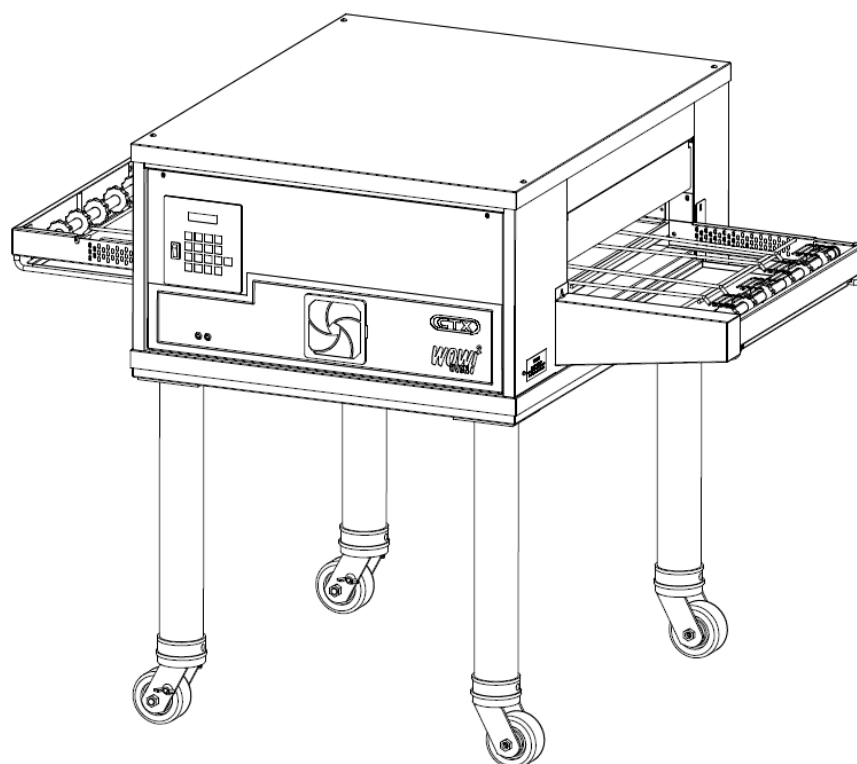# CTX®

OWNER'S OPERATING
& INSTALLATION
MANUAL
CTX GEMINI SERIES OVENS
DZ33I

CTX ® • 1400 Toastmaster Drive •Elgin, IL. 60120 ⬧ 847-741-3300

A Middleby Company • www.middleby.com

Part No. 69982

7/1/13

Model No._____Serial No._____Installation Date_____

CTX®
NO QUIBBLE LIMITED WARRANTY
(U.S.A ONLY)

MIDDLEBY MARSHALL HEREINAFTER REFERRED TO AS THE SELLER, WARRANTS EQUIPMENT MANUFACTURED BY IT TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR WHICH IT IS RESPONSIBLE. THE SELLER'S OBLIGATRION UNDER THIS WARRANTY SHALL BE LIIIMITED TO REPLACING OR REPAIRING AT SELLER'S OPTION, WITHOUT CHARGE, ANY PART FOUND TO BE DEFECTIVE AND ANY LABOR AND MATERIAL EXPENSE INCURRED BY SELLER IN REPAIRING OR REPLACING SUCH PART, SUCH WARRANTY SHALL BE LIMITED TO THE ORIGINAL PURCHASER ONLY AND SHALL BE EFFECTIVE FOR A PERIOD OF ONE YEAR FROM DATE OF ORIGINAL INSTALLATION, OR 18 MONTHS FROM DATE OF SHIPMENT, WHICHEVER IS EARLIER; PROVIDED THAT TERMS OF PAYMENT HAVE BEEN FULLY MET.

This warranty is valid only if the equipment is installed, started and demonstrated under the supervision of a factory certified installer.

Normal maintenance functions, including lubrication, cleaning or customer abuse are not covered by this no quibble warranty.

Seller shall be responsible only for repairs or replacements of defective parts performed by Seller's authorized service personnel. Authorized service agencies are located in principal cities throughout the contiguous United States, Alaska and Hawaii. This warranty is valid in the 50 United States and is void elsewhere unless the product is purchased through Middleby International with warranty included.

The foregoing warranty is exclusive and in lieu of all other warranties, expressed or implied. There are no implied warranties of merchantability or of fitness of a particular purpose.

The foregoing warranty shall be Seller's sole and exclusive obligation and Buyer's sole and exclusive remedy for any action including breach of contract or negligence. In no event shall Seller be liable for a sum in excess of the purchase price of the item. Seller shall not be liable for any prospective or lost profits of Buyer.

NOTICE:
This Operating and Installation Manual should be given to the user. The operator of the oven should be familiar with the functions and operation of the oven.

This manual must be kept in a prominent, easily reachable location near the oven.

It is suggested to obtain a service contract with a manufactures certified service agent.

FOR YOUR SAFETY
DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINTIY 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.

NOTICE
CONTACT YOUR LOCAL SERVICE COMPANY TO PERFORM MAINTENANCE AND REPAIRS.
A SERVICE AGENT DIRECTORY IS SUPPLIED IN YOUR
INSTALLATION KIT.

NOTICE
Using any parts other than genuine
CTX factory
manufactured parts relieves the manufacturer
of all warranty and liability.

NOTICE
CTX (Manufacturer) reserves the right to
change specifications at any time.

WARNING
The equipment warranty is not valid unless the oven is installed, started and demonstrated under the supervision of a factory certified installer.

TABLE OF CONTENTS

SECTION 1 - DESCRIPTION

CTX Series oven is:
*   **Electrically powered**
*   **Zone heated by infrared panels**

*   **Conveyorized**
*   **Electronically controlled**

CTX Oven Model:
*   **DZ33I – 31" (787 mm) long cooking chamber with a MenuSelect™ control.**

NOTE: "DZ" designation on ovens stands for: "DZ" = Duel Zone Temperature Control.
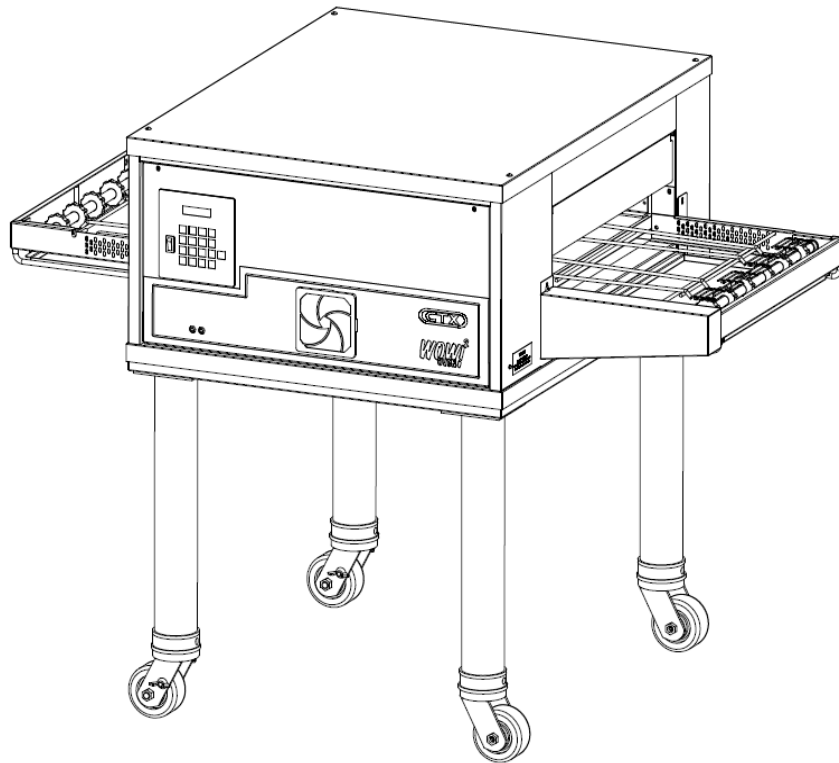
DZ33I

Figure 1

Note:
Wiring diagrams are contained in the manual and are also located in the oven.

