

# ALTO SHAAM® HALO HEAT®



## INSTALLATION OPERATION AND MAINTENANCE MANUAL

**LOW TEMPERATURE  
OVEN**

**COOK  
HOLD**

**MODEL:**

**1000-TH-I/HD**

**1000-TH-I/HD/D**

**1000-TH-I/HD/PT**

**1000-TH-I/STD**

**1000-TH-I/STD/D**



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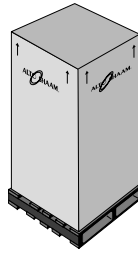
[www.alto-shaam.com](http://www.alto-shaam.com)



# INSTALLATION

## Unpacking and Setup

The Alto-Shaam Cooking and Holding Oven has been thoroughly tested, checked for calibration, and inspected to ensure only the highest quality oven is provided. When you receive your oven, check for any possible shipping damage and report it at once to the delivering carrier. (See *Transportation Damage and Claims* section of this manual.)



The oven, complete with unattached items and accessories, may be delivered in one or more packages. Check to insure that all the following items have been received with each standard unit:

- |                       |                           |
|-----------------------|---------------------------|
| 2 Ea. Drip Pans       | 1 Ea. External Drip Tray  |
| 4 Ea. Oven Side Racks | 4 Ea. Casters             |
| 6 Ea. Wire Shelves    | 16 Ea. Caster Mtg. Screws |

*The heavy duty models have the full perimeter bumper and casters installed at the factory.*

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

*Note: Any and all claims for warranty must include the full model and serial number of the unit.*

This cook and hold oven is designed for the purpose of heating food to its proper temperature and maintaining the hot food at a temperature for safe consumption. It must be installed in a location that will permit it to function for its intended purpose and allow adequate access for proper cleaning and maintenance.

## Oven Characteristics

The oven is equipped with a special, high-heat-density, heating cable. Through the Halo Heat concept, the heating cable is mounted against the walls of the cooking cavity to provide an evenly applied heat source controlled by a thermostat. The design and operational characteristics of the oven 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 several hours.



*Cold food for rethermalization or reheating must never be added to the oven while hot food is being held.*



*At no time should the oven be steamed cleaned, washed down, or flooded with water or liquid solution. Do not use water jet to clean. Severe damage or electrical hazard could result.*

*Disconnect oven from power source before cleaning or servicing.*

## Start-Up

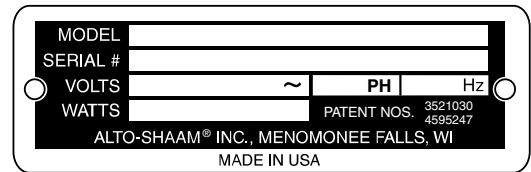
For the best service, the oven should be installed level. The oven should NOT be installed in any area where it may be affected by steam, grease, dripping water, high temperatures or any other severely adverse conditions.

1. Before operating the oven, clean both the interior and exterior of the unit with a damp cloth and mild soap solution. Rinse carefully.
2. Install the external drip tray on the lower front of the oven. See installation instructions located in this manual.
3. Clean and install the oven side racks and oven shelves. Shelves should be positioned with the curved end up and toward the back of the oven. Insert the drip pan on the interior bottom surface of the oven.
4. Before operating the unit with product, become familiar with the operation of the controls. Read the following "**General Operation**" section of this manual and operate the various control functions.

## Electrical Installation

1. An identification tag is permanently mounted on the oven.

### SAMPLE



2. All models at 208/240 volts are dual rated units with a conversion switch mounted under an access cover on the rear of the oven, near the power cord.

With the voltage conversion switch in the 200 volt through 208 volt (**UPPER**) position, the oven will function properly with a source voltage of between 200 volts and 208 volts.

With the voltage conversion switch in the 220-240 volt (**LOWER**) position, the unit will function properly with a source voltage of between 220 volts and 240 volts.

- NOTE:** All 208/240 volt units are shipped from the factory with the voltage conversion switch in the 220-240 volt position. Again, ensure that the voltage conversion switch position and the available power source match.

3. If necessary, a proper receptacle or outlet must be installed by a licensed electrician in accordance with applicable local electrical codes. This oven must be grounded in accordance with the requirements of the National Electrical Code or applicable local country codes.



*Ensure power source matches voltage stamped on oven nameplate.*

# INSTALLATION

## Thermostat/Indicator Light Sequence

Whenever the start-up procedure has been completed, the indicator light will indicate the power ON/OFF condition of the heating cable and consequently, the cycling of the oven as it maintains the dialed cavity temperature. If the light does not indicate after normal start-up, the main power source, the main power breaker, and/or the oven control circuitry must be checked. If a oven compartment does not hold the temperature as dialed, the calibration of the thermostat must be checked. (SEE THE PARAGRAPH ON THERMOSTAT CALIBRATION.) If a cooking compartment fails to heat or heats continuously with the thermostat off, the thermostat must be initially checked for proper operation. If all is in order, a continuity and resistance check of the heating cable should be made. (SEE THE CIRCUIT DIAGRAM.)

