

ALTO SHAAM®

**Food Holding Cabinet
Electric**



Model:

**1000-UPS/EPL
Electronic Control**

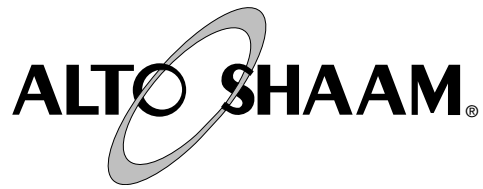
- **INSTALLATION**
- **OPERATION**
- **MAINTENANCE**

**HALO
HEAT**

Do Not Discard this Manual

24•7
Your Service Hotline
1-800-558-8744

W164 N9221 Water Street • P.O. Box 450 • Menomonee Falls, Wisconsin 53052-0450 USA
PHONE: 262.251.3800 • 800.558.8744 USA/CANADA FAX: 262.251.7067 • 800.329.8744 U.S.A. ONLY
WEBSITE: www.alto-shaam.com



DELIVERY

This Alto-Shaam appliance has been thoroughly tested and inspected to insure only the highest quality unit is provided. Upon receipt, check for any possible shipping damage and report it at once to the delivering carrier. *See Transportation Damage and Claims section located in this manual.*

This appliance, complete with unattached items and accessories, may have been delivered in one or more packages. Check to ensure that all standard items and options have been received with each model as ordered.

Save all the information and instructions packed with the appliance. Complete and return the warranty card to the factory as soon as possible to assure prompt service in the event of a warranty parts and labor claim.

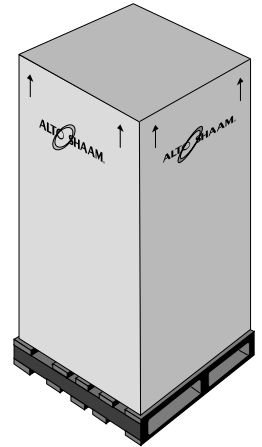
This manual must be read and understood by all people using or installing the equipment model. Contact the Alto-Shaam service department if you have any questions concerning installation, operation, or maintenance.

NOTE: All claims for warranty must include the full model number and serial number of the unit.

UNPACKING

1. Carefully remove the appliance from the carton or crate.

NOTE: Do not discard the carton and other packaging material until you have inspected the unit for hidden damage and tested it for proper operation.



2. Read all instructions in this manual carefully before initiating the installation of this appliance.

DO NOT DISCARD THIS MANUAL.

This manual is considered to be part of the appliance and is to be provided to the owner or manager of the business or to the person responsible for training operators. *Additional manuals are available from the Alto-Shaam service department.*

3. Remove all protective plastic film, packaging materials, and accessories from the appliance before connecting electrical power. Store any accessories in a convenient place for future use.

SAFETY PROCEDURES AND PRECAUTIONS

Knowledge of proper procedures is essential to the safe operation of electrically and/or gas energized equipment. In accordance with generally accepted product safety labeling guidelines for potential hazards, the following signal words and symbols may be used throughout this manual.

DANGER

Used to indicate the presence of a hazard that **will** cause severe personal injury, death, or substantial property damage if the warning included with this symbol is ignored.

WARNING

Used to indicate the presence of a hazard that **can** cause personal injury, possible death, or major property damage if the warning included with this symbol is ignored.

CAUTION

Used to indicate the presence of a hazard that can or will cause minor or moderate personal injury or property damage if the warning included with this symbol is ignored.

CAUTION

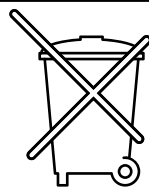
Used to indicate the presence of a hazard that can or will cause minor personal injury, property damage, or a potential unsafe practice if the warning included with this symbol is ignored.

NOTE:

Used to notify personnel of installation, operation, or maintenance information that is important but not hazard related.

1. This appliance is intended to cook, hold or process foods for the purpose of human consumption. No other use for this appliance is authorized or recommended.
2. This appliance is intended for use in commercial establishments where all operators are familiar with the purpose, limitations, and associated hazards of this appliance. Operating instructions and warnings must be read and understood by all operators and users.
3. Any troubleshooting guides, component views, and parts lists included in this manual are for general reference only and are intended for use by qualified technical personnel.
4. This manual should be considered a permanent part of this appliance. This manual and all supplied instructions, diagrams, schematics, parts lists, notices, and labels must remain with the appliance if the item is sold or moved to another location.

NOTE



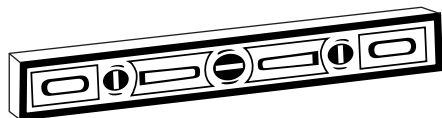
For equipment delivered for use in any location regulated by the following directive:

DO NOT DISPOSE OF ELECTRICAL OR ELECTRONIC EQUIPMENT WITH OTHER MUNICIPAL WASTE.

INSTALLATION

Site Installation

1. This appliance is designed for the purpose of maintaining hot food at a temperature for safe consumption. The unit must be installed on a level surface in a location that will permit the equipment to function for its intended purpose and allow adequate access for proper cleaning and maintenance.
2. The appliance must not be installed in any area where it will be affected by steam, grease, dripping water, high temperatures, or any other severely adverse conditions.
3. Level the appliance from side-to-side and front-to-back using a spirit level.




4. In order to maintain standards established by the National Sanitation Foundation, all equipment must be equipped with casters or 6" (152mm) legs to provide minimum unobstructed space beneath the unit; or secured flush at the bottom and the entire base sealed with NSF approved sealant. Warranty will become null and void if these directions are not followed.

	DANGER
IMPROPER INSTALLATION, ALTERATION, ADJUSTMENT, SERVICE OR MAINTENANCE COULD RESULT IN SEVERE INJURY, DEATH OR CAUSE PROPERTY DAMAGE.	

