

# **BEVERAGE-AIR**.

# INSTALLATION AND OPERATING INSTRUCTIONS for all PH Warming Cabinets



809-212A 01/14/2021 3779 CHAMPION BLVD, WINSTON-SALEM, NC 27105 Phone: (888) 845-9800 | Fax: (800) 253-5168 | Web: beverage-air.com

SEE BACK COVER FOR WARRANTY REGISTRATION

## **WELCOME**

Congratulations on your purchase of Beverage-Air food service equipment. Every employee welcomes you to the family of satisfied Beverage-Air customers.

From the earliest stages of production design, to focused steps in fabrication and assembly, rigid standards of quality are maintained by our staff of skilled employees. Beverage-Air strives to supply superior products through strict quality control guidelines exceeding industry standards, this means that each unit, given the proper maintenance will provide years of trouble free experience to its owner.

#### Important Information

- PLEASE READ THESE INSTRUCTIONS CAREFULLY **BEFORE INSTALLING OR USING. IF RECOMMENDED** PROCEDURES ARE NOT FOLLOWED, WARRANTY CLAIMS MAY BE DENIED.
- Your warranty registration information is located with this manual. Please complete the card and submit it to Beverage-Air within TEN days of installation. Failure to properly register equipment may limit or void the warranty.

Additionally, Beverage-Air food service equipment has one of the best warranties in the food service industry, and backed by a professional staff of service technicians across the country.

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We thank you for your choice and confidence in Beverage-Air Equipment.

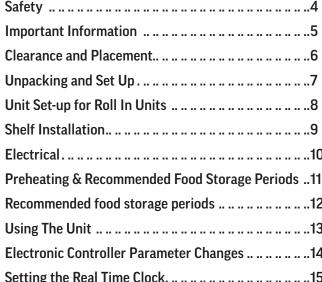
For part inquiries or orders please call our Technical Service Department at (800) 684-1199. 8:00 AM to 5:00 PM EST.

Beverage-Air reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions, or replacements for previously purchased equipment.

#### **Contents**

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## SAFETY

This appliance has been designed with your safety in mind. It has many features to keep you from being harmed. However, safe operation and maintenance are your responsibilities. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.



#### Use: When using this unit, please:

- **Move it carefully.** If on casters be sure the casters do NOT run over the power cord.
- Lock the casters when in use.
- **Seek help.** This machine is heavy! Be sure to move with enough help to avoid tipping or dropping the cabinet.



- **Prevent children from playing in or on the cabinet**. Persons unable to use this product must be prevented access.
- **Follow all instructions**. There are many safety labels and directions on the unit. Heed them.
- **Watch your fingers**. There may be pinch points near the door hinges.

#### **Important Information to Add**

Record the model number, serial number and the date of installation here for future reference. The model and serial numbers are on the unit's serial number dataplate, which is located on the left inside wall.

Model Number	
Serial Number	
Date of Installation	
Purchased From	





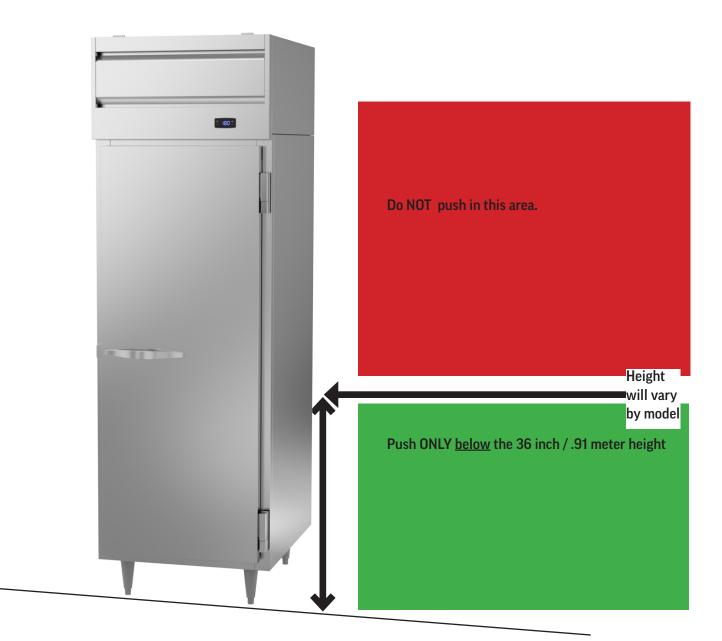
Observe the **Caution** and **Warning** notices. They are indicators of important safety information. Keep this manual for future reference.

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#### SAFETY



CAUTION: If it is necessary to move the Cabinet after removal from the skid, remove all doors and carefully push the unit at a point of no more than 36" from the bottom to avoid damage.



#### **IMPORTANT INFORMATION**

This unit is intended to be used in a commercial application. That includes bars and restaurants.

If installed in a residence some commercial service companies may not be able to service it on site.

#### Limitations

The machine is designed for use indoors in a controlled environment. It must be kept dry, not overheated or subjected to excessive cold. May only be connected to a dedicated electrical circuit. Extension cords are not permitted. The manufacturer has designed and produced this machine with the finest in materials. The manufacturer assumes no liability for units that have been altered in any way. Alterations or part substitutions will void the warranty.