## Thermostat Calibration

**At 250°F (121°C) COOK  
and 140°F (60°C) HOLD**

The thermostat is precision calibrated at the factory. Normally, no adjustment or recalibration is necessary unless the thermostat has been mishandled in transit or changed or damaged 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 displaces the accuracy of the thermostat calibration.

A thermostat should be checked or recalibrated by placing a quality temperature indicator at the center of an empty oven cavity. **DO NOT CALIBRATE WITH FOOD PRODUCT IN THE OVEN.** The temperature must be allowed to stabilize at one particular setting for at least two hours. Following temperature stabilization, the center of the thermal swing of the cavity temperature should approximately coincide with the thermostat dial setting.

The calibration screw of the thermostat is located in the dial shaft. With the shaft held stationary, a minute clockwise motion of the calibration screw appreciably lowers the thermostat setting while a reverse motion results in the opposite condition. After achieving the desired cycling of the thermostat, the calibration screw must be sealed in place with a few drops of sealant.

[RED NAIL POLISH OR EQUIVALENT IS ACCEPTABLE.]

## OPTIONS AND ACCESSORIES

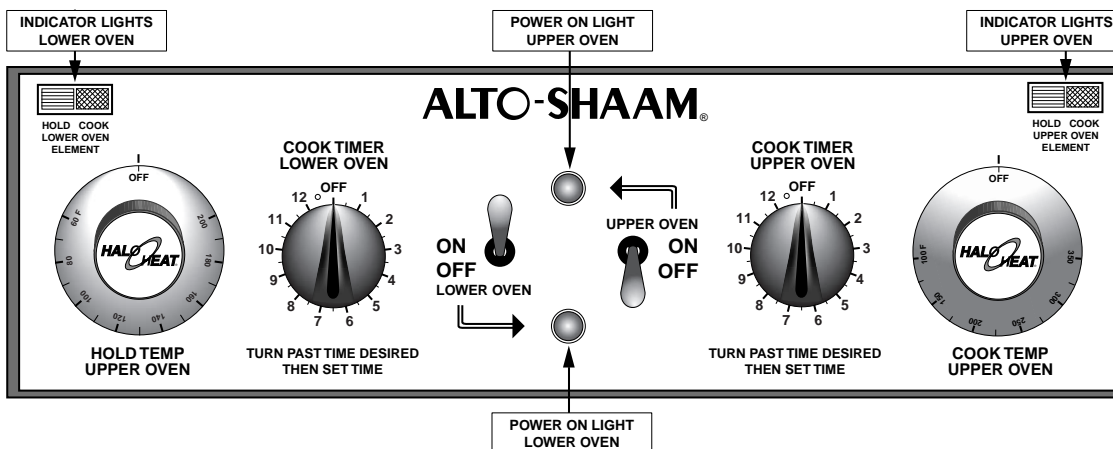
Bumpers	
➤ Corner Guards . . . . .	5221
➤ Full Perimeter . . . . .	4994
Carving Holder	
➤ Prime Rib . . . . .	HL-2635
➤ Ship Round . . . . .	4459
Door Lock with Key . . . . .	LK-22567
Drip Pan	
➤ Standard with Drain . . . . .	14824
➤ Extra Deep . . . . .	1115
Legs, 6" (152mm) . . . . .	5205
Pan Grid, Wire	
➤ 18" x 26" Pan Insert . . . . .	PN-2115
Security Panel with Key Locking Handle	
➤ Upper Control . . . . .	4372
➤ Center Control . . . . .	4368
Shelves	
➤ S/S Flat Wire . . . . .	SH-2325
➤ S/S Rib Rack . . . . .	SH-2773
Thermostat, Cooking	
➤ 250°F Limit . . . . .	TT-3978/KN-3491



*At no time should the oven interior or exterior be steam cleaned, hosed down, or flooded with water or liquid solution. Do not use water jet to clean. Severe damage or electrical hazard could result voiding the warranty.*

# OPERATION

*These instructions are basic operational guidelines only. For complete instructions, see the Cooking Guidelines Booklet packed with the oven.*



## UPPER COOKING COMPARTMENT

1. Turn upper oven POWER SWITCH "ON."
  - Upper oven POWER "ON" INDICATOR LIGHT will illuminate and will remain lit as long as the upper oven Power Switch is in the "ON" position.
2. Set the upper oven HOLD THERMOSTAT to the required holding temperature.
  - Upper oven HOLDING INDICATOR LIGHT will illuminate as the Hold Thermostat calls for heat. This process will continue as long as the upper oven Power Switch and Hold Thermostat are in the "ON" position.
3. Set upper oven COOK THERMOSTAT to the required cooking temperature
4. To preheat the upper oven, activate the Cook Thermostat by turning the upper oven COOKING TIMER clockwise.
  - Upper oven COOKING INDICATOR LIGHT and HOLDING INDICATOR LIGHT will illuminate as the Cook Thermostat calls for heat. This process will continue until the upper oven Cooking Timer cycles or is turned to the "OFF" position.