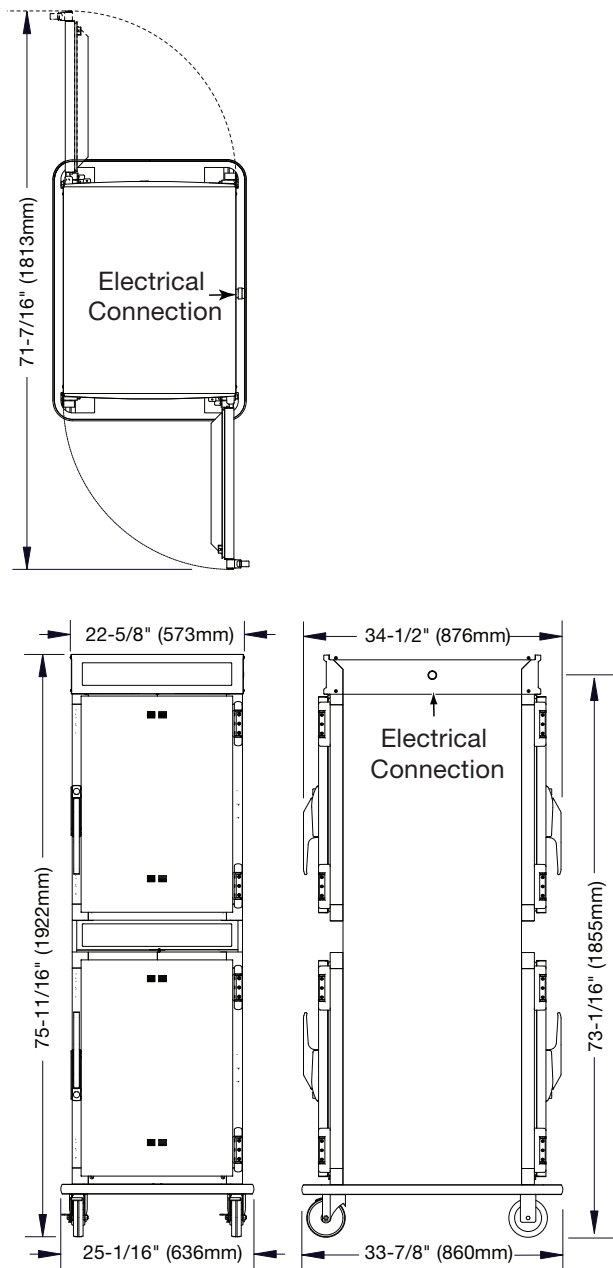
CLEARANCE REQUIREMENTS
3-inches (76mm) at the back, 2-inches (51mm) at the top, 1-inch (25mm) at both sides

WEIGHT (EST.)	
1000-UPS/EPL	
NET	270 lb (122kg)
SHIP	303 lb (137kg)
CARTON DIMENSIONS:	80" x 30" x 37" (2032mm x 762mm x 940mm) H x W x D (EST.)

	CAUTION
TO PREVENT PERSONAL INJURY, USE CAUTION WHEN MOVING OR LEVELING THIS APPLIANCE.	

INSTALLATION

Exterior Dimensions



OPTIONS & ACCESSORIES


<input type="checkbox"/> Bumper, Full Perimeter	5005103	<input type="checkbox"/> Pan Grid, Wire, Chrome Plated	PN-2115
<input type="checkbox"/> Casters, 3-1/2" (89mm) RIGID (EACH)	CS-25674	<input type="checkbox"/> PAN INSERT 18" x 26" (457mm x 660mm x 25mm)	
<input type="checkbox"/> Casters, 3-1/2" (89mm) SWIVEL W/BRAKE (EACH)	CS-25675	<input type="checkbox"/> Probe, Internal Temperature	AVAILABLE
<input type="checkbox"/> Door Lock with Key	LK-22567	<input type="checkbox"/> Shelf, Stainless Steel	SH-2346
<input type="checkbox"/> Legs, 6" (152mm) Flanged (SET OF FOUR)	5004863	<input type="checkbox"/> Water Reservoir Pan	1775
		<input type="checkbox"/> Water Reservoir Pan Cover	1774

INSTALLATION

Electrical Installation



! DANGER
ELECTRICAL CONNECTIONS MUST BE MADE BY A QUALIFIED SERVICE TECHNICIAN IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODES.




! DANGER
ENSURE POWER SOURCE MATCHES VOLTAGE STAMPED ON APPLIANCE NAMEPLATE



! DANGER
To avoid electrical shock, this appliance **MUST** be adequately grounded in accordance with local electrical codes or, in the absence of local codes, with the current edition of the National Electrical Code ANSI/NFPA No. 70. In Canada, all electrical connections are to be made in accordance with CSA C22.1, Canadian Electrical Code Part 1 or local codes.

1. An identification tag is permanently mounted on the cabinet.
2. Plug cabinet into a properly grounded receptacle **ONLY**, positioning the unit so the power supply cord is easily accessible in case of an emergency. Arcing will occur when connecting or disconnecting the unit unless all controls are in the "OFF" position.
3. If necessary, a proper receptacle or outlet configuration as required for this unit, must be installed by a licensed electrician in accordance with applicable, local electrical codes.

For 230V:

To prevent an electrical shock hazard between the appliance and other appliances or metal parts in close vicinity, an equalization-bonding stud is provided. An equalization bonding lead must be connected to this stud and the other appliances / metal parts to provide sufficient protection against potential difference. The terminal is marked with the following symbol. 

NOTE:

The appliance must be connected to an electrical circuit that is protected by an external GFCI outlet.

! DANGER
IMPROPER INSTALLATION, ALTERATION, ADJUSTMENT, SERVICE OR MAINTENANCE COULD RESULT IN SEVERE INJURY, DEATH OR CAUSE PROPERTY DAMAGE.

ELECTRICAL						
	VOLTAGE	PHASE	CYCLE/ HZ	AMPS	kW	
208- 240	at 208	1	50/60	7.2	1.5	NEMA 6-15P, 15A-250V PLUG (NORTH AMERICA ONLY)
	at 240	1	50/60	8.3	2.0	

INSTALLATION

User Safety Information

This appliance is intended for use in commercial establishments where all operators are familiar with the purpose, limitations, and associated hazards of this appliance. Operating instructions and warnings must be read and understood by all operators and users.

