

**MICROPROCESSOR  
CONTROLLED OVEN**

MODEL: CE5G

INSTALLATION AND OPERATION MANUAL

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SECTION 1.0











# RECEIVING AND INSPECTION

**Your satisfaction and safety require a complete understanding of this unit. Read the instructions thoroughly and be sure that all users are given adequate training before attempting to use this unit. Note: This equipment must be used only for its intended purpose; any alterations or modifications will void your warranty.**

- 1.1 Inspection:** The carrier, when accepting shipment, also accepts responsibility for safe delivery and is liable for loss or damage claims. On delivery inspect for visible exterior damage, note and describe on the freight bill any damage found and enter your claim on the form supplied by the carrier.
- 1.2** Inspect for concealed loss or damage on the unit itself, both interior and exterior. If any, the carrier will arrange for official inspection to substantiate your claim.
- 1.3 Accessories:** Verify that your accessory package is complete. All units should have a set of four (4) Leveling feet, two (2) shelves and eight (8) shelf clips.
- 1.4 Return Shipment:** Save the shipping crate until you are sure all is well. If for any reason you must return the unit, contact your customer service representative for authorization and supply data plate information. Make sure to include the model and unit serial number. The service representatives will furnish you with a return authorization number and address for return. Note: Make sure this return authorization number appears on the unit packaging and shipping papers. Units returned without proper authorization may not be accepted at the factory. For information on where to contact Customer Service please see the manual cover.

# GRAPHIC SYMBOLS

Your oven has been provided with a display of graphic symbols which should help in identifying the use and function of the available user adjustable components.

- 2.1  This symbol indicates that you should consult your manual for further description or discussion of a control or user item.
- 2.2  Indicates "**AC Power**".
- 2.3  Indicates "**Manual Control**".
- 2.4  Indicates "**Timer**".
- 2.5 °C Indicates "**Degrees Celsius**".
- 2.6  Indicates "**Temperature**".
- 2.7  Indicates "**Over Temperature Safety**".
- 2.8  Indicates "**Earth Ground Symbol**".
- 2.9  Indicates "**Potential Shock Hazard**" behind this panel.

# INSTALLATION

rinse the cleaned surface with a damp cloth, using water only, and dry the surfaces with a clean cloth. DO NOT USE chlorine-based bleaches or abrasives as they will damage the stainless steel surface. DO NOT USE spray cleaners that might leak through openings and cracks and get on electrical parts or that may contain solvents that will harm the coatings. A similar periodic cleaning is recommended.

**WARNING:** Never clean the unit with alcohol or flammable cleaners with the unit connected to the electrical supply. Always disconnect the unit from the electrical service when cleaning and assure all volatile or flammable cleaners are evaporated and dry before reattaching the unit to the power supply.

**3.6 Burning In:** It is recommended that the unit go through a “burning in” process prior to operation. This is to eliminate the smoking of protective coatings on the element. Read sections 4, 5 and 6 carefully to understand operating requirements. To burn in turn the Overtemperature Safety to maximum and set the digital display to 200. Run for a minimum of one hour under ventilation until smoke dissipates.



# PRECAUTIONS

- 4.1 This unit has been designed with a dampered vent from the chamber. In order to work effectively and safely, some precautions will need to be taken by the operator.
- A. In most applications, the exhaust damper will need to be opened during drying or degassing for best results.
  - B. **THIS OVEN IS NOT DESIGNED TO HANDLE COMBUSTIBLE GASSES AND IS NOT AN EXPLOSION PROOF UNIT. Do not place explosive, combustible, or flammable materials into the chamber.**
  - C. Some of the out gassed by products may be hazardous or unpleasant to operating personnel. If this is the case, the exhausts should be positively ventilated to the outside and dealt with according to local regulations. Your dealer can provide you with a power exhaust which greatly helps under these applications.
- 4.2 Do not operate near noxious fumes.
- 4.3 Do not place sealed or filled containers in the oven chamber.
- 4.4 Do not cut or remove the ground prong from the power cord.
- 4.5 Do not use a 2-prong adapter plug.
- 4.6 Be sure that the power supply is of the same voltage as specified.
- 4.7 Disconnect the unit from its electrical source before proceeding to make any electrical repairs or replacements.
- 4.8 If a mercury thermometer is used for calibration and breakage should occur, all spilled mercury **MUST** be completely removed from the chamber before continuing operation.
- 4.9 This oven is **NOT** designed for the use in Class I, II, or III locations as defined by the National Electric Code.
- 4.10 This oven is not intended, nor can it be used, as a patient connected device.



