

FOR QUESTIONS, CONTACT THE SERVICE DEPARTMENT AT: service@servware.com or 800•768•5953

# **Electric Convection Oven**

# Service, Installation and Care Manual

Please read this manual completely before attempting to install or operate this equipment. Notify **carrier** of damage! Inspect all components immediately.



IMPORTANT INFORMATION
ABOUT YOUR SERV-WARE UNIT ENCLOSED.
PLEASE READ BEFORE USE!

Save These Instructions!

Parts & Service Manuals Available at:

www.servware.com

800.768.5953

#### **ELECTRIC CONVECTION OVEN SAFETY**

Your safety and the safety of others are very important.

We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.





This is the Safety Alert Symbol. This symbol alerts you to potential hazards that can kill or injure you and others. All safety messages will follow the Safety Alert Symbol and either the words "DANGER", "WARNING" or "CAUTION".



**DANGER** means that failure to heed this safety statement may result in severe personal injury or death.



**WARNING** means that failure to heed this safety statement may result in extensive product damage, serious personal injury, or death.



**CAUTION** means that failure to heed this safety statement may result in minor or moderate personal injury, or property or equipment damage.

All safety messages will alert you to what the potential hazard is, tell you how to reduce the chance of injury, and let you know what can happen if the instructions are not followed.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard. This appliance is not intended for use by persons with lack of experience and knowledge regarding this type of equipment, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Cleaning and user maintenance shall not be made by inexperienced persons without supervision.

Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance. The appliance uses flammable insulation blowing gas C5H10, disposal of the appliance shall be in accordance with the regulations of federal, state and local authorities.

# **ELECTRIC CONVECTION OVEN SAFETY**

The key for appliance electric box should be safe kept by qualified persons in order to avoid a hazard.



WARNING: Risk of fire / flammable materials.



#### WARNINGS

- Any self-modification, wrong installation, adjustment or maintenance can lead to property loss or casualty. Please contact the manufacturer for any adjustment or maintenance, and have the work done by a trained & qualified person.
- For your safety sake, please keep the machine away from any liquid, gas or other object, which is flammable or explosive.
- This appliance should not be operated by those who have physiological, perceptual or mental disabilities or those who have insufficient experience or knowledge (including children). Only in conditions of being given sufficient supervise & guarantee of personal safety, as well as proper instructions & guidance, those who were mentioned above can make some particular operation of this device.
- · Keep children away from the device.
- Preserve this manual safely. When passing on/selling the device to a third party, the manuals
  must be handed over along with the device. All users must operate the device complying
  with the user's manual and related safety guidelines.
- Do not store or use gas, liquid or object that is flammable or explosive in vicinity of the mounting position.
- If the appliance is placed near walls, partitions or kitchen furniture and the like, it is advisable to make these facilities with non-combustible material, otherwise cover them with non-combustible heat-resistant material, and pay attention to fire prevention regulations.

SERV-WARES

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# **FUNCTIONAL INTRODUCTION**

- High-efficiency oven with high-efficiency heating tube, direct forced hot-air system, 220-240V, 60Hz, one phase.
- Electronic temperature controller.
- · Double layer heat-resistant glass doors and windows with chamber light.
- 60 minutes continuous bell timer, also can be manually cut off.
- Temperature range: 150°F (65°C) 550°F (288°C).
- 1/2-1/10HP two-speed air cooling fan & motor.
- Cooling fan code.
- With electric heating indicator light and power stand-by indicator light.
- Stainless steel chamber with arc angles.
- 11 removable grid rail, space 1 5/8", 3 chrome net frames.
- The top & front part are made by stainless steel.
- · Black coating steel feet are adjustable.
- Independent stainless steel door, double-layer heat-resistant glass window, with separate door handles.

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# **FUNCTIONAL INTRODUCTION**

- · Stainless steel door seal.
- Double equipment, superposition device.
- Hinged control panel installed in the front, easy to disassemble & repair.
- The top, side, back of the oven & the internal are made by industrial durable insulation materials.

