

OPERATION and CARE MANUAL



HOT PIZZA & PRETZEL VIEWER

Models:

500-PV

500-PVL

500-PV/PT

500-PVL/PT



COOK/HOLD/SERVE SYSTEMS



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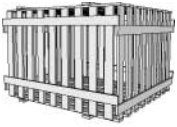
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262.251.1907 INTERNATIONAL

www.alto-shaam.com

ALTO-SHAAM® — DISPLAY CABINET

RECEIVING AND INSPECTION



This Alto-Shaam Display 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

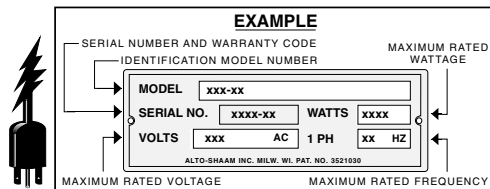
and report it at once to the delivering carrier. See *Transportation Damage and Claims* section located in this manual.

The cabinet, complete with unattached items and accessories, may be delivered in one or more packages. 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. Keep this manual in a secure location.

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, remembering to position the unit so that the cord is easily accessible in case of an emergency.
3. Permanent wiring or a proper outlet configuration, as required for this unit must be installed by a licensed electrician in accordance with applicable, local electrical codes.

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



HEAT 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 eliminate 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. Install equipment legs on cabinet before operating.
2. Before operating cabinet, clean both the interior and exterior of unit with a damp cloth and mild soap solution. Rinse carefully. Use a standard commercial glass cleaner or distilled white vinegar on glass panels and doors.
3. Clean and install the cabinet pizza or pretzel rack.

**Do not operate the cabinet without equipment legs.
Severe damage or hazard could result.**



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.
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 holding hot pretzels, preheat as shown above, load the pretzels, and decrease thermostat to approximately 100°F (38°C).*

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.



CLEAN THE HOLDING CABINET DAILY

1. Turn lights and adjustable thermostat(s) to OFF position, and disconnect unit from power source.
 2. Remove, cover or wrap, and store unused product under refrigeration.
 3. Clean interior metal surfaces of cabinet with a damp cloth and any good alkaline or alkaline chlorinated based commercial detergent or grease solvent at recommended strength. Use a plastic scouring pad or oven cleaner for difficult areas. Avoid 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.
4. Clean glass with window cleaner.
 5. To help maintain protective film coating on polished stainless steel, clean exterior of unit with a cleaner recommended for stainless steel surfaces. Spray cleaning agent on clean cloth and wipe with grain of stainless steel.

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

At no time should the inside or outside of the cabinet be washed down, flooded with water or liquid solution. Do not use water jet to clean. NEVER STEAM CLEAN. Severe damage or electrical hazard could result.

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.

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 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 our 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 unit 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 and PILOT LIGHT SEQUENCE

Whenever the thermostat is turned "ON," the indicator light will show 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 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.*

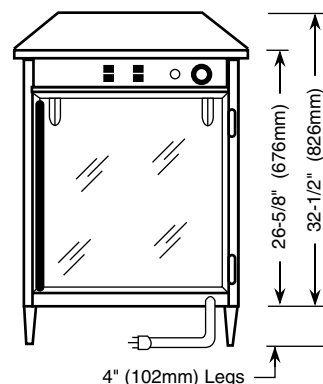
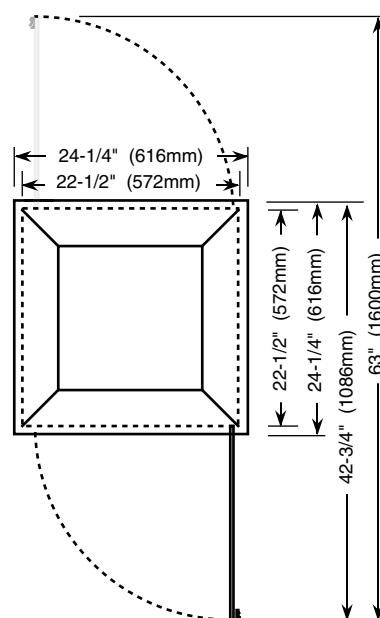
THERMOSTAT CALIBRATION

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.)**

OUTSIDE DIMENSIONS



**500-PV; PVL
500-PV/PT; PVL/PT**

***if the power supply cord set is damaged,
replace with an Alto-Shaam cord set.
The use of any other cord may result in
electric shock or fire hazard.***