This manual must be kept for future reference

A. Component Location

Control with Digital Display

Conveyor

Cooling Fan

Control Circuit Breakers

Oven Base with Legs

Draft Curtain

Conveyor Belt or Belts

Crumb Tray

Cooking Chamber

Fan Warning Light

Conveyot Motor

Locking Casters
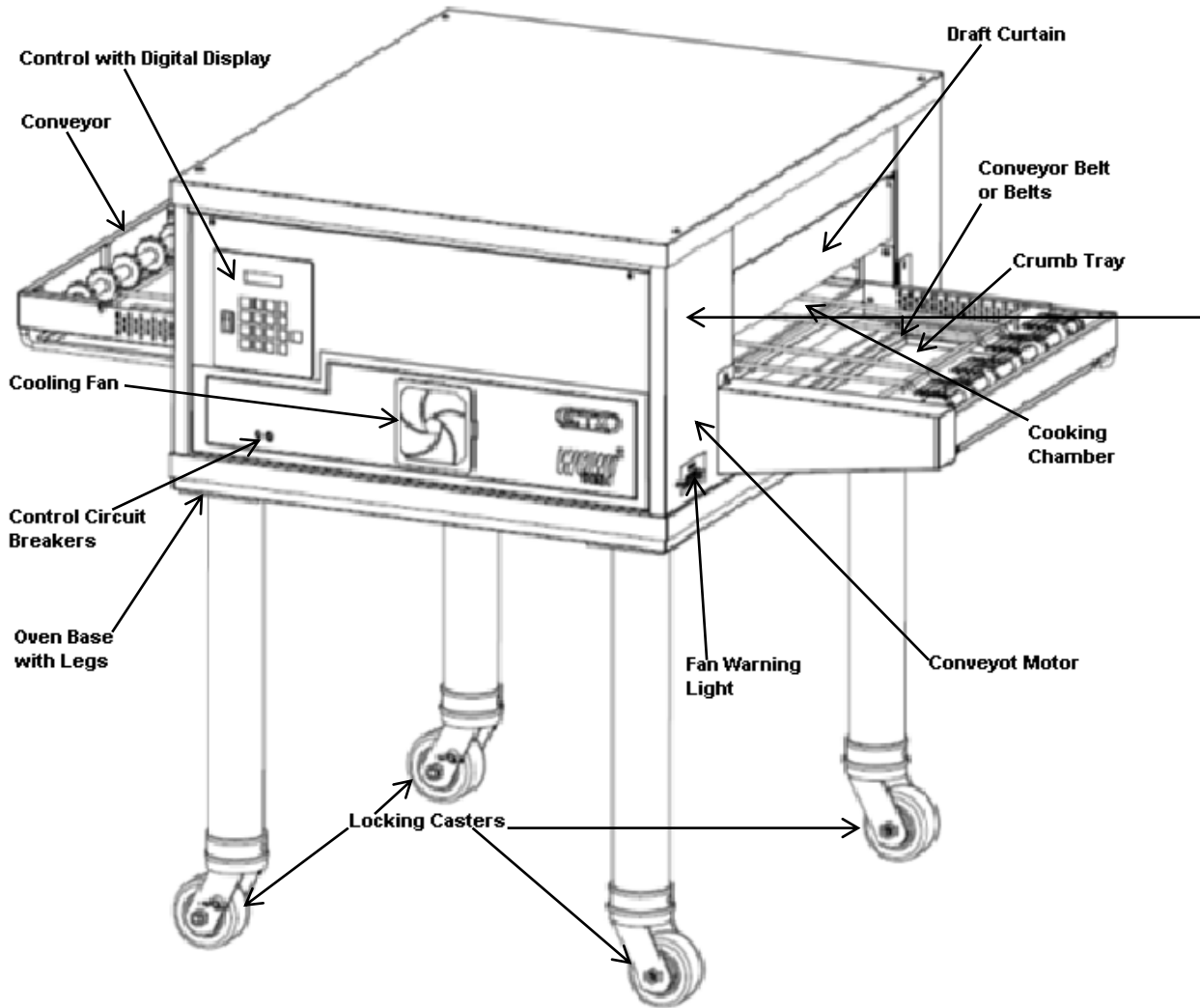
Oven Data Plate

1400 Toastmaster Dr. Elgin, IL 60120 USA
MADE IN USA

MODEL NO.		SERIAL NO.		ID NO.		ANNO:				
Numero de modele		Numero de serie					L1	L2	L3	N
WIRE WITH GROUND						AMPS				
Cablage avec mise a la masse										

VAC	kW(Qn)	PHASE	Hz
MOTOR VOLT	MOTOR PHASE		MOTOR AMPS

SUITABLE FOR INSTALLATION ON COMBUSTIBLE FLOORS ADJACENT TO COMBUSTIBLE AND NON-COMBUSTIBLE WALLS WITH THE FOLLOWING MINIMUM CLEARANCE.
CONVENABLE POUR L'INSTALLTION SUR LES PLANCHERS COMBUSTIBLES ADJACENTS A AUX MURS COMBUSTIBLE ET INCOMBUSTIBLE AVEC LE SUIVRE DEGAGEMENT MINIMUM.

COMBUSTIBLE	INCH	CM	POUCE
LEFT SIDE COTE GAUCHE			
RIGHT SIDE BON COTE			
REAR SIDE COTE POSTERIERUR			

NON COMBUSTIBLE	INCH	CM	POUCE
LEFT SIDE COTE GAUCHE			
RIGHT SIDE BON COTE			
REAR SIDE COTE POSTERIERUR			

INTENDED FOR OTHER THAN HOUSEHOLD USE.
VOULU POUR AUTREMENT QUE L'USAGE DE MENAGE.

Figure 1-2

B. Component Function

1. Oven Controller

The controller controls all functions of the oven. The cooking temperatures can be set from 200°F to 900°F (93°C to 509°C). Cooking times (conveyor speed) can be set from 1:00 minute to 60:00 minutes on the DZ33I.

Controller features a self-cleaning mode, a programmable automatic ON/OFF timing mode, and an energy conserving standby mode. Also included is a service mode designed to assist the service technician.

The Menu Select control contains 10 menu keys which can be preset to control both oven temperature and cook time. The operator must then press only the menu key for the desired product being cooked.

2. Infrared Heating Panels

Heating panels are positioned above and below the conveyor belt in the oven chamber (figure 1-3). When energized these panels emit infrared long waves. These waves do not heat the air through which they pass. Instead the waves are absorbed by the outer surface of the product transported through the oven on the conveyor belt. Using this application, food is placed on the conveyor and the unique properties of the infrared waves cause it to cook from the outside to the center in traditional fashion.

| Top Left Zone | Top Right Zone |
| Bottom Left Zone | Bottom Right Zone |
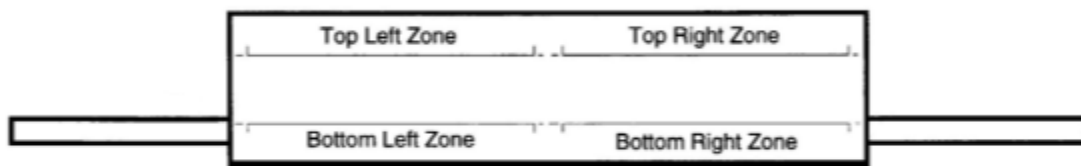
Figure 1-3
DZ33I Heat Zones

3. Conveyor

The conveyor is used to convey the product through the oven deck (chamber). The conveyor is made up of 1to 2 stainless steel wire belts which can travel in either direction around the frame. The conveyor is controlled by the controller and can travel at speeds from 1:00 to 60:00 minutes. The speed of the conveyor determines how long the product will be in the cooking chamber which is the cooking time.

CAUTION: All DZ ovens are **Voltage Specific**. Check the oven data plate for the voltage. Applying the wrong voltage can immediately damage the oven. Refer to the Installation Section of this manual for complete instructions before installing an oven.

C. Oven Specifications

Figure 1-1 Dimensions   **DZ33I**

Single Oven on Base and Casters

Overall Height	39.44" (1001.8mm)
Overall Depth	39.03" (991.4mm)
Overall Length	59.00" (1499mm)

Double Oven on Base and Casters

Overall Height	55.32" (1328.9mm)
Overall Depth	39.03" (991.4mm)
Overall Length	59.00" (1499mm)

Triple Oven on Base and Casters

Overall Height	65.17" (1655.3mm)
Overall Depth	39.03" (991.4mm)
Overall Length	59.00" (1499mm)

Quad Oven on Base and Casters

Overall Height	72.02" (1829.3mm)
Overall Depth	39.03" (991.4mm)
Overall Height	59.00" (1499mm)

Oven Chamber Dimensions

Overall Height	5.5" (140mm)
Overall Width	22.25" (565mm)
Overall Length (Heating Zone)	31.22" (793mm)
Conveyor Baking Area	3.88sq. ft. (0.36sq. m.)
Stainless Steel Single Conveyor Belt Width	18" (457mm)
Stainless Steel Duel Conveyor Belt Width	(2) 8.00" (203mm)
Net Weight of Single Unit	362 lbs. (164.2 kg)
Temperature Range	150^0F-900^0F (66.5^0C-482^0C)

Oven Electrical Specification Chart

NOTE: A separate ground wire must be supplied with each oven; conduit may **not** be used as a ground.
NOTE: Supply wire must be rated minimum 90^0C (194^0F).

Domestic Amp Loading Charts

DZ33I Domestic

Model No	AC Volts	Phase	Hz	Connected kW	AVG Operating kW	Connected Load (Amps)				Required Breaker (Amps)
						L1	L2	L3	N	
DZ33I	208	1	50/60	8.95	3.1	45.7	45.7	--	--	60
DZ33I	208	3	50/60	9.5	3.1	30.3	30.3	19.8	--	40
DZ33I	240	1	50/60	10.0	3.1	41.7	41.7	--	--	60
DZ33I	240	3	50/60	10.0	3.1	27.6	27.6	18.1	--	40

DZ33I International

Model No	AC Volts	Phase	Hz	Connected kW	AVG Operating kW	Connected Load (Amps)				Required Breaker (Amps)
						L1	L2	L3	N	
DZ33I (CE Listed)	230	3	50/60	9.2	3.1	18.9	18.9	32.6	-	40
DZ33I (CE Listed)	380	3	50/60	8.4	3.1	18.9	9.2	9.2	8.9	30

D.   Dimension Drawings
   1.   Dimension drawing of Single DZ33I Oven on Base.

Note: All figures in parentheses are in millimeters.

Minimum Clearance	
Rear	0"
Left	4"
Right	4"

We reserve the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes. Improvements, additions or replacements for previously purchased equipment.

