ALTO SHAAM®

COMBITHERM®

INSTALLATION AND MAINTENANCE

ELECTRIC ML SERIES

20•20 COMBINATION OVEN/STEAMER

W164 N9221 Water Street • P.O. Box 450 • Menomonee Falls, Wisconsin 53052-0450 • U.S.A.

PHONE: (262)251-3800 (800)558-8744 U.S.A./CANADA FAX: (262)251-7067 (800)329-8744 U.S.A. (262)251-1907 INTERNATIONAL

www.alto-shaam.com

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20•20ML ELECTRIC MARINE 05/03

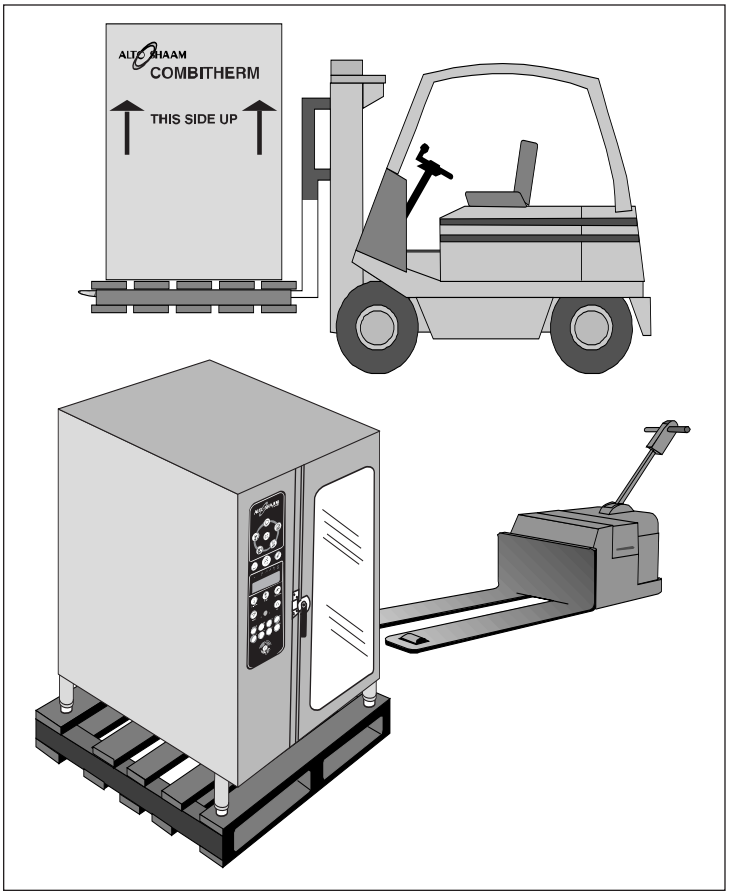
RECEIVING & TRANSPORTATION

Upon receipt of the Combitherm combination oven/steamer, check the exterior of the shipping carton for any physical damage that could result in damage to the contents. If the oven was not received from the carrier in an upright position, there is a stronger possibility of concealed damage. Remove the carton or uncrate the unit carefully and inspect for any transit damage. Immediately report any damage to the delivering freight carrier.

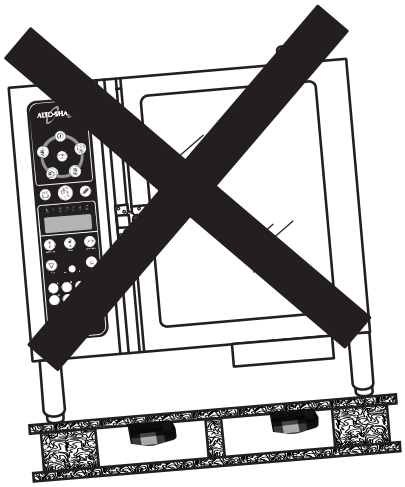
The oven must remain on the pallet while being moved to the installation site by fork lift or pallet lift truck.

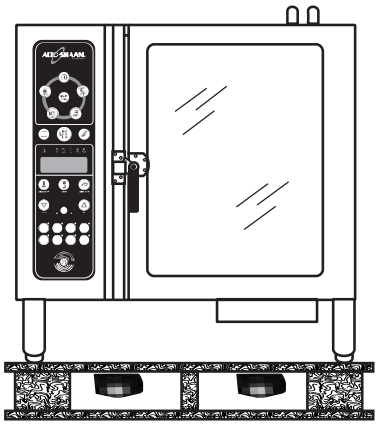
Note the dimensions required for doorways and aisles for access of the oven and pallet to the installation site. Transport the oven in an upright and level position only. ***Do not tilt the oven.***

With the oven on the original pallet, remove the carton and all packaging materials. Open the oven door and remove all documents and other materials from the oven interior. Remove the roll-in cart if so equipped.



PALLETIZED DIMENSIONS			
MODEL	WIDTH	DEPTH	HEIGHT W/PALLET
20•20	48-1/4" (1226mm)	50-1/2" (1283mm)	82-3/8" (2092mm)





COMBITHERM® INSTALLATION

BASIC INSTALLATION SITE REQUIREMENTS

HOOD INSTALLATION IS REQUIRED

- Installation surface must be level.
- Do not install adjacent to flammable surfaces.
- Deep fat fryers or similar heat producing equipment must not be installed in the immediate vicinity of the hand shower.

The oven must remain on the pallet while being moved to the installation site with fork lift or pallet lift truck.

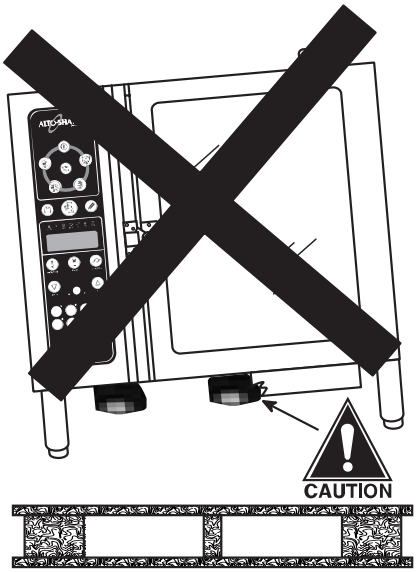
Do not tilt the oven.

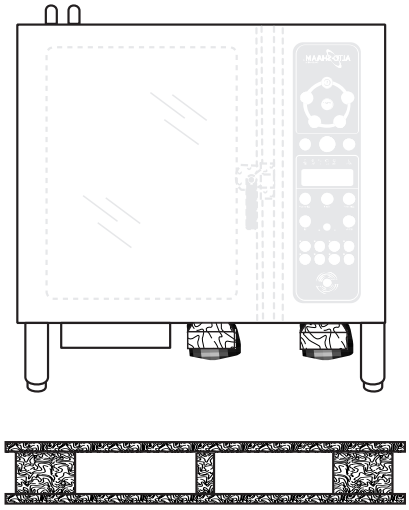
VENTILATION

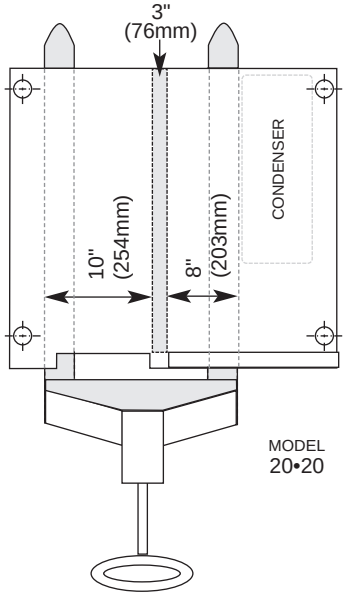
A steam ventilation hood is mandatory for the operation of the oven. The ventilation hood must be installed in accordance with local building codes for steam exhaust and must protrude 12-inches to 20-inches (300mm to 500mm) over the front side of the oven. A grease filter must be located in the protruding area of the hood. Grease filters should be thoroughly cleaned on a regular basis following manufacturer's instructions. Ventilation hoods must ensure an adequate amount of incoming air during operation and must be operated whenever the combination oven/steamer is used in order to avoid the accumulation of condensation in the hood area.

POSITIONING ON SITE

Lift the oven from the pallet with a fork lift or pallet lift truck positioned at the front of the oven. To avoid damage, position the lift forks to the left of the condenser as indicated in one of the two diagrams shown below. For additional damage protection, the use of two wooden boards, placed between the bottom of the oven and the lifting forks, is strongly recommended.







