# **R5A/W, T5A/W D5A/W** Icemaker

**Operation, Service and Parts Manual** Service number 5022501 and above

R5A icemaker with countertop dispenser

T5A/W icemaker mounted on ice storage bin



R5A icemakers with undercounter dispenser



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#### Welcome to Follett

Follett icemakers enjoy a well-deserved reputation for excellent performance, long-term reliability and outstanding after-the-sale support. To ensure that your icemaker delivers this high performance, we ask that you review the cleaning instructions on this page and retain this manual on file for use by the service technicians maintaining the unit. Should you have any questions or require technical help at any time, please call our technical service group at (800) 523-9361, (888) 2-FOLLETT or (610) 252-7301.

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#### Important operator information

#### **Preventive maintenance**

Periodic cleaning of Follett's icemaker system is required to ensure peak performance and delivery of clean, sanitary ice. The recommended cleaning procedures which follow should be performed at least as frequently as recommended below and more often if environmental conditions dictate.

Cleaning of the condenser can usually be performed by facility personnel. Cleaning of the icemaker system in most cases should be performed by your facility's 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.

# **Cleaning procedures**

Recommended monthly cleaning of condenser (air-cooled icemaker only)

- 1. Use vacuum cleaner or stiff brush to carefully clean condenser coils of air-cooled icemaker to ensure optimal performance.
- 2. When reinstalling counter panels in front of remote icemakers, be sure ventilation louvers line up with condenser air duct.

#### Recommended quarterly cleaning of icemaking system

The icemaking system can be cleaned in place without disassembling the water system. This cleaning process should be performed at least every 3 months, and more often if local water conditions dictate.

- 1. Disconnect power to icemaker.
- 2. Remove any icemaker panels required to gain access to water reservoir and electrical control box.
- 3. Turn compressor switch on electrical box of icemaker to OFF position.
- 4. Remove water reservoir cover and block up reservoir float.
- 5. Drain water from reservoir and evaporator by removing tygon hose from bottom of reservoir. **Note:** Some models have an evaporator drain hose teed off evaporator supply hose.
- 6. Following manufacturer's instructions, prepare 3 pints (1.4L) of Calgon Ice Machine Cleaner or equivalent. Cleaning solution temperature must be 65° – 85°F (18° – 29°C).

WARNING: Most ice machine cleaners contain citric or phosphoric acid which can cause skin irritation. Read caution label on product and follow instructions carefully.

 Replace tygon hose on bottom of reservoir or plug evaporator drain hose, and pour part of cleaning solution into reservoir, filling it almost to overflowing.
 Note: If your icemaker has a stainless steel compression nozzle, remove it and submerge it in a cup of

cleaning solution while cleaning rest of system.

- 8. Restore power to icemaker (gearmotor will now run, but compressor and fan motor will not run).
- 9. After 15 minutes, turn power off and drain cleaning solution from reservoir and evaporator.
- 10. Replace tygon hose on reservoir, close evaporator drain valve or plug drain hose.
- 11. Rinse compression nozzle in clean water and reinstall on evaporator outlet.
- 12. Following manufacturer's instructions, prepare 1 gallon (3.8L) of Calgon Ice Machine Sanitizer or equivalent. Sanitizing solution temperature must be 65° - 85°F (18° - 29°C).
- If ice bin cleaning is also needed at this time, remove all ice from ice storage area and allow ice made during the sanitizing process to fall into ice bin area.
   Note: If bin will not be cleaned at this time, place a large pan in bin storage area to catch ice or connect a separate ice transport tube to evaporator and divert ice into separate container.
- 14. Fill reservoir almost to overflowing with sanitizing solution.
- 15. Restore power to icemaker and turn compressor switch to ON position.
- 16. As unit starts to make ice, continue to pour sanitizing solution into reservoir, maintaining level just below reservoir overflow.
- 17. Continue to make ice until you have used 1/2 gallon (1.9L) of sanitizing solution.
- 18. Unblock float, replace reservoir cover, and continue to make ice for at least 15 minutes to flush all sanitizing solution from system (icemakers installed in remote locations with long ice transport hoses may take longer).
- 19. Switch compressor switch to OFF position.
- 20. Wash bin with remaining sanitizing solution and rinse with potable water.
- 21. Switch compressor switch to ON position.
- 22. Replace any panels removed prior to cleaning.

