

# ALTO SHAAM<sup>®</sup>

## OPERATION and CARE MANUAL



Two Tier  
Hot Display Case

**Model: CC-24**



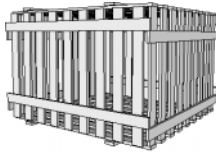
### **COOK/HOLD/SERVE SYSTEMS**

W164 N9221 Water Street • P.O. Box 450 • Menomonee Falls, Wisconsin 53052-0450 U.S.A.  
PHONE: 262.251.3800 FAX: 262.251.7067 • 800.329.8744 U.S.A. ONLY WEBSITE:  
800.558-8744 U.S.A./CANADA 262.251.1907 INTERNATIONAL www.alto-shaam.com

# ALTO-SHAAM® HOT DISPLAY CASES

## UNPACKING and SET-UP

The Alto-Shaam Display Case has been thoroughly tested, checked for calibration, and inspected to insure only the highest quality cabinet is provided. When you receive your unit, 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.



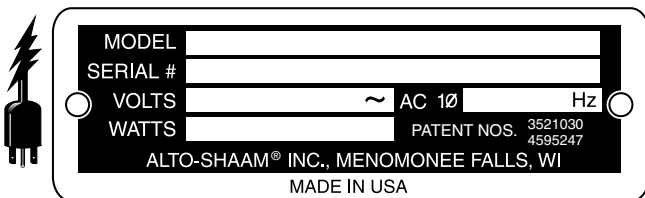
In order to maintain established National Sanitation Foundation standards, all stationary floor models must be sealed to the floor with a R.T.V. or silastic meeting N.S.F. requirements or have 6" (153mm) unobstructed clearance beneath the unit. Warranty will become null and void if these directions are not followed.

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. Any and all claims for warranty must include the full model number and serial number of the cabinet.

## ELECTRICAL INSTALLATION

Use a professional electrician or serviceman for installation and service in accordance with national codes. If necessary, a proper receptacle or outlet configuration, as required for the unit, must be installed by a licensed electrician in accordance with applicable, local electrical codes. Remember to position this unit so that the power supply cord is easily accessible in case of an emergency.

An identification tag is permanently mounted on cabinet.



**ENSURE POWER SOURCE MATCHES  
VOLTAGE STAMPED ON  
NAMEPLATE OF UNIT**



### Regarding International Standard Units Only:

If the unit is not equipped with flexible cord with plug, an all-pole country approved disconnection device which has a contact separation of at least 3mm in all poles must be incorporated in the fixed wiring for disconnection. When using a cord without a plug, the green/yellow conductor shall be connected to the terminal which is marked with the ground symbol. If a plug is used, the socket outlet must be easily accessible. If power cord needs replacement, use a similar one obtained from the distributor.

## OPERATIONAL PROCEDURES

- 1. INSERT WIRE SHELVES OR TILE INTO THE DISPLAY CASE (OPTIONAL).**
- 2. CHECK THAT BREAKER SWITCHES ARE "ON".**  
The breaker switches are located on the control panel.
- 3. TURN UPPER AND LOWER DISPLAY LIGHTS "ON" AND SET THE THERMOSTAT(S) AT NUMBER "7" TO PREHEAT.**

Upper and lower lights will illuminate when light switches are turned on. An indicator light will illuminate when the thermostat(s) is turned "ON". The indicator(s) will remain lit as long as the unit is preheating or calling for heat. This unit should be preheated, at the number "7" setting, for a minimum of thirty minutes before loading the case with food. When preheating is completed, the indicator light(s) will turn off. Preheat the unit along with any empty serving pans or containers which will be used to transfer hot foods for display. NOTE: To ensure better life expectancy of the light bulbs supplied with this unit, do not overtighten in their receptacles. Warming these bulbs at least 15 minutes before use is also recommended.

- 4. LOAD PREPACKAGED HOT FOODS INTO THE DISPLAY CASE.**

The unit can be loaded from the front or back (control) side. Before loading food into the case, use a pocket-type meat thermometer to make certain all products have reached an internal temperature of 160° F (71°C) or higher. If any food product is not at proper serving temperature, use a Halo Heat cooking and holding oven or Combitherm Oven to bring the product within the correct temperature range.

- ✓ Use hand protection when handling hot items.
- ✓ Do not stack food containers.
- ✓ Be certain only hot PREPACKAGED foods in appropriate heat tested containers are used in this hot display case.

