



Rotisserie Oven Electric



AR-7T

Owner's Manual

- Installation
- Operation
- Maintenance

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Consult instructions for
operation and use.

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Enjoy your Alto-Shaam Rotisserie Oven!

Alto-Shaam rotisserie ovens offer quality your customers can see to improve your profits for a quick return on your investment. Safe, simple and efficient cooking — and cleaning — so you can focus on the food and not the waste. Convection and radiant heat create the perfect crispy, brown finish.

Exclusive, hands-free self-cleaning design saves time and uses 35% less water than traditional models during the automatic cleaning process

Superior reliability with no moving parts in the cleaning system

Built-in automatic grease collection system pumps grease into jugs that are easily wheeled away for safe and quick disposal

Perfect crispiness and even browning with flexibility to choose from seven browning levels and four cooking levels

Attractive design and illuminated interior highlight the food for your customers to help boost impulse sales

Before Use

This guide is provided as an installation and operational aid with step-by-step instructions of the basic functions of the oven and additional features of the control.

If this is the first time this oven is being used, or if the oven has just been removed from storage, follow these steps for cleaning:

1. Remove all packing material from the appliance.
2. Remove and wash any detachable items such as spits, baskets, and drip trays with hot, soapy water. Dry with a clean, damp lint-free cloth.
3. Remove all visible grease or oil from the appliance.

4. Clean the interior and exterior of the appliance with a mild soap and water solution. Apply the solution with a clean, damp cloth. Do not use commercial or household cleaners that contain ammonia. Wipe with a clean, damp cloth to remove all detergent residue. Dry with a clean, lint-free cloth.
5. Clean the appliance glass with glass cleaner or distilled vinegar.
6. Re-install the side racks, wire shelves, spits, and baskets.

The appliance is now ready for operation.

PROTECT YOUR ORIGINAL MANUFACTURER'S WARRANTY, REGISTER ONLINE:

www.alto-shaam.com *Support > Warranty Registration*

Register to ensure prompt resolution of warranty claims

Please register your Alto-Shaam equipment to ensure prompt service in the event of a warranty claim. **You'll automatically be entered into a monthly drawing to win an additional year extended warranty!**

Registering your equipment will allow you to receive notifications about software updates and additional product information.

NOTE: Your personal information will not be shared with any other company.

ALTO-SHAAM 24/7 EMERGENCY REPAIR SERVICE

Call 800-558-8744 to reach our twenty-four hour emergency service call center for immediate access to local authorized service agencies outside standard business hours. The emergency service access is provided

exclusively for Alto-Shaam equipment and is available throughout the United States through Alto-Shaam's toll free number. Emergency service access is available seven days a week, including holidays.



This Alto-Shaam appliance has been thoroughly tested and inspected to ensure only the highest quality appliance 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, including unattached items and accessories, may be delivered in one or more packages. Ensure all standard items and options have been received with each appliance as ordered. Save all the information packed with the appliance. Register the appliance online at www.alto-shaam.com/en/support/warranty-registration 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 appliance. Contact the Alto-Shaam Tech Team Service Department if you have any questions concerning installation, operation, or maintenance.

1-800-558-8744; servicedept@alto-shaam.com

The serial number is required for all inquiries.

Always include both model and serial number(s) in any correspondence regarding the appliance.

Model: _____

Serial number: _____

Purchased from: _____

Date installed: _____ **Voltage:** _____



CAUTION



Appliance and accessories may be heavy. To prevent serious injury, **always** use a sufficient number of trained and experienced workers when moving or leveling appliance and handling accessories.

Environmental Conditions

Operational Environmental Conditions

- Before use, appliance must acclimate to room temperature in the environment it is placed – 24 hours is recommended.
- Ambient temperature range of 60°F to 110°F (16°C to 43°C).
- Relative humidity of less than 95% non-condensation.
- Atmospheric pressure range of 50kPa to 106kPa.



All Alto-Shaam equipment is sold Free on Board (F.O.B.) shipping point, and when accepted by the carrier, such shipments become the property of the consignee.

Should damage occur in shipment, do not put the appliance into service until the damage has been inspected by an authorized Alto-Shaam service provider.

Shipping damages are 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 appliance is still in the truck or immediately after it is moved to the receiving area. Do not wait until after the appliance is moved to a storage area.
2. Do not sign a delivery receipt or a freight bill until a proper count has been made and inspection of all appliances are received.

3. Note all damage to packages directly on the carrier's delivery receipt.
4. Make certain the driver signs the delivery receipt. If the driver 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. Contact the carrier's office immediately upon finding damage, and request an inspection. Mail a written confirmation to the carrier's office with 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.

Alto-Shaam will continue our policy of assisting our customers in collecting claims which have been properly filed and actively pursued. Alto-Shaam cannot, however, file any damage claims, assume the responsibility of any claims, or accept deductions in payment for such claims.

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: _____

Serial Number: _____

Date Installed: _____

Voltage: _____

Purchased From: _____



Alto-Shaam has established a twenty-four hour emergency service call center to offer immediate customer access to a local authorized service agency outside of standard business hours. The emergency service access is provided exclusively for Alto-Shaam equipment and is available throughout the United States through the use of Alto-Shaam's toll-free number. Emergency service access is available seven days a week including holidays.

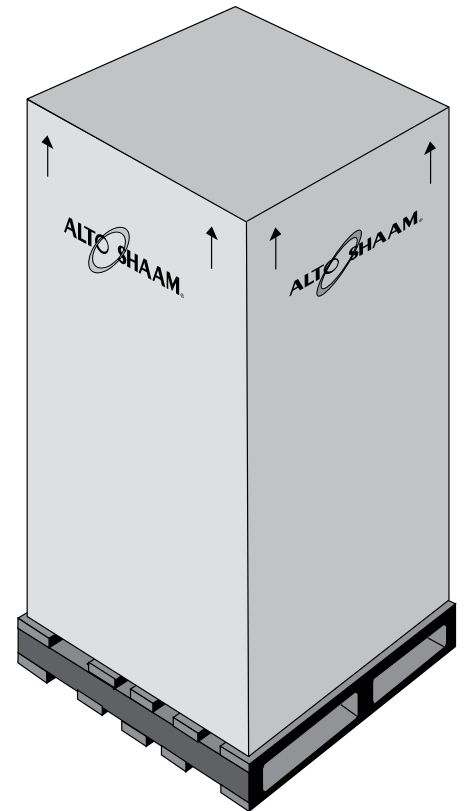
Unpacking

- Carefully remove the appliance from the carton or crate.

NOTE: Do not discard the carton and other packaging material until you have inspected the appliance for hidden damage and tested it for proper operation.

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 manufacturer.

- Read all instructions in this manual carefully before installing this appliance, using the appliance or performing routine maintenance. Following procedures other than those indicated in this guide to use and clean the appliance is considered inappropriate and may cause damage, injury or fatal accidents, in addition to voiding the warranty and relieving Alto-Shaam of all liability.
- 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.



- The appliance is intended to cook, hold or process foods for the purpose of human consumption. No other use for this appliance is authorized and is therefore considered dangerous. The appliance must not be used to cook food containing flammable materials (such as food with alcohol). Substances with a low flash point can ignite spontaneously and cause a fire.
- The 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. Alto-Shaam recommends regular staff training to avoid the risk of accident or damage to the appliance. Operators must also receive regular safety instructions.
- Any troubleshooting guides, component views, and parts lists included in this manual are for general reference only and are intended for use by qualified and trained technicians.
- 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.

Knowledge of proper procedures is essential to the safe operation of electrically and/or gas energized equipment. The following signal words and symbols may be used throughout this manual.

DANGER

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION


Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE: Indicates information considered important, but not hazard-related (e.g., messages relating to property damage).





Indicates that referral to operating instructions is recommended to understand operation of equipment.


NOTICE: For equipment delivered for use in any location regulated by the following directive: 2012/95/EC WEEE



Do not dispose of electrical or electronic equipment with other municipal waste.

- To prevent serious injury, death or property damage, the appliance should be inspected and serviced at least every twelve (12) months by an authorized service partner or trained technician.
- **Only** allow an authorized service partner or trained technician to service or to repair the appliance. Installation or repairs that are not performed by an authorized service partner or trained technician, or the use of non-factory authorized parts will void the warranty and relieve Alto-Shaam of all liability.
- When working on this appliance, observe precautions in the literature, on tags, on labels attached to or shipped with the appliance and other safety precautions that may apply.
- If the appliance is installed on casters, freedom of movement of the appliance must be restricted so that utility connections (including gas, water, and electricity) cannot be damaged when the appliance is moved. If the appliance is moved, ensure that all utility connections are properly disconnected. If the appliance is returned to its original position, ensure that retention devices and utility connections are properly connected.
- **Only** use the appliance when it is stationary. Mobile appliance racks, mobile plate racks, transport trolleys, and appliances on casters can tip over when being moved over an uneven floor or threshold and cause serious injury.
- **Always** apply caster brakes on mobile appliances or accessories when these are not being moved. These items could move or roll on uneven floors and cause property damage or serious injury.
- Be extremely careful when moving appliances because the food trays may contain hot fluids that may spill, causing serious injury.
- **Always** open the appliance door very slowly. Escaping hot vapors or steam can cause serious injury.

 WARNING	
	<p>To prevent serious personal injury, death, or property damage:</p> <p>The appliance must be cleaned thoroughly to avoid deposits of grease and or food residue inside the appliance that may catch fire. If fat deposits and/or food waste inside the appliance ignite, shut down the appliance immediately and keep the appliance door closed to extinguish the fire. If further extinguishing is required, disconnect the appliance from the main power and call the fire department. Failure to clean the appliance properly voids the warranty and relieves Alto-Shaam of all liability.</p>

 WARNING	
	<p>This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision concerning use of the appliance by person responsible for their safety.</p> <p>Children should be supervised to ensure that they do not play with the appliance.</p>

**WARNING**

Improper installation, alteration, adjustment, service, cleaning, or maintenance could result in property damage, severe injury, or death.

Read and understand the installation, operating and maintenance instructions thoroughly before installing, servicing, or operating this equipment.

Installation Codes & Standards

Federal, State, or local codes and standards are required for installation of this oven:
air supply, electrical connections, water connections, and waste water discharge.

Ventilation Requirements

A steam ventilation hood is mandatory for ovens without integral ventilation hoods. Authorities having jurisdiction should be consulted as to the requirements for this equipment with respect to ventilation and fire extinguishing systems to ensure conformity with any Federal, State, or local installation codes.

Installation Duties and Responsibilities

Designer/Consultant Responsibilities: Pre-Installation	
	If the oven is equipped with an automatic cleaning option, conduct a water analysis to make sure water quality meets the water specifications.
	If the oven is equipped with an automatic cleaning option, make sure a proper floor drain is within 3' (914mm) of where the oven is to be installed.
	If the oven is equipped with an automatic cleaning option, make sure one 3/4" water connection with shut off is within 3' (914mm) of the oven.
	Make sure proper vent hood is installed per local code, if needed.
	Make sure proper electrical voltage, phase, wire size, breaker size, and disconnects are provided.
	Make sure that the installation surface is level.
	Confirm that hallways and doors leading to the installation area are large enough for the oven to fit through.
Installer Responsibilities: Pre-Installation	
	Confirm that the pre-installation check sheet has been properly filled out.
	Inspect, receive, deliver, uncrate, and set oven in place.
Installer Responsibilities: Installation	
	Make sure that the oven is level.
	If oven is equipped with an automatic cleaning option, make final water connection to 3/4" cold water line.
	Make final electrical connections. Check for proper voltage, phase, wire size, and breaker size. Report any issues to the designer/consultant.
	If the oven is equipped with an automatic cleaning option, plumb in the oven drain per local codes and recommendations found in this manual.
	Make sure that all accessories are unpacked and set up for the end user.
	Stacked configurations must have seismic legs and be bolted to the floor. Stacking configurations with casters must be tethered to the building structure.
	Test the oven and make sure it is fully operational. Report any issues or manufacturing defects.
	If the oven is equipped with a touch control, make sure that the most current software is installed. See www.alto-shaam.com/en/software-download-center .
	Pick up any packaging trash and debris from the installation site.
	Clean the outside of the oven and make it presentable to the end user.
Installer Responsibilities: After Install	
	Complete post installation check sheet.
	Take pictures of the electrical connections, water, drain, grease collection connections, and clearances and send to: warrantyadmin@alto-shaam.com
RSP/Dealer: After Install	
	Confirm that the installation is correct.
	Provide training, demonstration, and contact information to customer for post installation support.

Pre-Install Checklist

Location Name:	<input type="text"/>	Date:	<input type="text"/>
Location Address:	<input style="height: 40px;" type="text"/>	State/Zip Code:	<input type="text"/>
		Building Name:	<input type="text"/>
		Phone:	<input type="text"/>
Contact Name:	<input type="text"/>	E-mail:	<input type="text"/>
Install Company:	<input type="text"/>	Install Technician:	<input type="text"/>
Contact Info:	<input style="height: 40px;" type="text"/>	Number of Ovens Being Installed:	<input type="text"/>

	Model Number	Serial Number
❶	<input type="text"/>	<input type="text"/>
❷	<input type="text"/>	<input type="text"/>
❸	<input type="text"/>	<input type="text"/>
❹	<input type="text"/>	<input type="text"/>

Check all clearances of doors, entryways, and hallways from delivery point to installation area.

Measured door/entryway clearance	Door 1	<input type="text"/>	Door 2	<input type="text"/>	Door 3	<input type="text"/>
Measured hallway clearance	Hall 1	<input type="text"/>	Hall 2	<input type="text"/>	Hall 3	<input type="text"/>
Elevator opening	Door	<input type="text"/>				
Elevator internal dimensions	Height	<input type="text"/>	Width	<input type="text"/>	Depth	<input type="text"/>
Will ovens fit through all measured locations?		<input type="checkbox"/> YES		<input type="checkbox"/> NO		

	H	W	D
❶	<input type="text"/>	<input type="text"/>	<input type="text"/>
❷	<input type="text"/>	<input type="text"/>	<input type="text"/>
❸	<input type="text"/>	<input type="text"/>	<input type="text"/>
❹	<input type="text"/>	<input type="text"/>	<input type="text"/>

Comments:

Pre-Install Checklist (cont.)