# **SPECIFICATIONS**

- Full size electrothermal forced convection oven, single or double layer free combination, monolayer & two-layer for free combination.
- Standard specification: high-efficiency heating tube, two-speed fan with cooling function, driven by the efficient 1/2 1/10HP air-cooling fan & motor.
- The door interlocking switch have the function to turn off the motor & heating tubes
  automatically when the door opened. In the air-cooling code, the fan is started when the
  door is opened for rapid cooling. 60 minute timer with a continuous ring alarm, can cut off
  the alarm manually. When the electric heating tube works, the indicator light is illuminated.
- Oven internal size: 29" (737mm) × 20" (508mm) × 22 1/4" (567mm), detachable 11 bit grid rail, 1 5/8" (41mm) space, with 3 adjustable chromium nets.

#### **NOTE!**

# Food can not be placed directly on the grid when cooking.

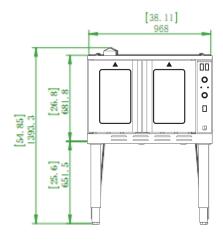
- The external size of the oven is: length: 38.1" (968mm); width: 37.8" (961mm) without handle, 41.5" (1053mm) with handle, high: 29.2" (742mm) without leg, its front, top and decorative strips are made of stainless steel.
- Independent of the open type stainless steel door, two doors can be opened separately, with 2-layer heat-resistant glass, stainless steel seals and cool-touch handles for each door. The inside and outside of the furnace is with 2" industrial material for complete insulation. Standard bore lamp.

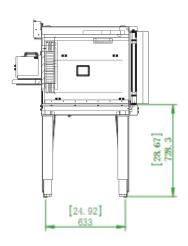


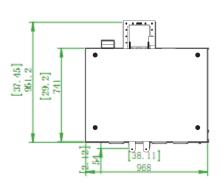


# STRUCTURE SCHEMATIC DIAGRAM

# **Dimensions**



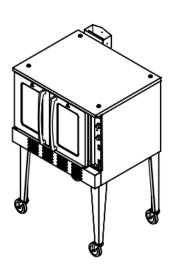




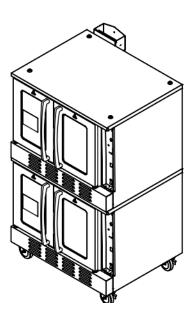
Stainless Steel Feet Version



**Caster Version** 



Double Stacked Version



# **BASIC FEATURES AND PARAMETERS**

Basic Features of the SECO Electric Convection Oven				
Dimensions	38.11" (968mm) × 41.46" (1053mm) × 54.09" (1374mm)			
Net Weight	231.49 lbs (105kg)			
Packing Dimensions (Wooden)	47.24" (1200mm) × 40.94" (1040mm) × 38.58" (980mm)			
Gross Weight				
Oven Capacity (LWH)	29.02" (737mm) × 22.32" (567mm) × 20" (508mm)			
Temperature Range	149°F (65°C) - 550.4°F (288°C)			

Power Parameters										
Model	Total Power Voltag (kW)	Voltago	Phases	Amps			Fan-50HZ		Fan-60HZ	
Model		voitage		L1	L2	L3	High Speed	Low Speed	High Speed	Low Speed
SECO-2201	11	220	1	53	-	53	1425	748	1725	850
Remark: Each device needs a separate electrical connection. Only SECO-2081 and SECO-2201 can be assembly into double stacked version.										

#### Installation:

- 1. Before beginning the installation, remove the packaging. A few parts are protected with an adhesive film, which should be removed carefully. Remove any glue residual with the proper substances, such as petrol; never use abrasive substances.
- 2. Mount the unit feet; the unit must be leveled; small differences of height can be solved by adjusting the feet.
- 3. We recommend placing the unit under a suction hood so that vapor can quickly evacuate.
- 4. Install the unit at least 2" from the wall if the wall does not bear a minimum temperature of 150°C (see Fig.1). If the unit is placed very close to the wall, partition walls, kitchen cabinets, decorative walls, etc., we recommend that they are made with a non-combustible material with a proper thermal insulation. Pay a lot of attention to regulations concerning fire prevention.

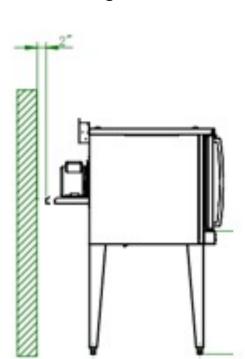


Figure 1:

Do not locate the oven adjacent to any high heat or grease-producing piece of equipment, such as a range top, griddle, fryer, etc., that could allow radiant heat to raise the exterior temperature of the oven above 130°F (54°C). Do not mount above other cooking equipment.