- 5. RESET THERMOSTAT(S) AS NEEDED.**

Since proper temperature range depends on the type of products and the quantities being held, it is necessary to periodically use a pocket thermometer to check each item to make certain the correct temperatures are being maintained. Local health regulations may vary regarding minimum serving temperatures. Proper temperature range is usually 160°F (71°C) or higher. Normally, this will require a thermostat setting of "7" although a higher or lower setting may sometimes be required. *Note: The thermostat for this unit has been factory set so that it will not advance past the number 9.*

## CARE and CLEANING

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



### THOROUGHLY CLEAN THE DISPLAY CASE DAILY

1. Turn lights and adjustable thermostat(s) to the "OFF" position.
2. Disconnect unit from power source by turning breaker switch(es) to the "OFF" position. Let the unit cool.
3. Remove and store unused products under refrigeration.
4. 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 quaternary salts. Rinse carefully to remove all residue and wipe dry.



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

5. Clean glass with window cleaner.
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 equipment.

Remember to turn the breaker switch(es) ON again before operating the unit.

**Disconnect unit from power source before cleaning or servicing. At no time should the case be flooded with water or liquid solution. Do not use water jet to clean. NEVER STEAM CLEAN. Severe damage or electrical hazard could result, voiding the warranty.**



**Use caution when replacing hot bulbs. This unit's performance has been optimized using factory provided bulbs. These bulbs should be replaced with an exact substitute or with a factory recommended replacement. Do not overtighten the bulbs in their receptacles.**



## QUARTZ HEATERS

- White cotton gloves should be worn when handling quartz elements. Never touch them with bare hands, as oil and dirt from the skin can contaminate the quartz sheath and cause hot spots and premature heater failure. If this element is touched, thoroughly wipe, using a dry, clean cloth and alcohol or other suitable solvent.
- Do not expose these heater elements to water.
- Solvent vapors can be flammable. Be sure to provide adequate ventilation.
- Quartz heater elements are designed to be used in a horizontal position only.



### Installation

Care should be taken to insure that all installations meet local code requirements and safety regulations. The quartz heater will expand about 1% of its length. Be sure it is mounted to allow this growth. Check the area around the quartz heat element for flammable material.

### Electrical

Never operate the quartz heater element at a voltage higher than the design voltage. Disconnect and/or lock out power before installing heater and making electrical connections. Make electrical connections according to local, national or country codes. Be sure all electrical connections are made safely and that the terminals do not contact the housing. On units supplied with leads, make certain the lead connections are tight before applying power. When attaching leads to the heater element, be sure to hold the inner terminal nut with pliers to prevent twisting or breaking.

### Operation

These heaters are designed to provide trouble-free operation; however, some minimal precautions are required. Be sure the area is free of flammable hazards. If the heaters are facing up, be sure to remove objects that fall into the heaters or the reflectors behind them. Periodically check to see that the wiring is not frayed, burnt, or cut. If there is vibration, check to see that mounting screws remain secure. The heaters will operate best with clean reflectors. The loss of efficiency can be as high as 30% with dirty reflectors. Always disconnect and lock out power before parts are replaced. The quartz heater can be replaced from the front of the unit.

### Replacement

Replacement is accomplished by removal of the screws holding the end caps, removing the end caps, and disconnecting the power leads from the terminals on the heater element. Installation is accomplished by reversing the procedure.

**Quartz elements should not be touched with bare fingers as oil from hands can destroy or cause premature failure. If accidentally touched, clean with a dry, soft cloth and rubbing alcohol.**

## 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.

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

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 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.