## LOWER COOKING COMPARTMENT

1. Turn lower oven POWER SWITCH "ON."
  - Lower oven POWER "ON" INDICATOR LIGHT will illuminate and will remain lit as long as the lower oven Power Switch is in the "ON" position.
2. The lower oven HOLD THERMOSTAT is located on the lower control panel. Set the lower oven HOLD THERMOSTAT to the required holding temperature.
  - Lower oven HOLDING INDICATOR LIGHT will illuminate as the Hold Thermostat calls for heat. This process will continue as long as the lower oven Power Switch and Hold Thermostat are in the "ON" position.
3. The lower oven COOK THERMOSTAT is located on the lower control panel. Set the lower oven COOK THERMOSTAT to the required cooking temperature.
4. To preheat the lower oven, activate the Cook Thermostat by turning the lower oven COOKING TIMER clockwise.
  - Lower oven COOKING INDICATOR LIGHT and HOLDING INDICATOR LIGHT will illuminate as the lower oven Cook Thermostat calls for heat. This process will continue until the lower oven Cooking Timer cycles or is turned to the "OFF" position.

# OPERATION

## 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.

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.

<b>HOLDING TEMPERATURE RANGE</b>		
<b>MEAT</b>	<b>FAHRENHEIT</b>	<b>CELSIUS</b>
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
<b>POULTRY</b>		
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
<b>FISH/SEAFOOD</b>		
FISH — Baked/Fried	160° — 175°F	71° — 79°C
LOBSTER	160° — 175°F	71° — 79°C
SHRIMP — Fried	160° — 175°F	71° — 79°C
<b>BAKED GOODS</b>		
BREADS/ROLLS	120° — 140°F	49° — 60°C
<b>MISCELLANEOUS</b>		
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.

## CARE AND CLEANING

### Care and Cleaning

Under normal circumstances, this oven should provide you with long and trouble-free service. There is no preventative maintenance required, however, the following *Equipment Care Guide* will maximize the potential life and trouble-free operation of this oven.

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

#### 1. CLEAN DAILY

Disconnect the oven from the power source. Let unit cool. Remove all detachable items such as wire shelves, side racks, and drip pans. Clean these items separately. Clean the interior metal surfaces of the oven with a damp cloth and any good commercial detergent or grease solvent at the recommended strength. Use a scouring pad or oven cleaner for difficult areas. Rinse well. Avoid the use of abrasive cleaning compounds, chloride based cleaners, or cleaners containing quaternary salts. Rinse carefully to remove all residue and wipe dry.



*NOTE: Never use hydrochloric acid (muriatic acid) on stainless steel.*



*At no time should the oven interior or exterior be steamed cleaned, washed down, or flooded with water or liquid solution. Do not use water jet to clean. Severe damage or electrical hazard could result, voiding the warranty.*

#### 2. CLEAN THE EXTERIOR OF THE CABINET WITH A STAINLESS STEEL POLISH.

To help maintain the protective film coating on polished stainless steel, clean the exterior of the cabinet 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.

#### 3. CHECK OVERALL CONDITION OF THE OVEN ONCE A MONTH.

Check the oven once a month for physical damage and loose screws. Correct any problems before they begin to interfere with the operation of the oven.

#### 4. CHECK THE COOLING FAN IN THE OVEN CONTROL AREA.

While the oven is warm, check that the cooling fan in the oven control area is functioning. The fan is located on the back of the unit, toward the top.

#### 5. CLEAN THE DOOR VENTS

Door vents need to be inspected and cleaned as required.