MODEL	NET WEIGHT
20•20	958 lb (435 kg)

INSTALLATION REQUIREMENTS

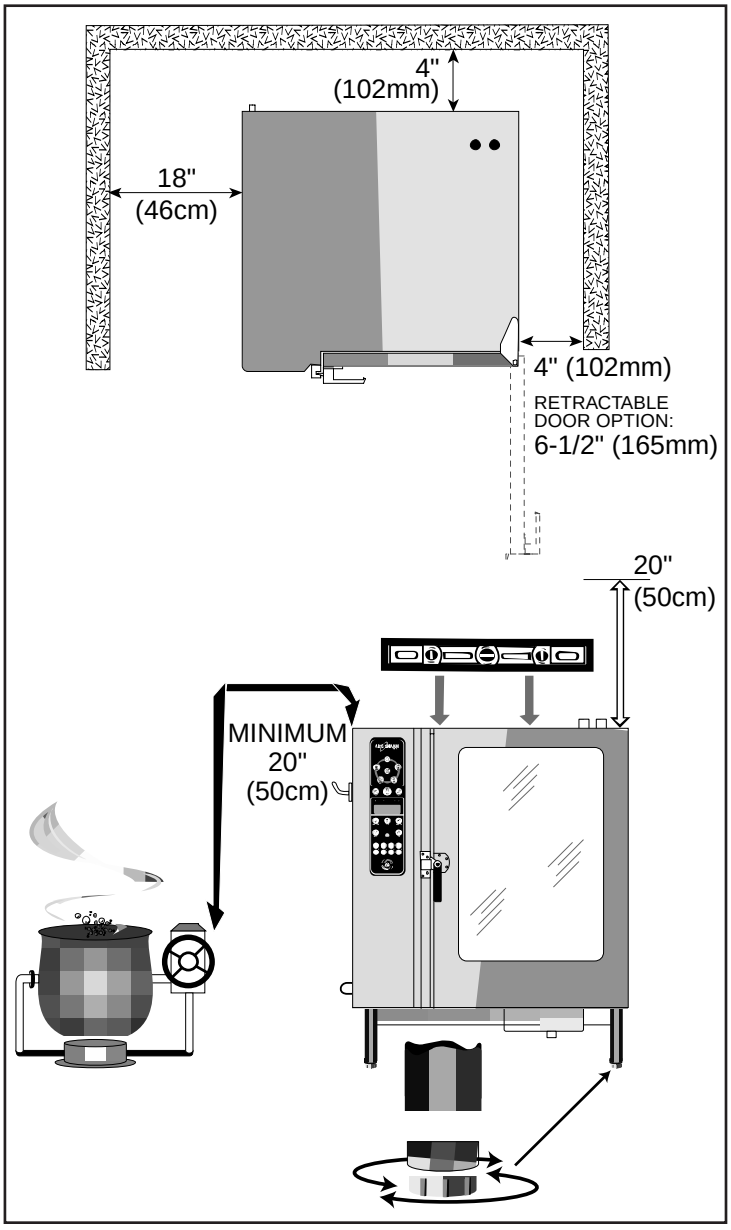
- ☐ Do not install oven adjacent to flammable surfaces. Strictly observe all local fire safety regulations.
- ☐ In order to ensure proper ventilation, a minimum distance of at least 6-inches (152mm) must be kept from the control panel side [LEFT] of the oven and any adjoining surfaces.

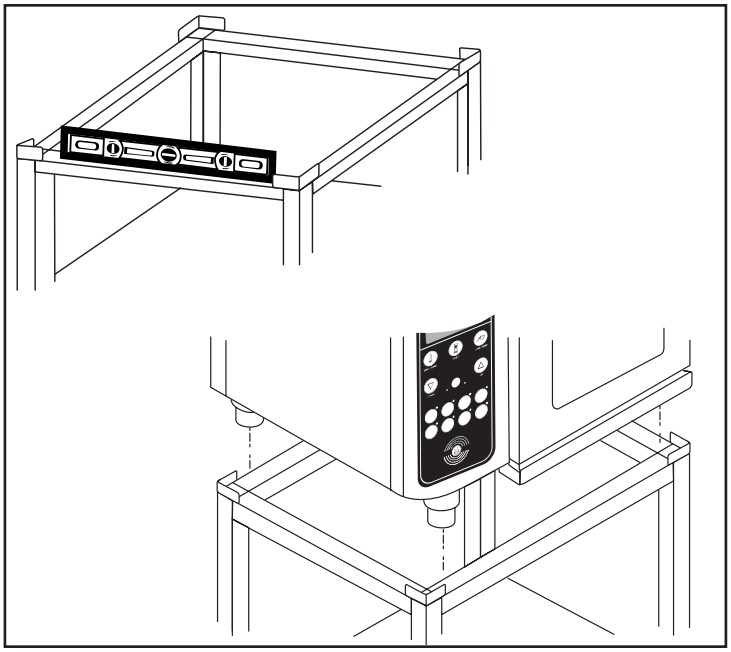
  NOTE: In addition to ventilation requirements, additional clearance is needed for service access. A minimum distance of 18-inches (457mm) is strongly recommended.
- ☐ Allow a minimum of 4-inches (102mm) from the right side of the oven to allow the door to open to at least a 90° angle. Fully opened, the door will extend up to a 225° angle. If the oven is furnished with the retractable door option, allow a minimum clearance of 6-1/2-inches (16cm).
- ☐ Allow a minimum clearance of 4-inches (102mm) from the back of the oven for plumbing connections.
- ☐ Allow a 20-inch (50cm) clearance at the top of the oven for free air movement and for the steam vent(s) located at the top [RIGHT-REAR].
- ☐ Do not install the oven adjacent to heat producing equipment such as fryers, broilers, etc. Minimum clearance recommended: 20-inches (50cm).

Place the Combitherm oven on a stable, ***LEVEL*** horizontal surface. For counter-top models, the oven stand must be level. In addition, the overall height of the oven should be positioned so the operating controls and shelves may be conveniently reached from the front.

ALL INSTALLATION INSTRUCTIONS AND REQUIREMENTS MUST BE STRICTLY OBSERVED.

IMPROPER CONNECTION OF THIS APPLIANCE NULLIFIES ALL WARRANTIES.

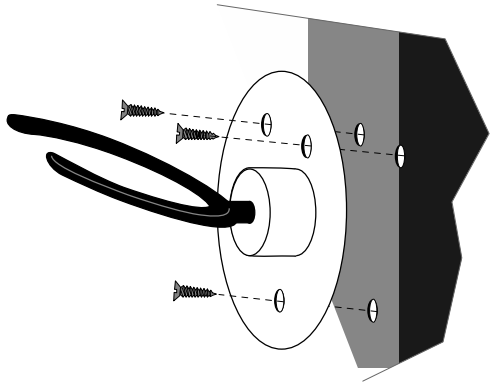




ASSEMBLY REQUIREMENTS

HAND SHOWER HOLDER

Fasten the hand shower holder in the holes provided on the oven using the three (3) screws packaged with the holder.

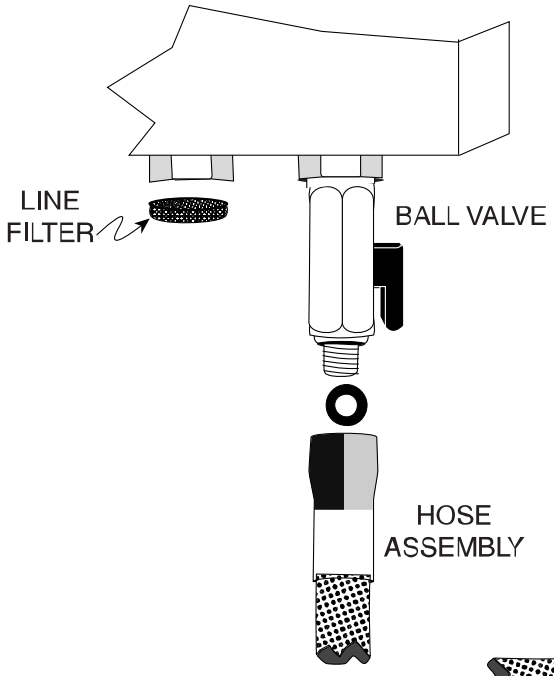


WATER SUPPLY

CONNECT TO POTABLE (DRINKABLE) COLD WATER ONLY

WATER PRESSURE REQUIREMENTS: MINIMUM **30 PSI (2 BAR)**
MAXIMUM **90 PSI (6 BAR)**

Flush the water line at the installation site before connecting the oven to the water supply. A shut-off valve and approved back-flow preventer must be installed when connecting the oven to the cold water intake. The water supply line must be a minimum of 3/4-inch (19mm). A water filtration system is recommended if the water supply is between 7 and 9 grains of hardness. If water tests over 14 grains of hardness, the installation of a water softener is strongly recommended. Install the line filter at the cold water intake connection point.



PIPE SEALING TAPE (TEFLON®) MUST BE USED AT ALL CONNECTION POINTS.

The use of a pipe sealing compound is not recommended.

THE SHUT-OFF VALVE MUST BE IN THE OPEN POSITION WHEN THE OVEN IS BEING USED.

The hand shower spray hose is installed adjacent to the cold water intake connection. A ball valve is installed on the oven for hose connection to the **COLD** water source. Assemble the washer and the flexible hose on the ball valve and hang the spray handle on the holder previously installed on the oven.