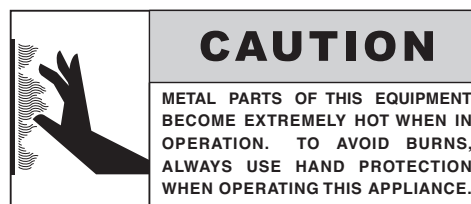
1. Check that the unit is connected to the appropriate power source.
2. Use hand protection when handling hot items.
3. Preheat the unit for 30 minutes before use.
4. Be certain only hot foods are placed into the unit.

BEFORE INITIAL USE:

1. Clean both the interior and exterior of the unit with a damp, clean cloth and mild soap solution. Rinse carefully.
2. Clean and install the cabinet side racks. Shelves should be positioned with the curved end up and toward the back of the unit (reach-in models).

HEATING CHARACTERISTICS

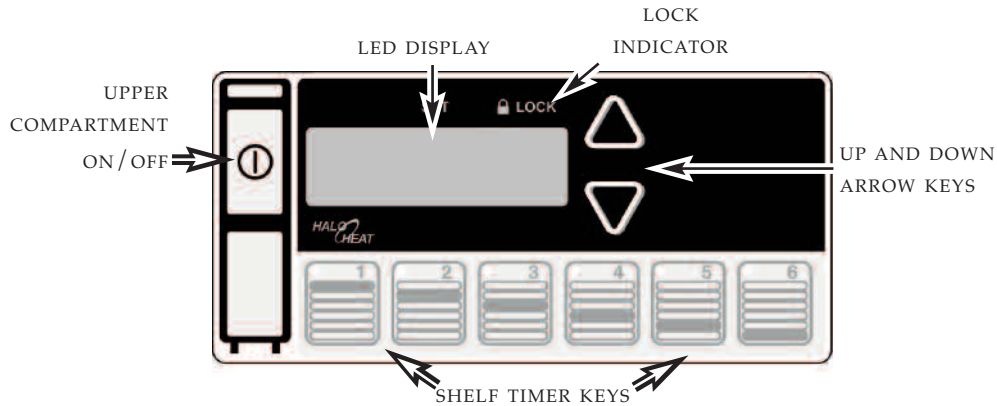
The cabinet is equipped with a special heating cable. Through this Halo Heat concept, the heating cable is mounted against the walls of the unit to provide an evenly applied heat source controlled by a thermostat. The design and operational characteristics of the unit eliminate the need for a moisture pan or a heat circulating fan. Through even heat application, the quality of food products is maintained up to several hours or more.



PRODUCT/PAN CAPACITY (PER COMPARTMENT)		
72 lbs (33kg) MAXIMUM		
VOLUME MAXIMUM: 45 QTS (56 LITERS)		
Six (6)	FULL-SIZE PANS: 20" x 12" x 2-1/2"	GASTRONORM 1/ 1: 530mm x 325mm x 65mm
Six (6)	FULL-SIZE SHEET PANS: (WITH SHELVES) 18" x 26" x 1"	

OPERATION

Electronic Control



ON/OFF KEY



Press the ON/OFF KEY once. Press and hold the ON/OFF KEY until the LED DISPLAY turns off (at least three seconds).

UP/DOWN ARROW KEY



The UP AND DOWN ARROW KEYS are used for a variety of settings when selecting the holding temperature. If an ARROW KEY is pressed and released the display will show the current set temperature for two seconds. If an ARROW KEY is held (at least eight seconds), the value will change at a rapid rate. If the ARROW KEY is pressed and released in rapid succession, the set temperature will change by increments of one degree.

ENABLE/DISABLE BEEPER



A beeper sounds when an error code is displayed. To choose between beeper on and beeper off mode, the control must be OFF, then press and hold the DOWN ARROW KEY until either "ON" or "OFF" is shown in the LED DISPLAY.



°F/°C

FAHRENHEIT / CELSIUS

With the control OFF, to choose between Fahrenheit and Celsius, press and hold the UP ARROW KEY until either °F or °C is shown in the LED DISPLAY.



The control has a four-digit LED display. When the display is ON, it will show current holding temperature, as well as diagnostic information.

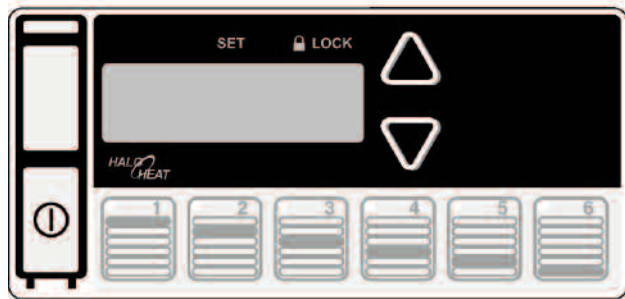
CONTROL LOCK

The warmer controls can be locked so that no changes can be made to the set temperature.

To **lock the display**, press and hold the ON/OFF KEY and the UP ARROW KEY at the same time. The LOCK INDICATOR will illuminate. When the LOCK INDICATOR is illuminated, additional programming will not be functional other than the key sequence required to unlock the panel.

To **unlock the display**, press and hold the ON/OFF KEY and the DOWN ARROW KEY at the same time. The LOCK INDICATOR will extinguish. The panel keys will resume normal function.

Electronic Control




The Multiple Shelf Timer Key feature is exclusively available for the electronic control. These keys monitor food safety by using a timer-based "First-In, First-Out" product management system.

Products should be cooked to HACCP recommended internal temperature and then held in the unit. The Timer system allows operator to select holding times when the unit is loaded. Multiple timer keys correspond to various pan locations in the holding unit. As the timers expire, audible alarms notify the operator.


Timer Programming Information

1. Turn On/Off Power Key OFF.


 Press the ON/OFF KEY until the display turns OFF (at least 2 seconds).

Note: The following steps can only be done when the ON/OFF KEY is OFF.


2. Set Shelf Timer Keys.

 Press and hold a SHELF TIMER KEY (at least 2 seconds) until a value is shown in the LED DISPLAY. Use the UP OR DOWN ARROW KEY to change the time desired.


