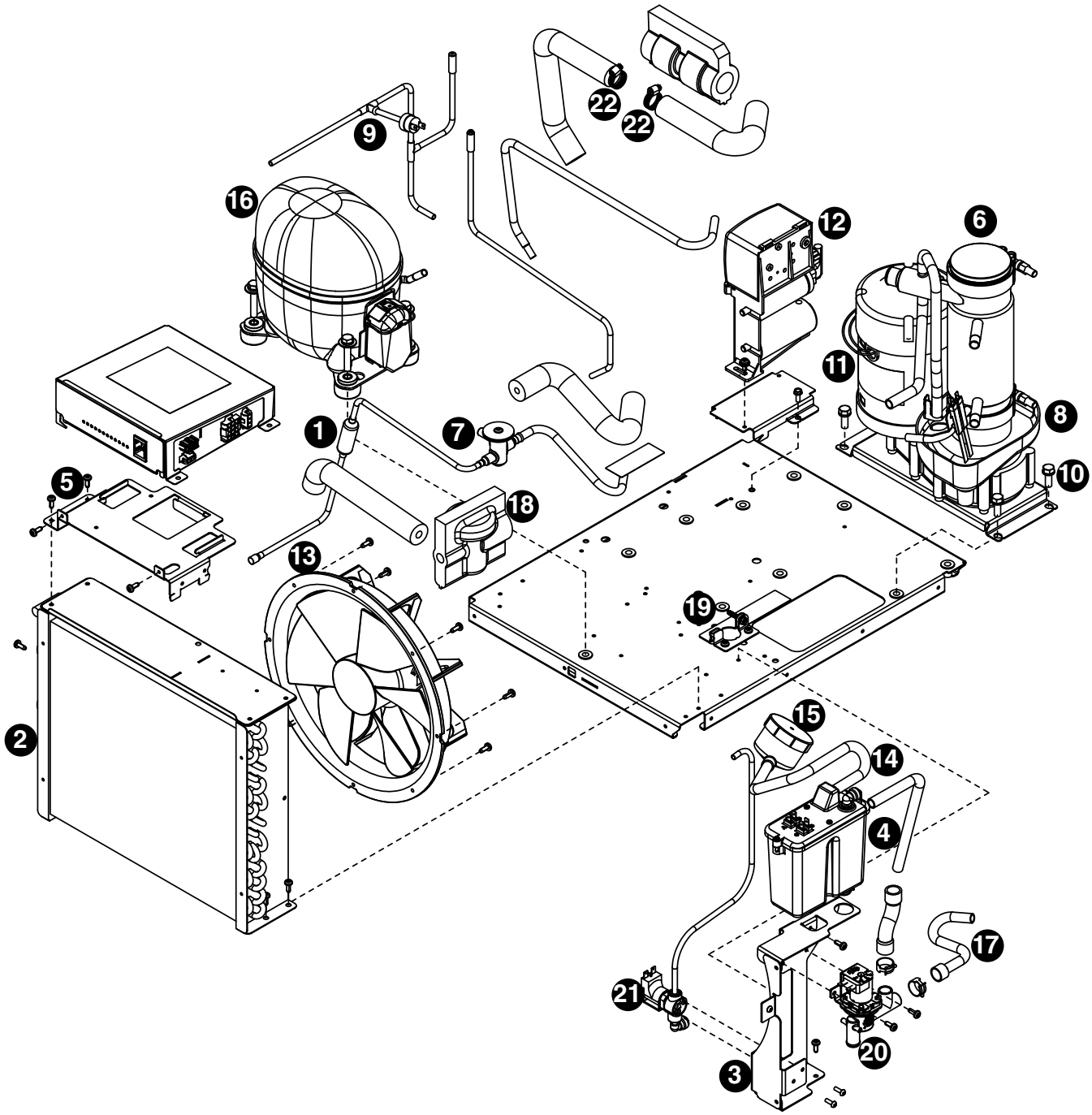
Reference #	Description	Part #
1	Valve, water shut off	01035526
2	Clip, shut off valve	01035534
3	Tee, 1/4"	502923
4	Elbow, 1/4" stem x 1/4" push-in	00121699
5	Tube, drain, hopper	01054576
6	Tube, purge	01054584
7	Fitting, water-cooled condenser inlet	00195966
8	Fitting, water-cooled condenser outlet	00195966
9	Fitting, water inlet	01065275
10	Tube, drain pan and cup, includes drain cup and bracket	01072842
Not shown	Bottom cover, 25/50HI with drain pan	00196113
Not shown	Bottom cover, 25/50HI without drain pain	00198341
Not shown	Tubing 1/4"	502079
11	Fitting, drain	00109728
12	Bracket, drain cup	01111111
13	Drain cup	01540327