	Minimum	Maximum
Voltage	208	240
Room Air Temp	60° F	100° F

Model	Cabinet Dimensions w x d x h (Inches)	Pass Thru	Doors	Glass or Solid Door	Full Load Amps	Power Cord Plug (NEMA)
PH1-1BHG	26 1/2 x 34 3/8 x 83 3/4		Half	Glass		
PH1-1S-PT		Yes	Full	Solid		
PH1-1HS-PT		Yes	Half	Solid	6.3	
PH1-1BG-PT	26 1/2 x 38 3/8 x 83 3/4	Yes	Full	Glass		
PH1-1BHG-PT		Yes	Half	Glass		
PH2-1S			Full	Solid		
PH2-1HS			Half	Solid		6-20P
PH2-1BG	52 1/8 x 34 5/8 x 83 3/4		Full	Glass		
PH2-1BHG			Half	Glass	13	
PH2-1S-PT		Yes	Full	Solid	13	
PH2-1HS-PT		Yes	Half	Solid		
PH2-1BG-PT	52 1/8 x 38 5/8 x 83 3/4	Yes	Full	Glass		
PH2-1BHG-PT		Yes	Half	Glass		

Height includes legs

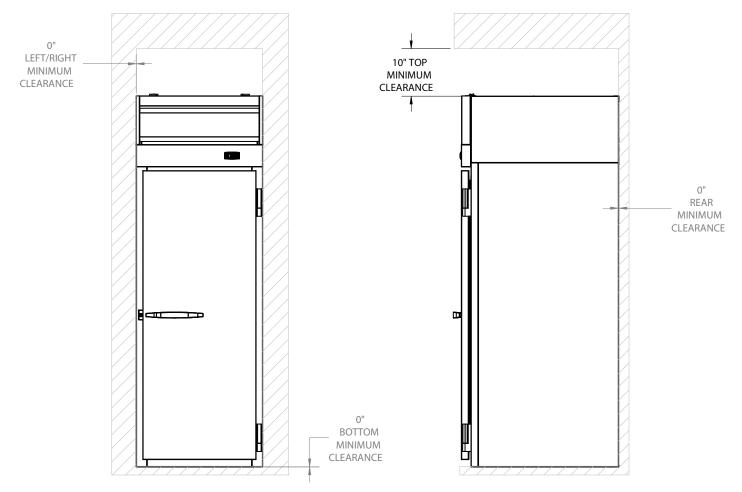
- All models are 208-240 volts, 60 Hz AC.
- ALWAYS REFERENCE YOUR EQUIPMENT DATA PLATE AMPS, FOR THE MOST UP TO DATE AND ACCURATE VALUES.

#### **Agency Approvals**

These marks appear on the dataplate or serial tag, located in the inside of the left wall. The dataplate also contains the model and serial numbers as well as electrical requirements.



### **CLEARANCE AND PLACEMENT**



#### Placement

Consider the following when selecting a location for your Cabinet:

#### **Clearance:**

- 10 in. at the top
- 0.0 in. at the rear,
- 0.0 in. at the left side
- 0.0 in. at the right side
- 0.0 in at the bottom

**Floor Load:** the floor on which the Cabinet is located must be even and level, free from vibrations, and strong enough to support the combined weights of the unit and maximum product load.

Ventilation: Grille area at front must be free and clear of any object or wall.

**Power Outlet:** The installation of this appliance requires a dedicated power outlet located within the length of the unit's power cord and be accessible for the purpose to disconnect power.

## UNPACKING AND SET UP

Carefully inspect the shipping carton for damage. This is the only time that shipping damage may be claimed. If damage is suspected, open the carton immediately and, if there is damage, retain the carton and contact the shipper to make a claim. Do NOT contact the manufacturer.

#### Uncrating

Tools Needed:  $\frac{3}{2}$ " box wrench, adjustable wrench, level, flat head screw driver, and box cutter.

- 1. Remove the cardboard top capping, all clear tape, and all staples including those at the bottom of the cardboard carton and skid.
- 2. Start from the top of the carton. Using the box cutter, carefully make one continuous cut to the bottom of the skid. Remove cardboard carton and discard.

#### **Skid Removal and Caster Attachment**

Tip the unit forward and remove the skid.



- 1. Remove the shipping bolts using the ¼" box wrench while cabinet is held in one direction. Repeat the process while the cabinet is held in the opposite direction.
- 2. None of the threads on the leg or caster stem should be visible once screwed in.
- 3. Tilt the cabinet in one direction approximately 8" and block it securely with pieces of 2x4 lumber or other suitable material.

#### Leveling:

Cabinets must be leveled when installed. Level should be measured on the headrail.

Failure to level your cabinet may result in door not sealing, closing correctly,.

For cabinets with legs, rotate the foot of the leg with an adjustable wrench to achieve desired height for leveling.

For cabinets with casters, leveling can be achieved by placing large washers in between the  $\frac{1}{2}$ ' stud and the holes located on the bottom of the case.

Note: additional clear plastic protective wrap is applied directly to any product with a glass door.

3. Move unit as close to final position as possible before removing the skid.

Note: The skid must be removed before the casters or legs can be attached.

- 4. Thread the stem casters or legs into the ½ -13 holes in the bottom of the cabinet. Tighten by hand as much as possible. Some models may already have levelers installed. If so, then the levelers will need to first be removed and discarded.
- 5. Once the caster or leg cannot be turned any further, use a 3/4 inch wrench to tighten the nut in between the mounting plate and the wheel of the caster until snug.
- 6. Repeat this procedure with unit secured in the opposite direction so as to access the remaining legs/ casters/levelers
- 7. If plate casters or legs are installed instead of stem casters or legs, then repeat step 3 above and secure the plate with either #14 AB screws, or ½-20 screws, depending upon which are required.
- 8. If levelers are employed, then repeat step 3 above and thread the leveler in place. Then repeat step 6.

#### Do NOT loosen casters to level the cabinet. Casters MUST



be tightly secured to cabinet for full strength.

Install or attach any accessories that will be used

Remove any plastic covering the stainless steel.

