

**Convection Oven** 

# Electric



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### Warranty

Transportation Damage and Claims E	Back Cover
Limited Warranty	Back Cover



### DELIVERY

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

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

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

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

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

### UNPACKING

- Carefully remove the appliance from the carton or crate.
  - **NOTE:** Do not discard the carton and other packaging material until you have inspected the unit for hidden damage and tested it for proper operation.



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

DO NOT DISCARD THIS MANUAL. This manual is considered to be part of the appliance and is to be provided to the owner or manager of the business or to the person responsible for training operators. *Additional manuals are available from the Alto-Shaam service department.* 

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

### SAFETY PROCEDURES AND PRECAUTIONS

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

# D A N G E R



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

# WARNING



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

# CAUTION



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

# CAUTION

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

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

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



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

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

# DANGER

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

READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

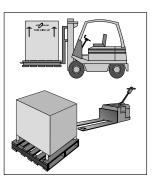
# CAUTION



DO NOT LIFT OR MOVE THE OVEN BY USING THE DOORS OR THE DOOR HANDLES.

## SITE INSTALLATION

The Alto-Shaam convection oven must be installed in a location that will permit the oven to function for its intended purpose and to allow adequate clearance for ventilation, proper cleaning, and maintenance.



- **1.** Hood installation is recommended. (CHECK LOCAL CODES).
- **2.** The oven must be installed on a stable and level surface.
- **3.** DO NOT install this oven in any area where it may be affected by any adverse conditions such as steam, grease, dripping water, high temperatures, etc.
- **4. DO NOT** store or use any flammable liquids or allow flammable vapors in the vicinity of this oven or any other appliance.
- **5.** This appliance must be kept free and clear of any combustible materials.
- **6.** This appliance must be kept free and clear of any obstructions blocking access for maintenance or service.

# CAUTION

METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.

ANGER



D)

DO NOT store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

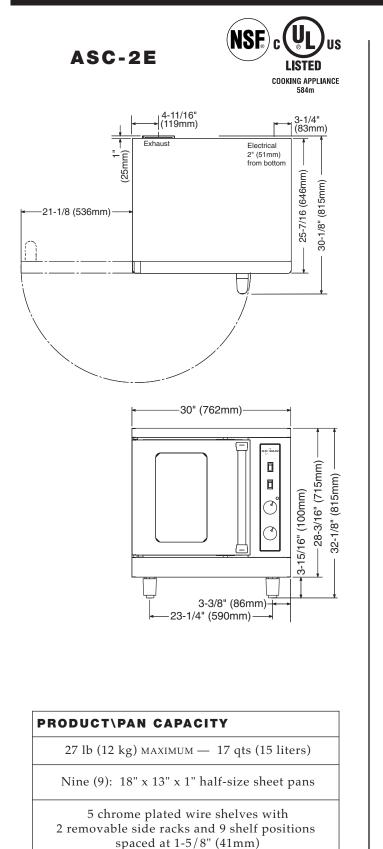
ASC-2E • WEIGHT				
<b>NET:</b> 250 lb (113 kg) EST.	<b>SHIP:</b> 325 lb (147 kg) EST.			
CRATE         44" H x 42" W x 42" D           DIMENSIONS:         (1118mm x 1067mm x 1067mm)				
MINIMUM ENTRY CLEARANCE 31" (787mm) UNCRATED				
ASC-2E • DIMENSIONS: H x W x D				
EXTERIOR: 32-1/8" x 30" x 30-	1/8" (815mm x 762mm x 815mm)			
INTERIOR: 20" x 15" x 21" (5	08mm x 381mm x 533mm)			

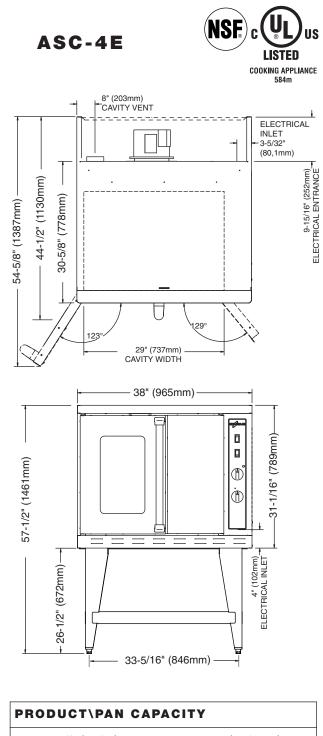
ASC-4E • WEIGHT				
<b>NET:</b> 393 lb (178 kg) EST.	<b>SHIP:</b> 438 lb (199 kg)			
CRATE         40" H x 44" W x 53" D           DIMENSIONS:         (1016mm x 1118mm x 1346mm)				
MIN. ENTRY CLEARANCE 31-1/2" (800mm) UNCRATED W/O LEGS				
ASC-4E • DIMENSIONS: H x W x D				
EXTERIOR: 57-1/2" x 38" x 44-	1/2" (1461mm x 965mm x 1130mm)			

INTERIOR: 24" x 29-1/8" x 25" (610mm x 740mm x 635mm)

MINIMUM CLEARANCE	REQUIREMENTS
BACK	0" (0mm)
LEFT SIDE	2" (51mm)
RIGHT SIDE	2" (51mm)
FROM GREASE PRODUCING EQUIPMENT	6" (152mm)
RECOMMENDED SERVICE ACCESS	: 20" (508mm) right side

### EXTERIOR DIMENSIONS





72 lb (33 kg) maximum • 45 qts (43 liters)

12 (twelve): 18" x 26" x 1" full-size sheet pans

6 chrome plated wire shelves with 2 removable side racks and 12 shelf positions spaced at 1-3/4" (43mm)

## INSTALLATION REQUIREMENTS

The oven must be mounted on the factory equipped oven legs or on an optional oven stand. Installation on a solid or concrete base that in any way restricts air flow may void the warranty.

All clearances for a proper ventilation air supply must be maintained to minimize fire hazard. Do not locate the oven immediately adjacent to any other heat-generating appliance.

# WARNING



Inadequate ventilation, or failure to ensure an adequate supply of fresh air will result in a high ambient temperature at the rear of the appliance. An excessive ambient temperature can cause the thermaloverload protection device on the blower motor to trip resulting in severe damage to the blower motor.

A number of adjustments are associated with initial installation and start-up. Adjustments must be conducted by a qualified service technician. Installation and start-up adjustments are the responsibility of the dealer or user. These adjustments include but are not limited to thermostat calibration, door adjustment, leveling, and gas pressure verification. The Platinum series oven burners are factory-adjusted with fixed air openings and require no field adjustment. Where automatically operated appliances are vented through a ventilating hood or exhaust system equipped with a damper or with a power means of exhaust, provisions shall be made to allow the equipment to operate only when the damper is open to a position to properly vent the appliance and when the power means of exhaust is in operation. ACCORDANCE WITH NFPA 54 COMMONWEALTH OF MASSACHUSETTS ONLY.

### LEVELING



The oven should be leveled before the gas supply is connected. Level the oven from side-toside and front-to-back with the use of a spirit level. For ovens installed on a mobile stand, it is important that the floor surface be level due to the probability of frequent oven repositioning.

We recommend checking the level of the oven periodically to make certain the floor has not shifted nor the oven moved.

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

### INSTALLATION REQUIREMENTS

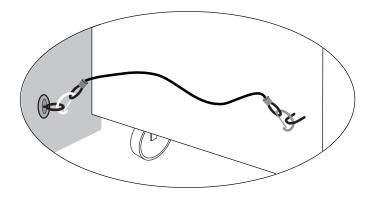
### RESTRAINT REQUIREMENTS —MOBILE EQUIPMENT



Any appliance that is not furnished with a power supply cord but includes a set of casters must be provided with a tether. Adequate means must be provided to limit the movement of this appliance without depending on or transmitting stress to the electrical conduit. The following requirements apply:

- **1.** Casters must be a maximum height of 6" (152mm).
- **2.** Two of the casters must of be the locking type.
- **3.** Such mobile appliances or appliances on mobile stands must be installed with the use of a flexible connector secured to the building structure.

A mounting connector for a restraining device is located on the lower back flange of the appliance chassis or on an oven stand, approximately 18" (457mm) from the floor. A flexible connector is not supplied or available from the factory.