3. Set Additional Timer Keys.

 Repeat step 2 for each SHELF TIMER KEY to be programmed.

4. Turn On/Off Power Key ON.


 When selected timers have been programmed, press the ON/OFF KEY to turn ON unit.

5. Press Shelf Timer Key.

 Press selected SHELF TIMER KEYS to activate. Shelf LED DISPLAY will illuminate and the count down will begin.

The SHELF TIMER KEY LED with the least amount of time remaining will flash slowly and the LED DISPLAY will alternate between hold temperature and time remaining.

6. Turn OFF alarm.

 Listen for beeping alarm. Press flashing SHELF TIMER KEY to turn OFF alarm.

Reprogram Shelf Timer Keys

If you wish to reprogram holding times, turn OFF power. Press the desired TIMER SHELF KEY and input new time using UP OR DOWN ARROW KEY. Turn unit ON and press each SHELF TIMER KEY to start the count downs.

Important Note: Timer Station Key retains initial time settings in memory. Count down times are cancelled when ON/OFF KEY is turned OFF. It may help to note any remaining count down times before reprogramming.

Power Failure: If a power failure occurs while the unit is running, you will not be able to change the control temperature. Simply depress the ON/OFF KEY to resolve. The timer memory will not be impaired.

OPERATION

Operating Instructions

Procedure for Proofing Dough

1. Preheat at 170°F (77°C) for 30 minutes.

Press the ON key, and set the temperature to 170°F (77°C) by using the UP/DOWN arrow keys. Allow a minimum of 30 minutes preheating time before loading the cabinet with food. The LED heat indicator light will no longer illuminate once the air temperature inside the unit reaches the desired set temperature.

2. Load with pans of hot food only.

The purpose of the warmer is to maintain hot food at proper serving temperature. Only hot food should be placed into the unit. Before loading with food, use a food thermometer to make certain all products are at an internal temperature range of 140° to 160°F (60° to 71°C). Any food product not within the proper temperature range should be heated before loading into the unit.

3. Reset the control to 160°F (71°C).

Check to make certain the doors are securely closed, and reset to 160°F (71°C) by using the UP/DOWN keys.

THIS WILL NOT NECESSARILY BE THE FINAL SETTING.

The proper temperature range will depend on the type and quantity of product. When holding food for prolonged periods, it is advisable to periodically check the internal temperature of each item with a food thermometer to assure maintenance of the proper temperature range of 140° to 160°F (60° to 71°C).

EXCLUSIVE FEATURE • HEAT RECOVERY

The patented SureTemp™ heat recovery system in this unit will immediately compensate for any loss of heat when the door is opened. In order to maintain a more consistent cavity temperature, the control will automatically apply heat to the unit's interior while the door is open and for a short time after the door is closed. If the door remains open for more than three minutes, the solid state electronic control will sound three rapid beeps every ten seconds until the door is closed.

With the addition of a pan of water, warming cabinets can be used for proofing dough. A water reservoir pan (#1775) and pan cover (#1774) are available from Alto-Shaam.

1. Remove dough from retarder or refrigerator, and allow covered product to set up at room temperature.
2. Set holding thermostat to 95°F (35°C).
3. Pour approximately 2 quarts (c. 2 liters) of hot water, 140-180°F (60-82°C) into a pan on the bottom surface of the holding compartment.
4. Preheat cabinet for 45-60 minutes.
5. Remove covering and place product in preheated cabinet.
6. Allow dough to remain in the cabinet until it approximately doubles in size.
7. Remove product from cabinet, and bake according to product manufacturer's directions. Brush with eggwash if desired.

NOTE: The above proofing procedure is suggested as a general guideline only. Due to variations in product, product quality, and weight, adherence to the product manufacturer's instructions are recommended.

OPERATION

General Holding Guidelines

Chefs, cooks and other specialized food service personnel employ varied methods of cooking. Proper holding temperatures for a specific food product must be based on the moisture content of the product, product density, volume, and proper serving temperatures. Safe holding temperatures must also be correlated with palatability in determining the length of holding time for a specific product.

Halo Heat maintains the maximum amount of product moisture content without the addition of water, water vapor, or steam. Maintaining maximum natural product moisture preserves the natural flavor of the product and provides a more genuine taste. In addition to product moisture retention, the gentle properties of Halo Heat maintain a consistent temperature throughout the cabinet without the necessity of a heat distribution fan, thereby preventing further moisture loss due to evaporation or dehydration.

When product is removed from a high temperature cooking environment for immediate transfer into equipment with the lower temperature required for hot food holding, condensation can form on the outside of the product and on the inside of plastic containers used in self-service applications. Allowing the product to release the initial steam and heat produced by high temperature cooking can alleviate this condition. To preserve the safety and quality of freshly cooked foods however, a maximum of 1 to 2 minutes must be the only time period allowed for the initial heat to be released from the product.

Most Halo Heat holding equipment is provided with a thermostat control between 60° and 200°F (16° to 93°C). If the unit is equipped with vents, close the vents for moist holding and open the vents for crisp holding.

If the unit is equipped with a thermostat indicating a range of between 1 and 10, use a metal-stemmed indicating thermometer to measure the internal temperature of the product(s) being held. Adjust the thermostat setting to achieve the best overall setting based on internal product temperature.

