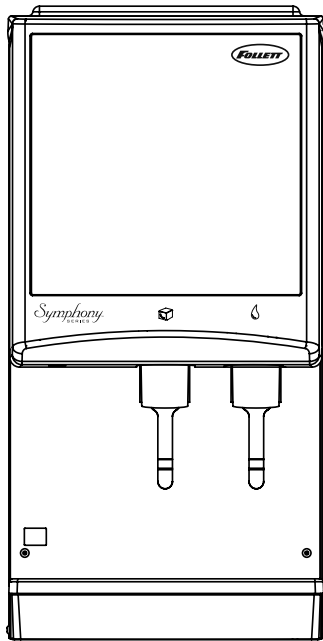


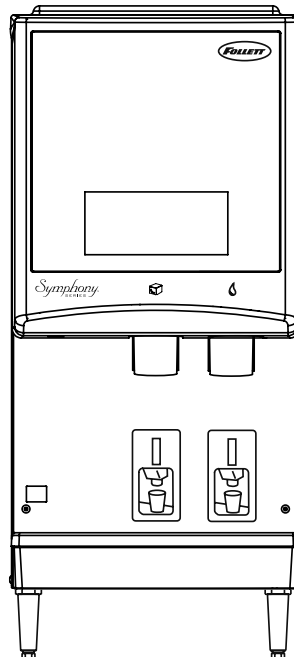
# *Symphony*™ 12 Series - 220 V 60 Hz/230 V 50 Hz Ice and Water Dispensers

Order parts online  
[www.follettice.com](http://www.follettice.com)

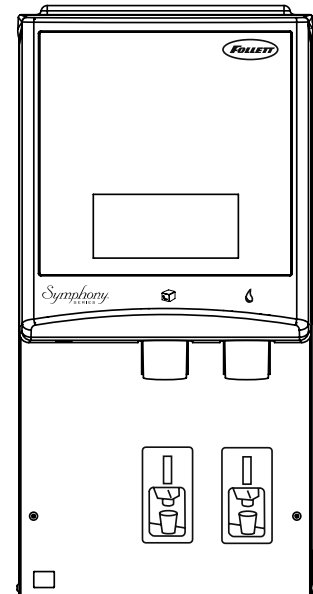
Installation, Operation  
and Service Manual



**12CI400A-L**  
countertop dispenser



**12CI400A-S**  
countertop dispenser with  
SensorSAFE infrared dispensing  
(shown with legs accessory)



**12HI400A-S**  
wall mount dispenser  
(available with or  
without drain pan)

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

# Table of contents

<b>Welcome to Follett Corporation .....</b>	<b>3</b>
<b>Important cautions .....</b>	<b>3</b>
<b>Specifications .....</b>	<b>4</b>
<b>Installation .....</b>	<b>5</b>
Installing countertop dispensers without legs.....	5
Installing countertop dispenser with legs accessory .....	6
Installing wall mount dispensers.....	7
<b>User information.....</b>	<b>10</b>
Cleaning and sanitizing procedures .....	10
Dispenser cleaning.....	10
Ice machine cleaning and sanitizing .....	11
Start-up following cleaning .....	12
<b>Service information .....</b>	<b>14</b>
Wiring diagram – lever model.....	15
Wiring diagram – SensorSAFE model.....	16
Ice machine operational and diagnostic sequences .....	17
Refrigeration cycle diagram.....	22
Ice machine capacity chart .....	23
Ice machine data .....	23
Refrigeration system data and requirements.....	24
Dispenser troubleshooting – lever models .....	25
Dispenser troubleshooting – SensorSAFE models .....	26
Ice machine troubleshooting .....	27
Disassembly and replacement instructions .....	29
<b>Replacement parts .....</b>	<b>33</b>

## 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, we ask that you review the installation portion of this manual before beginning to install the unit. Our installation instructions are designed to help you achieve a trouble-free installation. Should you have any questions or require technical help at any time, please call our technical service group at (610) 252-7301.

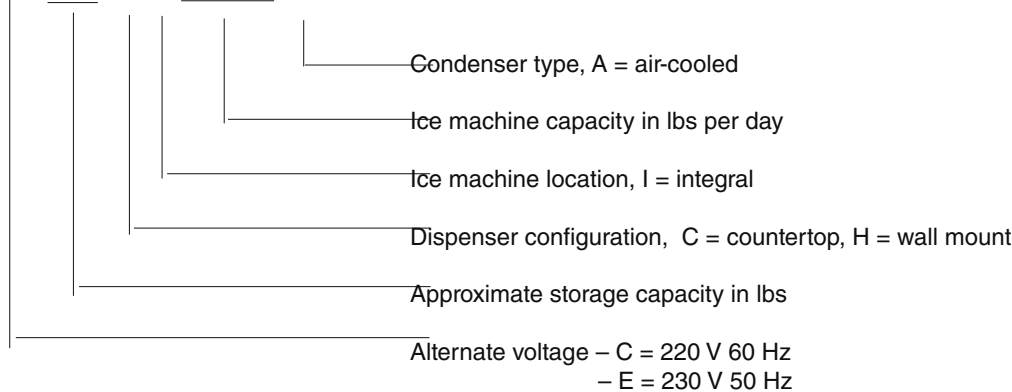
**Note:** To expedite assistance, all correspondence or communication **MUST** include the model number, serial number and complete and detailed explanation of the problem

## Before you begin

After uncrating and removing all packing material, inspect the equipment for concealed shipping damage. If damage is found, notify your shipper immediately and contact Follett Corporation for help in filing a claim, if necessary.

Check your paperwork to determine which model dispenser 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 model numbers.

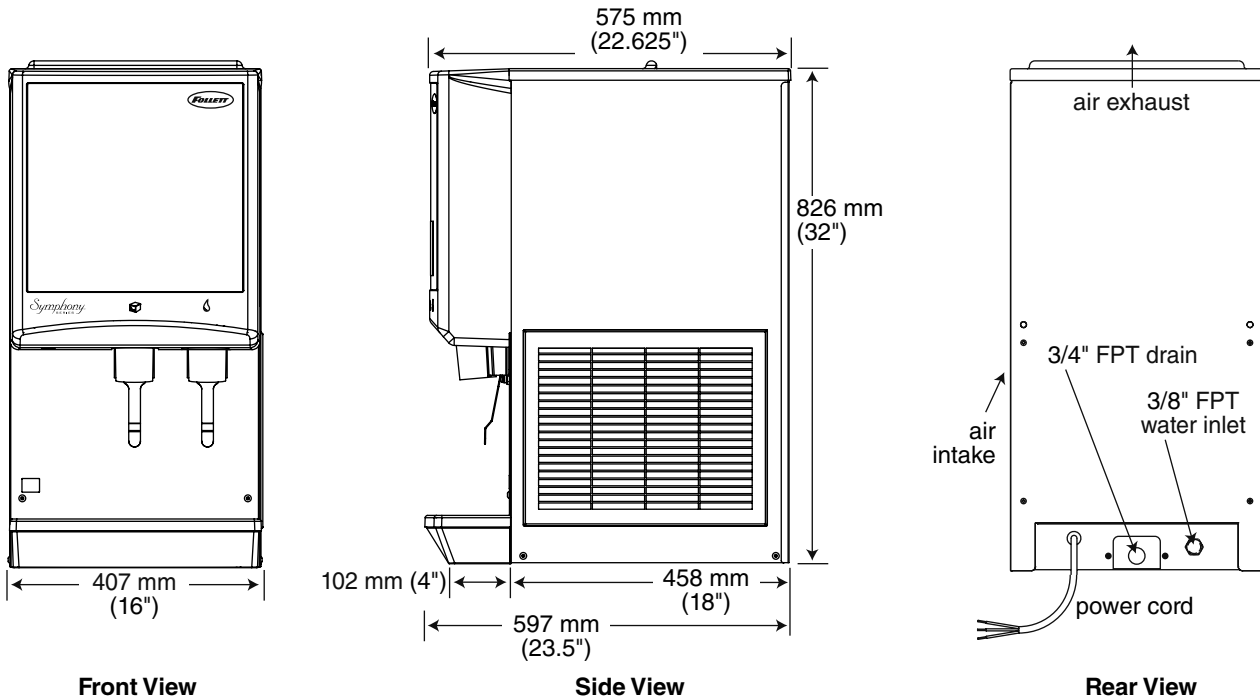
# E12CI400A



### CAUTION!

- Do NOT tilt any unit farther than 30° off vertical plane 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 #00130299, high capacity #00978957, carbonless high capacity #01050442).
- Ice is slippery. Maintain counters and floors around dispenser in a clean and ice-free condition.
- Ice is food. Follow recommended cleaning instructions to maintain cleanliness of delivered ice.
- Do not block right side air intake or top air exhaust.
- Keep ventilation openings in the appliance enclosure or in the built-in structure clear of obstruction.
- Do NOT use mechanical devices or other means to accelerate the defrosting process.
- To avoid a hazard due to instability of the appliance it must be fixed according to instructions.
- The appliance must be positioned so the plug is accessible.
- If the cord is damaged it must be replaced by special service agent.

# Specifications



## Electrical

220 V 60 Hz, 1 phase, 6.5A. Connect to a dedicated circuit.

230 V 50 Hz, 1 phase, 6.5A. Connect to a dedicated circuit.

Furnished with 1.8m (6 ft) power cord.

## Ambient

Air temp	38 C/100 F Max.	10 C/50 F Min. (Best performance below 27 C/80 F)
Water temp	32 C/90 F Max.	4 C/40 F Min. (Best performance below 21 C/70 F)
Water pressure	5Bar Max./70 P.S.I.	0.7 Bar/10 P.S.I. Min.

## Plumbing

	C/E12CI400A	C/E12HI400A
Dispenser drain	3/4" FPT	3/4" FPT
Water inlet	3/8" FPT	3/8" FPT

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

## Ventilation clearances

6" (153mm) on right side of dispenser, 6" (153mm) at top for ventilation and 12" (305mm) at top recommended for service.

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

## Dry weight

79.4kg (175 lbs)

# Installation procedures

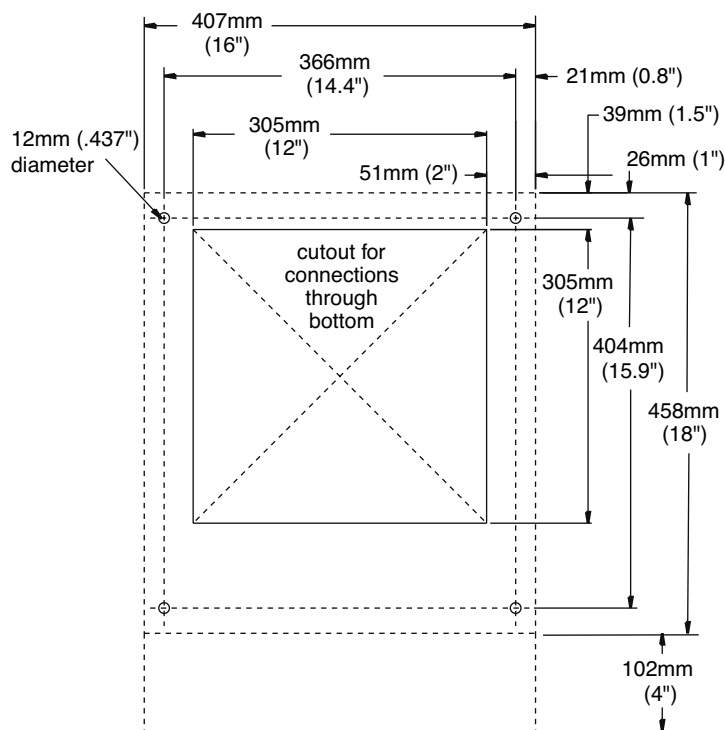
## Before you begin

- All dispensers must be installed level in both directions to ensure proper operation.
- Service and ventilation clearances: 153mm (6") on right side of dispenser, 153mm (6") at top for ventilation and 305mm (12") 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 cut out drawings for bottom exiting utilities on units with and without drain pans. 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 597mm (23.5") from wall.

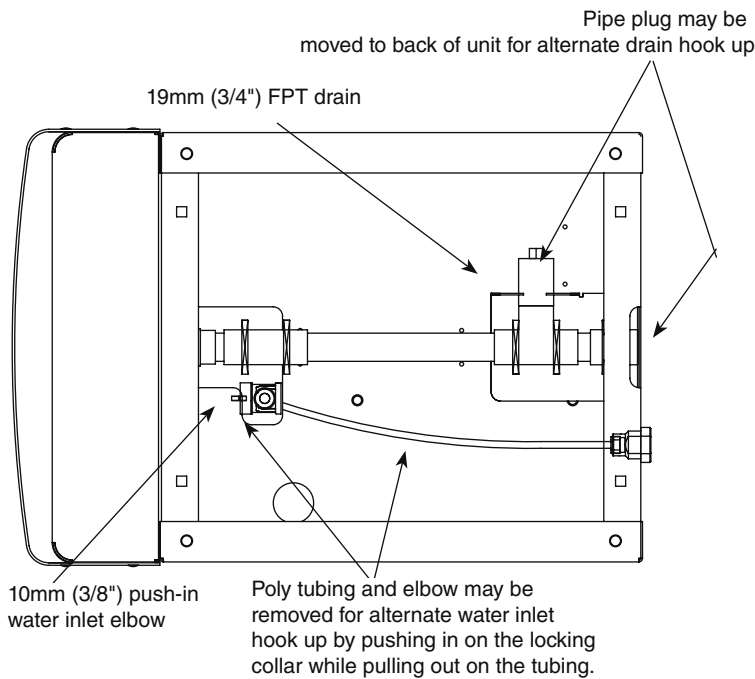
## Installing countertop dispensers without legs

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 existing through bottom only:**
  - (a) Make cut out as shown in Fig. 1.
  - (b) Move plug from drain T to back of unit (Fig. 2).
4. **For all units:** Apply a thick bead approximately 6mm (1/4") diameter of NSF listed silicone sealant (Dow Corning RTV-732 or equivalent) 6mm (1/4") inside marked outline of dispenser.
5. Carefully lower dispenser on counter in proper position and secure to counter with four (4) 3/8" -16NC bolts.
6. Smooth excess sealant around outside of dispenser.

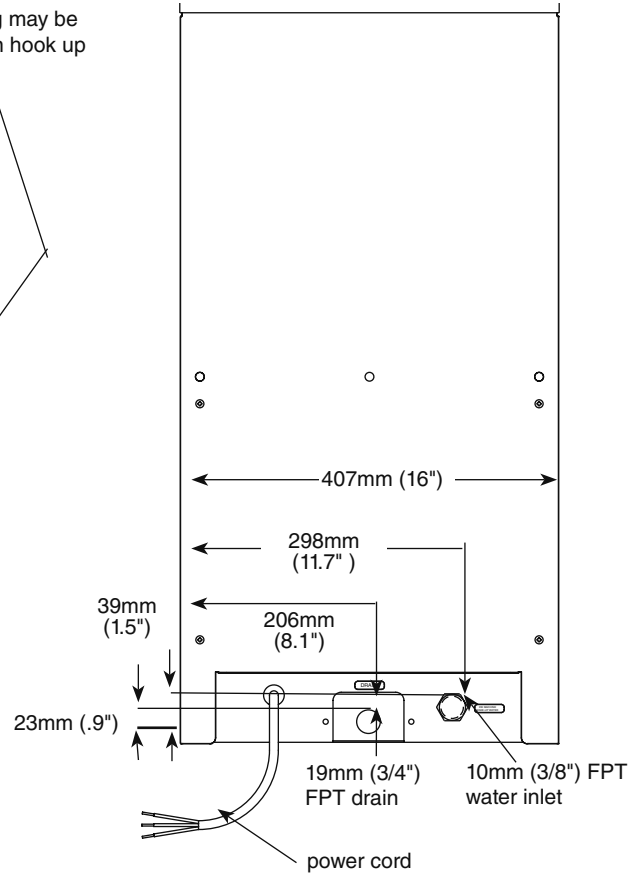
Fig. 1 – Counter information



**Fig. 2 – Bottom exiting utilities (countertop units)**



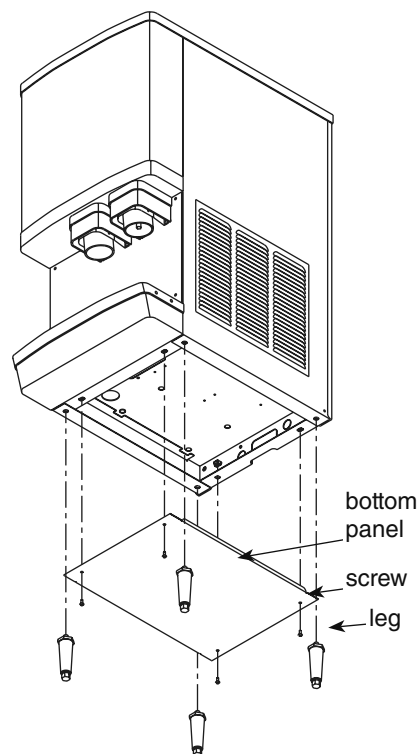
**Fig. 3 – Rear exiting utilities (countertop units)**



## Installing countertop dispensers with legs accessory

1. Carefully tip dispenser back to expose underside and block up in place.  
**Note:** Do NOT tilt unit farther than 30° off vertical plane.
2. Screw legs (shipped taped to drain pan of dispenser) into dispenser bottom, taking care to seat legs securely against underside of dispenser.  
**Note:** 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.
3. Attach bottom panel and hardware to bottom of dispenser with supplied screws (Fig. 4).
4. Position unit in desired location and adjust bullets on legs to level in both directions.
5. Make final connections.