## **UNIT SET-UP FOR ROLL IN UNITS**

Important: The floor where the new roll-in/roll-thru cabinet is to be permanently located must be level, flat surface prior to installation. Failure to properly level the install your equipment can void equipment warranty.

If necessary to move the unit after removing it from the skid, remove all doors and carefully push the cabinet at a point no more than 36" (inches) from the bottom to avoid damage.

It is an NSF requirement that roll-in/roll-thru models are sealed to the floor upon installation.

1. Locate roll-in/roll thru model in exact position in which it is to be set permanently.

2. Level unit, inserting metal shims under unit where required. It is important that an accurate carpenter's level be used when leveling cabinet

3. Construct a wood form to act as a retainer for the grouting compound around the entire base of the cabinet. Pour the grout mixture at various intervals around the form to assure complete fill under the cabinet

4. Using a wide blade putty knife, taper the grout to a feather edge.

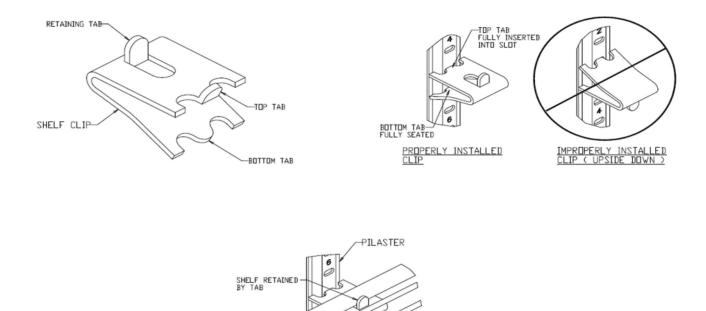
5. A tube of NSF approved silicone sealer, having an applicator type nozzle, is highly suited for sealing roll-in/ roll-thru models to the floor. Apply a small uniform bead completely around the base of the cabinet.

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#### SHELF INSTALLATION

- 1. Determine the proper location for the shelf clips. The reference numbers on the pilaster can serve as a guide to ensure all clips are properly located.
- 2. Insert the top tab of the shelf clip into the desired hole of the pilaster. The retaining tab MUST be facing up as shown.
- 3. Rotate the clip downwards and insert the bottom tab into the matching hole in the pilaster. The clip may need to be squeezed slightly during installation.
- 4. Install all remaining clips.
- 5. Install shelves onto clips with the product retention bar facing up. Be careful not to dislodge clips during installation.

- 6. Place shelves so that the retaining tab on the clip captures the shelf as shown.
- 7. Confirm that the shelf is resting on ALL 4 clips and that the clips are securely attached to the pilasters.
- 8. Improper shelf clip installation could cause the shelf and / or the product on it to fall, resulting in damage to the unit and possible bodily injury.
- 9. Do NOT overload the shelves. The unit is designed to use all shelves that are supplied in an equally spaced manner. Contact Beverage-Air customer service if fewer shelves or a different configuration to ensure shelf overloading will not occur.



Rev. 01/21

PRODUCT RETENTION BAR

## ELECTRICAL

This is a cord-connected unit, and must be connected to its own **dedicated** power supply. Check the dataplate on the machine to confirm the voltage and per the dataplate use the correct fuses or circuit breakers.

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Note: Do not connect to GFI / GFCI outlets. Connection to that type of outlet can result in product loss due to unsafe cabinet temperature when GFI device trips from moisture.

#### **Power Cords**

This 220 volt model is equipped with a power cord and type 6-20P plug.

If a power cord becomes damaged, it must be replaced with the identical cord.

#### **Follow All National and Local Codes**

This Unit Must Be Grounded. Do not use extension cords and do not disable or by-pass ground prong on electrical plug.

Prior to use, the interior and exterior surfaces of the cabinet should be cleaned thoroughly with warm water, mild detergent, and a soft cloth. Apply with a dampened cloth and wipe in the direction of the metal grain. Then allow to air dry with the doors open. Only use a clean soft cloth. See detailed cleaning instructions in the cleaning and maintenance section

#### **Initial Start Up**

After the cabinet has been installed, leveled, and cleaned as described above, refer to the following check list:

- Check for proper electrical hook-up.
- Check that all clearances are in line with the aforementioned guidelines.
- Check that cabinet is level.

NOTE: Once the unit has been started and reaches proper storage temperatures, it may be loaded with product. For proper energy efficiency and airflow we recommend a minimum1" clearance between product and side walls, 4" clearance between product and ceiling, and 1" clearance from the bottom of the unit.

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## **PREHEATING & RECOMMENDED FOOD STORAGE PERIODS**

Food should not be placed in a cold warming cabinet. To preheat the warming cabinet, turn it on one (1) hour before it will be needed. See page 13 on how to use the control display panel to assist in preheating and operation.

If the food has been cooked in the same pan in which it will be served, it should be left in the same pan when being placed in the warming cabinet. However, if food is cooked and served in different pans, the food should be panned as soon as the cooking is completed and placed in the warmer. Although the two methods mentioned may not necessarily pertain to the requirements of daily foodservice activity, another approach for good food quality is to place the food directly to a serving counter after cooking. The warmer keeps the food in good condition during the interval between cooking and serving. It is recommended that food should be stored within the cabinet and in its original pan in which it will be served.

The food should be placed in the cabinet while hot, but not until it stops giving off steam

Note: if steam is excessive, use a lid on pots or pans.

Risk of personal injury from hot pans or racks.
User proper hot container handling materials.

It is possible to reheat some food without further deterioration if sufficient time is allowed for the heat to slowly penetrate the entire mass.