39.03   22.58 CONVEYOR   18.00 BELTING   8.00 BELTING   8.00 BELTING

9.43

31.22

59.00

2.37

ELECTRICAL INLET

25.14

39.44   28.82   21.50
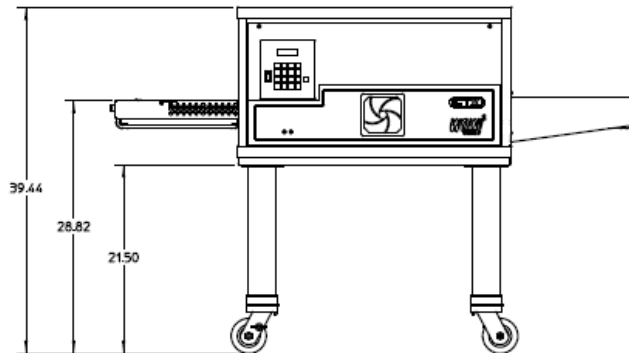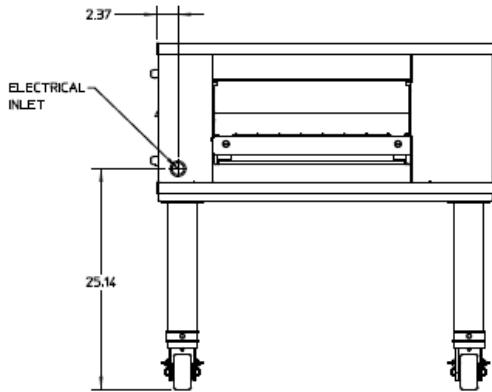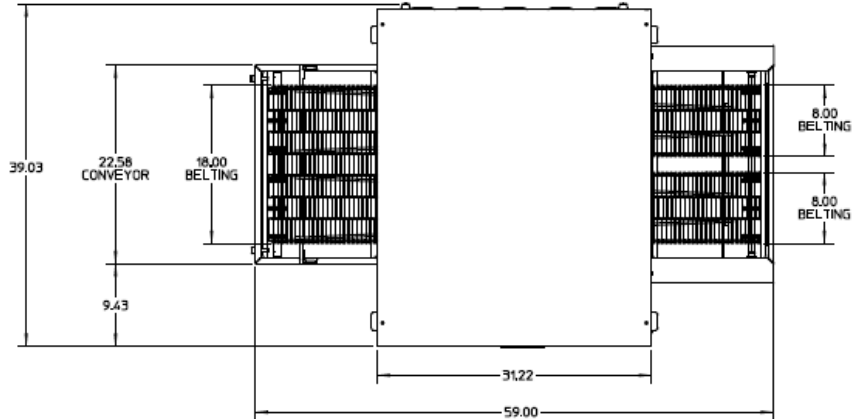
2. Dimension drawing of two stacked DZ33I ovens on base.

Note: All figures in parentheses are in millimeters.

Minimum Clearance	
Rear	0"
Left	4"
Right	4"

2.37 (60.20)

ELECTRICAL INLET

40.99 (1041)

25.14 (639)

55.32 (1405)

44.67 (1135)

28.82 (732)

21.50 (546)
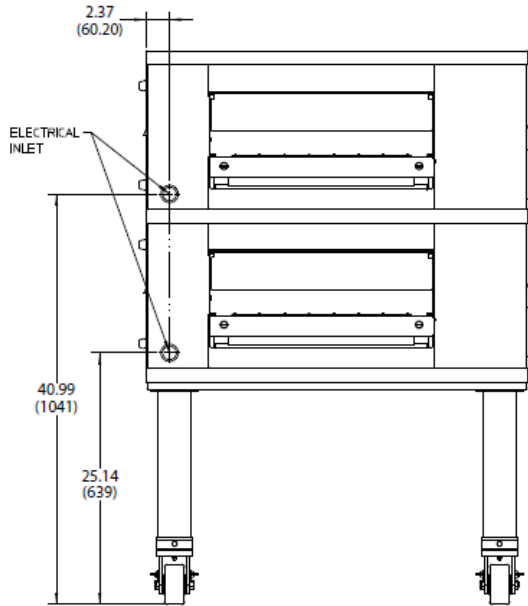
SIDE VIEW

FRONT VIEW

3. Dimension drawing of three stacked DZ33I ovens on base.

Note: All figures in parentheses are in millimeters.

Minimum Clearance	
Rear	0"
Left	4"
Right	4"

2.37

ELECTRICAL INLET

50.84

34.99

19.14

65.17

54.52

38.67

22.82

15.50

4. Dimension drawing of a Quad stacked DZ33I ovens on base.

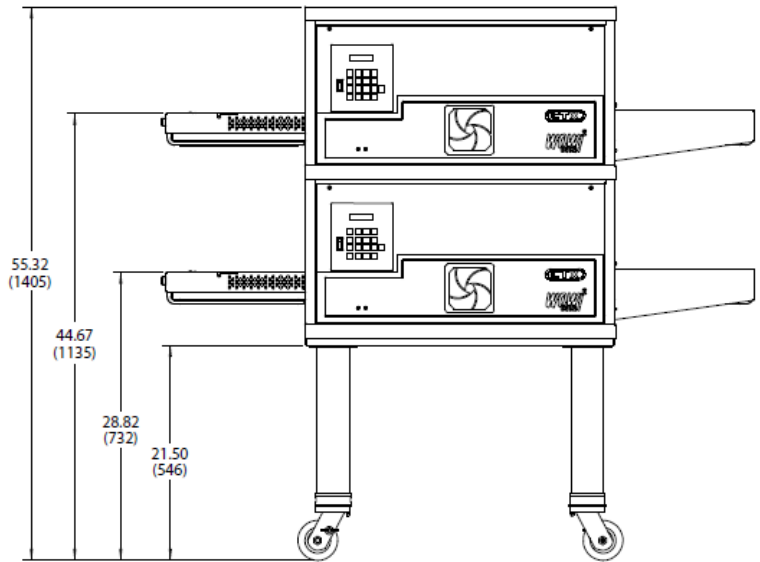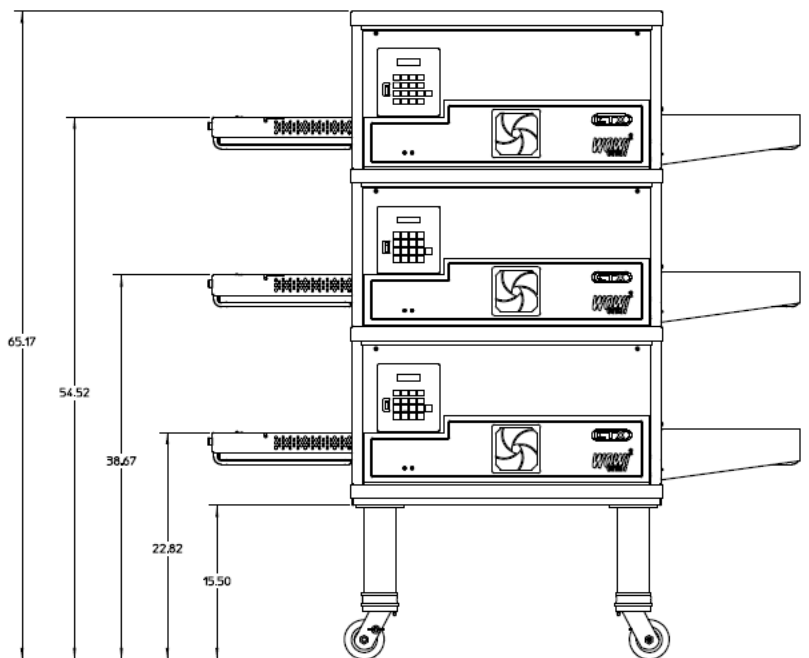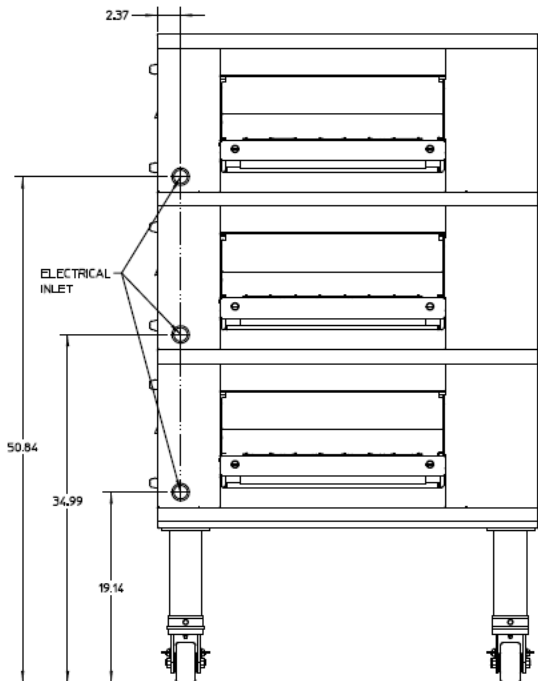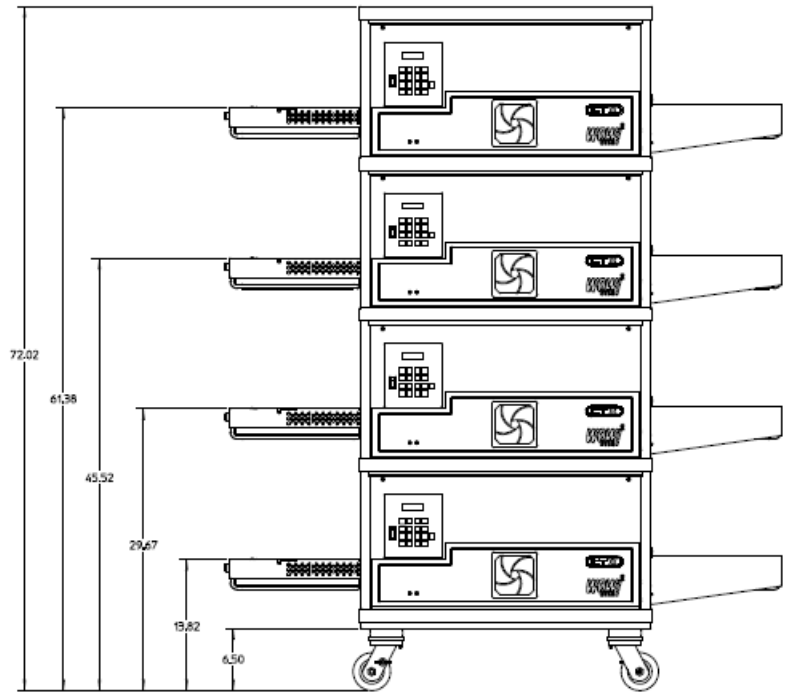**Note: All figures in parentheses are in millimeters.**

