

# DIGITAL CONVECTION OVEN



## MODEL 616

Precision baking at its best! This compact convection oven can bake it all. From cookies, muffins and biscuits to frozen snacks, hors d'oeuvres and even pizza. Heated, circulating air throughout the oven provides even baking while a digital control provides a precise baking temperature for a perfect turnout every time.



## MODEL 616-WG

### FEATURES:

- Digital display that is user friendly
- Precise, adjustable time and temperature control
- Temperatures ranging from 150 - 450 deg. F
- Preheat & Memory cycle mode with "hold" feature
- All stainless steel enclosure
- Tempered glass, spring loaded door
  
- 3 aluminum pans (13" x 13") incl. w/cookie oven
- 2 wire grills (13" x 13") incl. w/pizza oven

### AVAILABLE ACCESSORIES:

- Cooling rack; holds both styles of racks (#616CR)
- Boxed set of (3) cookie pans (616PS#)
- Parchment paper: 500 sheets (#18167-1)  
1000 sheets (#18167-2)

### Conversion Kits:

- Cookie oven to Pizza oven: (#18052) Incl. 2 wire grills and internal side support rack
- Pizza oven to Cookie oven: (#18017) Incl. 3 cookie pans and internal side support rack

### ELECTRICAL DATA:

- 120 volts, 12.7 amps, 1470 watts
- Best when operated on an individual branch circuit
- 6' power cord length

### DIMENSIONS: (May not reflect shipping dimensions)

9"H x 22-1/2"W x 15"D  
Inside dimension: 7"H x 13-1/2"W x 14-1/2"D

### WEIGHT:

Approx. 44 lbs. (May not reflect shipping weight)



An ISO 9001 Company

## WISCO INDUSTRIES®

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### LIMITED WARRANTY:

Wisco Industries, Inc. expressly warrants the product will be free from defects in workmanship and materials for a period of 1 year from the date of shipment. WISCO DISCLAIMS AND EXCLUDES ANY AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, ANY AND ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Buyer agrees that its SOLE AND EXCLUSIVE REMEDY against Wisco and Wisco's SOLE AND EXCLUSIVE LIABILITY arising out of any defect or nonconformity in the product shall be replacement/exchange of such nonconforming countertop food service equipment at Wisco's expense. No countertop food service equipment shall be returned without Wisco's consent. IT IS AGREED THAT WISCO'S MAXIMUM LIABILITY SHALL NOT IN ANY CASE EXCEED THE SALE PRICE FOR THE COUNTERTOP EQUIPMENT CLAIMED TO BE DEFECTIVE OR NONCONFORMING.

**IMPORTANT:** Read the following safety and operation instructions to avoid injury and to avoid damage to equipment or property.

 Plug unit into a properly grounded electrical outlet of the correct voltage, size and plug configuration for this unit. We recommend usage on an individual branch circuit of at least 15 amps for best results. Failure to do so may result in decreased performance of the warmer.

 Unplug unit from power source and allow to cool completely before performing any maintenance or cleaning.

 Unit is not waterproof. Do Not submerge in water. Do not operate if unit has been submerged in water.

 Exterior surfaces on unit may get hot. Use caution when touching these areas to avoid injury.

## TEMPERATURE

Most products require lower temperatures than suggested for deck or range ovens. A standard temperature reduction of 25° F - 30° F is recommended as a starting point, actual baking will vary pending product weight and consistency. If the edges of the product are done and the center is still raw, or if there is extensive color variation, reduce the thermostat setting by 15-25° F until the desired results are achieved. Excessive temperatures will not reduce baking time.

## TIME

Convection ovens generally bake 20% (or more) faster than deck or range ovens even though lower temperatures are used. Most recipes can be converted by having shorter cooking times and/or reducing your cooking temperatures.

- Frozen food products will require more time than refrigerated products
- 3 trays of food product will take more cook time than 1 tray of food

## CLEANING INSTRUCTIONS:

 Do not steam clean or use excessive water on unit to avoid personal injury or electrical shock.

 Unplug unit from power source and allow to cool completely before performing any maintenance or cleaning.

 Unit is not waterproof. Do Not submerge in water. Do not operate if unit has been submerged in water.