## ELECTRICAL CONNECTION

# 🏠 D A N G E R

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

The oven must be installed by a qualified electrician. This appliance must be branch circuit protected with proper ampacities, in accordance with the wiring diagram located in this manual or in the electrical compartment of the oven. The oven must be properly grounded in accordance with the National Electrical Code and applicable local codes.

# D A N G E R



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

Plug the unit into a properly grounded receptacle ONLY, positioning the unit so that the plug is easily accessible in case of an emergency. Arcing will occur when connecting or disconnecting the unit unless all controls are in the "off" position.

Proper receptacle or outlet configuration or permanent wiring for this unit must be installed by a licensed electrician in accordance with applicable local electrical codes.

ELECTRICAL • ASC-2E					
VOLTAGE	PHASE	CYCLE/HZ	AWG	AMPS	kW
208 (AGCY)	1	60	10	24.0	5.0
240 (AGCY)	1	60	10	20.8	5.0
208 (AGCY)	3	60	12	13.8	5.0
240 (AGCY)	3	60	12	12.0	5.0
NO CORD AND PLUG					

# DANGER



ENSURE POWER SOURCE MATCHES VOLTAGE STAMPED ON APPLIANCE NAMEPLATE.

Wire size for the main incoming power to the unit must match the minimum size listed in the specifications applicable to the specific oven model. For supply connections, locate the wire size posted on the label located near the electric terminal block behind the service panel or elsewhere listed in this manual. Before attempting the electrical connection, the rating plate should be checked to ensure that the electrical characteristics of the appliance and the electrical supply characteristics agree.

Installation of the wiring must be made in accordance with U.L. 197 Commercial Electric Cooking Appliance Standards, Local and/or National Electrical Code, ANSI /NFPA 70-1990.

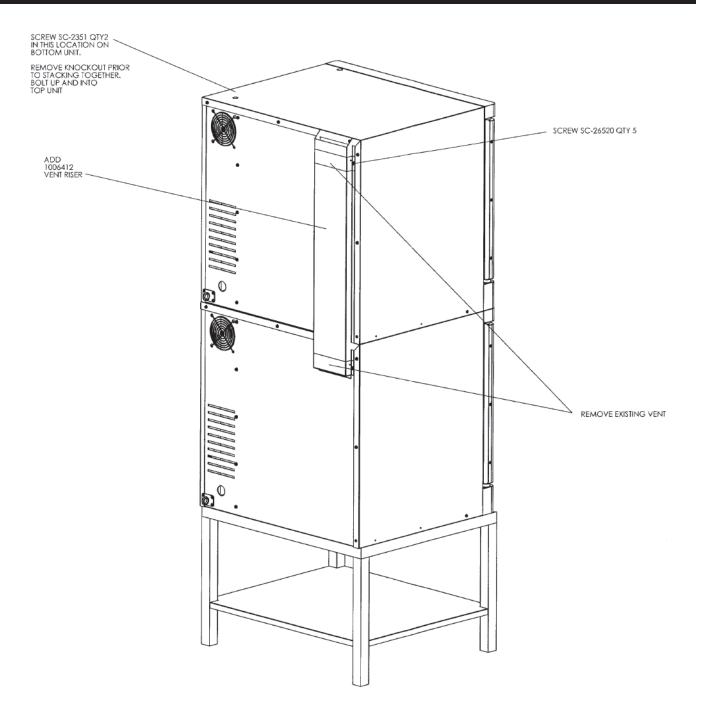
Service line entry is made through the rear of the oven for connection to the terminal block. Remove the service panel on the right side of the oven for access to the terminal block.

The oven is wired at the factory for either single phase or three phase service as indicated on the original purchase order. Input voltage and phase must match the voltage and phase of the oven. Visually check all electrical connections.

ELECTRICAL • ASC-4E					
VOLTAGE	PHASE	CYCLE/HZ	AWG	AMPS	kW
208 (AGCY)	1	60	6	50.0	10.4
240 (AGCY)	1	60	6	43.3	10.4
208 (AGCY)	3	60	8	28.8	10.4
240 (AGCY)	3	60	8	25.0	10.4
480 (AGCY)	3	60	8	12.5	10.4
220 (AGCY)	1	50	6	40.0	8.7
	NO CO	RD AND	PLUG		

Wire diagrams are located in the inside access panel of the unit

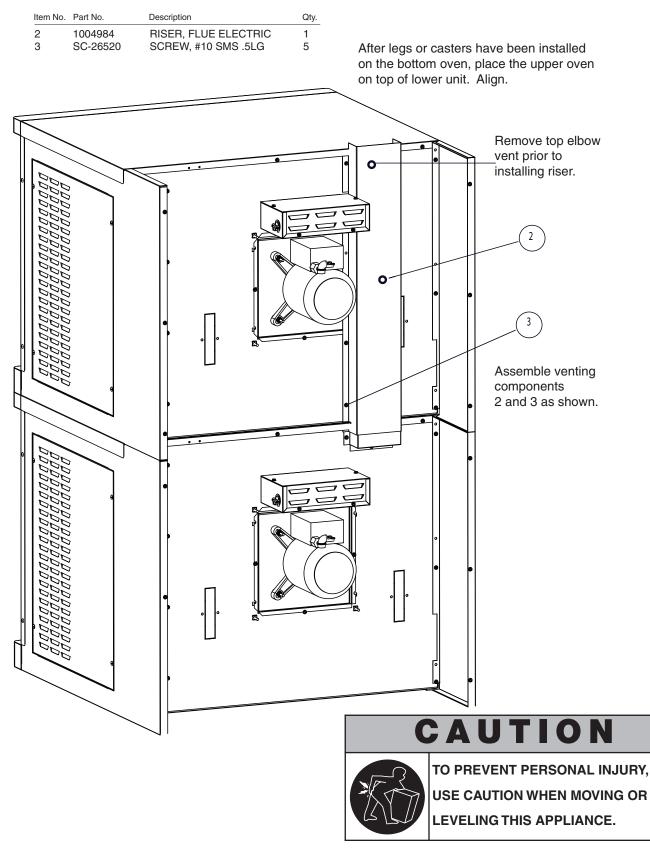
### STACKING & VENTING ASSEMBLY (2-ASC-2E/STK SHOWN)



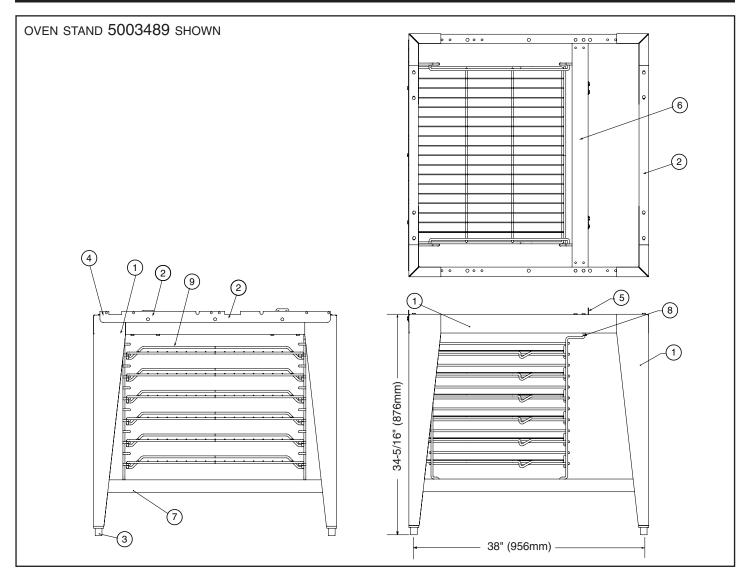


LEVELING THIS APPLIANCE.