**Fig. 4 – Bottom panel assembly**



## Installing wall mount dispensers

### Notes:

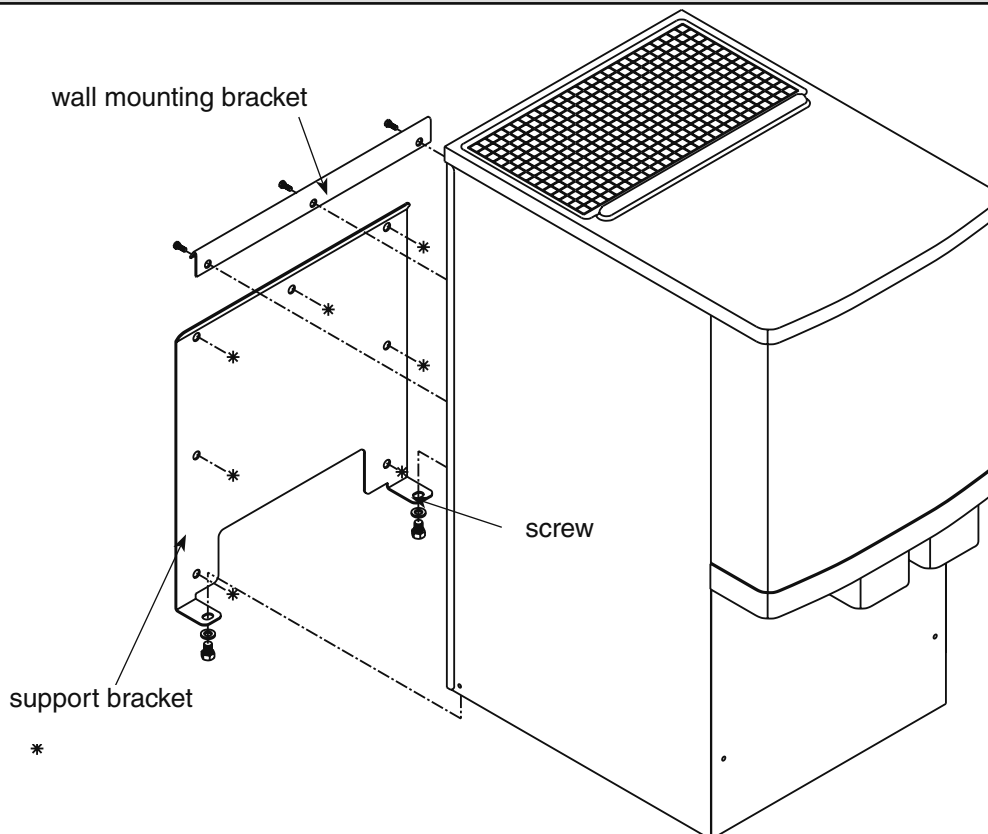
No drain pan is provided since the dispenser is intended to be installed above a sink. (Contact Follett if a drain pan is desired.) SensorSAFE actuation is standard. (Contact Follett if lever actuation is desired. A deeper cabinet will be needed.) Recommended minimum counter depth and mounting height shown on Fig. 7 ensures that ice will drop into sink. See Fig. 6 for model dimensions. The dimensions include the 13mm (.5") mounting bracket supplied with the unit.

1. Cut utility hole in wall as shown (Fig. 10).
2. Mount support bracket to wall using fasteners of sufficient strength (fasteners not included, see Fig. 6).
3. Rough in water and drain lines (Fig. 10).
4. Lift dispenser onto support bracket, positioning unit so that hook on back of dispenser is captured by support bracket angle (Fig. 7).
5. Install two (2) supplied 3/8"-16NC screws through bottom of support bracket into bottom of dispenser (Fig. 5). 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.
6. Make final connections.
7. Attach bottom panel and hardware to bottom of dispenser (Fig. 8).

Fig. 5 – Wall mount bracket and fastener requirements

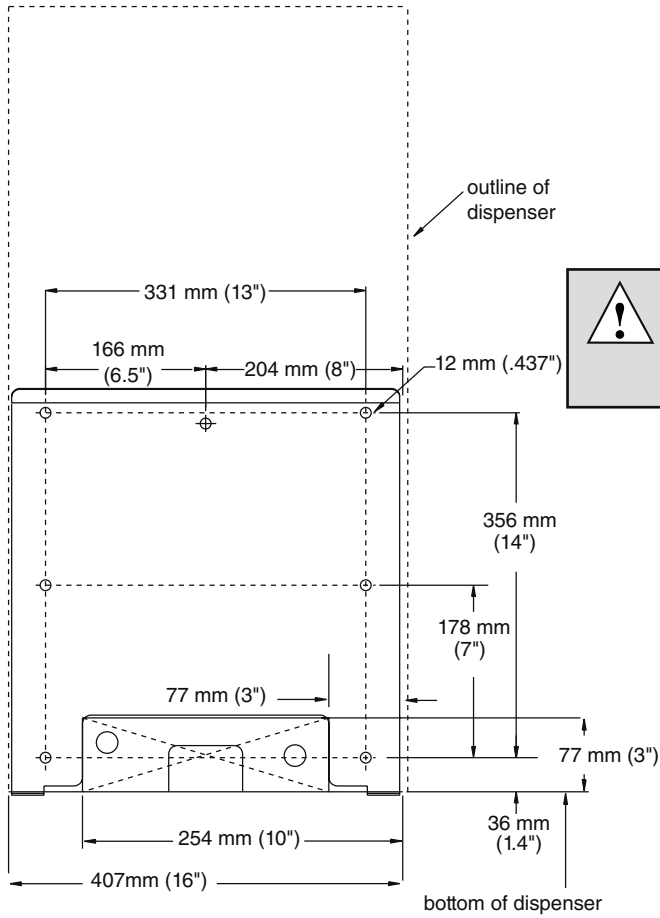


**WALL PREPARATION: Wall and fasteners must be of sufficient strength to carry weight of unit (83.9 kg (185 lbs)). Hardware for this is not included.**



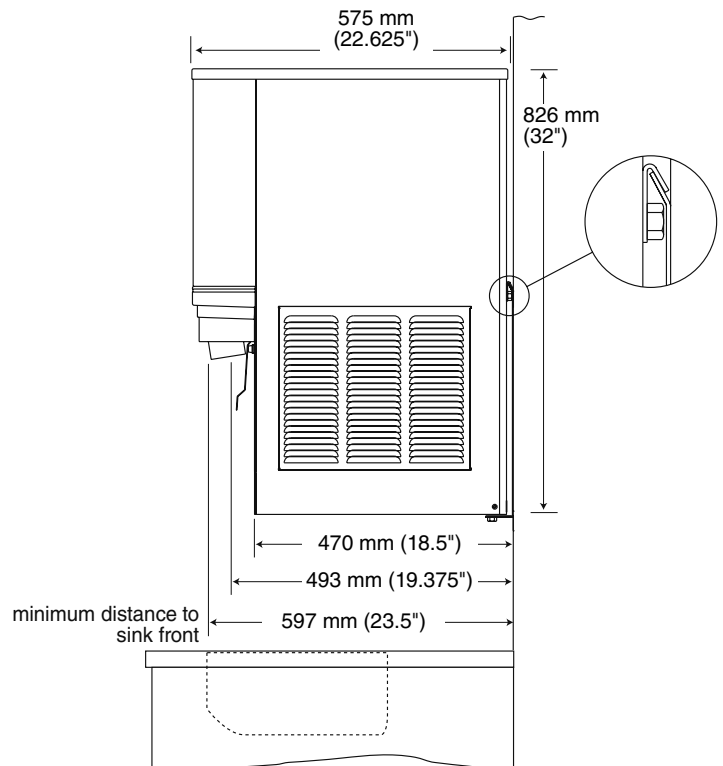
# Installing wall mount dispensers

Fig. 6 – Wall mounting dimensions



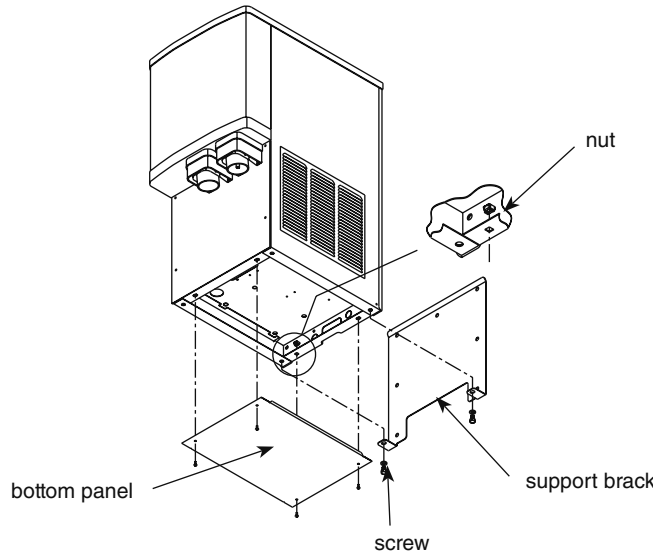
**Caution: Do NOT rest dispenser weight on bottom of support bracket.**

Fig. 7 – Wall mount side view

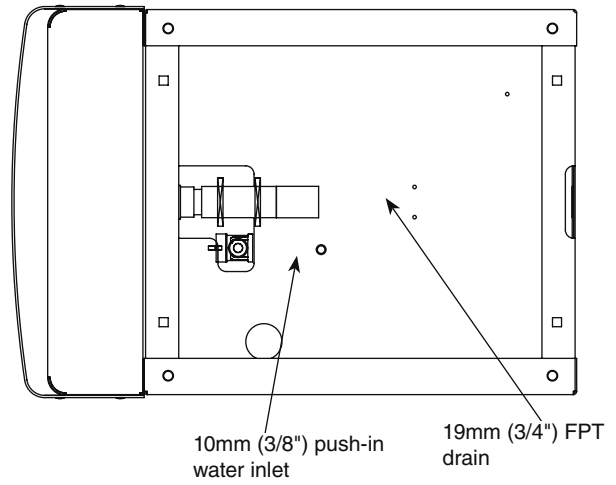




**Fig. 8 – Wall mount unit bottom panel assembly**

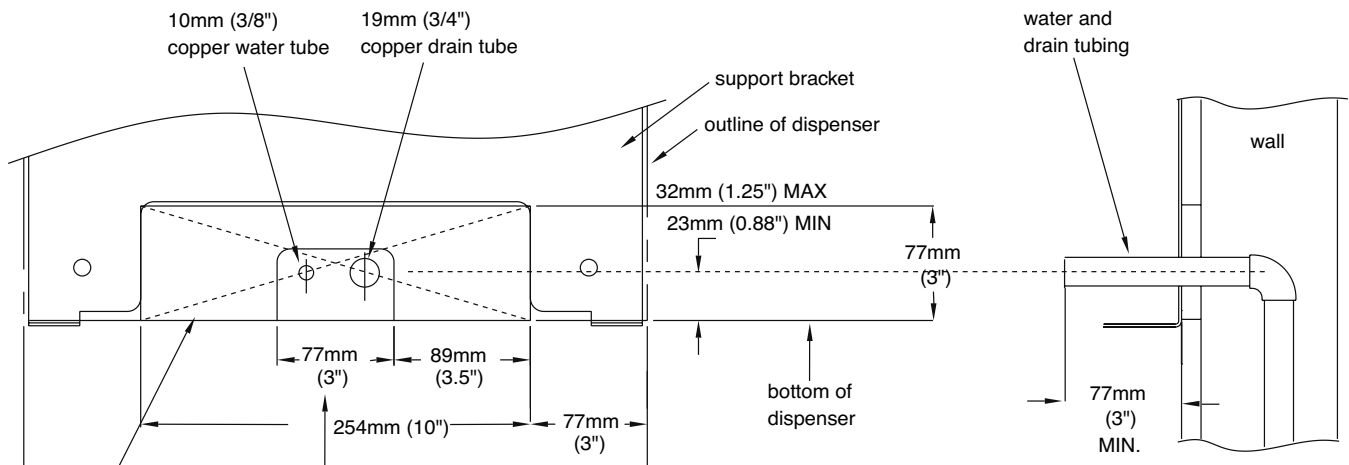


**Fig. 9 – Wall mount bottom view**



**Fig. 10 – Front view of wall mount bracket – utility location**

**Side view of utilities exiting wall**



# User information

## How the dispenser works

Follett's 12 series automatic-load ice and water dispensers are equipped with Follett's 181kg (400 lb)/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 the SensorSAFE accessory works

Follett's SensorSAFE accessory 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 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 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/descaling and sanitizing

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

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

### Recommended cleaning/descaling and sanitizing intervals\*

Symphony	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

\* Ice machine and dispenser must be cleaned and sanitized 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

- Deactivate dispensing by pressing and releasing clean switch located on left side of unit under top front cover.
- Clean lens and splash panel front using a soft cloth and mild, non-abrasive, non-chlorine based cleaner.
- 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/descaling and sanitizing procedure should always include both the ice machine and dispenser; ice machine should be cleaned and sanitized first, followed by the dispenser.
- Icemaking system can be cleaned/descaled in place.

To ensure that your ice machine and dispenser are cleaned/descaled and sanitized properly, proceed as follows:

1. Clean/descale the ice machine
2. Sanitize the ice machine
3. Clean/descale the dispenser
4. Sanitize the dispenser



### CAUTION!

- Wear rubber gloves and safety goggles (or face shield) when handling cleaner or sanitizer mixtures.
- Use only Follett approved cleaners.
- It is a violation of Federal law to use Solution A or Solution B in a manner inconsistent with their labeling.
- Do not use solvents, abrasive cleaners, metal scrapers or sharp objects to clean any part of the dispenser.

**Solution A:** Following manufacturer's instructions, mix cleaning solution of 1 gal. (3.8 L) 120 F (49 C) water and 7 oz. (198 g) (one 7 oz. packet) of Follett SafeCLEAN™ ice machine cleaner/descaler (P/N 00132001).

**Solution B:** Following manufacturer's instructions, mix a sanitizing solution of 1 gal. (3.8 L) 120 F (49 C) water and 1.6 oz. (48 ml) Nu-Calgon IMS-II Sanitizer (P/N 00979674).

### Clean/descale ice machine

1. If ice machine was running recently, ensure that the evaporator is completely free of ice before proceeding.
2. Disconnect power to ice machine.
3. Remove any ice machine panels required to gain access to water reservoir and electrical control box.
4. Turn compressor switch on electrical box of ice machine to OFF position.
5. Remove water reservoir cover and close water supply valve (or block up reservoir float).
6. Drain water from reservoir by releasing evaporator drain tube from float reservoir bracket, removing plug from drain tube and releasing (unclamping) pinch clamp (if equipped).
7. Plug drain hose, replace drain line in reservoir bracket and pour part of **Solution A** into reservoir, filling it almost to overflowing.
8. Remove stainless steel ice compression nozzle and drain lines and submerge in a cup of **Solution A** while cleaning/descaling rest of system. (Flake ice machines have no ice compression nozzle and drain lines.)

**CAUTION:** To avoid potential pitting, do not soak parts in **Solution A** for more than 45 minutes.

9. Restore power to ice machine (garmotor will run; compressor and fan will not).
10. Inspect evaporator drain pan and drain line and remove any accumulated scale build up.
11. After 15 minutes, turn power OFF; drain solution from reservoir and evaporator.
12. Fill reservoir almost to overflowing with clean water to rinse. Drain. Repeat two more times.
13. Rinse ice compression nozzle and drain lines in clean water.

### Sanitize ice machine

14. Submerge ice compression nozzle and drain lines in a cup of **Solution B** while following steps 15-21.
15. Connect ice transport tube directly onto evaporator outlet port without ice compression nozzle.
16. Fill reservoir almost to overflowing with **Solution B**.
17. Restore power to ice machine (garmotor will run; compressor and fan will not).
18. After 10 minutes, turn compressor switch to ON position.
19. As unit starts to make ice, continue to pour **Solution B** into reservoir, maintaining level just below reservoir overflow.

20. Continue to make ice with **Solution B** for 20 minutes.
21. Turn power to ice machine OFF.
22. Disconnect ice transport tube from evaporator outlet port. Rinse ice compression nozzle and drain lines in clean water and reinstall on evaporator outlet. Reconnect ice transport tube to ice compression nozzle.
23. Drain any remaining **Solution B** from evaporator.
24. Fill reservoir almost to overflowing with 120 F (49 C) clean water to rinse. Drain. Repeat two more times. Re-clamp pinch clamp, replace drain plug, and re-secure drain tube *ensuring that end of drain tube is above water level in reservoir*.
25. Open water supply valve (or unblock float) and replace reservoir cover; restore power to ice machine and ensure compressor switch is in ON position. Make ice for at least 15 minutes to flush any remaining **Solution B** from system (RIDE<sup>®</sup> ice machines with long ice transport hoses may take longer to flush out). Discard this ice and all ice made during sanitizing.

#### **Clean/descale dispenser**

26. Remove *and discard* all ice from storage hopper.
27. Ensure power is disconnected. Remove ice storage hopper cover.
28. Remove center thumbscrew, locking plate, two wingnuts and backing plate from front of storage hopper (see Page 29).
29. Remove threaded rod, agitator, baffle, and wheel in this sequence (see Page 29).
30. Remove and disassemble (if applicable) dispense chutes.
31. Thoroughly wipe hopper lid, dispense wheel, baffle, inside of storage area and dispense chutes with cloth soaked in **Solution A**.

**Note:** To avoid possible damage to dispense motor assembly, use only a damp cloth to clean storage hopper. Do not allow water to run through the center hole in the bottom of hopper.

32. Remove grille and wash with **Solution A**. Rinse thoroughly with clean water.
33. Rinse all above items with damp cloth wrung out in clear water.

#### **Sanitize dispenser**

34. Wipe all above items with damp cloth wrung out in **Solution B** to sanitize. Do not rinse.
35. Reinstall all parts and replace any panels removed prior to cleaning.
36. Pour 1 gal. (3.8 L) of hot tap water into drain pan to flush drains.
37. Turn ice machine ON and begin to make ice (ice machine should start immediately with power and bin signal supplied).
38. After approximately 30 minutes, test dispenser for proper dispensing.

# Service

## Important preliminary information

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

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

These four systems work together to accomplish the production and harvesting of ice. A problem in any one of these system areas 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.

**Note:** When performing electrical service, always use a meter to determine whether or no components being serviced are energized.

## The icemaking process

The Follett 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 a float valve. This valve also shuts off the water supply when the ice machine is not running.

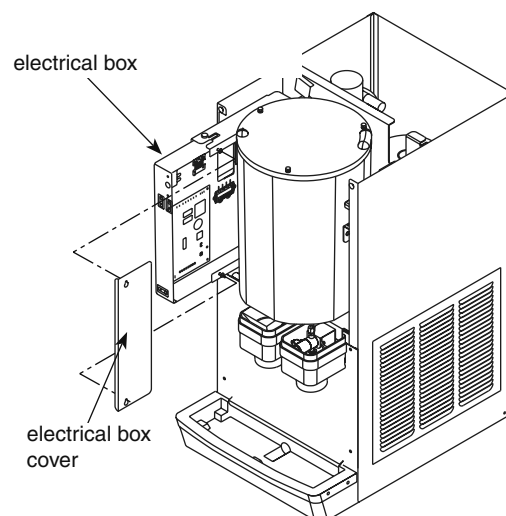
When the ice machine is running, a layer of ice forms on the interior surface of the evaporator. This ice is continuously removed by a rotating (12 RPM) auger. The auger carries the ice upward into the cavity formed by the top bearing housing and the compression loop, where it is compressed to remove 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 high quality. As the formation of ice continues, ice in the transport tube is pushed through the tube to the storage compartment in the ice dispenser or ice storage bin.

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 on an ongoing basis. 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.