#### Important preliminary information

Follett's icemaker 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 icemaker, 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.

When the icemaker is used with a dispenser it receives power from two sources – the main power supply and the bin control signal power from the dispenser. Disconnect both power sources before performing mechanical service. When performing electrical service, always use a meter to determine whether or not the components being serviced are energized.

#### The icemaking process

The Follett icemaker uses a wrapped tube 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 icemaker is not running.

When the icemaker 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 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 icemaker controls the normal operation of the icemaker and monitors gearmotor torque on an ongoing basis. This control board will shut down the icemaker 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 icemaker.

# **Operational and diagnostic sequences**

The wiring diagrams which follow illustrate the circuitry of Follett icemakers used with ice dispensers. Both normal operation of the icemaker (stages 1 - 6) and non-normal diagnostic sequences showing torque-out (stages 7 - 9) for use in troubleshooting icemaker problems are shown.

Follett icemakers used on top of an ice storage bin have a slightly different circuitry. A diagram for this type of icemaker is shown on page 9. The operational and diagnostic stages for these icemakers will be otherwise the same as stages 1 - 9 that follow.

#### **Circuitry notes**

- Hi-temp safety thermostat (water-cooled only) opens at 125°F/50°C, and closes at 115°F/46°C
- Compressor switch should read open in ON position
- Alternate input power for some non-domestic units will be 230V, 50Hz
- Compressor start relay is position sensitive. See label on start relay for proper orientation.
- Bin signal may be 120V, 60Hz; 230V, 50Hz; or 24V, 60Hz. If bin signal is 24V, 60Hz, black wire must be moved from LINE VAC terminal to 24V terminal.
- 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.

#### 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, supplying signal voltage 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) will be on.



#### Normal operation – Stage 2

The water sensor verifies water in the float. 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 compressor is started through a current style relay that is pulled in by the initial high current draw of the compressor. The B-E and WTR LED remain on.



#### Normal operation – Stage 3

The gearmotor comes up to its normal running speed and the centrifugal switch located in the gearmotor opens, dropping out the start winding. As the compressor comes up to normal running speed, the compressor start relay contacts open, dropping out the start winding of the compressor. The icemaker is now in a normal icemaking mode. The icemaker will begin to produce ice and continue to produce ice until the bin level control in the ice dispenser is satisfied. The 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 LED (C), compressor, and fan motor go off. (Should the ice level control not remain open for 10 seconds, the ice maker will continue to run.) The gearmotor continues to run 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.



#### Normal operation – Stage 5

The B-T LED will remain on for 20 minutes. The icemaker will not start while the B-T LED is on. To restart the icemaker 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 icemaker will go 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 3.5 AMPS on the gearmotor). The 20M LED will remain on for 20 minutes after an over-torque condition has occurred. The icemaker will remain 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**

When 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 tells the technician that the icemaker has experienced an over-torque condition. If the icemaker runs without problems for 60 minutes and no additional torque errors occur, the 60M LED will go off.



#### **Diagnostic sequence – Stage 9**

The second error (2ND) LED will come on if an over-torque condition occurs while the 60M LED is still lighted. The 2ND LED will indicate to the technician that two consecutive over-torque situations have occurred. The icemaker 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 will go out, shutting the icemaker off. Also, the BT LED will come on, preventing the icemaker from restarting for twenty minutes. If water is restored, the WTR LED will come back on and flash to alert the technician that water to icemaker has been lost. The icemaker will then restart at the end of the 20 minute time delay. The flashing WTR LED can be cleared by pressing the reset button.



#### T5A/W icemaker circuitry

Follett icemakers used on top of an ice storage bin (T5A/W) have a slightly different circuitry. A diagram for these icemakers is shown below. The operational and diagnostic stages for these icemakers will be otherwise the same as the preceding stages 1 - 10.