***Always disconnect from power source before
cleaning or servicing.***



***At no time should the inside or outside
of the cabinet be washed down, 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.***

SERVICE VIEW PARTS LIST

500-PV; 500-PVL HOT FOOD DISPLAY CABINETS				500-PV/PT; 500-PVL/PT PASS-THRU HOT FOOD DISPLAY CABINETS			
8/21/00	PART DESCRIPTION	UNIT QTY	ALTO-SHAAM PART NUMBER	8/21/00	PART DESCRIPTION	UNIT QTY	ALTO-SHAAM PART NUMBER
1.	LEGS, 4" (102mm)	4	LG-2044	1.	LEGS, 4" (102mm)	4	LG-2044
2.	BOTTOM ASSEMBLY	1	4306	2.	BOTTOM ASSEMBLY	1	4306
3.	BOTTOM ASSEMBLY MOUNTING SCREWS	12	SC-2459	3.	BOTTOM ASSEMBLY MOUNTING SCREWS	12	SC-2459
4.	INSULATION: Size 22" x 22" (559mm x 559mm)	1	IN-22364	4.	INSULATION: Size 22" x 22" (559mm x 559mm)	1	IN-22364
5.	CABLE CONNECTION HARDWARE			5.	CABLE CONNECTION HARDWARE		
6.	HEATING CABLE: LENGTH 61' (18593mm)	1	CB-3045	6.	HEATING CABLE: LENGTH 61' (18593mm)	1	CB-3045
7.	CORD & PLUG SET (125V)	1	CD-3232	7.	CORD & PLUG SET (125V)	1	CD-3232
	CORD (120/240V): LENGTH 6' (1829mm)	1	CD-3338		CORD (120/240V): LENGTH 6' (1829mm)	1	CD-3338
	PLUG (120/240V)	1	PG-3337		PLUG (120/240V)	1	PG-3337
	CORD (220V): LENGTH 6' (1829mm)	1	CD-3031		CORD (220V): LENGTH 6' (1829mm)	1	CD-3031
8.	TOP COVER	1	CV-2593	8.	TOP COVER	1	CV-2593
9.	TOP COVER MOUNTING SCREWS	4	SC-2425	9.	TOP COVER MOUNTING SCREWS	4	SC-2425
10.	TOP COVER MOUNTING WASHERS	8	WS-2420	10.	TOP COVER MOUNTING WASHERS	8	WS-2420
11.	THERMOSTAT	1	TT-3057	11.	THERMOSTAT	1	TT-3057
	THERMOSTAT KNOB (FAHRENHEIT)	1	KN-3469		THERMOSTAT KNOB (FAHRENHEIT)	1	KN-3469
	THERMOSTAT KNOB (CELSIUS)	1	KN-3474		THERMOSTAT KNOB (CELSIUS)	1	KN-3474
12.	HEAT INDICATOR LIGHT (125V)	1	LI-3493	12.	HEAT INDICATOR LIGHT (125V)	1	LI-3493
	HEAT INDICATOR LIGHT (250V)	1	LI-3516		HEAT INDICATOR LIGHT (250V)	1	LI-3516
13.	POWER SWITCH	1	SW-3409	13.	POWER SWITCH	1	SW-3409
14.	MOTOR SWITCH	1	SW-3409	14.	MOTOR SWITCH	1	SW-3409
15.	TEMPERATURE GAUGE	1	GU-3273	15.	TEMPERATURE GAUGE	1	GU-3273
16.	GEAR MOTOR	1	MO-3495	16.	GEAR MOTOR	1	MO-3495
	GEAR MOTOR COIL (220V)	1	MO-3497		GEAR MOTOR COIL (220V)	1	MO-3497
	GEAR MOTOR MOUNTING SCREWS	4	SC-2886		GEAR MOTOR MOUNTING SCREWS	4	SC-2886
17.	BULB (125V; 120-240V)	2	LP-3480	17.	BULB (125V; 120-240V)	2	LP-3480
	BULB (220V)	2	LP-3606		BULB (220V)	2	LP-3606
18.	BULB SOCKET (125V)	2	RP-3952	18.	BULB SOCKET (125V)	2	RP-3952
	BULB SOCKET (220V)	2	RE-3955		BULB SOCKET (220V)	2	RP-3955
19.	PIZZA RACK: 500-PV	1	SR-2590	19.	PIZZA RACK: 500-PV/PT	1	SR-2590
	PRETZEL RACK: 500-PVL	1	SR-2622		PRETZEL RACK: 500-PVL/PT	1	SR-2622
20.	GLASS SIDE ASSEMBLY	3	4308	20.	GLASS SIDE ASSEMBLY	2	4308
21.	GLASS DOOR ASSEMBLY	1	4309	21.	GLASS DOOR ASSEMBLY	2	4309
22.	GLASS DOOR HANDLE	1	HD-2008	22.	GLASS DOOR HANDLE	2	HD-2008
	GLASS DOOR HANDLE MOUNTING SCREWS	2	SC-2664		GLASS DOOR HANDLE MOUNTING SCREWS	4	SC-2664
23.	DOOR HINGE (1 PAIR OF 2 HINGES)	1.5	HG-2047	23.	DOOR HINGE (1 PAIR OF 2 HINGES)	3	HG-2047
	HINGE TO DOOR MOUNTING SCREWS	6	SC-2425		HINGE TO DOOR MOUNTING SCREWS	12	SC-2425
	HINGE TO UNIT MOUNTING SCREWS	6	SC-2472		HINGE TO UNIT MOUNTING SCREWS	12	SC-2472
24.	RACK COUPLING (500-PVL ONLY)	1	11365	24.	RACK COUPLING (500-PVL/PT ONLY)	1	11365