### 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.

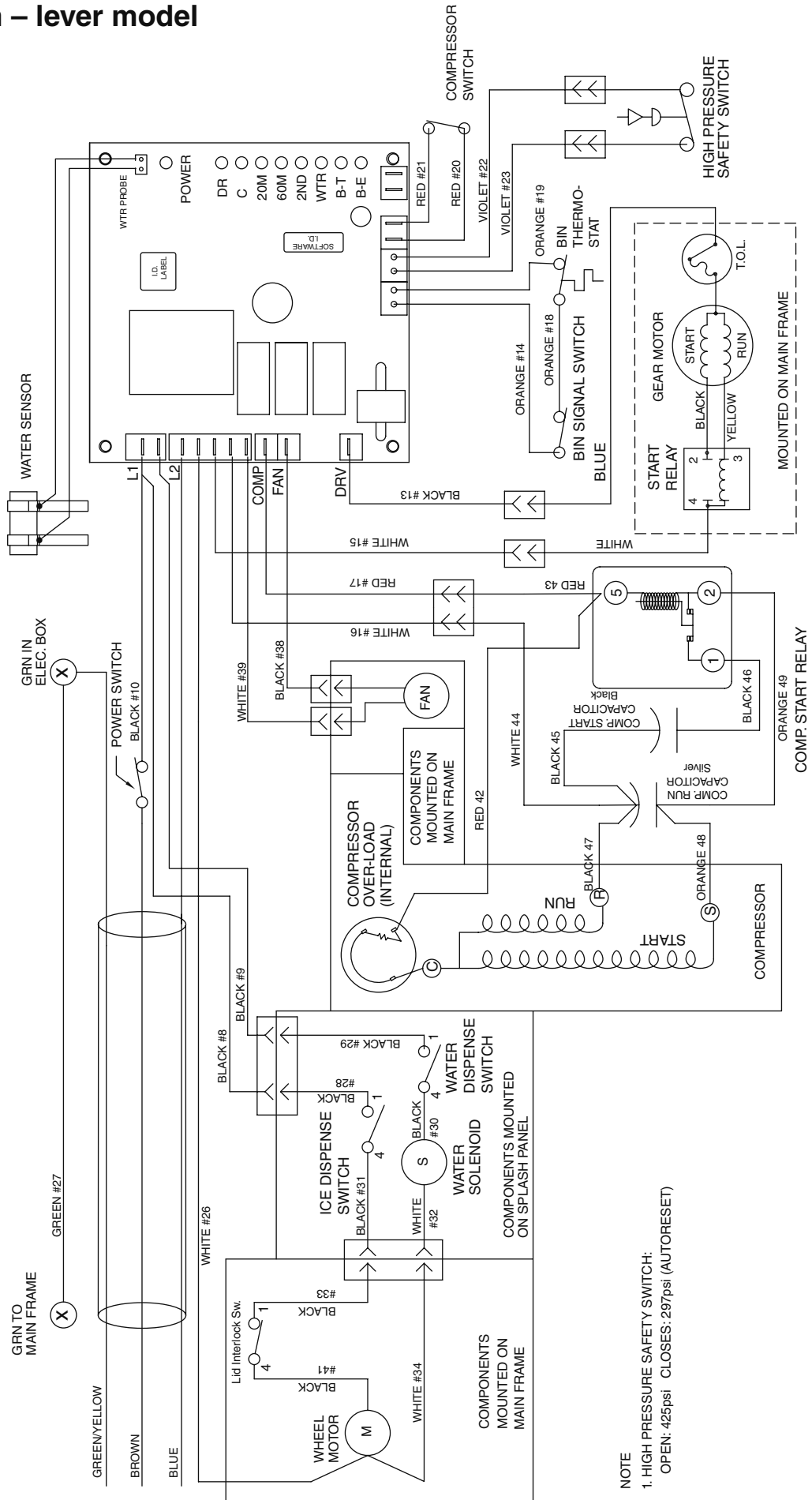
1. Remove top and front panels of dispenser (for panel removal instructions).
2. Remove electrical box cover.
3. Pull electrical box toward front of unit.



# Wiring diagram – lever model

## How the unit works — lever model

The dispense wheel motor is energized through the power, dispense and cover interlock switches. The bin signal circuit is completed through the normally closed contacts of the bin thermostat and the bin signal switch. When ice builds up around the bin thermostat, the contacts open, cutting the bin signal circuit.



# Wiring diagram – SensorSAFE model

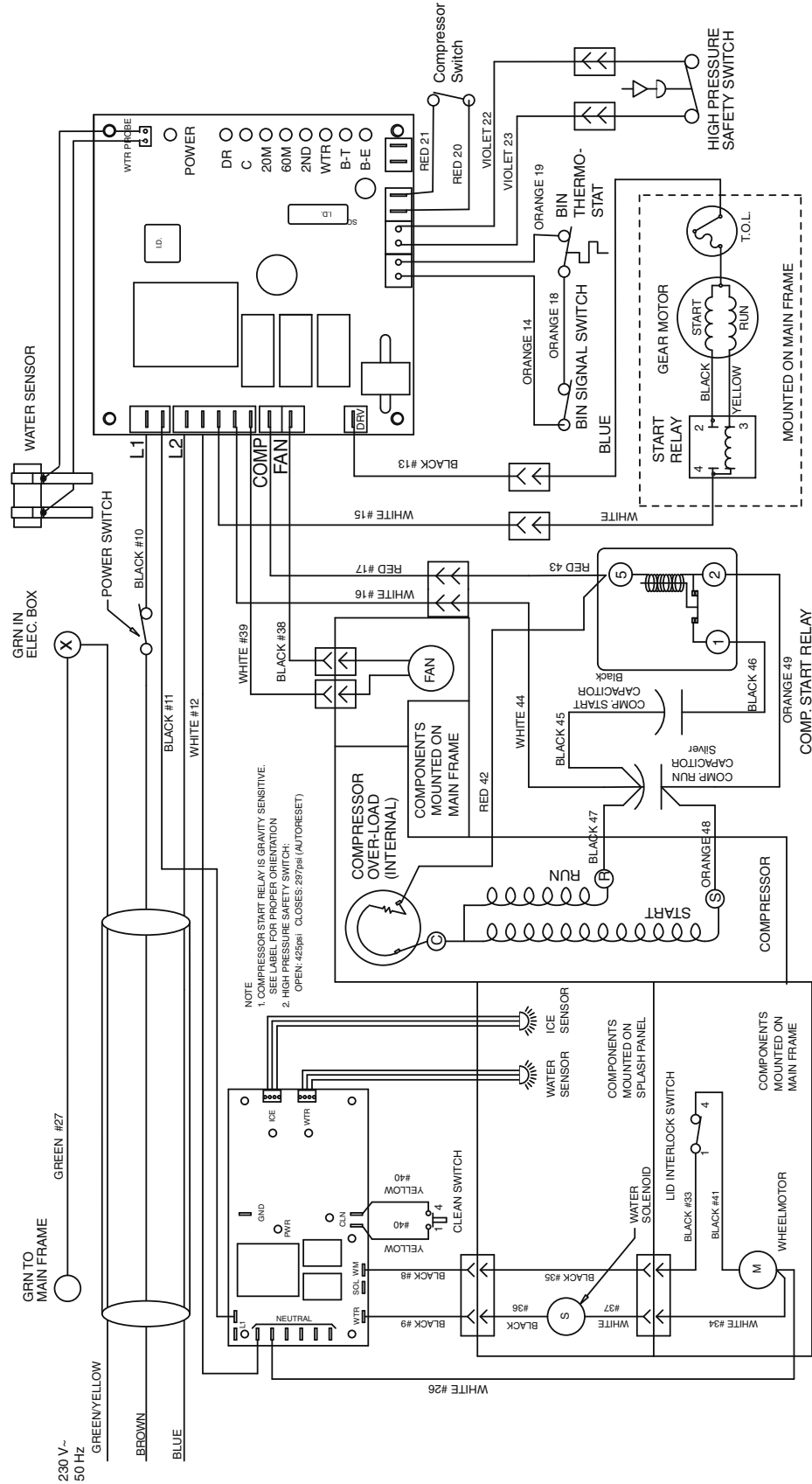
## How the unit works — SensorSAFE model

SensorSAFE™ models provide “touchless” ice and water dispensing. When a container is placed within the actuation zone below the ice or water chute, an invisible, randomly-generated infrared signal is emitted, reflected off the container and detected by the sensor. The sensor then sends a signal to the control board to activate the appropriate components to dispense ice or water. LEDs on the board indicate when the board is receiving a signal from the sensors.

A safety, shut-off feature automatically shuts off dispensing after one minute of continuous activation. Dispensing can be restarted by moving the container away and then returning it to the actuation zone.

Dispensing can be temporarily suspended by depressing and releasing the clean switch, located under the left side of the top front cover. Depressing and releasing the button a second time will return the dispenser to normal operating state. If the clean switch is not depressed a second time, the dispenser will automatically resume normal dispense operation (CLN LED goes out) after two minutes. An LED on the control board will light to indicate that the dispensing has been suspended by activation of the clean switch.

The bin signal circuit is completed through the normally closed contacts of the bin thermostat and the bin signal switch. When ice builds up around the bin thermostat, the contacts open, cutting the bin signal.





# Ice machine operational and diagnostic sequences

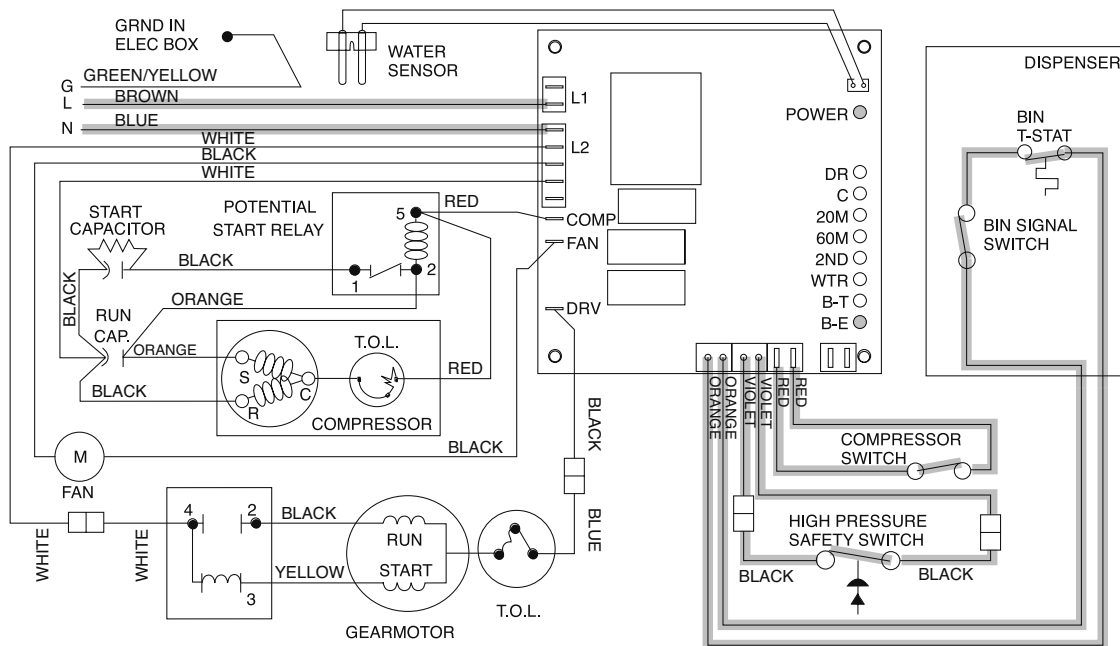
The wiring diagrams that follow illustrate the circuitry of Follett ice machines used with 12 series ice dispensers. Both normal operation (Stages 1 – 6) and non-normal diagnostic sequences showing torque-out (Stages 7 – 10) for use in troubleshooting are shown.

### Circuitry notes

- Compressor switch should read closed in ON position.
- Bin signal is 16V DC.
- Flashing water LED at any time indicates that water signal to board has been lost for more than one second.
- Ten-second delay: There is a 10 second delay in reaction to loss of water (WTR) or bin (B-E) signals. If signals are not lost for more than 10 seconds, no reaction will occur.

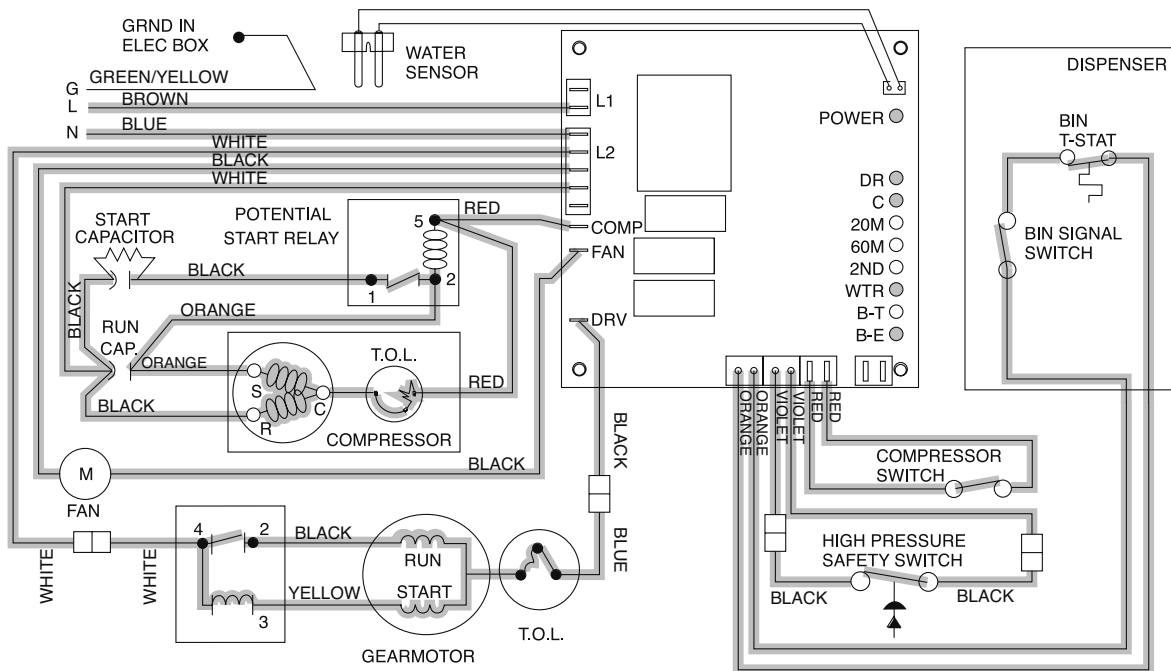
### Normal operation – Stage 1

Power is supplied to L1 of the control board. The ice level control in the dispenser is closed and calling for ice, completing the bin signal circuit to the control board. The control board will now go through the start-up sequence. Less than 30 seconds will elapse as the water sensor located in the float reservoir checks for water in the reservoir. The bin empty LED (B-E), and power LED (PWR) will be on.



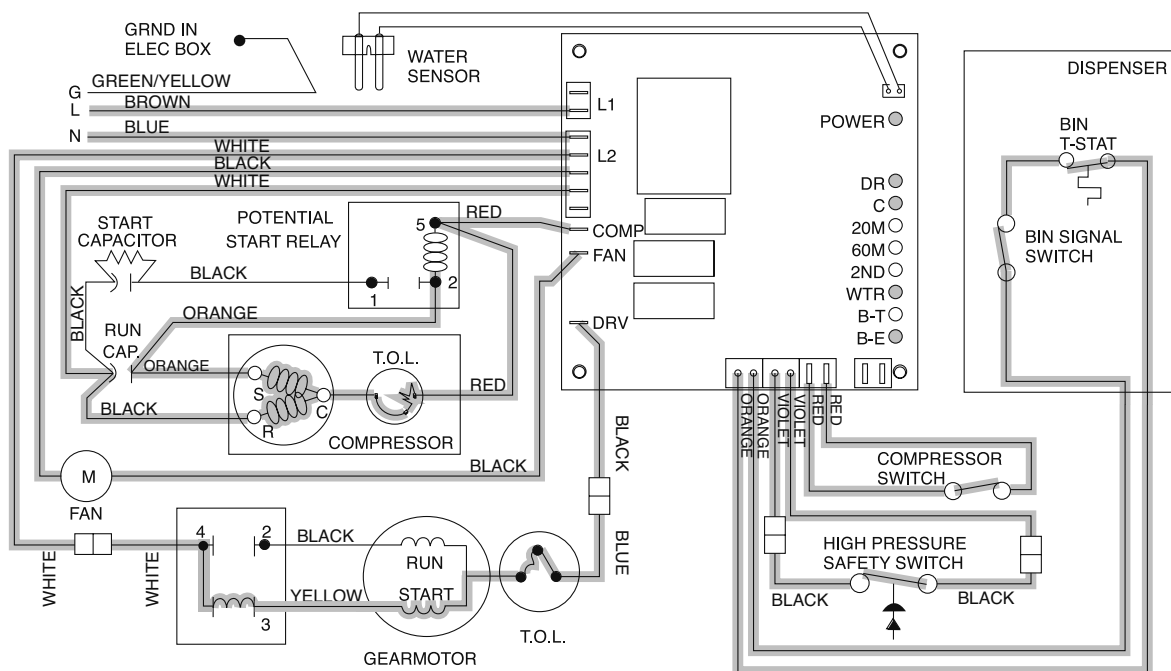
### Normal operation – Stage 2

The water sensor verifies water in the float reservoir. The water OK LED (WTR) comes on. At the same time, the gearmotor, compressor and condenser fan motor come on, lighting the drive LED (DR) and compressor LED (C). The gearmotor is started through a current style relay that is pulled in by the initial high current draw of the run winding. The compressor is started with the start winding being energized through the normally closed contacts of the potential relay, starting capacitor, and the run capacitor. The PWR, BE and WTR LED remain on.