## Sanitation Guideline

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



# DRIP TRAY MOUNTING INSTRUCTIONS



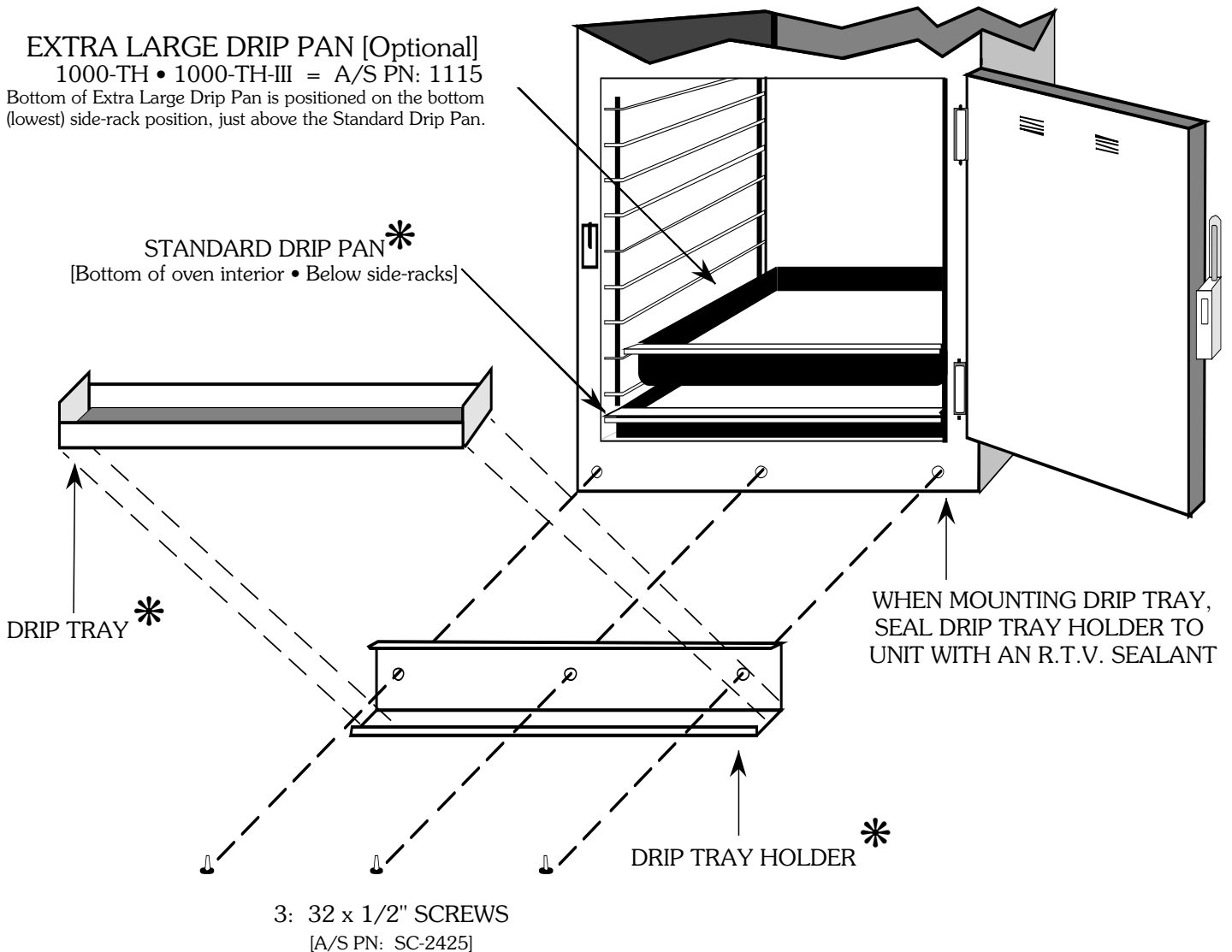
## LOW TEMPERATURE COOKING & HOLDING OVENS

MODELS:  
500-TH 750-TH/II 767-SK 1000-TH-I 1000-TH-II

### EXTRA LARGE DRIP PAN [Optional]

1000-TH • 1000-TH-III = A/S PN: 1115

Bottom of Extra Large Drip Pan is positioned on the bottom (lowest) side-rack position, just above the Standard Drip Pan.



\* See individual model service manual, views and parts lists, for Alto-Shaam part numbers.

## ALTO-SHAAM®

W164 N9221 Water Street • P. O. Box 450

Menomonee Falls, Wisconsin 53052-0450

#243B • 3/88

## SERVICE

### Trouble Shooting

<i>TROUBLE</i>	<i>POSSIBLE CAUSE</i>	<i>REMEDY</i>
Unit does not operate.	Insufficient electric power unit. Defective plug or cord. Power switch defective.	Check power source. Check and repair if necessary. Replace.
Cooking temperature not correct.	Cook thermostat out of calibration.	Calibrate.
Holding temperature not correct.	Hold thermostat out of calibration.	Calibrate.
Timer runs down, but oven will not go into HOLD.	Timer not de-energizing cook circuit.	Replace timer.
Cook thermostat erratic — will not hold calibration.	Cook thermostat.	Replace thermostat.
Hold thermostat erratic — will not hold calibration.	Hold thermostat.	Replace thermostat.
Oven goes from cooking temperature to cold.	Hold thermostat.	Replace hold thermostat.
Oven will not go into cook cycle when timer and cook thermostat are ON.	Timer or contactor.	With timer turned ON, line voltage should appear across term. 2 and 3 of timer. If not, replace timer.  If line voltage does appear across term. 2 and 3 of timer, it should also appear across holding coil of contactor. If line voltage does appear across holding coil, and it won't close its contacts, replace contactor.
It takes too long to cook (temperature O.K.).	Heating element open, resulting in low wattage.	Replace element.
Cannot control temperature but thermostats check O.K.	Heating element grounded.	Replace element.