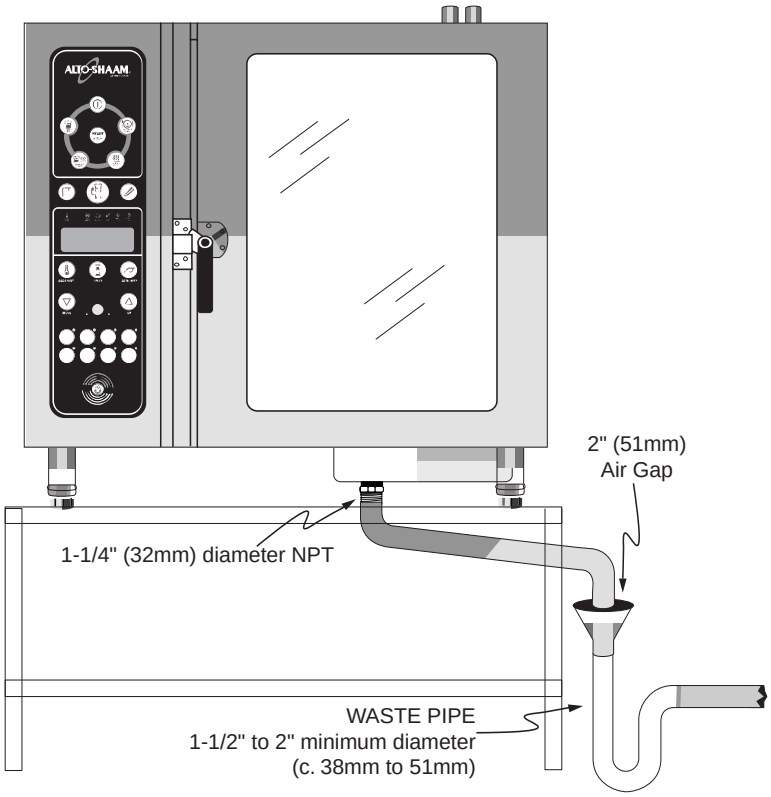
WATER DRAINAGE

The oven must discharge through an indirect waste pipe by means of an air gap. The drain thread is 1-1/4-inch (32mm) NPT.

A union is required. Install a 1-1/4-inch (32mm) diameter drain line. The drain line must always be a positive gradient away from the Combitherm oven and not more than 12-inches (305mm) before an air gap.

NOTE: 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].

If several units are to be connected to one drain pipe, the dimensions of the pipe must be sufficient to allow an unobstructed water drain system.



AVERAGE DRAIN WATER TEMPERATURE

149°F (65°C)

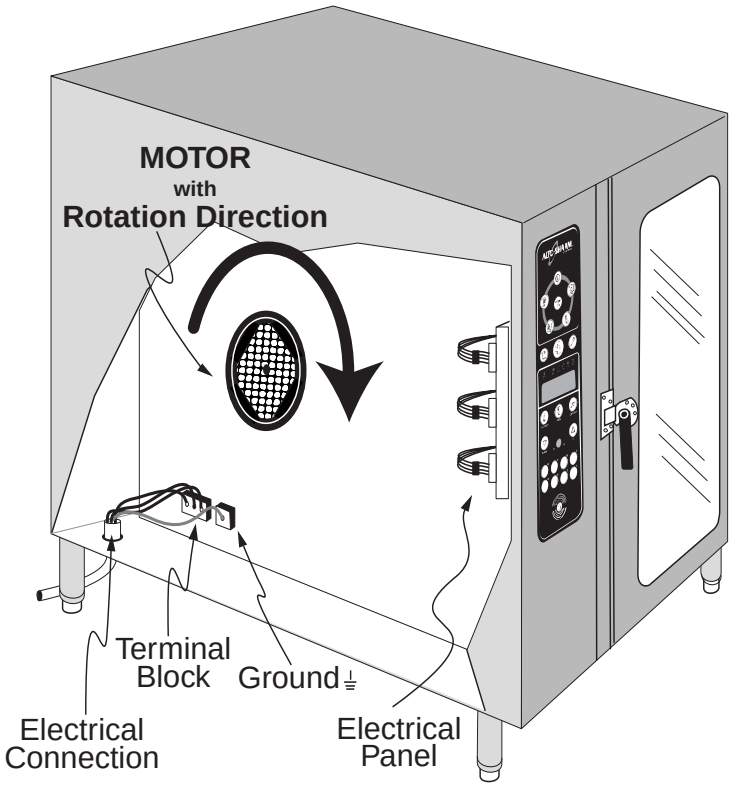
ELECTRICAL INSTALLATION

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

An electrical wiring diagram is located behind the control panel on the left side of the oven. 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 the electrical compartment of the oven. The oven must be properly grounded in accordance with the National Electrical Code and applicable local codes.

CAUTION

ENSURE THE AVAILABLE POWER SOURCE MATCHES THE VOLTAGE STAMPED ON THE NAMEPLATE OF THE OVEN.



ANSI/NSF4

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 on the electrical control box cover, behind the service panel or elsewhere listed in this manual.

When connecting to a Delta-B (wild leg) on a 3-phase system, the wild leg must be connected to line 3.

CAUTION

FOLLOWING ELECTRICAL CONNECTION, THE FAN *MUST* ROTATE IN THE SAME DIRECTION AS THE ARROW LOCATED ON THE OVEN FAN MOTOR.

THIS APPLIANCE *WILL NOT* FUNCTION PROPERLY AND DAMAGE CAN OCCUR IF THE MOTOR ROTATION IS NOT CORRECT.

TO CHANGE MOTOR DIRECTION, EXCHANGE TWO OF THE INCOMING PHASES.

Before operating the oven, check all cable connections in the electrical connection area for tightness since connections can loosen during transport.

NOTE: After both water and electrical connections have been completed, operate the oven in any cooking mode for a period of 15 minutes and recheck the main power connections at the terminal block to make certain they remain tight.

ADDITIONAL TECHNICAL DATA

MODEL ⇨	20•20ML					
Type of Oven	floor w/roll-in cart					
Pan Capacity INCHES GASTRONORM	40: 12" x 20" 20: 18" x 26" 40: GN 1/1 20: GN 2/1					
Side Rack Spacing INCHES (MILLIMETERS)	2-5/8 (65mm)					
Interior Width INCHES (MILLIMETERS)	26-1/4 (667)					
Interior Depth INCHES (MILLIMETERS)	32-11/16 (830)					
Interior Height INCHES (MILLIMETERS)	60-1/4 (1530)					
Noise Level	The noise emission level related to the workplace is lower than: 70 dBA					
Spray Hose Length	102-inches (2600mm)					
Water Consumption (APPROX.)	21-26.5 gal/hr (80-100 l/hr)					
Steam Generator Water Consumption (APPROX.)	0.21 gal/min (0.8 l/min)					
Steam Generator Rating (APPROX.)	111.1 lb/hr (50.4 kg/hr)					
Steam Generator Volume GALLONS (LITERS)	5.3 (20)					
Radiated Heat Loss BTU/HR (KJ/H)	15729 (16608)					
Latent Heat Loss BTU/HR (kJ/h)	11783 (12442)					
Total Heat Loss BTU/HR (kJ/h)	27513 (29050)					
Air Circulation (WITH/WITHOUT HOOD) cubic feet/hr △T=8K (m^3/h)	67804/54031 (1920/1530)					
Air Circulation (WITH/WITHOUT HOOD) cubic feet/hr △x=5g/kg (m^3/h)	25426/18363 (720/520)					

POST-INSTALLATION CHECK LIST

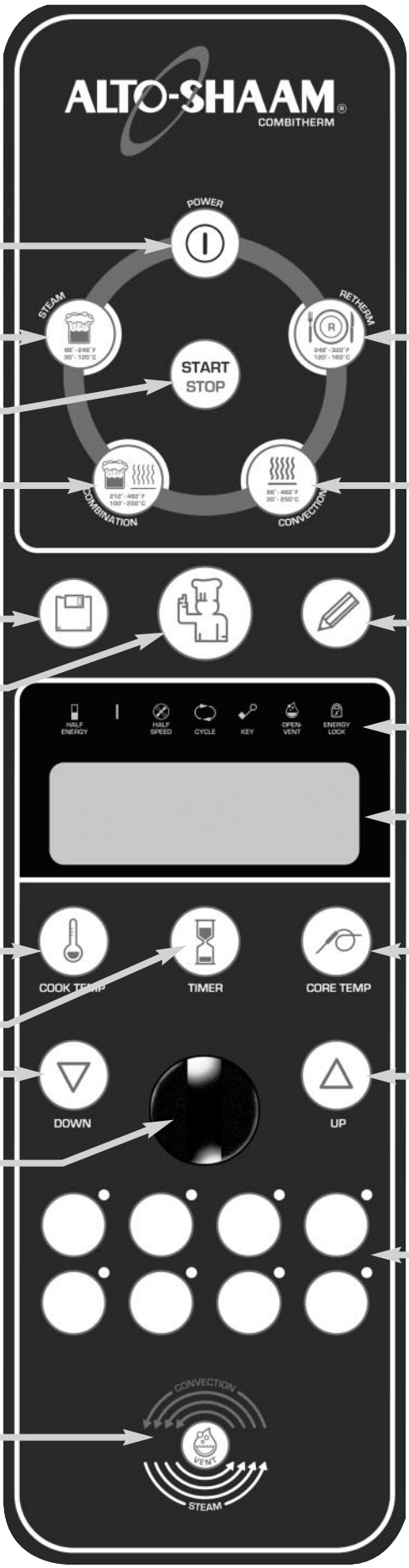
In order for this oven to operate properly, installation must conform with the instructions provided in this manual. Following full installation the following list is provided as a final check to help assure conformance.