## STACKING & VENTING ASSEMBLY (2-ASC-4E/STK 208/240V SHOWN)



## OVEN STAND ASSEMBLY



ITEM	DESCRIPTION	PART NO.	QTY
1	LEG SUPPORT ASSEMBLY	5003488	2
2	CHANNEL, SUPPORT	1004459	2
3	LEG	LG-22185	4
	CASTERS, RIGID	CS-25674	2
	CASTERS, SWIVEL W/BRAKE	CS-25675	2
4	BRACKET, STAND	1004461	1
5	BRACKET, ATTACHMENT	1004369	2
6	CHANNEL, BACK	1004460	1
7	SHELF, STAND	1004466	1
8	RACK, OVEN SUPPORT	SR-26551	2
9	OVEN RACK	SH-26795	6
10	SCREWS, 1/4-20 X 1/2 HEX HEAD	SC-22729	27
11	NUT, 1/4-20 NYLON INSERT, 18-8 S/S	NU-23984	27
12	LOCK WASHER, 1/4" STAINLESS STEEL	WS-2294	27

## OPERATING INSTRUCTIONS

## USER SAFETY INFORMATION

## START-UP OPERATION

# CAUTION



METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.

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

### **BEFORE INITIAL USE:**

Interior oven surfaces must be heated to remove surface oils and the accompanying odor produced during the first use of the oven.

**1.** Wipe all wire shelves, side racks and the full oven interior with a clean, damp cloth.

### ASC-2E • PRODUCT\PAN CAPACITY 27 lb (12 kg) MAXIMUM — 17 qts (15 liters) Nine (9): 18" x 13" x 1" HALF-SIZE SHEET PANS 5 chrome plated wire shelves with 2 removable side

racks and 9 shelf positions spaced at 1-5/8" (41mm) ea.

### OPTIONS & ACCESSORIES • ASC-2E

LEG KIT, 4" (102mm)

□ Seismic feet	5004688
LEG KIT	
$\Box$ with Bullet feet, 19-1/2" (495mm) HEIGHT	5005169
□ with Seismic feet, 19-1/2" (495mm) HEIGHT	5005168
□ with Casters, 23" (584mm) HEIGHT	5005181
□ SHELF, OVEN RACK	SH-26894
STACKING HARDWARE SEE INDIVIDUA COMBINATION SPECIFICAT	
STAND, SINGLE OVEN	
$\Box$ with Bullet feet, 26-1/2" (673mm) HEIGHT	5004672
□ with Seismic feet, 26-1/2" (673mm) HEIGHT	5005172
□ with Casters, 30" (762mm) HEIGHT	5004687

### IN THE EVENT OF A POWER FAILURE:

- TURN ALL SWITCHES OFF.
- WAIT UNTIL POWER IS RESTORED BEFORE ATTEMPTING TO OPERATE THE OVEN.
- **<u>NOTE</u>**: If such an event has occurred, it is strongly recommended that you ensure the food in the oven is safe for consumption according to local health regulations.
- **2.** Close the oven doors, press the power switch to the ON position, and set the thermostat to 300°F (149°C).
- **3.** Allow the oven to cycle for approximately 2 hours or until no odor is detected.

#### PREHEATING:

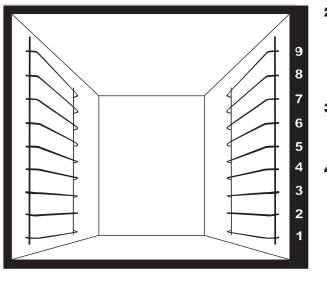
Always preheat a cold oven for a minimum of 20 minutes before cooking product. Follow the operating instructions indicated on the next few pages of this manual.

□       6" (6152mm) with Seismic Feet       500379         □       25" (635mm) with Seismic Feet       500378         □       PANEL FOR BACK, Stainless Steel       500587         SHELF, OVEN RACK       500587         □       INTERCHANGEABLE WITH COOLING RACK       SH-2679         STACKING HARDWARE       SEE INDIVIDUAL STACKING COMBINATION SPECIFICATION SHEET         STAND, STAINLESS STEEL       Stationary, with Cooling Racks & Casters, 38" H (965mm)       500378         □       Stationary, with Cooling Racks & Bullet Feet       500348	72 lb (33 kg) maximum — 45 qts (43 liters	)
12 shelf positions spaced at 1-3/4" (43mm) ea.         OPTIONS & ACCESSORIES • ASC-4E         CASTER SET, 6" (152mm) FOR MOBILE STACK APPLICATIONS         500379         COOLING RACK FOR OVEN STAND         500379         LEG SET (4)         6" (152mm) with Bullet Feet         500379         6" (6152mm) with Seismic Feet         500379         25" (635mm) with Seismic Feet         500378         PANEL FOR BACK, Stainless Steel         500587         SHELF, OVEN RACK         INTERCHANGEABLE WITH COOLING RACK         SEE INDIVIDUAL STACKING COMBINATION SPECIFICATION SHEET         STAND, STAINLESS STEEL         Mobile, with Cooling Racks & Casters, 38" H (965mm)         500378         Stationary, with Cooling Racks & Bullet Feet	Twelve (12): 18" x 26" x 1" FULL-SIZE SHEET PA	ANS
at 1-3/4" (43mm) ea.         OPTIONS & ACCESSORIES • ASC-4E         CASTER SET, 6" (152mm)         FOR MOBILE STACK APPLICATIONS         500379         COOLING RACK FOR OVEN STAND         500379         LEG SET (4)         6" (152mm) with Bullet Feet         500379         26" (6152mm) with Seismic Feet         500378         PANEL FOR BACK, Stainless Steel         500587         SHELF, OVEN RACK         INTERCHANGEABLE WITH COOLING RACK         SEE INDIVIDUAL STACKING COMBINATION SPECIFICATION SHEET         STAND, STAINLESS STEEL         Mobile, with Cooling Racks & Casters, 38" H (965mm)         500378         Stationary, with Cooling Racks & Bullet Feet	6 chrome plated wire shelves with 2 removable side	racks an
OPTIONS & ACCESSORIES • ASC-4E         CASTER SET, 6" (152mm)         FOR MOBILE STACK APPLICATIONS         500379         COOLING RACK FOR OVEN STAND         500379         LEG SET (4)         6" (152mm) with Bullet Feet         500379         25" (635mm) with Seismic Feet         500378         PANEL FOR BACK, Stainless Steel         500587         SHELF, OVEN RACK         INTERCHANGEABLE WITH COOLING RACK         STACKING HARDWARE         SEE INDIVIDUAL STACKING         COMBINATION SPECIFICATION SHEET         STAND, STAINLESS STEEL         Mobile, with Cooling Racks & Casters, 38" H (965mm)         500378         Stationary, with Cooling Racks & Bullet Feet	12 shelf positions spaced	
□ CASTER SET, 6" (152mm)         FOR MOBILE STACK APPLICATIONS         500379         □ COOLING RACK FOR OVEN STAND         500379         LEG SET (4)         □ 6" (152mm) with Bullet Feet         500379         □ 25" (635mm) with Seismic Feet         500379         □ 25" (635mm) with Seismic Feet         500378         □ PANEL FOR BACK, Stainless Steel         500587         SHELF, OVEN RACK         □ INTERCHANGEABLE WITH COOLING RACK         STACKING HARDWARE         SEE INDIVIDUAL STACKING COMBINATION SPECIFICATION SHEET         STAND, STAINLESS STEEL         □ Mobile, with Cooling Racks & Casters, 38" H (965mm)         500378         □ Stationary, with Cooling Racks & Bullet Feet         500378	at 1-3/4" (43mm) ea.	
FOR MOBILE STACK APPLICATIONS       500379         COOLING RACK FOR OVEN STAND       500379         LEG SET (4)       500379         6" (152mm) with Bullet Feet       500379         6" (6152mm) with Seismic Feet       500379         25" (635mm) with Seismic Feet       500378         PANEL FOR BACK, Stainless Steel       500587         SHELF, OVEN RACK       500587         INTERCHANGEABLE WITH COOLING RACK       SH-2679         STACKING HARDWARE       SEE INDIVIDUAL STACKING COMBINATION SPECIFICATION SHEET         STAND, STAINLESS STEEL       Mobile, with Cooling Racks & Casters, 38" H (965mm)       500378         Stationary, with Cooling Racks & Bullet Feet       500378		
□       COOLING RACK FOR OVEN STAND       500379         LEG SET (4)		
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□       6" (6152mm) with Seismic Feet       500379         □       25" (635mm) with Seismic Feet       500378         □       PANEL FOR BACK, Stainless Steel       500587         SHELF, OVEN RACK       500587         □       INTERCHANGEABLE WITH COOLING RACK       SH-2679         STACKING HARDWARE       SEE INDIVIDUAL STACKING COMBINATION SPECIFICATION SHEET         STAND, STAINLESS STEEL       Stationary, with Cooling Racks & Casters, 38" H (965mm)       500378         □       Stationary, with Cooling Racks & Bullet Feet       500348		
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□ PANEL FOR BACK, Stainless Steel       500587         SHELF, OVEN RACK       □         □ INTERCHANGEABLE WITH COOLING RACK       SH-2679         STACKING HARDWARE       SEE INDIVIDUAL STACKING COMBINATION SPECIFICATION SHEET         STAND, STAINLESS STEEL       □         □ Mobile, with Cooling Racks & Casters, 38" H (965mm)       500378         □ Stationary, with Cooling Racks & Bullet Feet       500348	$\Box$ 6" (6152mm) with Seismic Feet	500379
SHELF, OVEN RACK       SH-2679         INTERCHANGEABLE WITH COOLING RACK       SH-2679         STACKING HARDWARE       SEE INDIVIDUAL STACKING COMBINATION SPECIFICATION SHEET         STAND, STAINLESS STEEL       Mobile, with Cooling Racks & Casters, 38" H (965mm)       500378         Stationary, with Cooling Racks & Bullet Feet       500348	$\Box$ 25" (635mm) with Seismic Feet	500378
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COMBINATION SPECIFICATION SHEET         STAND, STAINLESS STEEL         Mobile, with Cooling Racks & Casters, 38" H (965mm)       500378         Stationary, with Cooling Racks & Bullet Feet       500348	□ INTERCHANGEABLE WITH COOLING RACK	SH-2679
<ul> <li>□ Mobile, with Cooling Racks &amp; Casters, 38" H (965mm) 500378</li> <li>□ Stationary, with Cooling Racks &amp; Bullet Feet 500348</li> </ul>		
□ Stationary, with Cooling Racks & Bullet Feet 500348	STAND, STAINLESS STEEL	
	□ Mobile, with Cooling Racks & Casters, 38" H (965mm)	500378
□ Stationary, with Cooling Racks & Seismic Feet 500378	□ Stationary, with Cooling Racks & Bullet Feet	500348
	□ Stationary, with Cooling Racks & Seismic Feet	500378