DO NOT USE ACIDS OR CAUSTIC PRODUCTS SUCH AS FOAMING OVEN CLEANERS ON OR IN THIS OVEN.

AVOID USING ABRASIVE/SCOURING PADS AS SOME MAY CAUSE SCRATCH MARKS ON YOUR OVEN.

The outside of the unit can be cleaned by using a stainless steel cleaner or by using warm water, mild detergent and a soft cloth. Be sure to dry oven thoroughly. Avoid getting any water inside the mechanical area of the unit.

The inside of the oven is NOT made of stainless steel. Use only warm water and a mild detergent when cleaning this area.

Pans, racks and side supports are easily removed for cleaning with a mild detergent and water. They can also be placed in the dishwasher. To remove side supports simply lift up and pull straight out.

The door of the unit may be cleaned with a glass cleaner or warm water and a mild detergent.

Be sure that the side vents inside of the unit are kept clean and free of all debris.

## OPERATING INSTRUCTIONS - A more basic version can also be found on a decal located on the top of the unit

### Activating the Controller

When power is first applied to the controller several diagnostic tests are automatically performed including lighting all the display segments and displaying the current firmware revision level (r1.4). If a fault is detected the controller will remain inactive and an appropriate error code will be displayed. After correcting the fault - power must be cycled Off and On to clear the error.

Press the On/Off button to activate the controller. The prompt "SEL 1 or 2" will scroll across the display.

### Mode 1 Operation

1. Press and release the MODE 1 button.
2. The last used baking *temperature* will be displayed
3. Press the MODE 1 button to accept the displayed value or use the UP and DOWN arrow buttons to change the value in 5 deg. Steps - then press the the MODE 1 button to accept the new value.
4. Now the last used baking *time* will be displayed.
5. Press the MODE 1 button again to accept the displayed value or use the UP and DOWN arrow buttons to change the baking time in 1 minute steps then press the MODE 1 button to accept the new value.
6. If no buttons are pressed within 3 seconds the baking cycle will begin using the values currently in memory. The heater and fan relays will energize, the countdown timer will start and the display will show the time remaining.
7. During the baking cycle the heater relay will cycle on and off as required to maintain the oven at the selected temperature. The fan relay will remain energized continuously.
8. When the timer reaches "0" the heater relay will de-energize, the beeper will beep 5 one-second bursts and the fan will continue to run for a 5 minute cool down period.
9. During cool down "Heat oFF CoolinG" will scroll across the display.
10. Pressing the On/Off button once while in cool down mode will re-start the controller. Pressing the On/Off button a second time will bypass the cool cycle and cause the controller and fan to turn off immediately.
11. If no action is taken the fan relay will de-energize and the controller will shut off after 5 minutes.

### Mode 2 Operation

1. Press and release MODE 2 button.
2. The last used baking *temperature* will be displayed.
3. Press the MODE 2 button to accept this value or use the UP and DOWN arrow buttons to change the value in 5 deg. Steps - then press the MODE 2 button to accept the new value.
4. Now the last used baking *time* will be displayed. Press the MODE2 button again to accept the displayed value or use the UP and DOWN arrow buttons to change the baking time in 1 minute steps then press the MODE 2 button to accept the new value.
5. After 3 seconds, if no buttons are pressed, the heater and fan relays will energize and the oven will begin heating to the set point temperature. The display will alternate between the set point temperature and the word "PrHE" (preheat).
6. When the oven reaches the set point temperature the beeper will beep 5 one second bursts and the display will show "rdY".
7. Pressing the MODE 2 button will start the countdown timer and the display will show the time remaining.
8. During the baking cycle the heater relay will cycle on and off as required to maintain the oven at the selected temperature. The fan relay will remain energized continuously.
9. When the timer reaches "0" the beeper will beep 5 one second bursts but the oven will be maintained at the set point temperature with the fan running and the display will show "rdY".
10. Pressing the MODE 2 button again will start the countdown timer for another baking cycle. This can repeated as many times as desired.
11. Pressing the ON/OFF button will de-energize the heater relay but the fan will continue to run for a 5 minute cool down period.
12. During cool down "Heat oFF CoolinG" will scroll across the display.
13. Pressing the On/Off button once while in cool down mode will re-start the controller. Pressing the On/Off button a second time will bypass the cool cycle and cause the controller and fan to turn off immediately.
14. If no action is taken the fan relay will de-energize and the controller will shut off after 5 minutes.