Table 1 – Re	Table 1 – Refrigeration pressure data*											
Ambient	50°F	55°F	60°F	65°F	70°F	75°F	80°F	85°F	90°F	95°F	100°F	110°F
air temp.	10°C	12.7°C	15.6°C	18.3°C	21.1°C	23.9°C	26.7°C	29.4°C	32.2°C	35°C	37.8°C	43.3°C
Water temp.	50°F	55°F	60°F	65°F	70°F	75°F	80°F	85°F	90°F	95°F	100°F	105°F
at float	10°C	12.7°C	15.6°C	18.3°C	21.1°C	23.9°C	26.7°C	29.4°C	32.2°C	35°C	37.8°C	40.6°C
Air-cooled Suction pressu	re											
PSIG	30	31	32	33	34	35	35	36	37	38	39	41
Discharge pres	sure											
PSIG	155	167	178	192	200	210	223	238	250	269	288	310
Water-cooled												
Suction pressur	re											
PSIG	32	32	33	33	34	35	35	35	36	37	39	40
Discharge pres	sure											
PSIG	185	185	185	185	185	185	185	185	185	185	212	229
* Notes:	1)	Water rec	julating va	lve is fact	tory set at	185 PSIC	head pre	essure.				
	2)	Readings	within 10°	% of abov	ve table va	alues shou	uld be con	isidered r	ormal.			

Table 2 – Compres Compressor curre Air-cooled	ssor data nt draw					
Ambient air temp.		60°F/15.6°C 6.3A	70°F/21.1°C 6.5A	80°F/26.7°C 6.7A	90°F/32.2°C 6.9A	100°F/37.8°C 7.1A
Water-cooled						
Water temp. at float	50°F/10°C	60°F/15.6°C	70°F/21.1°C	80°F/26.7°C	90°F/32.2°C	
	6.6A	6.7A	6.7A	6.8A	6.9A	
Locked rotor amps	48.	.0				

Table 3 – Gearmotor data	
Gearmotor current	2.25A (nominal)
Locked rotor amps	14 amps

#### Air-cooled icemaker capacity/24 hours

Ambient Air Temperature °F/°C

	F°	60°	70°	80°	90°	100°	
	C°	16°	21°	27°	32°	38°	
0	50°	570	515	465	410	360	lbs.
<u>–</u>	10°	259	234	211	186	163	kg.
e o	60°	535	495	450	405	340	lbs.
atu	16°	243	225	204	184	154	kg.
lper	70°	480	440	400	360	320	lbs.
Ten	21°	218	200	181	163	145	kg.
ter	80°	465	425	390	350	315	lbs.
Wa	27°	211	193	177	159	143	kg.
let	90°	420	385	350	310	275	lbs.
<u>_</u>	32°	191	175	159	141	125	kg.

# Water-cooled icemaker capacity/24 hours

Ambient Air Temperature °F/°C

	F°	60°	70°	80°	90°	100°	
	C°	16°	21°	27°	32°	38°	
0	50°	475	470	465	460	450	lbs.
F/°C	10°	215	213	211	209	204	kg.
° e	60°	445	435	430	420	415	lbs.
atu	16°	202	197	195	191	188	kg.
Ibel	70°	415	410	400	390	380	lbs.
Ten	21°	188	186	181	177	172	kg.
ter	80°	390	380	370	360	350	lbs.
Wa	27°	177	172	168	163	159	kg.
let	90°	370	360	350	340	325	lbs.
드	32°	168	163	159	154	147	kg.

#### **Refrigeration system**

**Important:** All service on refrigeration systems 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.

R22 icemaker charge specifications				
Model	Charge	Refrigerant type		
T5A, R5A , L5A (air-cooled)	24 oz	R22		
T5W, R5W , L5W (water-cooled)	10 oz	R22		



Recharging of unit at other than factory specifications will void icemaker 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 noncondensibles 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

Amb

Evacuate the system to a level of 50 microns. When the 50 micron level is reached, shut the vacuum pump down. Allow the system to sit for approximately 30 seconds. During this period the system should not rise above 1000 microns. If the system rises above 1000 microns, evacuate the system again. If the system rises above 1000 microns for a second time, check the system for leaks.

ients		Minimum	Maximum
	Air Temperature <sup>1</sup>	50°F/10°C	100°F/37.8°C
	Water Temperature <sup>2</sup>	40°F/4.4°C	90°F/32.2°C

<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 icemaker float reservoir.