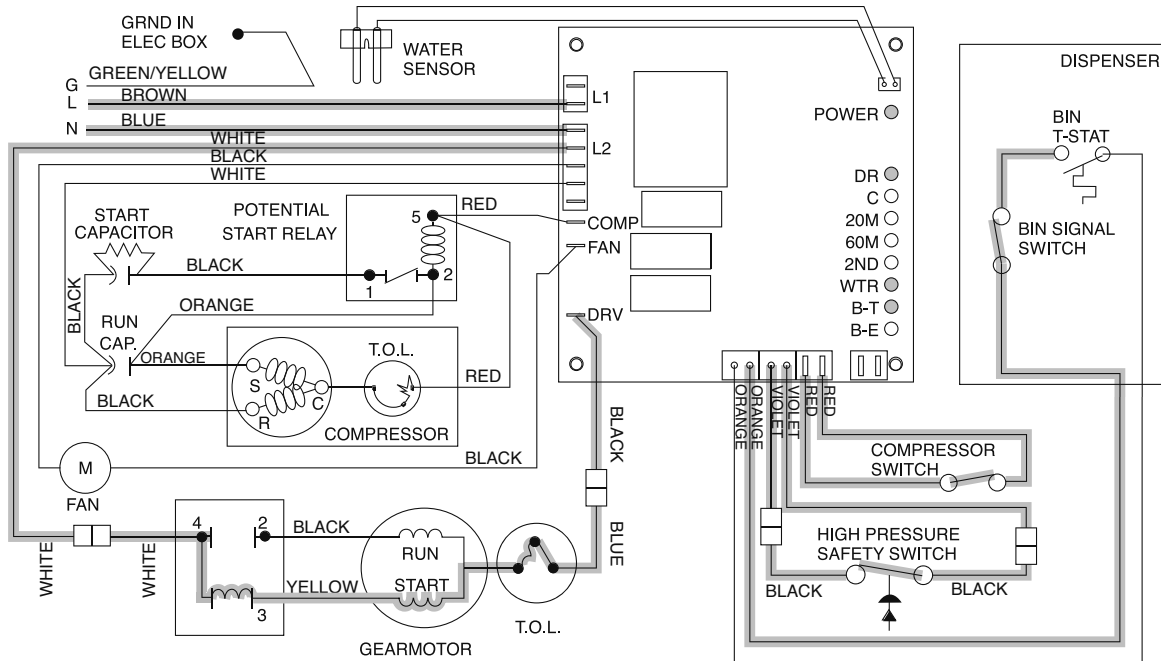
### Normal operation – Stage 3

After the initial high current draw drops off, the gearmotor start relay contacts open, dropping out the start winding. As the compressor comes up to normal running speed, the compressor start relay contacts open and the starting capacitor drops out. The start winding remains energized through the run capacitor. The ice machine is now in a normal icemaking mode. The ice machine will begin to produce ice and continue to produce ice until the bin level control in the ice dispenser is satisfied. The PWR, B-E, DR, C and WTR LEDs are all on.



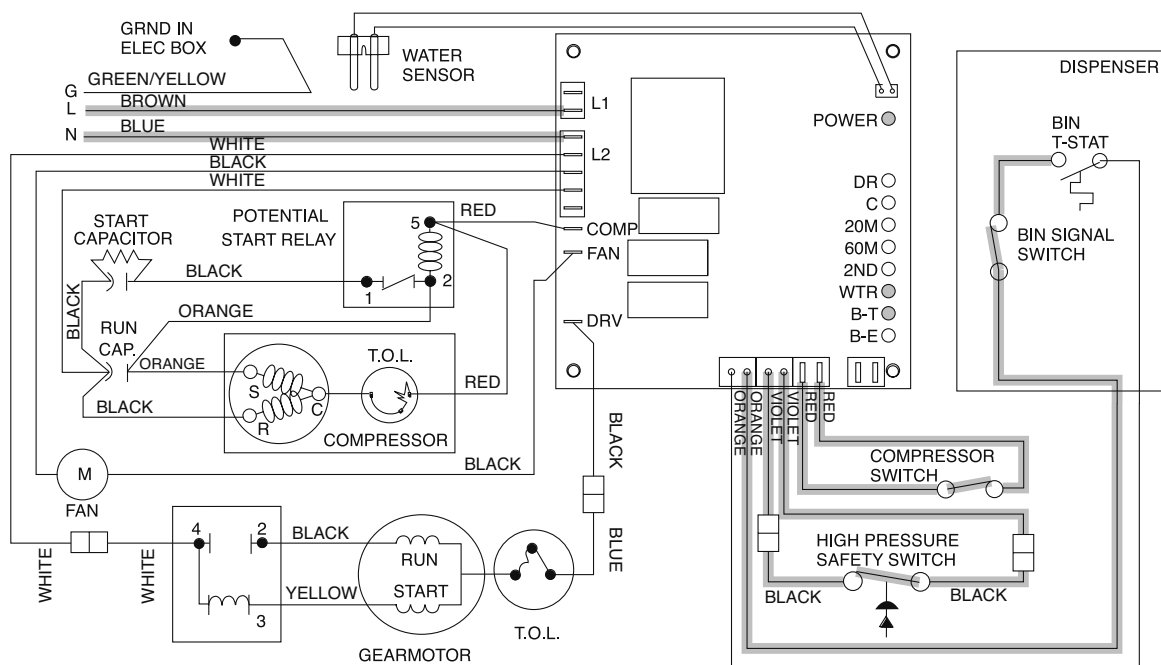
### Normal operation – Stage 4

Once the ice level control opens, the B-E LED goes out. After a 10 second delay the compressor LED (C), compressor and fan motor go off. (Should the ice level control not remain open for 10 seconds, the ice machine will continue to run.) The gearmotor continues to run and the DR LED remains on for 60 seconds. The purpose of this function is to drive the remaining ice out of the evaporator and to boil off any refrigerant remaining in the evaporator. The bin timer LED (BT) comes on, starting the twenty minute off cycle time delay.



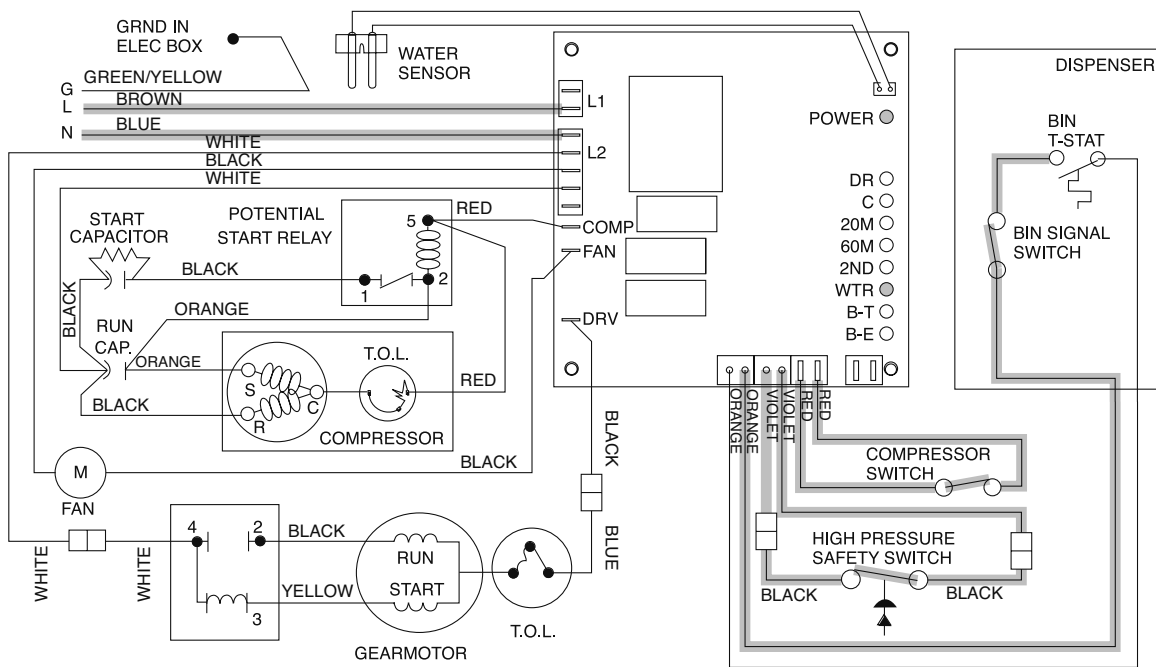
### Normal operation – Stage 5

The drive motor now shuts down and the DR LED is off. The B-T LED remains on for 20 minutes. The ice machine will not start while the B-T LED is on. To restart the ice machine for troubleshooting purposes, depress the reset button to clear the control board.



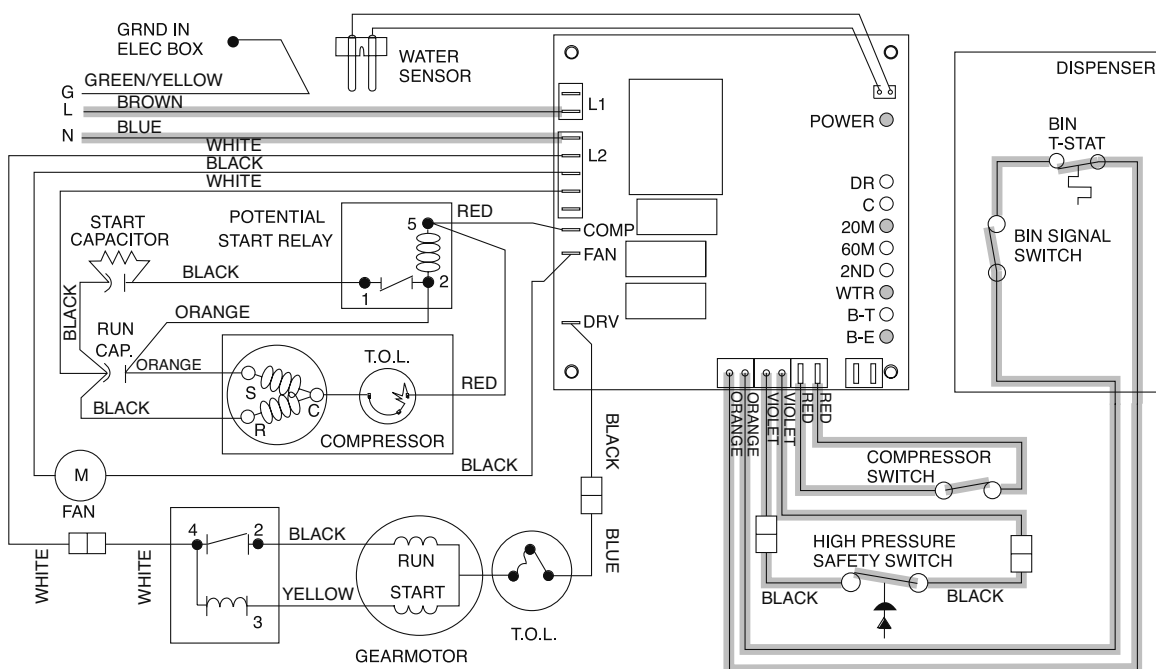
### Normal operation – Stage 6

When the dwell time of 20 minutes has expired, the B-T LED goes off. The ice machine goes through the normal start-up sequence when the bin level control signals the control board for ice. The WTR LED will remain on as long as the water sensor in the float reservoir senses water.



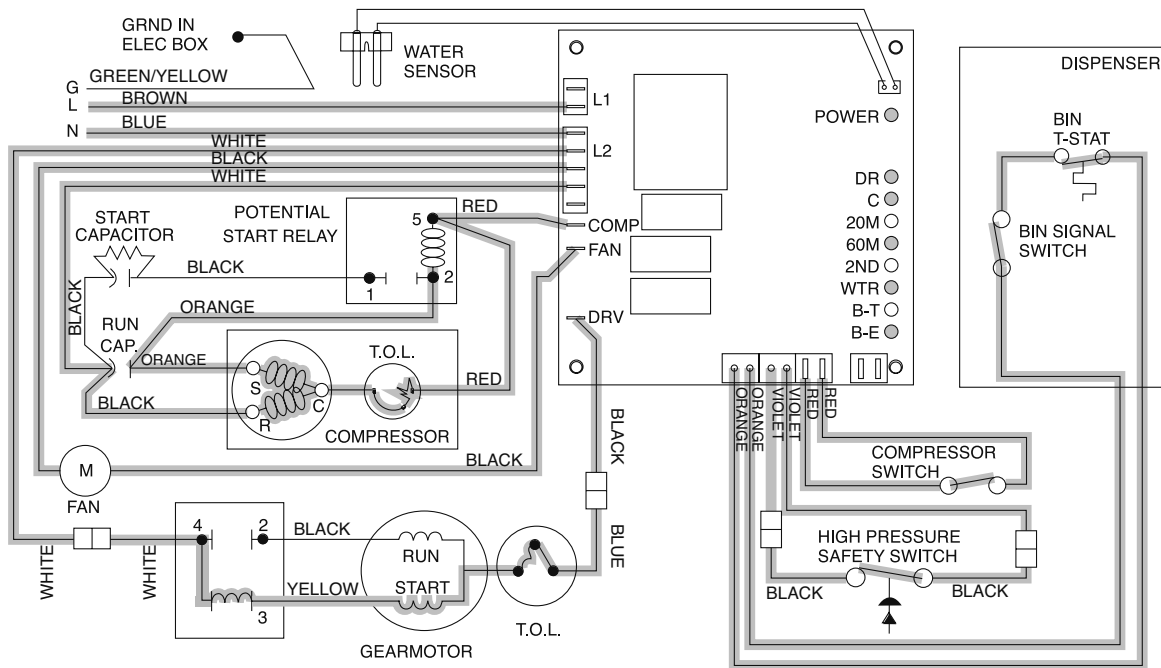
### Diagnostic sequence – Stage 7

The 20 minute error LED (20M) is on, indicating that the control board has sensed an over-torque condition (above 2.5 AMPS on the gearmotor). The 20M LED remains on for 20 minutes after an over-torque condition has occurred. The ice machine remains off as long as the 20M LED is on. When the 20M LED goes off, the control board will try to go through a normal start-up sequence. The WTR LED remains on as long as the water sensor in the float reservoir senses water.



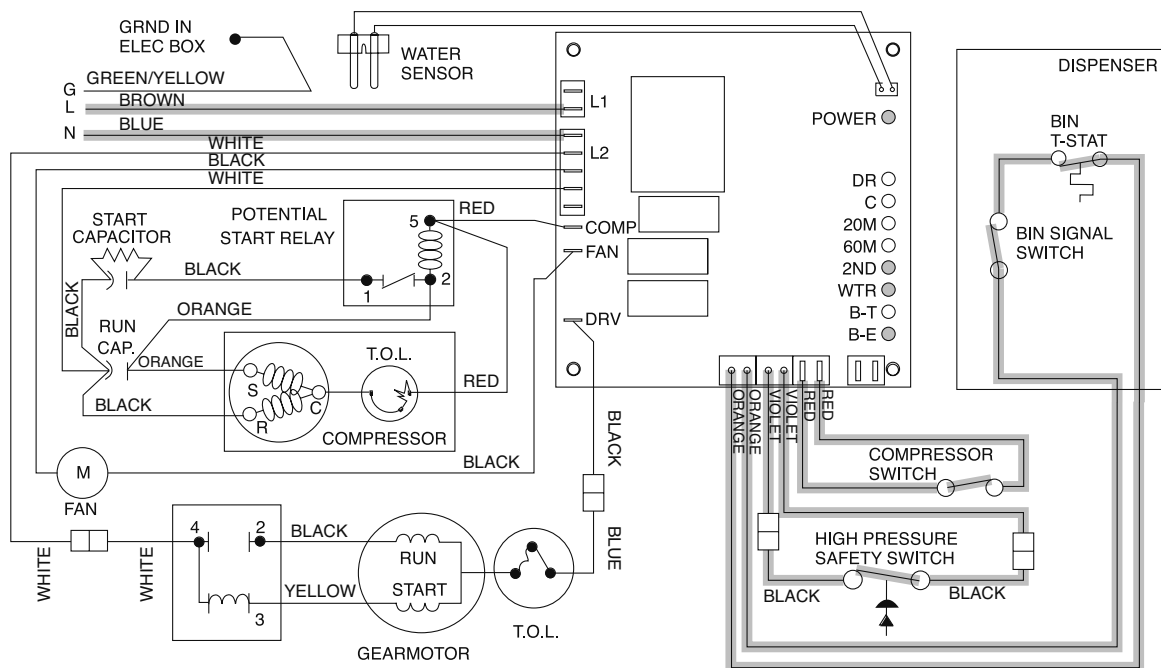
### Diagnostic sequence – Stage 8

If the restart is successful the 20M LED goes off, the 60 minute timer LED (60M) comes on. The 60M LED will remain on for 60 minutes from restart. A lighted 60M LED indicates the ice machine has experienced an over-torque condition. If the ice machine runs without problems for 60 minutes and no additional torque errors occur, the 60M LED goes off and the ice machine continues normal operation.



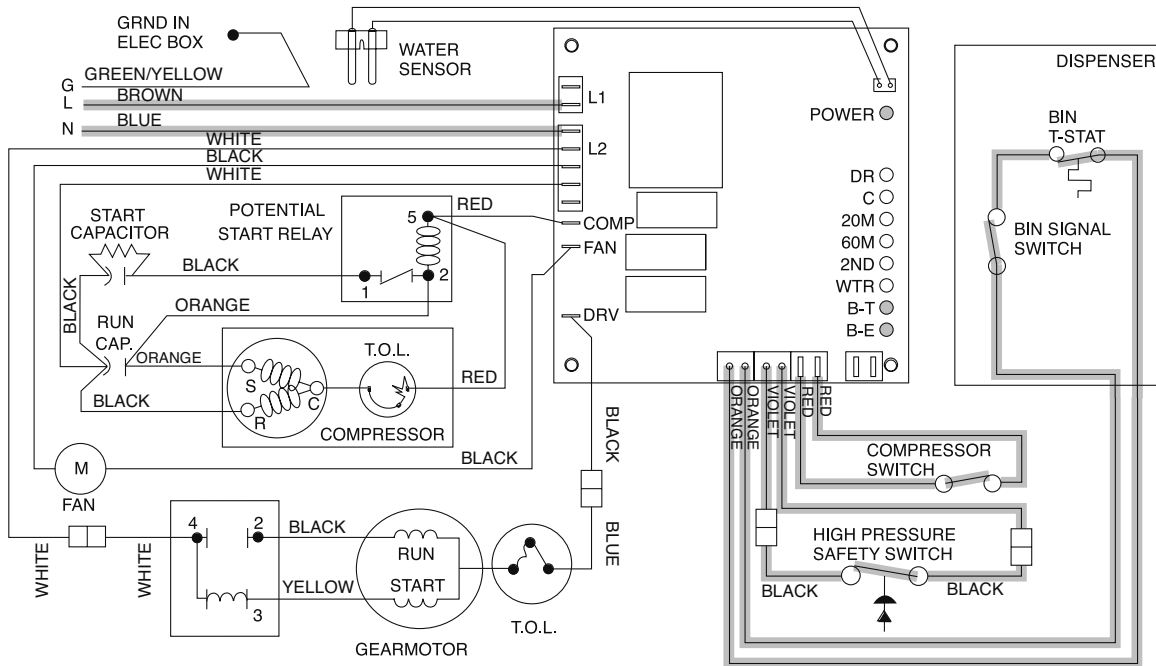
### Diagnostic sequence – Stage 9

The second error (2ND) LED comes on if an over-torque condition occurs while the 60M LED is still lit. The 2ND LED indicates two consecutive over-torque situations have occurred. The ice machine will be shut down at this time and will not restart unless the manual reset button is depressed.