## CONTROL PANEL OVERVIEW (See Figure One)

- 5.1 Power Switch:** The main power switch on the control panel (green lighted I/O) controls all power to the oven. It must be in the I/On position before any systems are operational. The green pilot light in the switch will be lighted when the switch is in the ON position.
- 5.2 Timer Switch:** The black I/O power switch marked TIMER is located to the right of the main power switch. It controls the power to the time circuit. In the O/Off position the oven heat is controlled with no timed duration. In the I/On position heat is controlled for a timed interval and then the heat shuts off.
- 5.3 Overtemperature Safety Thermostat:** This control is marked HIGH LIMIT and is equipped with an adjustment knob and a graduated dial from 0 - 10. It is independent of the Main Controller and guards against any failure which would allow temperature to rise past the Main Controllers set point. This allows continued operation of the oven until the problem can be corrected or service can be arranged. It is not recommended that the unit be operated for extended periods of time using only the Overtemperature Safety as the temperature controller as temperature uniformity will suffer.
- 5.4 OTP Light:** This pilot lamp is directly above the Overtemperature Safety Thermostat. The light will come on when the Safety Thermostat has been activated and taken control of the oven. Under normal operating conditions the pilot lamp should never be on.
- 5.5 Timer Control:** This control is marked SET/TIMER and consists of a digital display, UP/DOWN arrow pads, a RESET "PUSH" pad, a START/STOP "PUSH" pad and a TIMER ACTIVATED light. This control provides the ability to set a timed heat interval, activate the start-up of the timed heat cycle and shut down the timed heat cycle automatically.
- 5.6 Main Temperature Controller:** This control is marked SET/TEMPERATURE and consists of the digital display and UP/DOWN arrow pads for inputting set point temperatures and calibration.
- 5.7 Temperature Activated Light:** This pilot lamp will be lit whenever the elements are receiving power.





# OPERATION

- 6.1 Connection to Power Supply:** Assure that the electrical power supply is properly configured and rated for the oven and plug the unit cord into the receptacle.
- 6.2** Push the main power switch to the On position. The digital temperature display will indicate a temperature value. Turn the Overtemperature Safety Thermostat to its maximum position, clockwise using a coin or flat head screwdriver.
- 6.3 Set The Main Temperature Control:** To enter the desired set point temperature, press either the UP or DOWN arrow pad one time on the SET/TEMPERATURE digital display. The display will start to blink from bright to dim. While blinking, the display is showing the temperature set point which can be changed by pushing the UP or DOWN arrow pads to raise or lower the value. If the arrow pads are not pushed within five (5) seconds, the display will stop blinking and return to read the chamber temperature. Allow several hours for the temperature to stabilize.
- 6.4 Calibrate The Main Temperature Control:** It is recommended that display is calibrated once the unit is installed in its working environment and has been stable at set point for several hours. Place a reference thermometer through the damper tube at the top of the unit adjacent to the exhaust port. Be certain the thermometer does not touch any shelving. Allow again for the temperature to stabilize until five (5) consecutive readings at one minute intervals show no temperature change. Compare the reading on the reference thermometer with the digital display. If there is an unacceptable difference, put the display in calibrate mode by pressing the UP and DOWN arrow pads at the same time until the decimal points blink on and off. While blinking, the display can be changed to match the reference thermometer by pushing the UP or DOWN arrow pads to raise or lower the temperature until the

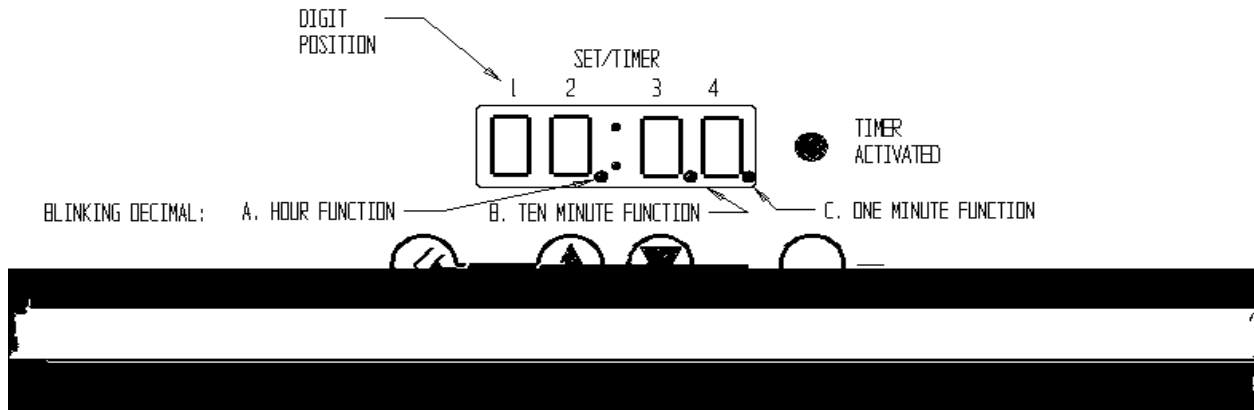
approximately 10°C above the Main Temperature set point.