#### Ice capacity test

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

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

1440 min. x wt. of ice produced

Total test time in minutes

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 Tables.

### **Evaporator disassembly**

- **Note:** The upper and lower bearing assemblies and auger assembly must be replaced as assemblies. The bottom and top bearing assemblies cannot be field assembled to factory specifications.
  - 1. Disconnect power to icemaker.
  - 2. Shut off water to icemaker.
  - 3. Drain evaporator and float tank.
- 4. Disconnect plastic tubing from evaporator water inlet.
- 5. Disconnect ice transport tube from compression nozzle.
- 6. Remove nut and upper vee band coupling from top of evaporator (see pg. 19).
- 7. Lift top bearing assembly straight up with a slight rocking motion and remove.
- 8. Remove ice compression loop located at top of auger.
- 9. Lift auger straight up and out of evaporator.
- 10. Remove nut and lower vee band coupling from bottom of evaporator.
- 11. Lift evaporator to clear bottom bearing assembly.
- 12. Loosen hex head bolt in side of mounting base with 5/16 wrench and lift lower bearing assembly.
- 13. Remove condensate shield.
- 14. Remove four 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. Degrease OD of gear motor boss.
- 3. Apply 242 Loctite to OD of boss and install evaporator mounting base.
- 4. Fill gearmotor shaft well with food grade grease.
- 5. Install condensate shield and seat against gearmotor boss.
- 6. Install bearing O ring in groove in evaporator mounting base.
- 7. Lower bottom bearing assembly into evaporator mounting base.
- 8. While maintaining a slight downward pressure on bottom bearing assembly, tighten hex head bolt with a 5/16 wrench.
- 9. Position evaporator over lower bearing assembly and align grooves with pins in bearing assembly.
- 10. Align lower portion of compression nozzle drip guide (if so equipped) inside evaporator drain pan.
- 11. Install vee band clamp and nut.
- 12. Place auger in center of evaporator and rotate to mate with spline.
- 13. Install ice compression loop, orienting loop as shown on page 19.
- 14. Install upper bearing and seal assembly, rotating bearing to slip pin into auger slot.
- 15. Install upper vee band clamp and nut.
- 16. If evaporator was replaced, reinstall compression nozzle on new.

#### **Gearmotor replacement**

- 1. Disassemble evaporator as described above.
- 2. Remove gearmotor drip cap by tapping up on flange at edge of cap.
- 3. Remove gearmotor cover plate and disconnect the wires.
- 4. Remove Heyco wire bushing and pull wires out.
- 5. Remove four screws holding gearmotor mounting plate to base of icemaker and lift gearbox and motor clear of icemaker.
- 6. Remove machine screws holding mounting plate to motor.
- 7. Install new motor in reverse order.





# **Troubleshooting chart**

• 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.

