



INSTALLATION AND OPERATION MANUAL

AIR PAC

MODELS AP1, APA & AP4

ELECTRIC DECK OVEN OVENS



Includes counter top and four compartment ovens

FOR YOUR SAFETY:
DO NOT STORE OR USE GASOLINE
OR OTHER FLAMMABLE VAPORS OR
LIQUIDS IN THE VICINITY OF
THIS OR ANY OTHER
APPLIANCE

WARNING:
IMPROPER INSTALLATION, ADJUSTMENT,
ALTERATION, SERVICE OR MAINTENANCE
CAN CAUSE PROPERTY DAMAGE, INJURY,
OR DEATH. READ THE INSTALLATION,
OPERATING AND MAINTENANCE
INSTRUCTIONS THOROUGHLY
BEFORE INSTALLING OR
SERVICING THIS EQUIPMENT

PLEASE READ ALL SECTIONS OF THIS MANUAL
AND RETAIN FOR FUTURE REFERENCE.

THIS PRODUCT HAS BEEN CERTIFIED AS
COMMERCIAL COOKING EQUIPMENT AND
MUST BE INSTALLED BY PROFESSIONAL
PERSONNEL AS SPECIFIED.

INSTALLATION AND ELECTRICAL CONNECTION
MUST COMPLY WITH CURRENT CODES:
IN CANADA - THE CANADIAN ELECTRICAL
CODE PART 1 AND / OR LOCAL CODES.
IN USA - THE NATIONAL ELECTRICAL CODE
ANSI / NFPA - CURRENT EDITION.

ENSURE ELECTRICAL SUPPLY CONFORMS WITH
ELECTRICAL CHARACTERISTICS SHOWN ON
THE RATING PLATE.

Users are cautioned that maintenance and repairs must be performed by a Garland authorized service agent using genuine Garland replacement parts. Garland will have no obligation with respect to any product that has been improperly installed, adjusted, operated or not maintained in accordance with national and local codes or installation instructions provided with the product, or any product that has its serial number defaced, obliterated or removed, or which has been modified or repaired using unauthorized parts or by unauthorized service agents. For a list of authorized service agents, please refer to the Garland web site at <http://www.garland-group.com>. The information contained herein, (including design and parts specifications), may be superseded and is subject to change without notice.

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IMPORTANT INFORMATION

WARNING:

This product contains chemicals known to the state of California to cause cancer and/or birth defects or other reproductive harm. Installation and servicing of this product could expose you to airborne particles of glass wool/ceramic fibers. Inhalation of airborne particles of glass wool/ceramic fibers is known to the state of California to cause cancer.

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DIMENSIONS AND SPECIFICATIONS, MODELS AP1 & AP-A

Oven Interior Dimensions*			Exterior Dimensions			Shipping Weight Lbs./Kg	
Width	Height	Depth	Width	Height	Depth	Crated	Uncrated
19-1/4" (489mm)	4-3/4" (121mm)	17-3/4" (451mm)	36-1/2" (927mm)	16-1/2" (419mm)	34-1/4" (870mm)	230/104	140/64

