ALTO SHAAM®

OPERATION and CARE MANUAL

CABINET, FOOD HOLDING

Models: 200-CT, 200-CT/BI

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

HALO HEAT® COOK/HOLD/SERVE SYSTEMS

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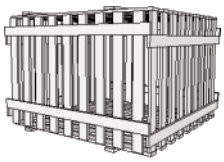
ALTO-SHAAM® — HOLDING CABINETS

UNPACKING and SET-UP



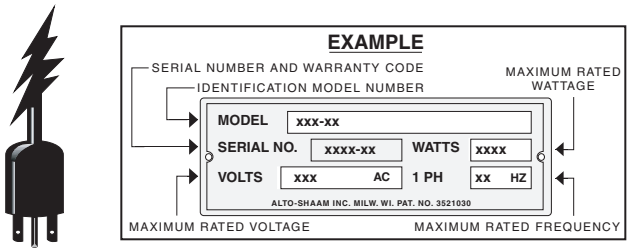
The Alto-Shaam Holding Cabinet has been thoroughly tested, checked for calibration, and inspected to insure only the highest quality cabinet is provided. When you receive your cabinet, check for any possible shipping damage and report it at once to the delivering carrier. See *Transportation Damage and Claims* section located in this manual.

The cabinet, complete with unattached items and accessories, may be delivered in one or more packages. Check to ensure that all the following items have been received as standard with each unit. 4: 1" (25mm) Legs (200-CT)2: Wire Baskets

Save all the information and instructions packed inside the cabinet. 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.

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

ELECTRICAL INSTALLATION



1. An identification tag is permanently mounted on cabinet.
2. Plug the cabinet into a properly grounded receptacle ONLY

CAUTION

ENSURE POWER SOURCE MATCHES VOLTAGE STAMPED ON NAMEPLATE OF UNIT

HEATING CHARACTERISTICS

The cabinet is equipped with a special, low-heat-density, heating cable. Through the HALO HEAT concept, the heating cable is mounted against the walls of the warming compartment to provide an evenly applied heat source controlled by a thermostat. The design and operational characteristics of the cabinet eliminates the need for a moisture pan or a heat circulating fan. Through even heat application, the quality of a food product is maintained up to as much as several hours.

START-UP

1. Before operating the cabinet, clean both the interior and exterior of the unit with a damp cloth and mild soap solution. Rinse well.
2. Install equipment legs before operating the cabinet. Clean and install the wire baskets in the cabinet interior.

OPERATIONAL PROCEDURES

1. PREHEAT AT 200°F (93°C) FOR 30 MINUTES.
   When the thermostat is turned clockwise to an "ON" position, the indicator light will illuminate and will remain lit as long as the unit is calling for heat. Allow a minimum of 30 minutes of preheating before loading the holding cabinet with food. The indicator light will go "OUT" after approximately 30 minutes preheat time, or when the air temperature inside the unit reaches the temperature set by the operator. Verify the full preheated temperature with the holding temperature gauge located on the control panel of the cabinet.
2. LOAD THE CABINET WITH HOT FOOD ONLY.
   The purpose of the holding cabinet is to maintain hot food at proper serving temperature. Only hot food should be placed into the cabinet. Before loading the cabinet 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 holding cabinet.
3. RESET THE THERMOSTAT TO 160°F (71°C).
   Check to make certain the cabinet door is securely closed, and reset the thermostat to 160°F (71°C). THIS WILL NOT NECESSARILY BE THE FINAL SETTING. The proper temperature range for the products being held 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). •For the best holding results with wrapped hot dogs and sausages, put one or two cups of water in the bottom of the cabinet

CARE and CLEANING

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

CLEAN THE UNIT DAILY:

1. Disconnect the cabinet from the power source.
2. Remove all detachable items such as baskets, shelves, etc. Clean these items separately.
3. Clean the interior metal surfaces of the cabinet with a damp cloth and any good alkaline or alkaline chlorinated based commercial detergent or grease solvent at the recommended strength. Use a plastic scouring pad or oven cleaner for difficult areas. Avoid the use of abrasive cleaning compounds, chloride based cleaners, or cleaners containing quaternay salts. Rinse well to remove all residue and wipe dry. NOTE: Never use hydrochloric acid (muriatic acid) on stainless steel.
4. 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 the cloth and wipe with the grain of the stainless steel.