INSTALLER REQUIREMENTS	INITIALS/DATE
☐ Bottom of oven has been checked for damage due to improper positioning on site.	
☐ Proper clearances have been allowed at the top of the oven and from all adjacent surfaces with allowance of free air access to all vents.	
☐ Clearance has been provided at the left of the oven for service access.	
☐ A minimum distance of 20-inches (1/2 meter) has been provided between the oven and any heat producing equipment such as fryers, broilers, etc.	
☐ The oven has been leveled on a stable surface.	
☐ The oven has been connected to **COLD** water on a single water connection.	
☐ Incoming water pressure is between a minimum of 30 PSI and a maximum of 90 PSI.	
☐ Water testing over 14 grains of hardness includes either the installation of a water softener or the verbal recommendation to the owner/operator for water softener installation.	
☐ Installation of drain is at a minimum of 1-1/4" (32mm) with a positive descending slope.	
☐ 2" (51mm) air gap at drain is free of obstructions.	
☐ Motor direction correctly corresponds with the direction of the arrow on the motor.	
☐ Electrical safety devices and phase rotation have been checked.	

INSTRUCTIONS TO OWNER/OPERATOR	INITIALS/DATE
☐ Owner/operator has been instructed on proper method of flushing the steam generator and safe procedures for handling the steam generator drain cap.	
☐ Owner/operator has been instructed on the importance of cleaning the oven along with proper cleaning procedures including automatic steam generator flush, daily cleaning of the interior, and monthly decalcification.	
☐ Owner/operator has been advised to use authorized Combitherm oven cleaner only.	
☐ Owner/operator has been informed of the safety warnings located in the operation guide including the warning not to handle pans containing liquid or semi liquid products positioned above eye level of the operator.	

Damage directly attributed to improper set up, installation, or cleaning can invalidate warranty claims.

CONTROL PANEL IDENTIFICATION



① *POWER ON/OFF KEY*

② *STEAM MODE KEY*

③ *START/STOP KEY*

④ *SUPERHEATED STEAM AND CONVECTION MODE KEY*

⑤ *PROGRAMMED MENU KEY*
DELUXE MODELS ONLY

⑥ *CHEF FUNCTION KEY*

⑦ *COOKING TEMPERATURE KEY*

⑧ *TIME KEY*

⑨ *DOWN ARROW KEY*

⑩ *ADJUSTMENT KNOB*

⑪ *MOISTURE VENT KEY*
ELECTRIC MODELS ONLY

RETHERM MODE KEY ⑫
N/A TH S UN T

CONVECTION MODE KEY ⑬

PROGRAM INSTALL/EDIT KEY ⑭
DELUXE MODELS ONLY

FUNCTION & OPERATING INDICATORS ⑮

CONTROL PANEL DISPLAY ⑯

CORE TEMPERATURE KEY ⑰
N/A TH S UN T

UP ARROW KEY ⑱

QUICK PROGRAM KEYS ⑲
DELUXE MODELS ONLY

CONTROL PANEL IDENTIFICATION

① *POWER ON/OFF KEY*

Activates power to the oven and automatically fills the steam generator with water which will heat to a stand-by mode temperature of 150°F (65°C). The steam generator flush is also activated by pressing this key.

② *STEAM MODE KEY*

The oven will operate in the steam mode at a temperature range of 86°F to 248°F (30°C to 120°C).

- Automatic steaming at 212°F (100°C) **FACTORY-SET DEFAULT**.
- Quick steaming between 213°F and 248°F (101°C and 120°C).
- Low Temperature Steaming between 86°F and 211°F (30°C and 99°C).

③ *START/STOP KEY*

Initiates all cooking mode functions and programmed procedures stored in memory. Stops an activated cooking mode or programmed procedure currently in progress, and exits Chef function key.

④ *SUPERHEATED STEAM AND CONVECTION MODE KEY*

Selection key for the combination steam and convection cooking mode which can be set within a temperature range of 212°F to 482°F (100°C and 250°C).

⑤ *PROGRAMMED MENU KEY*

Shows a list menu in display ⑯ of all stored cooking programs and is also used to exit the list menu display. **DELUXE MODELS ONLY**.

⑥ *CHEF FUNCTION KEY*

Used to select programmed menu functions, various auxiliary functions, and several chef help instructions.

⑦ *COOKING TEMPERATURE KEY*

Used to set the required cooking temperature, to recall the set cooking temperature, or to check the actual oven temperature in conjunction with the down arrow key ⑨, the up arrow key ⑱ or the adjustment knob ⑩.

⑧ *TIME KEY*

Used to set the required cooking time or recall the set cooking time in conjunction with the down arrow key ⑨, the up arrow key ⑱ or the adjustment knob ⑩.

⑨ *DOWN ARROW KEY*

Used to decrease displayed cook temperature ⑦, time ⑧, or core temperature ⑰ and as a scrolling key for programming functions.

⑩ *ADJUSTMENT KNOB*

Serves the same function as the up and down arrow keys to increase or decrease the displayed cook temperature ⑦, time ⑧, or core temperature ⑰.

⑪ *MOISTURE VENT KEY* **ELECTRIC MODELS ONLY**

Immediately vents steam and condensate from the oven compartment while cooking in the Convection mode ⑬ or in the Superheated Steam and Convection mode ④.

⑫ *RETHERM MODE KEY*

N/A THIS UNIT

⑬ *CONVECTION MODE KEY*

Selection key for convection cooking without steam at a temperature range of 86°F to 482°F (30°C and 250°C).

⑭ *PROGRAM INSTALL AND EDIT KEY*

Used to create, change, duplicate, and delete programmed menus. **DELUXE MODELS ONLY**.

⑮ *FUNCTION & OPERATING INDICATORS*

Reduced Power

Key Lock

Reduced Fan Speed

Moisture Vent

Confirmation of Oven Operation

Peak Power Use Energy Protection

⑯ *CONTROL PANEL DISPLAY*

⑰ *CORE TEMPERATURE KEY*

N/A THIS UNIT

⑱ *UP ARROW KEY*

Used to increase displayed cook temperature ⑦, time ⑧, or core temperature ⑰ and as a scrolling key for programming functions.

⑲ *QUICK PROGRAM KEYS*

Immediate access to frequently used operator set programs including cooking modes, cleaning, and other oven functions. **DELUXE MODELS ONLY**.

IMPORTANT SAFETY PRECAUTIONS

For safe release of the cooking compartment steam, initially open the door approximately 2" (50mm) only. Stand behind the door as the hot steam is released.

DO NOT USE THE ATTACHED HAND-HELD HOSE TO SPRAY ANYTHING OTHER THAN THE INTERIOR OF THE COMBITHERM OVEN COMPARTMENT. AT NO TIME SHOULD THE EXTERIOR OF THE OVEN BE STEAM CLEANED, HOSED-DOWN WITH THE HAND-SPRAYER, FLOODED WITH WATER, OR FLOODED WITH LIQUID SOLUTION OF ANY KIND.

DO NOT USE THE SPRAY HOSE IN A HOT COOKING COMPARTMENT. ALLOW THE OVEN TO COOL TO A MINIMUM OF 150°F (66°C).

DO NOT USE HIGH PRESSURE WATER CLEANING METHODS ON THE INTERIOR OR EXTERIOR OF THE COMBITHERM OVEN.

DO NOT HANDLE PANS CONTAINING LIQUID OR SEMI LIQUID PRODUCTS POSITIONED ABOVE EYE LEVEL OF THE OPERATOR. SUCH PRODUCTS CAN SCALD AND CAUSE SERIOUS INJURY.

USE AUTHORIZED COMBITHERM LIQUID OVEN CLEANER ONLY.

UNAUTHORIZED CLEANING AGENTS MAY DISCOLOR OR HARM INTERIOR SURFACES OF THE OVEN. READ AND UNDERSTAND LABEL AND MATERIAL SAFETY DATA SHEET BEFORE USING THE OVEN CLEANER.

FOR OPERATOR SAFETY

NOTE AND OBSERVE ALL SAFETY PRECAUTIONS LOCATED THROUGHOUT THIS MANUAL.

Preventive Maintenance

In addition to the routine cleaning and maintenance procedures, there are several additional steps to be taken for both sanitation purposes and to keep the oven running at top operating efficiency. These additional safeguards will help prevent inconvenient down time and costly repairs.

- DO NOT DISPOSE OF GREASE, FAT, OR SOLID WASTE DOWN THE OVEN DRAIN. Fats and solids will eventually coagulate in the drain system, causing blockage. Consequently, water will back-up into the condenser and interior oven compartment, resulting in an oven that is inoperable.
- MAKE CERTAIN THE DRAIN SCREEN IS ALWAYS IN PLACE. REMOVE ANY SOLID WASTE MATERIAL FROM THE DRAIN SCREEN BEFORE IT ENTERS THE DRAIN SYSTEM. The routine removal of solids from the drain screen will help prevent blockage.
- USE THE AUTHORIZED COMBITHERM OVEN CLEANER ONLY. The use of unauthorized cleaning agents may discolor or harm the interior surfaces of the oven.
- TO PROLONG THE LIFE OF THE DOOR GASKET, REMOVE AND CLEAN THIS ITEM DAILY. The acids and related compounds found in fat, particularly chicken fat, will weaken the composition of the gasket unless cleaned on a daily basis.
- TO ADDITIONALLY PROTECT GASKET LIFE, ALLOW OVEN DOOR TO REMAIN SLIGHTLY OPEN AT THE END OF THE PRODUCTION DAY. An open door will relieve the pressure on the door gasket.
- ROUTINELY CLEAN DOOR HINGES. Open oven door to relieve tension. Clean all parts of the hinge.