Most food can be kept in best condition at a temperature of approximately 160°F, but the exact temperature varies depending upon the kind of food and method of its preparation; therefore, it is impossible to give any exact instructions which will fit all conditions. It is necessary to experiment by increasing or decreasing the temperature of the unit until you find the temperature at which the majority of the food kept in the unit will keep in the best condition. Once this setting is determined, the controller should always be kept at this setting. Some food, such as breaded meats, fish, etc., when kept at proper temperature, requires less degree of moisture in the cabinet to prevent sogginess. For this reason, all cabinets are equipped with vents or dampers. The damper should be opened for such food by turning the knob in the desired direction for opening and closing. This knob opens or closes the vent in the top of the cabinet. By looking into the cabinet when operating the knob, you can fully understand its function and adjustment.

Some foods can be kept in good condition much longer than others, and certain foods cannot be satisfactorily kept at all in any manner. French fried potatoes, roasts, waffles and similar foods, where the outside must be crisp and centers steaming hot must be prepared immediately before serving. Do not expect the impossible from the warming cabinet, but if used intelligently it will keep food over a longer period of time and with less deterioration than is possible with any other equipment. By reducing the deterioration between the time the food is cooked and the time it is served, the warming cabinet will assure serving the food to the customer in proper condition. See the recommended food storage periods table as a reference guide.

## **RECOMMENDED FOOD STORAGE PERIODS**

Product	Longest Time Kept	Average Time Kept	Approximate Temp. °F
*Crispy or Dry Foods			
Baked Potatoes	2 hours	30 minutes	170 -180
Corn Stick	2 hours	1 hour	140 - 150
Crackers	8 hours	5 hours	140 - 150
Chicken Pies	6 hours	3 hours	170 - 180
Club Sandwiches (wrapped)	1 hour	30 minutes	160
Fried Chicken	6 hours	3 hours	170 -180
Fried Seafood	6 hours	2 hours	170 -180
Hard Rolls	8 hours	4 hours	140 - 150
Hot Mince or Apple Pie	6 hours	4 hours	160
Meat Pies	6 hours	3 hours	170-180
Popcorn & Potato Chips	10 hours	5 hours	150
*Moist Foods			
Baked Beans	8 hours	4 hours	170 -180
Baked Stuff Lobster	3 hours	2 hours	170 -180
Biscuits	1 hour	30 minutes	150 - 175
Casserole (without top crust)	8 hours	4 hours	170 - 180
Chop Suey	6 hours	4 hours	180
Deviled Crabs	5 hours	3 hours	170 -180
Frankfurter	6 hours	3 hours	160 - 175
Hash	4 hours	2 hours	170 -180
Mashed Potatoes	3 hours	2 hours	160 - 180
Vegetables (ready for serving)	6 hours	2 hours	170 -180
Sweet Rolls	4 hours	2 hours	140 - 150

#### closed as much as possible to avoid unnecessary run time. Adjusting the set temperature higher will NOT cause the

system to raise the temperature faster.

**USING THE UNIT** 

The cabinet temperature was set at the factory at 160° F., but you can adjust it to your own selected temperature. Push and release the Increase or Decrease buttons to make a change. 30 seconds after adjustment, the display automatically reverts to showing the current temperature.

Operation is simple, just keep it connected to the correct

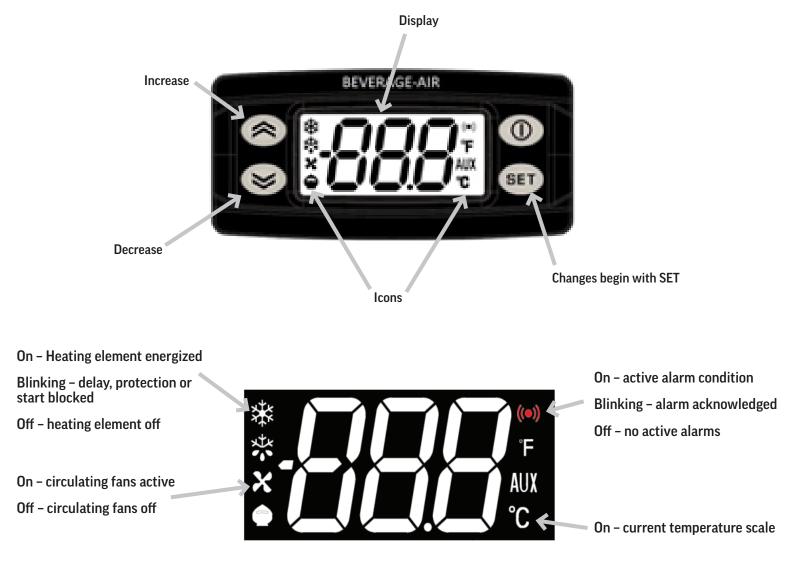
power supply and the warming cabinet will maintain the

internal temperature it has been set to. Keep the doors

If equipped with glass doors, holding the SC button in will turn the cabinet light on or off.

# **User Manual for PH Warming Cabinets**

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### **ELECTRONIC CONTROLLER PARAMETER CHANGES**

Note: Key pad has a 3 second lock feature. Set key must be pressed for 3 seconds and released before keys will become active. Key pad will beep when unlocked and normal key pad operations performed.

LIGHT	STANDBY	UP	DOWN	ESC	SET (Enter)
Press and Hold	Press and Hold	Press and Release	Press and Release	Press and Release	Press and Release
Long press (>5 sec) Toggles light on and off.	Places unit in Standby Mode. If LED is on. Device is off.	Scrolls the menu items Increases the values.	Scrolls the menu items Decreases the values.	Returns up one level with respect to the current menu. Confirms the parameter value	Accesses the machine status menu and displays any alarms (if present)
		$\widehat{\ }$	$ \ge $		SET

#### **Setting the Operating Set Point**

To change the operating set point, press and release the set button to enter the machine menu. "set" will appear on the display.