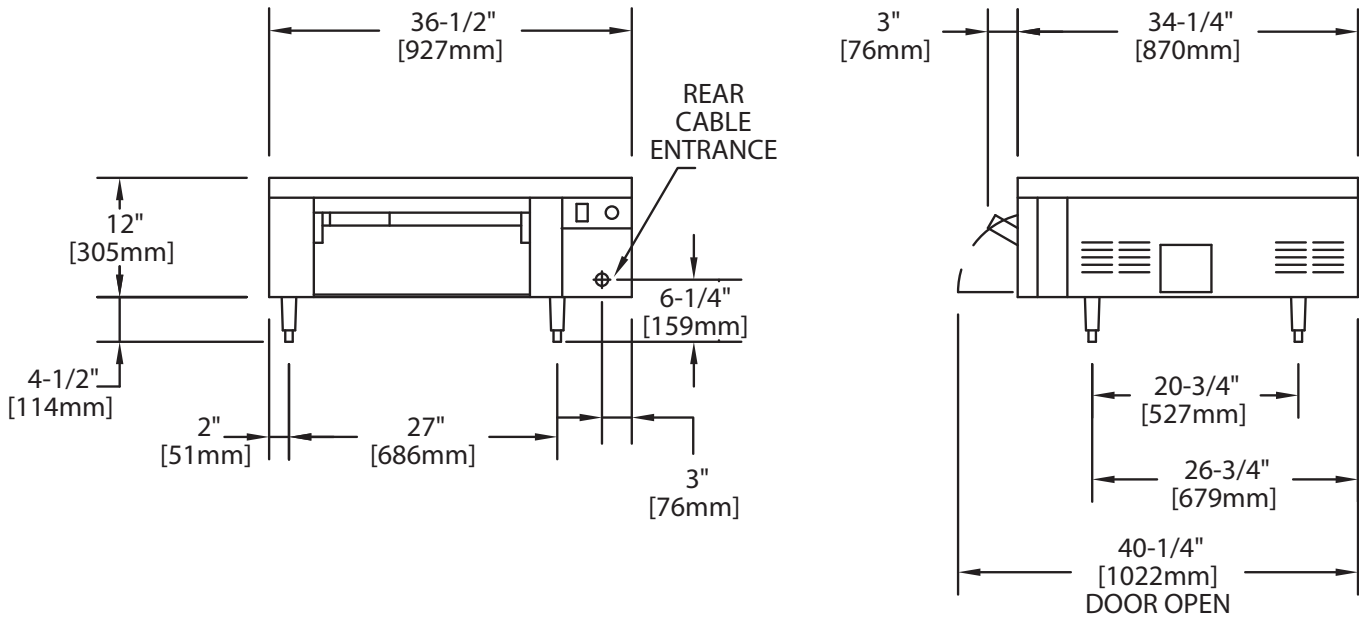
*With rack in place Two fixed rack positions: 1-1/8" (28mm) and 1-5/8" (41mm)

Instillation Notes			
Combustible Wall Clearance			Entry Clearance
Left	Right	Rear	Crated
0" (0mm)	6" (152mm)	6" (152mm)	32" (813mm)

Electrical Requirements	Nominal Amperes Per Line							
	Single Phase		208V/3 Phase			240V/3 Phase		
Total kW	208V	240V	X	Y	Z	X	Y	Z
5.2	25	21.7	17	10	17	15	9	15

208 VAC = 197 VAC to 219 VAC 240 VAC = 220 VAC to 252 VAC

AIR PAC



DIMENSIONS AND SPECIFICATIONS, MODEL AP4

Oven Interior Dimensions*			Exterior Dimensions			Shipping Wt. Lbs./Kg	
Width	Height	Depth	Width	Height	Depth	Crated	Uncrated
19-1/4" (489mm)	4-3/4" (121mm)	17-3/4" (451mm)	36-1/2" (927mm)	64-3/4" to 66" (1145mm) to (1676mm)	34-1/4" (870mm)	800/363	650/295