## 5. Law provisions, technical regulations and directives:

The manufacturer declares that the appliances comply with the EEC directives and the particular reference regulations. The manufacturer requires the installation to be performed according to the regulations in force. Before installing, check that the following provisions are met:

- Building regulations and local fire prevention measures
- Accident prevention regulations in force
- Local Gas Board regulations
- Local electric energy supply Board regulations

#### 6. Notes for the installer:

- Explain and demonstrate how the appliance works to the user according to the instructions, and hand him the user's manual.
- Remind the user that, in the event of any structural alterations or modifications to the room that houses the appliance, the appliance functions must be rechecked.

#### 7. Room ventilation:

- The room where the appliance is installed must be fitted with air intakes to guarantee the correct operation of the unit and air exchange
- Do not install the appliance close to other units that can reach high temperature: the electrical components might be damaged.
- During installation, make sure the air suction and evacuation ways are free from any obstacles.

#### **Electric Connection:**

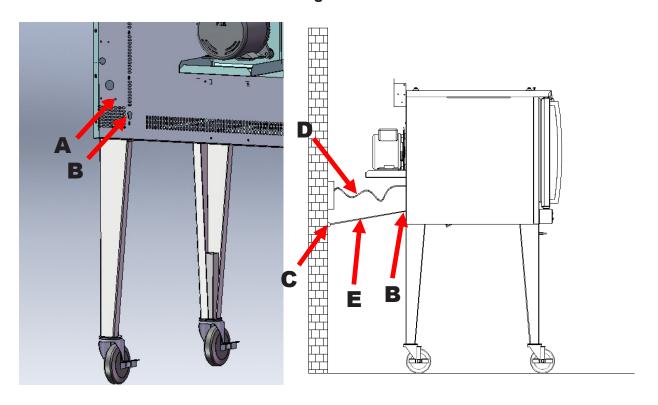
- 1. Before connecting the appliance to the network, check the following:
- Network voltage corresponds to the data written in the plate.
- Grounding is efficient.
- The connection cable is suitable to the power absorbed by the appliance.
- 2. Place a device before the appliance itself that allows the unit's disconnection from the mains circuit in an omnipolar way; this device must have an opening of contacts of at least 3mm. safety switches can be used. The omnipolar switch must be close to the appliance, be approved and have a section suitable to the appliance.
- 3. The cable must be the Oil resistant type. The YELLOW-GREEN ground cable must be longer than the others in the event that, if the cable stopper breaks, the cable will disconnect after the tension cables. The YELLOW-GREEN cable must never be broken. The yellow-green cable must be connected to the terminal firstly and then connected to the outer layer. The grounding element must be attached to the machine enclosure.

#### **Adjustable Foot and Caster Installation:**

- When install the adjustable foot, make the mounting screws into correct position and tighten up. According to the machine balance, could adjust the screw on the feet to make stable.
- Caster installation:
- 1. The casters with the brakes are installed in the front, and the casters without the brakes are installed in the rear.
- 2. The electric convection oven equipped with caster must be installed the limit devices at the same time. To limit the pulling power cord or connector (below D), this device can soft connect oven back and the wall or floor.
- 3. The chain or wire rope are available to use for connection material (below E). One end is fixed on the wall or the ground (below C), another end is fixed at the back of the oven (back strip gaps, the following figure location B); The fixed length is no more than 4/5 of the power cord (figure D). Vesta does not provide the required connection materials and joints.

# **Adjustable Foot and Caster Installation (Continued):**

Figure 2:



- A) Oven Back
- B) Limiting Position (the other end is fixed to the wall / ground)
- C) Fixed on the wall
- D) Power Cord
- E) Chain

#### **Usage Considerations For Double Stacking:**

- 1. If two appliances are needed for simultaneous operation, to save space, these two products can be stacked together to use.
- 2. During stacking, replace the long leg with 6" leg or caster as indicated in Fig.3:

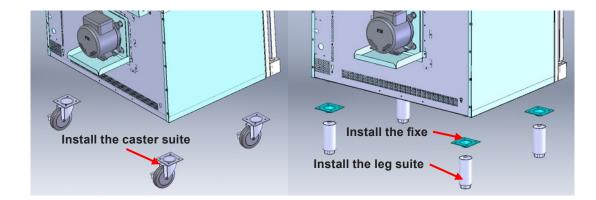
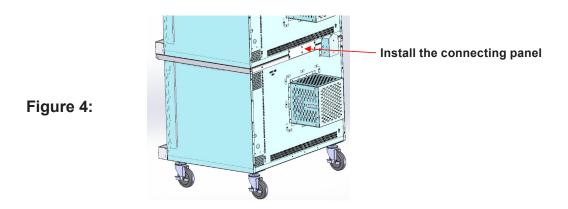