Press and release the set button again to view the set point.



Use the up and down button to change the set point. When adjustment is finished, use the escape button to exit out of the machine status menu.



#### SETTING THE REAL TIME CLOCK

To set the real time clock, press and release the set button to enter the machine status menu. "Set will appear on the menu.



Use the up and down button to scroll to the real time clock menu folder. "Rtc" will appear on the display.



Press the set button to enter into the clock setup menu. "Day" will appear on the display. Use the up and down buttons to scroll to the hour (h), minute (\*) or day (day) that needs to be changed.



Press the set button to display the value and use the up or down button to change the value. Once the value has been selected, use the escape button to confirm the new value and return the pervious menu level. Repeat the previous steps to change the remaining parameters.



**Viewing Alarm Codes** 

To view the alarm codes, press the set button to enter the machine status menu. "Set" will appear on the display.

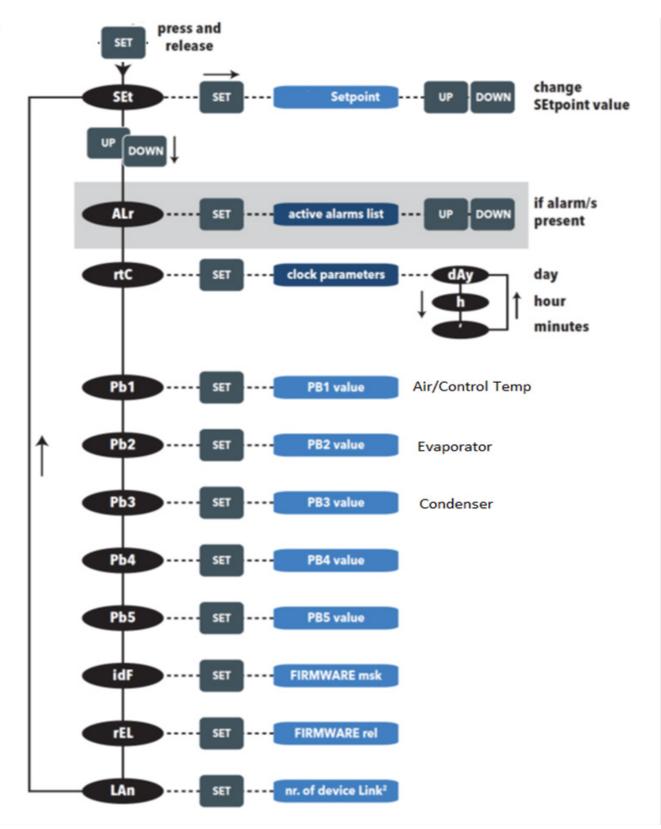


Use the up and down button to scroll the alarm folder in the menu. ALr will appear on the display.

Press the set button to enter into the list of active alarms. Use the up and down button to scroll thru the alarms. Once alarm codes have been viewed, use the escape button to exit out the menu and view set point.



#### **CONTROLLER FLOW CHART**



#### **ALARM CODES**

Code	Description	LED	Relay	Reset	Parameters involved to Enable alarm
E1	Probe Pb1 failure	ON	Active	Automatic	Ont, Oft
E2	Probe Pb2 failure	ON	Active	Automatic	Ont, Oft
E3	Probe Pb3 failure	ON	Active	Automatic	Ont, Oft
E4	Probe Pb4 failure	ON	Active	Automatic	Ont, Oft
E5	Probe Pb5 failure	ON	Active	Automatic	Ont, Oft
EL	LINK2 probe failure	ON	Active	Automatic	Ont, Oft
Ei	Virtual probe failure	ON	Active	Automatic	Ont, Oft
AH1	HIGH temperature 1 alarm	ON	Active	Automatic	SP1, Att,Afd,HA1,PA0,dA0,0A0,tA1
AL1	LOW temperature 1 alarm	ON	Active	Automatic	SP1, Att,Afd,HA1,PA0,dA0,0A0,tA1
AH2	HIGH temperature 2 alarm	ON	Active	Automatic	SP2, Att,Afd,HA2,PA0,dA0,0A0,tA2
AL2	LOW temperature 2 alarm	ON	Active	Automatic	SP2, Att,Afd,HA2,PA0,dA0,0A0,tA2
EA	External alarm	ON	Active	Automatic	PEA, EAL
OPd	Door open alarm	ON	not active	Automatic	PEA, tdO
Ad2	End of defrost due to time-out	ON	not active	Automatic	dE1, dE2, dAt
Prr	Preheating alarm	ON	not active	Automatic	
E10	Clock alarm	ON	not active	Automatic	
HiP	HIGH voltage alarm	ON	not active	Automatic	SPH, SPL, dFL, SoU
LoP	LOW voltage alarm	ON	not active	Automatic	SPH, SPL, dFL, SoU
nPA	General pressure switch alarm	ON	not active	Automatic	PEn, PEi
LPA	High pressure switch alarm	ON	not active	Automatic	PEn, PEi
HPA	Low pressure switch alarm	ON	not active	Automatic	PEn, PEi
PA	General pressure switch alarm	ON	not active	Manual	PEn, PEi

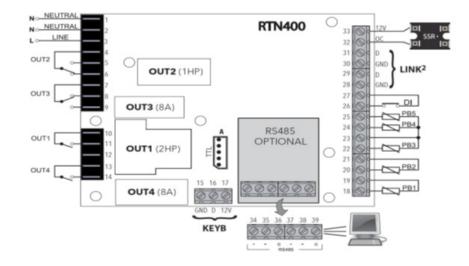
### **SEQUENCE OF OPERATIONS**

The cooler operates based on the air temperature measured by the probe located at the return air.