**6.6 Set Timer Display:** Turn the timer switch to the ON position. The SET/TIMER display digits will light with no lighted decimals showing (**See Figure 2**). Note that, if during any of the following steps, several seconds elapse with no arrow pad or reset pad activity, the timer will default to the present displayed setting and it will be necessary to restart all functions over again. The values must be programmed in a consecutive manner with no delays between settings or the default will occur.

- A. Hour Function:** Press and hold the RESET pad until the digits start blinking and a blinking decimal shows between digits 2 and 3. In this mode, pressing the UP or DOWN arrow pads increases or decreases the whole hour value from 0 to 99 (digits 1 and 2).
- B. Ten Minute Function:** After the correct value for hours is set, push the RESET pad again. The blinking decimal will now move one digit to the right between digits 3 and 4. Pushing the UP or DOWN arrow pads will increase or decrease the ten minute function allowing values between 0 and 5 to be set (digit 3).
- C. One Minute Function:** After the correct ten minutes value is set, push the RESET pad again. The blinking decimal point will move one digit to the right beyond digit 4 and be located at the extreme bottom right of the display. With the display in this mode, pushing the UP or DOWN arrow pad will increase or decrease the one minute function allowing the value of digit 4 to be adjusted between 0 and 9.
- D. Activation:** Pause until the timer stops blinking. After all settings are made, push the START/STOP button. The Timer Activated light will come on and after a brief pause, the present oven temperature settings will be valid and heating will begin. The oven will now heat up, control at the set point and stop after the timed period on the SET/TIMER display has elapsed.

Note that when the system is in the timer mode, the heating circuit is de-energized until the START/STOP button is pushed or the TIMER SWITCH is turned Off. If a time change or correction is necessary and the timer has already been activated, push the START/STOP button to "STOP" the timer, then repeat steps A through D above.

**6.7** To set the timer so that timed operation will not start until the oven is stable at set point, pre-heat the oven in the normal mode until the desired temperature has stabilized. Turn on the timer switch. Push and hold the RESET button until the timer display blinks. (This is to be sure that the pre-set timed value is correct). Press the START/STOP button to activate the timer.



# MAINTENANCE

**Note:** *Disconnect the power cord from the power source before performing any service or maintenance on this unit.*

- 7.1 Cleaning:** Cleaning and decontamination are recommended on a regular basis. To prepare the unit for cleaning, remove all interior parts if assembled, such as shelves and shelf clips.

First clean the chamber with soap and water, rinse and let dry. To decontaminate use a solution that is appropriate for your application. **DO NOT USE** chlorine-based bleaches or abrasives as this can damage the stainless steel components. **DO NOT USE** spray cleaners that might leak through openings and cracks and get on electrical parts or that may contain solvents that will harm the coatings.

**WARNING:** Never clean the unit with alcohol or flammable cleaners with the unit connected to the electrical supply. Always disconnect the unit from the electrical service when cleaning and assure all volatile or flammable cleaners are evaporated and dry before reattaching the unit to the power supply.

- 7.2** Use care when cleaning the door gasket to prevent damage which could impair the positive door seal.
- 7.3 STORAGE:** To prepare the unit for storage, remove all shelves and shelf clips and disconnect the power supply. Be certain that the chamber is completely dry and door is positively locked in the closed position. See Section 3.3, Lifting/Handling, for proper transport procedures.
- 7.4** No maintenance is required on the electrical components. If the unit fails to operate as specified, please see the Troubleshooting guide, Section 8.0, before calling for service.

# TROUBLESHOOTING

## TEMPERATURE

Temperature too high.

- 1/ Controller set too high-see section 6.3
- 2/ Controller failed on – call Customer Service.
- 3/ Wiring error – call Customer Service.

Display reads "HI" or "400"+.