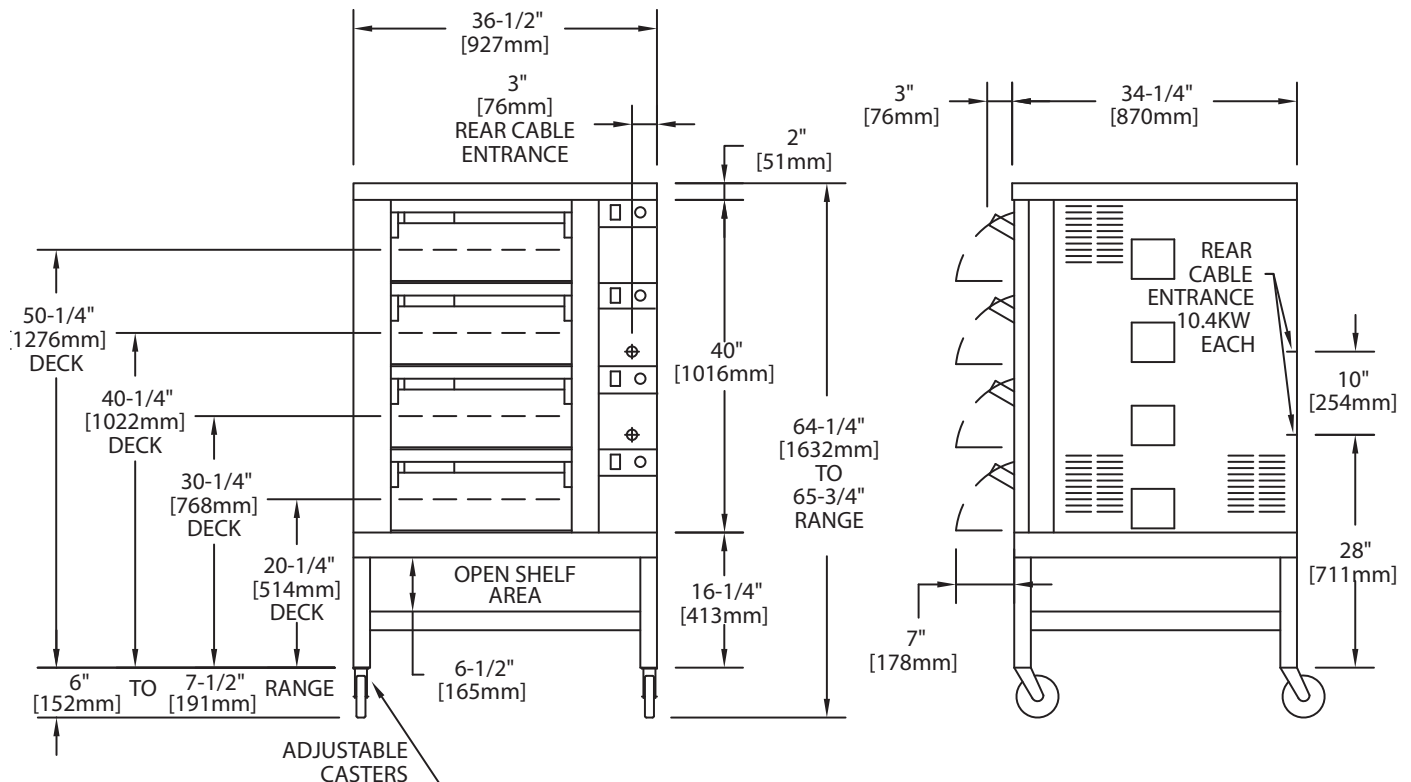
*With rack in place Two fixed rack positions: 1-1/8" (28mm) and 1-5/8" (41mm)

Installation Notes				
Combustible Wall Clearance			Entry Clearance	
Left	Right	Rear	Crated	Uncrated
0" (0mm)	6" (152mm)	6" (152mm)	44" (1118mm)	35" (889mm)

Electrical Requirements	kW Loading 208V/240V	Three Phase Nominal Amps Per Line					
		208V			240V		
		L1	L2	L3	L1	L2	L3
Two Circuits Per Two Decks	20.8 Total 10.4 (per 2 Decks)	34	19.6	34	29.4	17	29.4
** Canada - 1 Circuit Only	20.8 Total (per 4 Decks)	68	39.2	68	58.8	34	58.8

** - Per CEC Part 1 2006, 26-744

AIR PAC



INTRODUCTION

Periodic inspections by your dealer or a qualified service agency are recommended.

We suggest installation, maintenance and repairs should be performed by your local authorized service agency listed in your information manual pamphlet, or you may call the factory at 1-800-424-2411.

Rating Plate

When corresponding with the factory or your local authorized factory service center regarding service problems or replacement parts, be sure to refer to the particular unit by the correct model number (including the prefix and suffix letters and numbers) and the warranty serial number. The rating plate affixed to the unit contains this information.

INSTALLATION

Clearances

The clearance from combustibles on the AP1 & AP4 is six (6") inches, (152mm) on the right and rear side and zero (0") on the left. It is recommended that there be six (6") (152 mm) of clearance on the right side for fuse panel access.

Location

Proper placement of the oven will ensure operator and satisfactory performance. Adequate clearance must be provided for servicing, ventilation (if applicable), and proper operation. The oven must be kept free and clear of combustible material.

WARNING Control components may experience reduced life if exposed to high temperatures. We recommend not exposing control areas to temperatures above 140 degrees Fahrenheit for a continuous period of time. For this reason, care must be taken on installation to allow air flow around units, especially when placed near other heat producing sources. We recommend 6" (152 mm) spacing to the control side of oven from other heat producing sources.