Water treatment accessories for Symphony Plus ice and water dispensers

Description	Old part number (and capacity)	New Part Number (and capacity)
Carbonless high-capacity water filter system	01050442 (15,000 gal)	CARBONLESSHICAPSYS (Based on water conditions)
Carbonless high-capacity water filter cartridge, single	01050426 (15,000 gal)	CARBONLESSHICAPFILT (Based on water conditions)
Carbonless high-capacity water filter cartridge, carton of 6	01050434 (15,000 gal)	CARBONLESSHICAPFILT6 (Based on water conditions)
Standard capacity carbon filter system	00130229 (3,000 gal)	CARBONSTDCAPSYSTEM (5,000 gal)
Standard capacity carbon filter cartridge, single	00130245 (3,000 gal)	CARBONSTDCAPFILTER (5,000 gal)
Standard capacity carbon filter cartridge, carton of 6	00954297 (3,000 gal)	CARBONSTDCAPFILTER6 (5,000 gal)
High-capacity carbon filter system	00978957 (15,000 gal)	CARBONHICAPSYSTEM (17,500 gal)
High-capacity carbon filter cartridge, single	00978965 (15,000 gal)	CARBONHICAPFILTER (17,500 gal)
High-capacity carbon filter cartridge, carton of 6	00978973 (15,000 gal)	CARBONHICAPFILTER6 (17,500 gal)
Water pre-filter cartridge, single	00130211 (N/A)	SEDIMENTPREFILTER (N/A)
Water pre-filter cartridge, carton of 12	00954305 (N/A)	SEDIMENTPREFILTER12 (N/A)

Reference #	Description	Part #
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		
Not shown	SafeClean Plus, case of 6	01149954
Not shown	SafeClean Plus, case of 24	01149962
Not shown	Sponge, sanitary, each	00131524
	IMS-II or IMS-III sanitizing concentrate	
Not shown	16 oz. bottle	00979674
	Case of 12 x 16 oz. bottles	01038652
	Sponge, sanitary, pack of 24	01075431