***This section is provided for the assistance of qualified technicians only and is not intended for use by untrained or unauthorized service personnel.***



***Do not replace any electrical components without first disconnecting electrical power to the unit by switching OFF the electrical power at the rear of the oven. A warning sign should be posted on the panel indicating the oven is being serviced and that the power must remain OFF.***

# SERVICE

## Service View Parts List

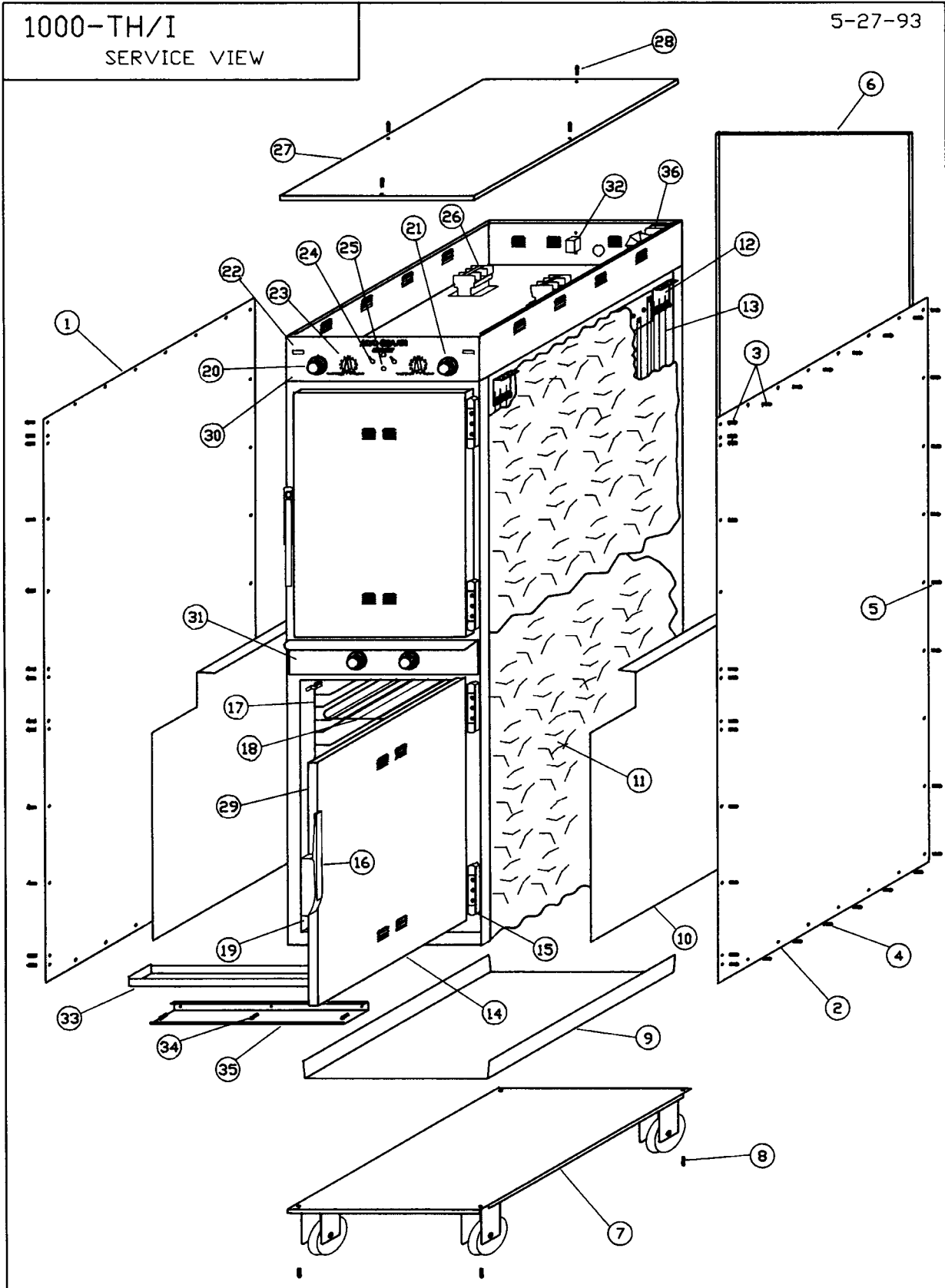
<b>Models: 1000-TH-I/STD 1000-TH-I/HD</b>			<b>1000-TH-I/STD/D 1000-TH-I/HD</b>			<b>1000-TH-I/HD/PT</b>		
<b>1/10/03</b>	<b>PART DESCRIPTION</b>	<b>UNIT QTY</b>	<b>ALTO-SHAAM PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>UNIT QTY</b>	<b>ALTO-SHAAM PART NUMBER</b>		
1.	CASING SIDE, LEFT-HAND (Standard Construction)	1	1468	15.	HINGE SET (1 pair of 2 hinges)	2	HG-2014	
	CASING SIDE, LEFT-HAND (Heavy Duty Construction)	1	1470		HINGE MOUNTING SCREWS (NOT SHOWN)	24	SC-2072	
2.	CASING SIDE, RIGHT-HAND (Standard Construction)	1	11075	16.	DOOR HANDLE	2	HD-2566	
	CASING SIDE, RIGHT-HAND (Heavy Duty Construction)	1	11076		DOOR HANDLE MTG. SCREWS (NOT SHOWN)	8	SC-2073	
	CASING, RIGHT OR LEFT HAND PASS THRU UNIT (NOT SHOWN)	2	16655		DOOR CATCH MTG. SCREWS (NOT SHOWN)	4	SC-2071	
3.	CASING SIDE MOUNTING SCREWS	19	SC-2425	17.	SIDE RACK	4	SR-2266	
4.	CASING BOTTOM MOUNTING SCREWS	6	SC-2459	18.	SHELF	6	SH-2325	
5.	CASING BACK MOUNTING SCREWS	9	SC-2425	19.	DRIP PAN ASSEMBLY	2	14824	
6.	CASING BACK (Standard Construction)	1	1997	20.	HOLD THERMOSTAT	2	TT-3057	