Installation for Ovens Equipped with Legs

The AP1 counter unit is shipped with four (4) legs. This unit is stackable up to three (3) units. The AP1 is considered the base appliance and the APA is the stacking appliance.

WARNING: The base of counter appliance must be installed with minimum 4" legs. The base appliance needs air flow from the bottom for proper operation and is a NSF requirement.

CAUTION: DO NOT LAY UNIT ON SIDES OR TOP.

Installation for Ovens Equipped with Casters

It is recommended that in the use of casters a strain relief be installed on the appliance. This will prevent any excess strain on the terminal connection if the appliance is rolled out for cleaning or servicing.

The front casters of the unit are equipped with brakes to limit the movement of the oven without depending on the connector and any quick disconnect device or its associated wiring to limit the appliance movement.

Please be aware, there is a restraint on the unit and if disconnection of the restraint is necessary, be sure to reconnect the restraint after the oven has been returned to its originally installed position.

Stacking Instructions

To Stack APA on top of an AP1 Unit

WARNING The maximum number of units to be stacked is two additional units on top of the single base unit.

WARNING DISCONNECT ALL WIRING AND PLUGS FROM ELECTRICAL SOURCE.

Items required to complete stacking procedure:

1 – AP1 oven with top and legs.

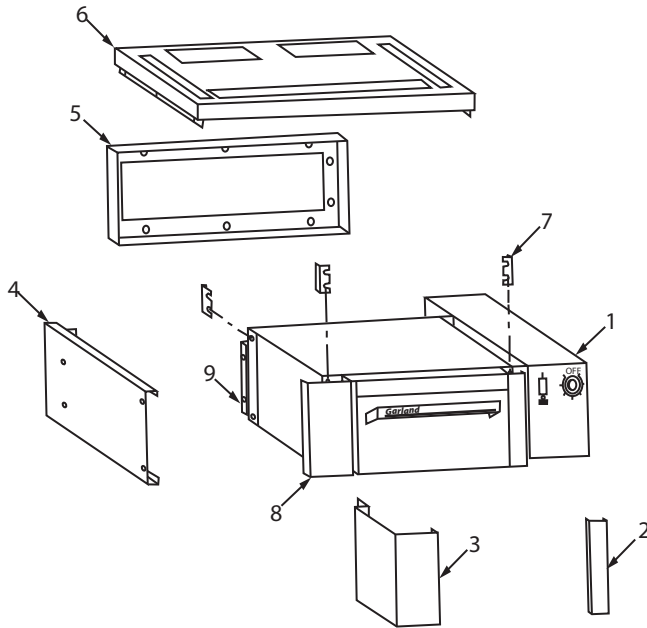
1 or 2 APA ovens without top and legs.

Phillips screwdriver

7/16" open end wrench.

INSTALLATION Continued

Assembly Instructions



1. Remove the back covers #5 from all units.
2. Remove the side panel #4 and the panel from the control box #1.
3. Remove the front covers #3 and #2 from all units. The door must be opened to remove these screws.
4. The top should lift off of the base unit. Set the top aside.
5. Place the first AP-A unit to be stacked on top the base unit.
6. Loosen the top left and top right hex head bolt of the base unit front frame #8. Do not remove.
7. Loosen the bottom left and bottom right hex head bolt used to attach the front frame #8 of the unit to be stacked.
8. Find two pieces of the stacking flange #7. Insert the flange behind the head of each loosened bolt so as the flange will join the two units together. The flange of the stacking flange should point to the rear of the units.
9. Loosen the top hex head bolt used to attach the left rear side panel mount #9 to the oven.
10. Do the same to the adjoining bottom bolt of the top unit.
11. Attach the stacking flange between the two loosened bolts.
12. Repeat this process for an additional unit if desired.
13. Setting top #6 on the top unit.
14. Attach all side and rear panels, all front covers.

Ventilation

WARNING Do not place any obstruction on the top of the appliances' vent hold. Inadequate ventilation may result in high ambient temperature at the rear of the oven. Excessive ambient temperature can cause tripping of the blower motor thermal overload protection device. This condition must be corrected immediately to avoid damage to the blower motor.

Electrical Connections

The AP1, APA and AP4 are not supplied with any type of cord and plug. Before attempting the electrical connection, the rating plate should be checked to ensure that the unit's electrical characteristics and the supply electrical characteristics agree.