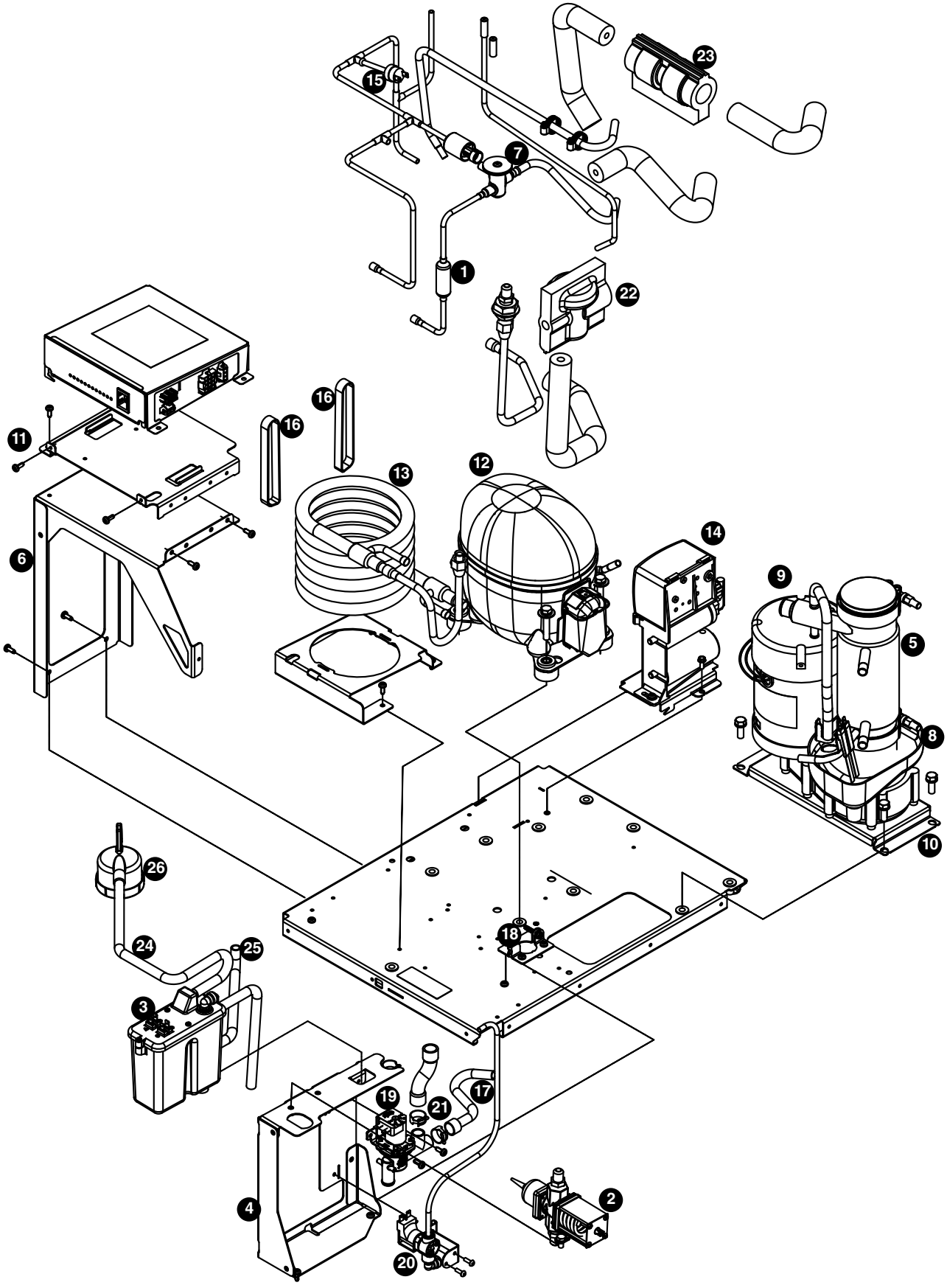
Air-cooled ice machines



Air-cooled ice machines

Reference #	Description	Part #
1	Drier	502724
2	Condenser coil, A/C	01067461
3	Reservoir mounting bracket, a/c	01375609
4	Reservoir assembly (includes lid, gasket, fasteners)	01572163
5	Bracket, electrical box	01068170
6	Evaporator	—
Not shown	Tubing, polypropylene, reservoir supply (sold by foot)	502079
7	Valve, expansion, thermal	502726
8	Drain pan, evaporator	00181990
9	High pressure cutout	00117077
10	Mounting bracket, gearbox	01067693
11	Gearbox & motor assembly, 115 V, 60 Hz	502730
12	Compressor start components	01572122
13	Condenser fan, motor, and bracket	01222793
14	Cleaning cup tube	01448562
15	Cleaning cup	01448588
Not shown	Overload, compressor, 115 V, 60 Hz	01027572
16	Compressor, 115 V, 60 Hz (includes start components)	01571488
17	Tube, fill/purge - reservoir-solenoid-evaporator feed (includes 3 hose clamps)	01261544
Not shown	Water inlet fitting, brass	01065275
18	Jacket, insulation, TXV	502830
19	Bracket, ice tube entry	01067644
20	Solenoid, purge	01261510
21	Solenoid, fill	01352483
Not shown	Tube, drain, D414AT, 25/50FB	01055185
Not shown	Tube, drain, D414AT, 110FB, 110CT	01055540
Not shown	Tube, drain, D414AS	01016948
Not shown	Tube, ice transport, D414A/WT	01003532
Not shown	Jacket, insulation, TXV bulb	00106534
22	Clamp, hose (each)	01281450
Not shown	Reservoir vent tube	01448570