Routine Cleaning Requirements

DAILY OVEN CLEANING

To be performed at the end of each production day or between production shifts.

DAILY STEAM GENERATOR FLUSH

When operating the oven on a regular basis, the steam generator must be flushed once a day. This procedure will prevent lime deposits and scale build-up from forming in the steam generator.

MONTHLY DECALCIFICATION

It is VERY important to decalcify the steam generator, particularly in areas with extremely hard water. This procedure should be performed once a month, in addition to the daily steam generator flush.

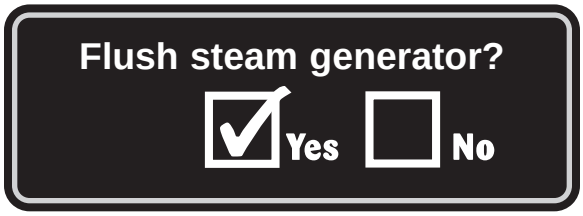
AUTOMATIC STEAM GENERATOR FLUSH

AT THE START OF EACH WORK DAY

Flushing the electric Combitherm steam generator on a daily basis helps to prolong the life of the steam generator heating elements and helps prevent the necessity of service requirements. The control provides this feature as an automatic function when the oven ON/OFF power key is pressed to the ON position at the start of each working day.

PRESS THE ON/OFF POWER KEY TO THE ON POSITION AT THE START OF THE DAY.

DISPLAY MESSAGE INDICATES:



YES

PRESS THE START KEY (START STOP) OR (CHEF) CHEF FUNCTION KEY TO BEGIN THE STEAM GENERATOR FLUSH.

The steam generator is automatically drained, flushed, and refilled with water within 5 minutes or less. Following this time period, the Combitherm is ready for operation.

NO

TO CANCEL THE STEAM GENERATOR FLUSH, ROTATE THE ADJUSTMENT KNOB ONE TURN TO THE RIGHT UNTIL "NO" IS HIGHLIGHTED IN THE DISPLAY.

PRESS THE START KEY (START STOP) OR (CHEF) CHEF FUNCTION KEY TO CONFIRM CANCELLATION.

If steam generator flush cancellation is not initiated within 10 seconds of the appearance of the display message, the flushing function will automatically start. Following cancellation, the Combitherm is ready for operation. The flushing process ***must*** be initiated manually at a later time during the working day if not conducted at startup.

MANUAL STEAM GENERATOR FLUSH

PERFORM DAILY WHEN THE STEAM GENERATOR FLUSH IS NOT PERFORMED AT THE START OF THE WORKING DAY.

WITH THE OVEN AT ROOM TEMPERATURE

1. Press the Power Switch to the OFF position, rotate the Steam Generator Drain Cap located at the back of the oven until water begins to flow from the four holes in the cap. In approximately 20 to 60 seconds, a sufficient quantity of water will have drained from the steam generator so that the drain cap can be completely removed.

2. As the water continues to flow from the generator, it will have a milky or cloudy appearance, which indicates deposits in the generator are beginning to flush through the system. Let the water continue to drain until the flow begins to subside.

3. When the flow begins to subside, remove the hand-held hose from the side of the oven and direct a stream of fresh water directly into the steam generator drain opening located directly behind Steam Generator Drain Cap. Repeat this procedure several times until the water begins to run clear.

4. Press the oven Power Switch to the ON position. When the audible signal is heard, press the Steam Mode Key. A new supply of fresh, cold water will begin to flow through the steam generator. Repeat this procedure several times until the water runs completely clear.

5. Once the water is completely clear, replace the Steam Generator Drain Cap over the steam generator drain by turning it clockwise, by hand, until there is a slight resistance.

DO NOT OVER-TIGHTEN STEAM GENERATOR DRAIN CAP.

COMBITHERM® CLEANING & MAINTENANCE

CAUTION

RUBBER GLOVES AND PROTECTIVE EYE WEAR
MUST BE WORN WHEN USING THE OVEN CLEANER.

USE AUTHORIZED COMBITHERM LIQUID OVEN CLEANER ONLY.

Unauthorized cleaning agents may discolor or harm interior surfaces of the oven. Read and understand label and material safety data sheet before using the oven cleaner.

Causes severe burns. Do not get in eyes, on skin, or on clothing. Do not wear contacts. Harmful or fatal if swallowed. Do not breathe mist. Use in well ventilated area. Keep out of reach of children. Do not use on aluminum. Do not mix with anything but water.

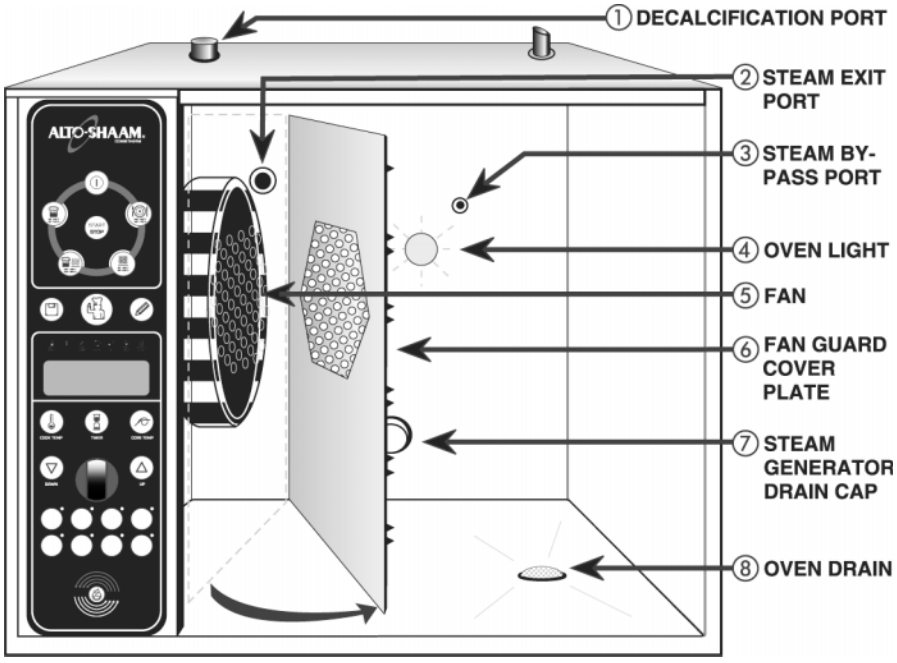
THOROUGHLY RINSE EMPTY CONTAINER WITH WATER AND SAFELY DISCARD.

DAILY OVEN CLEANING

CAUTION

DO NOT SPRAY CLEANER INTO A HOT OVEN. ALLOW THE OVEN TO COOL TO 150°F (60°C).

The temperature in the display indicates the air temperature inside the oven compartment and not the interior walls of the oven. Always make certain to allow the oven walls to cool to a minimum of 150°F (60°C) before spraying the compartment with oven cleaner.



1. Remove all food scraps and residue from the oven drain ⑧.

2. Wearing safety glasses and rubber gloves, remove the drain screen and spray Combitherm liquid oven cleaner directly into the drain pipe ⑧. Replace the drain screen.

3. Generously spray the interior oven surfaces with an even coat of Combitherm Liquid Oven Cleaner. Spray all built-in components, shelves, side racks, and pans.

4. Once a week, loosen the thumb screw(s) and swing Fan Guard Cover Plate ⑥ toward the back of the oven. Spray the back of the Fan Guard Cover Plate, the oven fan, and the left-hand side of the oven. Close the swing out Cover Plate ⑥. Lock the cover into place and tighten thumb screw(s).

5. Insert the Combitherm Liquid Oven Cleaner spray nozzle directly into the Steam By-Pass Port ③ and spray several times.

6. Securely close the oven door.

AUTOMATIC CLEANING PROGRAM

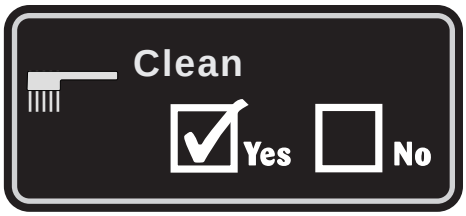
The Combitherm automatic cleaning function selects the proper temperature for each step of the cleaning process.

With the oven power on:

PRESS THE CHEF FUNCTION KEY.

➡ Rotate the adjustment knob until the clean symbol is highlighted in the display.

PRESS THE CHEF FUNCTION KEY.



➡ Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select YES for the automatic cleaning function.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SETTING AND START THE CLEANING PROGRAM.

THE OVEN WILL BEGIN A 20 MINUTE, 2-STEP CLEANING CYCLE.

- 10 minutes at 86°F (30°C) to allow the cleaning agent to work
- 10 minutes at full steam temperature of 212°F (100°C) to clean the oven

FOR DELUXE OVENS WITH A PROGRAMMED MENU KEY

FOLLOW STEPS 1 THROUGH 6 ON THE PRECEDING PAGE.

With the oven power on:

PRESS THE PROGRAMMED MENU KEY.

➡ Rotate the adjustment knob to program **250 = CLEAN**.

START STOP **PRESS THE START KEY.**

DELUXE MODELS CAN ALSO BE CLEANED AS SHOWN IN THE PREVIOUS INSTRUCTIONS.

7. When the buzzer signals the end of the cleaning process, press the start/stop key START STOP to deactivate the audible signal or open the oven door.