### Changing Baking Time "On the Fly"

The time remaining in a baking cycle can be increased or decreased during a baking cycle by pressing and holding an UP or DOWN arrow button for 3 seconds. This new time will remain in effect for the current baking cycle. When a new baking cycle is initiated the baking time will begin with the original programmed time.

### Aborting a Baking Cycle

Pressing the OFF button at any time will abort the current operation. If the oven has not yet begun to heat the controller & fan will shut off immediately otherwise the fan will continue to run for the 5 minute cool down period after which the controller & fan will shut off. Pressing the On/Off button will re-activate the controller and pressing it a second time will bypass the cool down cycle and cause the controller and fan to turn off immediately.

Viewing Actual Oven Temperature

For test purposes the actual oven temperature can be viewed during a baking cycle by pressing the UP and DOWN buttons simultaneously. If the temperature is below 100 deg. F (38 deg. C) "LO" is displayed.

Open Thermocouple

During initial power up if a Thermocouple is not connected an error code "Prb" will be displayed and the control will be locked out until a Thermocouple is connected and the power is cycled Off and On again. If the Thermocouple breaks or becomes disconnected while the controller is running "Prb" will be displayed and the heater output will be de-energized but the fan will remain On for 5 minutes. The Thermocouple must be reconnected and the power to the controller must be cycled Off and on to clear the error.

Temperature Display Units

The temperature display can be changed between Fahrenheit (F) and Celsius (C) in set up. See Setup Programming.

On-Off Differential

The default On-Off differential of 3 deg. F (2 deg. C) can be changed between 2 to 10 deg. F (1 to 5 deg. C) in Setup. See Setup Programming.

Setup Programming

1. Remove power from the controller then press and hold the UP and MODE 2 buttons while re-applying power. The display will show the current temperture units (F or C).
2. Use the UP or DOWN button to change the units then press MODE 1 button to accept the new units and display the current On-Off differential.
3. Use the UP and DOWN buttons to change the differential then press MODE 1 button again to accept the new value.

Restoring Factory Defaults

The following procedure will restore the controller settings to the factory defaults.

1. Remove power from the controller.
2. Wait 15 seconds then re-apply power while holding UP and DOWN buttons.
3. Factory default parameters are now restored.

**PRODUCT**

Load the oven from the bottom up. To ensure even baking, equal amounts of product should be used. Different amounts of product in different pans can cause uneven baking.

\*We suggest a clearance of 1-3 inches between pans when cooking for proper air circulation and best results.

**ADDITIONAL NOTES:**

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TROUBLESHOOTING:

 Unplug unit from power source and allow to cool completely before performing any maintenance or cleaning.

- If the thermal breaker shuts your unit down, **be sure to check your entire circuit before turning the oven back on** to verify that the total amps being drawn by all the appliances on that circuit have not exceeded the amount of amps available.

ERROR CODE	DESCRIPTION	CORRECTIVE ACTION
Er1	<u>Stuck Key Error</u> - Disables controller and displays error code if a key is pressed for more than 100 seconds.	Remove power from controller. Check that all buttons operate freely with an audible snap. Release any buttons that are stuck in the ON condition. Then re-apply power to clear the error.
Er2	<u>Check Sum Error</u> - Disables controller and displays error code for check sum error.	Remove power from controller. Wait 15 seconds then re-apply power while holding the UP and DOWN buttons.