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

CAUTION

At no time should the inside or outside of the cabinet be washed down, flooded with water or liquid solution. **NEVER STEAM CLEAN.** Severe damage or electrical hazard could result.

SANITATION GUIDELINES

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.

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)

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 safty 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 the USDA/FDA Food-borne Illness Education Information Center at (301)504-6803.

GENERAL HOLDING GUIDELINE

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..

In an enclosed holding environment, too much moisture content is a condition which can be relieved. A product achieving extremely high temperatures in preparation must be allowed to decrease in temperature before being placed in a controlled holding atmosphere. If the product is not allowed to decrease in temperature, excessive condensation will form increasing the moisture content on the outside of 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.

THERMOSTAT/PILOT LIGHT SEQUENCE

Whenever the thermostat is turned "ON," the pilot light will indicate the power ON/OFF condition of the heating cable, and consequently, the cycling of the cabinet as it maintains the dialed cavity temperature. If the pilot light does not illuminate after normal start-up, the main power source, thermostat, and/or pilot light must be checked. If the warming cabinet does not hold the temperature as dialed, the calibration of the thermostat must be checked. If the warming cabinet fails to heat or heats continuously with the thermostat "OFF," the thermostat must be initially checked for proper operation. If these items are checked and found to be in order, a continuity and resistance check of the heating cable should be made. SEE CIRCUIT DIAGRAM.

THERMOSTAT CALIBRATION

The thermostat is precision calibrated at the factory. Normally, no adjustment or recalibration is necessary unless the thermostat has been mishandled in transit, changed or abused while in service. A thermostat with a sensing bulb operates on hydraulic pressure, consequently, any bending of the bulb results in a change in its volume, and alters the accuracy of the thermostat calibration.

A thermostat should be checked or recalibrated by placing a quality, thermal indicator at the center of an empty holding cavity. DO NOT CALIBRATE WITH ANY FOOD PRODUCT IN THE CABINET. The thermostat should be set, and should be allowed to stabilize at that setting for a minimum of one hour. Following temperature stabilization, the center of the thermal swing of the air temperature within the cabinet should approximately coincide with the thermostat setting.

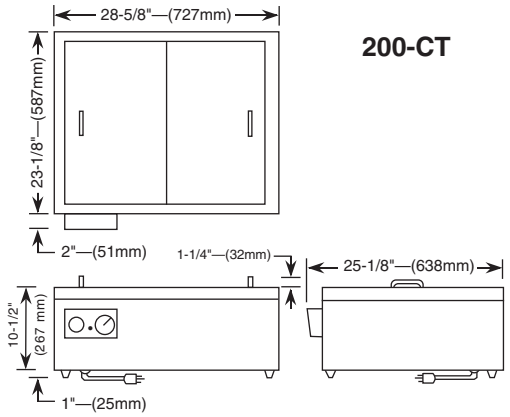
If calibration is necessary, the calibration screw should be adjusted with great care. The calibration screw of the thermostat is located in the thermostat dial shaft. With the shaft held stationary, a minute, clockwise motion of the calibration screw appreciably lowers the thermostat setting. A reverse, or counter-clockwise motion appreciably raises the thermostat setting. After achieving the desired cycling of the thermostat, the calibration screw must be sealed. Place a few drops of enamel sealant directly on the calibration screw. (Red nail polish or equivalent is acceptable.)