8. With the door open, use the hand held hose and direct a stream of water into the Steam By-Pass Port ③ to rinse away oven cleaner residue.

9. Rinse the interior and all sprayed components with the hand-held hose. Make certain to thoroughly rinse all surfaces to remove any cleaning solution residue. Use a non-abrasive cleaning pad for any problem areas.

10. Loosen the thumb screw(s) and swing Fan Guard Cover Plate ⑥ toward the back of the oven. Thoroughly rinse the back of the Fan Guard Cover Plate, the oven fan, and the left-hand side of the oven. Close the swing out Cover Plate ⑥. Lock the cover into place and tighten thumb screw(s).

LEAVE DOOR SLIGHTLY OPEN AFTER CLEANING

Decalcification — ELECTRIC

It is ***VERY*** important to decalcify the oven, particularly in areas with extremely hard water.

PERFORM ONCE A MONTH in addition to the daily steam generator flush.

WITH THE OVEN AT ROOM TEMPERATURE

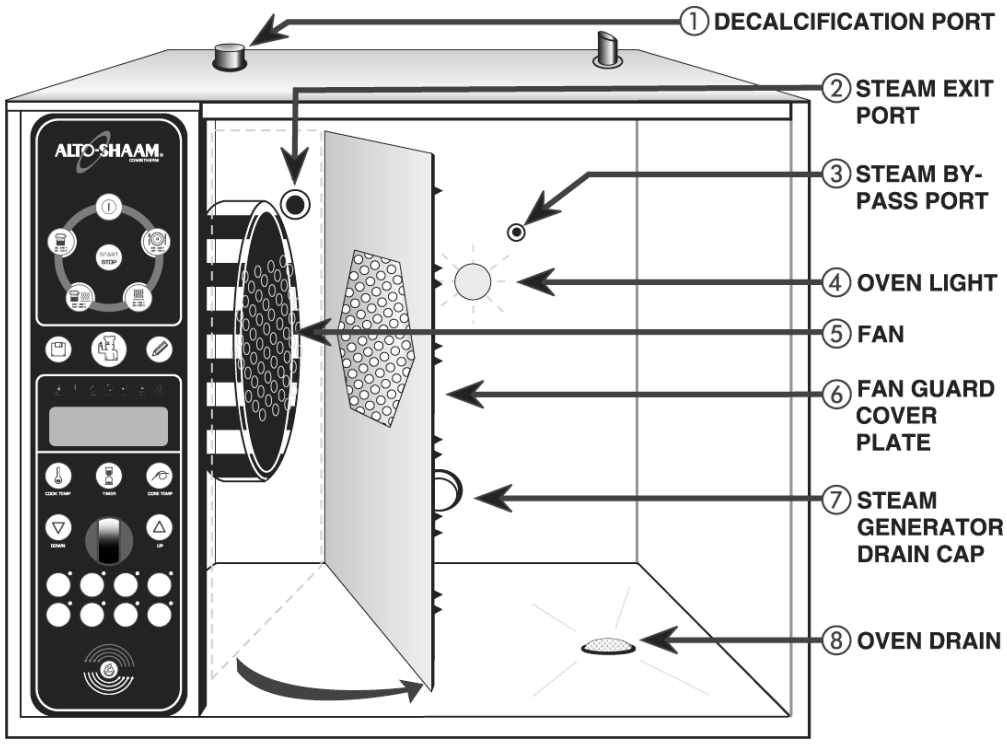
1. Begin decalcification with the power switch in the OFF position.

2. Rotate the Steam Generator Drain Cap ⑦ until water begins to flow from the four holes in the cap. In approximately 20 to 60 seconds, a sufficient quantity of water will have drained from the steam generator so that the drain cap can be completely removed.

3. As the water continues to flow from the generator, it will have a milky or cloudy appearance, which indicates deposits in the generator system are beginning to flush out. Let the water continue to drain until the flow completely subsides. Replace the Steam Generator Drain Cap ⑦ by turning it clockwise until there is a slight resistance.

4. Unscrew the cap from the Decalcification Port ①. With the use of a funnel, pour one-half gallon (c. 2 liters) of distilled white vinegar into the Decalcification Port.

5. Replace the cap on the Decalcification Port ① and tighten securely.



CAUTION

Scalding water will erupt from the Decalcification Port ① when the oven is operating unless the cap is replaced and tightened.

ELECTRIC COMBITHERM DECALCIFICATION

PRESS THE ON/OFF POWER KEY TO THE ON POSITION.

THE WATER IN THE STEAM GENERATOR WILL BEGIN TO HEAT. ALLOW THE OVEN TO REMAIN IN THIS POSITION FOR A MINIMUM PERIOD OF 10 MINUTES TO DECALCIFY THE STEAM GENERATOR.

In the case of extreme calcification build-up such as in areas with very hard water, ovens can be left in this condition overnight. Follow the remaining instructions at the start of the next production day. This procedure will help keep the oven operating at peak efficiency.

After a period of 10 minutes or longer —

PRESS THE ON/OFF POWER KEY TO THE OFF POSITION.

6. ***USING HAND PROTECTION***, rotate the Steam Generator Drain Cap ⑦ until water begins to flow from the four holes in the cap. In approximately 20 to 60 seconds, a sufficient quantity of water will have drained from the steam generator so that the drain cap can be completely removed. Let the water continue to drain until the flow completely subsides.

7. Open the oven door. Loosen the thumb screw(s) and swing Fan Guard Cover Plate ⑥ toward the back of the oven. Using the hand-held hose, direct a stream of water directly into the Steam Exit Port ② several times. Close the swing-out Cover Plate ⑥. Lock the cover into place and tighten thumb screw(s). Close the oven door.

PRESS THE ON/OFF POWER KEY TO THE ON POSITION.

PRESS THE STEAM MODE KEY.

A new supply of fresh water will begin to fill the steam generator and will flush out all remaining vinegar from the steam generator.

START STOP **AFTER APPROXIMATELY 5 MINUTES OF OPERATION IN THE STEAM MODE, PRESS THE START/STOP KEY.**

PRESS THE ON/OFF POWER KEY TO THE OFF POSITION AND OPEN THE OVEN DOOR.

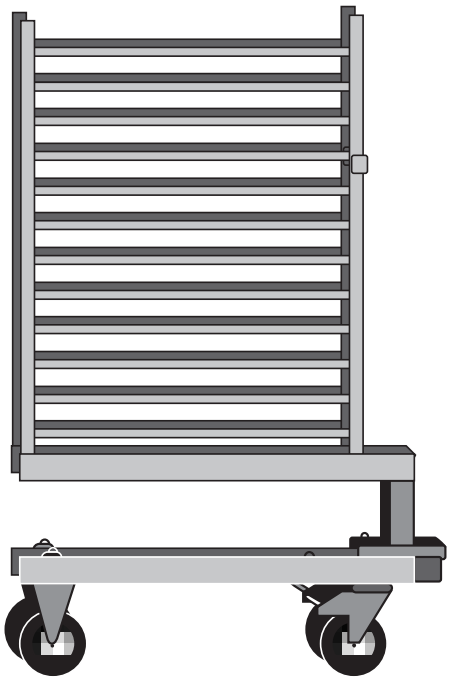
8. ***USING HAND PROTECTION***, replace the Steam Generator Drain Cap by turning it clockwise until there is a slight resistance. At the end of the production day, leave the door slightly ajar.

DO NOT COOK IN ANY PROGRAM MODE WITH VINEGAR IN THE STEAM GENERATOR SYSTEM.

CAUTION

DURING DECALCIFICATION THE WATER FLOWING FROM THE DRAIN CAP IS EXTREMELY HOT! USE HAND PROTECTION WHEN TOUCHING THE STEAM GENERATOR DRAIN CAP. DO NOT TOUCH THE WATER FLOWING OUT OF THE STEAM GENERATOR DRAIN CAP OR STEAM GENERATOR DRAIN.

ROLL-IN CART/FOOD TROLLEY CLEANING



1. Remove food trolley to a cart wash area. Trolleys may be cleaned using any mild cleaning detergent and warm water.
2. Hand wipe all framing, slides, drip pan, and base. Thoroughly clean debris from the casters. A spray hose can be used for easier cart cleaning.
3. Remove detergent solution with warm water.
4. Wipe or spray with a sanitizing solution designed for use on metal and vinyl food contact surfaces.
5. Allow trolley to air dry.

As an alternative, trolleys can be sprayed with Combitherm liquid oven cleaner while inside the oven. Allow the trolley to remain in the oven through the normal cleaning cycle, followed by steps 2 through 5 above.

DAILY GASKET CLEANING

It is important to prolong the life of the oven gasket by cleaning this item on a daily basis. Routine cleaning will help protect the composition of the gasket from deterioration caused by acidic foods. After allowing the oven to cool, remove pull-out gasket and wash in hot, soapy water. ***Do not*** place in the dishwasher.

Always replace the gasket before cleaning the oven interior or operating the oven.

EMERGENCY OPERATION

In the event of an error code, operation of the Combitherm can be continued on a limited basis for a short duration. Cooking times may be longer than normal operation and close monitoring of the cooking process is recommended. Contact an authorized service agency immediately if the problem cannot be rectified with simple steps in the troubleshooting guidelines located in this manual. Error conditions under which continued operation can be conducted are indicated by YES in the chart shown below.

When the oven malfunctions, an error code will appear in the display.