Oven Clearances:

Right side:

Rear:

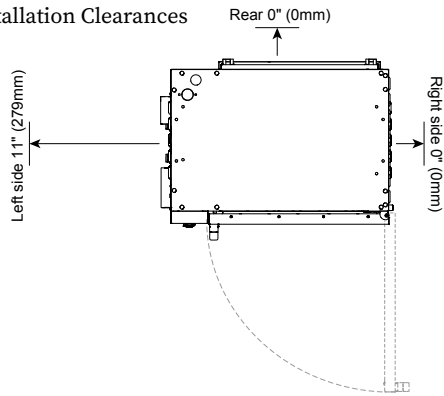
Left side:

Bottom:

Top:

Comments:

Installation Clearances



Water Supply:

System needs one (1) cold water line with 3/4" NPT connection.

Measured rate of flow: **GPM**

Measured water pressure: **PSI** **BAR**

Is the line treated water? Yes No

Has a water analysis been completed? Yes No

Does water meet minimum quality standards? Yes No

Electrical:

Rated oven voltage/phase: Voltage Phase

Actual main voltage provided: Voltage Phase

Actual voltage:

1 PH L1-N L2-N

3 PH L1-N L2-N L3-N

3 PH L1-L2 L1-L3 L2-L3

Breaker Size:

Continue to next page —>

Pre-Install Checklist (cont.)

Drain (refer to graphic):		
1. Is the drain located within 3 feet (914mm) of the oven?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
2. If no, what is the actual distance?	<input type="text"/>	
3. Is the drain located directly beneath the oven?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
4. Can the drain be moved?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
5. Can other accomodations for the drain be made?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
6. If the drain cannot be moved, or other occomodations made, contact Alto-Shaam.		
Comments:		
<hr/>		
<hr/>		
<hr/>		
7. Will all materials for drain plumbing be available at the time of installation?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
8. Are there any challenges for a successful installation?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If yes, explain:		
<hr/>		
<hr/>		
<hr/>		

Signoff:

Manager _____

Technician _____

PRINT

SIGN

Post-Installation Checklist

Location Information	
Location Name: _____	Site Contact Name: _____
Location Street Address: _____	Site Contact Phone No.: _____
Location City: _____	Site Contact Email: _____
Location State: _____ Zip: _____	
Post-Installation Company Information	
Company Name: _____	Technician Name: _____
Mailing Address: _____	Technician Phone No.: _____
City: _____	Contact Email: _____
State: _____ Zip: _____	

Model number(s)				
Serial number(s)				

Clearance					
Oven clearance	Right side		PASS	FAIL	
	Left side		PASS	FAIL	
	Rear		PASS	FAIL	
	Top		PASS	FAIL	
Is the oven accessible for service?		YES	NO		
If NO, comment on the issue:					
Other comments:					

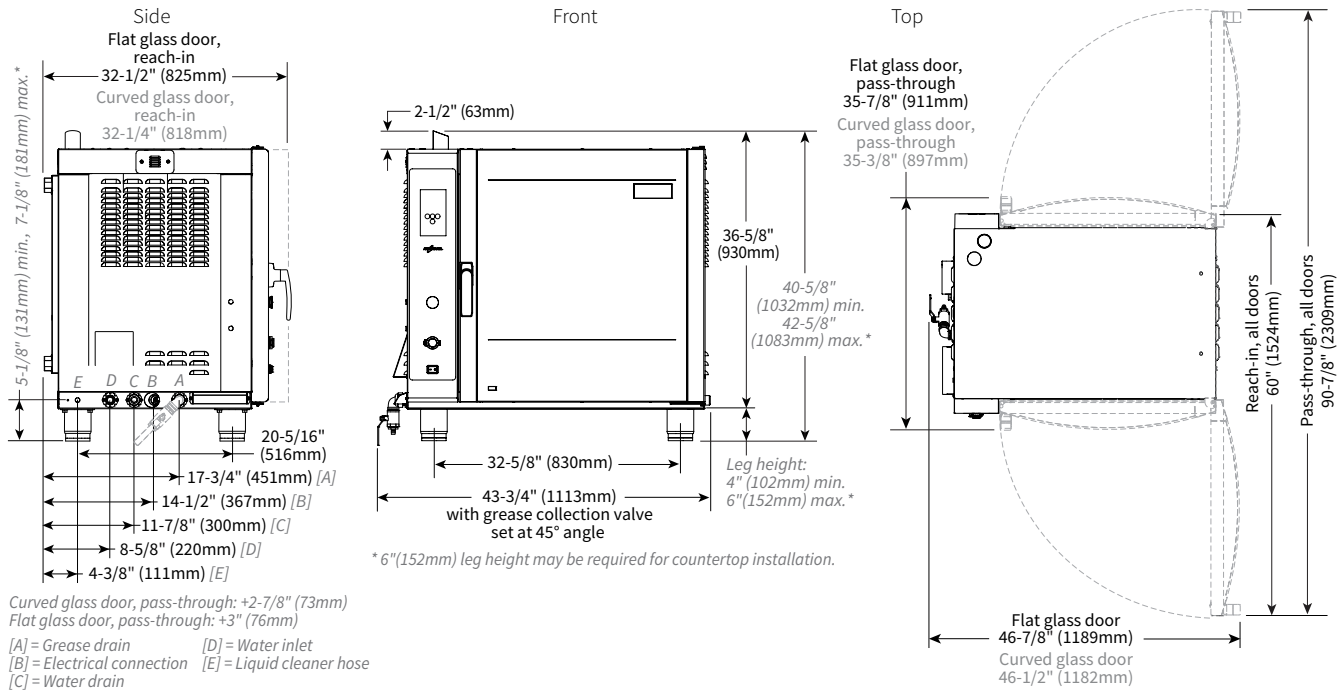
Water Supply					
Is there a minimum of two 3/4" cold water supply lines within 3' (914mm) of where each oven is installed?	PASS		FAIL		
Is there a minimum of two 3/4" NPT male fittings with shut offs connected to each oven?	PASS		FAIL		
Is the dynamic water pressure from the 3/4" cold water supply line a minimum of 30 psi for each oven?	PASS		FAIL	UNKNOWN	
Is the static water pressure from the 3/4" cold water supply line less than 90 psi for each oven?	PASS		FAIL	UNKNOWN	
Is water treatment being used?	YES		NO	TYPE	
If yes - Note the system here:	BRAND NAME			MODEL	
Are all exterior water connections tight?	YES			NO	
Are there any exterior water leaks after operation?	YES			NO	
Are there any interior water leaks after operation?	YES			NO	
Comments:					

Continued

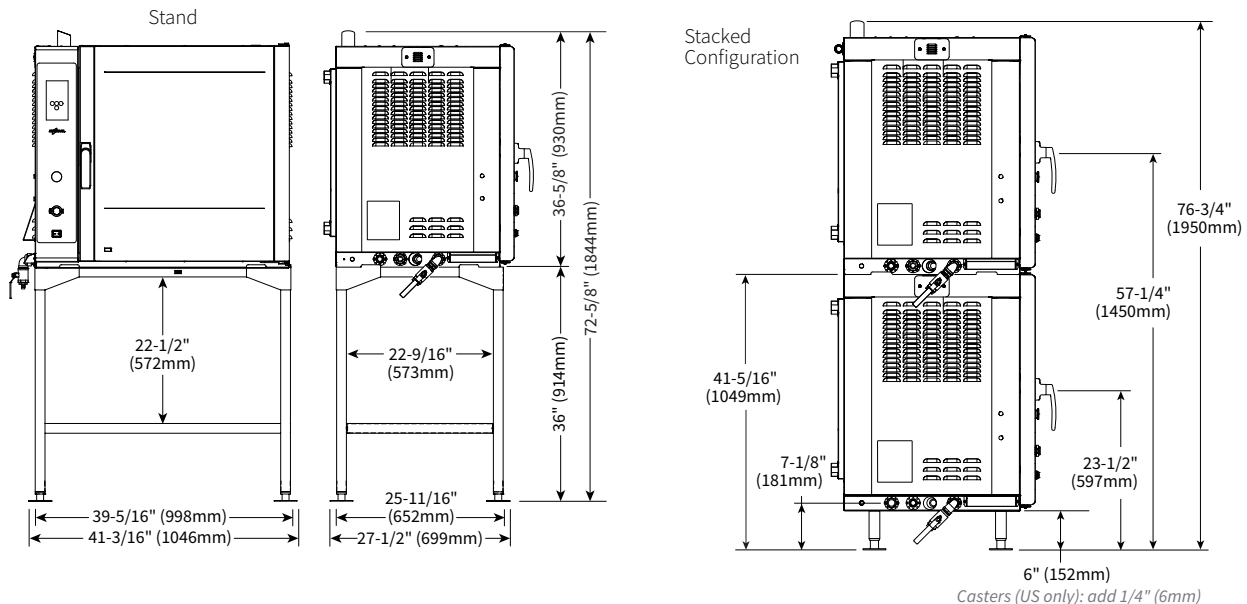
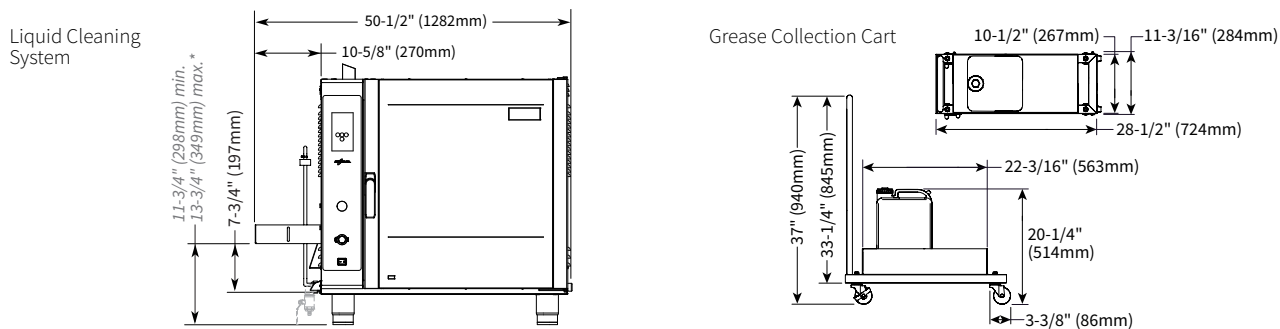
Post-Installation Checklist (Cont.)

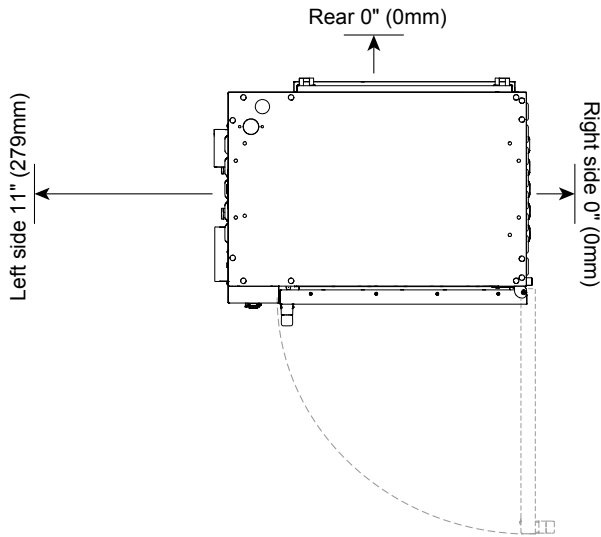
Electrical							
What is the rated voltage and phase of the oven(s) installed?	VOLTAGE				PHASE		
Is the wire size for the main incoming power to the oven(s) in accordance with the minimum size listed in the specification sheet for this specific oven?	PASS		FAIL				
What is the measured voltage at site?	L1-N		L2-N		L3-N		L1-L2
	L2-3		L1-L3		PASS		FAIL
What is the current draw of the oven(s) to be supplied?	AMP RATING						
What is the on-site breaker size supplying power to the oven(s)?	SIZE				PASS		FAIL
Is there a disconnect or junction box within 3' (914mm) of where the oven(s) is installed?	PASS		FAIL				
Comments:							
Drain							
What type of material was used for the drain?							
Is there an air gap installed at the end of the drain run?	PASS		FAIL		SIZE		
Is the drain piped with a descending slope?	PASS		FAIL				
Comments:							
Other site information							
Is there a proper ventilation hood installed above the location of the oven(s)?	PASS		FAIL				
Is the oven level according to leveling instructions in the installation manual?	PASS		FAIL				
Comments:							
Date complete:							

Dimensions



Options and Accessories Dimensions





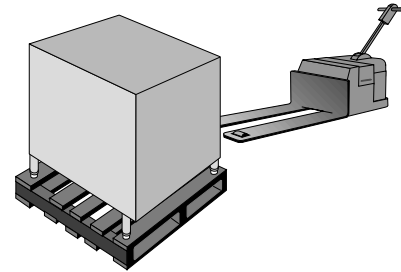
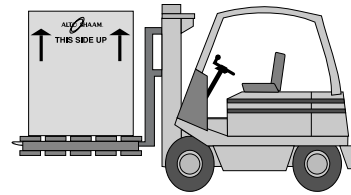
Minimum Clearance Requirements	
Left	11" (279mm)
Right	0" (0mm)
Rear	0" (0mm)
Top	0" (0mm)
Bottom	0" (0mm)

Capacity
98 lb (44 kg) maximum
Angled spits (standard):
Up to twenty-one (21) 3-1/2 lb chickens (1,6 kg)
Up to twenty-eight (28) 2-1/2 to 3 lb chickens (1,1 to 1,4 kg)
Piercing spits (optional):
Up to twenty-eight (28) 2-1/2 to 3-1/2 lb chickens (1,1 to 1,6 kg)
Turkey spit (optional): (up to 3 spits can be used)
One (1) Turkey up to 25 lb (11 kg) on each spit
Baskets (optional):
Up to twenty-one (21) 3-1/2 lb chickens (1,6 kg)

⚠ WARNING

To prevent serious injury, death, or property damage:

- **Always** keep appliance on top of a pallet when using a fork lift or a pallet lift truck to move appliance.
- **Always** use a sufficient number of trained and experienced workers to place the appliance on floor, stand, or counter.

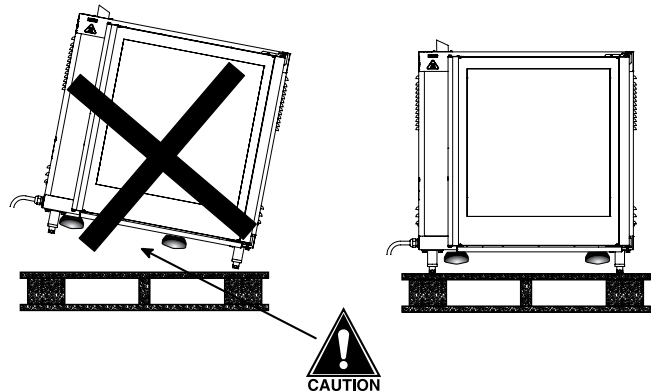


Installation Requirements

To ensure proper operation, the installation of this oven must be completed by qualified technicians in accordance with the instructions provided in this manual. Failure to follow the instructions provided may result in damage to the oven, property, or cause personal injury to personnel.