SERVICE VIEW PARTS LIST
200-CT - 200-CT/BI

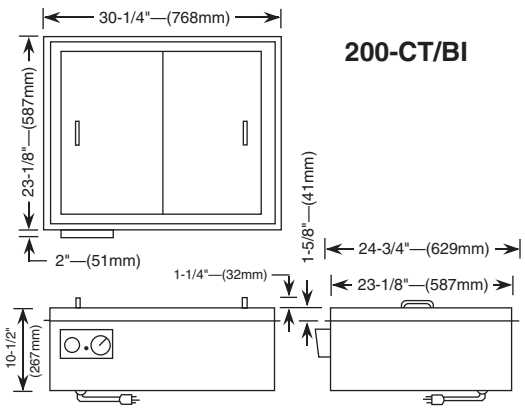
10/13/98

PART DESCRIPTION	UNIT QTY	ALTO-SHAAM PART NUMBER
1. CORD and PLUG (125V)	1	CD-3232
CORD and PLUG (208-240V)	1	CD-3551
2. CORD PLATE	1	11123
3. CORD PLATE MTG SCREWS	4	SC-2470
4. LEGS, 1" (25.4 mm), 200-CT (only)	4	LG-2043
5. BOTTOM	1	4591
6. BOTTOM MOUNTING SCREWS	12	SC-2470
7. INSULATION (pieces):		
-size: 23" x 28" (584 mm x 711 mm)	1	IN-22364
8. CABLE CONNECTION HARDWARE:		
- SHOULDER BUSHING	4	BU-3105
- CUP BUSHING	4	BU-3106
- HEX NUT	24	NU-2215
- RING CONNECTOR	4	CR-3226
- STUD	4	ST-2439
9. HEATING CABLE, 125-240V:		
-Length: 76.5' (23317 mm)	1	CB-3045
10. THERMOSTAT	1	TT-3057
THERMOSTAT KNOB	1	KN-3473
11. HEAT INDICATOR LIGHT (125V)	1	LI-3027
HEAT INDICATOR LIGHT (208-240V)	1	LI-3025
12. TEMPERATURE GAUGE	1	GU-33384
13. DOOR, TOP	1	4243
14. DOOR, BOTTOM	1	4244
15. DOOR HANDLE	2	HD-2910
16. BASKET	2	BS-22129