## OPERATING INSTRUCTIONS

### PAN/SHELF POSITIONS FOR ASC-2E:

The oven includes 5 chrome plated wire shelves with two removable side racks and 9 shelf positions spaced at 1-5/8" (41mm).



- POSITION The best arrangement for broiling, baking
   cookies and for other baked goods under
   2-1/2" (65mm) in height. This arrangement
   can also be used as the maximum capacity for reconstituting frozen entrées.
- **2. POSITION** General baking with the use of sheet pans for
  - products under 3-1/2" (89mm) in height.
     Bre ducts include schere miss.
    - Products include cakes, pies, muffins, or
      extended dishes in 12" x 20" x 2-1/2" deep pans (530mm x 325mm x 65mm GN 1/1).

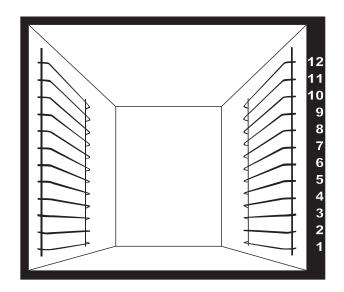
# **3.** POSITION Ideal positions for baking bread, meringue, or extended dishes and roasts in pans not to exceed 5-1/2" (140mm) in height.

4. POSITION Arrangement necessary for roasting whole
1 turkey or roasts up to 7" (178mm) in height.

### PAN/SHELF POSITIONS FOR ASC-4E:

The oven includes 6 chrome plated wire shelves with two removable side racks and 12 shelf positions spaced at 1-3/4" (43mm).

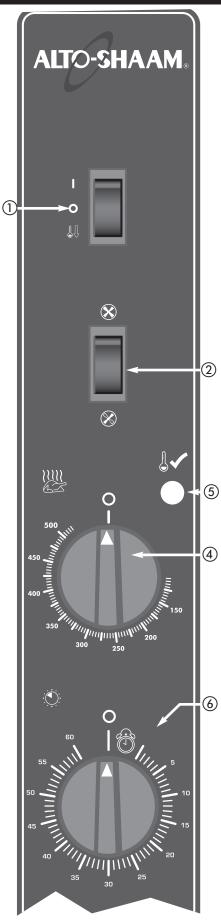
- 1. POSITION The best arrangement for broiling, baking
  - 2 cookies and for other baked goods under
  - 4 2-1/2" (65mm) in height. This
  - 6 arrangement can also be used as the
  - maximum capacity for reconstituting frozen entrées.
- **2. POSITION** General baking with the use of sheet 1 page for products under 3-1/2" (89mm
  - 1 pans for products under 3-1/2" (89mm) 4 in height Products include cakes pies
  - in height. Products include cakes, pies,
     muffing an automatical diabate in
  - muffins, or extended dishes in
  - 10 12" x 20" x 2-1/2" deep pans (530mm x 325mm x 65mm GN 1/1).
- 3. POSITION Ideal positions for baking bread,
  - 1 meringue, or extended dishes and roasts
  - 5 in pans not to exceed 5-1/2" (140mm)
  - 9 in height.
- 4. POSITION Arrangement necessary for roasting
  - 1 whole turkey or roasts up to 7" (178mm)
  - 6 in height.



# CAUTION



METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.



## OPERATING INSTRUCTIONS

### MANUAL CONTROL OPERATION

- **1.** Press POWER SWITCH **1** to the *ON* position.
- **2.** Press FAN SWITCH **2** to *high* or *low* fan speed.
- **3.** Set COOK TEMPERATURE THERMOSTAT **4** to the temperature desired.

When this temperature is reached, LIGHT OFF\OVEN READY indicator light **(5)** will go out.

### ALLOW A MINIMUM OF 20 MINUTES TO PREHEAT A COLD OVEN.

**4.** Load product into the oven.

For best results, always load the oven from the bottom to the top position and load as quickly as possible to retain maximum oven compartment heat.

5. Set COOK TIMER 6 by rotating the knob clockwise past the time required and then back to the desired time.

The timer will begin to count down. When the timer reaches zero, the oven will produce an audible alert signal that will continue for three minutes or until the timer knob is turned counterclockwise to the *OFF* position.

### COOL-DOWN MODE

- **1.** Press **POWER SWITCH 1** to the *COOL DOWN* position.
- **2.** Open the oven doors.

### SHUT-DOWN PROCEDURE

 Press POWER SWITCH 1 to the *OFF* position.

## CHEF OPERATING TIPS

The Alto-Shaam convection oven will provide the best results and longest possible service with the utilization of the following suggestions and guidelines.

**NOTE**: Moisture will escape around the doors when baking products with a heavy moisture content such as chicken, potatoes, etc. This is a normal operating condition.



- **1.** Thoroughly preheat the oven for approximately 20 minutes before use.
- **2.** As a general rule, the cooking temperature can be set lower than the temperature used in a conventional oven. Cooking time may also be shorter. It is suggested the first batch of each product prepared be monitored closely to check for variances.
- **3.** Maintain a record of the temperatures, times, and load capacities established for products cooked on a regular basis since they will be the same or similar for succeeding loads.
- **4.** When practical, start cooking the lowest temperature products first and gradually work up to products with a higher cooking temperature.
- **5.** If the cooking temperature setting for the previous product is more than 10°F (5°C to 6°C) higher than the temperature needed for the next load, use the FAN COOL-DOWN feature to decrease the oven temperature before setting the oven to a lower temperature.
- **6.** Work as quickly as possible when loading the oven to prevent heat loss.
- **7.** When the audible signal indicates the time has expired, remove the food product from the oven as quickly as possible to avoid over cooking.
- **8.** Pans should be centered between side racks and each shelf should be loaded evenly to allow proper air circulation within the oven compartment.

- **9.** To assure even cooking when baking, weigh or measure the product in each pan.
- **10. ASC-2E:** When cooking five pans of product, start from the bottom of the oven and use side rack positions 1, 3, 5, 7, and 9.

**ASC-4E:** When cooking six pans of product, start from the bottom of the oven and use side rack positions 2, 4, 6, 8, 10, and 12.

