



SECTION 6

TROUBLESHOOTING

GUIDE

TROUBLESHOOTING GUIDE

This section of the manual contains the Troubleshooting Guide which will help the Service Technician troubleshoot a model UC-15I.

How to Use the Troubleshooting Guide

The list below indicates how the Troubleshooting Guide is arranged. Identify the description of the problem that the unit is experiencing from the list and go to the page indicated. To the left of the problem description is a letter. Locate that letter in the left column of the Troubleshooting Guide. The center column will identify the possible causes for the problem. And, the information in the right column will explain what tests to perform in order to determine if what you are checking is the cause and/or what action to take to correct the problem.

Troubleshooting Guide Layout

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NOTE: See WARNING below before beginning troubleshooting.

⚠ WARNING

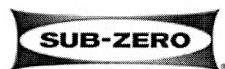
ELECTRICAL SHOCK HAZARD! WHEN UNIT IS PLUGGED INTO AN ELECTRICAL OUTLET, HIGH (LINE) VOLTAGE IS APPLIED TO THE CONTROL BOARD (TERMINALS #20 AND #21) AT ALL TIMES. REMOVING THE CONTROL BOARD FUSE OR SWITCHING THE UNIT TO OFF WILL NOT REMOVE THE POWER SUPPLIED TO THE CONTROL BOARD.



PROBLEM	POSSIBLE CAUSE	TEST / ACTION
A. Ice Machine Does Not Operate	Improper Ambient Temperatures	Ambient air temperature minimum = 50°F (10°C), maximum = 100°F (38°C) for models UC-15I and UC-15IP; 110°F (43°C) for models UC-15IO and UC-15IPO. Advise customer. NOTE: Check control board light to see if ice machine shutdown on over temperature limit (control board light will flash rapidly).
	No Electrical Power to Appliance	a. Verify fuse or circuit breaker is closed. Replace fuse; switch circuit breaker on. If circuit breaker trips or fuse blows again, check for electrical short at outlet or appliance. b. Verify ice machine is plugged into functioning, properly polarized and grounded 3-prong receptacle. Plug unit in; repair electrical outlet or power cord. c. See Wiring Diagrams and check for voltage at appropriate points from outlet to control board in control box. Reconnect, repair, replace wiring or connectors.
	Control Board Fuse Open	Visually inspect fuse, replace if open.
	Transformer Fault	If interior light functions or red control board light is energized, transformer is OK. If transformer is receiving power but no output, replace transformer.
	Control Board Fault	If transformer is supplying power to control board and red control board light will not energize, replace control board.
	Control Panel (User Interface) Board Fault	If red control board light is energized, but pressing "POWER" does not energize green "POWER" light, then check wiring between main control board and control panel board. If wiring is defective, replace wire harness; if wiring is good, replace control panel board.
	Bin Thermostat Fault	With no ice on bin level sensing tube, thermostat should be closed; open with ice on tube after ~ 3 minutes. Replace if defective.
	Drain Pump Safety Switch is Open. (UC-15IP, UC-15IPO Only)	Check drain hose for kinks or restrictions. Repair or replace bad hose.
B. Ice Machine Operates, but Will Not Make Ice (Continued on next page)	Improper Ambient Temperatures	Ambient air temperature minimum = 50°F (10°C), maximum = 100°F (38°C) for models UC-15I and UC-15IP; 110°F (43°C) for models UC-15IO and UC-15IPO. Advise customer. NOTE: Check control board light to see if ice machine shutdown on over temperature limit (control board light will flash rapidly).
	Improper Water Pressure	Water pressure must be 20 - 80 psi (1.4 - 5.5 bar). Advise customer.

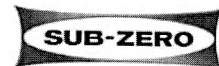


PROBLEM	POSSIBLE CAUSE	TEST / ACTION
(Continued from last page) B. Ice Machine Operates, but Will Not Make Ice	No Water in Water Trough	a. Water supply is off. Turn water supply on. b. Check water supply line for kinks or restrictions. Replace defective supply line. c. Check water filter. Replace if clogged. d. Check screens in water valve for obstructions. Clean screens or replace valve. e. Check for loose or disconnected wiring to water valve. Repair bad wiring. f. Check water valve integrity / operation. Replace if defective. g. Check trough for leak. Reposition/replace trough. h. Check standpipe. Reposition or replace.
	No Water Spray from Spray Nozzles	a. Check for blockage in spray nozzles. See Maintenance, Cleaning and Adjustment Information section of service manual. b. Check trough for leak. Reposition/replace. c. Check for loose or disconnected wiring to spray pump. Repair or reconnect wiring. d. Check operation of spray pump. Replace if defective.
	No Airflow Through Condenser	a. Check for obstructions in vents of kick-plate. Move/clear obstruction. b. Check condenser. Clean if dirty. c. Check for loose or broken condenser fan blade. Repair or replace blade. d. Check condenser fan motor wire connections. Repair or reconnect wiring. e. Check operation of condenser fan motor. Replace if defective.
	Hot Gas Valve Stuck Open	Check operation of hot gas valve. Replace valve and drier if valve is defective.
	Liquid Line Thermistor Fault (Disconnected, Open or Misread)	a. Check connection at board. Reconnect. b. Check for 30K - 33K ohms at ~32°F / 0°C or 8K - 12K ohms at ~77°F / 25°C. Replace if defective. NOTE: A slow flashing light at control board indicates thermistor open or disconnected. A rapid flashing light indicates temperatures exceeded 170°F (77°C); look for cause and/or check thermistor resistance.
	Compressor Electrical Fault	a. Check compressor electricals for loose or disconnected wiring. Repair or reconnect. b. Check operation of overload and relay. If defective, replace.
	Sealed System Fault	a. If power is at compressor and electricals are good, but compressor will not run, replace compressor and drier. b. Inspect sealed system for leaks, restrictions or inefficient compressor by observing frost patterns and feel tubing for irregular temperatures. Repair or replace components as needed.