	Operation	Controller Action	Operation	Controller Action	
Heating Elements	Elements turn on when the cabinet	The element Contact is energized	Elements turn off when the cabinet tem-	The element Contact is de-energized	
	temperature is below the difference of the set point and the dead band	RTN400 terminals 10, 11	perature is equal to or above the set point.	RTN400 terminals 10, 11	
Circulating Fan	The Circulating fan runs continuously when the unit is plugged in				
Light	The light will turn on when the door is	The Light Contact is energized	The light will turn off when the door is	The Light Contact is de-energized	
	open or door button is pressed	RTN400 terminals 13,14	closed or the door button is pressed	RTN400 terminals 13,14	

Condition	Heating Element	Circulating Fan	Lights
Cabinet Temp < Set point - dead- band	ON	ON	ON or OFF
Cabinet Tem- perature >= Set point	OFF	ON	ON or OFF

## CONTROLLER



Relay/Probe	Description	Terminal
Out 1	Heating Elements	10,11
Out 2	Circulating fan	4, 5
Out 3	not used	7, 9
Out 4	Light (or alarm relay if electronic lock)	13, 14
PB1 -	Air/control probe	18, 19
PB2	not used	20, 21
PB3	not used	22, 23
PB4&5	not used	
DI	digital input/Door switch	26, 27
KEYB	Display connection	15, 16, 17

## **CLEANING AND MAINTENANCE**

#### Cleaning Schedule:

Cabinet

Daily wipe down

Weekly interior

#### **Gaskets** Daily inspection, check that hinges are tight to the cabinet.

#### **Routine maintenance**

Annually

#### **Daily Exterior Cleaning**

It is much easier to clean on a regular basis than to have to remove stains once they have built up.

- 1. Wash with a clean sponge and a mild detergent that does not contain chlorine.
- 2. Rinse with clean water.

#### **Weekly Interior Cleaning**

- 1. Remove all food, food related items and shelves. Store the food at a safe temperature.
- 2. Disconnect power to the unit (unplug it or switch the breaker off).
- 3. Remove all loose food particles from the inside walls, floor, door liner and ceiling.
- 4. Scrub all interior surfaces and door gaskets with a warm (100°F to 110°F) detergent solution and a soft scrub brush.

#### **Periodic, Gaskets**

- 1. Visually inspect the door gaskets for a tight seal on all four sides. Inspect for any type of damage such as rips, tears, stiffness, or cracks.
- 2. If any such condition exists, the magnet will not seal and the gasket will need replaced.
- 3. Cleaning the gasket requires the use of mild dish detergent and warm water. Next, thoroughly rinse and dry the gasket.

- 3. Dry with a soft cloth.
- 4. Polish with a soft cloth, wiping with the grain.
- 5. Wipe weekly with stainless steel cleaner.
- 5. Rinse with clean water and allow to air dry.
- 6. Return the shelves to the unit and secure them.
- 7. Restore power.
- 8. Return food to the unit when it has reached a safe temperature.

## **METHODS FOR CLEANING STAINLESS STEEL**

Cleaning Needed	Cleaning Agent	Method of Application	Affect on Finish
Smears and fingerprints	Areal 20, Lac-O-Nu, Lumin Wash O'Cedar Cream Polish, Stainless Shine.	Rub with cloth as directed on the package.	Satisfactory for use on all finishes. Provides barrier film to minimize prints.
	Allchem Concentrated Cleaner.	Apply with damp sponge or cloth. Rub with damp cloth.	
	Samae, Twinkle or Cameo Copper Cleaner	Rub with damp cloth.	
	Grade FFF Italian pumice, whiting, or talc.	Rub with dry cloth.	
Stubborn Spots and Stains, Baked-On Splatter, and Other Light Discolorations	Liquid NuSteel Paste NuSteel or DuBois Temp. Copper's Stainless Steel Cleaner Revere Stainless Cleaner Household cleansers, such as Old Dutch, Lighthouse, Sunbrite, Wyandotte, Bab-O, Gold Dust, Sapolio, Bon Ami, Ajax, or Comet Grade F Italian Pumice, Steel Bright, Lumin Cleaner, Zud, Restore, Sta-Clean, or Highlite. Penny-Brite or Copper-Brite.	Use small amount of cleaner. Rub with dry cloth using a small amount of cleaner. Apply with damp sponge or cloth. Rub with a damp cloth. May contain chlorine bleaches. Rinse thoroughly after use. Rub with a damp cloth. Rub with a dry cloth using a small amount of cleaner.	Use in direction of polish lines on No. 4 (polished) finish. May scratch No. 2 (mill) and Nos. 7 and 8 (polished) finishes.
Heat tint or discoloration	Penny-Brite or Copper-Brite. Past NuSteel, DuBois Temp, or Tarnite. Revere Stainless Steel Cleaner. Allen Polish, Steel Bright, Tenacious Deposits, Rusty Discolorations, Industrial Atmospheric Stains Wyandotte, Bab-O or Zud.	Rub with a dry cloth. Rub with a dry cloth or stain- less steel wool. Apply with damp sponge or cloth. Rub with a damp cloth.	
Burnt-On Foods and Grease Fatty Acids, Milkstone (where swabbing or rubbing is not practical)	Easy-Off, De-Grease-It, 4 to 6% hot solution of such agents as trisodium phosphate or sodium tripolyphosphate or 5 to 15% caustic soda solution	Apply generous coating. Allow to stand for 10-15 minutes. Rinse. Repeated application may be necessary.	Excellent removal, satisfactory for use on all finishes.
Tenacious Deposits, Rusty Discolorations, Industrial Atmospheric Stains	Oakite No. 33, Dilac Texo 12, Texo NY, Flash-Klenz, Caddy Cleaner, Turco Scale 4368 or Permag 57.	Swab and soak with clean cloth. Let stand 15 minutes or more according to directions on package, then rinse and dry.	Satisfactory for use on all finishes
Hard Water Spots and Scale	Vinegar. 5% oxalic acid, 5% sulfamic acid, 5 to 10% phosphoric acid, or Dilac, Oakite No. 33, Texo 12, Texo N.Y.	Swab or wipe with cloth. Rinse with water and dry. Swab or soak with cloth. Let stand 10-15 minutes. Always follow with neutralizer rinse, and dry.	Satisfactory for all finishes. Satisfactory for all finishes. Effective on tenacious deposits or where scale has built up.