Problem	Indicators/possible cause	Corrective action
<ol> <li>Icemaker will not run. System status: compressor, gearmotor, and fan motor inoperative.</li> </ol>	<ol> <li>No power to unit.</li> <li>Open bin level control.</li> <li>Water OK LED (WTR) not on.</li> <li>20M or 2ND LED is on indicating that first or second torque error has occurred.</li> <li>Gearmotor locked up (immediate torque error indicated by LEDs when board is reset).</li> <li>Centrifugal switch stuck in open or closed position (immediate torque error indicated by LEDs when board is reset).</li> </ol>	<ol> <li>Check that unit is plugged in, circuit breakers are on.</li> <li>Adjust or replace ice level control.</li> <li>Check reservoir for water, restore water to unit.</li> <li>See Problem #6 below.</li> <li>Repair or replace gearmotor.</li> <li>Replace centrifugal switch.</li> </ol>
2. Compressor will not run. System status: gearmotor and fan motor run.	<ol> <li>Condenser coil plugged causing overheating.</li> <li>Defective starting capacitor.</li> <li>Defective starting relay.</li> <li>Open motor winding.</li> <li>No power output from compressor output terminal on control board.</li> </ol>	<ol> <li>Clean condenser coil and replace overload if necessary.</li> <li>Replace start capacitor.</li> <li>Replace relay.</li> <li>Ohm out windings and replace compressor if necessary.</li> <li>Check terminal connection and replace control board if necessary.</li> </ol>
3. Unit cycles intermittently. System status: compressor, gearmotor, and fan motor cycle.	<ol> <li>Hi temp cut out open (W/C units only) due to high head pressure.</li> <li>Float reservoir running dry, sensing probe signalling for system to shut down.</li> </ol>	<ol> <li>Check supply and temperature of water to condenser.</li> <li>Check discharge pressure and adjust water regulating valve.</li> <li>Clean condenser coil.</li> <li>Check water supply to float and float operation. Part #207588 will have flashing WTR LED.</li> </ol>
4. Low ice production. Poor quality ice.	<ol> <li>Dirty condenser coil.</li> <li>Restricted air flow to condenser coil.</li> <li>Mineral coated evaporator.</li> <li>High ambient water supply and/or air temperature.</li> <li>Improper exhaust air provisions.</li> <li>Faulty expansion valve.</li> <li>Low refrigerant charge.</li> <li>Superheat incorrect.</li> <li>Inefficient compressor.</li> </ol>	<ol> <li>Clean condenser.</li> <li>Remove obstruction.</li> <li>Clean evaporator.</li> <li>Precool water and/or install air duct per Follett installation manual.</li> <li>Provide proper exhaust air provisions per Follett installation manual.</li> <li>Replace expansion valve.</li> <li>Check for leaks; repair, evacuate, and weigh in correct charge.</li> <li>Check that TEV sensing bulb is securely clamped in place and not damaged; check that insulated bulb cover is in place.</li> <li>Replace compressor.</li> </ol>

Troubleshooting chart						
5. Water leaks from bottom of evaporator.	1. O ring seal broken.	1. Replace O ring.				
6. Icemaker runs for short period of time and shuts down on torque error. System status: 20M or 2nd LED are lit.	<ol> <li>Kink in ice transport tube.</li> <li>Bin level control remains in closed position.</li> <li>Ice transport tube ruptured internally.</li> <li>Worn evaporator bearings.</li> <li>Faulty centrifugal switch. Icemaker torques out within 5 seconds of start-up.</li> <li>Torque out occurs when storage bin fills to capacity.</li> </ol>	<ol> <li>Eliminate kink and check that tube routing complies with Follett icemaker installation manual.</li> <li>Adjust or replace control.</li> <li>Replace complete run of ice transport tube.</li> <li>Inspect bearings for roughness or binding and replace if necessary.</li> <li>Replace centrifugal switch.</li> <li>Ensure that ice contacts bin thermostat before backing ice up in transport tube. Reference dispenser manual for proper thermostat and ice tube mounting.</li> </ol>				
<ol> <li>Evaporator is iced up on the outside. No ice production.</li> <li>System status: compressor, gearmotor and fan motor running.</li> </ol>	<ol> <li>Gearmotor running but no output rotation.</li> <li>Float reservoir empty.</li> </ol>	<ol> <li>Check for broken gearmotor output shaft or damaged gearbox.</li> <li>Check for defective water sensor (water OK (WTR) LED remains on even when float empty or probe removed from water).</li> </ol>				
8. Compressor cycles intermittently. System status: gearmotor and fan motor run.	<ol> <li>Compressor start relay in wrong position.</li> <li>Intermittent voltage from circuit board to compressor.</li> <li>Clogged or dirty condenser coil.</li> <li>Improper ventilation.</li> <li>Defective compressor.</li> </ol>	<ol> <li>Position relay with arrow or word "top".</li> <li>Check for constant line voltage output on board compressor terminal and replace board if intermittent.</li> <li>Clean condenser coil.</li> <li>Provide inlet and exhaust air provisions per Follett icemaker installation manual.</li> <li>Replace compressor.</li> </ol>				
9. Unit runs but not making ice. System status: compressor, gearmotor and fan motor running.	<ol> <li>Clogged or dirty condenser coil.</li> <li>Compressor not pumping.</li> <li>Low refrigerant charge.</li> </ol>	<ol> <li>Clean condenser coil.</li> <li>Replace compressor.</li> <li>Check for leaks; repair, evacuate, and weigh in correct charge.</li> </ol>				
10. Compressor and fan motor will not run. Gearmotor runs.	<ol> <li>Compressor switch in OFF position.</li> <li>No output on compressor and fan motor terminals on control board.</li> </ol>	<ol> <li>Turn compressor switch on.</li> <li>Replace control board.</li> </ol>				