HOLDING TEMPERATURE RANGE		
MEAT	FAHRENHEIT	CELSIUS
BEEF ROAST — Rare	140°F	60°C
BEEF ROAST — Med/Well Done	160°F	71°C
BEEF BRISKET	160° — 175°F	71° — 79°C
CORN BEEF	160° — 175°F	71° — 79°C
PASTRAMI	160° — 175°F	71° — 79°C
PRIME RIB — Rare	140°F	60°C
STEAKS — Broiled/Fried	140° — 160°F	60° — 71°C
RIBS — Beef or Pork	160°F	71°C
VEAL	160° — 175°F	71° — 79°C
HAM	160° — 175°F	71° — 79°C
PORK	160° — 175°F	71° — 79°C
LAMB	160° — 175°F	71° — 79°C
POULTRY		
CHICKEN — Fried/Baked	160° — 175°F	71° — 79°C
DUCK	160° — 175°F	71° — 79°C
TURKEY	160° — 175°F	71° — 79°C
GENERAL	160° — 175°F	71° — 79°C
FISH/ SEAFOOD		
FISH — Baked/Fried	160° — 175°F	71° — 79°C
LOBSTER	160° — 175°F	71° — 79°C
SHRIMP — Fried	160° — 175°F	71° — 79°C
BAKED GOODS		
BREADS/ROLLS	120° — 140°F	49° — 60°C
MISCELLANEOUS		
CASSEROLES	160° — 175°F	71° — 79°C
DOUGH — Proofing	80° — 100°F	27° — 38°C
EGGS — Fried	150° — 160°F	66° — 71°C
FROZEN ENTREES	160° — 175°F	71° — 79°C
HORS D'OEUVRES	160° — 180°F	71° — 82°C
PASTA	160° — 180°F	71° — 82°C
PIZZA	160° — 180°F	71° — 82°C
POTATOES	180°F	82°C
PLATED MEALS	180°F	82°C
SAUCES	140° — 200°F	60° — 93°C
SOUP	140° — 200°F	60° — 93°C
VEGETABLES	160° — 175°F	71° — 79°C
The holding temperatures listed are suggested guidelines only.		

CLEANING AND PREVENTIVE MAINTENANCE

PROTECTING STAINLESS STEEL SURFACES



It is important to guard against corrosion in the care of stainless steel surfaces. Harsh, corrosive, or inappropriate chemicals can completely destroy the protective surface layer of stainless steel. Abrasive pads, steel wool, or metal implements will abrade surfaces causing damage to this protective coating and will eventually result in areas of corrosion. Even water, particularly hard water that contains high to moderate concentrations of chloride, will cause oxidation and pitting that result in rust and corrosion. In addition, many acidic foods spilled and left to remain on metal surfaces are contributing factors that will corrode surfaces.

Proper cleaning agents, materials, and methods are vital to maintaining the appearance and life of this appliance. Spilled foods should be removed and the area wiped as soon as possible but at the very least, a minimum of once a day. Always thoroughly rinse surfaces after using a cleaning agent and wipe standing water as quickly as possible after rinsing.

CLEANING AGENTS

Use non-abrasive cleaning products designed for use on stainless steel surfaces. Cleaning agents must be chloride-free compounds and must not contain quaternary salts. Never use hydrochloric acid (muriatic acid) on stainless steel surfaces. Always use the proper cleaning agent at the manufacturer's recommended strength. Contact your local cleaning supplier for product recommendations.

CLEANING MATERIALS

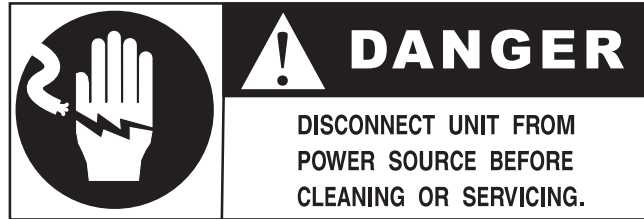
The cleaning function can usually be accomplished with the proper cleaning agent and a soft, clean cloth. When more aggressive methods must be employed, use a non-abrasive scouring pad on difficult areas and make certain to scrub with the visible grain of surface metal to avoid surface scratches. Never use wire brushes, metal scouring pads, or scrapers to remove food residue.

	<p>! CAUTION</p> <p>TO PROTECT STAINLESS STEEL SURFACES, COMPLETELY AVOID THE USE OF ABRASIVE CLEANING COMPOUNDS, CHLORIDE BASED CLEANERS, OR CLEANERS CONTAINING QUATERNARY SALTS. NEVER USE HYDROCHLORIC ACID (MURIATIC ACID) ON STAINLESS STEEL. NEVER USE WIRE BRUSHES, METAL SCOURING PADS OR SCRAPERS.</p>
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CARE and CLEANING



The cleanliness and appearance of this unit will contribute considerably to operating efficiency and savory, appetizing food. Good equipment kept clean works better and lasts longer.



THOROUGHLY CLEAN THE UNIT DAILY

1. Disconnect unit from power source, and let cool.
2. Remove all detachable items such as shelves, side racks, and drip pan. Clean these items separately with a good grease solvent or commercial detergent. Rinse well and dry.
3. Clean interior metal surfaces of the unit with a damp, clean cloth and any good commercial detergent or grease solvent at the recommended strength. Spray heavily soiled areas with a water soluble degreaser and let stand for 10 minutes, then remove soil with a plastic scouring pad. Rinse by wiping with a sponge and clean warm water to remove all residue. Remove excess water with sponge and wipe dry with a clean cloth or air dry. Replace side racks and shelves.
4. Clean control panel, door vents, door handles, and door gaskets thoroughly since these areas harbor food debris. Rinse by wiping with sponge and clean warm water. Wipe dry with a clean cloth.
5. Interior can be wiped with a sanitizing solution after cleaning and rinsing. This solution must be approved for use on stainless steel food contact surfaces.
6. To help maintain the protective film coating on polished stainless steel, clean the exterior of the unit with a cleaner recommended for stainless steel surfaces. Spray the cleaning agent on a clean cloth and wipe with the grain of the stainless steel.



Always follow appropriate state or local health (hygiene) regulations regarding all applicable cleaning and sanitation requirements for foodservice equipment.

NOTE: Avoid the use of abrasive cleaning, compounds, chloride based cleaners, or cleaners containing quaternary salts. Never use hydrochloric acid (muriatic acid) on stainless steel.



SANITATION

Food flavor and aroma are usually so closely related that it is difficult, if not impossible, to separate them. There is also an important, inseparable relationship between cleanliness and food flavor. Cleanliness, top operating efficiency, and appearance of equipment contribute considerably to savory, appetizing foods. Good equipment that is kept clean, works better and lasts longer.

Most food imparts its own particular aroma and many foods also absorb existing odors. Unfortunately, during this absorption, there is no distinction between GOOD and BAD odors. The majority of objectionable flavors and odors troubling food service operations are caused by bacteria growth. Sourness, rancidity, mustiness, stale or other OFF flavors are usually the result of germ activity.