Figure 3:

3. Fix the intersection area between the top and bottom appliance with a connecting panel as indicated in Fig.4:



4. If the double stacked version is equipped with casters, a restraining device, which should be fixed to the bottom appliance, must be installed to limit the movement of the appliance. See 5.3 for installation.

#### **CAUTION!**



This product has two power supply cords. Connect each Power Supply Cord to a receptacle that is connected to an individual branch circuit. Disconnect both cords before moving or servicing this appliance. (SECO-2081 and SECO-2201)

Only SECO-2081 and SECO-2201 can be assembled into double stacked version.

#### Warnings:

- 1. Always supervise the appliance while being used and never let it run while empty.
- 2. The appliances do not require special adjustment assistance from specialized personnel if the adjustments are carried out by the user during the use of the appliance.
- 3. Use only the accessories recommended by the manufacturer.
- 4. During the initial uses of the appliance, an acrid or burning smell may be detected. This will disappear after two or three uses.
- 5. After use, the areas are hot for a certain amount of time (residual heat). Avoid resting your hands on them and allowing children to get too close.
- 6. These are very important regulations; if they are neglected, the appliance may not perform properly or the user may be placed at risk.
- 7. The appliance is strictly for professional use and must be used by qualified personnel.
- 8. The installation, start-up and maintenance of the appliance must be carried out by qualified personnel.
- 9. All installation works must be carried out according to the law in force. The manufacturer is not responsible for damages due to an incorrect installation, bad maintenance or incorrect use.



# **WORKING INSTRUCTIONS AND OPERATION FLOW**

#### **Operating the Controls:**

A convection oven is a different type of oven that offers many features and advantages to the food service operation. The additional capabilities and features of the oven require some learning. However, the operation of the oven is not difficult to understand or control once you have some practice. See the controls in the following feature:

#### **Power Switch:**

Switch ON to use the oven, switch OFF when do not use.

#### **Cook Timer:**

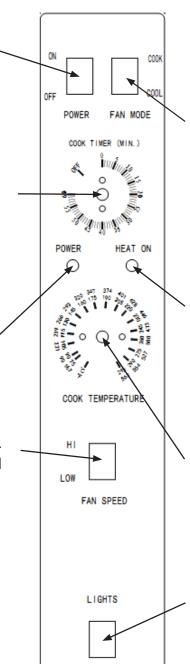
Turn knob to set a time duration. An alarm will sound when the timer runs out. Turn the knob to OFF to cancel the alarm. The timer is a reminder to the user; the timer does not control the oven.

# **Power Light:**

Switch ON, and the light turns on. Switch OFF, and the light turns off.

# HI / LOW Fan Speed:

Use to select fan speed (HI or LOW). The appropriate speed is determined by the type of food being cooked.



#### Fan Mode:

In COOK mode, the fan runs continuously except when the doors are open. The fan does not cycle with the operation of the burners. In COOL mode, the fan runs continuously even if the doors are open. To rapidly cool the oven after cooking is completed, open the doors and switch the fan mode to COOL.

#### **HEAT-ON Indicator:**

The HEAT-ON indicator will light when the burners are on and will remain on while the oven preheats.

# **Cook Temperature Control:**

Turn the knob to desired temperature. When the set point is reached, the HEAT ON indicator will be off. When the burners maintain in the set temperature, the indicator will cycle on or off.

## **Oven Interior Light Switch:**

Press to turn on the light.

The light is controlled independently.

# **WORKING INSTRUCTIONS AND OPERATION FLOW**

## **Operations:**

Turn the oven ON and select a cooking temperature. Two additional controls are used to control the fan (as described below). The timer is a reminder to you of when to remove food from the oven. The timer does not control the temperature of the oven.