Probe is unplugged, is broken or wire to sensor is broken – trace wire from display to probe; move wire and watch



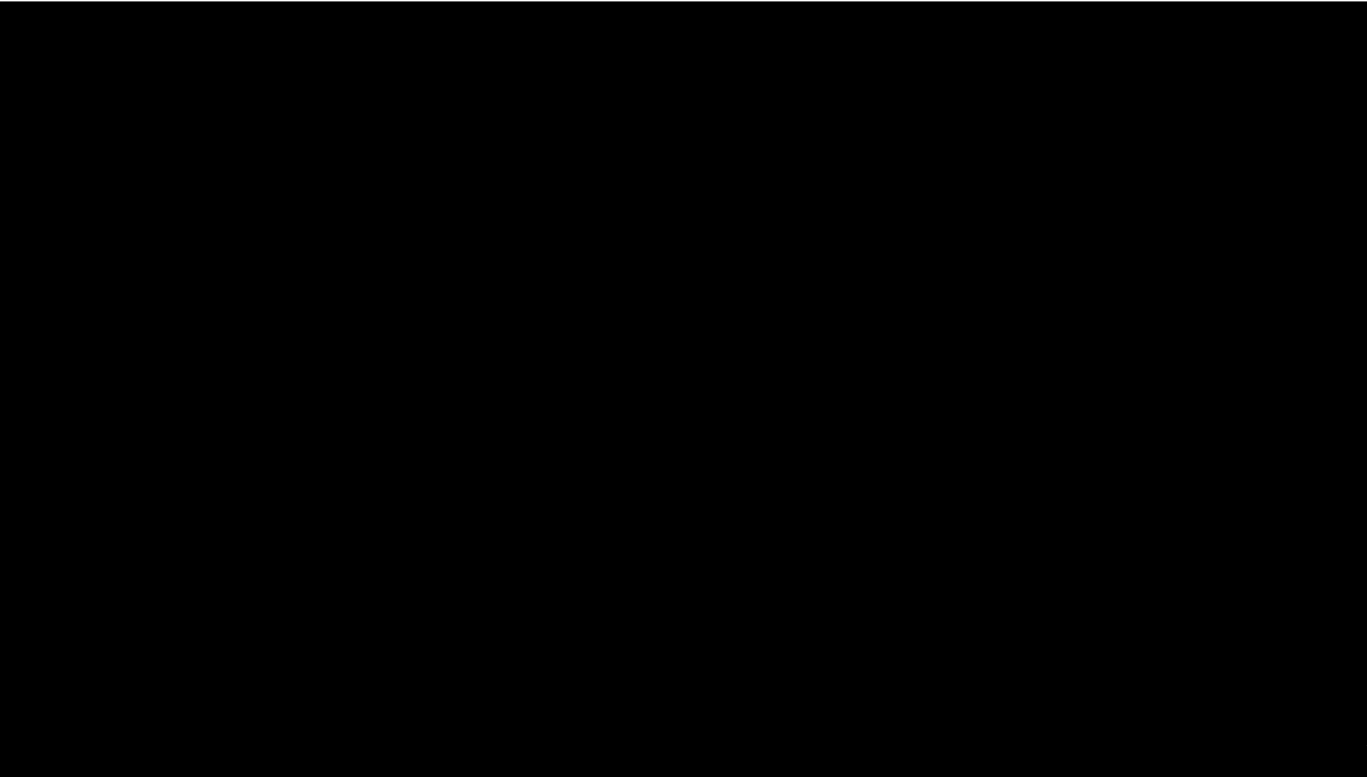






# PARTS LIST

Description	115v	220V
AMI Filter	2800503	2800502
[REDACTED]		
[REDACTED]		



# UNIT SPECIFICATIONS

Weight	Shipping	Net
CE5G	200 lbs.	93 lbs.

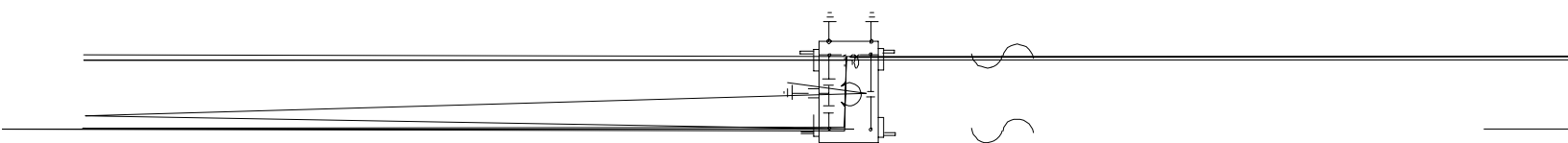
Dimensions	Exterior WxDxH (in.)	Interior WxDxH (in.)
CE5G	30.00 x 25.563 x 38.0	21.00 x 19.50 x 21.00

Capacity	Cubic Feet
CE5G	5.0

Temperature	Range	Uniformity	Recovery
CE5G	10° above amb. to 225°C	+2.00°C at 150°C	6 min. at 150°C

# WIRING DIAGRAM

## 1335G



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