OUTSIDE DIMENSIONS



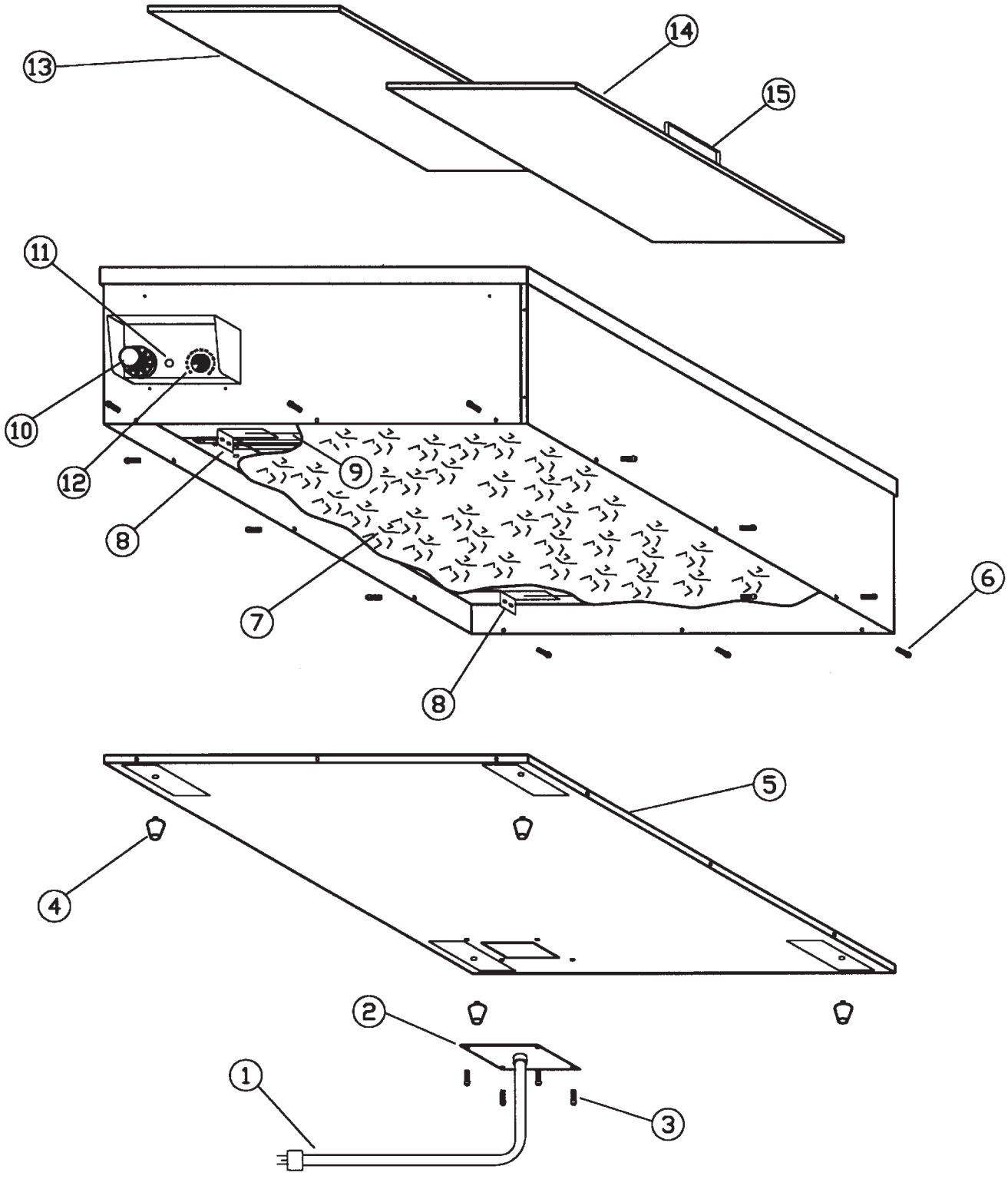
200-CT

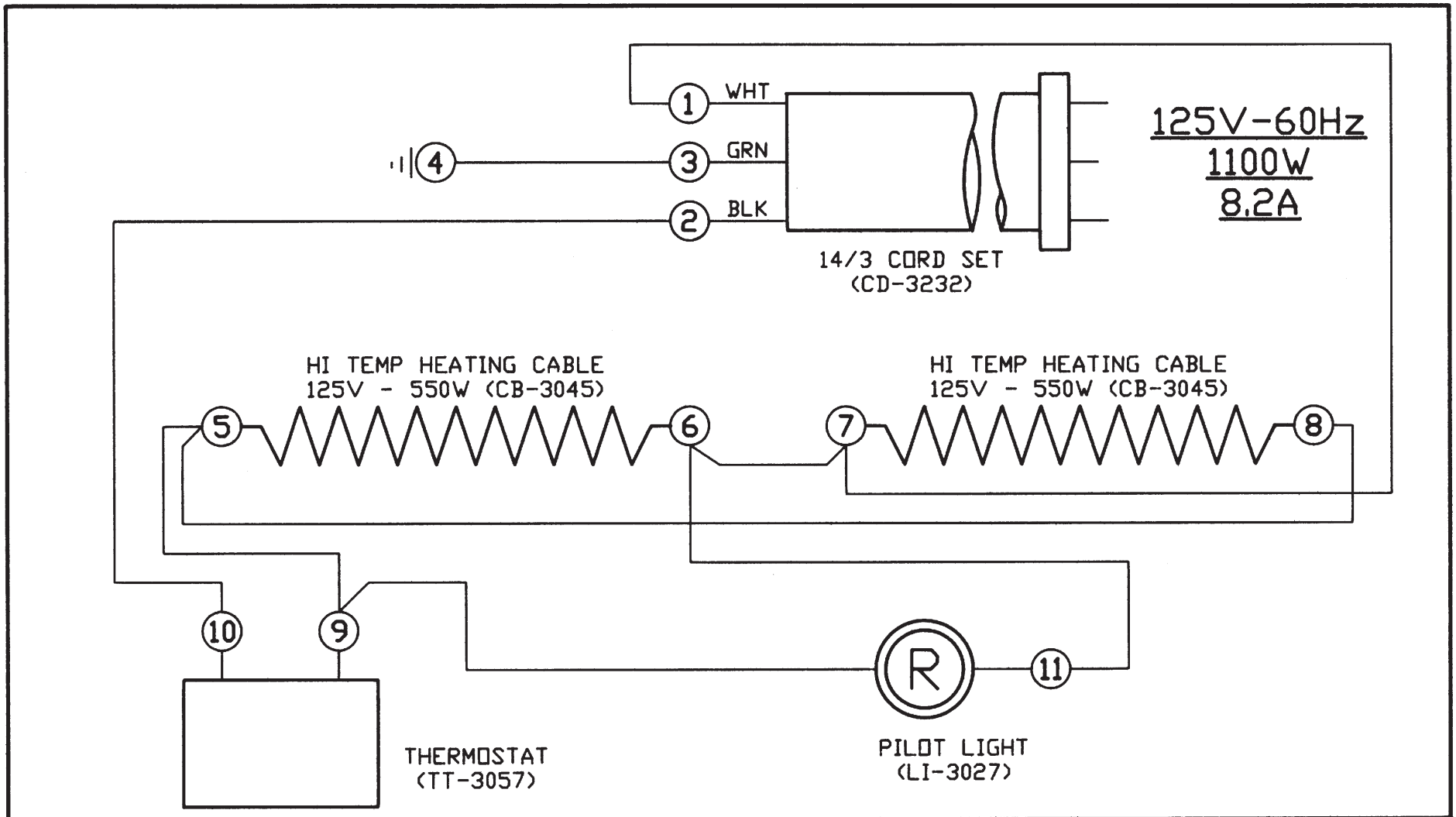


200-CT/BI