PROBLEM	POSSIBLE CAUSE	TEST / ACTION
C. Ice Machine Makes Ice, but Cubes Do Not Release from Mold	Mineral Scale Build-up in Ice Making System	See Maintenance, Cleaning and Adjustment Information section of service manual.
	Freeze Time Too Long	See Cube Weight Check and Adjustment in Maintenance, Cleaning and Adjustment Information section of service manual.
	Hot Gas Valve or Solenoid Fault	a. Check for loose or disconnected wiring to hot gas valve solenoid. Repair bad wiring. b. Check integrity of solenoid coil. Replace if open or shorted. c. Check operation of hot gas valve. If stuck, replace valve and drier.
	Liquid Line Thermistor Fault (Disconnected, Open or Misread)	a. Check connection at board. Reconnect. b. Check for 30K - 33K ohms at ~32°F / 0°C or 8K - 12K ohms at ~77°F / 25°C. Replace if defective. NOTE: A slow flashing light at control board indicates thermistor open or disconnected. A rapid flashing light indicates temperatures exceeded 170°F (77°C); look for cause and/or check thermistor resistance.
	Control Board Fault	Check for power at control board to hot gas valve during harvest cycle. If no power is present, replace board.
D. Slow/Low Ice Production	Heavy/Frequent Ice Consumption	12 - 24 hours to fill bin is normal. Heavy/frequent ice consumption will slow refill process. Advise customer.
	Improper Ambient Temperatures	Ambient air temperature minimum = 50°F (10°C), maximum = 100°F (38°C) for models UC-15I and UC-15IP; 110°F (43°C) for models UC-15IO and UC-15IPO. Advise customer. NOTE: Check control board light to see if ice machine shutdown on over temperature limit (control board light will flash rapidly).
	Improper Water Temperatures	Water temperature minimum = 50°F (10°C), maximum = 80°F (27°C). Ice production slows with warmer water. Advise customer.
	Poor or No Airflow Through Condenser	a. Check for obstructions in vents of kick-plate. Move/clear obstruction. b. Check condenser. Clean if dirty. c. Check for loose or broken condenser fan blade. Repair or replace blade. d. Check condenser fan motor wire connections. Repair or reconnect wiring. e. Check operation of condenser fan motor. Replace if defective.
	Bin Drain Restricted, Melting Ice in Bin	Clean out bin drain and/or check installation for kinks in drain line.

(Continued on next page)



PROBLEM	POSSIBLE CAUSE	TEST / ACTION
(Continued from last page) D. Slow/Low Ice Production	Water Filter Clogged	Check water filter. Replace if clogged.
	Water Escaping from Water Trough	a. Check water trough for leaks. Reposition trough or replace. b. Check standpipe position. Reposition standpipe.
	Water Inlet Valve Fault	a. Check screens in water valve for obstructions. Clean screens or replace valve. b. Check for loose wiring connections at water valve. Repair connections. c. Switch ice machine OFF. If water continues to enter machine, and water pressure is good, replace valve.
E. Cubes are Shallow, Incomplete or White	Dirty Ice Making System	a. Unit needs cleaning. See Maintenance, Cleaning and Adjustment Information section of service manual. b. Have water quality tested; qualified company could make appropriate filter recommendations. c. Have water softener inspected, repaired (if applicable).
	Not Enough Water in Water Trough	a. Check water supply line for kinks or restrictions. Replace defective supply line. b. Check water filter (partially clogged). Replace filter. c. Check screens in water valve for obstructions. Clean screens or replace valve. d. Check for loose wiring to water valve. Repair bad connections. e. Check trough for leak. Reposition/replace trough. f. Check standpipe. Reposition or replace.
	Freeze Time Too Short	See Cube Weight Check and Adjustment in Maintenance, Cleaning and Adjustment Information section of service manual.
F. Cubes are Too Big	Freeze Time Too Long	See Cube Size Control Adjustment instructions in Maintenance, Cleaning and Adjustment section of manual.
G. Bin Front Panel Sweats	High Relative Humidity with Front Panel Heater Fault	a. Check heater wire connections (in control box); reconnect or repair. b. Check resistance of heater; replace bin front panel assembly if heater is open or shorted.