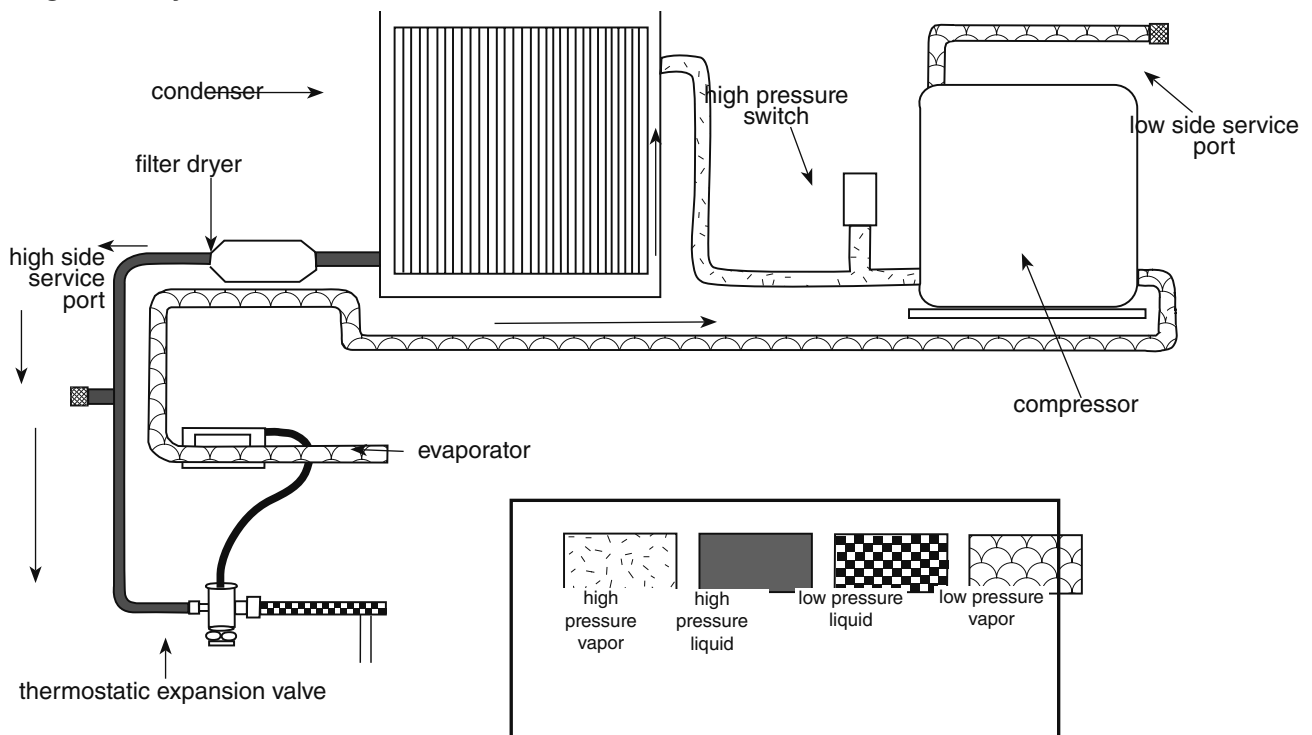


## Diagnostic sequence – Stage 10

If the water level in the float reservoir drops to an unacceptable level, the WTR LED goes out, shutting the ice machine off. Also, the BT LED comes on, preventing the ice machine from restarting for twenty minutes. If water is restored, the WTR LED comes back on and flashes to alert the technician that water to ice machine has been lost. The ice machine restarts at the end of the 20 minute time delay. The flashing WTR LED can be cleared by pressing the reset button.



## Refrigeration cycle



# Refrigeration pressure data

Air-cooled icemaker 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	468	417	366	317	268		lbs.
10	212	189	166	144	122		kg.
60	450	402	354	298	243		lbs.
16	204	182	161	135	110		kg.
70	432	387	342	280	217		lbs.
21	196	176	155	127	98		kg.
80	410	369	328	271	214		lbs.
27	186	175	149	123	97		kg.
90	387	351	314	262	210		lbs.
32	176	159	142	119	95		kg.

Air-cooled Icemaker  
Refrigeration Pressure  
Discharge Pressure/Suction Pressure

Ambient Air Temperature C					
C	16	27	38		
inlet water temperature C	10	12/1.6	16.9/2.1	16.3/2.5	bar
	21	12/1.6	16.8/2.1	22.5/2.6	bar
	32	13.1/1.7	18.3/2.2	23.9/2.8	bar

Ambient Air Temperature F					
F	60	80	100		
inlet water temperature F	50	174/23	245/31	237/37	psi
	70	174/23	244/30	326/38	psi
	90	190/25	265/32	347/40	psi

<b>Table 2 – Compressor data</b>					
<b>Compressor current draw</b>					
<b>Air-cooled</b>					
Ambient air temp.	15.6 C/60 F	21.1 C/70 F	26.7 C/80 F	32.2 C/90 F	37.8 C/100 F
	3.2A	3.3A	3.4A	3.5A	3.6A
<b>Locked rotor amps</b>	26.3				

<b>Table 3 – Gearmotor data</b>	
Gearmotor current	1.3A (nominal)
Locked rotor amps	6.8 amps

## 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.

Ice machine charge specifications		
Model	Charge	Refrigerant type
C/E12CI400A, C/E12HI400A (air-cooled)	540g (19 oz)	R404A



**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.

### Ambients

Air temperature<sup>1</sup>  
Water temperature<sup>2</sup>

**Minimum**  
10 C/50 F  
4.4 C/40 F

**Maximum**  
37.8 C/100 F  
32.2 C/90 F

<sup>1</sup> Ambient air temperature is measured at the air-cooled condenser coil inlet.

<sup>2</sup> Ambient water temperature is measured in the ice machine float reservoir.



## 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:

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

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).

## Dispenser troubleshooting



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

### Before calling for service:

- Check that no ice is in the dispenser bin are
- Check that all switches and circuit breakers are on
- Check that congealed ice is not causing a jam
- Check that all drains are clear

### Lever model troubleshooting guide

Problem	Indicators	Corrective Action
Does not dispense ice.	<ol style="list-style-type: none"><li>1. Power switch off or faulty.</li><li>2. Faulty dispense switch.</li><li>3. Wheel motor malfunction.</li></ol>	<ol style="list-style-type: none"><li>1. Check switch – turn on or replace if faulty.</li><li>2. Replace switch.</li><li>3. Check motor and capacitor and replace</li></ol>
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.	<ol style="list-style-type: none"><li>1. Faulty water solenoid valve.</li><li>2. Faulty dispense switch.</li><li>3. Power switch off or faulty.</li></ol>	<ol style="list-style-type: none"><li>1. Replace water solenoid valve.</li><li>2. Replace dispense switch.</li><li>3. Check switch - turn on or replace if faulty.</li></ol>

## 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.

### Board guide

LEDs, when illuminated, indicate the following: PWR (board power), CLN (cleaning, no dispensing cycle), ICE (ice dispensing activated), WTR (water dispensing activated).

Terminals: LI (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.

### 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.

# Ice machine troubleshooting

Flashing water LED at any time indicates that water signal to board had been lost for more than one second.

Ten-second delay: There is a 10 second delay in reaction to loss of water (WTR) or bin (B-E) signals. If signals are not lost for more than 10 seconds, no reaction will occur.

Problem	Indicators	Corrective Action
Ice machine will not run.  System status: compressor, garmotor, and fan motor inoperative.	<ol style="list-style-type: none"> <li>1. No power to unit.</li> <li>2. Open bin level control.</li> <li>3. Water OK LED (WTR) not on.</li> <li>4. 20M or 2ND LED is on indicating that first or second torque error has occurred.</li> <li>5. Gear motor locked up (immediate torque error indicated by LEDs when board is reset).</li> <li>6. Open coil on gearmotor start relay causing an immediate torque error.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check that unit is plugged in, circuit breakers are on.</li> <li>2. Adjust or replace ice level control.</li> <li>3. Check reservoir for water, restore water to unit.</li> <li>4. See #6 below.</li> <li>5. Repair or replace gearmotor.</li> <li>6. Replace gearmotor start relay.</li> </ol>
Compressor will not run.  System status: garmotor and fan motor run.	<ol style="list-style-type: none"> <li>1. Condenser coil plugged causing open overload or high pressure cut-out.</li> <li>2. Defective starting capacitor.</li> <li>3. Defective starting relay.</li> <li>4. Open motor winding.</li> <li>5. No power output from compressor output terminal on control board.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean condenser coil and replace overload if necessary.</li> <li>2. Replace start capacitor.</li> <li>3. Replace relay.</li> <li>4. Ohm out windings and replace compressor if necessary.</li> <li>5. Check terminal connection and replace control board if necessary.</li> </ol>
Unit cycles intermittently.  System status: compressor, gearmotor, and fan motor cycle.	<ol style="list-style-type: none"> <li>1. Float reservoir running dry, sensing probe signalling for system to shut down.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check water supply to float and float operation. PC board will have flashing WTR LED.</li> </ol>
Low ice production.  Poor quality ice.	<ol style="list-style-type: none"> <li>1. Dirty air filter or condenser coil.</li> <li>2. Restricted air flow to condenser coil.</li> <li>3. Mineral coated evaporator.</li> <li>4. Improper exhaust air provisions.</li> <li>5. Faulty expansion valve.</li> <li>6. Low refrigerant charge.</li> <li>7. Superheat incorrect.</li> <li>8. Inefficient compressor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean or replace filter, clean condenser.</li> <li>2. Remove obstruction.</li> <li>3. Clean evaporator.</li> <li>4. Provide proper exhaust air provisions per Follett installation manual.</li> <li>5. Replace expansion valve.</li> <li>6. Check for leaks; repair, evacuate, and weigh in correct charge.</li> <li>7. Check that TXV sensing bulb is securely clamped in place and not damaged; check that insulated bulb cover is in place.</li> <li>8. Replace compressor.</li> </ol>
Water leaks from bottom of evaporator.	<ol style="list-style-type: none"> <li>1. O ring seal broken.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace O ring.</li> </ol>
Ice machine runs for short period of time and shuts down on torque error.  System status: 20M or 2nd LED is lit.	<ol style="list-style-type: none"> <li>1. Kink in ice transport tube.</li> <li>2. Bin level control remains in closed position.</li> <li>3. Ice transport tube ruptured internally.</li> <li>4. Worn evaporator bearings.</li> <li>5. Faulty gearmotor start relay. Ice machine torques out within 5 seconds of start-up.</li> <li>6. Torque out occurs when storage bin fills to capacity.</li> </ol>	<ol style="list-style-type: none"> <li>1. Eliminate kink and check that tube routing complies with Follett ice machine installation manual.</li> <li>2. Adjust or replace control.</li> <li>3. Replace complete length of ice transport tube.</li> <li>4. Inspect bearings for roughness or binding and replace if necessary.</li> <li>5. Replace gearmotor start relay.</li> <li>6. Ensure that ice contacts bin thermostat before backing ice up in transport tube. Refer to dispenser manual for proper thermostat and ice tube mounting.</li> </ol>
Evaporator is iced up on the outside. No ice production.  System status: compressor, gearmotor and fan motor running.	<ol style="list-style-type: none"> <li>1. Gearmotor running but no output rotation.</li> <li>2. Float reservoir empty.</li> <li>3. Air bubble in water supply line. Water in reservoir but not in evaporator.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check for broken gearmotor output shaft or damaged gearbox.</li> <li>2. Check for defective water sensor (water OK (WTR) LED remains on even when float empty or probe removed from water).</li> <li>3. Purge air from line.</li> </ol>

<b>Problem</b>	<b>Indicators</b>	<b>Corrective Action</b>
Compressor cycles intermittently. System status: gearmotor and fan motor run.	<ol style="list-style-type: none"> <li>1. Compressor start relay in wrong position.</li> <li>2. High pressure cutout open due to high head pressure.</li> <li>3. Clogged or dirty air filter or condenser coil.</li> <li>4. Improper ventilation.</li> <li>5. Defective compressor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Position relay with arrow or word "top".</li> <li>2. Check discharge pressure and adjust water regulator valve.</li> <li>3. Clean or replace filter, clean condenser coil.</li> <li>4. Provide inlet and exhaust air provisions per Follett ice machine installation manual.</li> <li>5. Replace compressor.</li> </ol>
Unit runs but not making ice. System status: compressor, gearmotor & fan motor running.	<ol style="list-style-type: none"> <li>1. Clogged or dirty air filter or condenser coil.</li> <li>2. Compressor not pumping.</li> <li>3. Low refrigerant charge.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean or replace filter, clean condenser coil.</li> <li>2. Replace compressor.</li> <li>3. Check for leaks; repair, evacuate, and weigh in correct charge.</li> </ol>
Compressor and fan motor will not run. Gearmotor runs.	<ol style="list-style-type: none"> <li>1. Compressor switch in OFF position.</li> <li>2. No output on compressor and fan motor terminals on control board.</li> <li>3. Failed fan motor causes high pressure cut-out to open.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn compressor switch on.</li> <li>2. Replace control board.</li> <li>3. Replace fan motor.</li> </ol>
Intermittent noises from evaporator.	<ol style="list-style-type: none"> <li>1. Mineral build-up on evaporator surface.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean evaporator with liquid ice machine cleaner.</li> </ol>

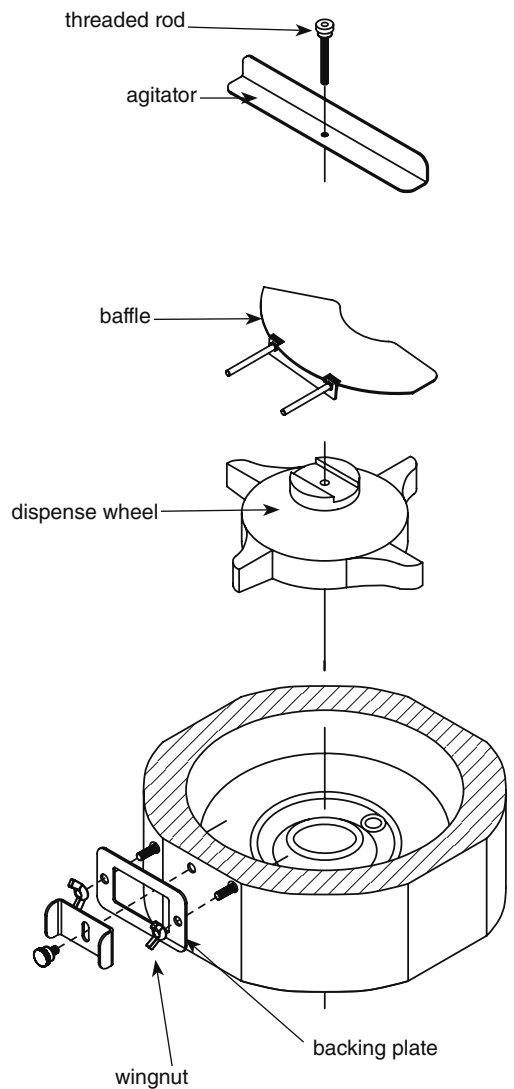
# Disassembly and replacement instructions

## Dispense chute removal

1. Remove top cover (see page 31).
2. Remove stainless front cover (see page 31).
3. Slide plastic dispense chute cover up and out to remove.
4. Remove four (4) push fasteners holding dispense tube in place and remove tube.

## Dispense wheel and drive bar removal

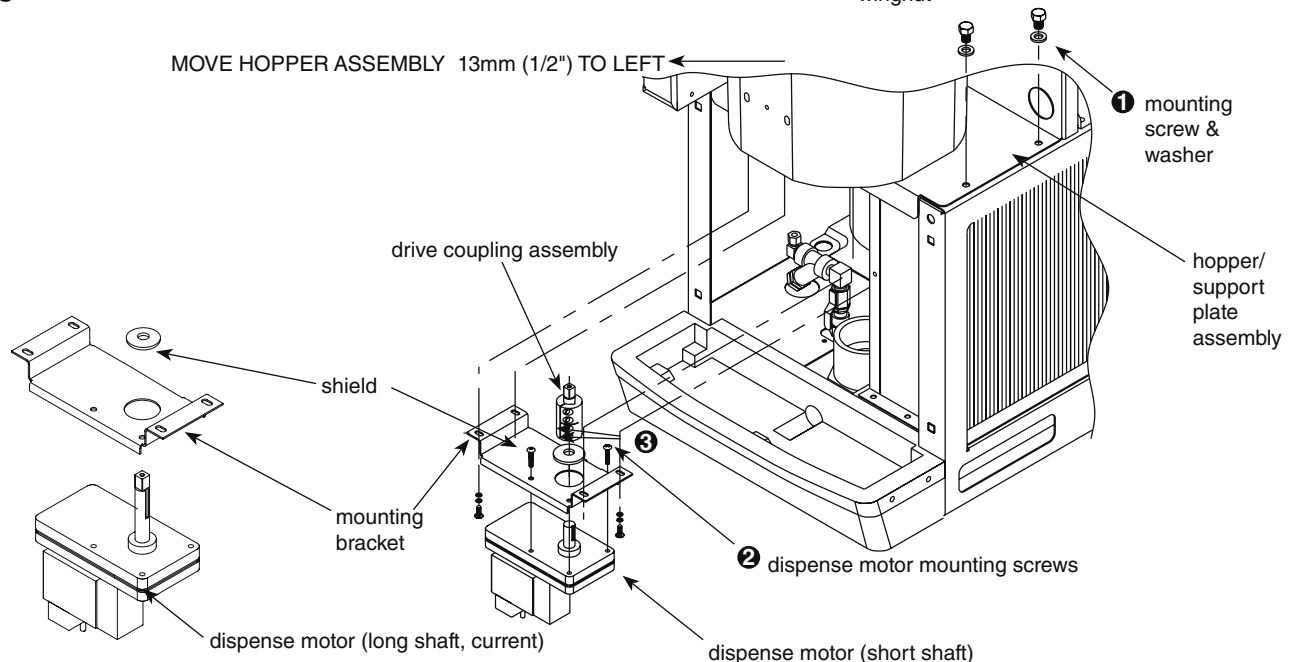
1. Remove all ice from storage area of dispenser.
2. Remove center thumbscrew, locking plate, two wingnuts and backing plate from front of storage hopper (see drawing at right).
3. Remove threaded rod, agitator, baffle, and wheel in this sequence.