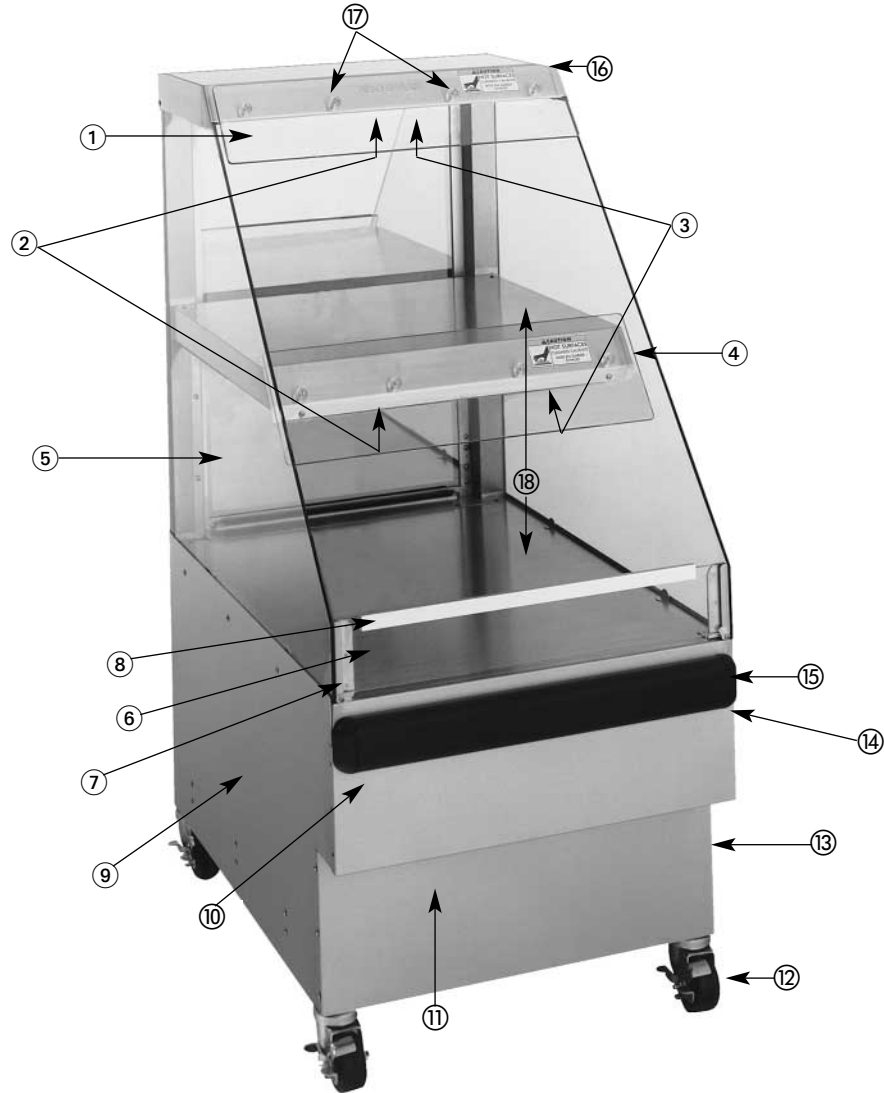
In an enclosed holding environment, too much moisture content is a condition which can be relieved. A product achieving extremely high temperatures in preparation must be allowed to decrease in temperature before being placed in a controlled holding atmosphere. If the product is not allowed to decrease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

This particular Alto-Shaam holding unit is equipped with thermostats indicating a range of between 1 and 10. *Note: The thermostat for this unit has been factory set so that it will not advance past the number 9. Use a metal-stemmed thermometer to measure the internal temperature of the product(s) being held. Adjust the thermostat settings to achieve the best overall setting based on internal product temperature.*

HOLDING TEMPERATURE RANGE		
	FAHRENHEIT	CELSIUS
<b>MEAT</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 ONLY.

## Model CC-24 • Front and Side View



<u>Description</u>	<u>Part No.</u>	<u>Qty/Unit</u>	<u>Description</u>	<u>Part No.</u>	<u>Qty/Unit</u>
① Top Guard	GD-24818	1	⑮ Bumper, insert	16217	1
② Quartz Element	EL-33517	2	⑯ Bumper End Cap	BM-24129	2
③ Light Bulbs	LP-33816	4	⑰ Top Cover Assembly	55539	1
Light Bulbs, 230V	<a href="#">LP-33803</a>	4	⑱ Spacer	SP-24415	4
④ Center Guard	GD-24817	1	Mounting Screws	<a href="#">SC-2713</a>	8
⑤ End Glass	GL-24819	2	⑳ Upper shelf	SH-24508	1
⑥ Front Glass/guard	GL-24820	1	Lower shelf	SH-24509	1
⑦ Retaining Glass Latch	<a href="#">LT-2195</a>	2	OPTIONS		
⑧ Glass Stiffener	1001122	1	— Small wire grid, S/S	<a href="#">SH-24144</a>	1
⑨ Left Hand End Panel	16128	1	NOT SHOWN		
⑩ Front Panel, Center	16121	1	— Large wire grid, S/S	<a href="#">SH-24145</a>	1
⑪ Front Panel, Bottom	16122	1	NOT SHOWN		
⑫ Casters	<a href="#">CS-24351</a>	4	— Digital Solar Thermometer	14990	
⑬ Right Hand End Panel	16129	1	NOT SHOWN		
⑭ Bumper Track	16132	1	— Replacement kit, glass bottom	44312	1
			NOT SHOWN		