	CASING BACK (Heavy Duty Construction)	1	1998		HOLD KNOB (F°)	2	KN-3469	
7.	BOTTOM ASSEMBLY	1	4236		HOLD KNOB (C°)	2	KN-3474	
	—CASTERS, RIGID	2	CS-2025	21.	COOK THERMOSTAT	2	TT-3329	
	—CASTERS, SWIVEL WITH BRAKE	2	CS-2026		COOK KNOB (F°)	2	KN-3468	
	—BUMPER GUARD (HD only)	1	4994		COOK KNOB (C°)	2	KN-3475	
	—BUMPER GUARD (OCB style)	1	5221	22.	HEATING INDICATOR LIGHT	2	LI-3024	
	—CASTER MTG. SCREWS (NOT SHOWN)	16	SC-2351	23.	TIMER (208/240V - 60 Hz)	2	TR-3318	
	BOTTOM PASS THRU UNIT (NOT SHOWN)	1	44307		TIMER (220V - 50 Hz)	2	TR-3402	
8.	BOTTOM ASSEMBLY MTG. SCREWS	4	SC-2332		TIMER KNOB	2	KN-3765	
9.	INSULATION BOTTOM ASSEMBLY	1	4235	24.	POWER ON SWITCH	2	SW-3528	
10.	INSULATION SIDES	2	1483		RUBBER BOOT, 230V	2	SW-3905	
11.	INSULATION: Size 25" x 120" (635mm x 3048mm)	2	IN-22364	25.	POWER ON INDICATOR LIGHT (red)	2	LI-3025	
12.	HEATING CABLE HARDWARE				POWER ON INDICATOR LIGHT (white)	2	LI-3951	
13.	HEATING CABLE		CB-3045	26.	CONTACTOR	2	CN-3052	
14.	DOOR ASSEMBLY			27.	CONTROL TOP	1	1489	
	—RIGHT-HAND, SOLID	2	5204	28.	CONTROL TOP MOUNTING SCREWS	4	SC-2425	
	—LEFT-HAND, SOLID	2	15557	29.	DOOR GASKET: Length 8' (2438mm) per door	2	GS-2398	
	—RIGHT-HAND, WINDOW	2	5527	30.	UPPER CONTROL PANEL	1	PE-2689	
	—LEFT-HAND, WINDOW	2	5961	31.	LOWER CONTROL PANEL	1	PE-2691	
	—MEAT PROBE (TH/I/MP) (NOT SHOWN)	2	PR-3561	32.	VOLTAGE CONVERSION SWITCH	1	SW-3528	
				33.	DRIP TRAY	1	1113	
				34.	DRIP TRAY HOLDER MTG. SCREWS	3	SC-2425	
				35.	DRIP TRAY HOLDER	1	1114	
				36.	FAN	1	FA-3342	
					FAN BLADE	1	FA-3343	