NOTICE: To prevent property damage:
Check the dimensions of the doorways and aisles before attempting to move the oven and pallet to the installation site.

Do not tilt the oven. Transport the oven in an upright and level position only.



⚠ CAUTION



Appliance and accessories may be heavy. To prevent serious injury, **always** use a sufficient number of trained and experienced workers when moving or leveling appliance and handling accessories.

Weight and crated dimensions

AR-7T	
Net	361 lb (164 kg)
Ship	440 lb (200 kg)
Crated Dimensions L x W x H (est.)	56" X 45" X 51" (1422mm x 1143mm x 1295mm)

Lifting Instructions

Remove banding before lifting the oven. Only lift the oven from the front.

Adjust the forks to avoid damaging the components beneath the oven. Note that the control side of the oven is the heaviest portion of the oven. Lift the oven just high enough to remove the wooden pallet. Lower the oven to no more than 2" (50mm) above the floor. Secure any hoses and dangling cords to avoid tangling or damage. Drive slowly while moving the oven, and keep the oven low to the ground.

! WARNING

To prevent personal injury, death or property damage:

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

General Installation Requirements

In order to maintain established National Sanitation Foundation (NSF) standards, all counter-mounted appliances must be sealed to the counter with a RTV Silicone (room temperature vulcanization silicone) or silastic meeting NSF requirements.

The oven must be installed in a well ventilated room obeying the local ventilation codes and standards and on a non-combustible, level surface.

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, or other severely adverse conditions.

The oven must be installed in a location to provide easy access to the controls. The oven is to be positioned at a safe and convenient height in order to provide easy loading and unloading of hot products.

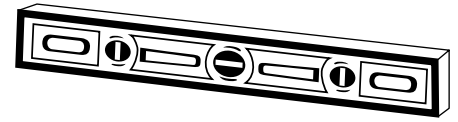
This oven must be kept free and clear of any obstructions blocking access for maintenance or service.

Leveling


Level the oven by adjusting the feet.

Inspect the level periodically to ensure that the floor has not shifted or the oven has moved.

Failure to properly level this oven can cause improper function.




⚠ WARNING



Appliances without a cord provided by the factory must be equipped with a cord of sufficient length to permit the appliance to be moved for cleaning.


Always use the correct AWG wire size based on the electrical requirements for the appliance.

⚠ CAUTION



Power source must match voltage identified on appliance rating tag. The rating tag provides essential technical information required for any appliance installation, maintenance or repairs. Do not remove, damage or modify the rating tag.


⚠ WARNING



To prevent personal injury, death, or property damage:


Use a UL Listed grounding type plug rated 250 Volts, 50 Amperes, 1 Phase, 3 wire for single phase units or 250 V, 50 A, 3 Phase, 4 wire for three phase units.

⚠ WARNING




To prevent serious injury, death, or property damage:

All electrical connections must be made by a qualified and trained service technician in accordance with applicable electrical codes.



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.



CE-approved appliances include an equipotential-bonding terminal marked with the symbol shown on the left. Provisions for earthing are to be made in accordance with IEC:2010 60335-1 section 27 or local codes.

Power Cord Connection:

Where local codes and CE regulatory requirements apply, appliances must be connected to a ground fault or residual current protection device to accommodate a leakage current of 20mA.

Hard wired models

Hard wired models must be equipped with a country certified external allpole disconnection switch with sufficient contact separation. Hard wired models that are mounted on casters must have a strain relief device (tether) to prevent strain on the power supply cord. If a power cord is used for the connection, an oil resistant cord like H05RN or H07RN or equivalent must be used.

An electrical wiring diagram is located behind the control panel. This oven must have its own branch fault circuit interrupter sized to accommodate the required ampacities, in accordance with the wiring diagram.

The wire size for the main incoming power to the oven must be properly sized for the electrical amp draw listed above.

Before operating the oven, ensure all cable connections in the electrical connection area are tight since connections can loosen during transport. Inspect the main power connections at the terminal block to ensure the connections remain tight.

International Standard Units:

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 the power cord needs replacement, use a similar one obtained from the distributor.

AR-7T

Requirements

- One (1) dedicated circuit per rotisserie.
- Junction box or electrical disconnect within 3' (914mm) of rotisserie.
- Electrical connections and circuit breakers must meet all applicable federal, state and local codes.

V	Ph	Hz	Connections	A	Breaker	kW	Plug Configuration
208	1	60	L1, L2/N, G	47.0	55	9.8	No cord, no plug
240	1	60	L1, L2/N, G	41.0	55	9.8	No cord, no plug
208	3	60	L1, L2, L3, G	28.0/Ph	55	9.8	No cord, no plug
240	3	60	L1, L2, L3, G	24.5/Ph	55	9.8	No cord, no plug
380-415	3	50	L1, L2, L3, N, G	14.1/Ph	16	9.8	No cord, no plug



ANSI/NSF 4



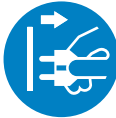
IP X4



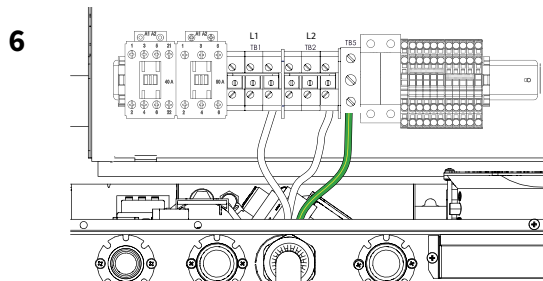
How to connect the wiring

1. Remove the left side service panel (1).
2. Measure the diameter of the cord grip (2).
Remove the knock out (3) from the connection panel.
3. Install the cord (4) through the cord grip (5) and install to the oven.
4. Connect the supply cord to the appropriate terminals (6) (L1, L2, L3, N, etc.) in accordance with local codes and regulations.
5. Install the ground wire.
9. Adjust the cord length. Tighten the cord grip sealing nut onto the supply cord.
10. Re-install the left side panel.

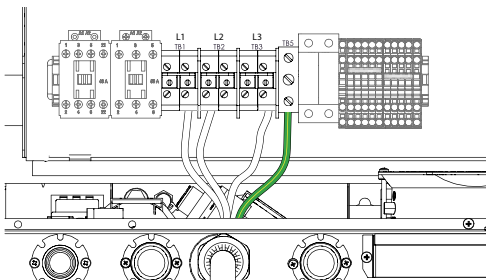
⚠ WARNING



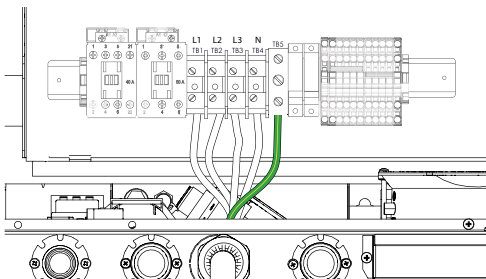
To prevent serious injury, death, or property damage, **always** disconnect the appliance from the power source before cleaning or servicing.



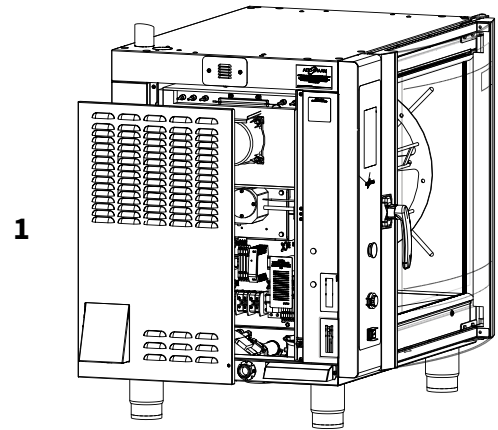
208-240V 1Ph



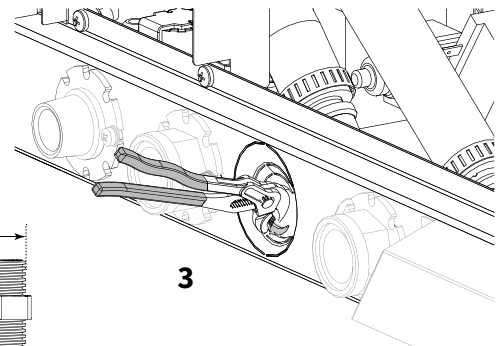
208-240V 3Ph



380-415V 3Ph

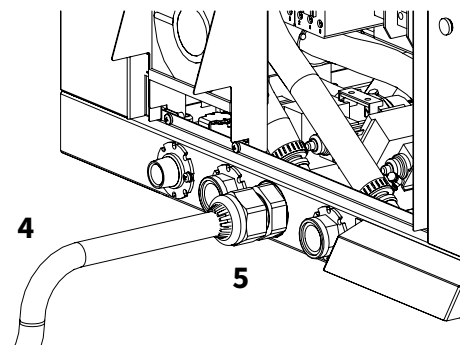


1



2

3



4

5

⚠️ WARNING

Significant damage to the appliance cavity, elements, or heat exchanger could result from improper water quality. Failure to meet the water quality requirements and observe this precaution will void the warranty.

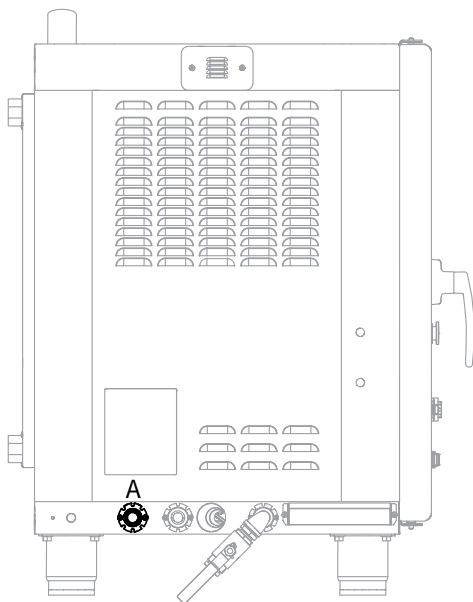
Water Requirements for Automatic Cleaning Option

- One (1) water inlet, drinking quality (treated)
- Treated water line: 3/4" NPT connection
- Water temperature range: 50°–140°F (10°–60°C)
- Line pressure min. 30 psi (200 kPa) dynamic, max. 90 psi (600 kPa) static
- Two (2) gallons per minute minimum flow
- One (1) 3/4" ID water supply shut-off valve and back-flow preventer per rotisserie where required by local code
- Water drain: 3/4" NPT connection with air gap at floor. Materials must withstand temperatures up to 200°F (93°C).
- Floor drain within 3' (914mm) of rotisserie. Drain may not be directly below rotisserie.

It is the sole responsibility of the owner/operator/purchaser of this equipment to verify that the incoming water supply is comprehensively tested and, if required, a means of water treatment provided that would meet compliance requirements with the published water quality standards shown here. Non-compliance with these minimum standards will potentially damage this equipment and/or components and void the original equipment manufacturer's warranty. Alto-Shaam recommends using OptiPure® (www.optipurewater.com) products to properly treat your water.

Contaminant	Inlet Water Requirement
Free Chlorine:	less than 0.1 ppm (mg/L)
Hardness:	30–70 ppm
Chloride:	less than 30 ppm (mg/L)
pH:	7.0–8.5
Silica:	less than 12 ppm (mg/L)
Total Dissolved Solids (TDS):	50–125 ppm

- NOTICE:** Supply lines should be flexible to allow the appliance to be moved when service or cleaning is needed. The incoming water supply should be off when the appliance is not being used to prevent water supply lines from bursting. Verify that the water supply is open before starting the cleaning program.



A = Water inlet



WARNING

To prevent serious injury from slippery floor conditions, make sure that the drain is connected properly and not blocked.

- Flush the water line at the installation site.
- The appliance must be installed with adequate backflow protection to comply with applicable federal, state, and local codes.
- **Pipe sealing tape (Teflon®) must be used at all connection points.** The use of a pipe sealing compound is not recommended.
- Install a manual water shut-off valve between the main cold water supply line and the rotisserie.

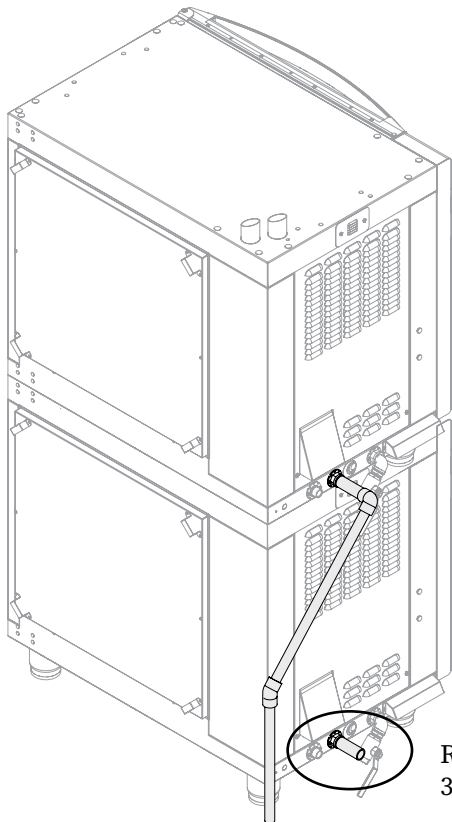
Water Drain Installation

NOTICE: In the U.S.A., this equipment is to be installed to comply with the Basic Plumbing Code of the Building Officials and Code Administrators International, Inc. [BOCA], and the Food Service Sanitation Manual of the Food & Drug Administration [FDA].



WARNING

To prevent serious injury and property damage from slippery floor conditions, make sure that the drain is connected properly and not blocked.