# Replacement parts Air-cooled icemaker

Part #	Description	Reference #
501581	Drier	1
501187	Condenser coil, a/c	2
502116	Water sensor	3
500504	Float valve & reservoir	4
501986	Reservoir mounting bracket	Not shown
502079	Tubing, polypropylene, reservoir supply (sold by foot)	Not shown
502078	Fitting, plastic, float valve (includes sleeve & stem)	Not shown
502220	Compression nozzle, with drain	Not shown
502221	Compression nozzle, without drain	5
502107	Evaporator	6
501500	Drain kit, evap. (for all config.except w/c freestanding)	Not shown
501582	Valve, expansion, thermal	7
501289	Drain pan, evaporator	8
500623	Tubing, plastic, 5/8 ID x 13/16 OD (sold by foot)	9
501190	Mounting bracket, gearbox	10
501992	Gearbox & motor assembly, 115V, 60Hz	11
501993	Gearbox & motor assembly, 230V, 50Hz	11
501191	Tubing, plastic, food grade, 1/2 ID (sold by foot)	12
500474	Fan blade	13
500672	Motor, fan, 115V, 60Hz	14
501381	Motor, fan, 230V, 50Hz	14
501188	Bracket, fan motor	15
501579	Overload, compressor, 115V, 60Hz	16
501580	Overload, compressor, 230V, 50Hz	16
501583	Compressor, 115V, 60Hz	17
501584	Compressor 230V, 50Hz	17
502315	Base	18
500376	Strainer, water	Not shown
501820	Shroud, condenser coil	Not shown
501996	Clamp, suction line	Not shown
502347	Assembly, water inlet and drain, double fitting	Not shown
502348	Assembly, drain, single fitting	Not shown





# Replacement parts Water-cooled icemaker

Part #	Description	Reference #
501581	Drier	1
500536	Hi temp cut-out	2
500537	Valve, water regulating (includes 501810)	3
501810	Iso-washer (for water regulating valve)	Not shown
502116	Water sensor	4
500504	Float valve & reservoir	5
501986	Reservoir mounting bracket	Not shown
502079	Tubing, polypropylene, reservoir supply (sold by foot)	Not shown
502078	Fitting, plastic, float valve (includes sleeve & stem)	Not shown
502220	Compression nozzle, with drain	Not shown
502221	Compression nozzle, without drain	6
502107	Evaporator	7
501500	Drain kit, evaporator (for all configs. except w/c freestanding)	Not shown
502317	Drain kit, evaporator (for w/c freestanding configuration only)	Not shown
501582	Valve, expansion, thermal	8
501289	Drain pan, evaporator	9
500623	Tubing, plastic, 5/8 ID x 13/16 OD (sold by foot)	10
501992	Gearbox & motor assembly, 115V, 60Hz	11
501993	Gearbox & motor assembly, 230V, 50Hz	11
501190	Mounting bracket, gearbox	12
501191	Tubing, plastic, food grade, 1/2 ID (sold by foot)	13
500672	Motor, fan, 115V, 60Hz	14
501381	Motor, fan, 230V, 50Hz	14
501188	Bracket, fan motor	15
500790	Fan blade	16
501579	Overload compressor, 115V, 60Hz	17
501580	Overload compressor, 230V, 50Hz	17
501583	Compressor, 115V, 60Hz	18
501584	Compressor 230V, 50Hz	18
501585	Coil, condenser	19
502315	Base	20
500376	Strainer, water	Not shown
502085	Water line, condenser coil, C25/50T5W only (includes flare washers)	Not shown
502089	Flare washer, 3/8" plastic, condenser coil flex line	Not shown
502347	Assembly, water inlet and drain, double fitting	Not shown
502348	Assembly, drain, single fitting	Not shown