## HELP

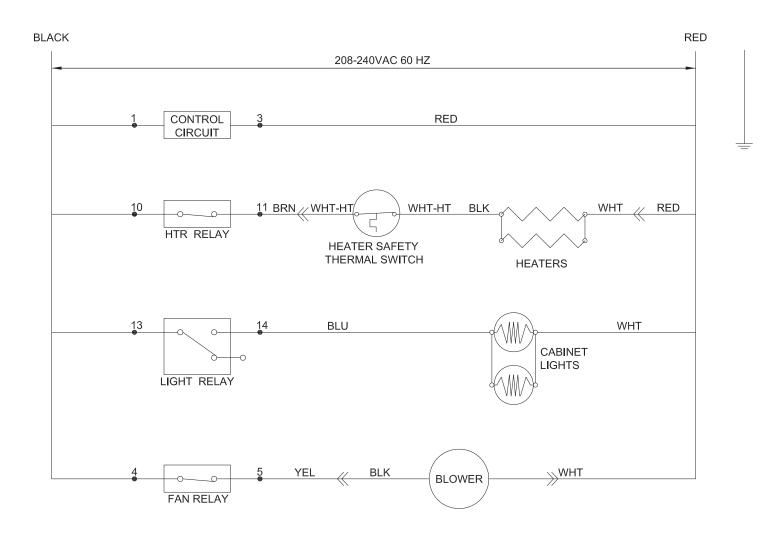
PROBLEM	POSSIBLE CAUSE	REMEDY
Cabinet not operating	Fuse blown or circuit breaker tripped	Replace fuse or reset circuit breaker
	Power cord unplugged	Plug in power cord to designated receptacle. Cabinet cannot share same outlet with other equipment.
	Improper voltage supplied to cabinet (voltage does not match Data-Plate).	Correct supply voltage (remove extension cords or other equipment on circuit, etc)
	Main power switch and/or controller turned off	Turn on main power switch and/or controller.
	Defective high limit/heater safety switch	Internal high limit/heater safety may be defective. Contact the factory or an authorized service provider for further assistance if all else has been checked above and the cabinet is still not operating.
Cabinet not holding temperature	Cabinet not pre-heated before use	Turn cabinet on one (1) hour before use
	Prolonged door opening of door ajar	Make sure door is closed when not in use. Avoid prolonged door openings.
	Door gasket not sealing properly	Check door gasket condition Adjust door or replace gasket.
	Controller setpoint is too low	Adjust controller setpoint to a higher temperature
	Improper voltage supplied to cabinet (voltage match Data-Plate )	Correct supply voltage (remove extension cords or does not) other equipment on circuit, etc).
	Product load held too long	Hold product load inside cabinet per recommended temperature. Examples of holding times and temperatures are on page 12.
	Blower motor not operating or air duct is air duct is restricted,	Check blower motor and air duct for proper air flow. try to carefully locate and remove the cause of air restriction. If further assistance is restricted required, contact the factory or authorized service provider for further assistance.
	Heater elements not operating	Carefully check heater elements for proper operation .If heating element(s) are not working properly, contact the factory or an authorized service provider for further assistance.
Cabinet is overheating.	Defective high limit/heater safety switch	If controller setpoint is adjusted to a lower setting and the internal cabinet temperature exceeds +200' F, turn off cabinet and contact the factory or an authorized service provider for further assistance
	Defective blower motor	Check blower motor operation. If blower motor is not operating, contact the factory or an authorized service provider.

#### **HELP CONTINUED**

Product load burning or boiling	Product load is too close to heating element	Rearrange product load so that it is not too close to heating element(s).	
	Controller setpoint is too high	Adjust controller setpoint to a lower setting. Examples of holding times and temperatures are within the operator's manual.	
Product load becoming soggy	Too much humidity or moisture inside cabinet	Adjust or close internal venting/damper knob to control moisture. Normally the internal venting/ damper should be open for products such as breaded meats, fish, etc	
	Product load held too long time.	Hold product load inside cabinet per recommended time. Examples of holding times and temperatures are on page 12.	
Cabinet is noisy	Part(s) loose	Locate and tighten loose part(s)	
	Cabinet is not level	Level cabinet by adjusting legs or shimming caster	
Door won't close	Hinge(s) may need slight adjustment	Apply shim(s) to hinge until door seals properly	
Controller Alarm & Error		Refer to page 17 of manual. If problem( s) persist,Codes contact the factory for further assistance	

#### FOR THE SERVICE TECH - WIRING DIAGRAM

# 220V ULTRASPEC WARMER



## LIMITED WARRANTY

THREE (3) YEAR PARTS AND LABOR WARRANTY (CF/ CT MODELS CARRY ONE (1) YEAR PARTS AND LABOR WARRANTY, SR/SF units CARRY TWO((2) YEAR PARTS AND LABOR WARRANTY,LIMITED TO FIFTEEN (15) MONTHS FROM DATE OF SHIPMENT):

Beverage-Air Corporation warrants to the original purchaser of Beverage-Air branded equipment, including all parts thereof, that such equipment is free from defects in material and workmanship, under normal use, proper maintenance, and service as indicated by Beverage-Air installation and operation instructions, for a period of three (3) years from the date of installation, or thirty-nine (39) months from the date of shipment from the manufacturer, whichever is earlier.