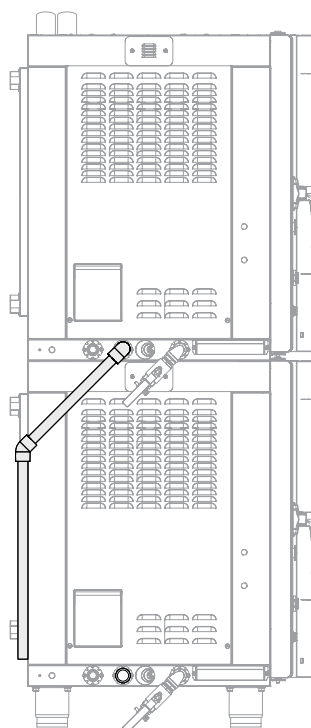
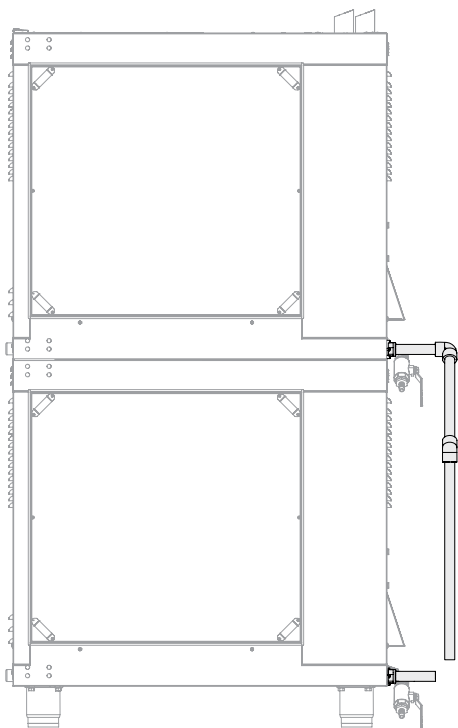
Run to drain within
3 ft. (914mm) of oven

Water Inlet:

- 50 ft. (15.24 m) maximum run
- Bends
4 @ 90° max., 2 @ 45° max.
- Horizontal runs
1" (25mm) per 10 ft. (3048mm)
- No air vent required
- 1" (25mm) air gap at drain
- Do not block access panel
- Do not block grease valve
- Piping materials must withstand temperatures up to 200°F (93°C)

Drain:

- Within 3 ft. (914mm) of oven
- Not directly under oven

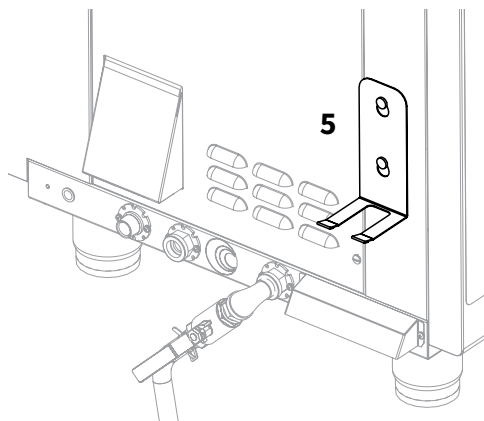
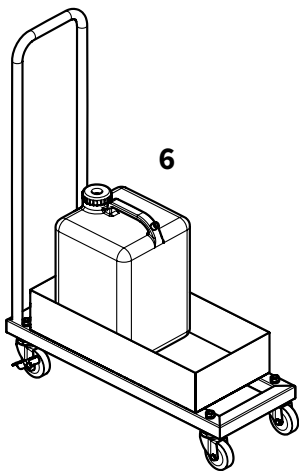
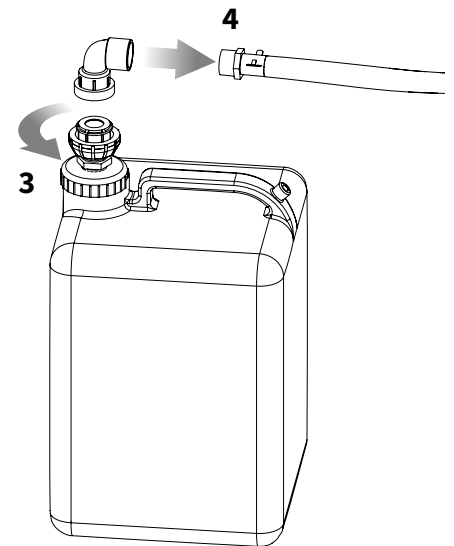
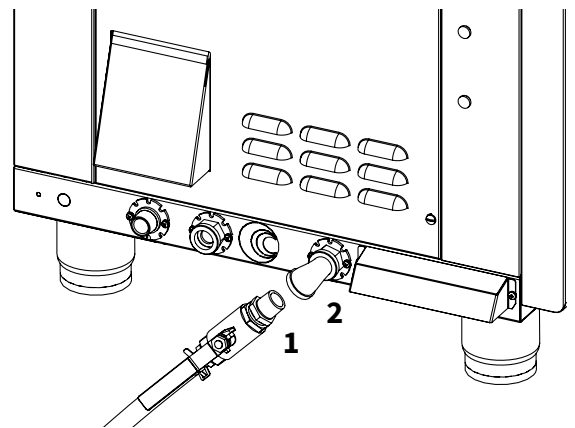
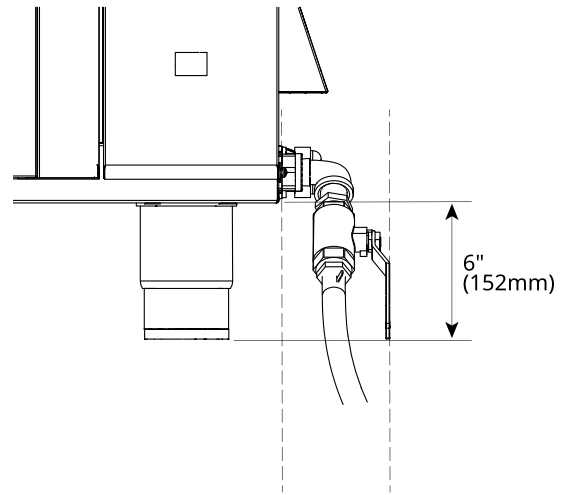


How to Hook Up the Grease Collection

NOTICE: The grease collection valve requires 6" (152mm) of vertical clearance. For countertop installations, the legs should be set to a height of 6" (152mm).

The handle of the grease collection valve must be parallel to the side of the rotisserie. Use enough Teflon® tape for a tight seal at the correct angle.

1. The grease collection valve and hose are pre-assembled. The grease collection container and fittings are also pre-assembled. Unpack both assemblies.
2. Apply Teflon tape to the fittings on the grease collection hose (4) and valve (1).
3. Insert the valve into the elbow (2) as shown. Turn until tight. Make sure the valve handle is parallel to the side of the rotisserie.
4. Loosen the radial nut on the grease collection container union (3). Insert the taped fitting on the grease collection hose (4) into the union fitting and turn until tight.
5. Tighten the radial nut on the grease collection container.
6. Place the hose holder bracket (5), if supplied, onto the pins on the side of the rotisserie.
7. Place the grease collection container in an easily-accessed location. If you have purchased a Mobile Grease Collection Cart (6), roll it into place next to the oven and apply the caster brake.

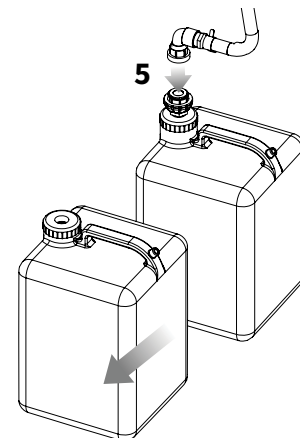
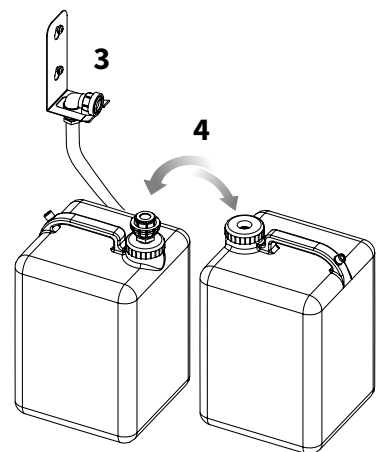
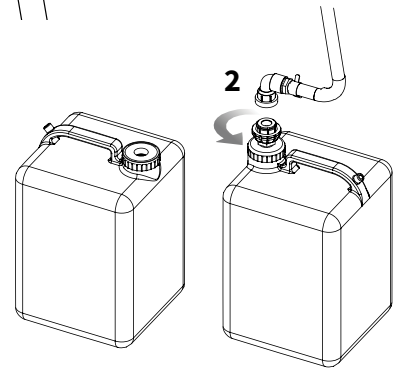
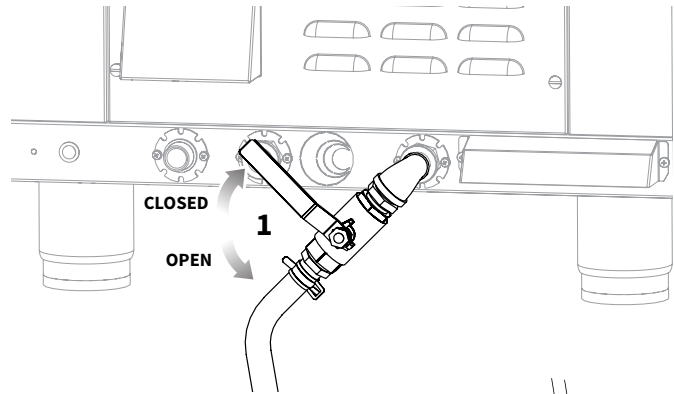


Grease Collection

How to Change Grease Collection Container(s)

NOTE: Empty the full grease collection container every eight grease collection cycles.

1. Set the valve handle (1) to the CLOSED position.
2. Place an empty grease collection container near the full container.
3. Loosen the radial nut on the grease collection hose (2) and disconnect the hose and fittings from the full container. Hang the hose on the hose hanger bracket (3), if supplied.
4. Remove the caps from both grease collection containers. Switch the caps to the other container; place the cap with the union fitting on the empty container, and the cap without the union fitting on the full container. Turn both caps until tight (4).
5. Remove the grease collection hose from the hose hanger bracket. Attach the hose to the radial nut on the empty container (5). Turn the radial nut until tight.
6. Set the valve handle (1) to the OPEN position.
7. Properly dispose of the grease in the full container.



WARNING

To prevent serious injury and property damage from slippery floor conditions, make sure that the grease valve is closed, and the grease collection hose is hung on the hose holder bracket when changing the grease collection containers.

! WARNING

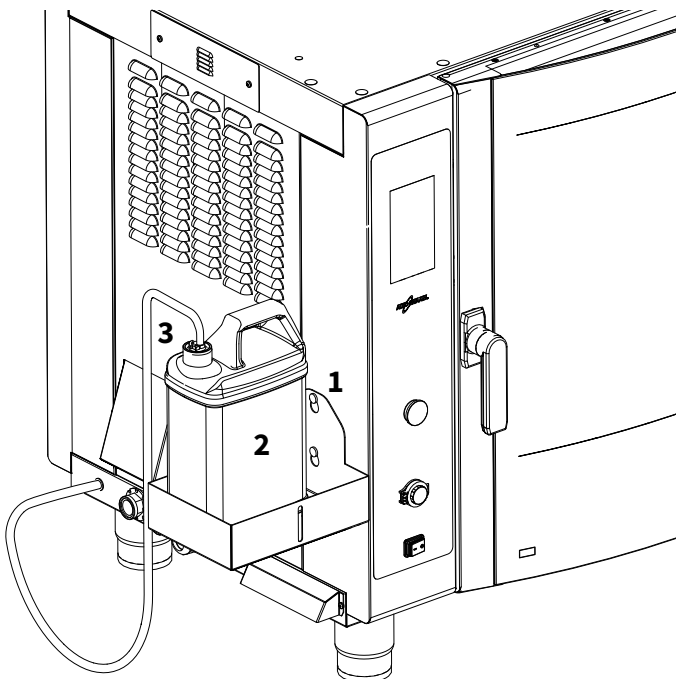
Always wear protective eye wear, rubber gloves, and a respiratory mask when handling oven cleaner to prevent eye, skin, and respiratory tract irritation.



See Safety Data Sheet for additional information.

**! WARNING**

Do not operate this appliance in a cleaning mode without the liquid cleaner connected, with a kink in the cleaning tubing assembly, or with an empty liquid cleaner container. Failure to do so may result in poor oven cleaning, grease and/or carbon accumulating inside the oven cavity and increased risk of fire.

**! WARNING**

To prevent **serious personal injury, death, or property damage:**

The appliance must be cleaned thoroughly to avoid deposits of grease and or food residue inside the appliance that may catch fire. If fat deposits and/or food waste inside the appliance ignite, shut down the appliance immediately and keep the appliance door closed to extinguish the fire. If further extinguishing is required, disconnect the appliance from the main power and call the fire department. Failure to clean the appliance properly voids the warranty and relieves Alto-Shaam of all liability.

How to Hook Up the Liquid Cleaning

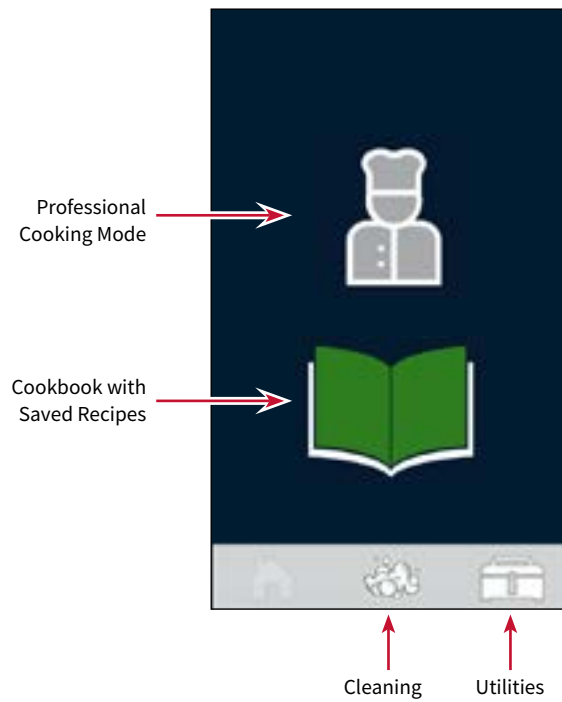
1. Mount the cleaner support tray on the left exterior wall of the oven. Slide the slotted openings on the cleaner support tray (1) over the mounting studs.

The cleaner support tray holds a 2-1/2-gallon (9,5 liter) bottle. The cleaner support tray measures 10-1/2" x 7-3/4" (267mm x 194mm).