## **Evaporator replacement parts**

Part #	Description	Reference #
500486	Coupling, vee band, includes nut	1
501862	Bearing assembly, top	2
502110	Loop, ice compression, beveled	3
502219	Auger, double chamfered	4
502107	Evaporator (includes 502110)	5
501079	Seal, spline	6
500496	O ring, bearing housing	7
502137	Bearing assembly, bottom (Includes	
	spline seal and O ring)	8
500744	Shield, condensate	9
501063	O ring, mounting base	10
501080	Screw, Allen 1/4 20 x 1/2 (set of 4)	11
501053	Mounting base, evap. (includes 5010	63) 12
502227	Bolt, mounting base	Not shown
501992	Gearbox & motor assembly	13
501993	Gearbox & motor assbly, 230V	13
501190	Mounting base, gearbox	Not shown
502220	Compression nozzle, with double drai	in below
502221	Compression nozzle, with single drain	n below
	Compression nozzle w/o drain no long	ger
	available. Replace with 502221.	
501289	Drain pan, evaporator	See pg. 17
502226	Clamp, compression nozzle and scree	w 14
502228	Drip guide, compression nozzle w/o d	rain 15
500680	Tubing, compression nozzle w/drain	16
501111	Grease, Chevron SRI-2, 14 oz	Not shown



502220 Compression nozzle with double drain



502221 Compression nozzle with single drain



Compression nozzle without drain (original)



#### Gearbox and motor assembly

Icemakers with Follett service number 104918 and above Von Weise Gearmotor Number V05466AEAA, V05466AFAA or V05466AJAA (Gearmotor number found on data plate of electric motor)

Part #	Description	Referenc
500937	Washer, lock	
501988	Cover, gearcase	
500765	Gasket, gearcase cover	
500722	Seal, output shaft	
500854	Bearing, cup	
500720	Bearing, cone	
500893	Shaft, output	
500894	Gear, output	
500895	Key, Woodruff	
500892	Ring, retaining	
500877	Spacer	
500721	Spacer	
501990	Seal, input shaft	
500724	Bearing, ball	
500841	Washer, thrust	
500797	Bearing, needle (2 required)	
500781	#2 Gear/#3 pinion assembly	
500798	Shaft, #2 gear	
500878	#4 Gear/#5 pinion assembly	
501989	Gearcase	
501994	Vent plug	
501991	Bearing, ball, sealed	
501144	Bearing, rotor, top	Not sho
501171	Switch, centrifugal	Not sho
501208	Overload, thermal	Not sho
500802	Oil, gearcase (1 pint)	
	(use only in V05466AEAA	
	or V05466AFFA)	Not sho





Part #	Description	Reference #
501586	Capacitor, start, compressor, 115V, 60Hz	1
501587	Capacitor, start, compressor, 230V, 50Hz (including bracket)	1
501588	Relay, start, compressor, 115V, 60Hz	2
501589	Relay, start, compressor, 230V, 50Hz	2
502331	Board, control circuit, 115V, 60Hz	3
502349	Board, control circuit, 230V, 50Hz	3
502116	Water sensor	4
500006	Switch, on/off, compressor	5
500514	Bin thermostat (T5A/W icemakers only)	Not shown
502330	Board, control circuit and water sensor	Not shown
501959	Board, stand off control (4 required)	6