## Model CC-24 • Rear View



	Description	Part No.	Qty/Unit
①	Door Assembly	14957	1
②	Plastic plug	PG-3325	2
③	Thermostat Knob, Quartz Element	KN-3473	1
④	Thermostat Knob, Lower Shelf	KN-3473	1
⑤	Indicator Lights	LI-3025	3
	Indicator Lights, 230V	LI-3951	3
⑥	Light Switch	SW-3528	1
	Light Switch, 230V	SW-33487	1
⑦	Thermostat Knob, Upper Shelf	KN-3473	1
⑧	Breaker Switch	SW-33342	2
	Breaker Switch, 230V	SW-33768	2
⑨	Electric Cord, 120, 208-240V only	CD-3338	9' (2743mm)
	Plug	PG-3337	1
⑩	Door Hinge	HG-2047	2
	Mounting Screws	SC-2472	6
⑪	Back End Panel	16123	1

Model CC-24  
Tipped up to expose heat elements and bulbs



	<u>Description</u>	<u>Part No.</u>	<u>Qty/Unit</u>
①	Bulbs, Halogen	LP-33816	4
	Receptacle	RP-3952	4
	Bulbs, Halolux, 230V	LP-33803	4
	Receptacle, 230V	RP-3955	4
②	Quartz Element	EL-33517	2
③	End Glass Guide, LH	1000387	1
	End Glass Guide, RH	1000388	1
④	Capillary Block	BK-2609	3
⑤	Capillary Guard	GD-2536	1
⑥	Door Stop	DR-2533	1