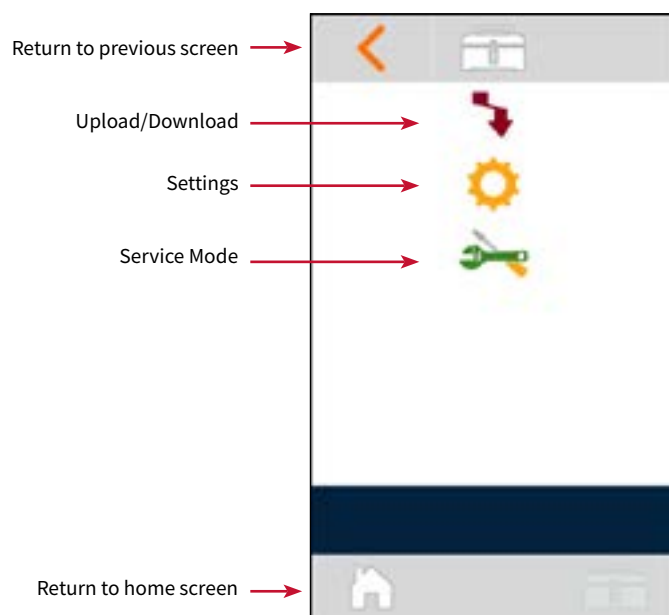
2. Place the liquid cleaner bottle (2) inside the support tray.
3. Wear protective rubber gloves, eye wear and a respiratory mask when removing the cap from the liquid cleaner bottle.
4. Pull the cleaner cap and tubing assembly (3) from the rear of the oven and screw the cleaner cap onto the liquid cleaner bottle.
5. Position the cleaner cap so that the tubing assembly is not kinked after the cleaner cap is tightened.
6. The liquid cleaner is automatically pumped through the system during each cleaning cycle.

Control Panel Identification

Home Screen

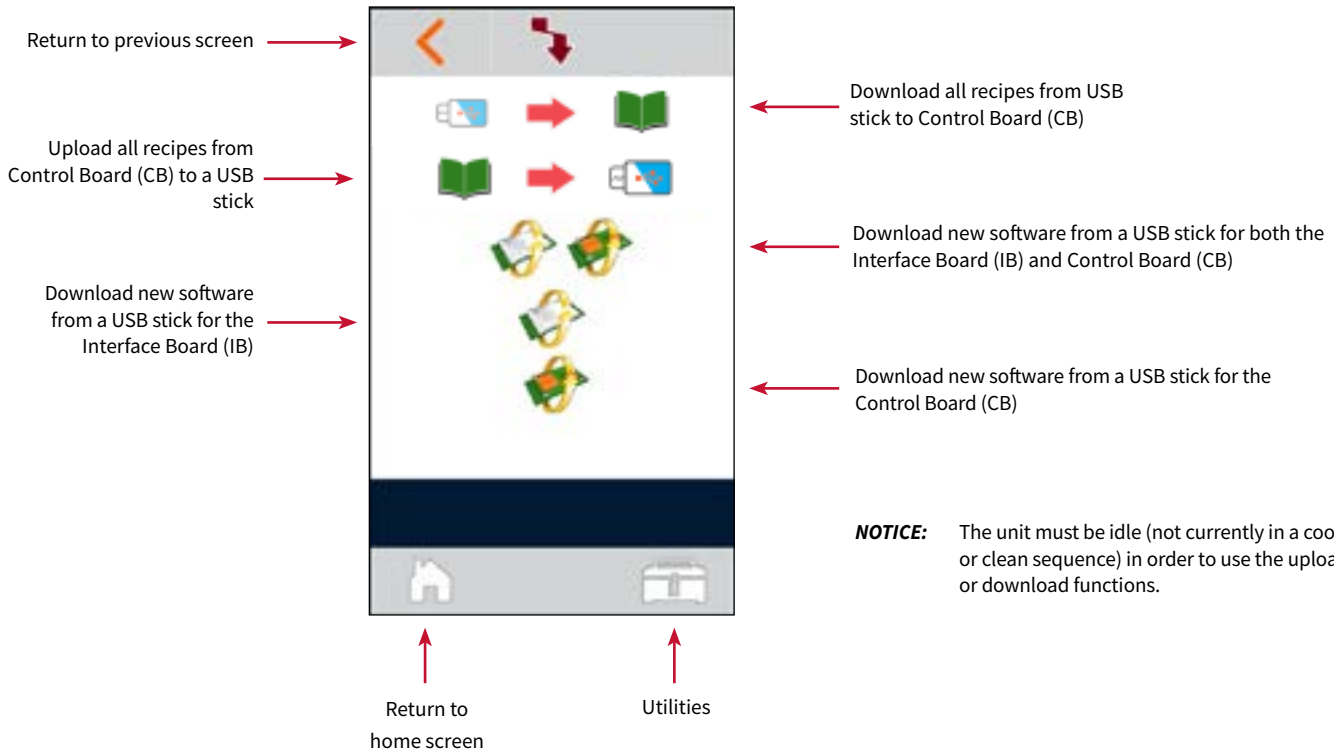


Utility Screen





Uploading and Downloading

Upload/Download Screen





NOTICE: The unit must be idle (not currently in a cook or clean sequence) in order to use the upload or download functions.

How to update software

-  Touch the utilities icon.
-  Touch the upload/download icon.

Insert the usb stick into the usb port on the oven.



-  Touch the download new software icon for the full oven update, control board, or interface board.
- The screen indicates when the update is complete.

-  Touch the left arrow button to exit the upload screen.


Remove the usb stick from the usb port.

NOTICE: After the software update has been completed, the oven may automatically initiate a shut down and reboot sequence if required.

How to upload or download recipes

-  Touch the utilities icon.
-  Touch the upload/download icon.

Insert the usb stick into the usb port on the oven.

-  Touch the upload recipes or download recipes icon.

The icon display reverses until the transfer is complete.

Notice: Downloaded recipes will overwrite existing recipes.

Remove the usb stick from the usb port.




Control Panel Identification

Settings Screen 1



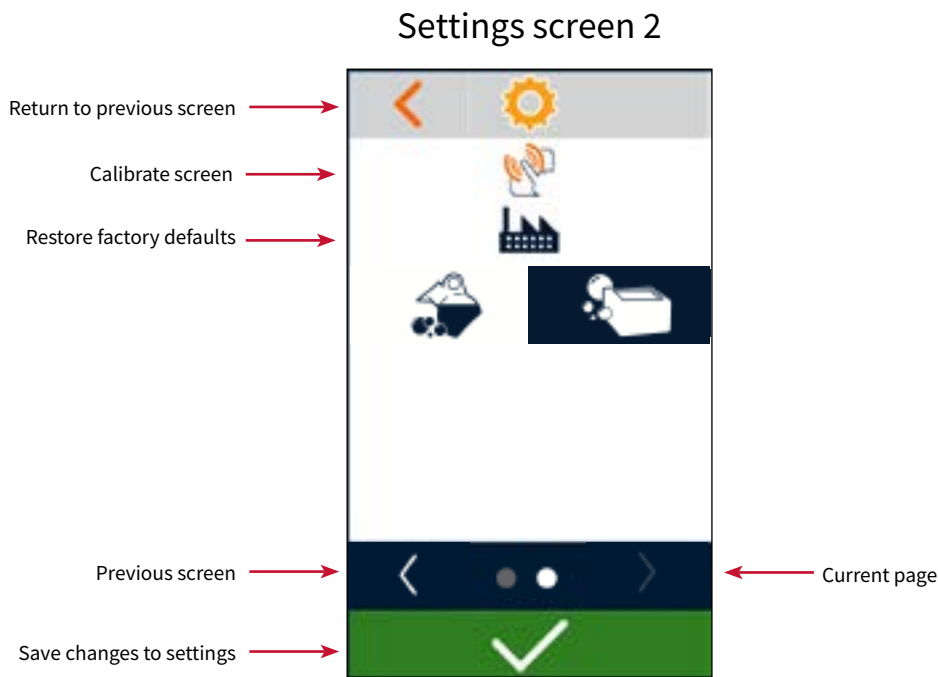
NOTICE: When a setting has been selected, the graphic will be vibrant in color while the alternate choice will appear faded and gray. In the illustration above, Fahrenheit, beeper on, sort recipes alphabetically, and holding beeper off have been chosen.

How to set the desired browning level




-  Touch the browning level icon.
-  Touch the desired browning number 1-6 or X for no browning.
-  Touch the check mark icon.



Control Panel Identification






How to calibrate the screen

-  Touch the calibrate screen icon. A question mark will appear on the screen.
-  Touch the check mark icon.
-  Touch the plus sign icon as it appears in each corner of the screen.



When all four corners have been acknowledged, the Start-Up screen will appear briefly, then the display will return to the Home screen.

How to select the cleaning method

-  Touch to clean using tablet cleaner.
- or
-  Touch to clean using liquid cleaner.
-  Touch the check mark icon.

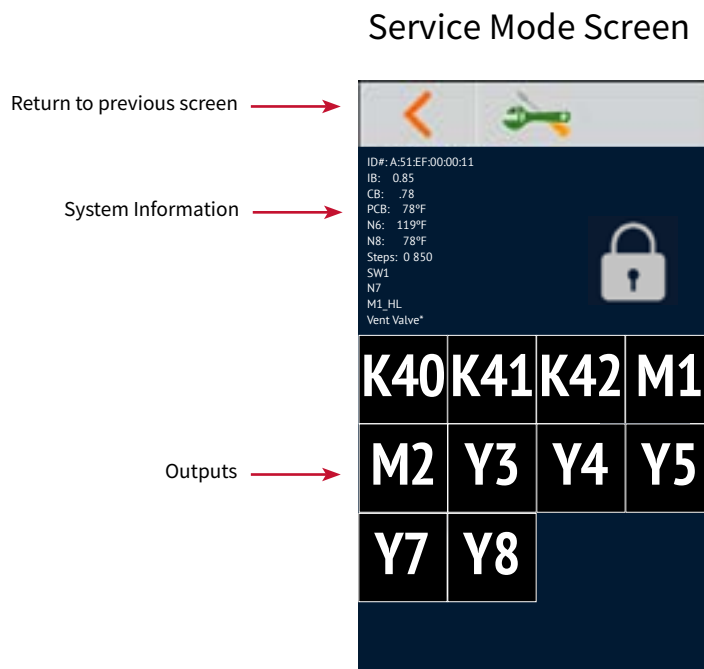
How to restore factory defaults

NOTICE: All saved recipes will be deleted.

-  Touch the restore factory defaults icon. A question mark will appear on the screen.
-  Touch the check mark icon.

The screen will go blank for a moment. The Start-Up screen will appear briefly, then the display will return to the Home screen.

Control Panel Identification



System Information

The Service Mode screen displays the following system information:

ID#: The serial number of the board combination.

IB: The software version number of the interface board.

CB: The software version number of the control board.

Active Recipe: The recipe currently running.

PCB: The temperature of the control board (Printed Circuit Board).

N6: The temperature reading at the N6 cavity temperature probe.

N7: The temperature reading at the N8 water heater temperature probe.

SW1: The state of switch 1. An asterisk (*) indicates that the door is open.

N7: The state of the safety switch. An asterisk (*) indicates that the switch is open.

M1_HL: The state of the motor 1 high limit safety switch. An asterisk (*) indicates that the switch is open.

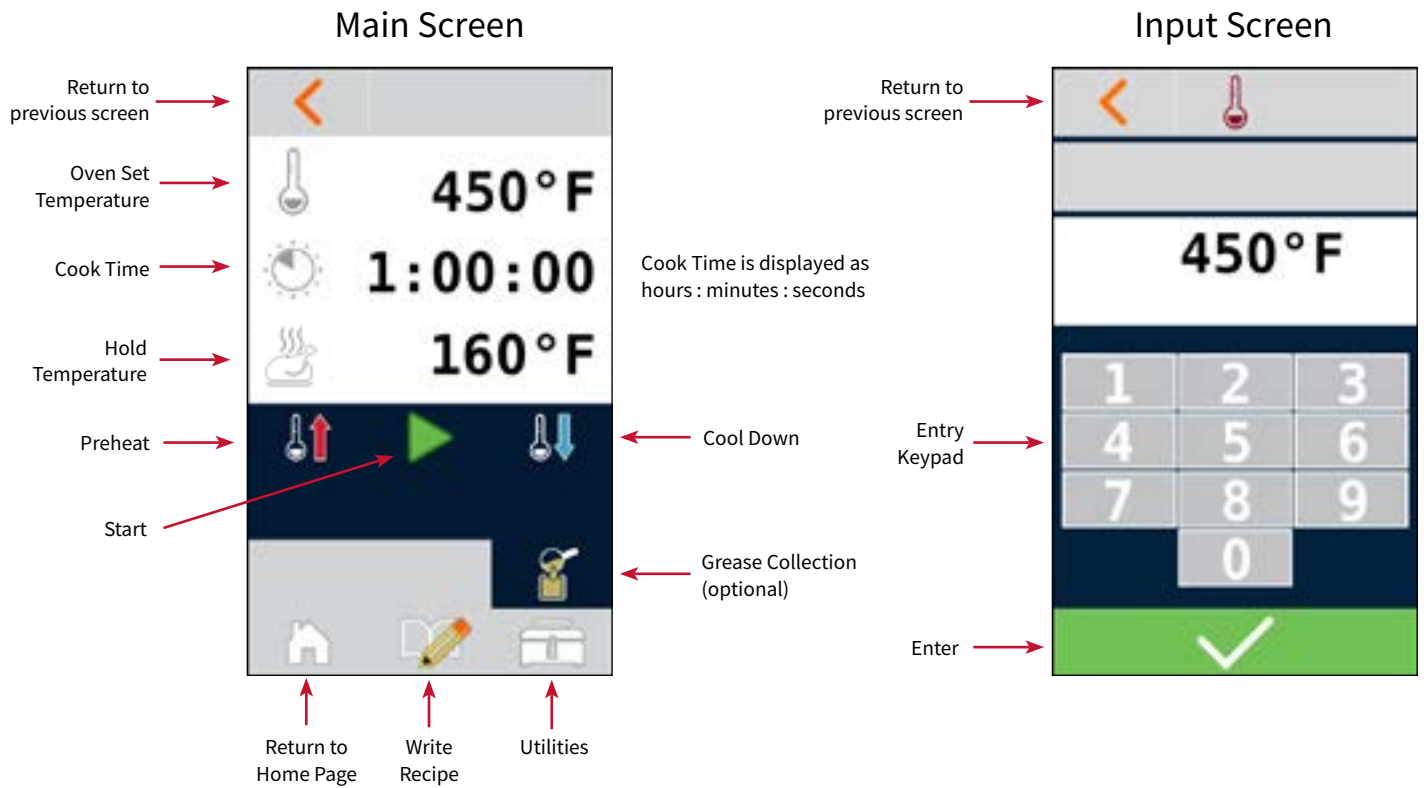
Vent Valve: The state of the browning vent valve. An asterisk (*) indicates that the switch is open.