Minimum Clearance	
Rear	0"
Left	4"
Right	4"
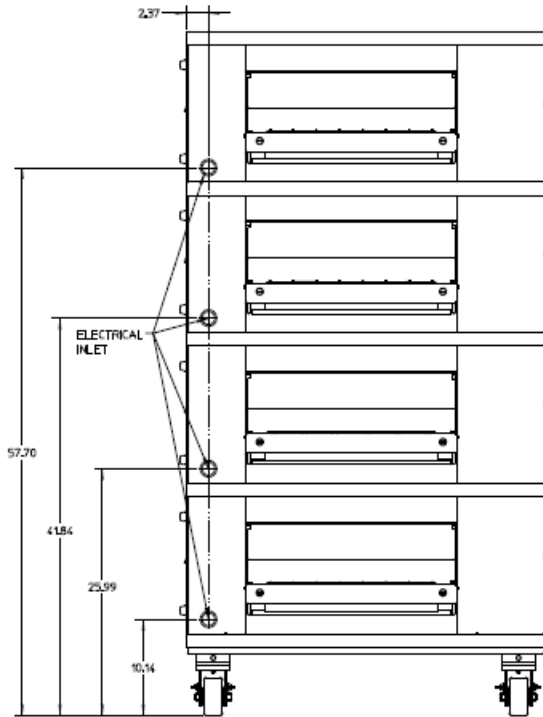
Side View

Front View

SECTION 2 – Installation

A. Inspect for shipping Damage

All shipping container should be examined for damage before and during unloading. This equipment was carefully inspected and packaged at the factory. The freight carrier has assumed responsibility for its safe transit and delivery. **If equipment is received in damaged condition, either apparent or concealed, a claim must be made with the delivering carrier.**

1. Apparent Damage or Loss- If damage or loss is apparent it must be noted on the freight bill or express receipt at the time of delivery, and it must be signed by the carrier's agent (driver). If this is not done, the carrier may refuse the claim. The carrier will supply the necessary claim forms.

2. Concealed Damage or Loss- If damage or loss is not apparent until after equipment is uncrated, a request for inspection of concealed damage must be made with carrier within 10 days. The carrier will make an inspection and will supply necessary claim forms. Be certain to retain all contents plus external and internal packaging/crating materials for inspection.

B. Placement of Oven

Some very important considerations must be made when choosing the place where the oven is to operate.

3. This Oven is conveyorized and operates continuously. It should be placed so it fits into the "flow" of the operation.

4. Drafts entering the oven chambers can cause inconsistent cooking results. Check the area surrounding the oven and eliminate sources of drafts such as open windows or doors and fans or other appliances that cause air circulation.

5. Oven should be positioned so hot air from and other piece of equipment cannot enter oven cooling fan air intake on oven front. Serious problems could occur.

NOTE: *To validate a new oven(s) warranty a certified CTX installer must supervise Steps C through H of installation.*

C. Items for Stacking Oven

The following items are required for stacking ovens:

Quantity	Description
2	4"x4"x4' (10.2cm x 10.2cm x 61cm) board
2	4"x4"x2' (10.2cm x 10.2cm x 122cm) board (stacking ovens only)
2	1-1/2"x7' (3.8cm x 213cm) rigid pipe Schedule 40
2	Custom M5 Lift (Vermette)

D. Base Section Assembly

1. Locate the carton containing the oven base. Remove and inventory the contents. Refer to the correct parts lists below and also to Figure 2-1.
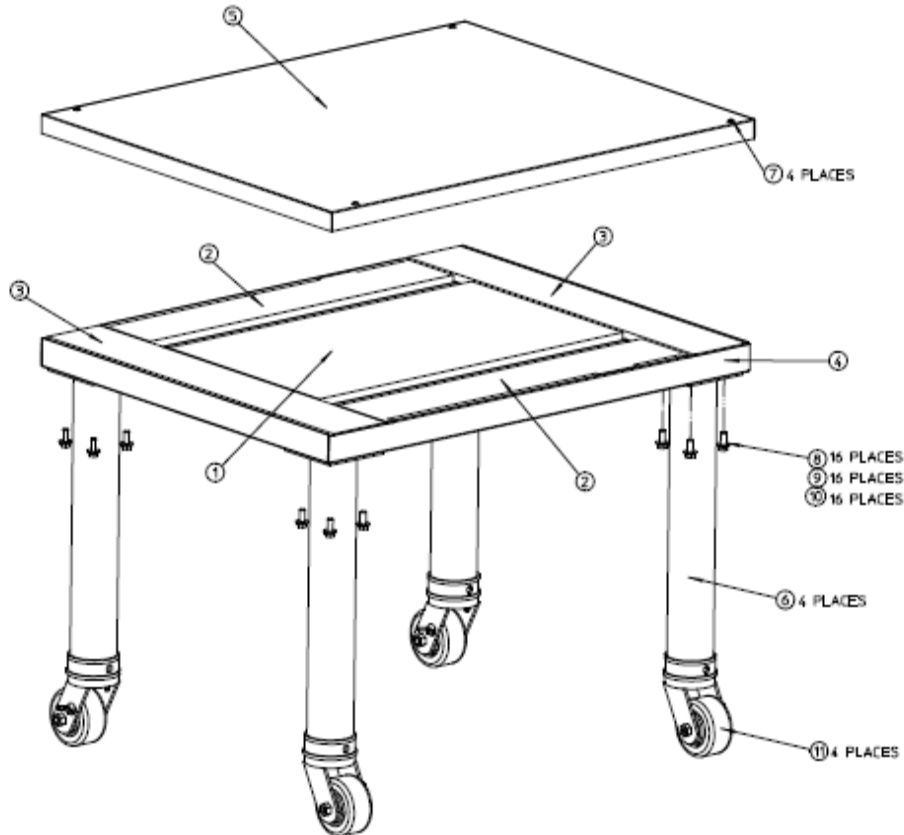
Figure 2-1

Single Oven Stand Parts

Item	Qty,	Part Number	Description
1	1	67880	INSUL, BASE PART A
2	2	67881	INSUL, BASE PART C
3	2	67882	INSUL, BASE PART B
		PARTS LISTED ABOVE ARE FROM 69978 KIT, DZ33I INSULATION	
4	1	67884	WLDMT. BASE DZ33
5	1	67614	PANEL, TOP
6	4	66948	ASSY. LEG, CASTER
7	4	59156	SCR, SL TRUSS HD SS 10-32X1-1/2"
8	16	21422-0001	WASHER, LOCK SPLIT 3/8" ZP
9	16	21416-0001	WASHER, FLAT SS 3/8"
10	16	2000531	SCR, CAP HX HD 3/8"-16X1" NP

Double Oven Stand Parts

	Qty,	Part Number	Description
1	1	67880	INSUL, BASE PART A
2	2	67881	INSUL, BASE PART C
3	2	67882	INSUL, BASE PART B
PARTS LISTED ABOVE ARE FROM 69978 KIT, DZ33I INSULATION			
4	1	67884	WLDMT. BASE DZ33
5	1	67614	PANEL, TOP
6	4	66948	ASSY. LEG, CASTER
7	4	59156	SCR, SL TRUSS HD SS 10-32X1-1/2"
8	16	21422-0001	WASHER, LOCK SPLIT 3/8" ZP
9	16	21416-0001	WASHER, FLAT SS 3/8"
10	16	2000531	SCR, CAP HX HD 3/8"-16X1" NP

Triple Oven Stand Parts

Item	Qty,	Part Number	Description
1	1	67880	INSUL, BASE PART A
2	2	67881	INSUL, BASE PART C
3	2	67882	INSUL, BASE PART B
PARTS LISTED ABOVE ARE FROM 69978 KIT, DZ33I INSULATION			
4	1	67884	WLDMT. BASE DZ33
5	1	67614	PANEL, TOP
6	4	66947	ASSY. LEG, CASTER
7	4	59156	SCR, SL TRUSS HD SS 10-32X1-1/2"
8	16	21422-0001	WASHER, LOCK SPLIT 3/8" ZP
9	16	21416-0001	WASHER, FLAT SS 3/8"
10	16	2000531	SCR, CAP HX HD 3/8"-16X1" NP

Quad Oven Stand Parts

Item	Qty,	Part Number	Description
1	1	67880	INSUL, BASE PART A
2	2	67881	INSUL, BASE PART C
3	2	67882	INSUL, BASE PART B
PARTS LISTED ABOVE ARE FROM 69978 KIT, DZ33I INSULATION			
4	1	67884	WLDMT. BASE DZ33
5	1	67614	PANEL, TOP
11	4	58930	CASTER

2. Lay Wldmt. Base (Item 4, Figure 2-1) upside down on the floor and remove the protective film from base. Attach the four Assy. Leg, Caster (Item 5) using 16 SCR, Cap HX HD 3/8"-16X1" NP (Item 10), 16 Washer, Flat SS 3/8" (Item 9), and 16 Washer, Lock Split 3/8" ZP (Item 8). For Quad screw casters directly into basepad.