## Wheelmotor removal

1. Remove dispense wheel and drive bar (see above).
2. Remove four (4) hopper/support plate mounting screws and washers (Fig. 11.1).
3. Move hopper assembly 1/2" (13mm) to left.
4. Remove four (4) dispenser motor bracket mounting screws and washers (Fig. 11.2).
5. **Short shaft motors only:** loosen **only** two (2) lower screws on drive coupling and remove from motor shaft (Fig. 11.3).
6. Remove four (4) screws holding motor to mounting bracket.

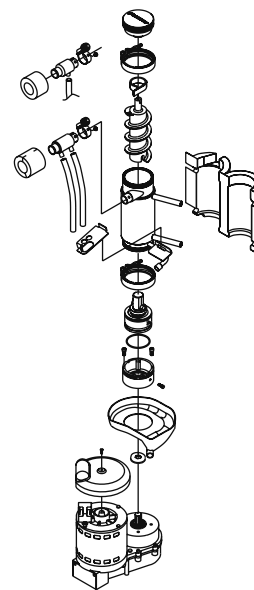
Fig. 11



## Evaporator disassembly

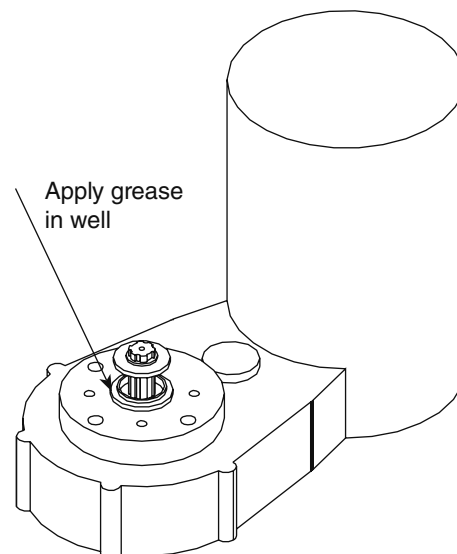
**Note:** The upper bearing, lower bearing and auger assemblies must be replaced as assemblies. The bottom and top bearing assemblies cannot be field assembled to factory specifications.

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



## Evaporator reassembly

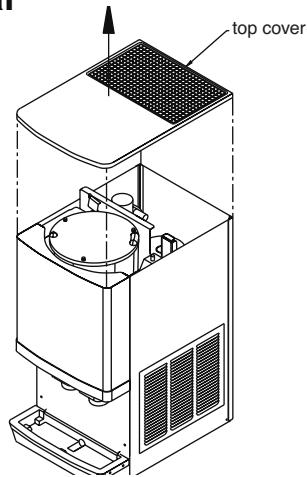
1. Clean gearmotor boss, output shaft and shaft well.
2. Install drain pan and evaporator mounting base.
3. Fill gear motor shaft well with food grade grease.
4. Install condensate shield and seat against gear motor boss.
5. Install bearing O ring in groove in evaporator mounting base.
6. Lower bottom bearing assembly into evaporator mounting base.
7. While maintaining a slight downward pressure on bottom bearing assembly, tighten hex head bolt with a 8mm (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 8.05mm/kg (70 in/lb).**
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 8.05mm/kg (70 in/lb).**
14. If evaporator was replaced, reinstall compression nozzle on new.



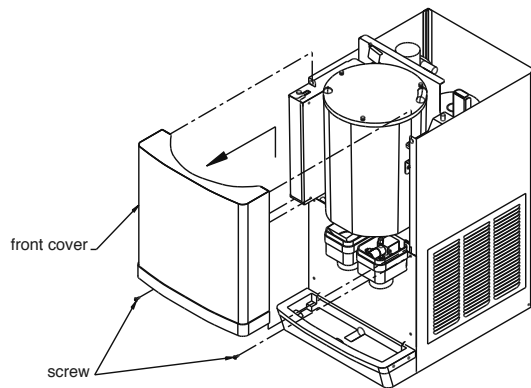
## Gearmotor replacement

1. Disassemble evaporator as described above.
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.

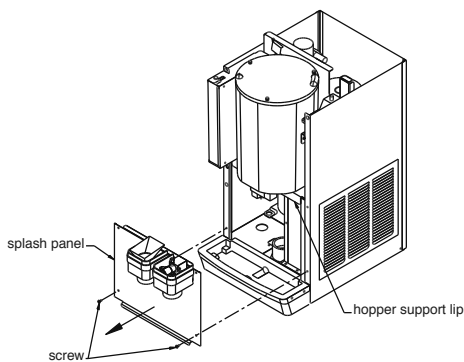
## Panel removal



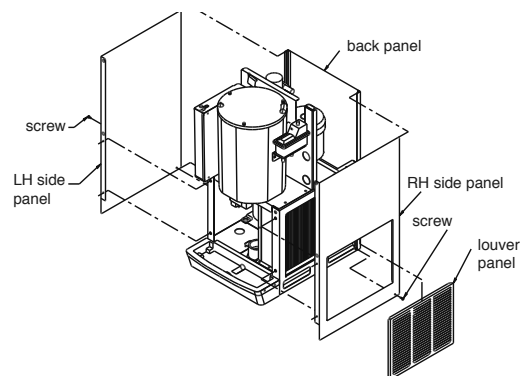
**Top cover:** Lift cover up and off Velcro strips.



**Front cover:** Remove 2 screws. Lift cover up and forward to unhook from keyhole slots and clear tabs on bottom of cover.

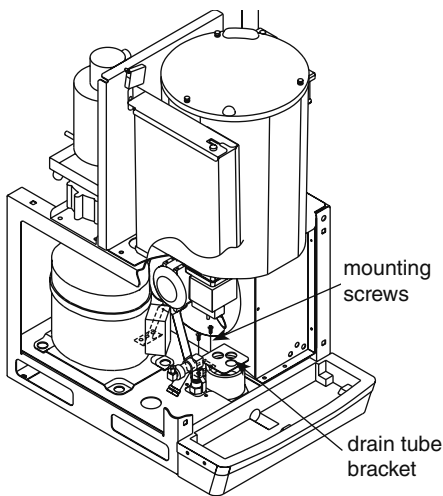


**Splash panel:** Remove 2 screws. Pull out bottom of panel to allow top to slide out from under hopper support lip.

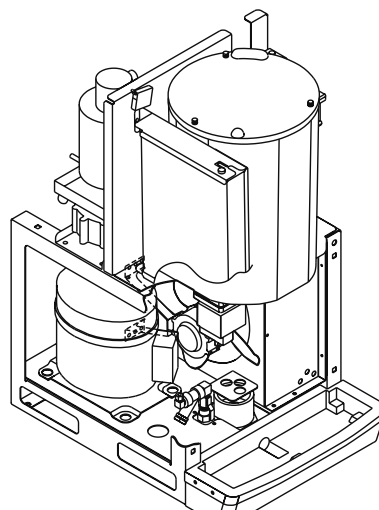


**Side panels:** Remove screw located on lower rear side. Pull side panel toward front of unit and out of back panel. Note: Before removing right hand side, remove side louver panel by lifting up and pulling forward on panel.

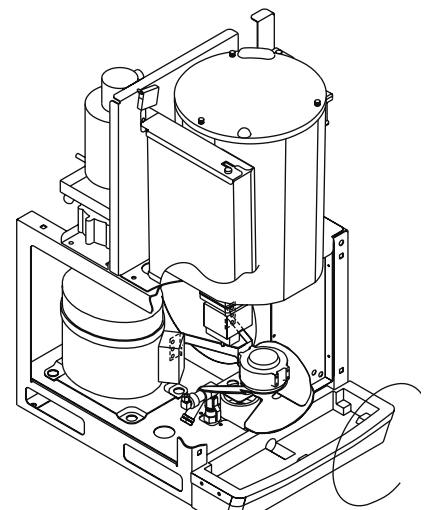
## Fan removal



(a) Remove 4 fan mounting screws and 3 drain tubes from bracket.

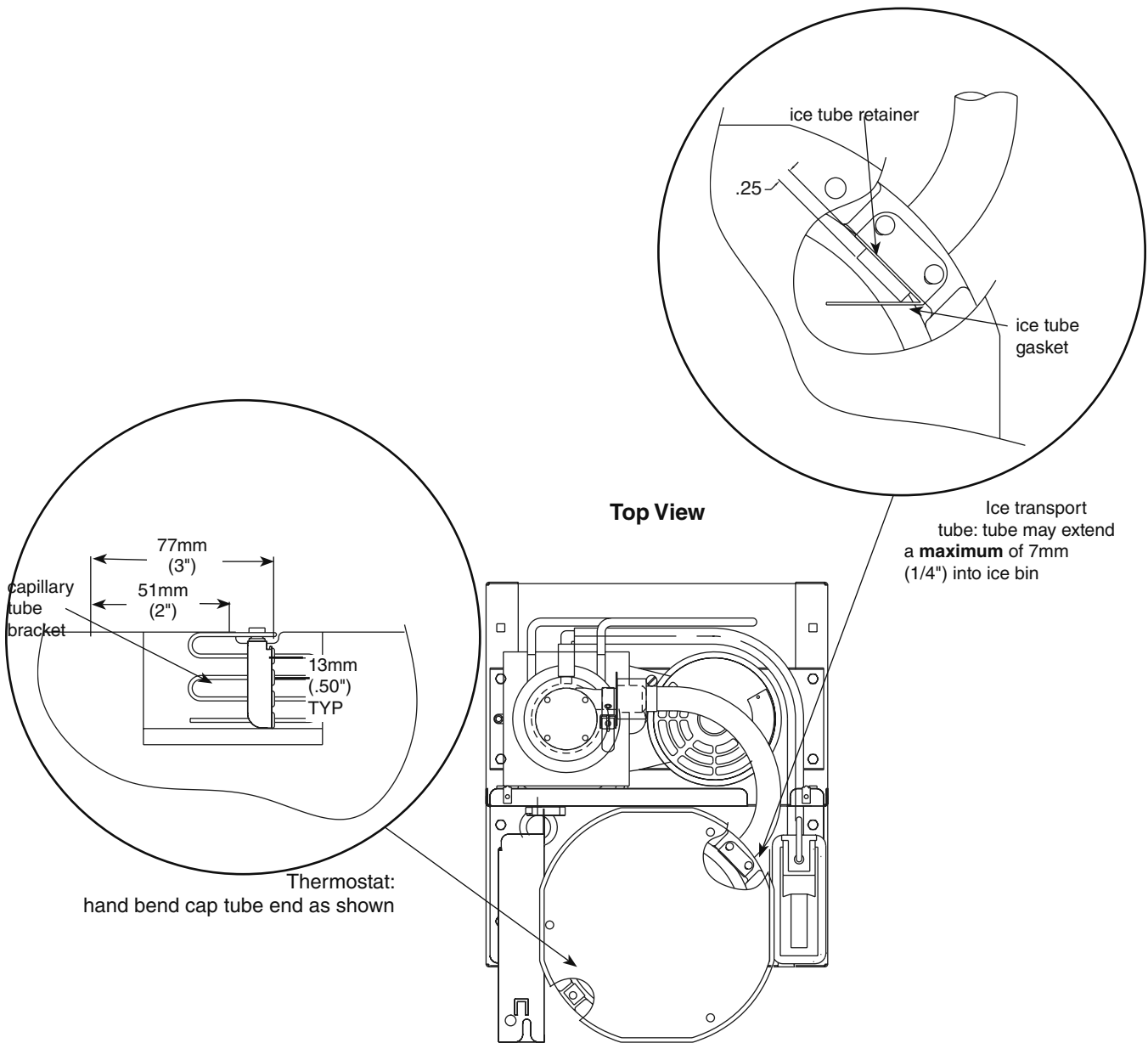


(b) Rotate fan mounting bracket toward back of unit and pull fan assembly toward front of unit.



(c) As fan assembly is being pulled toward front, rotate assembly clockwise as shown above.

# Thermostat and ice transport tube replacement



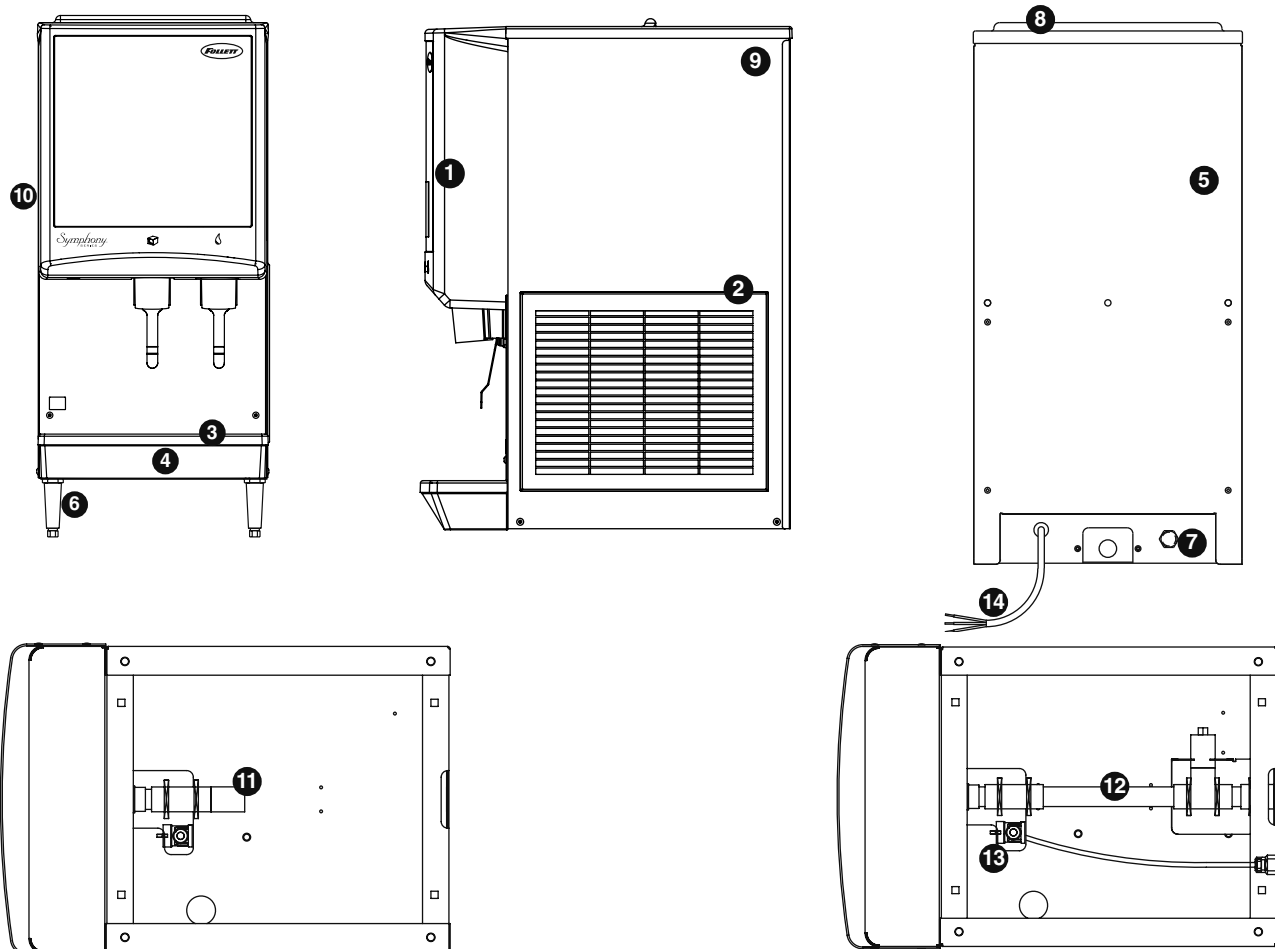
## Ice transport tube replacement

1. Push tube onto evaporator port.
2. Position clamp behind lip on evaporator port and tighten clamp.



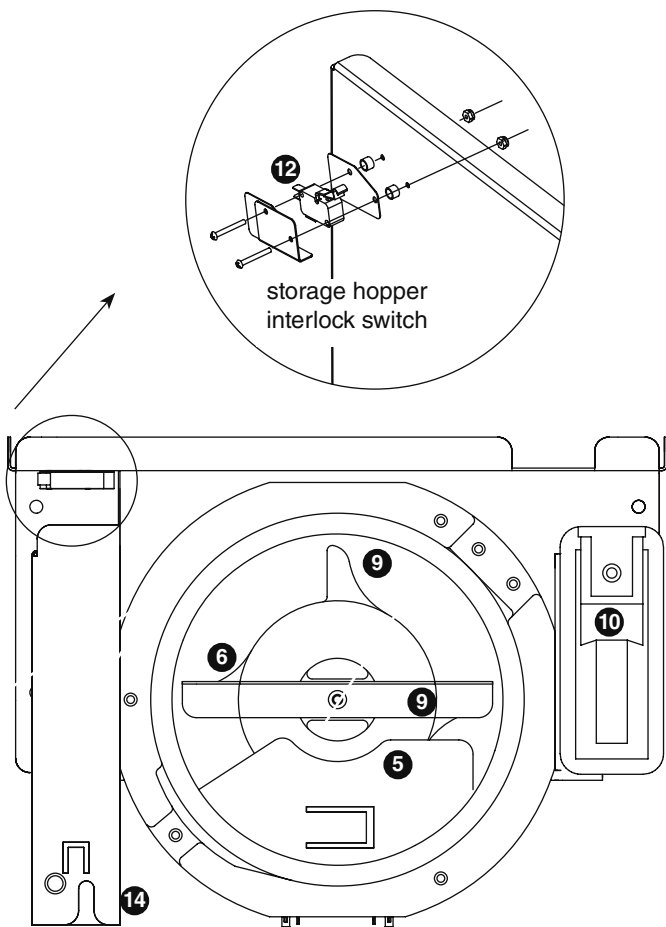
# Replacement Parts

## Dispenser exterior

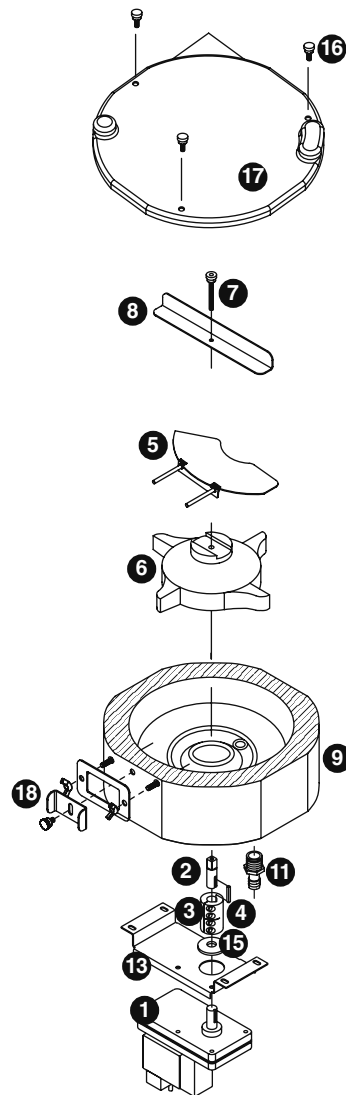


Reference #	Description	Part #
1	Cover, front (serial numbers below D61292)	502818
1	Cover, front (serial numbers D61292 and above)	00981068
2	Louver, intake, plastic	00967117
Not shown	Grille, drain pan	01051614
3	Drain pan, plastic	00967059
4	Drain pan assembly (includes base, pan and grille)	502410
5	Panel, rear	502394
6	Leg kit, 4" (102 mm), adjustable – set of 4	502399
Not shown	Fitting, water inlet, brass	502415
Not shown	Fitting, water inlet, plastic	502924
7	Fitting, water inlet, brass 3/8" FPT	00137315
8	Lid, top panel, plastic (serial numbers below D61292)	502884
8	Lid, top panel, plastic (serial numbers D61292 and above)	00967091
9	Panel, right side	502396
10	Panel, left side	502395
11	Drain tube assembly, wall mount w/drain pan	502422
12	Drain tube assembly, countertop	502391
13	Elbow, water, 3/8" (10 mm)	502925
Not shown	Drain tube assembly, wall mount w/o drain pan	502514
Not shown	Bracket, wall 16" (406 mm)	502873
14	Cord, power	502940