Outputs

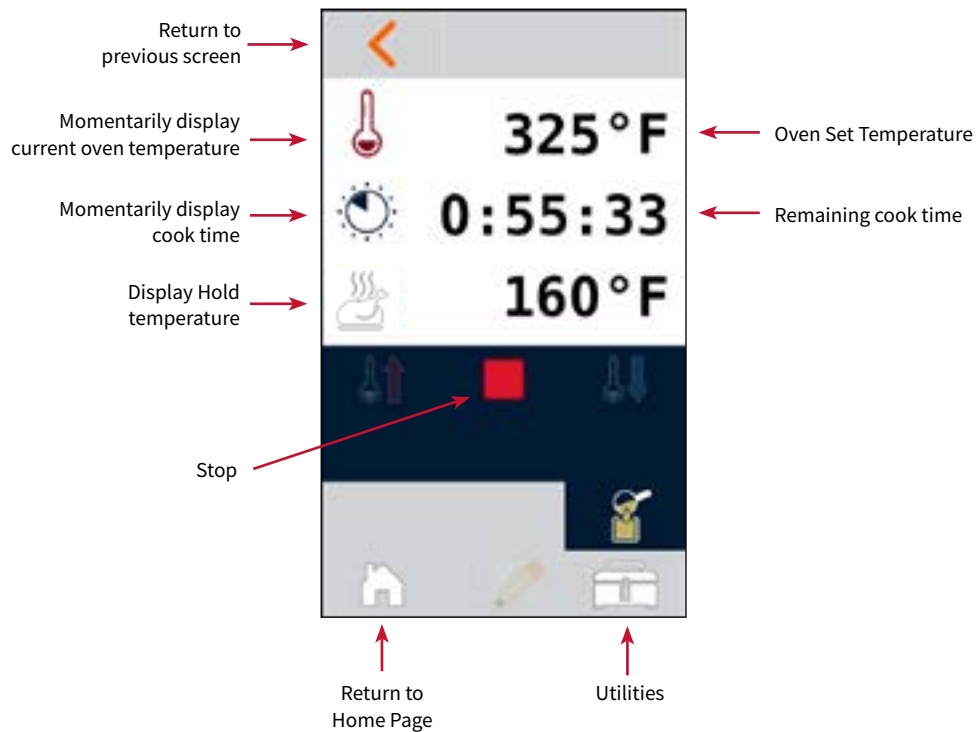
NOTICE: Must be done by qualified personnel only.

Each of the squares is an output that is available on the board for service personnel to test to ensure unit operation.

Professional Cooking Mode Identification



Cooking In Progress



Auxiliary Functions and Features

Preheat Feature

The oven must be preheated before all cooking functions. When cooking full loads, use a temperature 50°F (28°C) greater than the cook temperature in order to recover from heat loss when the door is opened to add food to the oven. The maximum setting is 475°F (246°C).

Once a preheat is initiated, the oven will beep when the preheat is complete. You can then set the cooking sequence.

Close the oven door.



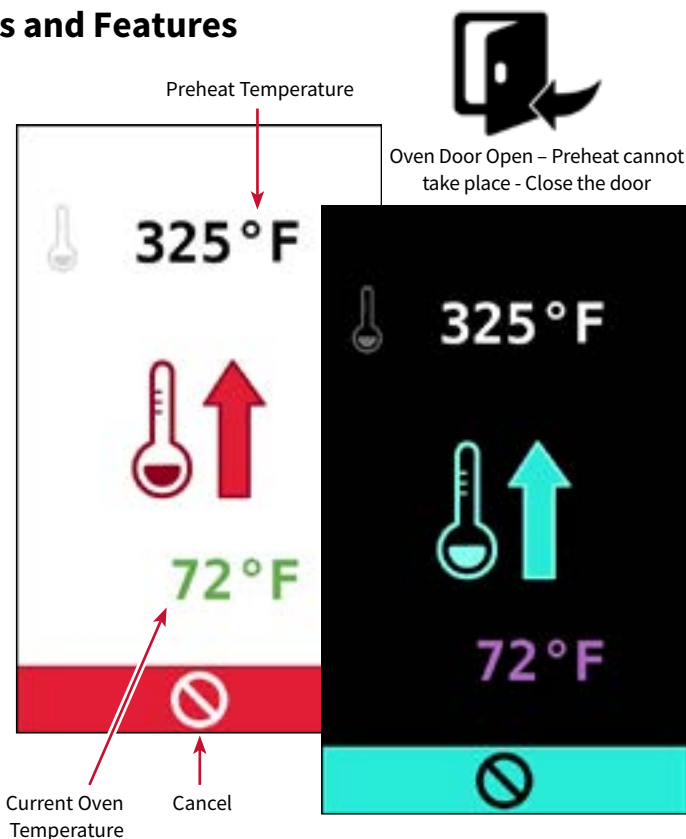
Touch the preheat icon.

Type in the desired temperature in the input screen.



Touch the check mark icon to start the preheat.

NOTICE: If the oven door is open, the screen will display in reverse. The preheat will not begin until the oven door is closed.



Cool Down Feature

The cool-down feature provides the operator with the ability to lower the temperature of the oven compartment at an accelerated pace. This function is useful when it is necessary to immediately change from a high temperature cooking function to a lower temperature function. This function is also useful to help cool the oven compartment in preparation for cleaning. The minimum setting is 85°F (29°C).

TIP: Always allow the oven walls to cool to a minimum of 140°F (60°C) before spraying the compartment with oven cleaner.

Open the oven door.



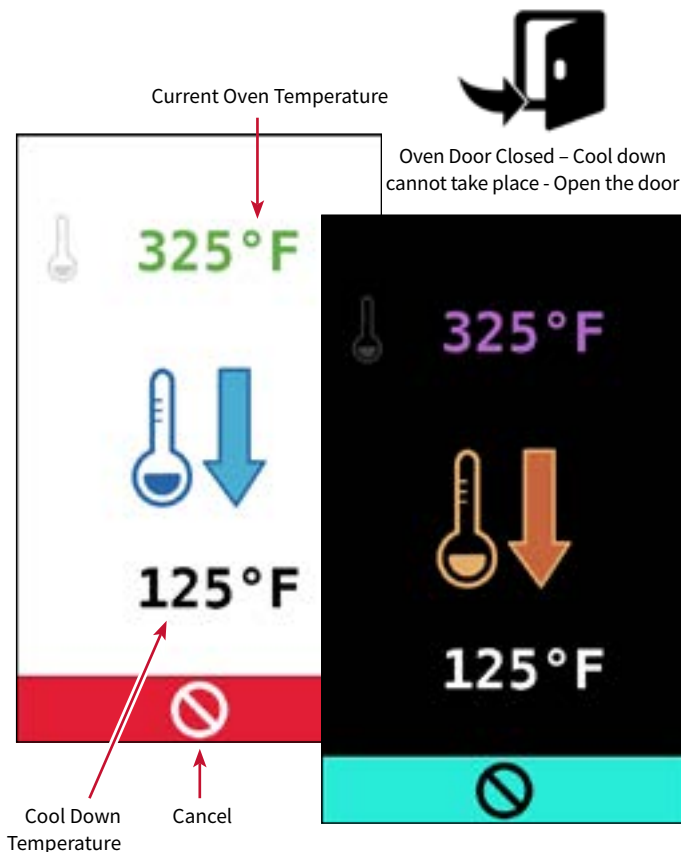
Touch the cool down icon.

Type in the desired temperature in the input screen.



Touch the check mark icon to begin the cool down.

NOTICE: If the oven door is closed, the screen will display in reverse. The cool down will not begin until the oven door is opened.



Professional Mode Cooking



Touch the professional cooking mode icon.



Preheat the oven:

Touch the preheat icon.

Type in the desired temperature in the input screen.



Touch the check mark icon to start the preheat.

Allow the preheat to finish and return to the professional mode screen.

To Cook:



Touch the temperature displayed next to the oven temperature icon.

Type in the desired temperature in the input screen.



Touch the check mark icon to confirm the change.



Touch the time displayed next to the cook time icon.

Type in the desired cook time in the input screen.



Touch the check mark icon to confirm the change.



Touch the hold temperature displayed next to the hold temperature icon.

Type in the desired hold temperature in the input screen.



Touch the check mark icon to confirm the change.



On ovens equipped with the optional grease collection, the grease collection icon will default to being highlighted.



Touch the start icon to begin cooking.

The set temperature will appear next to the oven temperature icon during operation. To view the current oven temperature, touch the oven temperature icon. The current temperature will display in green for five (5) seconds.

The remaining time will appear next to the cook time icon during operation. To view the set cook time, touch the cook time icon. The set time will display in green for five (5) seconds.

When the cooking time has expired, an alarm will sound, indicating the end of the operating mode.



To stop the buzzer, touch the red stop icon or open the oven door.



To stop the cooking program at any time, touch the red stop icon.

CAUTION HOT

Use caution when opening the oven door when the cooking chamber is hot to avoid possible burns.

Recipe Programming

Main Screen

Return to previous screen →

Oven Temperature → 325 °F

Cook Time → 0:55:33
Cook Time is displayed as hours : minutes : seconds

Hold Temperature → 160 °F

Preheat →

Save →

Mult-Stage Recipe →

Grease Collection →

Return to Home Page →

Return to Cook Mode →

Utilities →

Input Screen

Return to previous screen →

450 °F

Entry Keypad →

Enter →

Save Recipe

Return to previous screen →

Recipe name → CHICKEN

Keypad →

Enter →

Recipe Programming



Touch the professional cooking mode icon.



Touch the write recipe icon.



NOTE: When the number of recipes has reached the maximum, the write recipe icon will be grayed out. An existing recipe must be deleted to program a new recipe.

To add a preheat step:



Touch the preheat icon.

Type in the desired temperature in the input screen.



Touch the check mark icon to confirm the change.

The preheat icon reverses to indicate the preheat step has been added to the recipe.



NOTE: A preheat step can be added to a recipe. A cool down step can not be added to a recipe. The cool down icon does not appear in the write recipe screen.

To add the recipe settings:



Touch the temperature display next to the oven temperature icon.

Type in the desired temperature in the input screen.



Touch the check mark icon to confirm the change.



Touch the time displayed next to the cook time icon.

Type in the desired cook time in the input screen.



Touch the check mark icon to confirm the change.



Touch the hold temperature displayed next to the hold temperature icon.

Type in the desired hold temperature in the input screen.



Touch the check mark icon to confirm the change.



On ovens equipped with the grease collection, the grease collection icon will default to being highlighted.



To save the recipe:

Touch the save icon.

Type in the recipe name in the input screen.



Touch the check mark icon to save the recipe.

The display returns to the recipe screen and displays the recipe saved.

NOTE: Once a recipe is saved, it cannot be edited. It must be deleted and a new recipe programmed.



To delete a saved recipe:

From the Home screen, touch the Cookbook icon.



Touch Delete Recipe icon

Select desired recipe to delete



Touch the Delete icon.



Touch the Save icon.

To program a multi-stage recipe:

This allows two different times and temperatures to be set in one recipe.



Touch multi-stage cook icon.

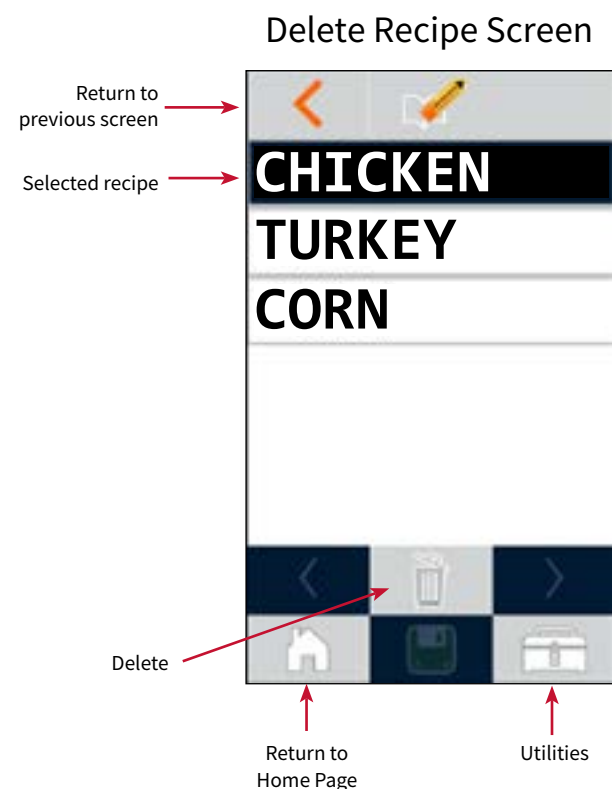
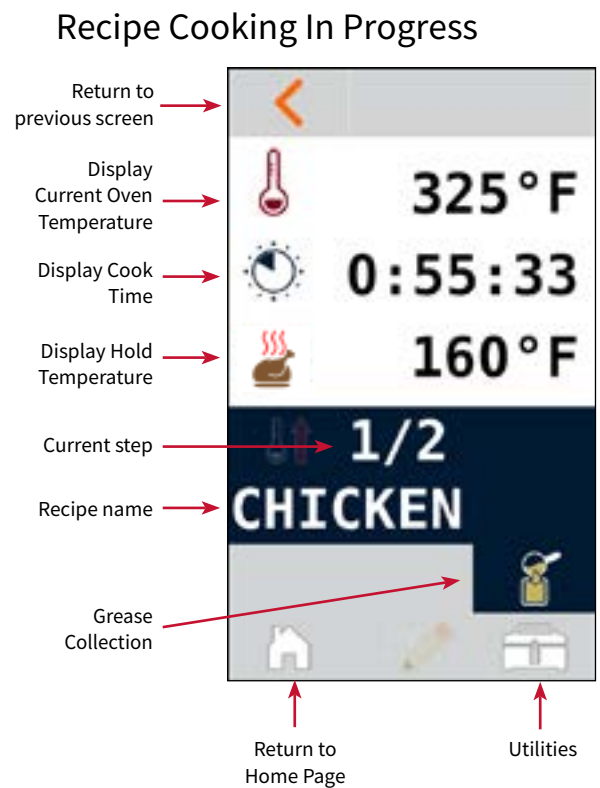
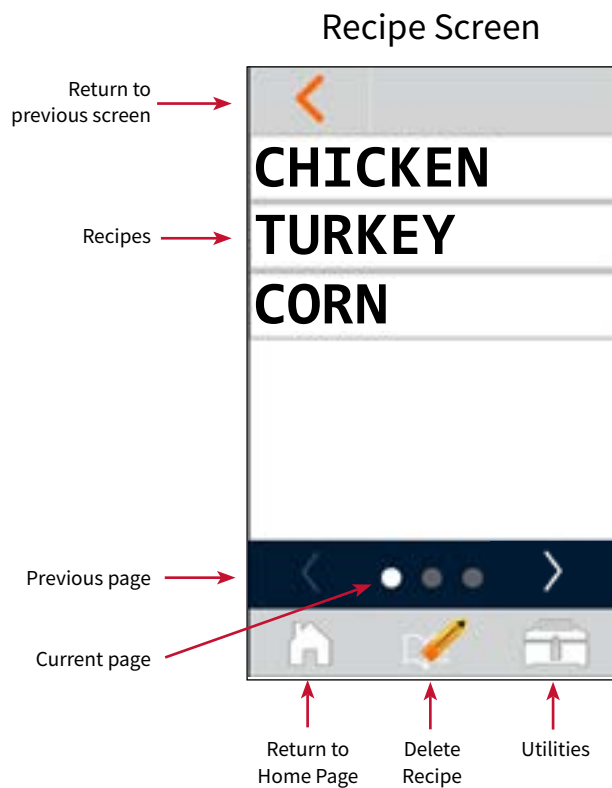
Select a stage.