200-CT
SERVICE VIEW
3/32"=1"

REV: 8/22/97





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

NOTE 2: SEE DRW. A-8205 FOR WIRE ASSEMBLIES

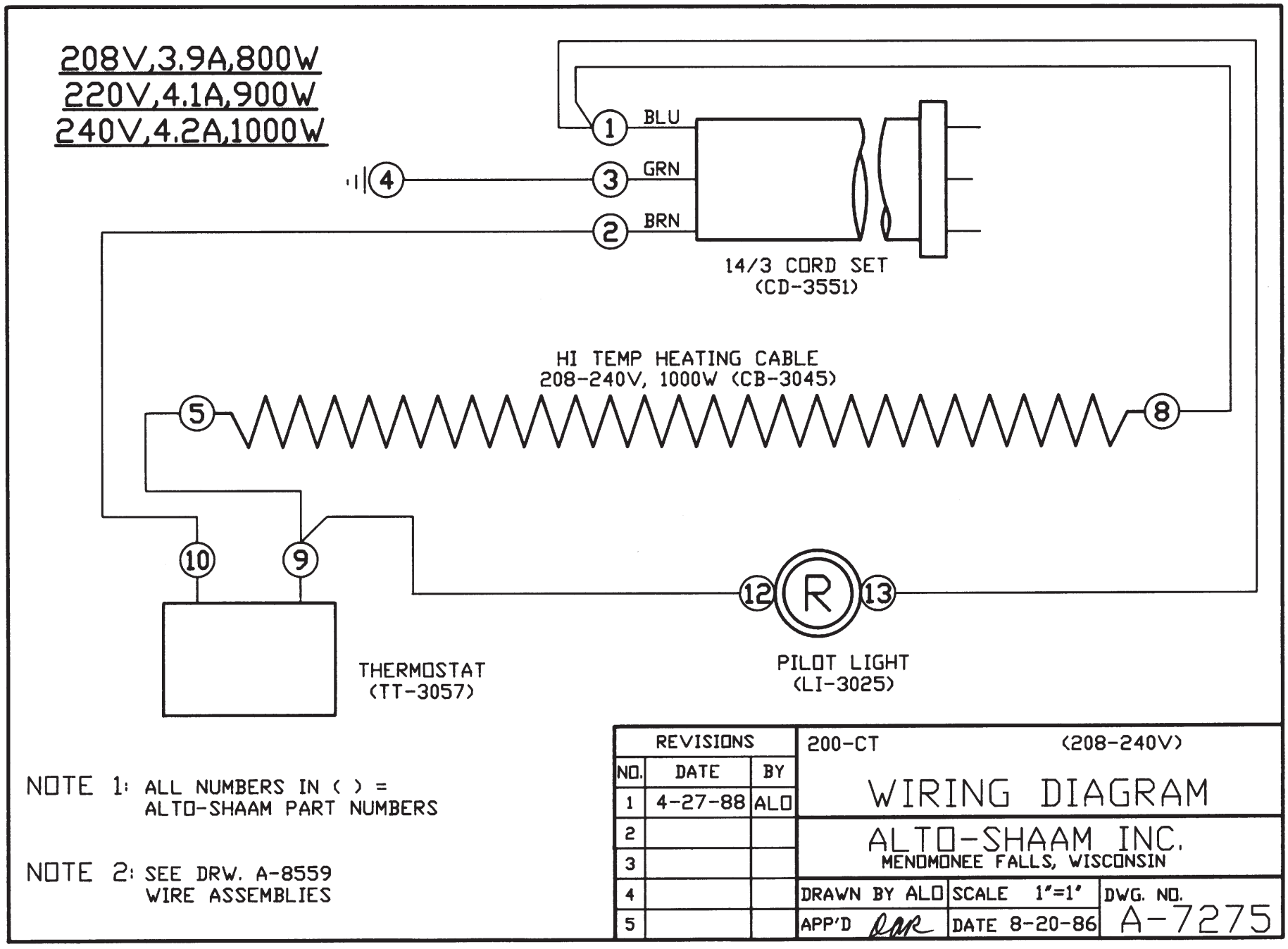
REVISIONS		
NO.	DATE	BY
1	4-27-88	ALO
2		
3		
4		
5		