Installation of the wiring must be made in accordance with the applicable codes: National Electrical Code (for US Installations), and Canadian Electrical Code Part 1 (for Canadian Installations). For Canadian Installations, cooking appliances shall have only one point of connection for power supply.

1. Switch panel size.
2. Overload protection.
3. Wire type.
4. Wire size.
5. Temperature limitations of the wires.
6. Method of connection (Cable, Conduit, etc.)

The service line enters through the rear of the unit and is to be connected to the terminal block. Refer to wiring diagram provided on the rear of the unit. Input voltage and phasing must match the units voltage and phasing. Visual check all electrical connections. Energize electric service to units.

OPERATION

NOTE: Disconnect line cord from power supply before cleaning or servicing.

Break-In Period

When oven is new, operate it for one hour at 450 degrees before you begin your normal cooking operation. After cooling, wipe the interior, including the racks, with a clean damp cloth.

Start Up Procedure

After the appliance has been properly installed and a start up performance check has been performed you are now ready to start up the oven.

1. Inspect the oven interior for packing material.
2. Activate power switch (A) to "ON" position.

To Adjust Oven Temperature Set Point - Press "Up" arrow. The top display will show "SP", followed by current set point temperature (blinks). Press "Up" or "Down" arrows to adjust desired oven temperature. The display will return to actual oven temperature after 2 seconds.

Timer Setting and Preset Adjustment – The timer display will be blank when Timer is Off. Press "Down" arrow once. "t1" will display followed by flashing time setting (minutes). Press "Up" or "Down" arrow to adjust to desired time. This time will be saved as "t1", which will be the preset. The display will go blank after 5 seconds.

To Start Timer – Press the Timer Control button once to start timer countdown. The timer will automatically start at the Preset time. Press the Timer Control to turn timer off.

Temporary Timer Adjustment – If the timer setting is altered while the timer is running, this setting will only apply to the current cycle until the timer has run down. Preset "t1" will not be affected.

Independent Top Burner Adjustment – Adjustment of the top oven elements can be made by adjusting the dial adjacent to the Oven Temperature Control. Example: If you want to increase bottom browning you would reduce top heat by turning dial to low (1), (1 – low, 6 – high). This will not affect internal oven temperature.

At the end of the timed cycle, an audible buzzer will sound for 3 seconds. NOTE: The timer only serves as a signal function and does not control heating elements or oven temperature in any way.

LED Indicators:

K1 - Yellow; indicates heating elements are on

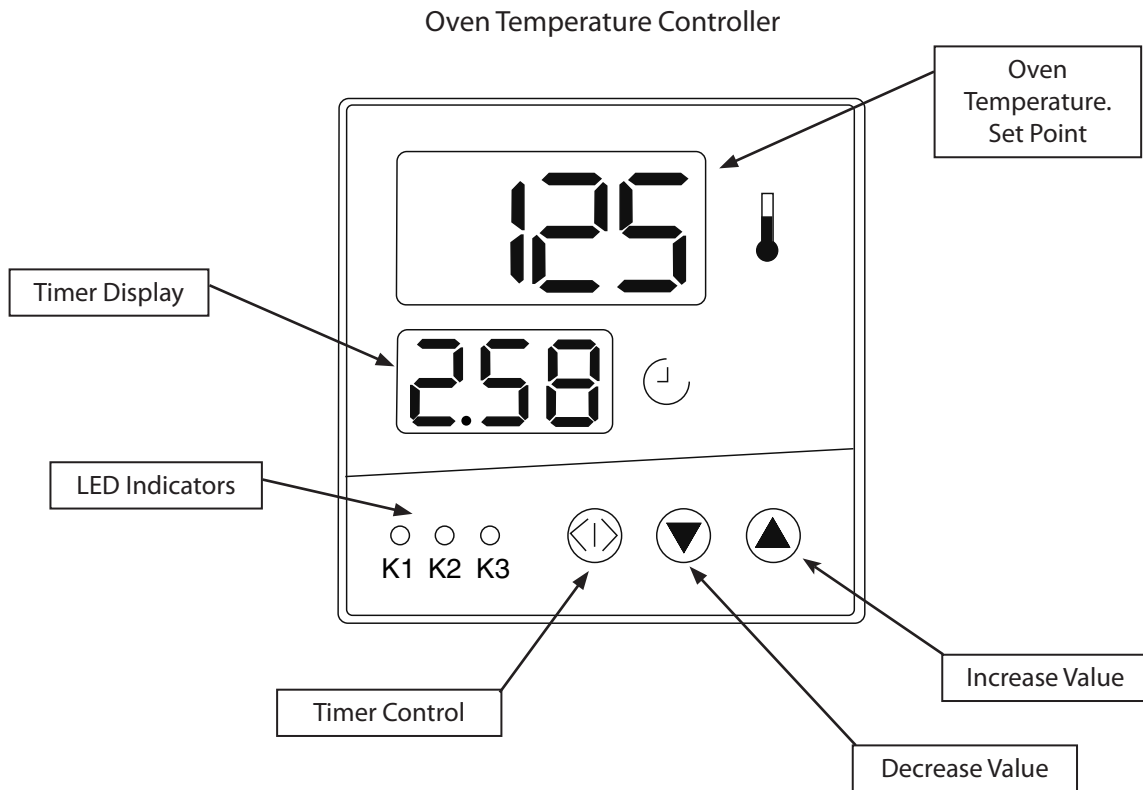
K2 - Green; illuminated when timer is running