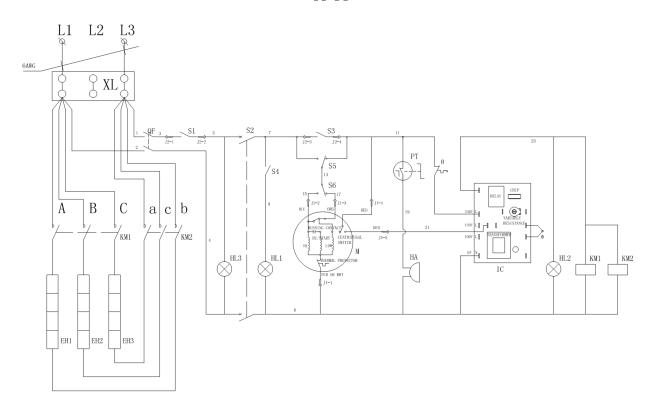
#### To cook, do the following:

- 1. Turn the oven ON using the Power Switch at the top of the control panel.
- 2. Select the desired fan speed using the Fan Speed switch. The appropriate fan speed (HI or LOW) depends on the type of food being cooked.
- 3. Switch the Fan Mode switch to COOK. The fan will run continuously when the oven doors are closed (the fan does not cycle on and off with the burners). (If this switch is set to COOL, the only difference is that the fan will continue to run when the oven doors are open.)
- 4. Set the cooking temperature by turning the Cook Temperature Control until the indicator mark on the knob is pointed to desired cooking temperature. The HEAT ON indicator will light when the burners are on and will remain on while the oven preheats.
- 5. Wait until the HEAT ON indicator has come on and gone out three times. At that time the oven will have reached the set cooking temperature.
- 6. Open the oven doors, load the product into the oven, and close the doors.
- 7. You can use the Cook Timer as a reminder of when to remove the load from the oven. If so desired, turn the Cook Timer knob until the indicator mark points to the desired cooking time (up to 60 minutes). The timer knob will rotate counterclockwise as the timer runs down, indicating how much time remains. You can turn the knob while cooking to increase or decrease the remaining time. When the timer runs out, a buzzer will sound (To immediately silence the buzzer, turn the Cook Timer knob to the OFF position.) The timer is a reminder to you; the timer does not control the oven.
  - If you open the oven doors, the burners and fan will shut off until the doors are closed. However, the timer will continue running even if the doors are open.
  - For ovens that are equipped with an oven interior light, to turn on the light, press and hold the switch located at the bottom of the control panel.
- 8. When the load has finish cooking, you can rapidly cool the load by opening the oven doors (which will shut off the burners) and switching the Fan Mode to COOL (which will cause the fan to run even though the doors are open). For the most rapid cooling, also switch the Fan Speed switch to HI.
- 9. When you are done cooking, turn the Cook Temperature Control to the lowest setting (fully counterclockwise) and switch the Power Switch to OFF.