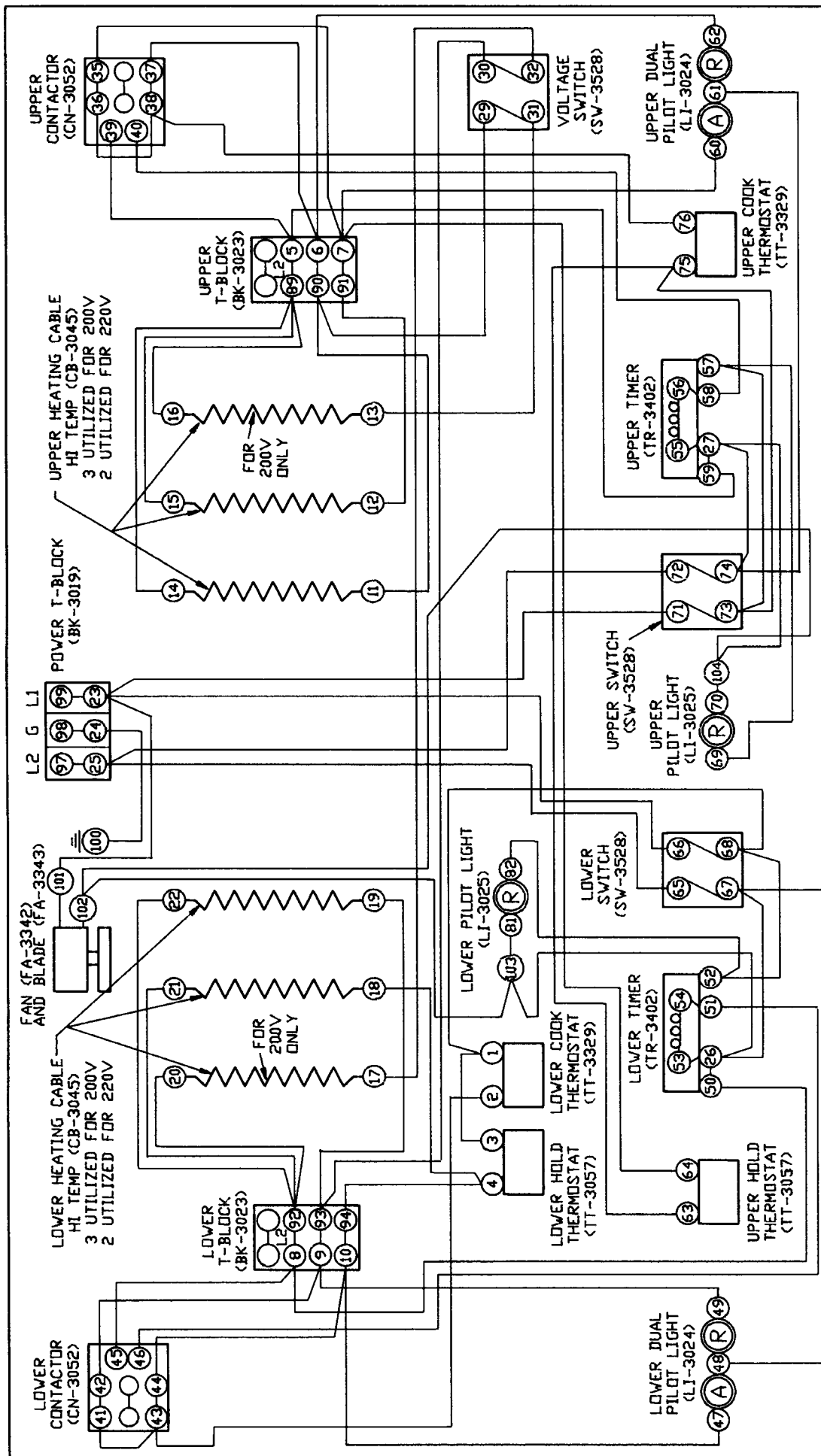
### CABLE HEATING SERVICE KIT (ONE KIT PER CABINET COMPARTMENT)

**No. #4881**

includes:	CB-3045	Cable Heating Element . . . . .	210 feet
	CR-3226	Ring Connector . . . . .	.12
	IN-3488	Insulation Corner . . . . .	.1 foot
	BU-3105	Shoulder Bushing . . . . .	.12
	BU-3106	Cup Bushing . . . . .	.12
	SL-3063	Insulating Sleeve . . . . .	.12
	TA-3540	Electrical Tape . . . . .	.1 roll
	ST-2439	Stud 10-32 . . . . .	.12
	NU-2215	Hex Nut 10-32 . . . . .	.24

# SERVICE





(200,220V)