- **11.** Do not overload the oven. Refer to product/pan capacties indicated in this manual.
- **12.** To obtain an evenly baked product, muffin pans should be placed in the oven with the short side of each pan facing the front of the oven.
- **13.** When rethermalizing frozen casseroles, preheat the oven 100°F (38°C) over the suggested temperature to compensate for the introduction of a large quantity of frozen product into the oven compartment. Reset the thermostat to the correct cooking temperature after the oven is loaded.
- 14. Use a pan extender or two inch (51mm) deep, 18" x 26" pans for batter-type products that weigh more than 8 pounds (3 to 4 kg), i.e.; pineapple upside-down cake.
- **15.** To avoid obstructing airflow that would result in uneven cooking, never place anything directly on the bottom of the oven cavity.

Cooking Guidelines							
Food	Temperature		Time (Minutes)	Food	Temperature		Time (Minutes)
Cakes, Sheet	325°F	163°C	25	Macaroni & Cheese (frozen, full oven)	350°F	177°C	90
Chicken pieces (30 breasts & thighs, 25 legs & wings)	400°F	204°C	25	Macaroni & Cheese (refrigerated)	350°F	177°C	30
Chicken halves	400°F	204°C	40	Muffins	325°F	163°C	13-15
Beef patties	400°F	204°C	8	Pies, Frozen	325°F	163°C	40
Bacon	350°F	177°C	16	Pizzas, Individual	325°F	163°C	15
Fish, frozen (5 oz.)	350°F	177°C	15	Potatoes, Baked	350°F	177°C	50
Macaroni & Cheese	350°F	177°C	50	Sandwiches, Grilled Cheese	350°F         177°C         50           400°F         204°C         4-6	4-6	
(frozen, 1 pan)		1770	50	Tater tots	450°F	232°C	10

AT THE END OF THE DAY, UTILIZE THE COOL-DOWN MODE AND OPEN THE OVEN DOORS.

### Do not place anything directly on the bottom of the oven cavity.

## CARE AND CLEANING

### CLEANING AND PREVENTIVE MAINTENANCE

### PROTECTING STAINLESS STEEL SURFACES



It is important to guard against corrosion in the care of stainless steel surfaces. Harsh, corrosive, or inappropriate chemicals can completely destroy the

protective surface layer of stainless steel. Abrasive pads, steel wool, or metal implements will abrade surfaces causing damage to this protective coating and will eventually result in areas of corrosion. Even water, particularly hard water that contains high to moderate concentrations of chloride, will cause oxidation and pitting that result in rust and corrosion. In addition, many acidic foods spilled and left to remain on metal surfaces are contributing factors that will corrode surfaces.

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

#### **CLEANING AGENTS**

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

#### **CLEANING MATERIALS**

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

# **A**CAUTION

SCRAPLAS WIRE BRISSHERS

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

## CARE AND CLEANING

The oven is fabricated with an easy to clean porcelain enamel interior or an optional stainless steel interior.

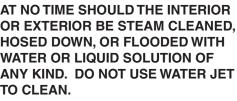
**NOTE:** Always allow the oven to cool before cleaning. If the oven is hot, allow the interior surfaces to become cool to the touch by opening the oven doors and engaging the cool-down function.

**DO NOT USE ABRASIVE CLEANING COMPOUNDS.** Completely avoid the use of abrasive cleaning compounds, chloride-based cleaners, or cleaners containing quaternary salts. To protect metal finish on stainless steel, never use hydrochloric acid (muriatic acid).

# DANGER

DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.

DANGER



### SEVERE DAMAGE OR Electrical Hazard Could Result.

WARRANTY BECOMES VOID IF APPLIANCE IS FLOODED

### CLEAN THE OVEN ON A DAILY BASIS

- **1.** After the oven has cooled, remove all detachable items such as wire shelves, side racks, and drip pan. Clean these items separately.
- **2.** Remove any food scraps from shelves, shelf supports, and blower fan wheel. Convection baffle openings must be kept clear of food scraps and grease.
- **3.** Wipe the interior metal surfaces of the oven with a paper towel to remove any remaining food debris.
- **4.** Clean interior with a damp cloth or sponge and any good commercial detergent at the recommended strength.
- **5.** For baked-on food deposits, use a non-caustic and non-toxic commercial oven cleaner appropriate for the interior oven surface of your oven. Follow the product manufacturer's instructions carefully for the use of this product. Any commercial oven cleaner must be approved for use on food contact areas. Remove soil with the use of a plastic scouring pad.

**6.** Wipe door gaskets thoroughly since these areas harbor food debris and grease.



- **7.** Rinse surfaces by wiping with a clean cloth or sponge and clean warm water.
- **8.** Remove excess water with a sponge and wipe dry with a clean cloth or air dry. Leave doors open until interior is completely dry. Replace side racks and shelves.

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

AT THE END OF THE DAY, UTILIZE THE COOL-DOWN MODE AND OPEN THE OVEN DOORS.

### EXTERIOR:

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.

Wipe control panel, door vents and door handles, thoroughly since these areas harbor food debris.

Clean exterior glass surfaces with a commercial window cleaner.

#### DO NOT USE ABRASIVE CLEANING COMPOUNDS.

## CARE AND CLEANING

#### MOTOR CARE

The convection oven motor contains selflubricating, sealed ball bearings and is generally maintenance-free. During operation, the interior of the motor is cooled by air flowing into the rear of the motor case. This is a general operating feature when proper clearances have been allowed.

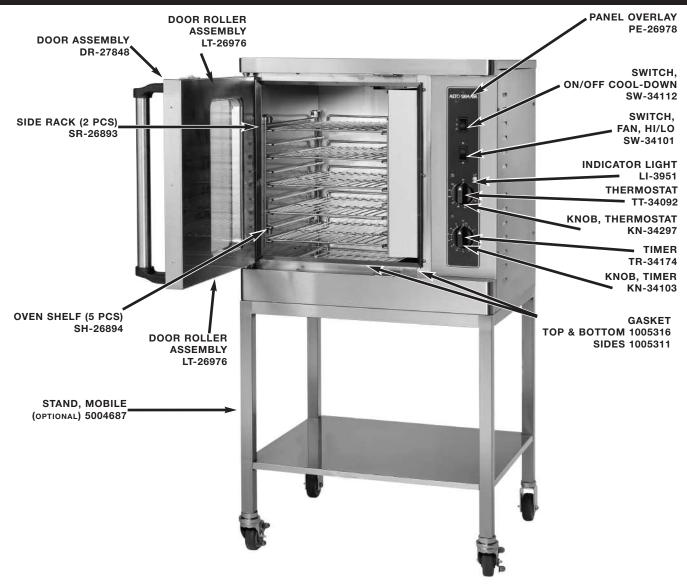
AT THE END OF THE DAY, UTILIZE THE COOL-DOWN MODE AND OPEN THE OVEN DOORS.

## SERVICE

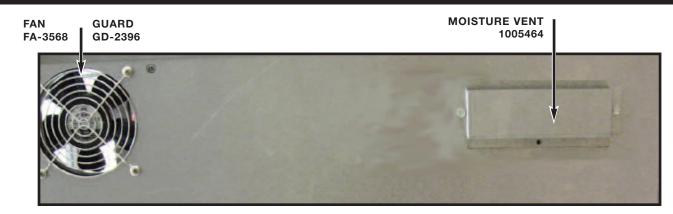
	TROUBLESHOOTING GUIDE					
TROUBLE	POSSIBLE CAUSE	REMEDY				
Oven has no power	<ul> <li>Insufficient power supply</li> <li>Defective power cord or plug</li> <li>Defective power switch.</li> <li>Loose electrical connection</li> </ul>	<ul> <li>Check power source.</li> <li>Check and replace if necessary.</li> <li>Check and replace if necessary.</li> <li>Check all electrical connections</li> </ul>				
Cook temperature too high/low	<ul><li>Thermostat out of calibration</li><li>Defective thermostat</li></ul>	<ul> <li>Check Calibration using a digital thermometer in the center of the cavity. Calibrate if necessary</li> <li>Replace thermostat</li> </ul>				
Cook temperature too low	<ul> <li>Defective door gasket</li> <li>Door not closing properly</li> </ul>	<ul> <li>Replace Gasket</li> <li>Check latches on the top and bottom of door.</li> </ul>				
Fan not running	<ul> <li>Door switch defective or out of adjustment</li> <li>Motor switch tripped (2E only)</li> <li>Door not closing properly</li> </ul>	<ul> <li>Adjust or replace</li> <li>Reset, Black button should be pushed in</li> <li>Check latches on the top and bottom of door.</li> </ul>				
Fan running but no heat	<ul><li>High limit tripped</li><li>Defective element</li></ul>	<ul> <li>Reset high limit and test temperatures</li> <li>Replace element</li> </ul>				
Fan runs with door open	• Door switch defective or out of adjustment	• Adjust or replace				