## **ELECTRICAL DIAGRAM**

#### **1PH**



XL ----- Connecting Terminal

KM1/KM2 ----- AC Contactor

EH1/EH2/EH3 ----- Electric Heating Tubes

QF ----- Air Switch

**\$1** ----- Protection Switch of Electrical Box

S2 - - - - Power Switch

\$3 ----- Door Control

**S4** ----- Interior Light Switch

\$5 ----- Cooling Switch

**S6** ----- Fan Switch (HI / LOW)

HL1 ----- Interior Light

HL2/HL3 ----- Indicator Light

**M** ----- Motor

PT ----- Timer

HA ----- Buzzer

IC ----- Electronic Thermostat

**0** ----- Temperature Limiter



# **CLEANING AND MAINTENANCE**

- 1. Before cleaning, switch off the unit and let it cool down.
- 2. Carefully clean daily the appliance to guarantee its proper operation and long life.
- 3. Steel surfaces must be cleaned with a dish washer detergent diluted in very hot water by using a soft cloth; for the toughest dirt, use ethylic alcohol, acetone or another non-halogenated solvent; do not use abrasive powder detergents or corrosive substances such as hydrochloric acid, muriatic or sulphuric acid. The use of acids can affect the unit's operation and safety. Do not use brushes, steel cottons or abrasive disks made with other metals or alloys that might cause rust stains due to contamination. For the same reason, avoid contact with iron objects. Do not use steel cottons or stainless steel brushes because whilst they will not contaminate surfaces, they can cause damaging scratches.
- 4. Metal powder, metal shavings from working and iron material in general, when in contact with stainless steel surfaces, can cause rust stains. Superficial rust stain might be present on new appliances and they can be removed with a detergent diluted in water and a Scotch Brite sponge. If dirt is tough, do not use sandpaper or rough paper, but use synthetic sponges (for example Scotchbrite sponges).
- 5. Do not use substances for cleaning silver and be careful with hydrochloric or sulphuric vapors coming from floor washing products, for example. Do not aim water jets directly on the appliance, it might be damaged. After cleaning, rinse properly with clean water and dry carefully with a cloth.
- 6. The appliances are made in a way that little maintenance is necessary. Despite this, we recommend that the user subscribes to a maintenance agreement to have the appliance checked at least once a year by the specialized personnel of our assistance service or by a specialized technician.
- 7. Before carrying out any maintenance or repair, disconnect the appliance from the gas network or cut off the mains. Use only original spare parts supplied by the manufacturer.
- 8. If the appliance is not used for long period of time, please clean the equipment and the surrounding areas properly. Pour a small quantity of cooking oil on the stainless steel surfaces. Carry out all maintenance operations. Cover all appliances with a suitable material and leave a few openings to allow air to circulate.

(SERV-WARE)

# SERV-WARE PRODUCTS LIMITED LABOR AND PARTS WARRANTY ELECTRIC CONVECTION OVEN

Serv-Ware Products warrants to the original owner/user that any Electric Convection Ovens manufactured by Serv-Ware Products ("the products") shall be free of defects in material or workmanship under normal and proper use and maintenance service as specified by Serv-Ware Products and upon proper installation and start-up as well as for a period of one (1) year from the original installation date or a maximum of eighteen (18) months after the shipment date from Serv-Ware Products. The obligation of Serv-Ware Products and the rights and remedies of the owner/ user under this warranty are exclusively limited to (1) the repair or replacement, including labor charges, of parts or assemblies that in Serv-Ware Products opinion are defective within one year after the original date of installation; The labor warranty shall include standard straight time labor charges at the product location only and shall exclude charges for travel time, mileage or other premium charges. Any labor service required to fulfill the warranty obligation must be performed by a service company qualified and accepted by Serv-Ware Products.

(See Specification sheets for warranty period details.)

This warranty does not include parts or labor coverage for component failure or other damage resulting from:

- External electrical power failure or miswiring to Product for any reason.
- · Adverse operating conditions as set forth in the owner/user manual for the Product.
- Failure to clean and/or maintain Product as set forth in the owner/ user manual for the Product.
- Units in non-commercial/ residential settings.

All claims for labor or parts must be made through Serv-Ware Products. The defective part for which labor reimbursement is claimed, together with the service invoice, must be returned to the Serv-Ware Products within fifteen days from the date of service to be eligible for labor and parts warranty coverage. All replacement parts must be approved Serv-Ware Products parts. Incidents of failure that do not require replacement of a part shall be explained in sufficient detail on the service invoice to identify the failure. All claims shall include the product model number, serial number, original date of installation and customer identification.

The foregoing warranty shall not apply to (1) any part or assembly (a) that has been altered, modified, or changed, (b) that has been subjected to misuse, abuse, neglect or accidents, or (c) any Product on which the serial or model number has been removed or altered, or (2) any Product that has been installed and /or maintained inconsistent with Serv-Ware Product's technical publications, or (3) any Product that has been installed or is located outside the standard warranty coverage area. Warranty valid in United States only. Contact factory for warranty in other countries.

#### "LIMITATION OF LIABILITY AND OTHER WARRANTIES"

Serv-Ware Products assumes no liability for misuse or inadequate maintenance of the Product. In no event shall the user by entitled to recover incidental or consequential damages, including but not limited to, damages for inconvenience, food loss, rental or replacement equipment, loss of profits, or other commercial loss. Warranties stated above are the only warranties made in connection with the sale and distribution of the Products. ANY AND ALL OTHER EXPRESSED, STATUTORY AND IMPLIED WARRANTIES APPLICABLE TO THE PRODUCT INCLUDING, WITHOUT LIMITATION, ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE EXPRESSLY DISCLAIMED. The warranty information set forth above shall be governed by and construed in accordance with the lawsof the State of North Carolina and, if applicable, the laws of the United States of America. The warranty, as stated, is extended only to the original owner/user and is not assignable.





NOTES		





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Parts & Service Manuals Available at:

www.servware.com

800.768.5953