3. Turn the base assembly upright and set aside. Also set aside 4 SCR, SL Truss HD SS 10-32X1-1/2" (Item 7), and Panel, Top (Item 5). The base will be used to stack oven on, and the top secures to the top of the oven top oven.

E. Mounting Single Oven onto Base Assembly

1. Cut the bands holding the protective shipping carton to the skid. Carefully remove the bands and lift the carton up off the oven.

2. Cut the bands holding the oven to the skid.

3. Slide the two 4"X4"X10' (10.2cm X 10.2cm X 304.8cm) pieces of wood through the oven cavity. The wood pieces should be sticking out of the oven equally on both sides. One of the pieces of wood should be placed to the rear of the oven and the other in the front of the oven. See figure 2-2.

4. Position the two Vermette lifts on either ends of the oven under the 10' (304.8cm) pieces of wood, making sure the legs with wheels are up as close as possible to the skid. Place the two 4"X4"X4' (10.2cm X 10.2cm X 122cm) pieces of wood across the two Vermette forks, at least 6" (182.88cm) in from the end of the forks, and centered with the 10' (304.8cm) pieces of wood running through the oven cavity. See figure 2-2.

> **IMPORTANT:** Lift the oven with the 4"X4"X10' (10.2cmX10.2cmX122cm) running through the oven **only. DO NOT** lift the oven by the conveyor. **Damage WILL result.**

5. With the 4' (122cm) pieces positioned under the 10' (304.8cm) begin to lift the oven with the two Vermette lifts. (**keeping the oven level at all times**).

6. When the oven is completely free from the skid, slide it out from under the oven. (dispose of the skid in accordance with local regulations).

7. Lift the oven high enough to position the stand under. Roll the stand under the oven (**do not** roll the oven and lifts over the stand) and lower onto the stand. The bottom of the oven will wrap around the stand.
(**careful not to get hands or fingers between oven and stand**).

Figure 2-2

F.   Stacking and Mounting Two Ovens

1. Cut the bands holding the protective shipping carton to the skid. Carefully remove the bands and lift the carton up off the oven.

2. Cut the bands holding the oven to the skid.

3. Slide the two 4"X4"X10' (10.2cm X 10.2cm X 304.8cm) pieces of wood through the oven cavity. The wood pieces should be sticking out of the oven equally on both sides. One of the pieces of wood should be placed to the rear of the oven and the other in the front of the oven. See figure 2-2.

4. Position the two Vermette lifts on either ends of the oven under the 10' (304.8cm) pieces of wood, making sure the legs with wheels are up as close as possible to the skid. Place the two 4"X4"X4' (10.2cm X 10.2cm X 122cm) pieces of wood across the two Vermette lift forks, at least 6" (182.88cm) in from the end of the forks, and centered with the 10' (304.8cm) pieces of wood running through the oven cavity. (figure 2-2)
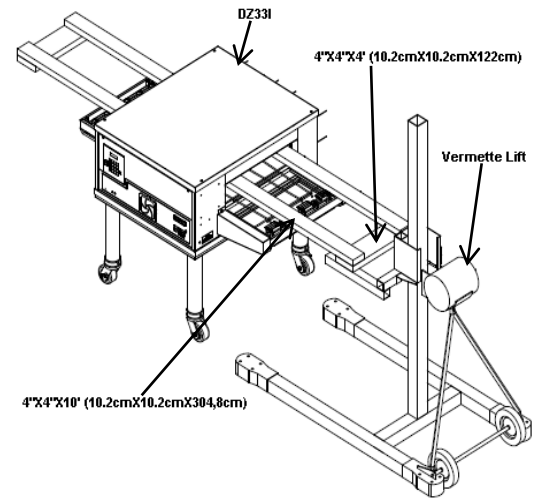
> **IMPORTANT:** Lift the oven with the 4"X4"X10' (10.2cmX10.2cmX122cm) running through the oven **only. DO NOT** lift the oven by the conveyor. **Damage WILL result.**

5. With the 4' (122cm) pieces positioned under the 10' (304.8cm) begin to lift the oven with the two Vermette lifts (keeping the oven level at all times).

6. When the oven is completely free from the skid, slide it out from under the oven. (dispose of the skid in accordance with local regulations).

7. Elevate the upper oven high enough to position the lower oven underneath.

8. Roll the stand with the lower oven under the upper oven (**do not** roll the oven and lifts over the lower oven) and lower onto the lower oven. The bottom of the oven will wrap around the top of the lower oven.
(**careful not to get hands or fingers between ovens**).

G. Stacking and Mounting Three Ovens

1. Follow the previous procedures in step F.
(**careful not to get hands or fingers between ovens**).

> **IMPORTANT:** Lift the oven with the 4"X4"X10' (10.2cmX10.2cmX122cm) running through the oven cavity **only. DO NOT** lift the oven by the conveyor. **Damage WILL result.**

H. Stacking and Mounting Four Ovens

1. Follow the previous procedures in step F.
(**careful not to get hands or fingers between ovens**).

> **IMPORTANT:** Lift the oven with the 4"X4"X10' (10.2cmX10.2cmX122cm) running through the oven cavity **only. DO NOT** lift the oven by the conveyor. **Damage WILL result.**

I. Electrical Connection

All wiring and electrical connections required for the oven(s) must be performed by a certified electrician. Each oven must be wired according to the electrical specification for the oven rating. See charts in Section 1, electrical schematic in Section 7 and schematics furnished with the oven. A separate ground wire must be supplied with each oven. Conduit may not be used as ground. Consult national or local electrical codes for wire gauge and circuit breaker ratings.

> **CAUTION: All DZ Series Ovens are manufactured for <u>voltage specific</u> operation.**

> **IMPORTANT:** ALWAYS carefully check the data plate voltage rating to be sure which voltage to apply when installing a DZ Series oven. Applying the wrong voltage can immediately damage oven.

If local codes allow, we recommend that flexible conduit be used for final connection as the oven assembly is on casters and the use of flexible conduit will allow movement for cleaning.

J. Loose Parts

The aluminum crumb trays (PN 67932) (2 per oven) are shipped mounted in place. They are removable for cleaning and are considered loose parts. They should be checked prior to startup to be sure they are properly in place. The stainless steel draft curtain and exit shelves are packed in a separate carton inside oven.

> **NOTE:** *Make sure protective plastic film is removed from draft curtains before installation.*

1. **Draft Curtains,** stainless steel (PN 322904) (2 per oven). These mount above the conveyor at the ends of the cooking chamber. They serve to reduce drafts through the oven chamber and to reduce heat loss to the environment. To install, locate the thin rod above each entrance/exit of the oven. Hang one draft curtain over each rod. They are in their lowest position when hanging vertical. To raise the curtains to their highest position, swing them outward until they are horizontal and then push in toward oven chamber.

> **NOTE:** *Make sure protective plastic film is removed from exit shelves before installation.*

2. **Exit Shelves,** stainless steel (PN 69776) (2 per oven). These shelves mount in cantilever fashion at the exit and entrance end of the conveyor and provide a landing zone for cooked product. Depending on the operation they may or may not be needed or used. To install, place the slotted end of the shelf over the crossbar at the end of the conveyor extension frame.

SECTION 3 – OPERATION
A. LOCATION OF CONTROLS

    1. Operation Controls
       The following information provides a basic description of the oven's controls, their locations and the functions they perform. It is necessary that the operator be familiar with them.

Fan Warning Light: The light will illuminate when the inside control compartment reaches 130°F (54.4°C).

Cooling Fan, Grille and Filter: Air is drawn through the grille and foam filter by a 24 volt DC cooling fan located Immediately behind. The fan circulates air throughout the entire electrical raceway to cool front panel, top panel, and the electrical components.

Circuit Breakers: (3 amp) Provides overload protection for the control circuit.