ADDITIONAL NOTES:

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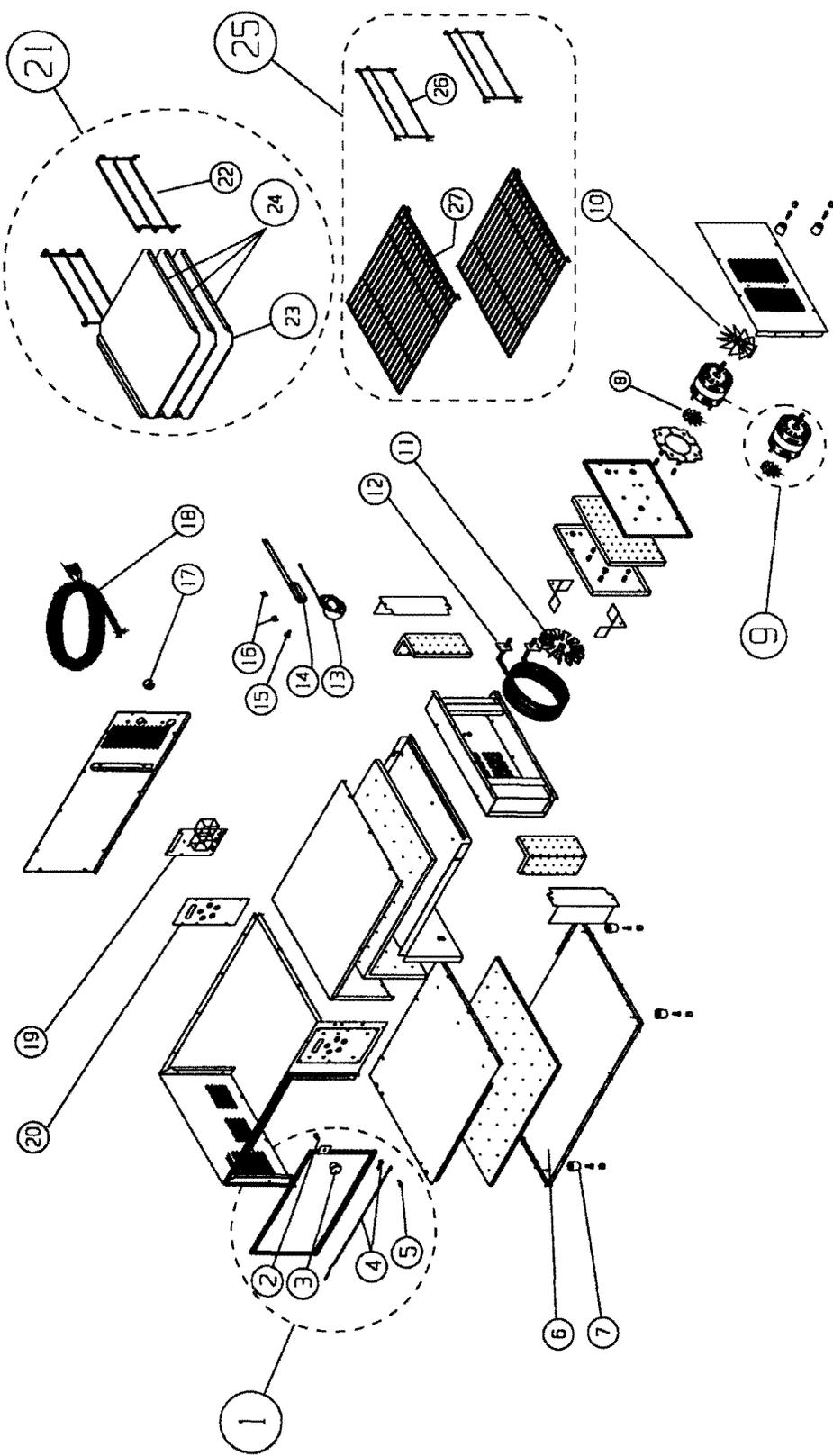
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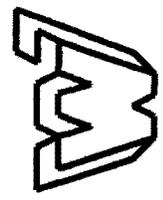
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If you have further questions in regards to this piece of equipment - please contact Wisco Industries, Inc. directly at: (608)835-3106 or (800)999-4726; fax (608)835-8273 for further information.

\*Please be sure to have the complete model # and serial # available.