# Model CC-24 • Inside View

back of unit

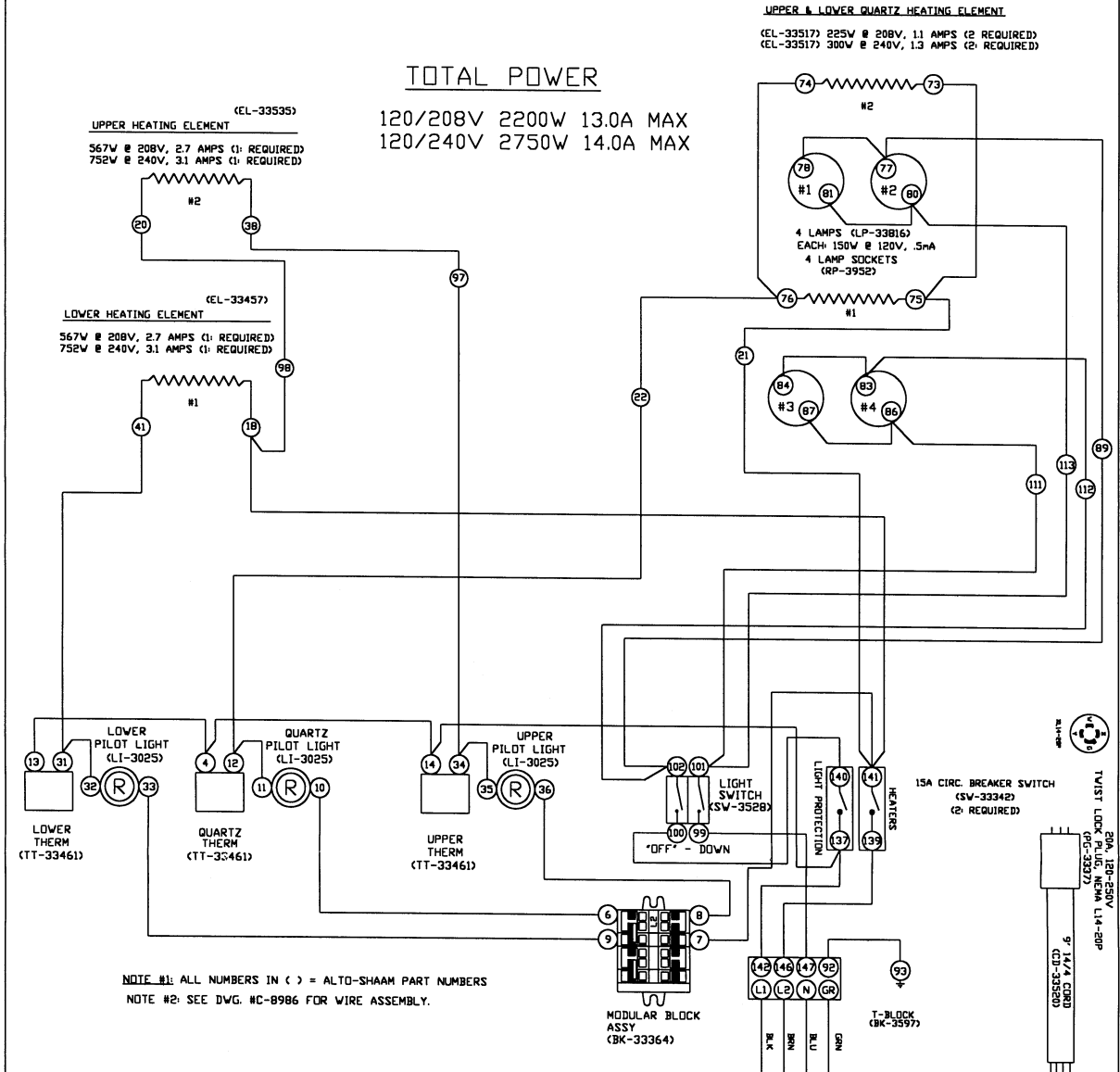


front of unit

	Description	Part No.	Qty/Unit
①	Heat Element, lower shelf	EL-33457	1
	Heat Element, upper shelf	EL-33535	1
②	Insulation	IN-22364	1
③	Thermostats	TT-33461	3
④	Indicator Lights	LI-3025	3
	Indicator Lights, 230V	LI-3951	3
⑤	Light Switch	SW-3528	1
	Light Switch, 230V	SW-33487	1
⑥	Breaker Switch	SW-33342	2
	Breaker Switch, 230V	SW-33768	2

# TOTAL POWER

120/208V 2200W 13.0A MAX  
 120/240V 2750W 14.0A MAX



6	05/22/02	CJB
5	08/30/01	LRP
4	07/31/01	NWW
3	06/08/01	NWW
2	12/13/00	NWW
1	11/10/00	NWW
NO.	REVISION	BY

BY: NWW	SCALE: NONE	DWG: 7565
APP'D: DDF	DATE: 11/09/00	B-7565
<b>ALTO-SHAAM</b>		
MENOMONEE FALLS, WISC. 53052-450		
MODELS: CC-24	120/208-240V	60HZ (US)

## WIRING DIAGRAM

STANDARD TOLERANCE (±.015") UNLESS OTHERWISE SPECIFIED

NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS  
 NOTE #2: SEE DVG. #C-8101 FOR WIRE ASSEMBLIES