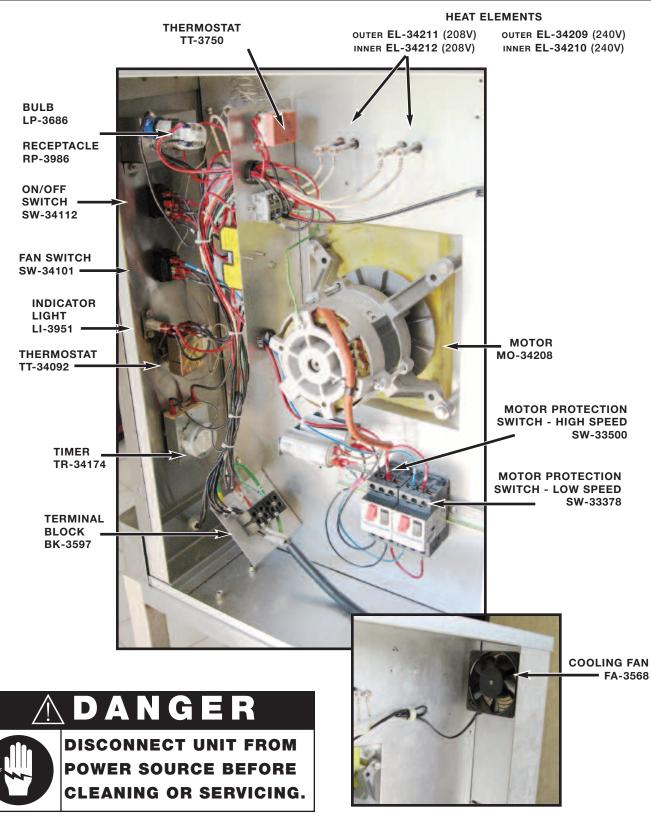
### FULL ASSEMBLY (with optional stand) - ASC-2E



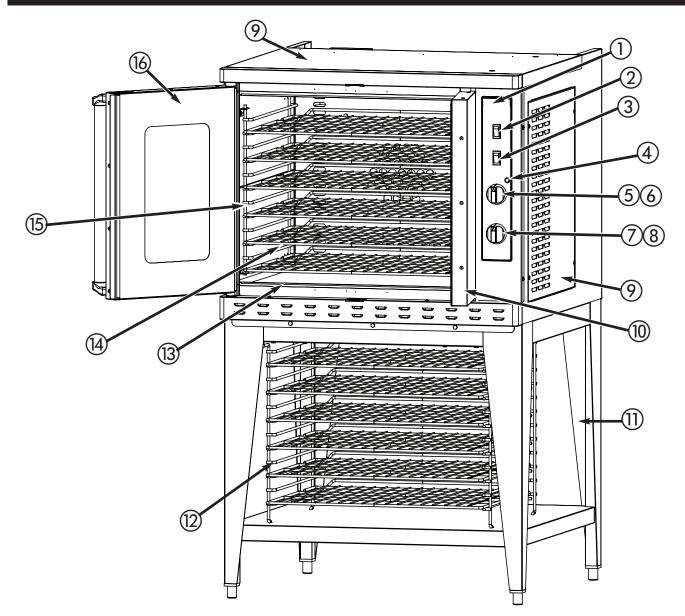
### **REAR PANEL - ASC-2E**



## ELECTRICAL (SERVICE PANEL REMOVED) - ASC-2E



## FULL ASSEMBLY (WITH OPTIONAL STAND) - ASC-4E



ITEM	DESCRIPTION	PART NO.	QTY	ITEM	DESCRIPTION	PART NO.	QTY
1	PANEL OVERLAY 208/204V	PE-26729*	1	9	PANEL TOP & SIDE	1006623	1
	PANEL OVERLAY 220V	PE-26978	1	10	DOOR ASSEMBLY, COMPLETE RIGHT-HAND	DR-27849	1
2	SWITCH, ON/OFF COOL-DOWN	SW-34112	1	11	STAND, STATIONARY (OPTIONAL)	5003489	1
3	SWITCH, FAN, HI/LO	SW-34101	1	12	STAND SIDE RACK SUPPORT (OPTIONAL)	SR-26551	2
4	INDICATOR LIGHT	LI-3951	1	13	GASKETS TOP & BOTTOM	1006606	2
5	THERMOSTAT	TT-34092	1		SIDES	1006605	2
6	KNOB, THERMOSTAT	KN-34297	1	14	OVEN RACK	SH-26795	6
7	TIMER	TR-34174	1	15	SIDE RACK	SR-26396	2
8	KNOB, TIMER CONTROL	KN-34103	1	16	DOOR ASSEMBLY, COMPLETE LEFT-HAND	DR-27850	1

\* NOT SHOWN

## INTERIOR OVEN COMPARTMENT - ASC-4E

#### HEAT ELEMENTS

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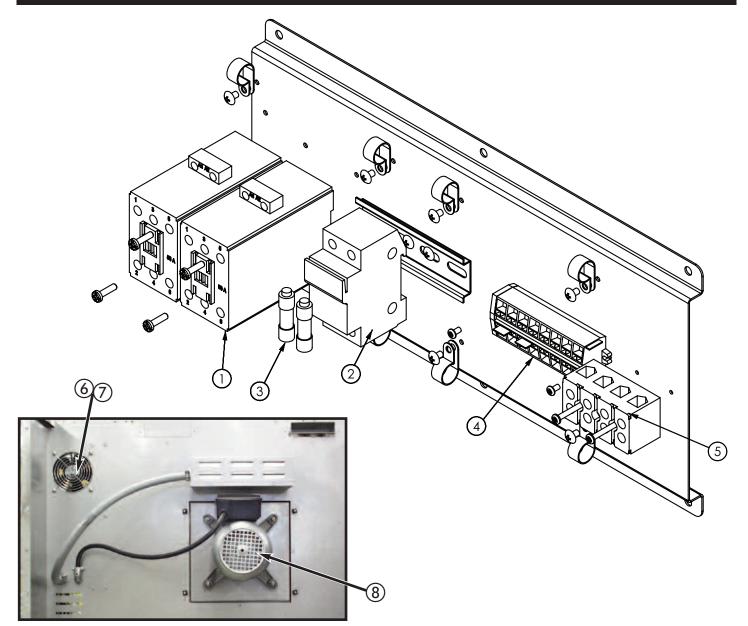
FRONT	MIDDLE	REAR	
EL-34126 (208V)	EL-34127 (208V)	EL-34128 (208V)	
EL-34129 (240V, 220V)	EL-34146 (240V, 220V)	EL-34125 (240V, 220V)	LIGHT RECEPTACLE SIDE RACK
EL-34347 (480V)	EL-34346 (480V)	EL-34345 (480V)	LIGHT RECEPTACLE SR-26396 LP-34161
		BLOWER WHEEL WH-26405	<image/> <image/>

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POWER SOURCE BEFORE CLEANING OR SERVICING.