Figure 3-1
Operating Controls

B.   MenuSelect™ CONTROL OPERATION AND PROGRAMMING

1. Function of Controls
The oven operating controls are located to the left of the stainless steel front panel. The control panel consists of an ON/OFF switch, a keypad with multi-function keys, and a vacuum tube florescent display. The letter callouts in Figure 3-4 coincide with the following list which explains the keypad.
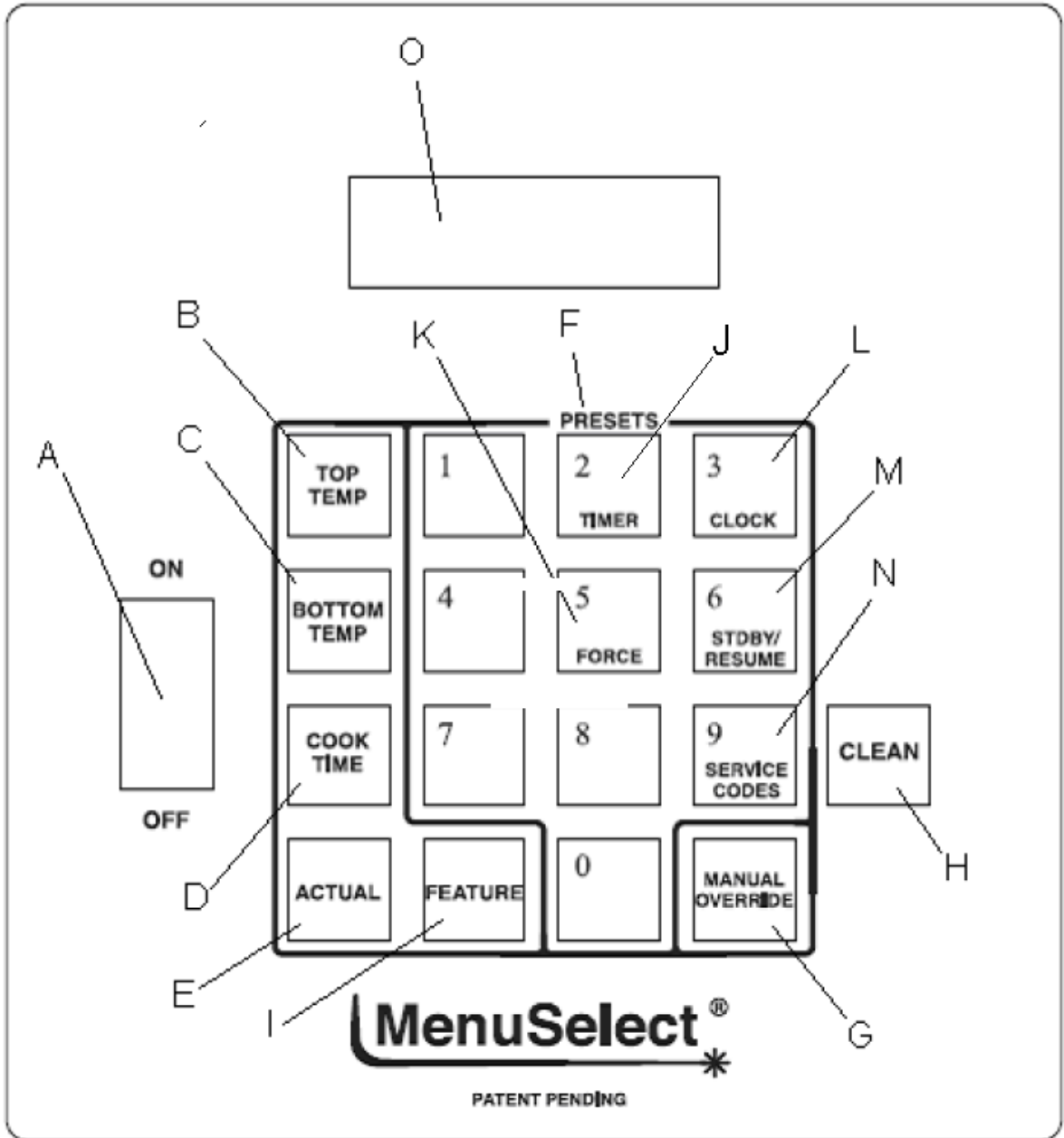
Figure 3-4
Control Panel

The following information provides a basic description of the oven controls, their location and the function they perform. Refer to Figure 3-4
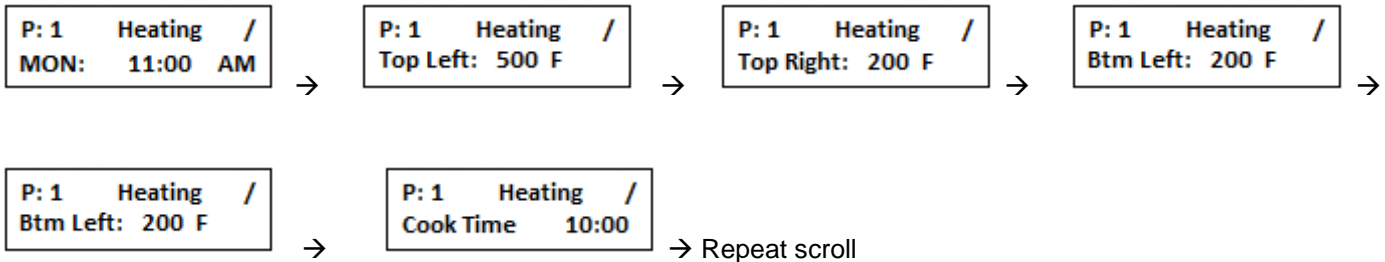
    A. POWER ON/OFF
- Used to turn oven ON and OFF

    B. TOP TEMPERATURE
- Used to change set temperature of the top zone(s) during programming.

    C. BOTTOM TEMPERATURE
- Used to change set temperature of the bottom zone(s) during programming

    D. COOK TIME
- Used to display and/or change cook time setpoint of a preset menu.

    E. ACTUAL
- Used to briefly display actual temperature of all 4 zones for about 3 to 4 seconds.

    F. Preset Menu Keys 0-9
- Used to operate or program oven in one of ten preset menu modes.
- **NOTE:** *In the event of a power failure the oven will default back to the previously used preset menu when power is restored. Always check that the oven is in the desired mode when the power is restored.*

    G. MANUAL OVERRIDE
- Used to override preset menu setting and operate oven at any desired temperature and cook time.

    H. CLEAN
- Used to enter the self- cleaning mode of oven operation.

    I. FEATURE
- Used to initiate features. Pressed previous to entering a feature (TIMER, FORCE, CLOCK, STDBY/RESUME or SERVICE CODES).

    J. TIMER
- Used to set ON/OFF times for automatic timing.

    K. FORCE
- Used to take a deck out of timing (auto) mode or cleaning mode.

    L. CLOCK
- Used to set the oven clock

    M. STDBY/RESUME
- Used to enter and exit 25% reduced power standby mode.

    N. SERVICE CODES
- Used to access service modes.

    O. Display. Provides readout of data including:
- Data being entered
- Error and service information
- Set and actual temperatures
- Set cook times
- Oven status

1. **OPERATION of theZ33I MenuSelect™ Control Ovens**
   a. **Turn Oven Deck ON**

      1. Turn ON main disconnect switch at the wall box.
      2. Turn keypad ON/OFF switch ON.

> **NOTE:** *If oven is programmed for automatic timing, turn keypad ON/OFF switch to ON and oven will automatically turn ON and OFF at the set times. Keypad ON/OFF switch must remain ON for timed operation.*

      3. The display will automatically scroll through six (6) screens. See below for the screen order.

```
P: 1    Heating   /        P: 1     Heating   /        P: 1     Heating   /        P: 1     Heating   /
MON:   11:00  AM           Top Left: 500 F             Top Right: 200 F            Btm Left: 200 F
```
→ → → →

```
P: 1    Heating   /        P: 1     Heating   /
Btm Left: 200 F            Cook Time      10:00
```
→ → → Repeat scroll

    b. **Preset Menu Select Operation**

Step	**Press Key**	**Display Reads**
		P: 1 Ready / Top Left: 750 F
		The preset menu that was being used when the oven was turned OFF.
1. Press desired preset menu #	0 thru 9 SERVICE CODES	P: 2 Heating / Top Left: 800 F
		Oven deck is ready for cooking when "READY" is displayed

    c. **View Actual Temperatures in all 4 zones**

  NOTE: To view the actual temperature the ***ACTUAL*** key must be pressed while the P: # is displayed.

Step	**Press Key**	**Display Reads**
		P: 1 Ready / Top Left: 200 F

Ready = Oven at set temperature
Heating = Oven heating up to set temperature
Cooling = Oven cooling down to set temperature

1. Push *ACTUAL* key

ACTUAL

| TL= 200 F   TR= 200 F |
| BL= 200 F   BR= 200 F |

After approximately 3 to 4 seconds the display reverts to the original program screen

| P: 1   Ready   / |
| Top Left: 200   F |

d. View set temperature in all 4 zones

Step	**Press Key**	**Display Reads**
		P: 1 Ready / Top Left: 200 F
1. View set top temperature	TOP TEMP	Top Temp: 200 200
2. Press TOP TEMP key	TOP TEMP	P: 1 Ready / Top Left: 200 F
3. View set bottom temperature	BOTTOM TEMP	Btm Temp: 200 200
4. Press BOTTOM TEMP key	BOTTOM TEMP	P: 1 Ready / Top Left: 200 F

e. Viewing set Cook Time

Step	**Press Key**	**Display Reads**
		P: 1 Ready / Top Left: 200 F
1. View set Cook Time	COOK TIME	Cook Time: 10:00

2. Press COOK TIME key

<table>
<tr><td>COOK TIME</td><td>P: 1   Ready   /
Top Left: 200 F</td></tr>
</table>
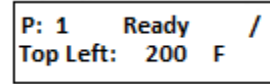
f. Put oven deck in STANDBY mode

This feature allows a deck to be put into an energy saving standby mode which reduces the temperature of the oven deck by 25%.

Step	**Press Key**	**Display Reads**
		P: 1 Ready / Top Left: 200 F
1. Press FEATURE key	FEATURE	Select Feature
2. Press STDBY/RESUME key	6 STDBY/ RESUME	Standby Time: 00:00:01
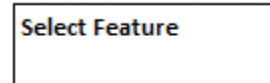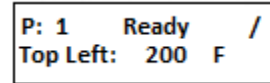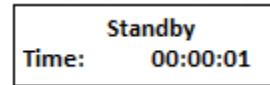
The timer next to the **Time:** in the display will start to count up indicating the amount of time the oven is in the standby mode.

g. Resume normal operation from the standby mode

This feature is used to return an oven deck back to normal operation from the standby mode.