## Wheelmotor and drive system

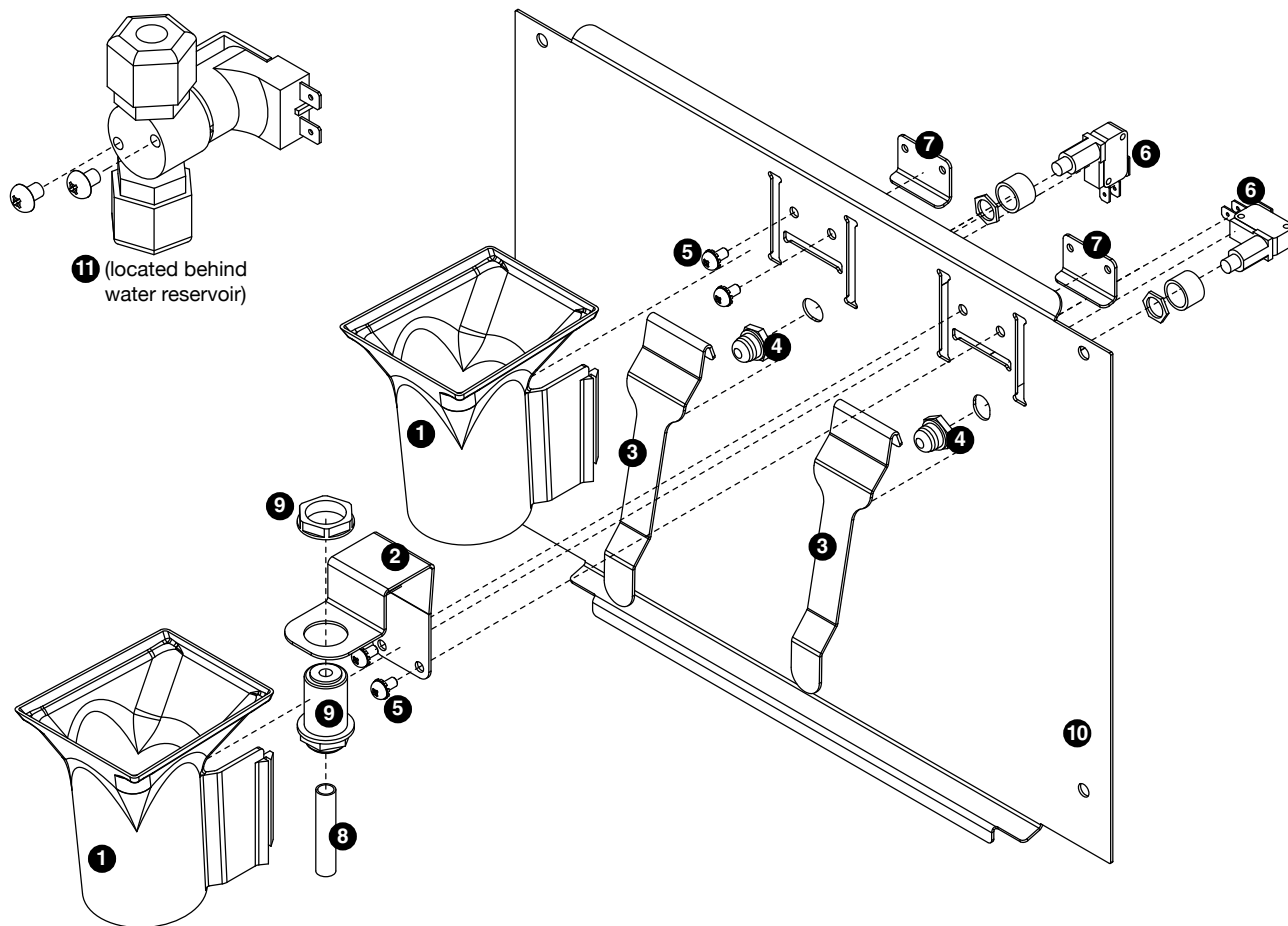


Top view



Reference #	Description	Part #
1	Motor, wheel, short shaft - 220 V 60Hz/230 V 50 Hz (includes gear motor shield)	502933
2	Drive shaft extension	502384
3	Coupling (includes key) (short shaft motor only)	502385
4	Key, 1/8" sq x 1-1/4 lg	501273
5	Baffle, ice (securing hardware, part# 00167973, included)	502414
6	Wheel with Agion, agitator	502387
7	Rod, threaded (includes knurled nut)	502390
8	Agitator, rotating	502386
See page 32	Bracket, capillary tube	502406
See page 32	Retainer, ice tube (2" high)	502404
See page 32	Retainer, ice tube (2.25" high)	00152017
See page 32	Retainer, ice tube	00977314
See page 32	Gasket, ice tube	502405
See page 32	Gasket, ice tube	00977322
9	Assembly, hopper with Agion (includes drain fitting)	502413
10	Float valve and reservoir	500504
Not shown	Bar, spacer	502389
Not shown	Fitting, hopper drain (includes nut), 5/8" barb fitting	502381
11	Fitting, hopper drain, 3/4 MPT, 3/4" barb fitting	207095
12	Switch, interlock	502416
13	Support plate, motor	502423
14	Cover, electrical box	502408
15	Shield, gearmotor	502537
16	Screws, 10-32 x 1/2 (6 needed)	201022
17	Hopper lid with hopper lid safety switch actuation	00135962
Not shown	Hopper lid, dispenser top cover, safety switch actuation (Before SN# B72959)	207809
18	Hardware, baffle securing	00167973

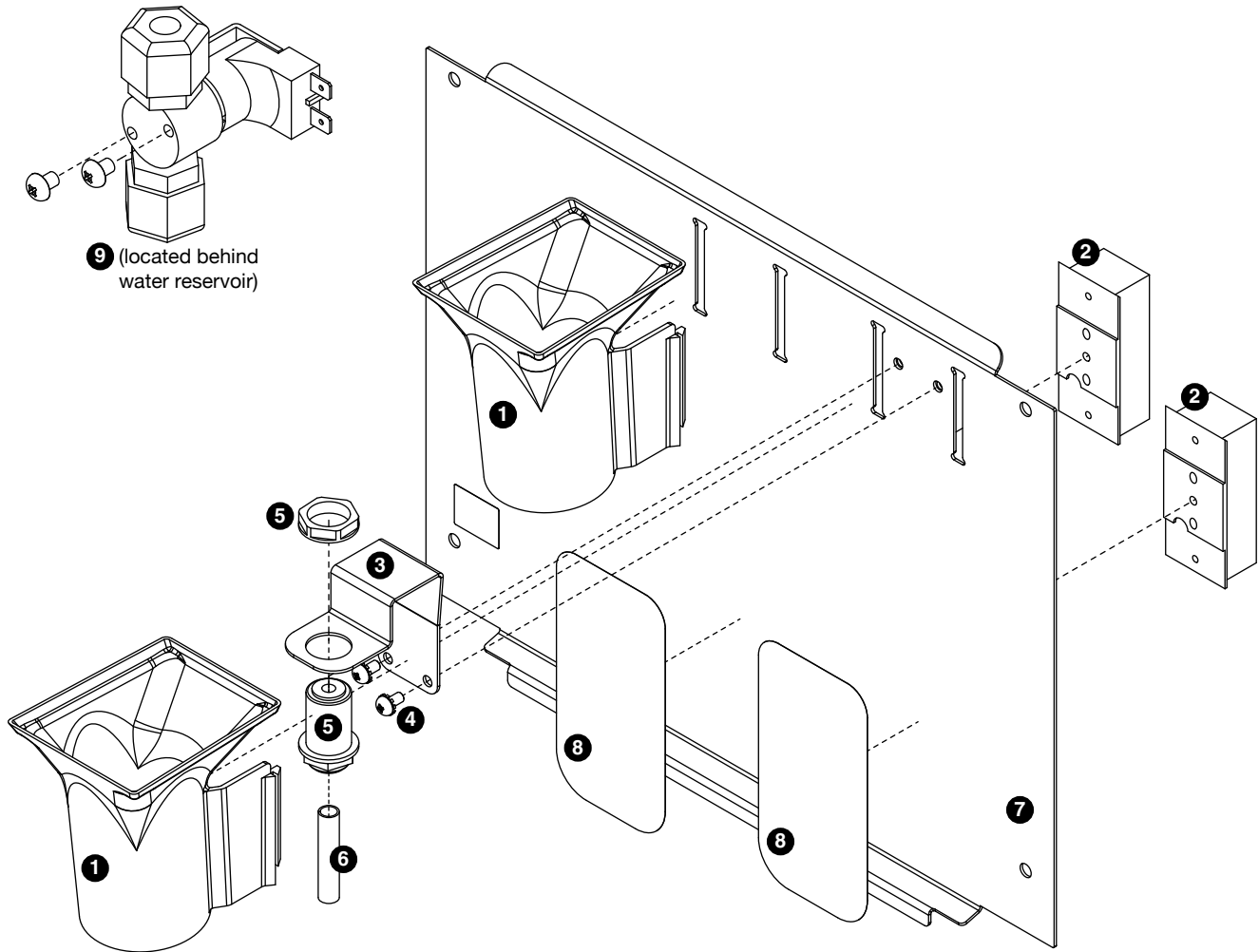
**Dispense chute and splash panel (models with lever dispensing) —  
Serial Number D61292 and above**



Reference #	Description	Part #
1	Chute, ice or water (with Agion <sup>®</sup> antimicrobial product protection <sup>1</sup> )	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)	00977850
10	Splash panel	00969980
11	Solenoid, assembly (includes fittings, screws)	01037746

<sup>1</sup> 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.

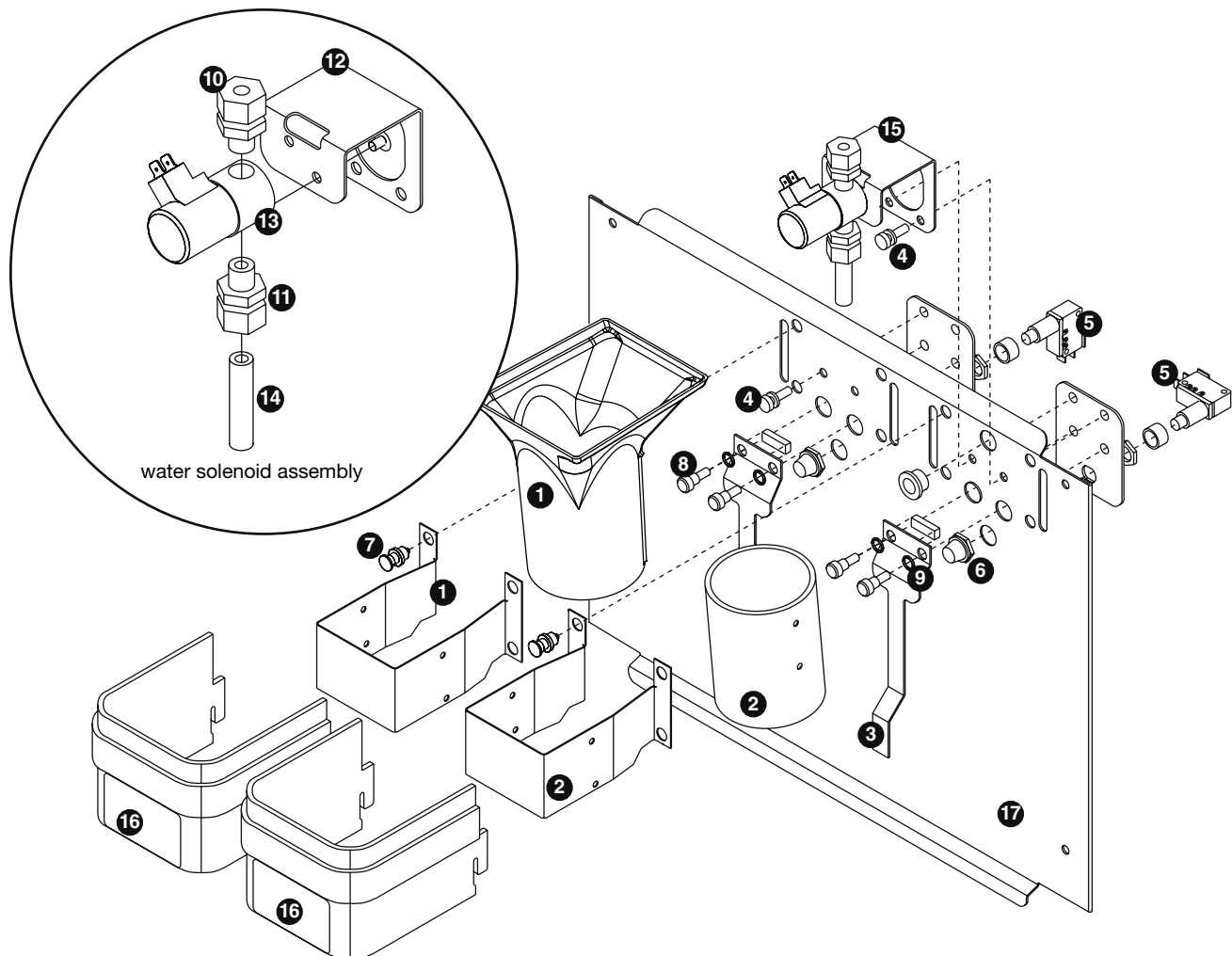
**Dispense chute and splash panel (models with SensorSAFE infrared dispensing) —  
Serial Number D61292 and above**



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)	00981332
8	Lens, sensor (each)	502690
Not shown	Splash panel, ice only (includes 1 Ty-raps and 1 lens)	00981340
9	Solenoid, assembly (includes fittings, screws)	01037746

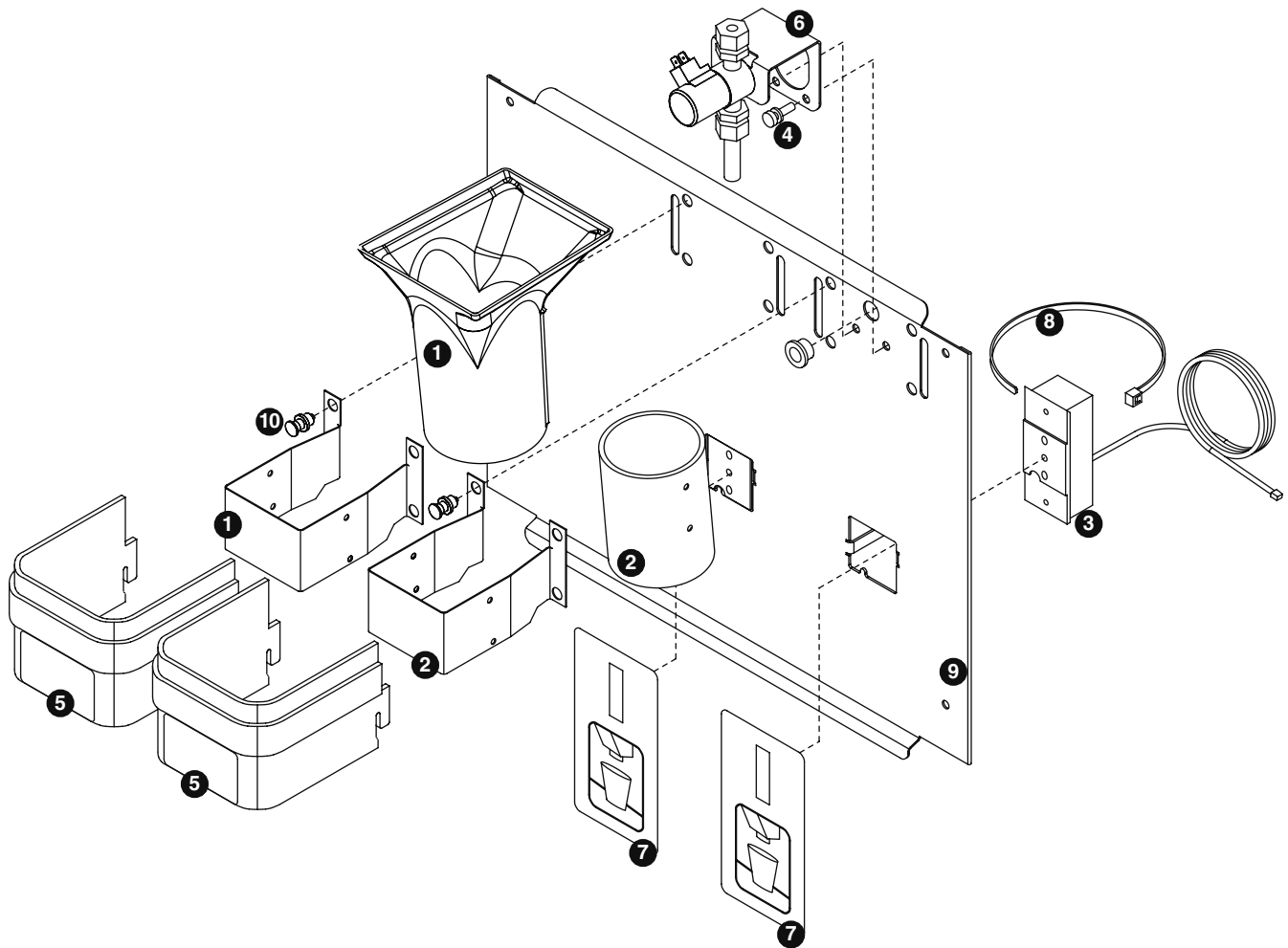
\* Ty-rap is a registered trademark of Thomas & Betts International, Inc.