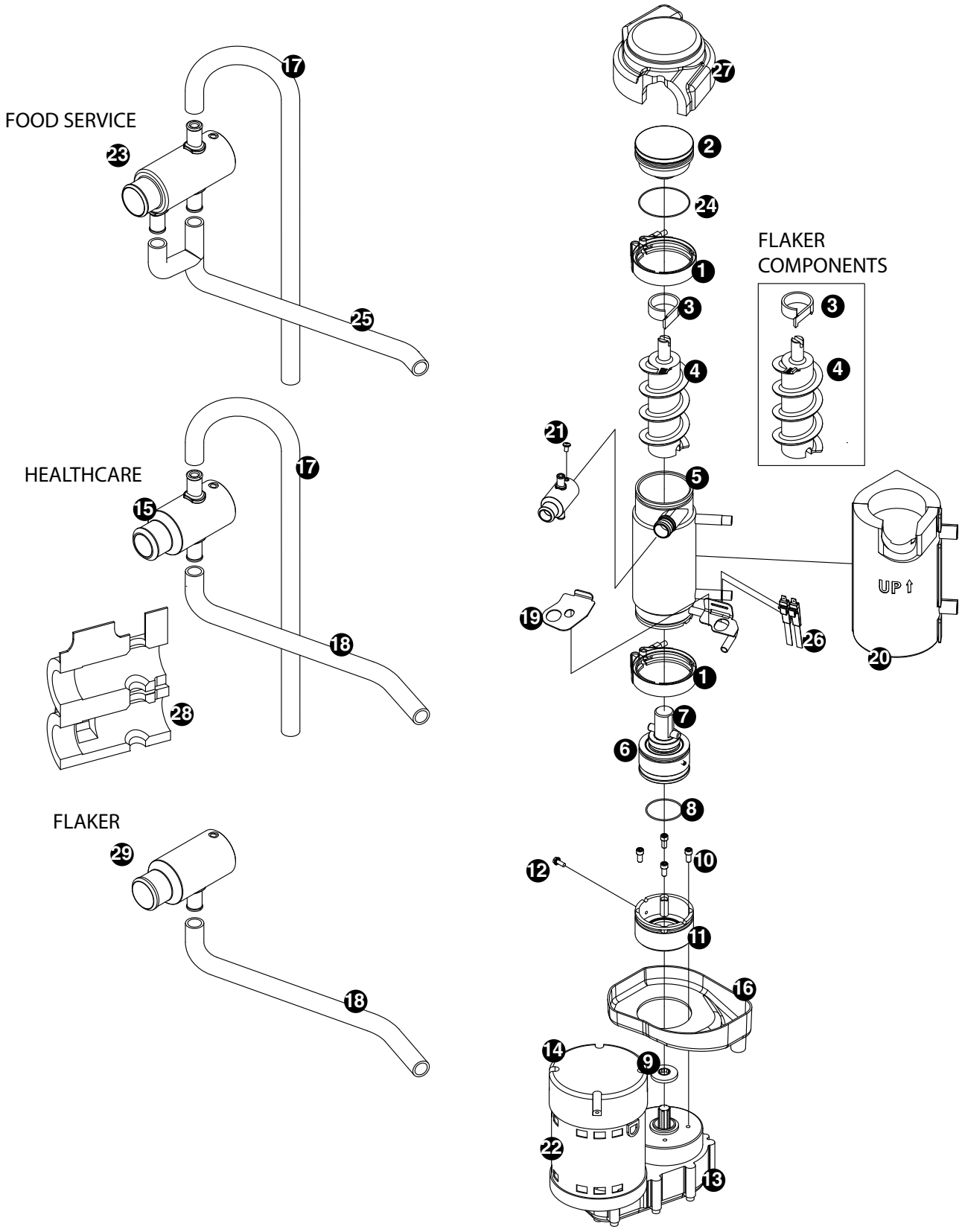
Water-cooled ice machines



Water-cooled ice machines

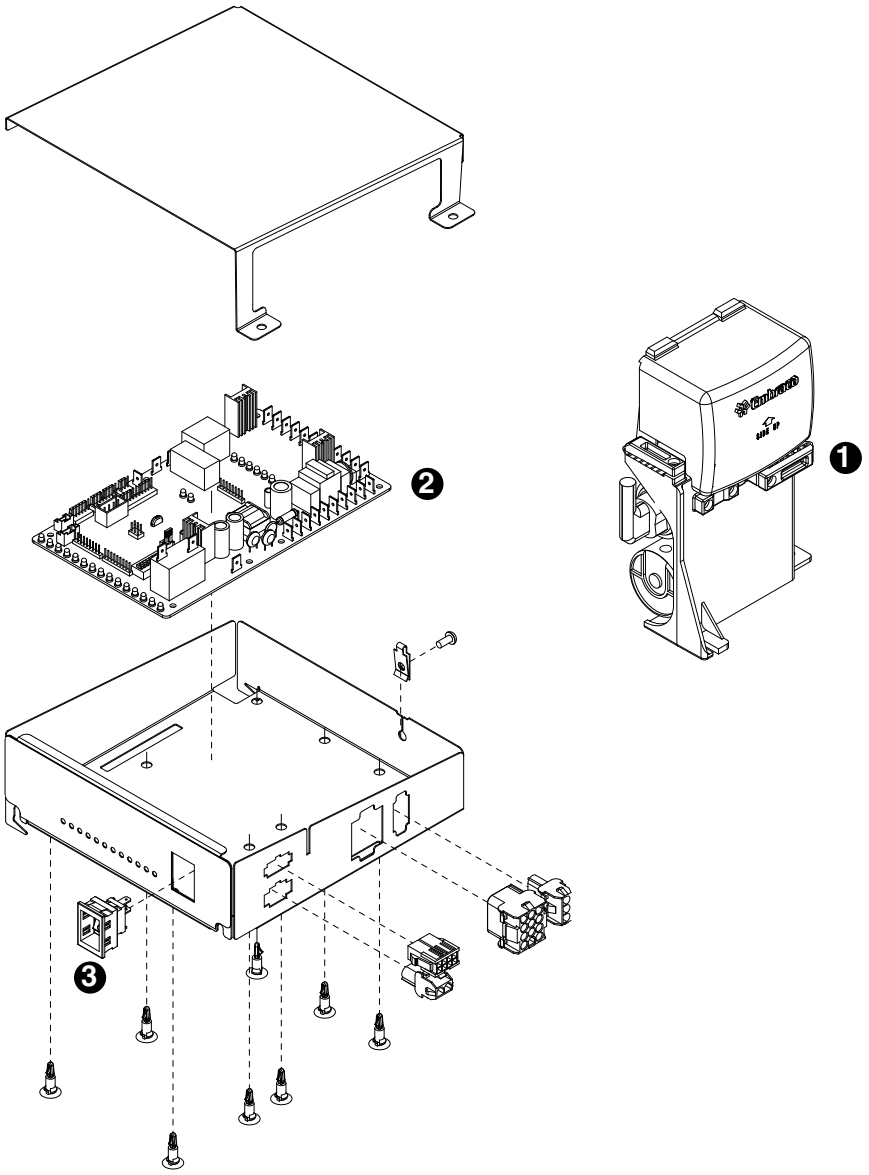
Reference #	Description	Part #
1	Drier	502724
2	Valve, water regulating (includes Iso-washer)	500537
Not shown	Iso-washer (for water regulating valve)	501810
3	Reservoir assembly (includes lid, gasket, fasteners)	01572163
4	Reservoir mounting bracket	01068162
Not shown	Tubing, polypropylene, reservoir supply (sold by foot)	502079
Not shown	Fitting, reservoir, plastic 1/4" stem x 1/4" push-in	00121699
5	Evaporator	—
6	Bracket, electrical box tower	01068121
7	Valve, expansion, thermal	502726
8	Drain pan, evaporator	00181990
9	Gearbox & motor assembly, 115 V, 60 Hz	502730
10	Mounting bracket, gearbox	01067693
11	Bracket, electrical box mounting	01068139
Not shown	Overload compressor, 115 V, 60 Hz	01027572
12	Compressor, 115 V, 60 Hz	01571488
13	Coil, condenser	00195933
14	Compressor start components	01572122
Not shown	Water inlet fitting, brass	01065275
15	High pressure cutout	00117077
16	Ty-rap (2 required)	204584
17	Tube, fill/purge - reservoir-solenoid-evaporator feed (includes 3 hose clamps)	01261544
18	Bracket, ice tube entry	01067644
19	Solenoid, purge	01261510
20	Solenoid, fill	01352483
Not shown	Tube, drain, 25/50CI	01054576
Not shown	Tube, drain, D414AT, 25/50FB	01055185
Not shown	Tube, drain, D414AT, 110FB, 110CT	01055540
Not shown	Tube, drain, D414AS	01016948
21	Clamp, hose (each)	01281450
22	Jacket, insulation, TXV	502830
23	Jacket, insulation, TXV bulb	00106534
24	Cleaning cup tube	01448562
25	Reservoir vent tube	01448570
26	Cleaning cup	01448588