The easiest way to insure full, natural food flavor is through comprehensive cleanliness. This means good control of both visible soil (dirt) and invisible soil (germs). A thorough approach to sanitation will provide essential cleanliness. It will assure an attractive appearance of equipment, along with maximum efficiency and utility. More importantly, a good sanitation program provides one of the key elements in the prevention of food-borne illnesses.

A controlled holding environment for prepared foods is just one of the important factors involved in the prevention of food-borne illnesses. Temperature monitoring and control during receiving, storage, preparation, and the service of foods are of equal importance.

The most accurate method of measuring safe temperatures of both hot and cold foods is by internal product temperature. A quality thermometer is an effective tool for this purpose, and should be routinely used on all products that require holding at a specific temperature.

A comprehensive sanitation program should focus on the training of staff in basic sanitation procedures. This includes personal hygiene, proper handling of raw foods, cooking to a safe internal product temperature, and the routine monitoring of internal temperatures from receiving through service.

Most food-borne illnesses can be prevented through proper temperature control and a comprehensive program of sanitation. Both these factors are important to build quality service as the foundation of customer satisfaction. Safe food handling practices to prevent food-borne illness is of critical importance to the health and safety of your customers. HACCP, an acronym for Hazard Analysis (at) Critical Control Points, is a quality control program of operating procedures to assure food integrity, quality, and safety. Taking steps necessary to augment food safety practices are both cost effective and relatively simple. While HACCP guidelines go far beyond the scope of this manual, additional information is available by contacting:

Center for Food Safety and Applied Nutrition
Food and Drug Administration
1-888-SAFEFOOD

INTERNAL FOOD PRODUCT TEMPERATURES		
HOT FOODS		
DANGER ZONE	40° TO 140°F	(4° TO 60°C)
CRITICAL ZONE	70° TO 120°F	(21° TO 49°C)
SAFE ZONE	140° TO 165°F	(60° TO 74°C)
COLD FOODS		
DANGER ZONE	ABOVE 40°F	(ABOVE 4°C)
SAFE ZONE	36°F TO 40°F	(2°C TO 4°C)
FROZEN FOODS		
DANGER ZONE	ABOVE 32°F	(ABOVE 0°C)
CRITICAL ZONE	0° TO 32°F	(-18° TO 0°C)
SAFE ZONE	0°F OR BELOW	(-18°C OR BELOW)

SERVICE

TROUBLE SHOOTING CHECKLIST

ELECTRONIC CONTROL

Repairs should be made by authorized service agents only.

TROUBLE	POSSIBLE CAUSE	REMEDY
Unit does not operate.	Insufficient power supply.	Check power source.
	Defective power cord or plug.	Check and replace if necessary.
No display in electronic control.	Faulty power supply board.	Check line voltage for 12V across pins 7 and 8 on the power supply board and across pins 1 and 2 on connector J3 on the electronic control.
	Faulty electronic control.	Replace control.
Cannot control temperature but sensor and electronic control checks O.K.	Faulty relay	Replace relay.
	Heating element grounded.	Replace element.
Temperature readout incorrect.	Dirty or faulty sensor.	Check sensor at 32°F (0°C). If Ohm reading is 100, replace control.
	Faulty control.	If Ohm reading is not 100, replace sensor.

CABLE HEATING SERVICE KIT No. 4874 (one kit per compartment)

includes:

CB-3044	Cable Heating Element	108 feet
CR-3226	Ring Connector	4
IN-3488	Insulation Corner	1 foot
BU-3105	Shoulder Bushing	4
BU-3106	Cup Bushing	4
ST-2439	Stud	4
NU-2215	Hex Nut	8
SL-3063	Insulating Sleeve	4
TA-3540	Electrical Tape	1 roll

CAUTION

THIS SECTION IS PROVIDED FOR THE ASSISTANCE OF QUALIFIED SERVICE TECHNICIANS ONLY AND IS NOT INTENDED FOR USE BY UNTRAINED OR UNAUTHORIZED SERVICE PERSONNEL.