START STOP PRESS THE START/STOP KEY TO ACKNOWLEDGE THE ERROR.
The keys for the usable operational modes will begin to flash and can be operated normally.

SELECT AND PRESS ONE OF THE COOKING MODES INDICATED.
The oven control will only respond to the oven mode keys flashing.

SET THE OVEN CONTROLS AS IF OPERATING UNDER NORMAL CIRCUMSTANCES.
Depending on the error code involved, oven function, such as temperature range, may be limited.

START STOP PRESS THE START/STOP KEY TO BEGIN THE COOKING PROCESS.

START STOP PRESS THE START/STOP KEY WHEN THE TIMER EXPIRES.

WHEN THE OVEN FAULT IS CORRECTED, THE COMBITHERM WILL RETURN TO NORMAL OPERATION.

ERROR CODE	DISPLAY MESSAGE	GAS	ELECTRIC	STEAM[1] MODE	SUPERHEATED STEAM MODE	CONVECTION MODE	RETHERM MODE	DELTA-T MODE
E01	Low water level	YES	YES	NO	NO	up to 356°F (180°C)	NO	YES
E02	EL-temperature too high CONTROL COMPARTMENT TEMP	YES	YES	YES	Up to 284°F (140°C)	Up to 284°F (140°C)	Up to 284°F (140°C)	Up to 284°F (140°C)
E03	Fan Fault BLOWER FAN	NO	YES	Up to 212°F (100°C)	NO	NO	NO	NO
E04	EL-fan fault CONTROL COOLING FAN	NO	YES	YES	Up to 284°F (140°C)	Up to 284°F (140°C)	Up to 284°F (140°C)	Up to 284°F (140°C)
E05	Gas fault	YES	NO	YES	YES	YES	YES	YES
E15	Condenser oven temperature HIGH CONDENSATE TANK TEMP	YES	YES	NO	NO	Up to 356°F (180°C)	NO	YES
E21	Oven probe error TEMPERATURE PROBE	NO	YES	212°F only (100°C)	NO	NO	NO	NO
E22	CTC error TEMPERATURE PROBE	YES	YES	YES	YES	YES	YES	YES
E23	SG-probe error STEAM GENERATOR PROBE B4	YES	YES	YES	YES	YES	YES	YES
E24	Bypass probe error	NO	YES	Up to 210°F (99°C)	NO	YES	NO	YES
E25	Condenser probe error B3 PROBE	NO	YES	YES [2]	Up to 356°F [2] (180°C)	Up to 356°F [2] (180°C)	Up to 356°F [2] (180°C)	YES [2]
E26	SG probe error STEAM GENERATOR PROBE	NO	YES	YES	YES	YES	YES	YES
E23 & E26	SG probe error[3] STEAM GENERATOR PROBE B4	NO	YES	YES [3]	YES [3]	YES [3]	NO	YES [3]
E33	SG heat error STEAM GENERATOR ELEMENT	NO	YES	YES	YES	YES	YES	YES
E34	Steam Generator pump error	NO	YES	YES	YES	YES	YES	YES
E81	Program memory error	YES	YES	YES	YES	YES	YES	YES
E83	Algorithm error	YES	YES	YES	YES	YES	YES	YES
E89	12C error	YES	YES	YES	YES	YES	YES	YES

[1] Cooking time increases significantly. Food on the upper shelves is finished first.

[2] Water injection into the condenser is activated for the entire cooking mode (high water consumption).

[3] When error codes E23 and E26 appear simultaneously, steam generator does not preheat.

TROUBLESHOOTING

In the event of a Combitherm malfunction during operation, an error code and message will appear in the display to assist in finding a rapid solution to the problem. The following is a list of all error codes including the possible cause along with a solution.

ERROR CODE	DESCRIPTION OF ERROR	POSSIBLE CAUSE/REMEDY
E01	Low water level: Sufficient water level in steam generator has not been reached with 3 minutes.	Water tap is closed. Filter in solenoid valve or water connection is clogged. Water level probe is calcified or defective. Solenoid valve Y1 is defective. Pressure loop is calcified. Steam generator drain cap is not water tight.
E01	Low water level: Water pressure is under 11 PSI (0.7 bar) after the solenoid valve is opened for 5 seconds.	Water tap is closed. Filter in solenoid valve or water connection is clogged. Solenoid valve Y1 is defective.
E02	Excessive temperature in service area: An additional fan will engage at a temperature of 113°F (45°C) and the error message will occur at a service area temperature of 176°F (80°C).	Auxiliary 12 V fan does not turn on due to defective thermostat or contactor. Ventilation vents are blocked due to inefficient distance from wall at installation site. Minimum distance to equipment such as fryers, grills, kettles, etc. has not been maintained.
E03	Fan motor shuts down from a tripped internal PTC.	A phase from the main power supply is missing. The fan motor is defective. Power phase reversed causing fan to run in reverse. A fuse is tripped.
E03	Motor shuts down fan.	Trip circuit has been set too low. Direction of motor rotation is wrong. A phase is missing from the main power supply. The motor protection switch is defective. Power phase reversed causing fan to run in reverse. The fan motor is defective.
E04	Auxiliary 120 fan motor not running.	Auxiliary fan is defective. Defective wiring or loose connection to auxiliary fan.
E11	Oven probe (N6 thermocouple) measures a temperature in excess of 572°F (300°C).	Convection contactors are burned and no longer disengage. Motor not operating due to two defective F10 fuses.
E13	Steam generator probe (B4 thermocouple) measures a temperature in excess of 248°F (120°C).	Calcification in steam generator. Water level probe is grounded causing immersion elements to energize.
E15	Condenser probe (B3 thermocouple) measures a temperature in excess of 212°F (100°C).	Water tap is closed. Oven is connected to warm water supply. Inlet filter on solenoid valve is dirty. Condenser cooling solenoid valve or solenoid valve coil is defective.

TROUBLESHOOTING

ERROR CODE	DESCRIPTION OF ERROR	POSSIBLE CAUSE/REMEDY
E23	Steam generator probe (B4 thermocouple) is interrupted.	Probe connection is bad at X6 on the control module. Steam generator probe (B4) is defective. Bad probe connection.
E25	Condenser probe (B3 thermocouple) is interrupted.	Probe connection is bad at X6 on the control module. Condenser probe (B3) is interrupted or defective. Bad probe connection.
E26	Safety temperature probe (N8 thermocouple) is interrupted.	Probe connection is bad at X6 on the control module. STB steam generator probe (N8) is interrupted or defective. Bad probe connection.
E27	STB (N8 thermocouple) measures a temperature in excess of 266°F (130°C).	Calcification in steam generator Water level probe is grounded causing immersion elements to energize.
E33	Steam generator probe (B3) fails to measure increase in temperature to 41°F (5°C) within a 3 minute period of time.	Immersion heater defective. Heater contactors defective. B3 probe calcified.
E34	Steam generator pump malfunction.	Pump (M4) defective. Pump blocked or dirty. Ground short on water level probe due to calcification. Fill opening in water settling area of level probe is calcified.
E80	ID (identity) error.	The electronic control cannot differentiate between gas or electric operation and disconnects all circuit connections. Contact problem on X3 connection.
E95	Software error.	Communication problem between software and hardware. Incompatibility between software and hardware.

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.

Parts List • Combitherm ML Electric

PART DESCRIPTION	20•20					
DOOR PARTS:						
DOOR, ARM (MARINE MODELS ONLY) DOOR, ARM PLATE (MARINE MODELS ONLY) DOOR BUSHING, ARM (MARINE MODELS ONLY)	CT-22887 CT-22885 CT-22886					
DOOR, HANDLE INSERT	HD-23084					
DOOR HANDLE, RIGHT HAND	HD-2934					
DOOR LATCH, RIGHT HAND DOOR LATCH INSET, RIGHT HAND DOOR, LATCH MAGNET SWITCH DOOR LATCH MOUNTING HARDWARE	LT-25058 LT-25836 LT-3738 SC-22768					
DOOR, INNER BUMPER	BM-25072					
DOOR, INNER BUMPER STOP	BM-25089					
DOOR, OS CPL RIGHT HAND	CT-2510037					
DRIP TRAY	14475					
GASKET, DOOR	GS-2954					
HINGE, INNER DOOR PART HINGE, INNER DOOR PART	PI-25339 PI-25340					
HINGE, LOWER BRACKET	HG-25159					
HINGE, LOWER PLATE HINGE, LOWER DOOR RATCHET	HG-25100 HG-25101					
HINGE, UPPER BRACKET	HG-25160					
HINGE, UPPER DOOR RATCHET	HG-25079					
HINGE, UPPER PLATE MOUNTING HARDWARE: — SCREW, AXIS — WASHER, COVERING — WASHER, ECCENTRIC BLOCK — WASHER, SCHMORR STYLE — HINGE, TOP STOP	 SC-25102 WS-25127 WS-25124 WS-25478 HG-25077					
INNER DOOR, RH, FOR RETRACTABLE DOOR	DR-25146					
ELECTRICAL/ELECTRONIC PARTS:						
ADJUSTING ROCKER (COMPLETE) ADJUSTING ROCKER KNOB	KN-33734 KN-33735					
BOARD, LED CLOSED SYSTEM	BA-33732					
BOARD, COMMUNICATION 5000KM	BA-33738					
BOARD, DISPLAY CONTROL	BA-33732					
BOARD, POWER SUPPLY	BA-33737					
BOARD, PROGRAM MODULE (DELUXE MODELS) —CONNECTOR, X11/X12	BA-33742 CR-33743					
BOARD, RELAY CONTROL	BA-33736					
BUSHING, DISTANCE	BU-25094					