Service View • Page 5

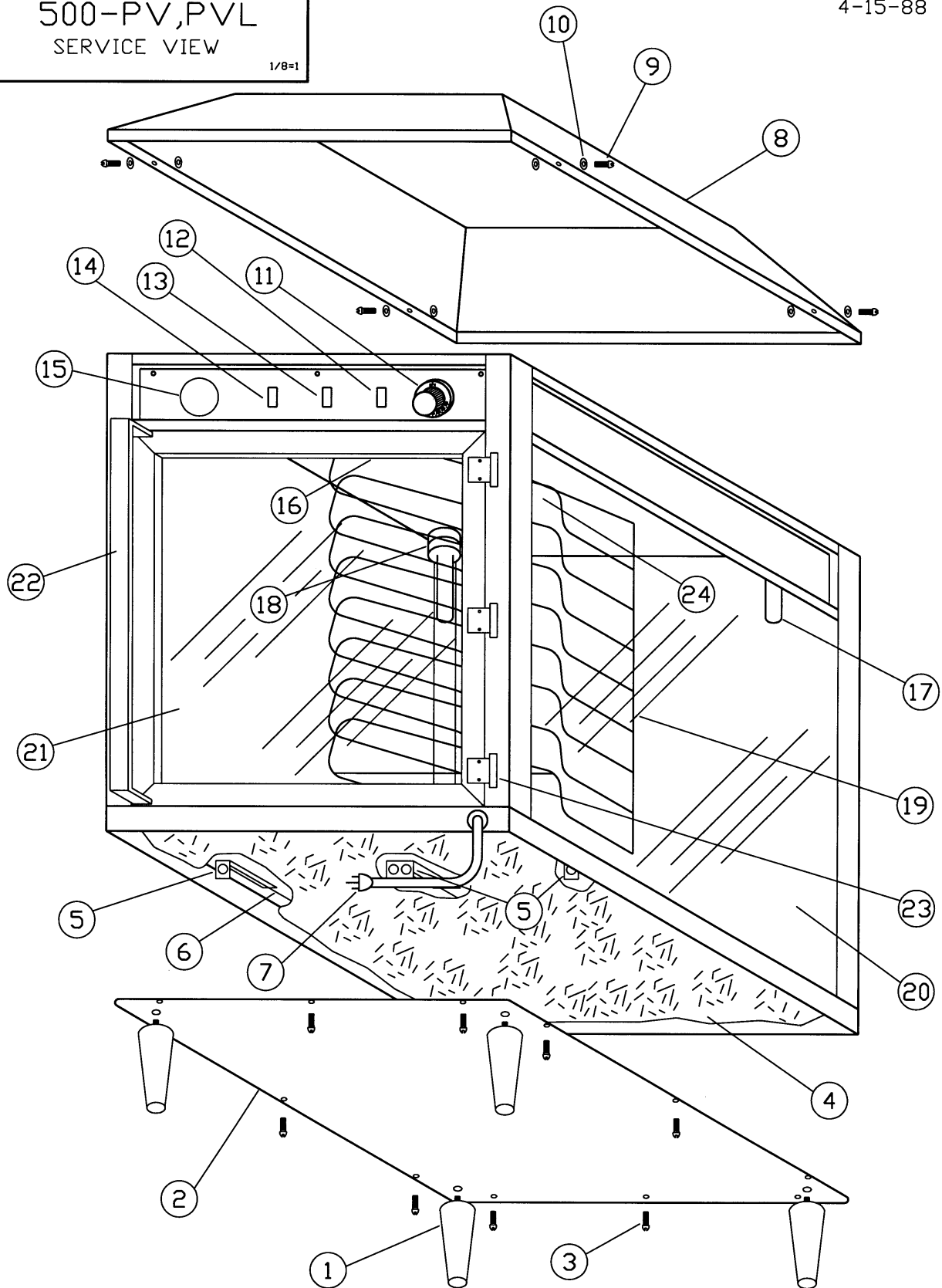
Service View • Page 6

Heating Cable Replacement Service Kit 4878	
includes:	
CB-3045	Cable Heating Element 72feet
CR-3226	Ring Connector 4
IN-3488	Insulation Corner 8 feet
BU-3105	Shoulder Bushing 4
BU-3106	Cup Bushing 4
SL-3063	Insulating Sleeve 4
TA-3540	Electrical Tape 1 roll
NU-2215	Hex Nut 10-32 8
ST-2439	Stud 10-32 4