SERVICE

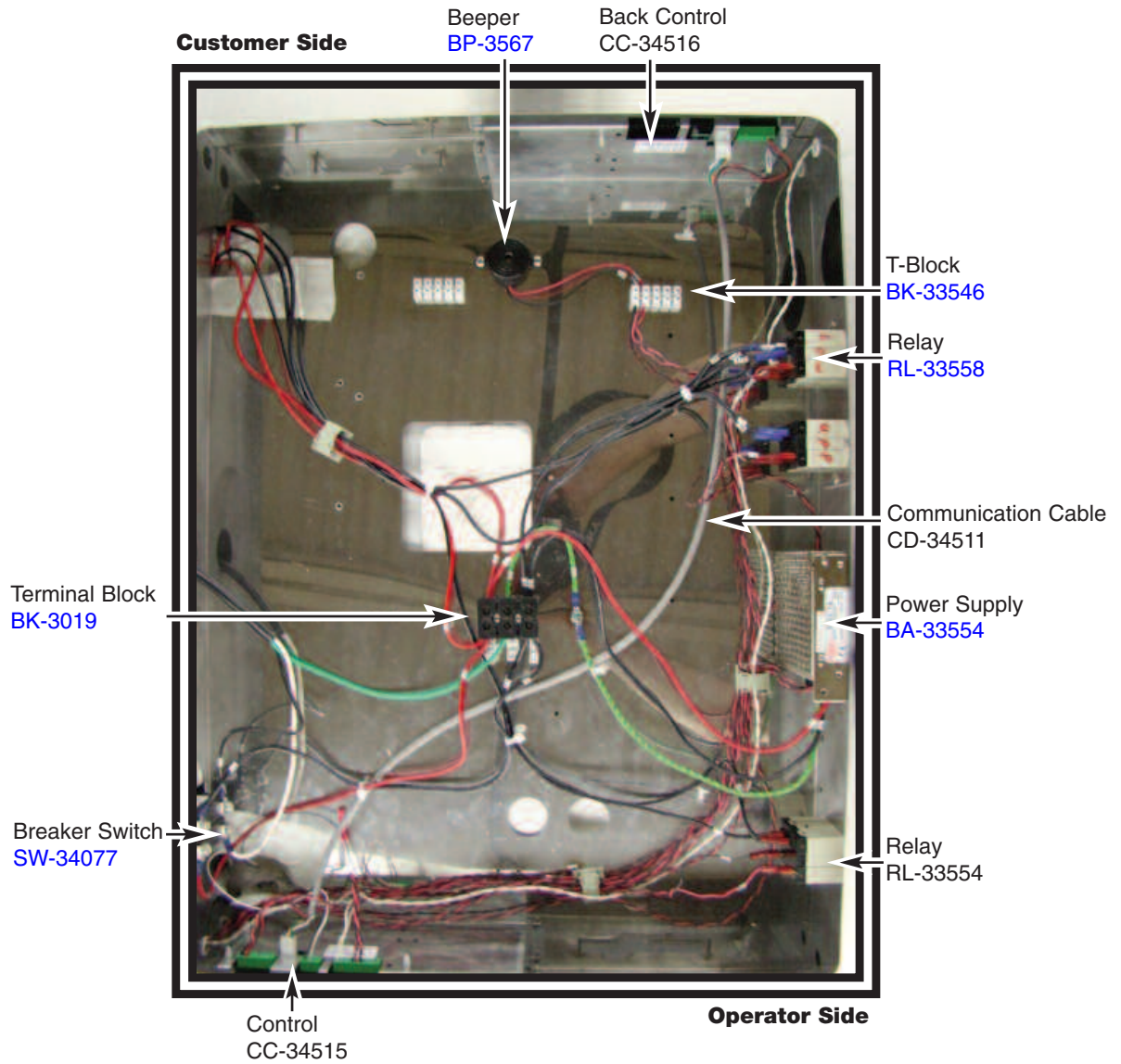
Service Parts

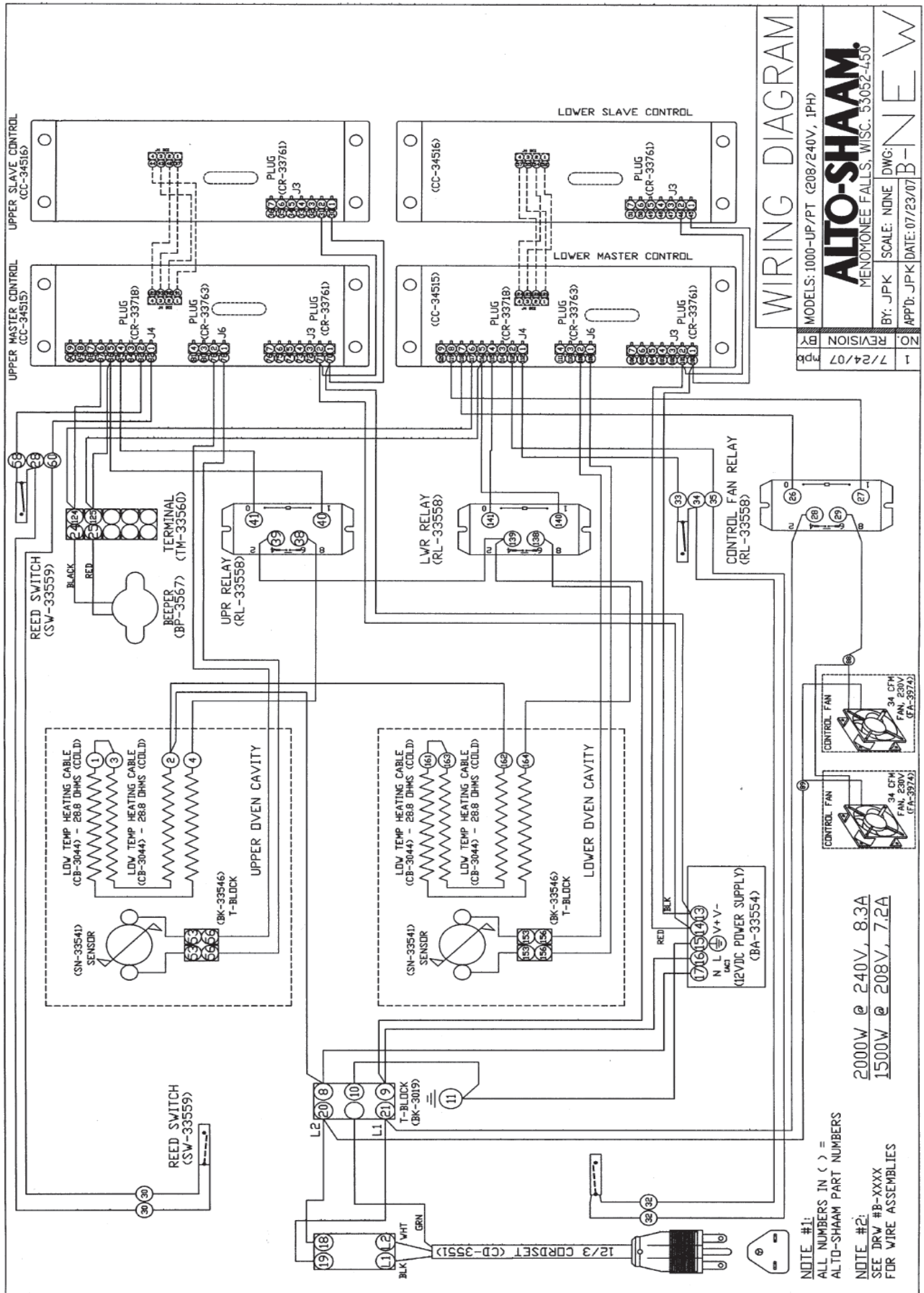
Description	
Side rack for shelf	SR-28136
Side	5002788
Bonnet	5007203
Top Cover Panel	1008056
Panel Overlay, Upper	PE-28076
Panel Overlay, Lower	PE-28077
Panel Overlay, Customer	PE-28078
Shelf Number Sets	PE-28079
Control Face Bezel	PE-26567
Cordset, 208/240V	CD-3551
Circuit Breaker	SW-34077
Door	15147
Door Handle	HD-27080
Door Hinge, ea.	HG-2535
Door Gasket, ea.	GS-22952
Casters, 5" (127mm) swivel w/brake (each)	CS-24875
Casters, 5" (127mm) rigid (each)	CS-24874
Power Supply Board	BA-33554
Electronic Control Serial Communications Cable (front to back)	CD-34511
Electronic Control, Hold w/TIMER (EPL-FRONT)	CC-34515
Electronic Control, Hold w/TIMER (EPL-BACK)	CC-34516
Sensor	SN-33546
Terminal block for sensor	BK-33546
T-Block	BK-3019
Relay	RL-33558
Reed Switch	SW-33559
Terminal Circuit Strip (2)	TM-33560
Beeper	BP-3567
J3 Connector	CR-33761
J4 Connector	CR-33718
J6 Connector	CR-33763