Set time and temperature for each stage.



Touch the Save icon, or touch the Cancel icon to return to single stage recipe settings.

Using Programmed Recipes



How to cook with a recipe

Note: Ensure the oven preheat temperature has been reached before loading food into the oven.



Touch the Cookbook icon.

Locate recipe by scrolling through pages using previous page and next page keys.

Touch the recipe listing.

Oven will begin to operate automatically.



To stop cooking program at any time, touch the return to previous screen icon.

How to delete a saved recipe



Touch the Delete Recipe icon.

Touch the recipe listing to select it.



Touch the Delete icon.



Touch the Save icon.

The recipe will be removed.

How to load spits

Standard Spits

Each of the seven rotisserie spits includes two welded prongs on the square end and one welded, ridged prong on the tapered end. Insert the two-prong, square end into the two holes indicated on the disk assembly drive wheel in the drawing. Insert the tapered, ridged-prong end into the top hole indicated on the opposite side and maneuver until the ridge catches in the hole. After placing one spit into the oven, rotate the rotisserie using the jog button to load every other position. Continue loading the spits one at a time. This is done to maintain balance within the rotisserie.

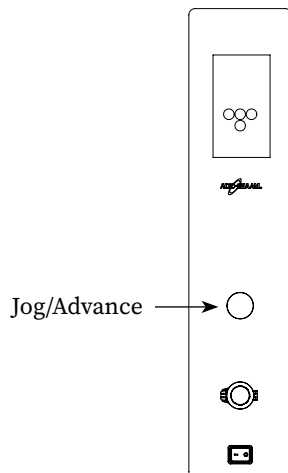
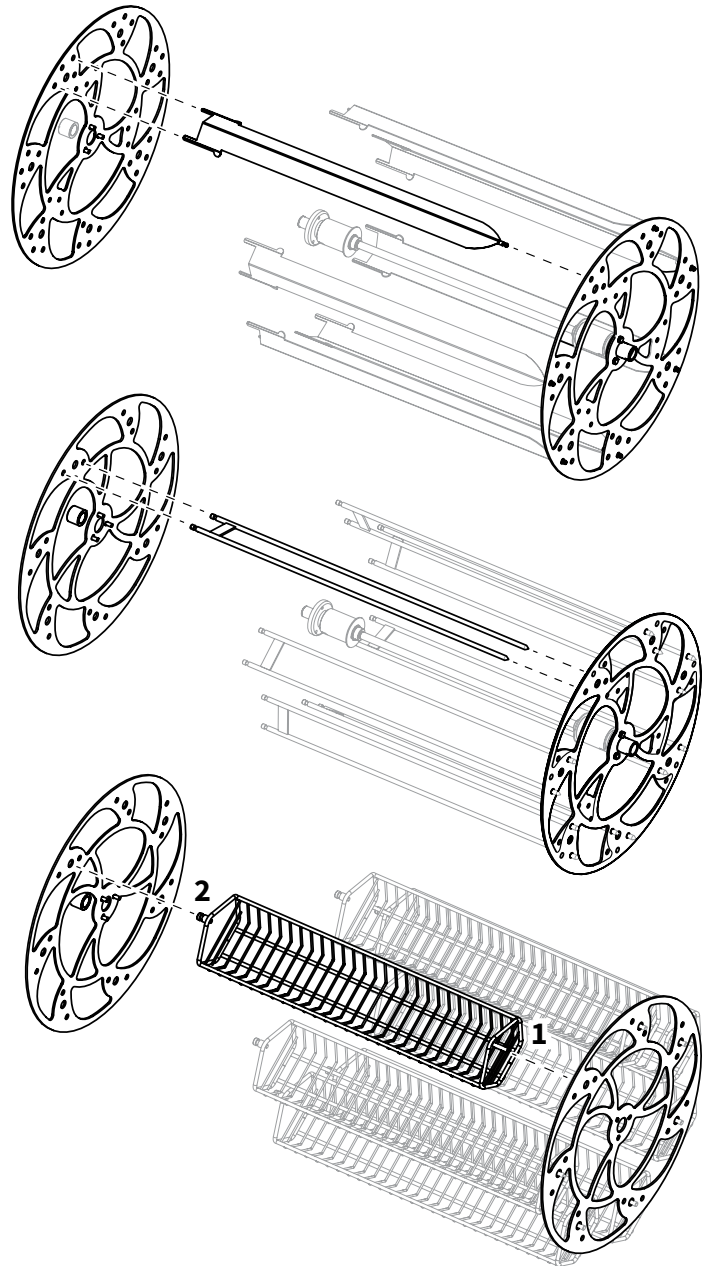
Optional Spits and Baskets

When optional spits are used, insert the spits in the drive wheel as indicated in the illustration.

When inserting the basket, put the smooth pin (1) end in first. When removing the basket, the machined pin (2) comes out first.

NOTE: When using a partial quantity of standard or optional spits, space the spits evenly as possible around the drive wheel to maintain balance and even rotation.

A combination of standard, piercing, and basket spits can be used at the same time but **NOT** in every spit insertion position. The use of a spit in every position will interfere with the free rotation of the baskets. Using a combination of spits can only be accomplished at significantly reduced rotisserie capacity.



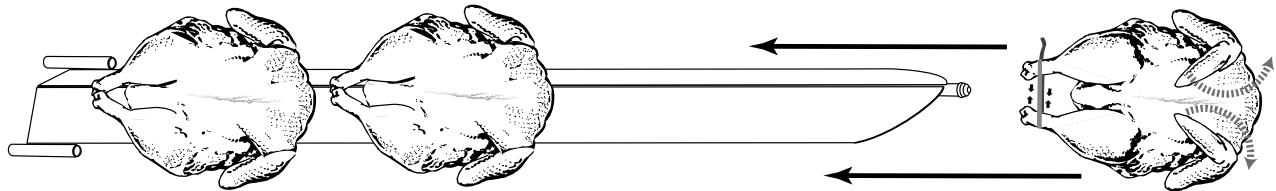
Operation

Angled V-spit (standard) SI-25934

Insert whole chickens with the legs facing the square end of the spit.

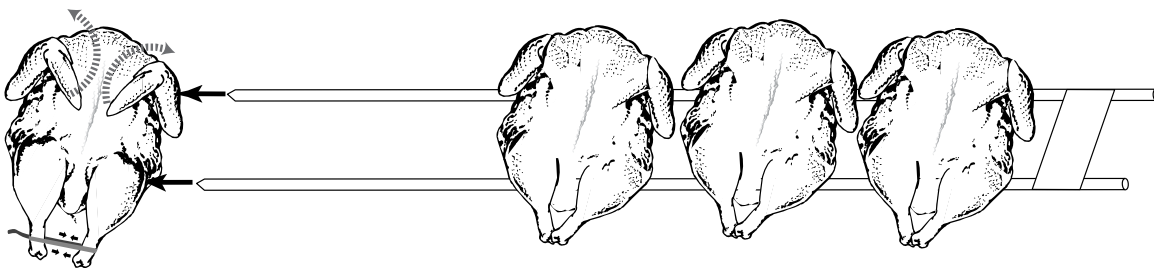
Load three (3) 3-1/2 lb (1,6 kg) chickens per spit for a maximum capacity of 21 whole chickens or load four (4) 2-1/2 lb (1,1 kg) chickens for a maximum capacity of 28 whole chickens.

NOTE: When loading less than maximum capacity, chickens must be staggered evenly on the spits.



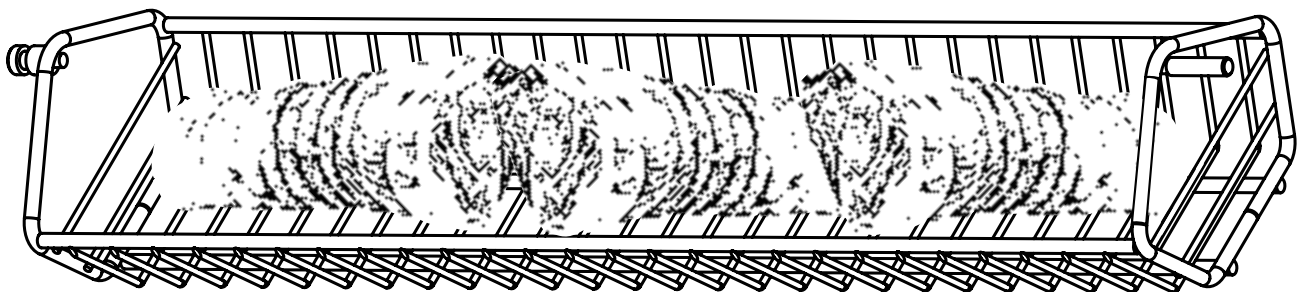
Piercing spit (option) SI-25729

The optional piercing spit holds a maximum of four (4) 2-1/2 lb (1,1 kg) to 3-1/2 lb (1,6 kg) whole chickens per spit.



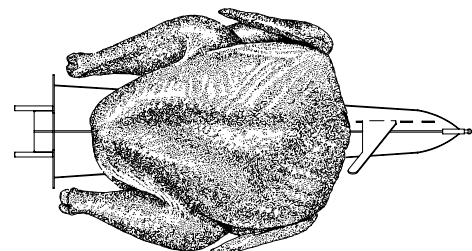
Basket spit (option) BS-26019

Basket spits are used for irregular size food products, denser food items, or heavier food products that need more support than the piercing spits provide.



Turkey spit (option) 5011681

Insert the whole turkey with the legs facing the stop plate of the spit and slide in stopping tab to keep the turkey in position. Load one (1) turkey per spit with a maximum weight of 25 lb (11,4 kg). Use one (1) to three (3) turkey spits per oven for a maximum capacity of three (3) whole turkeys.



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, the 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.

When product is removed from a high temperature cooking environment for immediate transfer into equipment with the lower temperature required for hot food holding, condensation can form on the outside of the product and on the inside of plastic containers used in self-service applications. Allow the product to release the initial steam and heat produced by high temperature cooking to alleviate this condition. To preserve the safety and quality of freshly cooked foods, a maximum of 1 to 2 minutes must be the only time period allowed for the initial heat to be released from the product.

Holding Temperature Range		
Meat	Fahrenheit	Celsius
Beef Roast — Rare	130°F	54°C
Beef Roast — Med/Well Done	155°F	68°C
Beef Brisket	160°F-175°F	71°C-79°C
Corn Beef	160°F-175°F	71°C-79°C
Pastrami	160°F-175°F	71°C-79°C
Prime Rib — Rare	130°F	54°C
Steaks — Broiled/Fried	140°F-160°F	60°C-71°C
Ribs — Beef Or Pork	160°F	71°C
Veal	160°F-175°F	71°C-79°C
Ham	160°F-175°F	71°C-79°C
Pork	160°F-175°F	71°C-79°C
Lamb	160°F-175°F	71°C-79°C
Poultry		
Chicken — Fried/Baked	160°F-175°F	71°C-79°C
Duck	160°F-175°F	71°C-79°C
Turkey	160°F-175°F	71°C-79°C
General	160°F-175°F	71°C-79°C
Fish/Seafood		
Fish — Baked/Fried	160°F-175°F	71°C-79°C
Lobster	160°F-175°F	71°C-79°C
Shrimp — Fried	160°F-175°F	71°C-79°C
Baked Goods		
Breads/Rolls	120°F-140°F	49°C-60°C
Miscellaneous		
Casseroles	160°F-175°F	71°C-79°C
Dough — Proofing	80°F-100°F	27°C-38°C
Eggs — Fried	150°F-160°F	66°C-71°C
Frozen Entrees	160°F-175°F	71°C-79°C
Hors d'oeuvres	160°F-180°F	71°C-82°C
Pasta	160°F-180°F	71°C-82°C
Pizza	160°F-180°F	71°C-82°C
Potatoes	180°F	82°C
Plated Meals	140°F-165°F	60°C-74°C
Sauces	140°F-200°F	60°C-93°C
Soup	140°F-200°F	60°C-93°C
Vegetables	160°F-175°F	71°C-79°C
The holding temperatures listed are suggested guidelines only. All food holding should be based on internal product temperatures. Always follow local health (hygiene) regulations for all internal temperature requirements.		

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, operating efficiency, and appearance of equipment contribute considerably to savory, appetizing foods.

Most food imparts its own particular aroma and many foods also absorb existing odors. Unfortunately, during this absorption there is not a 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 undesirable flavors are usually the result of germ activity.

The easiest way to ensure 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 ensure 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 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 food temperatures from the time the food is received through the time the food is served.

A controlled holding environment for prepared foods is just one of the important factors involved in the prevention of food-borne illnesses. Temperature monitoring and control during receiving, storage, preparation, and the service of foods are of equal importance.

The most accurate method of measuring safe temperatures of both hot and cold foods is by internal product temperature. A thermometer is an effective tool for this purpose, and should be routinely used on all products that require holding at a specific temperature.

Internal Food Product Temperatures		
Hot Foods		
Danger Zone	40°F to 140°F	4°C to 60°C
Critical Zone	70°F to 120°F	21°C to 49°C
Safe Zone	140°F to 165°F	60°C 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°F to 32°F	-18°C to 0°C
Safe Zone	0°F or Below	-18°C or Below

Hazard Analysis (at) Critical Control Points (HACCP), is a quality control program of operating procedures to assure food integrity, quality, and safety. Taking steps necessary to augment food safety practices is both cost effective and relatively simple. Additional HACCP information is available by contacting:

Center for Food Safety and Applied Nutrition
 Food and Drug Administration
 Phone: 1-888-SAFEFOOD
www.foodsafety.gov

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 per 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. Failure to observe this precaution will void the warranty. Always use the proper cleaning agent at the manufacturer's recommended strength. Contact your local cleaning supplier for product recommendations.