200-CT (125V)

WIRING DIAGRAM

ALTO-SHAAM INC.
MENOMONEE FALLS, WISCONSIN

DRAWN BY ALO	SCALE 1"=1'	DWG. NO.
APP'D JAR	DATE 8-20-86	A-7132



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

NOTE 2: SEE DRW. A-8559 WIRE ASSEMBLIES

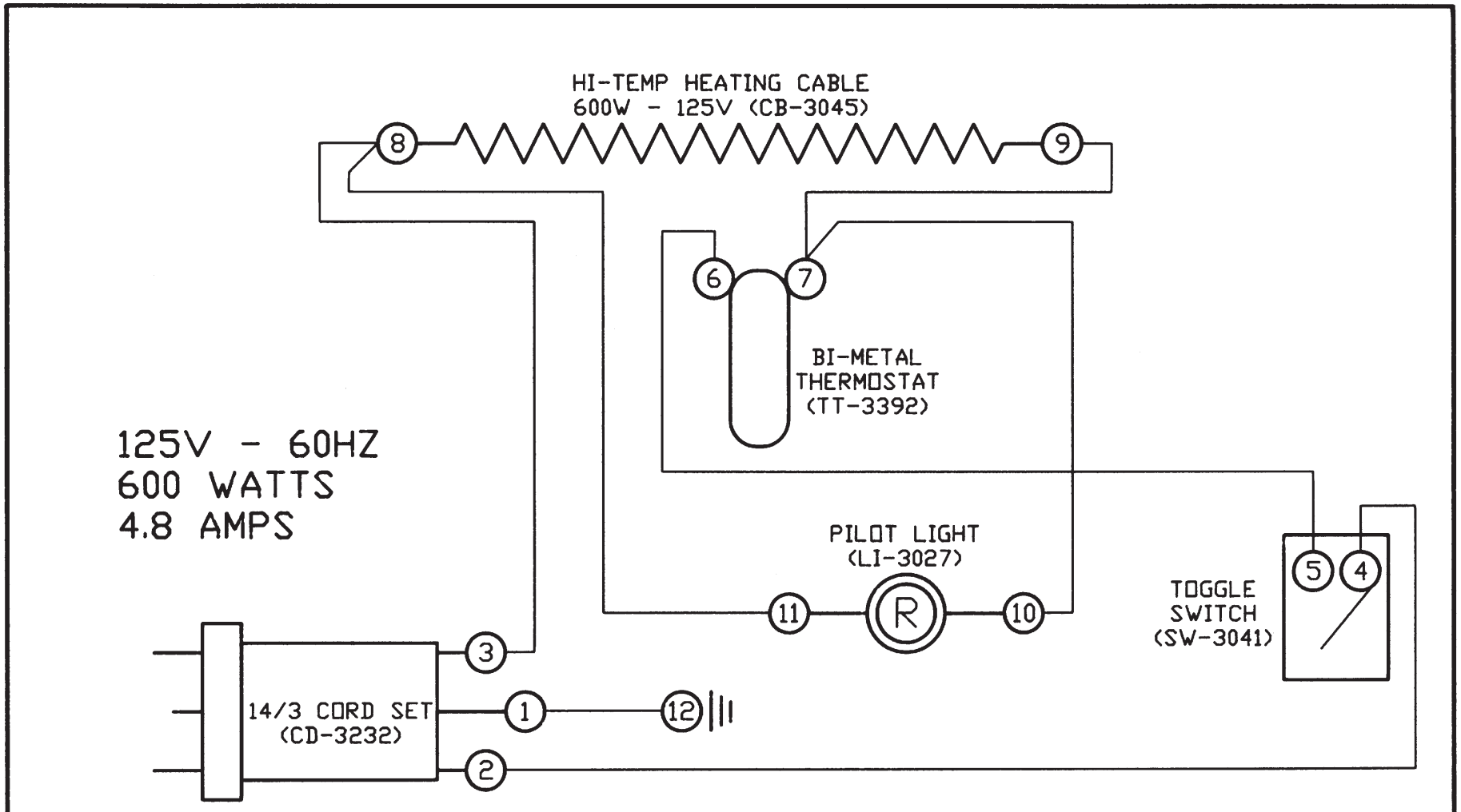
REVISIONS		
NO.	DATE	BY
1	4-27-88	ALO
2		
3		
4		
5		

200-CT (208-240V)

WIRING DIAGRAM

ALTO-SHAAM INC.
MENOMONEE FALLS, WISCONSIN

DRAWN BY ALO	SCALE 1"=1"	DWG. NO. A-7275
APP'D [signature]	DATE 8-20-86	



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

NOTE 2 : SEE DRW #A-8354 FOR WIRE ASSEMBLIES

REVISIONS		
NO.	DATE	BY
1	9-11-89	ALO
2		
3		
4		
5		

200-CT/B.I. 125V

WIRING DIAGRAM

ALTO-SHAAM INC.
MENOMONEE FALLS, WISCONSIN

DRAWN BY DAR	SCALE 1"=1"	DWG. NO.
APP'D DAR	DATE 7/25/80	A-7168

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 our 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.

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

Exceptions to the one year part warranty period are as listed:

A. Halo Heat cook/hold ovens include a five (5) year parts warranty on the heating element. Labor will be covered under the terms of the standard warranty period of one (1) year or fifteen (15) months.

B. Alto-Shaam Quickchillers include a five (5) year parts warranty on the refrigeration compressor. Labor will be covered under the terms of the standard warranty period of one (1) year or fifteen (15) months.

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.
5. Any losses or damage resulting from malfunction, including loss of product or consequential or incidental damages of any kind.
6. 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 purpose. In no event shall the Company be liable for loss of use, loss of revenue, or loss of product or profit, or for indirect or consequential damages. This warranty is in lieu of all other warranties expressed or implied and Alto-Shaam, Inc. neither assumes or authorizes any persons to assume for it any other obligation or liability in connection with Alto-Shaam equipment.

ALTO-SHAAM, INC.

Warranty effective January 1, 2000

Record the model and serial numbers of the unit for easy reference. Always refer to both model and serial numbers in your correspondence regarding the unit.

Model: _____

Serial Number: _____

Purchased From: _____

Date Installed: _____ Voltage: _____

HALO HEAT COOK/HOLD/SERVE SYSTEMS BY ALTO-SHAAM®

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