REVISIONS		1000-TH/1
NO.	DATE	BY
1	3-4-80	ALD
2	10-14-80	ALD
3	4-11-84	LLK
4	10-10-85	LLK
5	05-13-93	RS

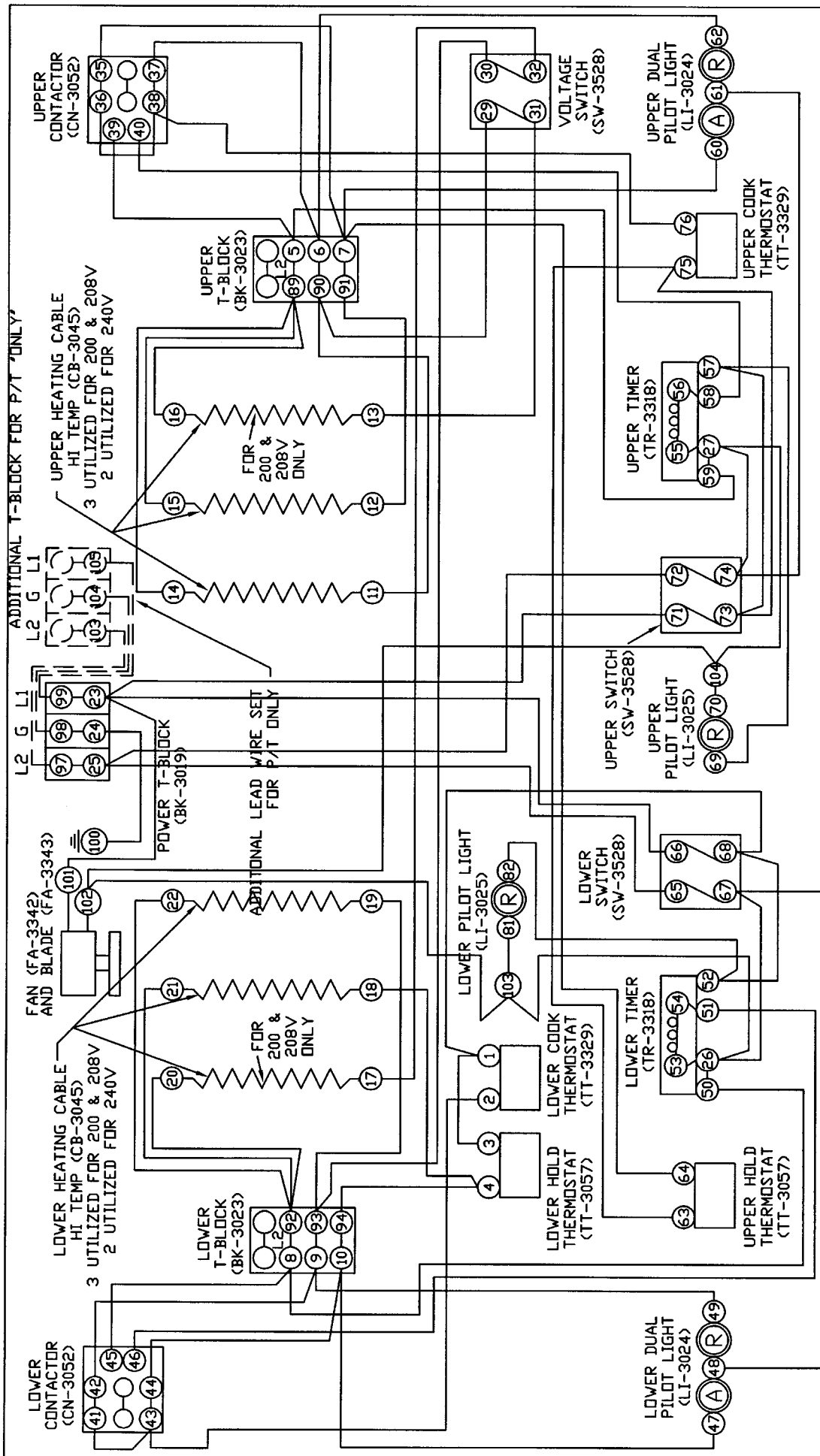
**WIRING DIAGRAM**

**ALTO-SHAAM INC.**  
MEMMONEE FALLS, WISCONSIN.

DRAWN BY	ALD	SCALE	1"=1'	DWG. NO.	A-7138
DATE	3-4-80	APP'D	<i>[Signature]</i>		

**200V-50HZ-5700W**  
**220V-50HZ-4800W**

NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART No'S  
NOTE #2: SEE DRW. #S B-8185, B-8189 FOR WIRE ASSEMBLIES



REVISIONS		1000-TH/I, PT	(200,208,240V)
NO.	DATE	BY	
5	10-8-85	LLK	
6	10-29-85	LLK	
7	05-11-93	RS	
8	11-21-02	DAR	DRAWN BY ALO SCALE 1"=1" DWG. NO. A-7118
9		APP'D	DATE 9-11-79

200V,60HZ,5700W,28.5A  
 208V,60HZ,6000W,28.8A  
 240V,60HZ,5200W,21.6A

NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART No's  
 NOTE #2: SEE DRW. #S B-8185, B-8137 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 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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