Cleaning Materials

Cleaning can usually be accomplished with the proper cleaning agent and a soft, clean cloth. When more aggressive methods are needed, 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. Failure to observe this precaution will void the warranty.

NOTICE



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.


! WARNING






To prevent **serious personal injury, death, or property damage:**

The appliance must be cleaned thoroughly to avoid deposits of grease and or food residue inside the appliance that may catch fire. If fat deposits and/or food waste inside the appliance ignite, shut down the appliance immediately and keep the appliance door closed to extinguish the fire. If further extinguishing is required, disconnect the appliance from the main power and call the fire department. Failure to clean the appliance properly voids the warranty and relieves Alto-Shaam of all liability.

CombiClean® Cleaning Agents

**WARNING**

Always wear protective eye wear, rubber gloves, and a respiratory mask when handling liquid oven cleaner to prevent eye, skin, and respiratory tract irritation.

See Safety Data Sheet for additional information.

Warning

May be harmful if swallowed.

May be harmful in contact with skin. Always wear rubber gloves when handling.

Causes severe skin burns and eye damage.

Tablet will begin to dissolve onto skin if handled with damp or wet hands.

May cause respiratory irritation.

May cause drowsiness or dizziness.

Harmful to aquatic life with long lasting effects.

Do not mix with anything but water.

Do not breathe dust/fumes/gas/mist/vapors/spray.

Wash face, hands and any exposed skin thoroughly after handling.

Wear protective gloves, protective clothing, eye protection, and face protection.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Store in a locked and a well ventilated place.

Keep container tightly closed.

Dispose of the contents or the container in an approved waste disposal plant.

First Aid

Immediately call a **poison center** or doctor/physician. Specific treatment (See section 4 on the SDS).

If in eyes: Rinse the eyes cautiously with water for several minutes. Remove contact lenses, if contact lenses are present and easy to remove. Continue rinsing the eyes. Immediately call a **poison center** or doctor/physician.

If on skin (or hair): Immediately remove or take off all contaminated clothing. Rinse the skin with water or shower. Wash the contaminated clothing before reuse.

If inhaled: Move the victim to a fresh air area and keep the victim resting in a position that is comfortable for breathing. Immediately call a **poison center** or doctor/physician if the victim feels unwell.

If swallowed: Rinse the victims mouth. **Do not** induce vomiting. Drink 2-3 glasses of water or milk. Immediately call a **poison center** or doctor/physician.



WARNING



Burn Hazard.

Hot water mixed with cleaning chemicals may cause burns.

Do not open the oven door during the wash or rinse cycle.

Cleaning preparation

The oven must be below 140°F (60°C) before cleaning. If the oven is too hot to proceed, the “Open Door” screen will appear. Open the oven door. The cool down screen will appear. Allow oven to cool below 140°F (60°C). When the oven is finished cooling, press the cancel icon on the cool down screen to return to the Home screen. Begin the cleaning process again.

Remove food debris, solid wastes, poultry skin and bones from the drain screen and oven interior to prevent blockage and possible damage to internal plumbing components.

The spits and disk drive wheels may remain inside of the oven during cleaning.






Be sure the water is turned on and enough liquid cleaner or CombiTabs™ are available for the wash cycle.

Only use Alto-Shaam liquid cleaning solution (CE-36457), or CombiClean® CombiTabs™ tablets (CE-36354) to clean the rotisserie.

NOTICE: If a power outage occurs during the cleaning cycle, the oven will begin an eighteen (18) minute forced-rinse cycle.

How to run a rinse cycle






Rinse cycle duration: 00:30:00

1.  Touch the cleaning icon on the home screen.
2.  Touch the Rinse icon
3.  Touch the check mark icon to begin the rinse cycle.
4.  Oven beeps when the rinse cycle is complete.
5.  Touch the check mark icon to return to the home screen.

How to run a wash cycle using liquid cleaner

Wash cycle duration: 3:55:43

Only use Alto-Shaam liquid cleaning solution (CE-36457) to clean the rotisserie.

1.  Touch the cleaning icon on the home screen.
2.  Touch the Wash icon
3.  Touch the check mark icon to begin the wash cycle.
4.  Oven beeps when the cleaning cycle is complete.
5.  Touch the check mark icon to return to the home screen.






How to run a wash cycle using tablets

Wash cycle duration: 4:21:00

Only use Alto-Shaam CombiClean® 18 gram CombiTabs™ (CE-36354) to clean the rotisserie.

1. Use rubber gloves to remove the tablets from the packaging. Tear open or cut open the plastic wrap surrounding the cleaning tablets. Discard the packaging.
2. Insert six (6) CombiClean® CombiTabs™ directly into the oven cavity drain.

NOTICE: Do not place cleaning tablets on top of the drain or on the bottom of the rotisserie. The tablets will not dissolve properly and will cause the oven interior to deteriorate.

3. Close the drain screen before starting the cleaning cycle.
4.  Touch the cleaning icon on the home screen.
5.  Touch the Wash icon
6.  Touch the check mark icon to begin the wash cycle.
7.  Oven beeps when the cleaning cycle is complete.
8.  Touch the check mark icon to return to the home screen.

How to descale the oven

NOTICE: Alto-Shaam ScaleFree Descaling Powder (CE-27889) must be used to descale the oven.

Read and follow all safety precautions on the descaling powder container.

1. Run a full wash cycle before descaling the oven. See section titled "How to run a wash cycle" in this manual.
2. Open the oven door.
3. Slide open the oven cavity drain screen.
4. Place 7 oz. of Alto-Shaam ScaleFree Descaling Powder into the oven cavity drain.
5. Close the drain screen.
6. Close the oven door.
7. Run a rinse cycle. See section titled "How to run a rinse cycle" in this manual.
8. When the rinse cycle is complete, run a second wash cycle.

How to clean the door gasket

Cleaning the door gasket on a daily basis prolongs the life of the door gasket. The acids and related compounds found in fat, particularly chicken fat, weakens the composition of the gasket.

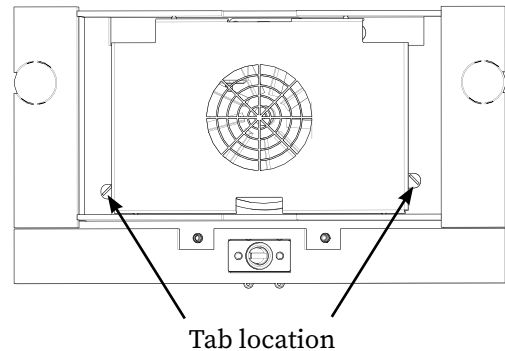
1. Allow the oven to cool.
2. Wipe the gasket with hot, soapy water.
3. Rinse the gasket surfaces by wiping with sponge and clean warm water.
4. Leave the oven door slightly open at the end of the production day to relieve the pressure on the door gasket.

How to clean the door glass

Clean the oven glass with glass cleaner or distilled vinegar.

How to clean the rotisserie convection fan box

1. Push ON/OFF power switch to OFF or disconnect oven from power source.
2. Remove the drive tube assembly and disk drive.
3. Using a flathead screwdriver, flip the tabs on the fan panel to the open position.
4. Remove the fan guard cover plate.
5. Spray Combitherm™ Cleaning Liquid inside of the fan convection box. Allow the cleaner to soften the grease for 10 minutes.
6. Use a plastic scouring pad to scrub any hard deposits.
7. Use a damp sponge and a plastic scouring pad to remove any grease deposits accumulated in the area surrounding the convection element and fan blade. Take care to avoid bending the element or the blade.
8. Reinstall the fan panel.
9. Run a wash cycle.



Preventative Maintenance Checklist

To be done by operator

Daily Cleaning	
Prior to automatic cleaning:	
	Cool oven to below 140°F.
	Wipe all standing grease and debris from the bottom of the oven. DO NOT wipe into the drain.
	Remove, empty, and wash the drip tray with hot soapy water.
	Wipe the glass and outside of the oven
	Wipe the door gasket
	Install wheels and spits back into the oven
Start automatic cleaning cycle:	
	Check the liquid cleaner container to ensure there is enough liquid cleaner available for the cleaning cycle.
	Touch the cleaning icon on the home screen.
	Select the desired wash cycle, and then touch the check mark to begin the cleaning cycle.
After automatic cleaning cycle is complete:	
	Remove debris from the drain screen.
	Check the grease level in the collection container. Empty or replace container if needed.
Weekly Cleaning	
	Inspect door gaskets for tears.
	Clean the outside of the oven with an approved stainless steel cleaner.
	Inspect grease collection hoses and containers for damage.
	Inspect liquid soap hose for kinks or cracks.
	Ensure all lights are working.
	Inspect the oven for any signs of grease or carbon build up.
	Inspect the oven for signs of scale build up.
Monthly Cleaning	
	Descal the oven using Alto-Shaam ScaleFree descaling powder.
	Inspect the drain piping for signs of leaks.

To be done by an authorized service provider

Annual inspection	
	Replace tubing from the drain box to the pumps.
	Replace chemical pump tube if applicable.
	Replace tubing from the pumps to the outlet fittings on the oven.
	Inspect drain piping for leaks.
	Replace water line from solenoid to drain box.
	Inspect the door gasket and replace if needed.
	Inspect the heating elements.
	Inspect the blower wheel.
Measure and Record the following incoming voltages (as applicable):	
	L1-L2
	L1-L3
	L2-L3
	L1-Ground
	L2-Ground
	L3-Ground
Measure and Record the amp readings for the following:	
	Convection motor
	Spit motor
	Heating Elements
	Grease pump
	Wash pump
	Drain pump
	Inspect the touch screen for damage.
	Inspect the drip tray for cracks.
	Tighten all electrical connections.
	Clean and inspect the cooling fans as required.
	Tighten door hinges.
	Inspect grease collection hose and valve.
	Inspect casters or legs, repair or replace if needed.
	Inspect power cord for cracks or wear, replace if needed.

Error Codes

Code	Description	Possible Cause
PROG	Fatal error, call service.	Programmer error.
EADC	ADC is out of range.	Microprocessor on the CB may be failing. May have cold solder joint on the CB.
E-BC	Bootloader Chip is bad. Software updates cannot be performed.	Chip may have cold solder joint or other electrical distress.
E-B0	PCB temperature sensor is short-circuited.	Board failure.
E-B1	PCB temperature sensor is open-circuit.	Board failure.
E-B2	PCB is over-temperature of 70°C.	Possible cooling fan failure in the control area. Possible runaway heater. Possible that we are too close to another piece of equipment or have inadequate ventilation.
E-I0	Short circuit inline water heater sensor.	Sensor wires damaged.
E-I1	Open circuit inline water heater sensor.	Sensor wires damaged.
E-I2	Water heater sensor over temperature	Sensor above 200°F (93.3°C)
E-SD	SD card is not detected.	SD card slot is bad. SD card is not present.
E-10	N6 cavity sensor is short-circuit.	Error at sensor input. Wrong RTD type (100Ω vs. 1000Ω). Check wiring. Board may be bad at sensor input.
E-11	N6 cavity sensor is open-circuit.	Error at sensor input. Wrong RTD type (100Ω vs. 1000Ω). Check wiring. Board may be bad at sensor input.
E-12	Water heater sensor over temperature	Sensor above 200°F (93.3°C)
E-41	Touch driver is detected, but not responding to queries.	Touch chip error on board.
E-43	Touch driver is missing.	Touch chip error on board.
E-44	Touch driver is detected, but not responding to queries.	Touch chip error on board.
E-53	Motor high-limit is open.	Motor is too hot, and high-limit is legitimately open. Wiring to motor is incorrect. Board issues reading motor high-limit input switch.
E-66	CB reset but IB did not.w	Electrical noise.
E-70	Personality wiring is incorrect, does not equate to a supported configuration.	Personality wiring is incorrect. Broken wire. Board issues reading personality jumpers. Old software with new configuration.
E-71	Control ID is not what is expected.	CB is programmed for a different software than what is intended.
	The CB and IB can talk, but are meant for different controls, a CB or IB update is required.	Example: Rotisserie is plugged into a Cook and Hold or QuickChiller control board.
E-80	Control settings have been reset to factory defaults because EEPROM checksum was incorrect.	Software has new features installed (post updated, this may be expected after the first restart and is normal). Continuous E-80 may be failing EEPROM.
E-83	EEPROM is not responding.	Failing EEPROM.
E-84	User options have been reset to factory defaults because user options EEPROM checksum was incorrect.	Software has new features installed (post updated, this may be expected after the first restart and is normal). Continuous E-84 may be failing EEPROM.
E-94	Communications has not occurred for 4 attempts.	Electrical noise. Communication cable not properly seated, not plugged in.
E-109	N7 or N9 high-limit is open.	Unit is too hot, and N7 is legitimately open. Water heater is too hot, and N9 is legitimately open Wiring to N7 or N9 is incorrect. Board issues reading N7 or N9 input switch.

Introduction	Alto-Shaam, Inc. warrants to the original purchaser only, that any original part found to be defective in material or workmanship will be replaced with a new or rebuilt part at Alto- Shaam's option, subject to provisions hereinafter stated.
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Warranty Period	<p>The original parts warranty period is as follows:</p> <ul style="list-style-type: none">• For all other original parts, one (1) year from the date of installation of appliance 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.• For the refrigeration compressor, if installed, the warranty period is five (5) years from the date of original installation of the appliance.• For heating elements on Halo Heat® Cook and Hold ovens, the warranty period is for as long as the original owner owns the oven. This warranty period applies to units sold after 2/1/2009 and excludes holding-only ovens.• To be valid, a warranty claim must be asserted during the applicable warranty period. This warranty is not transferable.
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Exclusions	<p>This warranty does not apply to:</p> <ul style="list-style-type: none">• Calibration.• Replacement of light bulbs, rubber gaskets, grease filters, air filters, racks, jet plates, and/ or the replacement of glass due to damage of any kind.• Equipment damage caused by accident, shipping, improper installation or alteration.• 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.• Equipment damage caused by use of any cleaning agents other than those recommended by Alto-Shaam, including but not limited to damage due to chlorine or other harmful chemicals.• Any losses or damage resulting from malfunction, including loss of food product, revenue, or consequential or incidental damages of any kind.• Equipment modified in any manner from original model, substitution of parts other than factory authorized parts, unauthorized removal of any parts including legs, or unauthorized addition of any parts.• Equipment damage incurred as a direct result of poor water quality*, inadequate maintenance of steam generators and/or surfaces affected by water. Water quality and required maintenance of steam generating equipment is the responsibility of the owner/ operator.• Equipment damage incurred as a result of not following the required maintenance schedule published in the manuals for the equipment.
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Conclusion	<p>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. 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.</p>
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**Refer to the product spec sheet for water quality standards.*



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