# Ice transport tube assemblies

For 25 Series dispensers		501595	C110BT4A/W, C110BT5A/W (before srv. #	
501795	C25T4A/W, C25T5A/W		015051)	
501795	H25T4A/W, H25T5A/W	502522	10 ft (3m), for units with remote I/M	
502329	F255A/W	502523	20 ft (6.1m), for units with remote I/M	
502522	10 ft (3m), for units with remote I/M	For 150, U155 and U300 Series dispensers		
502523	20 ft (6.1m), for units with remote I/M	502522	10 ft (3m), for units with remote I/M	
For 50 Ser	ies dispensers	502523	20 ft (6.1m), for units with remote I/M	
501123*	50B4A/W, 50C4A/W*	For 200 Se	For 200 Series dispensers	
501123*	50F4A/W*	502522	10 ft (3m), for units with remote I/M	
501795	C50T4A/W, C50T5A/W	502523	20 ft (6.1m), for units with remote I/M	
501795	H50T4A/W, H50T5A/W	For T5A/W icemakers on Follett ice bins		
502328	F504A, F505A	501598	T4A/W, T5A/W	
502329	F504W, F505W	For Nourishment Station Retrofits		
502522	10 ft (3m), for units with remote I/M	502156	T5AI and T5WI icemakers	
502523	20 ft (6.1m), for units with remote I/M	502524	R5AR, R5WR, T5AT, T5WT - 10 ft (3m)	
For 100 Series dispensers		502525	R5AR, R5WR, T5AT, T5WT - 20 ft (6.1m)	
501370*	100CL4A/W, 100CLB4A/W*	Ice transport tube		
501598	100CLT4A/W, 100CLBT4A/W	500366	Ice transport tube (sold by the foot)	
501121*	100F4A/W (SN 8,999 and below)*	Ice transport tube insulation		
501182*	100F4A/W (SN 9,000 – 19,000)*	501176	Ice tube insulation (sold by the foot)	
501392*	100F4A/W (SN 20,000 and up)*			
For 110 Series dispensers		* Ice tube	end kit. Required length of transport tube	
501795	C110T5A/W/C110BT5A (above srv. #	(500366) must be ordered. Tube insulation (501176)		
	015051)	must als	so be ordered for all remote icemaker	
502326	F1104A, F1105A	applicat	ions (see above).	
502327	F1104W, F1105W			
501595	C110T4A/W, C110T5A/W (before srv. #			
	015051)			

Water filter kits and cartridges AFSYSTMFL43 Follett QC4-FL4S water filter system (includes FL4S primary cartridge and head, coarse prefilter and head, pressure gauge, flushing valve; assembled and installed on mounting bracket) Follett FL4S primary replacement cartridge AFCARTFL4S AFPRECART Everpure coarse pre-filter cartridge

501858

Cord and plug (female), dispenser power (all 25,

### **Miscellaneous**

# Replacement icemaker ordering matrix

Dispenser models	Replacement icemaker model	Accessory package	lcemaker panel finish		
Dispensers with top mount icemakers					
C25T5A & H25T5A	D5A	AFTP2550AC	No panels		
C25T5W & H25T5W	D5W	AFTP2550WC	No panels		
C50T5A & H50T5A	D5A	AFTP2550AC	No panels		
C50T5W & H50T5W	D5W	AFTP2550WC	No panels		
C110T5A	D5A	AFTPC110AC	Stainless		
C110T5W	D5W	AFTPC110WC	Stainless		
Dispensers with remote icemakers	DEA	N			
<u>C25R5A &amp; H25R5A</u>	R5A	None	Enamel		
<u>C25R5W &amp; H25R5W</u>	R5W	None	Enamel		
<u>C50R5A &amp; H50R5A</u>	<u> </u>	None	Enamel		
<u>C50R5W &amp; H50R5W</u>	<u>R5W</u>	None	Enamel		
C110R5A	R5A	None	Enamel		
C110R5W	R5W	None	Enamel		
All U150 series with air-cooled icemakers	R5A	None	Enamel		
All U150 series with water-cooled icemakers	R5W	None	Enamel		
All U300 series with air-cooled icemakers	R5A	None	Enamel		
All U300 series with water-cooled icemakers	R5W	None	Enamel		
Freestanding dispensers with icemakers in the base					
F255A	D5A	AFINILIMOO	No panels		
F255W	D5W	AFINILIMOO	No panels		
F505A	D5A	AFINILIMOO	No panels		
F505W	D5W	AFINILIMOO	No panels		
F1105A	D5A	AFINTLIM00	No panels		
F1105W	D5W	AFINTLIM00	No panels		
Icemaker on top of bin					
<u>T5A</u>	T5A	None	Stainless		
T5W	T5W	None	Stainless		





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