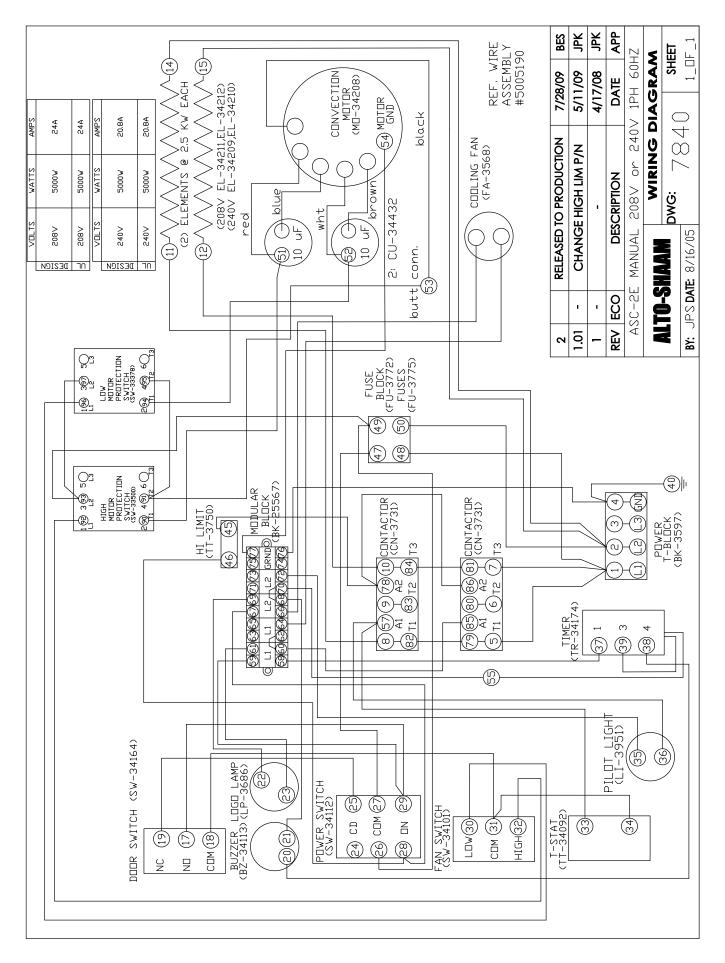
## ELECTRICAL & REAR PANEL - ASC-4E



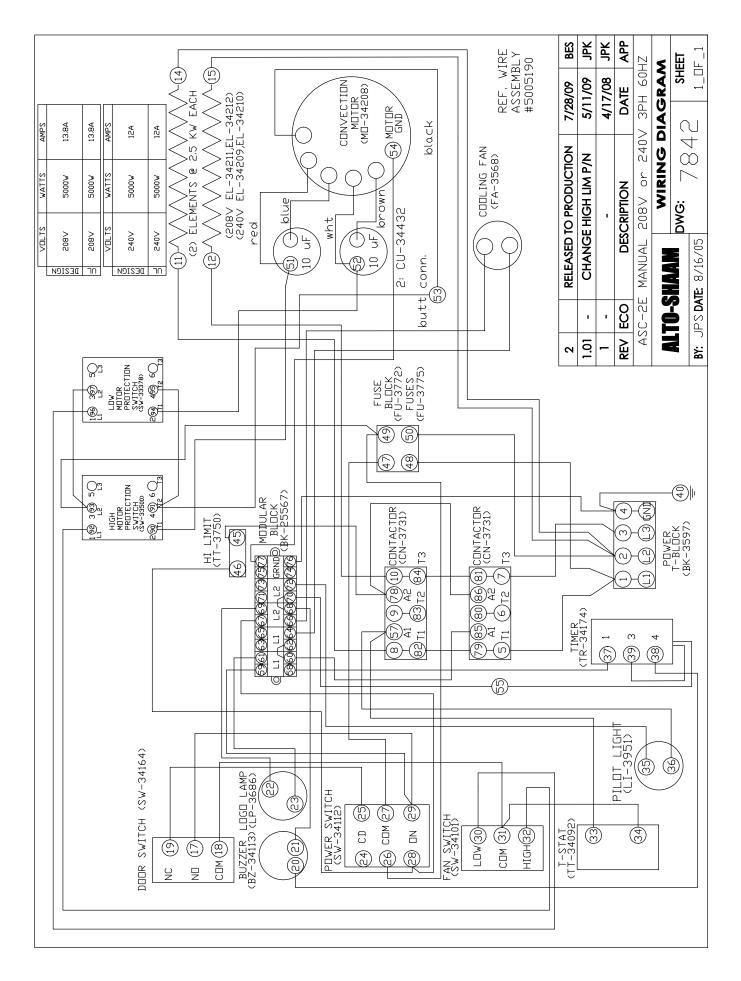
ITEM	DESCRIPTION	PART NO.	QTY
1	CONTACTOR, 30 AMP	CN-3731	2
2	FUSE HOLDER	FU-34771	1
3	FUSES, 15A	FU-34772	2
4	BLOCK, MODULAR	BK-34684	1
5	BLOCK, TERMINAL	BK-3597	1
6	FAN, BOX, 35CFM, 230V, 50-60HZ	FA-3974	1
7	GUARD, FAN	GD-2396	1
8	MOTOR 208/240V; 480V	MO-34215	1
	220V	MO-34790	1