SERVICE

Top Bonnet Removed





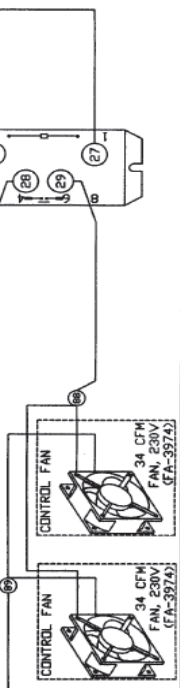
WIRING DIAGRAM

MODELS: 1000-UP/PT (208/240V, 1PH)

NO.	REVISION	BY
1	7/24/07	mpk

BY: JPK SCALE: NONE DWG: B-N-E-W
 APP'D: JPK DATE: 07/23/07

ALTO-SHAAM
 MENOMONEE FALLS, WISC. 53052-450



2000W @ 240V, 8.3A
 1500W @ 208V, 7.2A

NOTE #1:
 ALL NUMBERS IN () =
 ALTO-SHAAM PART NUMBERS

NOTE #2:
 SEE DRW #B-XXXX
 FOR WIRE ASSEMBLIES

TRANSPORTATION DAMAGE and CLAIMS



All Alto-Shaam equipment is sold F.O.B. shipping point, and when accepted by the carrier, such shipments become the property of the consignee.

Should damage occur in shipment, it is a matter between the carrier and the consignee. In such cases, the carrier is assumed to be responsible for the safe delivery of the merchandise, unless negligence can be established on the part of the shipper.

1. Make an immediate inspection while the equipment is still in the truck or immediately after it is moved to the receiving area. Do not wait until after the material is moved to a storage area.
2. Do not sign a delivery receipt or a freight bill until you have made a proper count and inspection of all merchandise received.
3. Note all damage to packages directly on the carrier's delivery receipt.
4. Make certain the driver signs this receipt. If he refuses to sign, make a notation of this refusal on the receipt.
5. If the driver refuses to allow inspection, write the following on the delivery receipt:
Driver refuses to allow inspection of containers for visible damage.
6. Telephone the carrier's office immediately upon finding damage, and request an inspection. Mail a written confirmation of the time, date, and the person called.
7. Save any packages and packing material for further inspection by the carrier.
8. Promptly file a written claim with the carrier and attach copies of all supporting paperwork.

We will continue our policy of assisting our customers in collecting claims which have been properly filed and actively pursued. We cannot, however, file any damage claims for you, assume the responsibility of any claims, or accept deductions in payment for such claims.

ALTO SHAAM LIMITED WARRANTY

Alto-Shaam, Inc. warrants to the original purchaser that any original part that is found to be defective in material or workmanship will, at Alto-Shaam's option, subject to provisions hereinafter stated, be replaced with a new or rebuilt part.

The labor warranty remains in effect one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first. Alto-Shaam will bear normal labor charges performed during standard business hours, and excluding overtime, holiday rates or any additional fees.

The parts warranty remains in effect for one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first.

However, the heating element on Halo Heat® cook/hold ovens and the refrigeration compressor on Alto-Shaam Quickchillers™ are warranted for a period of five (5) years from installation. The labor warranty is the same as stated above; namely, for one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first.

THIS WARRANTY DOES NOT APPLY TO:

1. Calibration.
2. Replacement of light bulbs and/or the replacement of display case glass due to damage of any kind.
3. Equipment damage caused by accident, shipping, improper installation or alteration.
4. Equipment used under conditions of abuse, misuse, carelessness or abnormal conditions including, but not limited to, equipment subjected to harsh or inappropriate chemicals including, but not limited to, compounds containing chloride or quaternary salts, poor water quality, or equipment with missing or altered serial numbers.
5. Damage incurred as a direct result of poor water quality, inadequate maintenance of steam generators and/or surfaces affected by water quality. Water quality and required maintenance of steam generating equipment is the responsibility of the owner/operator.
6. Damage caused by use of any cleaning agent other than Alto-Shaam's Combitherm® Cleaner including, but not limited to, damage due to chlorine or other harmful chemicals. Use of Alto-Shaam's Combitherm® Cleaner on Combitherm® ovens is highly recommended.
7. Any losses or damage resulting from malfunction, including loss of product or consequential or incidental damages of any kind.
8. Equipment modified in any manner from original model, substitution of parts other than factory authorized parts, removal of any parts including legs, or addition of any parts.

This warranty is exclusive and is in lieu of all other warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. In no event shall Alto-Shaam be liable for loss of use, loss of revenue or profit, or loss of product, or for any indirect or consequential damages. No person except an officer of Alto-Shaam, Inc. is authorized to modify this warranty or to incur on behalf of Alto-Shaam any other obligation or liability in connection with Alto-Shaam equipment.

ALTO-SHAAM, INC.

RECORD THE MODEL AND SERIAL NUMBER OF THE APPLIANCE FOR EASY REFERENCE.
ALWAYS REFER TO BOTH MODEL AND SERIAL NUMBER IN ANY CONTACT WITH ALTO-SHAAM REGARDING THIS APPLIANCE.

Model: _____ Date Installed: _____
Voltage: _____ Purchased From: _____
Serial Number: _____

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