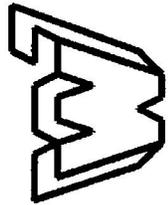
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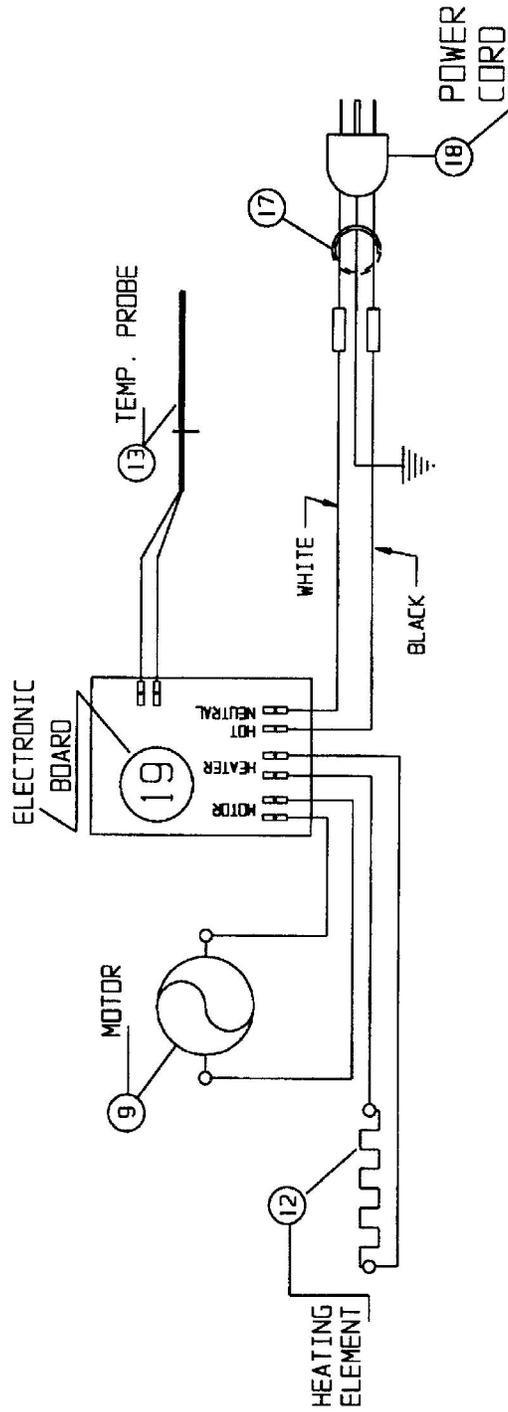
# MODEL 616 Digital

CONVECTION OVEN.



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# MODEL 616 Digital CONVECTION OVEN



## WIRING DIAGRAM

**WISCO INDUSTRIES INC.****REPAIR PARTS FOR MODEL 616B**

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	00601NSK	DOOR ASSEMBLY (INCLUDES ITEMS #2-5)
2	0016133	#8-32 X 3/8" PHNS S.S.
3	0018030	DOOR KNOB
4	0018154B	DOOR SPRING
5	008223	#8 X 1" SMS PHIL SCR
6	0018013	BOTTOM PANEL
7	0018032	FEET 7/8"
8	0017722	FAN BLADE-MINOR
9	0018034SK	BLOWER MOTOR ASSY.
10	0017749	FAN BLADE-MAJOR
11	0018145	FAN BLADE
12	0018025	1500W HEATING ELEMENT
13	0018211	TEMPERATURE PROBE
14	0018197	TEMPERATURE PROBE BRACKET
15	0016428	10-32X3/8" BRASS THM. SCREW
16	0017383	CABLE CLAMP
17	0016024	STRAIN RELIEF
18	00448	CORD SET
19	0018212	ELECTRONIC BOARD
	0018172EBSK	ELECTRONIC BOARD (Model 616A)
20	I013488	5 BOTTON LABEL
21	0018017	PIZZA OVEN TO COOKIE OVEN CONVERSION KIT
22	0018033	SUPPORT RACK (3-TIER)
23	0018024	SINGLE COOKIE PAN
24	00616PS3	3 COOKIE PANS/BOXED SET
25	0018052	COOKIE OVEN TO PIZZA OVEN CONVERSION KIT
26	0018064	SUPPORT RACK (2-TIER)
27	0018063	WIRE SHELF
*	00616CR	COOLING RACK
*	0018167-1	500 SHEETS OF PARCHMENT PAPER
*	0018167-2	1000 SHEETS OF PARCHMENT PAPER