Step	**Press Key**	**Display Reads**
		Standby Time: 00:00:01
1. Press FEATURE key	FEATURE	Select Feature
2. Press STDBY/RESUME key	6 STDBY/ RESUME	P: 1 Heating / Top Left: 200 F
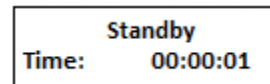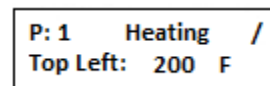
h. Cleaning Operation

Step	**Press Key**	**Display Reads**
		P: 1 Ready / Top Left: 750 F

1. Push and hold for 2 seconds to start cleaning operation

```
CLEAN
```

```
Cleaning
Heating Up
```
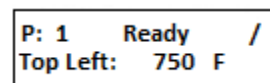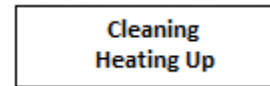
2. Display will count up from 00:00 to 60:00
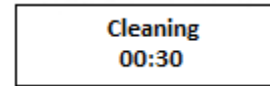
```
Cleaning
00:30
```

3. After the Clean cycle has completed the preset menu prior to the Cleaning cycle is re-initiated

```
P: 1      Ready      /
Top Left:   750  F
```

i.   Cancel cleaning operation

Step	**Press Key**	**Display Reads**

1. Press FEATURE key

```
FEATURE
```

```
Select Feature
```

2. Press FORCE key

```
5
FORCE
```

```
P: 1      Cooling    /
Top Left:   750  F
```
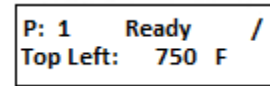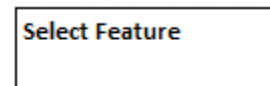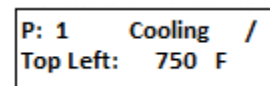
The oven deck will return to the preset menu that was in use prior to the cleaning cycle

3. Programming the MenuSelect™ control on DZ33I ovens

The DZ33I oven contain one MenuSelect™ control. Through this control you are capable of programming all four heating elements as well as the conveyer motor speed.
This oven has four heating zones as shown in Figure 3-5

Top Left Zone	Top Right Zone
Bottom Left Zone	Bottom Right Zone
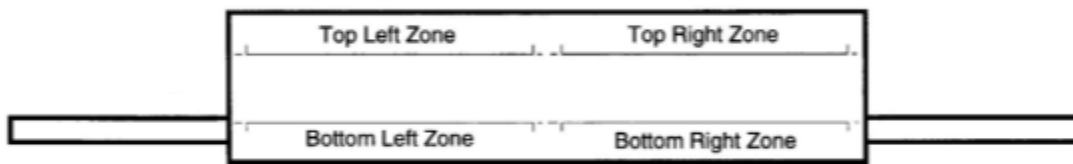
Figure 3-5

The oven controller controls all functions of the oven. To operate the oven the controller must be programmed. The following pages contain a step by step "hands on" programming exercise. We invite you to program your oven by following the examples.

23

NOTE: *This exercise assumes first time start after installation. Programming from the factory is $200\,^0F$ $(93\,^0C)$ temperature settings and 2 minute cook times.*

      a. Turn Oven Deck ON

          1. Turn ON the main disconnect switch at the wall box.

<div align="center">

Displays Reads

```
┌─────────────────────┐
│      Oven Off       │
│ MON  11:50:30   AM  │
└─────────────────────┘
```

</div>

NOTE: *The date and time may be different from shown values. The date and time will be set later in this tutorial.*

          2. Turn Keypad ON/OFF switch ON.

      b. The control is for programming, and must be unlocked to program.

          1. When trying to program the control it will ask for a code.
          2. In order to enter the program mode the code **1397** must be entered.
          3. By entering this code the programming modes are enabled and will remain open for a period of 30 seconds. After this time period the keypad will then ask for the code again.
          4. After entering the code number press a preset program button (program number 0 through 9) and set the top temperatures, bottom temperatures, and cook time values.
          5. After the desired preset values are set, the control will automatically retain this information till the program is changed.

      NOTE: *Do not lose the code number (**1397**) or you will not be able to change your program if needed.*

      c. Setting the preset MenuSelect^{TM} temperatures in all four zones and the oven cook time.

Step	**Press Key**	**Display Reads**
1.Select preset menu key to be Programmed	`0` thru `9 SERVICE CODES`	`P: 1    Heating   /` `Top Left:   200  F`
2.Press TOP TEMP key	`TOP TEMP`	`Top Temp: 200   200` `          ^`
3.Using the numeric keypad enter the new top left temperature. As the cursor moves to the right enter the new top right temperature.		`Top Temp: 350   450` `                 ^`

NOTE: I*f both top left and top right temperatures are the same entering in the top left temperature and then pressing the TOP TEMP button will lock in the same value for the top right temperature as set on the top left side.*

4.Press TOP TEMP key

```
TOP
TEMP
```

```
P: 1      Heating      /
Top Left:   350   F
```

5.Press BOTTOM TEMP key

```
BOTTOM
TEMP
```

```
Btm Temp: 200   200
               ^
```
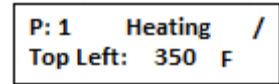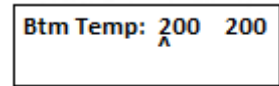
6.Using the numeric keypad enter the new bottom left temperature.
As the cursor moves to the right enter the new bottom right temperature.

NOTE: I*f both bottom left and bottom right temperatures are the same*
entering in the bottom left temperature and then pressing the BOTTOM TEMP
button will lock in the same value for the bottom right temperature
as set on the bottom left side.

7.Press BOTTOM TEMP key

```
BOTTOM
TEMP
```

```
P: 1       Heating      /
Btm Left:  350  F
```
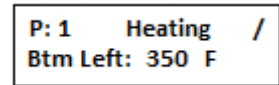
8.Press COOK TIME key

```
COOK
TIME
```

```
Cook Time:  10:00
               ^
```
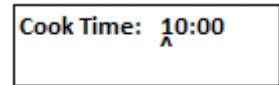
9.Using the numeric keypad enter the new cook time.

```
Cook Time:     05:00
                   ^
```

10.Press COOK TIME key

```
COOK
TIME
```

```
P: 1       Heating      /
MON:       11:00   AM
```
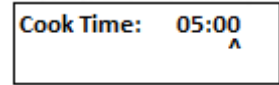
11. Repeat Steps 1 – 10 to program the remaining presets.

   Note: *If only using one time and temperature, set all presets to the same time and temp. This way if anyone presses*
   another preset it will not change to a different time and temp.

   d. Setting the Clock
   The clock sets the day of the week, the time, and AM or PM.

Step   **Press Key**   **Display Reads**

1. Press FEATURE key

```
FEATURE
```

```
Select Feature
```

2.Press CLOCK key

| **3** |
| CLOCK |

| Enter Time   00:00 |

3.Using the numeric keypad enter the time

| **0** | **2** | **3** | **4** |
| | TIMER | CLOCK | |

, , ,

| Enter Time   00:00 |

4.Enter either 1 or 2 for appropriate selection
  For AM or PM

| **2** |
| TIMER |

| Enter   AM or PM |
| 1 - AM   or   2 - PM |

5.Enter selection 1 through 7 for correct day

| **2** |
| TIMER |

| 1 Sn   2 M   3 T   4 W |
| 5 Th   6 F   7 Sa   ? |

6.After 2 seconds the display reverts to

| Time   Set   To |
| Mon   2:34   PM |

| P: 1   Heating   / |
| Mon: 2:34   PM |
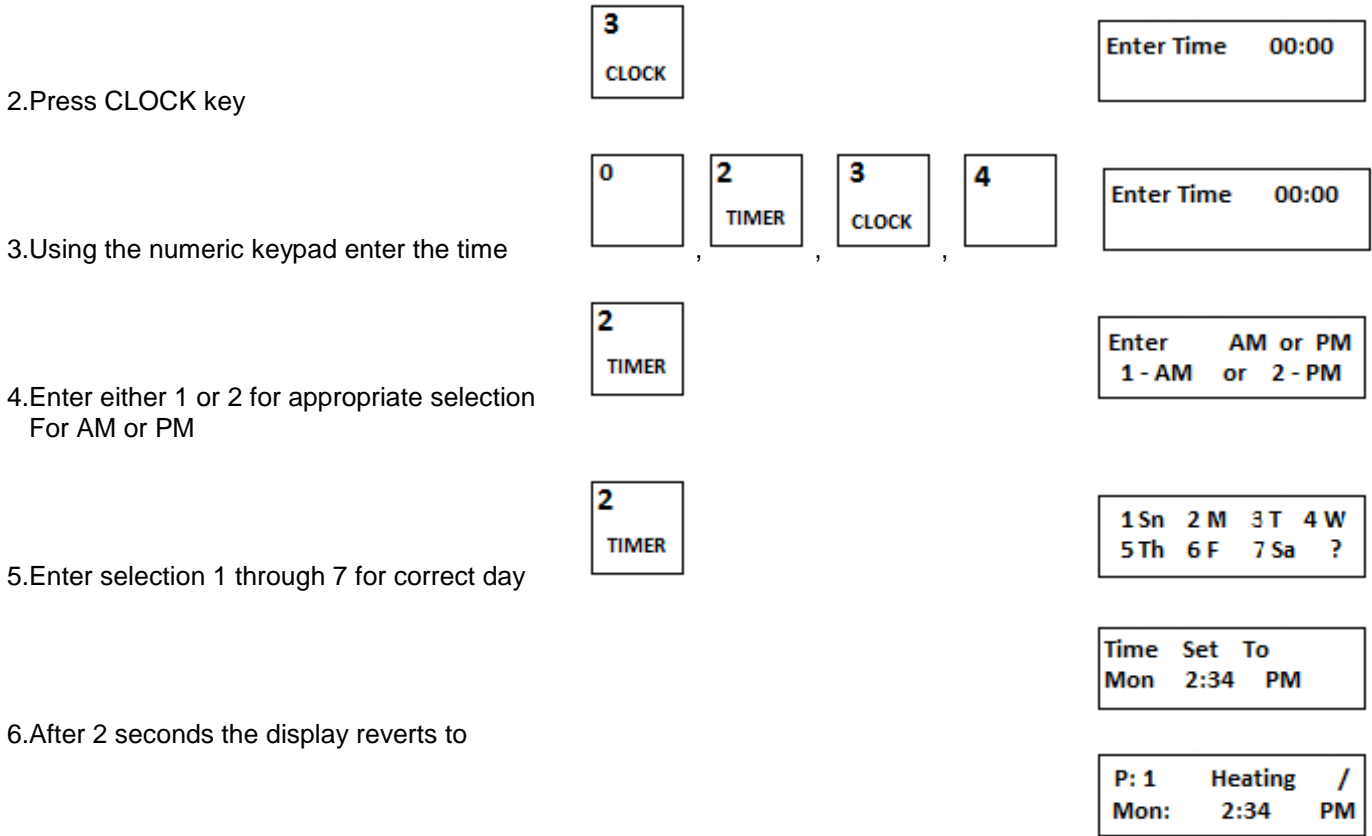
d. Set the Timer
The timer can be set to turn the oven ON and OFF automatically. The timer cycle runs for seven days and then repeats itself. The times set for the oven to turn ON can be the same or different for each day as can the times set for the oven to turn OFF. The timer program allows only one ON and one OFF per 24 hour day, midnight to midnight. Refer to the chart (Figure 3-6) to assist in choosing ON/OFF times.