K3 - Red; illuminated when audible buzzer is on

Error Message Display:

If there is a fault with the oven temperature sensor, the Temperature Display on the controller will indicate "199" (flashing), and the audible buzzer may sound continuously. Heating elements will be automatically disabled (by factory default setting). Turn the appliance off and contact a service person for further assistance.

OPERATION Continued



CONCEPT OF AIR IMPINGEMENT COOKING

The "Air Pac" Oven produced by GARLAND COMMERCIAL INDUSTRIES, INC., utilizes a revolutionary cooking concept, called "AIR IMPINGEMENT". It provides exceptional baked food product quality in far less time than conventional devices on the market. The "AIR IMPINGEMENT" system directs a high velocity stream of heated air at the food product being baked. This blast effect penetrates the boundary layer of air encircling the product and heats the food more efficiently, because the air concentrates heat on the food product. Greater heat transfer rates, which results in products baking two to four times faster than conventional means, are possible with "AIR IMPINGEMENT".

The "AIR IMPINGEMENT" process develops the high velocity air stream with a specially designed fan that draws super-heated air from a heat source (electric elements). This air is directed through a plenum chamber to patented "JET PLATES" which have hundreds of focused jet ports that "impinge" the heated air onto the food product surface. The heated air is re-cycled to the heat source after striking the food product, thus reducing energy consumption.

The "AIR IMPINGEMENT" process is tolerant enough for sensitive food products and effects proper crisping and even browning of such products as they pass through the oven, because air is the medium which heats the food product.

The "Air Pac" oven is supplied with one (1) wire rack that has two positions. The optional rack that is a "Perf Rack" that gives you the "ON THE DECK" type of baking. The two position rack is used with the variable top heat control.

COOKING CHART

Time and Temperature will vary depending upon load size and temperature, mixture and density or product. Use this guide to develop your own cooking charts.

Italian Entrees

Product	Temp.	Time	Load volume	Rack Pos.	Comments
Cheese Pizza 14" Par Baked Crust	525	5:10	1 Pizza	Middle	Baked on Pan
2 Topping Pizza Par Baked Crust	525	5:15	1 Pizza	Middle	Baked on Pan
3 Topping Pizza Deluxe, Multiple Toppings	525	5:30	1 Pizza	Middle	Baked on Pan
Cheese/Pepperoni 12" Pan	635	2:45	1 Pizza	Middle	Baked on Wire Rack
Sausage Deluxe 12" Pizza	635	2:55	1 Pizza	Middle	Baked on Wire Rack
Pepperoni 6" Pizza	635	2:45	2 Pizza	Middle	Baked on Wire Rack
Pepperoni 6" Pizza	635	2:45	3 Pizza	Middle	Baked on Wire Rack
16" Fresh Dough Pizza	475	7:30	1 Pizza	Middle	In Pan
16" Fresh Dough Pizza	475	6:30	1 Pizza	Middle	On Deck
16" Fresh Dough Pizza	475	7:00	1 Pizza	Middle	On Screen
12" Fresh Dough Pizza	525	5:30	1 Pizza	Middle	Baked on Pan
12" Fresh dough Pizza	525	5:30	1 Pizza	Middle	Fine Mesh Screen
12" Fresh dough Pizza	525	5:00	1 Pizza	Middle	On Deck
Lasagna 3 lbs.	550	15-17 min.	6x9 Pan	Top	Refrigerated Load Temp.
Stromboli	475	7-10 min.	13x18 pan	Middle	On Screen /Pan
Calzone	475	7-10 min.	2 Pieces	Middle	On Fine Mesh
Frozen Ravioli – (6)	400	18:00	6 Pieces	Middle	In Pan