Normal wear type parts, such as light bulbs/lamps and gaskets are not covered by this warranty. For the purpose of this warranty, the original purchaser shall be deemed to mean the individual or company for who the product was originally installed.

Our obligation under this warranty shall be limited to repairing or replacing, including labor, any part of such product, which proves thus defective. Beverage-Air reserves the right to examine any product claimed to be defective.

#### **BEVERAGE-AIR**

The labor warranty shall be for self-contained units only and for standard straight time, which is defined as normal service rate time, for service performed during normal working hours. Any service requested outside of a servicer's normal working hours will be covered under this warranty at the normal rate and any additional overtime rate will be at the responsibility of the equipment purchaser.

Any part or accessory determined to be defective in the product should be returned to the company within thirty (30) days under the terms of this warranty and must be accompanied by a record of the cabinet model, serial number, and identified with a return material authorization number (RMA#) issued by the manufacturer.

Special installation/applications, including remote locations, are limited in coverage by this warranty. Any installation

that requires extra work, and/or travel, to gain access to the unit for service is the sole responsibility of the equipment purchaser.

Improper operation resulting from factors, including but not limited to, improper or negligent cleaning and maintenance, low voltage conditions, inadequate wiring, outdoor use (unless otherwise specified) and accidental damage are no manufacturing defects and are strictly the responsibility of the purchaser.

With the exception of Blast Chillers product is designed for maintaining temperature and not bringing food to a desired temperature therefore cannot be held responsible for this function under warranty.

Units must be in a conditioned environment or warranty will be void.

Condensing coils must be cleaned at regular intervals. Failure to do so can cause compressor malfunction and will void warranty. Although cleaning requirements vary in accordance with operation of various products, Beverage-Air recommends a Minimum monthly cleaning.

#### ADDITIONAL TWO (2) YEAR COMPRESSOR PART WARRANTY

In addition to the warranty set forth above, Beverage-Air warrants the hermetically/semi-hermetically sealed compressor (part only) for an additional two (2) years beyond the first three (3) years warranty period; not to exceed sixty-three (63) months from the date of shipment from Beverage-Air, provided upon receipt of the compressor, manufacturer examination shows the sealed compressor to be defective. This extended warranty does not cover freight for the replacement compressor or freight for the return of the failed compressor. Also, this extended compressor-part only warranty does NOT apply to any electrical controls, condenser, evaporator, fan motors, overload switch, starting relay, capacitors, temperature control, filter/drier, accumulator, refrigeration tubing, wiring harness, labor charges, or supplies which are covered by the warranty above.

NO CLAIMS CAN BE MADE AGAINST THIS WARRANTY FOR SPOILAGE OF FOOD. PRODUCTS, LOSS OF SALES OR CONSEQUENTIAL DAMAGES.

## LIMITED WARRANTY (CONTINUED)

THE FOREGOING WARRANTIES ARE EXPRESSLY GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HERBY DISCLAIMED, ALL OTHER OBLIGATIONS OR LIABILITIES ON OUR PART, AND WE NEITHER ASSUME, NOR AUTHORIZE ANY OTHER PERSON TO ASSUME FOR US, ANY OBLIGATION OR LIABILITY IN CONNECTION WITH THE SALE OF SAID REFRIGERATION UNITS OR ANY PARTS THERE OF.

This warranty shall not be assignable and shall be honored only in so far as the original purchaser. This warranty does not apply outside the limits of the United States of America and Canada, nor does it apply to any part that has been subject to misuse, neglect alteration, accident, or to any damage caused by transportation, flood, fire, acts of terrorism, or acts of God.

Residential applications: Units installed in residential applications will be warranted for a period of 1 year parts & labor from the date of original installation.

#### LIMITATION OF LIABILITY:

Beverage-Air Corporation or their affiliates shall not be liable for any indirect, incidental, special or consequential damages, or losses of a commercial nature arising out of malfunction equipment or its parts components thereof, as a result of defects in material or workmanship.

THE ORIGINAL OWNER'S SOLE AND EXCLUSIVE REMEDY AND BEVERAGE-AIR'S SOLE AND EXCLUSIVE LIABILITY SHALL BE LIMITED TO THE REPAIR OR REPLACEMENT OF PARTS OR COMPONENTS CONTAINED IN THE EQUIPMENT IDENTIFIED ABOVE WHICH UNDER NORMAL USE AND SERVICE MALFUNCTION AS A RESULT OF DEFECTS IN MATERIAL OR WORKMANSHIP, SUBJECT TO THE APPLICABLE PROVISIONS AND LIMITATIONS STATED ABOVE.

Warranty Registration				
Register your product online at <b>beverage-air.com/parts-service</b> or fill out and mail the form below.				
Cabinet Model Number:	Date Of Installation:			
Cabinet Serial Number:				
Location Of Product				
Business Name:				
Business Street:				
Business City: State:	Postal Code:			
Mail to: Beverage-Air, 3779 Champion Blvd, Winston-Salem, NC 27105				
Rev. 01/21				

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