500-PV,PVL
SERVICE VIEW

1/8=1

4-15-88

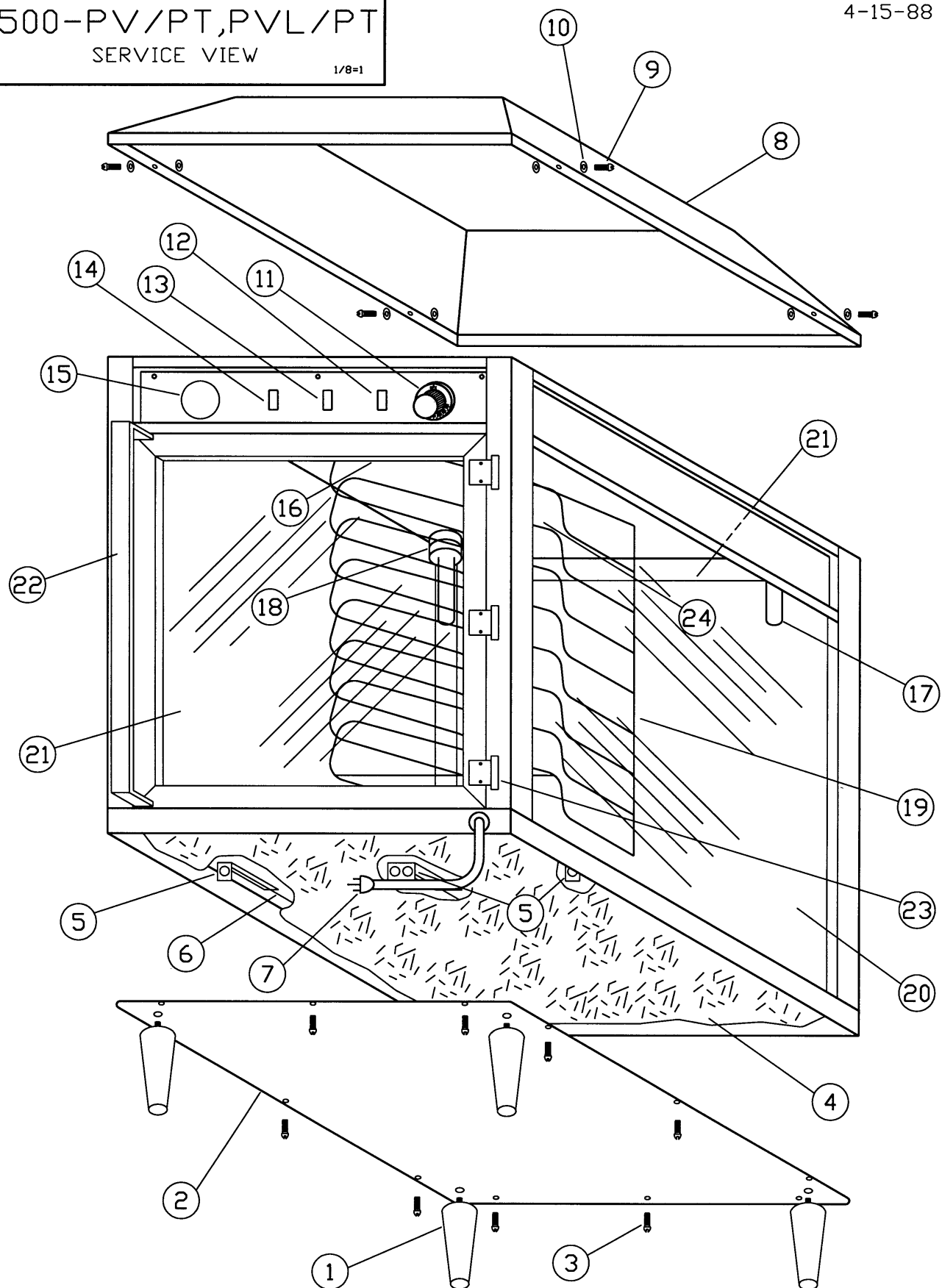


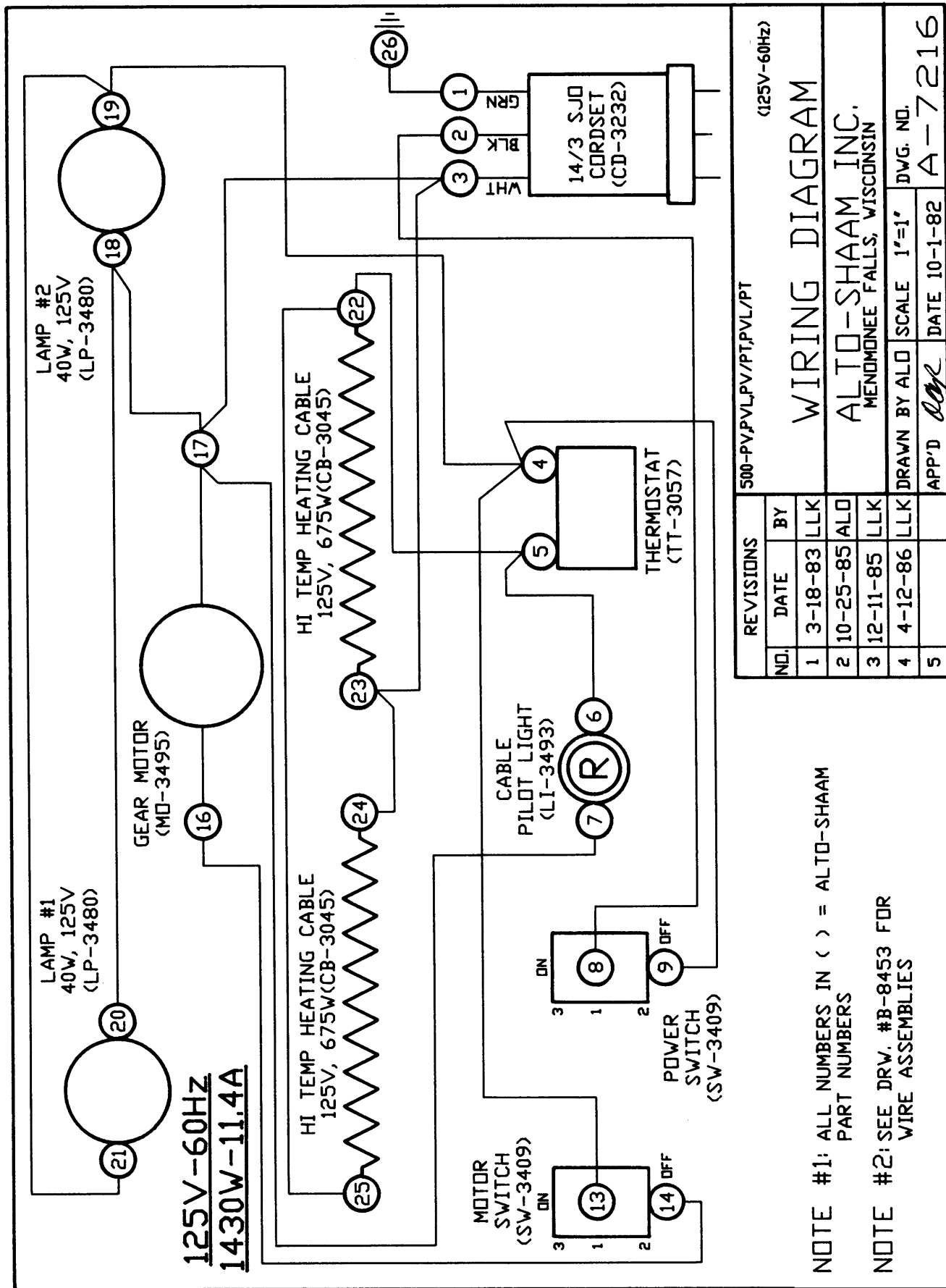