PART DESCRIPTION	20•20					
ELECTRICAL/ELECTRONIC PARTS (CONTD.):						
TERMINAL BLOCK X7 (CONNECTOR, 9 POLES)	TM-33774					
TERMINAL BLOCK X6 (CONNECTOR, 16 POLES)	TM-33773					
CONTACTORS, 20A, TYPE # DL4K-01	CN-3652					
CONTACTORS, 25A, TYPE # DL7K-4H	CN-3654					
CONTACTORS, 50A, TYPE # DL15K-00	CN-3731					
ELEMENT, HEATING, FLANGED IMMERSION 6kW	EL-33412					
ELEMENT, HEATING, FLANGED IMMERSION 9kW	EL-33411					
ELEMENT, HEATING, O-RING	SA-23932					
ELEMENT, HEATING, CONVECTION (440-480V, 3PH)	EL-3853					
ELEMENT, HEATING, CONVECTION MNTG HARDWARE — WASHERS, FLAT — WASHERS, SPLIT LOCK — HEX NUTS —O-RING —WASHER, CONICAL	 WS-22294 WS-22300 NU-22286 SA-23932 13607					
FAN, INTAKE, AUXILIARY DC4112NX	FA-3568					
FAN, WHEEL	WH-3734					
FUSE, SLOW-BLO 2AMP, 250V FUSE, SC-5 FUSE, NEOZED 6.3AMP FUSE HOLDER, DIN RAIL MOUNT WITH DISCONNECT	FU-33184 FU-33581 FU-33452 FU-33756					
FUSE HOLDER, 15AMP, 3POL, CLASS G	FU-3842					
FUSE HOLDER, 60AMP, 3POL, CLASS G FUSE, 45AMP, MP, CLASS G 10•18 (208-240V, 3PH)	FU-33039 FU-33040					
MOTOR, SUB ASSEMBLY (208-240V, 1PH/3 PH	5000602					
NUT, KNURLED M3	NU-25095					
PANEL, CONTROL OVERLAY (DELUXE MODELS)	PE-25345					
PANEL, CONTROL OVERLAY (DELUXE PROGRAM OPTIONS) PANEL LOCK-DOWN SCREW LOCK CLIP	PE-25048 CL-24089 WS-24090					
PROBE, MULTI-POINT CTC	PR-33746					
PROBE, TEMPERATURE	PR-33759					
PROBE, THERMOCOUPLE (1650mm WIRE LENGTH)	PR-33784					
PROBE, STEAM BYPASS & WATER COOLING, (THERMOCOUPLE, 3050mm WIRE LENGTH)	 PR-33751					
PROBE SEAL, THERMOCOUPLE	SA-25061					
PROBE, WATER LEVEL PROBE, WATER LEVEL TIP CONNECTORS	PR-3706 CR-3851					

PART DESCRIPTION	20•20					
ELECTRICAL/ELECTRONIC PARTS (CONTD.):						
SWITCH, MOTOR PROTECTION (3PH ONLY)	SW-33378					
TERMINAL, PLUG	TM-3926					
TERMINAL BLOCK X1	TM-33747					
TERMINAL BLOCK X2	TM-33748					
TERMINAL BLOCK X3	TM-33749					
TERMINAL, GROUND	TM-3781					
TERMINAL GROUND X10	TM-3782					
TERMINAL PARTITION	TM-3786					
TERMINAL BLOCK X10	TM-3780					
TERMINAL BLOCK X10 & X11	TM-3778					
TERMINAL JUMPER BAR (2 POLE)	TM-33674					
TERMINAL JUMPER BAR (3 POLE)	TM-33106					
TERMINAL JUMPER BAR (2 POLE)	TM-33064					
TERMINAL JUMPER BAR (4 POLE)	TM-3787					
TRANSFORMER	TN-33344					
THERMOSTAT, SAFETY	TT-3750					
VALVE, TRIPLE SOLENOID	VA-25481					
MECHANICAL PARTS:						
BUSHING, MOTOR ASSEMBLY	BU-23894					
BUSHING, SOCKET MEMBRANE, VENT	BU-22204					
CLEAR FLEX HOSE	HO-22255					
DRAIN SCREEN	DA-2943					
LIGHT BULB	LP-3686					
LIGHT, GLASS COVER	LP-33413					
LIGHT SEAL	SA-23934					
LIGHT, SOCKET RECEPTACLE	RP-3986					
PROBE PLUG ADAPTOR PROBE PLUG PROBE PLUG SEAL PROBE SEAL, INSERT PROBE SEAL, CONE PROBE SEAL, TOP	PG-3826 PG-3827 SA-22199 SA-22322 SA-22321 SA-22320					
SCREW COVER, M6 NATURAL	SC-23936					
STEAM GENERATOR OUTLET CAP	CP-22758					
STEAM GENERATOR OUTLET CAP WASHER, SILICONE	WS-22751					
TROLLEY BRIDGE, LOWER FRONT TROLLEY GASKET, BOTTOM	12773 GS-22576					

Parts List • Combitherm ML Electric

PART DESCRIPTION	20•20					
PLUMBING PARTS:						
BACK FLOW PREVENTER	VA-2457					
CONDENSATE TANK COVER NUT	SC-24070					
CONDENSATE TANK COVER SCREW	SC-23936					
CONDENSER, INJECTION NOZZLE	5000284					
CONDENSER, O-RING	SA-22212					
CONDENSER, O-RING 8x2.5 EPDM	SA-23109					
DRAIN, STEAM GENERATOR PUMP PUMP MOUNTING HARDWARE	DA-24973 1000719					
PIPE, DRAIN EXTENSION	PP-25137					
HAND SHOWER ASSEMBLY: — HAND SHOWER (FULL ASSEMBLY) — HOSE, BALL VALVE — HOSE, SPRAY HANDLE — HOSE ASSEMBLY — HOSE, SPRAY NOZZLE — HOSE WASHERS, FLAT SEAL - 3/4" (19mm)	 14577 VA-22684 PB-23920 PB-24066 PB-23919 WS-22207					
HOSE, CONNECTOR ELBOW WITH SEAL HOSE, CONNECTOR ELBOW SEAL	HO-22116 WS-22208					
HOSE, PUMP	HO-25070					
HOSE, RADIATOR	HO-22254					
HOSE, STEAM BYPASS	HO-2957					
PROBE, MEASURE WELD	5000283					
STEAM GENERATOR DRAIN ELBOW	EB-25106					
STEAM GENERATOR INJECTION NOZZLE	5000292					
SCREEN FILTER	FI-2946					
WATER CONDITIONER KIT INCLUDES: WATER CONDITIONER CARTRIDGE	FI-23014 FI-12017					
TROLLEY PARTS: PART NUMBER 5815						
TROLLEY CASTERS, 5" (127mm) RIGID	CS-23578					
TROLLEY CASTERS, 5" (127mm) SWIVEL WITH BRAKE	CS-23579					
TROLLEY DRIP PAN	14475					
TROLLEY HANDLE	FR-22715					
TROLLEY GUIDE BLOCK, TEFLON®	BK-22100					
TROLLEY SHELF	SH-22473					
TROLLEY SHELF LOCK	LK-22556					

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, nor accept deductions in payment for such claims.

ALTO-SHAAM® LIMITED WARRANTY

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

The labor warranty remains in effect one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first.

The parts warranty remains in effect one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first.

Exceptions to the one year part warranty period are as listed:

A. Halo Heat cook/hold ovens include a five (5) year parts warranty on the heating element. Labor will be covered under the terms of the standard warranty period of one (1) year or fifteen (15) months.

B. Alto-Shaam Quickchillers include a five (5) year parts warranty on the refrigeration compressor. Labor will be covered under the terms of the standard warranty period of one (1) year or fifteen (15) months.

This warranty does not apply to:

1. Calibration.
2. Replacement of light bulbs and/or the replacement of display case glass due to damage of any kind.
3. Equipment damage caused by accident, shipping, improper installation or alteration.
4. Equipment used under conditions of abuse, misuse, carelessness or abnormal conditions.
5. Any losses or damage resulting from malfunction, including loss of product or consequential or incidental damages of any kind.
6. Equipment modified in any manner from original model, substitution of parts other than factory authorized parts, removal of any parts including legs, or addition of any parts.

This warranty is exclusive and is in lieu of all other warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose. In no event shall the Company be liable for loss of use, loss of revenue, or loss of product or profit, or for indirect or consequential damages. This warranty is in lieu of all other warranties expressed or implied and Alto-Shaam, Inc. neither assumes or authorizes any persons to assume for it any other obligation or liability in connection with Alto-Shaam equipment.

ALTO-SHAAM, INC.

Warranty effective January 1, 2000

RECORD THE MODEL AND SERIAL NUMBER OF THE OVEN FOR EASY REFERENCE. ALWAYS REFER TO BOTH MODEL AND SERIAL NUMBER IN ANY CONTACT WITH ALTO-SHAAM REGARDING THE OVEN.

Model Number: _____ Date Installed: _____

Voltage: _____ Purchased From: _____

Serial Number: _____ _____

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