Evaporator replacement parts



Reference #	Description	Part #
1	Coupling, vee band, includes nut	502735
2	Bearing assembly, top	502736
3	Loop, ice compression, beveled (see below for Flaker-specific components)	502110
4	Auger (see below for Flaker-specific components)	502737
5	Evaporator (includes insulation jacket, 01049592)	01064658
6	O ring, bearing housing	500496
7	Bearing assembly, bottom (includes O rings and condensate shield)	502738
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 and motor	502730
Not shown	Mounting base, gearbox	01067693
14	Cover, aluminum	01106376
15	Compression nozzle, with single drain	01064674
16	Drain pan, evaporator	00181990
17	Tube, compression nozzle vent	01148691
18	Tube, compression nozzle, single drain	01148675
Not shown	Grease, Chevron SRI-2, 14 oz	501111
19	Bracket, vent hoses	01007087
20	Insulation jacket, evaporator	01049592
21	Screw, compression nozzle	00956250
22	16 µF Capacitor (for PSC motor only)	01103142
23	Nozzle, compression, dual drain	01067446
24	O ring, top bearing	01064963
25	Tube, compression nozzle, dual drain	01148683
26	Sensor, overflow	01039783
27	Insulation, top bearing	01049600
28	Insulation, compression nozzle, single drain	01049584
Not shown	O-ring, compression nozzle	00988097

Ice machine electrical components



Reference #	Description	Part #
1	Compressor start component	01572122
2	Board, control circuit, 115 V, 60 Hz	01064708
3	Switch, clean	01229418
Not shown	Bin thermostat	500514
Not shown	Board, stand off control (8 required)	00903005
Not shown	Relay, power to contact closure	01020734
Not shown	Jumper, bin signal	01069095
Not shown	Cord and plug, power	01075589
Not shown	Converter, bin signal, Vision	01067156
Not shown	Relay, bin signal (power to contact closure)	01020734

Water treatment accessories for Symphony ice and water dispensers

Description	Old part number (and capacity)	New Part Number (and capacity)
Carbonless high-capacity water filter system	01050442 (15,000 gal)	CARBONLESSHICAPSYS (Based on water conditions)
Carbonless high-capacity water filter cartridge, single	01050426 (15,000 gal)	CARBONLESSHICAPFILT (Based on water conditions)
Carbonless high-capacity water filter cartridge, carton of 6	01050434 (15,000 gal)	CARBONLESSHICAPFILT6 (Based on water conditions)
Standard capacity carbon filter system	00130229 (3,000 gal)	CARBONSTDCAPSYSTEM (5,000 gal)
Standard capacity carbon filter cartridge, single	00130245 (3,000 gal)	CARBONSTDCAPFILTER (5,000 gal)
Standard capacity carbon filter cartridge, carton of 6	00954297 (3,000 gal)	CARBONSTDCAPFILTER6 (5,000 gal)
High-capacity carbon filter system	00978957 (15,000 gal)	CARBONHICAPSYSTEM (17,500 gal)
High-capacity carbon filter cartridge, single	00978965 (15,000 gal)	CARBONHICAPFILTER (17,500 gal)
High-capacity carbon filter cartridge, carton of 6	00978973 (15,000 gal)	CARBONHICAPFILTER6 (17,500 gal)
Water pre-filter cartridge, single	00130211 (N/A)	SEDIMENTPREFILTER (N/A)
Water pre-filter cartridge, carton of 12	00954305 (N/A)	SEDIMENTPREFILTER12 (N/A)