500-PV/PT,PVL/PT

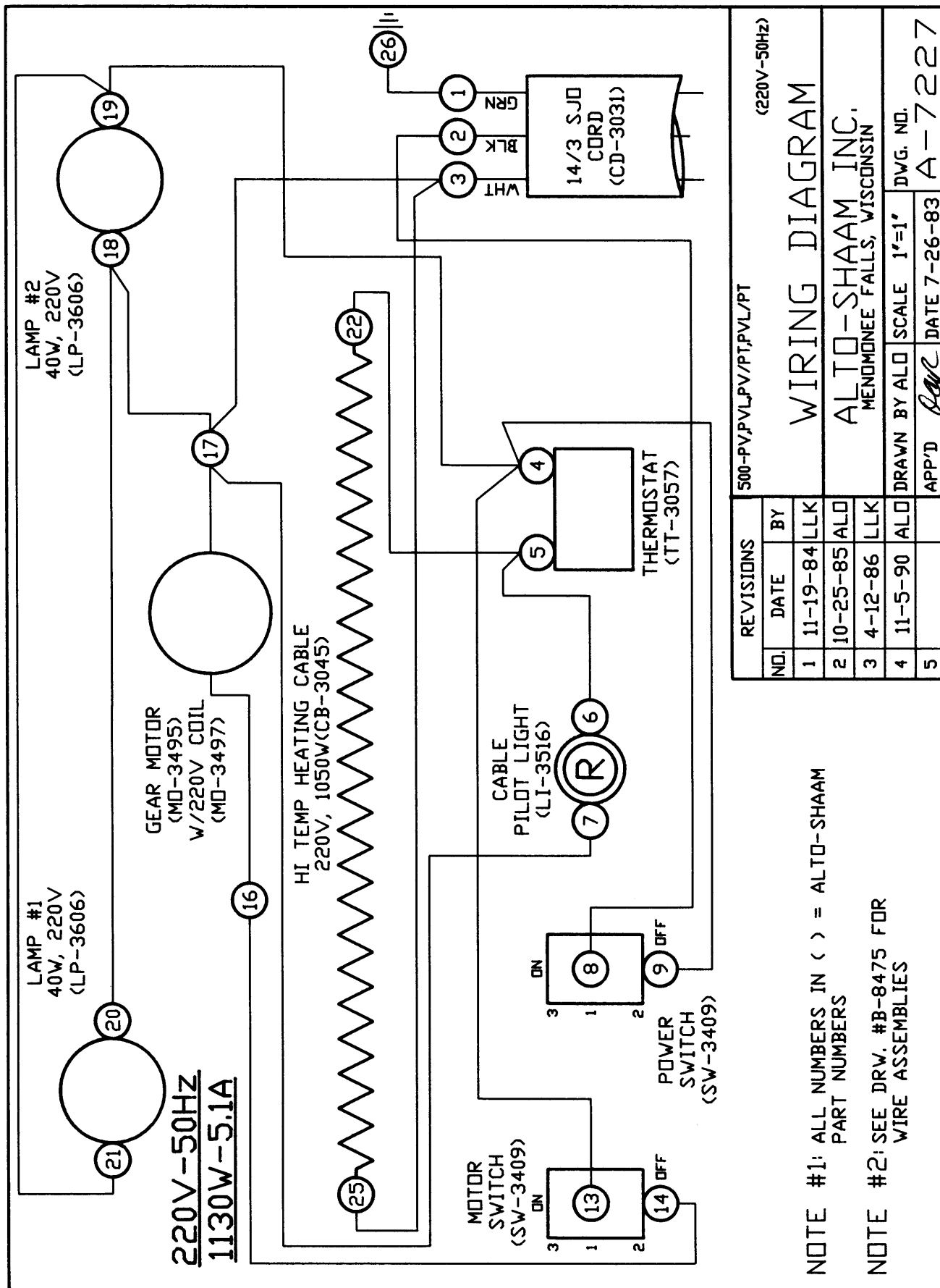
SERVICE VIEW

1/8=1

4-15-88







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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