**UPPER & LOWER QUARTZ HEATING ELEMENT**

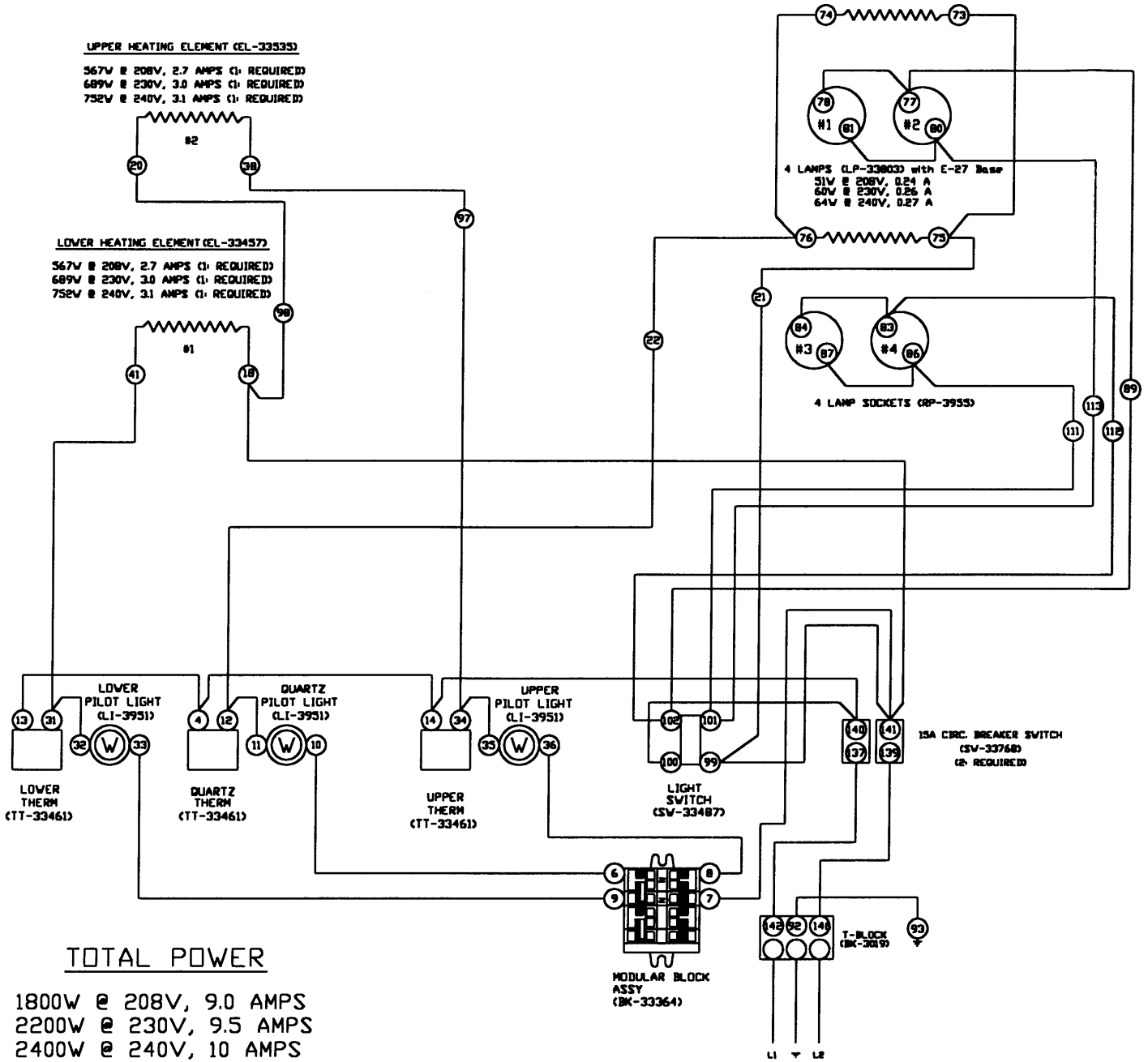
(EL-33517) 225W @ 208V, 1.1 AMPS (2 REQUIRED)  
 (EL-33517) 276W @ 230V, 1.2 AMPS (2 REQUIRED)  
 (EL-33517) 300W @ 240V, 1.3 AMPS (2 REQUIRED)

**UPPER HEATING ELEMENT (EL-33535)**

367W @ 208V, 2.7 AMPS (1 REQUIRED)  
 689W @ 230V, 3.0 AMPS (1 REQUIRED)  
 752W @ 240V, 3.1 AMPS (1 REQUIRED)

**LOWER HEATING ELEMENT (EL-33457)**

367W @ 208V, 2.7 AMPS (1 REQUIRED)  
 689W @ 230V, 3.0 AMPS (1 REQUIRED)  
 752W @ 240V, 3.1 AMPS (1 REQUIRED)



**TOTAL POWER**

1800W @ 208V, 9.0 AMPS  
 2200W @ 230V, 9.5 AMPS  
 2400W @ 240V, 10 AMPS

ENGINEERING DRAWING ONLY. SUBJECT TO CHANGE

NO.	REVISION	BY:	WIRING DIAGRAM	
			MODELS: CC24 230V	
			<b>ALTO-SHAAM.</b> MENOMONEE FALLS, WISC. 53052-450	
			SCALE: NONE	DWG: A-7629
			BY: DDF	DATE: 03/08/02

# 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: \_\_\_\_\_

## COOK/HOLD/SERVE SYSTEMS BY ALTO-SHAAM®

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