Meats and Poultry

Chicken Nuggets .5 oz	400	18 min.	3 Dozen	Top	Open Mesh Screen
Fresh Chicken (Breaded) 2-3 oz. fillet	450	10 min	12-15	Top	Open Mesh Screen
Frozen Chicken (Pre Breaded) .5 – 1 oz.	500	9 min.	18-24	Top	Open Mesh Screen
Chicken Breast – 2 lbs.	400	25 min.	One	Middle	Open Mesh Screen
Hot Dogs Wrapped in Crescent Rolls	375	7-8 min.	10	Top	Baked on Pan

Seafood Entrees

Frozen Fish Sticks (Breaded) .4 oz	375	7 min.	4 Dozen	Top	Open Mesh Screen
Lobster Tail	550	3-5 min.	6	Middle	Sautéed Dish/ Frozen
Lobster Scampi	550	3-5 min.	24/4 Servings	Middle	Sautéed Dish/ Frozen
Sautéed Scallops	550	3-5 min.	6 Servings	Middle	Sautéed Dish/ Frozen

COOKING CHART Continued

Baked Potatoes & Rice

Product	Temp	Time	Load Volume	Rack Pos	Comments
Baked Potatoes 6 – 6 ½ oz.	400	35 min	20 Count	Middle	On Wire Rack
Baked Potatoes 6 – 6 ½ oz.	400	35 min.	10 Count	Middle	On Wire Rack
Baked Potatoes 8 lbs. of 16 oz.	400	45 min.	10 Count	Middle	On Wire Rack
Long Grain Rice	400	17 min.	1 Cup Rice, 2 Cups Water	Middle	2" Deep Pan

Baked Goods

Breadsticks	375	8 min.	8 Count	Middle	13 x 18 Sheet Pan
Fresh Buttermilk Biscuits	400	14-15 min.	14-16 count	Top	13 x 18 Sheet Pan
Biscuits Frozen Ready Bake	425	17 min.	16 Count	Middle	13 x 18 Sheet Pan
White Cake Dry Mix	325	20 mi.	3 Pounds	Middle	13 x 18 Sheet Pan
Cornbread	325	8-10 min.		Middle	4x8 Pan
Chocolate Chip Cookies 1 oz.	325	12-Nov	18 Count	Middle	13x18 Pan /Frozen
Sugar Cookies 1 oz.	325	11-12 min.	18 Count	Middle	13x18 Pan /Frozen
Oatmeal Chip Cookies	350	11 min.	18 Count	Middle	13x18 Pan /Frozen
Plain Muffins 2.5 oz.	325	8-9 min.	12 count	Middle	In Liner Cup
Apple Cinnamon Muffins 3 oz. 2-3/4 dia.	400	9 min.	12 Count	Middle	Heavy Wall Pan
Blueberry Muffins	400	10-11 min.	12 count	Middle	Heavy Wall Pan
Banana Nut Muffins 2.5 oz. 3-1/2 dia.	400	10-11 min.	12 Count	Middle	Heavy Wall Pan
Frozen Apple Pie 40 oz	375	30-35 min.		Middle	Frozen
Frozen Cherry Pie 46 oz..	375	30-35 min.		Middle	Frozen
Cinnamon Sweet Refig. Roll	375	7 min.	8 Count	Top	9" Round Pan
Dinner Rolls	400	4-5 min.	24 count	Top	13x18 Sheet Pan
Crescent Rolls Refig.	375	6-7 min.		Top	13x18 Sheet Pan

 **Garland**[®]