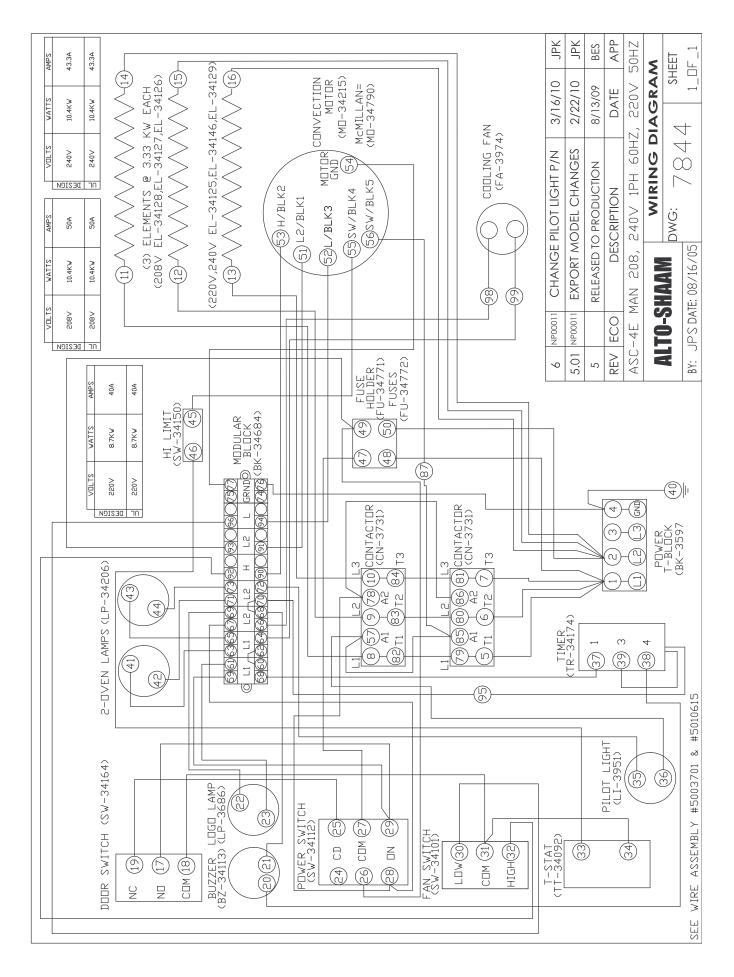
## PARTS LIST

escription	ASC-2E	ASC-4E	Qty.
terior Components			
Panel, Top and Side	1005455	1006623	1
Gasket, LH/RH	1005311	1006605	2
Gasket, Top/Bottom	1005316	1006606	2
Panel, Service, louvered	1006602	1006672	
Cover, Bottom	1005458	1006678	·····
Cover, Top	1005459	1006679	·····
Vent Plate	1010943	1000079	·····
Venit Flate	1010943		
terior			
Rack, Side	SR-26893	SR-26396	2
Shelf	SH-26894	SH-26795	5/6
Lamp, *CT, snap-in, oven light	_	LP-34161	2
Gasket, oven lamp	—	GS-26630	2
Glass, *CT, oven lamp	—	GL-26608	2
Cover for oven light	—	CV-26607	2
Receptacle, Lamp		RP-3986	1
Bulb, logo 15W		LP-3686	1
Bulb, 230/240V, 25W	_	LP-34206	2
ren Elements Element, Outer, 208V	EL-34211		1
			·····
Element, Outer, 240V	EL-34210		
Element, Inner, 208V	EL-34212		
Element, Inner, 240V	EL-34209		1
Element, Front, 208V	—	EL-34126	1
Element, Front, 240V, 220V	_	EL-34129	1
Element, Front, 480V	—	EL-34347	1
Element, Middle, 208V	—	EL-34127	1
Element, Middle, 240V, 220V	— —	EL-34146	1
Element, Middle, 480V		EL-34346	1
Element, Rear, 208V	······	EL-34128	·····
Element, Rear, 240V, 220V		EL-34125	·····i···
Element, Rear, 480V		EL-34345	·····
otor/Blower Wheel			
Motor, 208/240V, 480V	MO-34208	MO-34215	1
Motor, 220V		MO-34790	1
Wheel, Blower	WH-26895	WH-26405	1
por Assembly			
Assembly, Complete	DR-27848	_	1
Assembly, Complete, RH		DR-27849	·····
Assembly, Complete, LH		DR-27850	i
vitches/Thermostats/Timers Block, Terminal	BK-3597	BK-3597	1
Block, Modular	BK-25567	BK-34684	1
Buzzer	BZ-34113	BZ-34113	·····i··
Contactors, 30A	CN-3731	CN-3731	1/2
Fan, Box, 35CFM, 230V, 50-60HZ	UN-0701	FA-3974	1/2
		FA-39/4	
Fan, Box, 70CFM, 230V, 50-60HZ	FA-3568		]
Fuse Holder, Dual, 15A, Class G	FU-3772	FU-34771	1
Fuses, *CT, 15A, Class G	FU-3775	FU-34772	2
Guard, Fan	GD-2396	GD-2396	1
Knob, Control, Indicating Timer	KN-34103	KN-34103	1
Knob, Thermostat	KN-34297	KN-34297	1
Light Indicator	LI-3951	LI-3951	1
Panel Overlay, 280/240V, 480V	PE-26978	PE-26729	1
Panel Overlay, 220V		PE-26978	1
Switch, Rocker, Fan, High/Low	SW-34101	SW-34101	·····
			·····
Switch, On/Off/Cool-down	SW-34112	SW-34112	
Switch, High Limit	TT-3750	SW-34150	
Switch, Door, Roller	SW-34164	SW-34164	1
Switch, Motor Protect	SW-33500		1
Switch, Motor Protect	SW-33378		1
Timer, 250V, 1 hr	TR-34174	TR-34174	1
Thermostat, 140-500 °F		TT-34092	

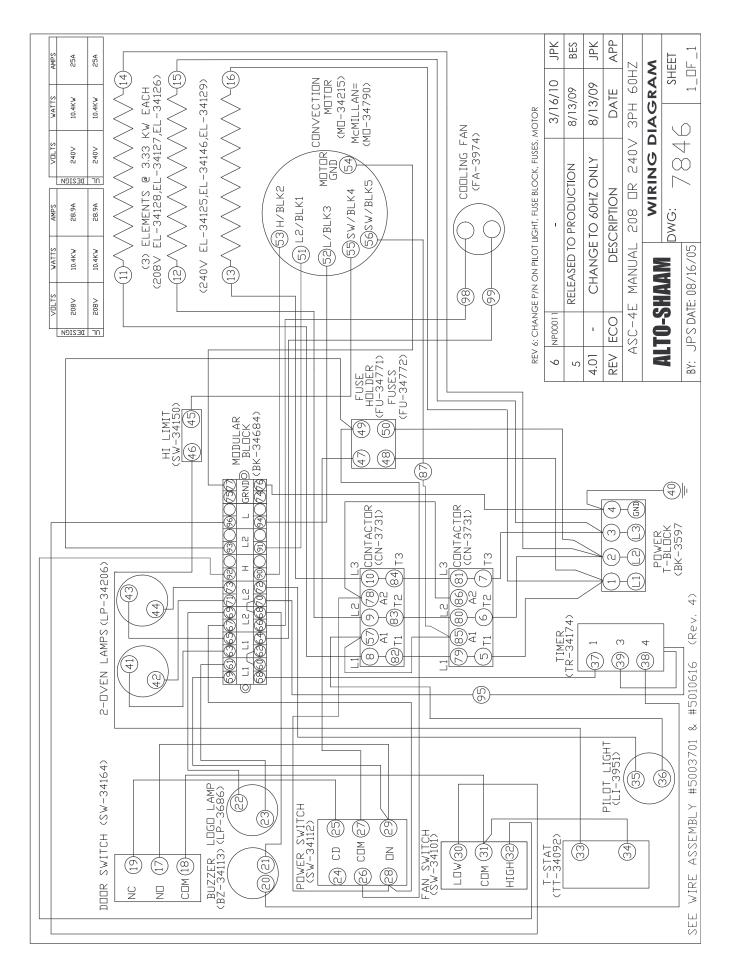


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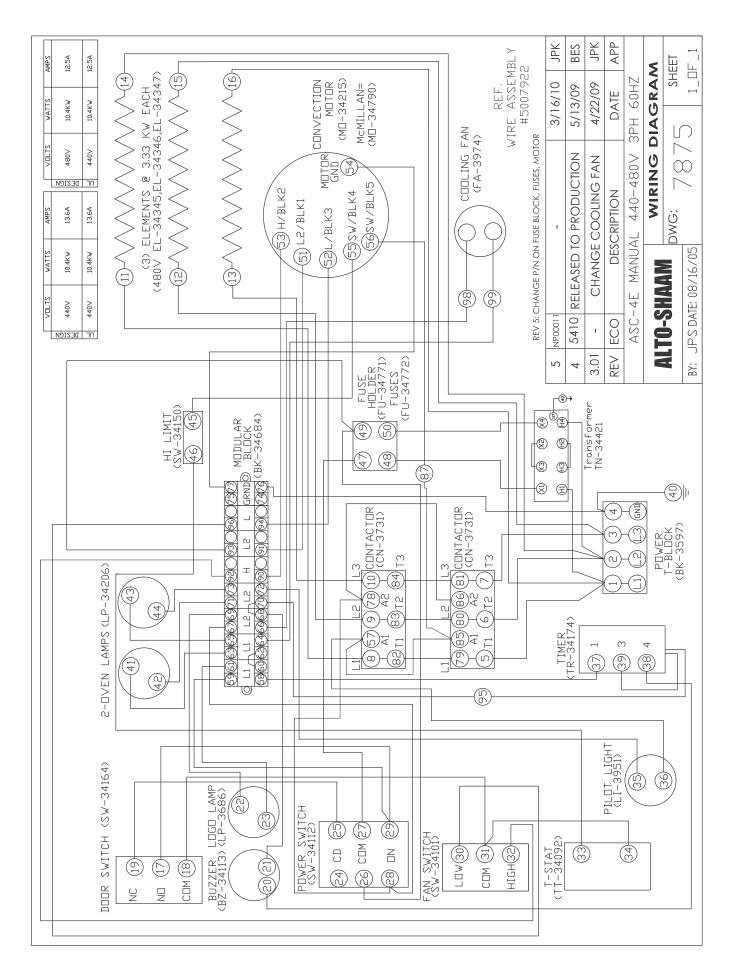




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ASC-2E & ASC-4E Electric Convection Ovens - Manual Control • 27



ASC-2E & ASC-4E Electric Convection Ovens - Manual Control • 28

## 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.

## LIMITED WARRANTY

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

#### The parts warranty period is as follows:

For the refrigeration compressor on Alto-Shaam Quickchillers<sup>™</sup>, five (5) years from the date of installation.

For the heating element on Halo Heat<sup>®</sup> cook/hold ovens, as long as the original purchaser owns the oven.

For all other parts, one (1) year from the date of installation or fifteen (15) months from the shipping date, whichever occurs first.

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

To be valid, a warranty claim must be asserted during the applicable warranty period. This warranty is not transferable.

#### THIS WARRANTY DOES NOT APPLY TO:

#### 1. Calibration.

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

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

Effective 02/09



RECORD THE MODEL AND SERIAL NUMBER OF THE APPLIANCE FOR EASY REFERENCE.
ALWAYS REFER TO BOTH MODEL AND SERIAL NUMBER IN ANY CONTACT WITH ALTO-SHAAM REGARDING THIS APPLIANCE.
Model: \_\_\_\_\_ Date Installed: \_\_\_\_\_
Voltage: \_\_\_\_\_ Purchased From: \_\_\_\_\_\_
Serial Number: \_\_\_\_\_\_

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