Reference #	Description	Part #
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		
Not shown	SafeClean Plus, case of 6	01149954
Not shown	SafeClean Plus, case of 24	01149962
Not shown	Sponge, sanitary, each	00131524
	IMS-II or IMS-III sanitizing concentrate	
Not shown	16 oz. bottle	00979674
	Case of 12 x 16 oz. bottles	01038652
	Sponge, sanitary, pack of 24	01075431

Miscellaneous

Reference #	Description	Part #
Not shown	Diverter plate (single agitator Cornelius dispensers and left-hand dispense chute on dual-agitator Cornelius dispensers)	307277
Not shown	Diverter plate (right-hand dispense chute on dual-agitator dispensers)	00996207
Not shown	Diverter plate, Cornelius Flavor Fusion	01100825

Replacement ice machine ordering matrix

Dispenser models	Replacement ice machine model
Dispensers with top mounted ice machines	
50CT414A & 50HT414A	P414A
50HT414W & 50HT414W	P414W
25CT 414A & 25HT414A	P414A
25CT414W & 25HT414W	P414W
110CT414A	P414A
110CT414W	P414W
Dispensers with remote ice machines	
25CR414A & 25HR414A	R414A
25CR414W & 25HR414W	R414W
50CR414A & 50HR414A	R414A
50CR414W & 50HR414W	R414W
110CR414A	R414A
110CR414W	R414W
All U150/VU155 series with air-cooled ice machines	MCD414AVS
All U150/VU155 series with water-cooled ice machines	MCD414W
All VU300 series with air-cooled ice machines	MCD414A
All VU300 series with water-cooled ice machines	MCD414W
Freestanding dispensers with ice machines in the base	
25FB414A	P414A
25FB414W	P414W
50FB414A	P414A
50FB414W	P414W
110FB414A	P414A
110FB414W	P414W
Nugget ice machine on top of bin	
MCD425ABT	D414AT*
MCD414WBT	D414WT*
Flake ice machine on top of bin	
MFD425ABT	D414ATF*
MFD425WBT	D414WTF*

* New bin top required.

Ice machine cleaner

01149954	SafeClean Plus liquid, case of 6
01149962	SafeClean Plus liquid, case of 24
00131524	Sponge, sanitary, each

Miscellaneous

Part #	Description
01151950	Kit, Universal RIDE D414
501860	Condensate pump
502775	Oil, gearmotor, 1 pint
501111	Grease, Mobile FM 222, 14 oz tube
500377	Clamp, ice tube
501425	Grille
01075431	Sponge, sanitary, pack of 24

Warranty Registration and Equipment Evaluation

Thank you for purchasing Follett® equipment. Our goal is to deliver high value products and services that earn your complete satisfaction by delivering high-value products and services backed by outstanding customer and technical support.

Please review the installation instructions thoroughly. It is important that the installation be performed to factory specifications so your equipment operates at its maximum efficiency.

Follett LLC will not be liable for any consequential damages, expenses, connecting or disconnecting charges, or any losses resulting from a defect of the machine. For full warranty details, visit our website www.follettice.com/productwarranties.

Registering your equipments helps Follett track your equipment's service history should you need to contact us for technical support, and your feedback helps us improve our products and services. Please visit www.follettice.com/support to complete the Warranty Registration form.

Should you have any questions, please contact Follett's technical support group at (877) 612-5086 or (610) 252-7301 and we will be happy to assist you.

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