**Dispense chute and splash panel (models with lever dispensing) —  
Serial Numbers below D61292**



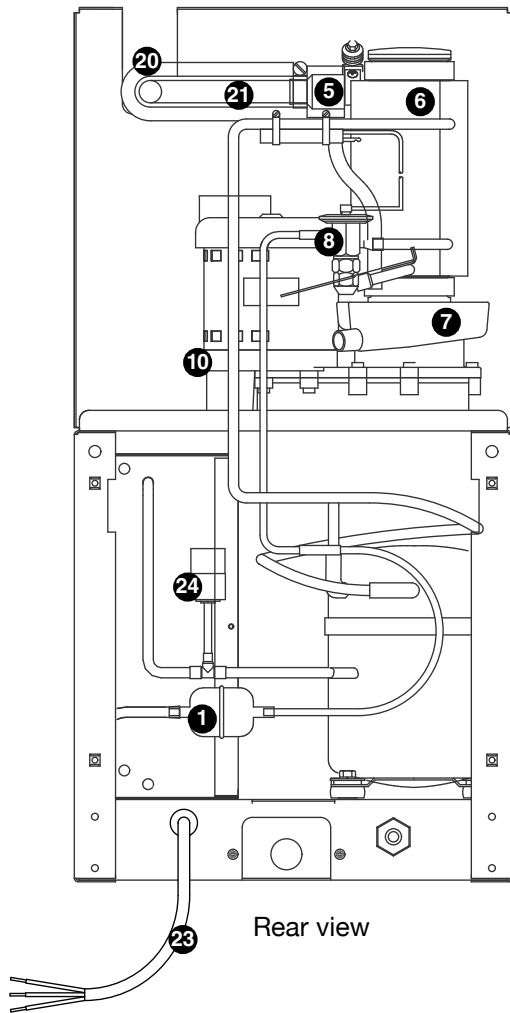
Reference #	Description	Part #
1	Chute, ice, with bracket and fasteners (with Agion)	00981225
1	Chute assembly (clear), ice	502513
2	Chute, water, with bracket and fasteners (with Agion)	00981233
2	Chute (clear), water	502249
3	Lever	502417
4	Thumbscrew	501100
5	Switch, dispense (includes nut, boot and spacer)	502409
6	Boot, dispense switch button (mounts over the dispense button)	502418
7	Fastener, dispense chute assembly	502057
8	Screws, dispense lever	501250
9	O ring	502427
10	Fitting, 1/4" tube	502561
11	Fitting, 3/8" tube	502562
12	Support bracket, solenoid	502419
13	Valve, solenoid water - 220 V 60 Hz/230 V 50 Hz	502926
14	Tube, water solenoid	502420
15	Solenoid, assembly (includes solenoid, fittings, tube & mounting bracket)	502934
16	Cover, dispense assembly	502819
17	Splash panel	00172767

**Dispense chute and splash panel (models with SensorSAFE infrared dispensing — Serial Numbers below D61292**

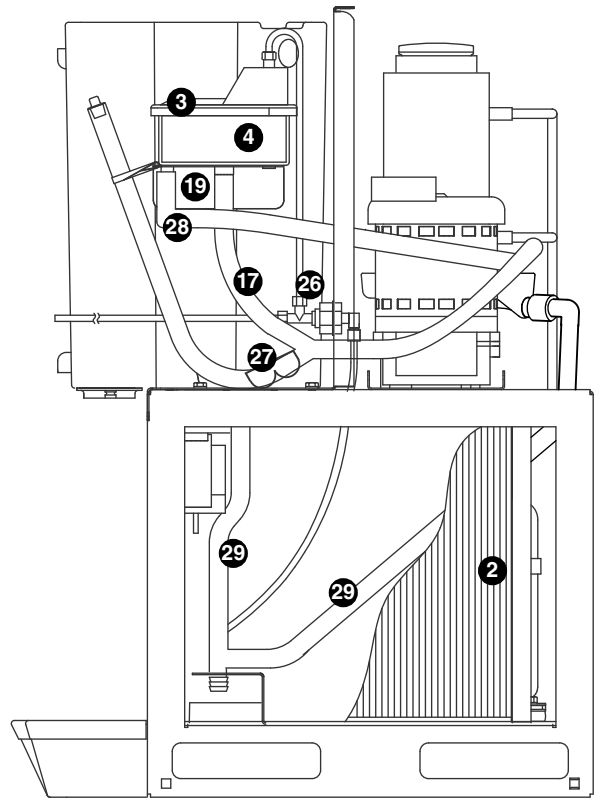


Reference #	Description	Part #
1	Chute, ice, with bracket and fasteners (with Agion)	00981225
1	Chute assembly (clear), ice	502513
2	Chute, water, with bracket and fasteners (with Agion)	00981233
2	Chute (clear), water	502249
3	Sensor (includes 502690 and 203611)	00122978
4	Thumbscrew	501100
5	Cover, dispense chute	502819
6	Solenoid assembly (includes solenoid, fittings, tube & mounting bracket, see page 37 for exploded view)	502421
7	Lens, sensor (each)	502690
8	Ty-rap, sensor mounting	203611
9	Splash panel (with drain pan – includes (2) 203611 and (2) 502690)	502675
10	Fastener, dispense chute assembly	502057
Not shown	Splash panel (without drain pan – includes (2) 503611 and (2) 502690)	502676
Not shown	Splash panel (ice-only – includes (1) 503611 and (1) 502690)	00923581

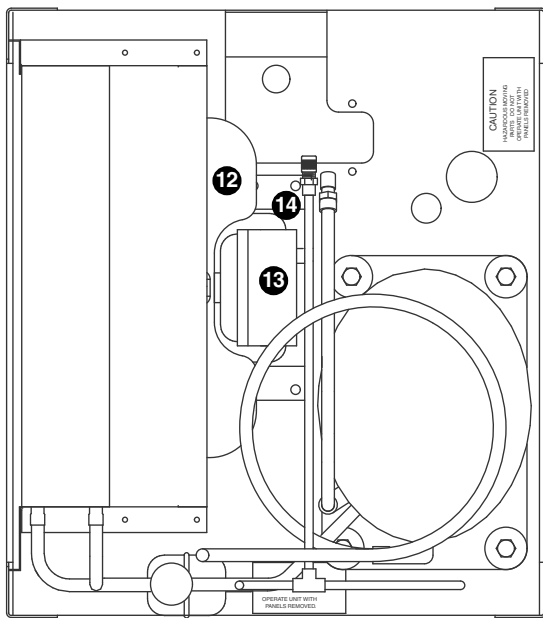
# Ice machine components



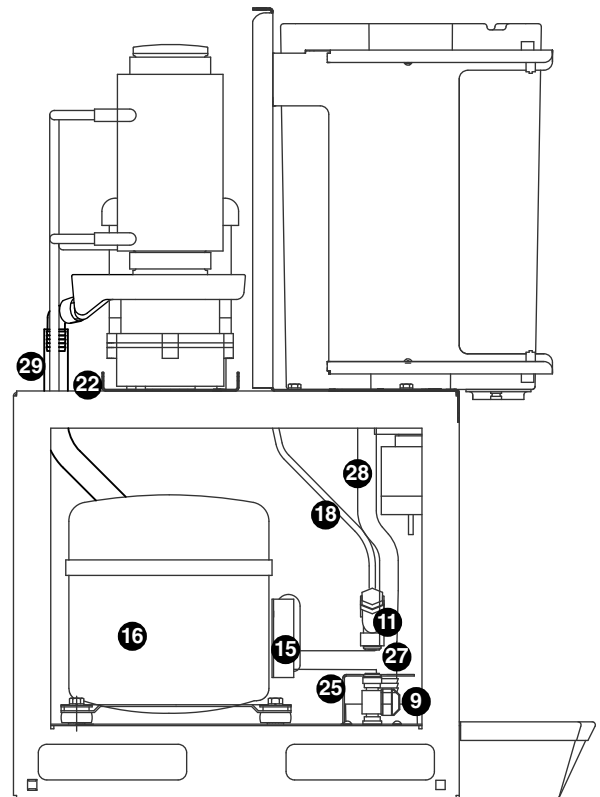
Rear view



Right side view



Top view (lower section)



Left side view

## Ice machine components

Reference #	Description	Part #
1	Drier	502724
2	Coil, condenser	501187
3	Water sensor	502116
4	Float valve & reservoir	500504
Not shown	Elbow, 1/4", push-in	00121699
Not shown	Adapter, female thread to 1/4" push-in	00998716
Not shown	Fitting, plastic, float valve (includes sleeve & stem)	502078
5	Compression nozzle, single drain	502221
6	Evaporator (see page 42 for detailed drawing)	—
Not shown	Shroud, condenser coil	501820
7	Drain pan, evaporator	502727
8	Valve, expansion, thermal	502726
Not shown	Valve, shut-off, water, brass	502222
9	Valve, shut-off, water, plastic	502921
10	Gearbox & motor, 220 V 60 Hz/230 V 50 Hz	502832
Not shown	Strainer, water, threaded connections	500376
11	Strainer, water, push-in connections	502920
12	Fan blade	500474
13	Motor, fan, 220 V 60 Hz/230 V 50 Hz	00149765
14	Bracket, fan motor	501188
15	Overload, compressor, 220 V 60 Hz	502879
	Overload, compressor, 230 V 50 Hz	502935
16	Compressor, 220 V, 60 Hz	502896
	Compressor, 230 V 50 Hz	502834
17	Water line with Agion, evaporator	00135236
18	Tubing, polypropylene, reservoir supply (sold by the foot)	502079
19	Bracket, float valve	502383
20	Tube, ice transport	00168112
21	Insulation, ice tube, 12" (305 mm) required	501176
22	Bracket, gearmotor mounting	502806
23	Cord, power	502940
24	Hi-pressure cut-out	502937
25	Clip, water shut-off valve	502922
Not shown	Elbow, water, 3/8"	502925
26	Tee, water, 1/4"	502923
Not shown	Gasket, ice hose	00977322
Not shown	Relay, gear motor - 220 V 60 Hz/230 V 50 Hz	00120055
27	Pinch clamp	00988238
28	Drain tube with Agion, reservoir overflow	00980151
29	Drain tube with Agion, hopper/evaporator drain pan	00980144
Not shown	Tubing, plastic, 5/8 ID, bin drain tube before SN# B72959 (sold by the foot)	500623
Not shown	Adapter, 3/4" x 5/8" (Before SN# B72959)	00114199

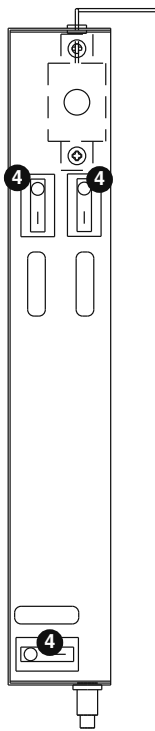
## Ice machine cleaner

Part#	Description
00132001	SafeCLEAN environmentally friendly ice machine cleaner, carton of 24 x 7 oz packets
00979674	Nu-Calgon IMS-II Sanitizer, 16 oz. bottle

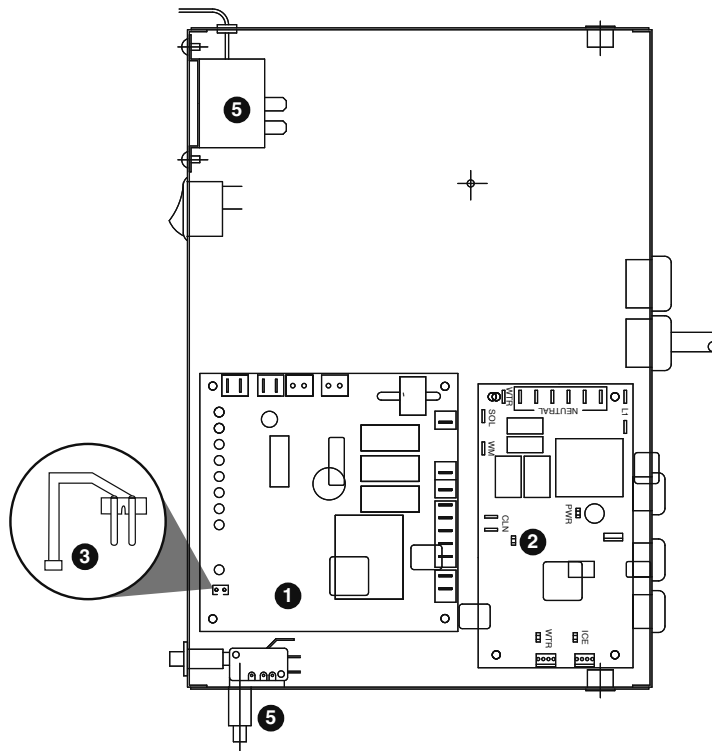


# Electrical components

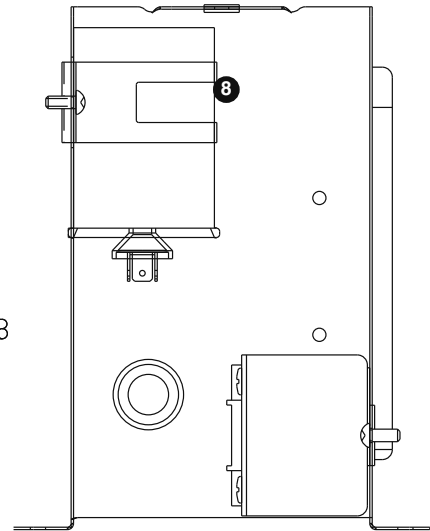
SIDE VIEW



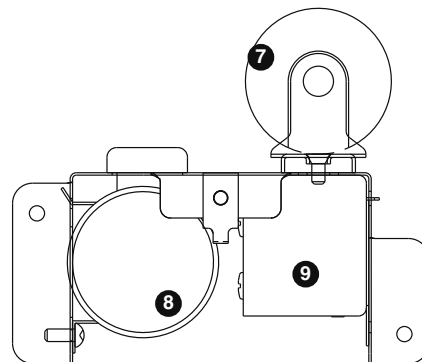
TOP VIEW



FRONT VIEW



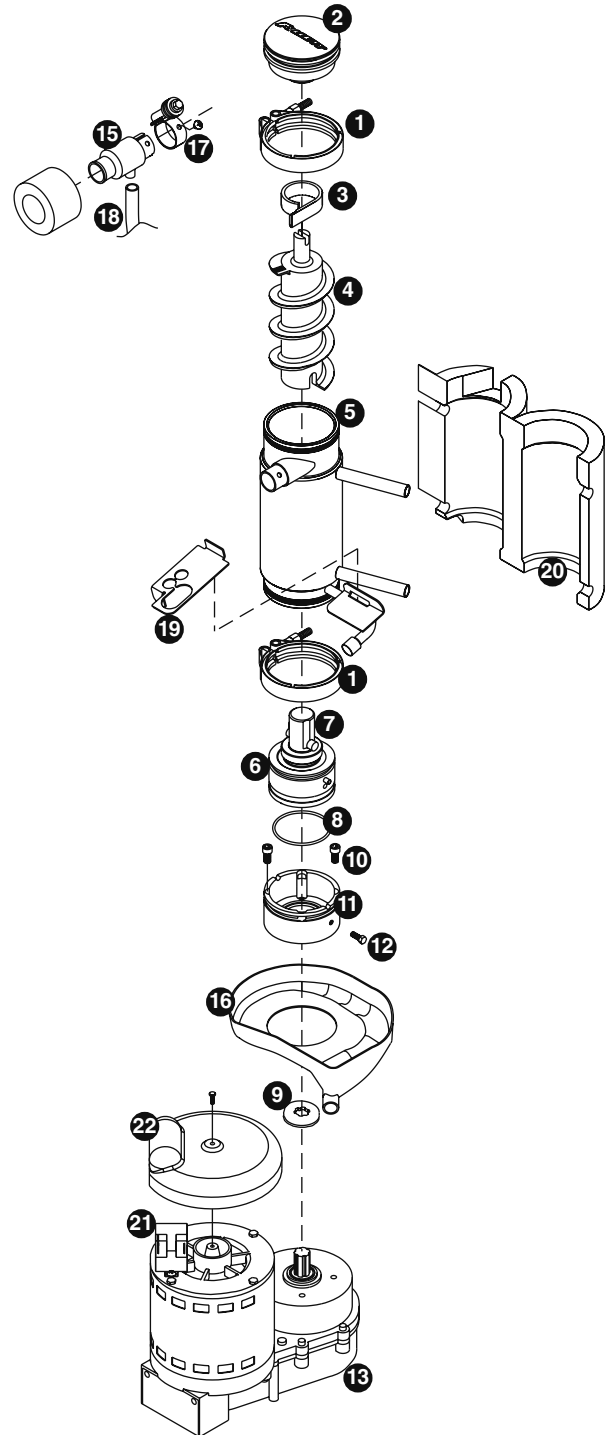
Note: Located behind front splash panel



Reference #	Description	Part #
1	Board, control circuit – 220 V 60 Hz/230 V 50 Hz	502938
2	Control board, SensorSAFE models – 220 V 60 Hz/230 V 50 Hz	502915
3	Water sensor	502116
4	Switch, on/off, compressor, bin signal	502209
5	Switch, cleaning, SensorSAFE models	502409
6	Bin thermostat	500514
7	Capacitor, start, compressor – 220 V 60 Hz/230 V 50 Hz	502835
8	Capacitor, run, compressor – 220 V 60 Hz/230 V 50 Hz	502837
9	Relay, start, compressor – 220 V 60 Hz	502899
9	Relay, start, compressor – 230 V 50 Hz	502836

## 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	502737
5	Evaporator (includes insulation jacket, 502740)	502725
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 & motor assembly (includes bracket)	502832
Not shown	Mounting base, gearbox	502729
15	Compression nozzle, with single drain	502221
16	Drain pan, evaporator	502727
17	Clamp, compression nozzle and screw	502226
18	Tubing, compression nozzle drain(s) (sold by foot)	500680
Not shown	Grease, Mobil FM 222, 14 oz	501111
19	Bracket, drain hose	502739
20	Insulation jacket, evaporator	502740
21	Relay, gearmotor	00120055
22	Cover, metal	502744
22	Cover, black plastic	01012228



## Water treatment accessories for Symphony ice and water dispensers

Reference #	Description	Part #
<b>Standard capacity filter system</b>		
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
<b>High capacity filter system</b>		
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
<b>Carbonless high capacity filter system</b>		
Not shown	Carbonless high capacity water filter system (one per ice machine) – Horizon and Maestro 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
<b>Other filtration</b>		
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
<b>Water pressure</b>		
Not shown	Water pressure regulator (25 psi)	501781

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