Note: *When using the timer you **MUST** program every day of the week, if there is a day you do not want the oven to turn ON you can program the oven to come on for one (1) minute only.*
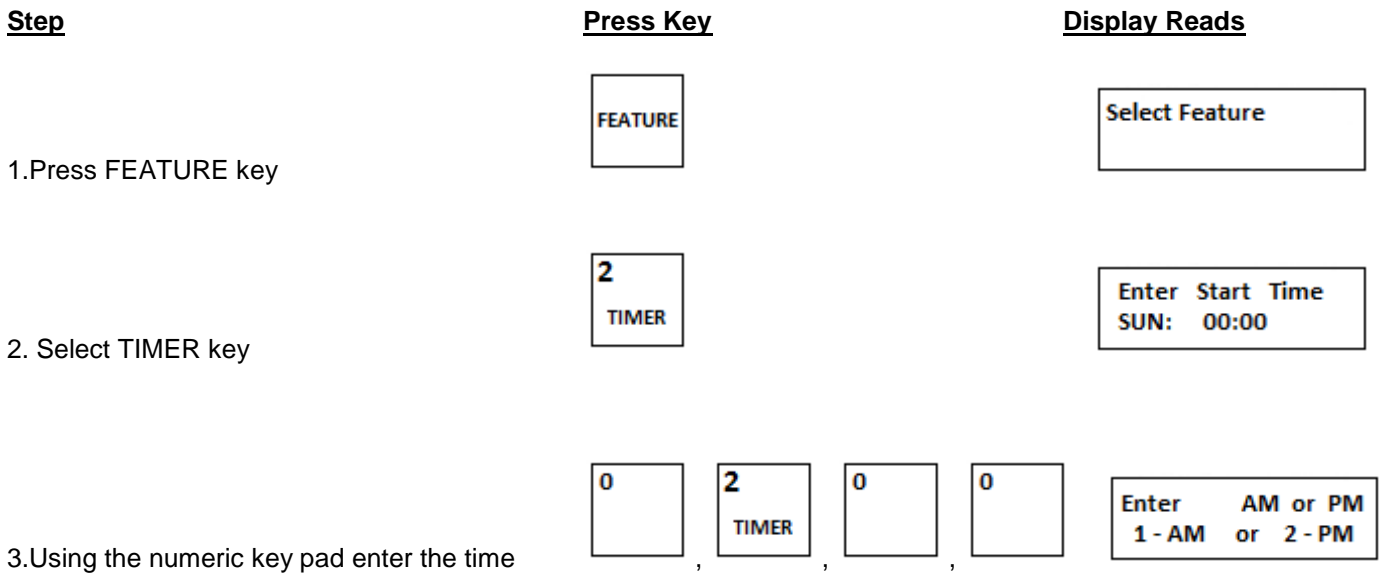
| **Step** | **Press Key** | **Display Reads** |

1.Press FEATURE key

| FEATURE |

| Select Feature |

2. Select TIMER key

| **2** |
| TIMER |

| Enter Start Time |
| SUN: 00:00 |

3.Using the numeric key pad enter the time

| **0** | **2** | **0** | **0** |
| | TIMER | | |

, , ,

| Enter   AM or PM |
| 1 - AM   or   2 - PM |

26

4. Enter either 1 or 2 for appropriate selection

[2 TIMER]

```
Enter  Stop  Time
SUN:      00:00
```

5. Using the numeric key pad enter the time

[0] , [2 TIMER] , [0] , [1]

```
Enter      AM  or  PM
1 - AM    or    2 - PM
```

6. Enter either 1 or 2 for appropriate selection

[2 TIMER]

```
ON  SUN:  02:00 PM
OFF SUN:  02:01 PM
```

7. The display will scroll to the next timer to set

```
Enter  Start  Time
Mon:      00:00
```

8. Repeat steps 1 through 7 until all seven days of the week have the timer set for their appropriate time to turn ON and time to turn OFF.

> The oven is now programmed for automatic timing. When in the timing mode DO NOT use the ON/OFF switch to turn the oven ON and OFF, the switch must remain in the ON position for timing mode operation. When the timer cycles the oven OFF the display will read "TIMING". When the timer cycles the oven ON again the operational status display will resume.

> As stated earlier, the timer program only allows for on ON and OFF cycle per 24 hour day, midnight to midnight. When choosing an ON and OFF time use the following chart. When the chosen times are plotted it can be determined if there is a time conflict. The chart also provides a reference while the timers are being set. **Important: OFF times _cannot_ fall into the AM hours of the next day.**

Key	Day	Midnight AM 12	1	2	3	4	5	6	7	8	9	10	11	11:59	Noon PM 12	1	2	3	4	5	6	7	8	9	10	11	Midnight 11:59
[1]	Sunday																										
[2]	Monday																										
[3]	Tuesday																										
[4]	Wednesday																										
[5]	Thursday																										
[6]	Friday																										
[7]	Saturday																										

Figure 3-6

f. Force out of automatic timing

The FORCE feature allows the user to remove the oven from automatic timing mode and turn it ON without changing the timer settings. When in normal operation mode FORCE has no effect.

Step   **Press Key**   **Display Reads**

1. Press FEATURE key

[FEATURE]

```
Select Feature
```
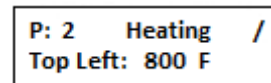
2. Press FORCE key

[5 FORCE]

```
P: 1       Ready       /
Top Left:    750  F
```

Oven will return to the preset menu # that was used previous to timing.

3.Press desired preset menu number

```
 ┌──────┐
 │2     │
 │ TIMER│
 └──────┘
```

```
┌────────────────────┐
│P: 2    Heating    /│
│Top Left: 800  F    │
└────────────────────┘
```

NOTE: *These same steps can also be used to FORCE out of automatic cleaning. To return the oven to automatic timing mode turn ON/OFF switch to OFF position and then to ON position.*
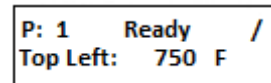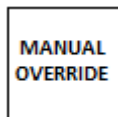
g. Manual Override operation

This feature is used to operate the oven deck manually. The oven deck is taken out of the MenuSelect™ mode by entering new parameters and is returned to the MenuSelect™ mode without saving the parameters.

Step	**Press Key**	**Display Reads**

```
┌──────────┐
│ MANUAL   │
│ OVERRIDE │
└──────────┘
```

```
┌────────────────────┐
│P: 1    Ready     / │
│Top Left:   750  F  │
└────────────────────┘
```

1.Press MANUAL OVERRIDE key

P: - Indicates preset mode

2.Set the oven deck temperature and cook time as in step c. The oven deck will function to the new settings, but the settings will not be saved.

```
┌────────────────────┐
│M: 1    Heating   \ │
│Top Left:   200  F  │
└────────────────────┘
```
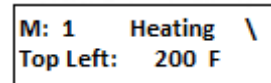
M: - Indicates manual override mode

3.To return to normal preset menu press the preset menu number.

```
┌──────┐
│1     │
│      │
└──────┘
```

```
┌────────────────────┐
│P: 1    Ready     / │
│Top Left:   750  F  │
└────────────────────┘
```
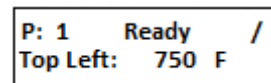
h. Fahrenheit or Centigrade

This feature is used to change the display to read in either Fahrenheit (F) or Centigrade (C).

Step	**Press Key**	**Display Reads**

1.Press FEATURE key

```
┌────────┐
│ FEATURE│
└────────┘
```

```
┌────────────────────┐
│Select Feature      │
│                    │
└────────────────────┘
```

2.Press SERVICE CODES key

```
┌──────────┐
│9         │
│ SERVICE  │
│ CODES    │
└──────────┘
```

```
┌────────────────────┐
│Service Code?    00 │
│                    │
└────────────────────┘
```
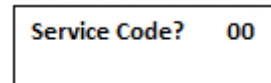
3.Enter service code 80

| 8 | 0 |

Service Code?   80

4.Enter 1 for degree F or 2 for degree C

| 1 | | 2 |
| | TIMER |

or

Units: Deg F
1 - F   or   2 - C

5.(Number 2 chosen)

Units   Set   To
Degree   C

6.(Display reads)

Service Code?   00

7.Select TOP TEMP key to exit service code Function.

TOP
TEMP

P: 1   Ready   /
Top Left: 750   F

Notes:

C.   Cooking in a CTX oven

1. Cooking Trials
The purpose of conducting cooking trials is to determine the exact temperature settings and cooking time(s) needed to produce best results with your specific product(s). The fastest and easiest way to conduct these trials is to start with settings already established for product(s) similar to yours. We recommend they be used as beginning set points for your tests.

Testing can be completed easier and faster and with less confusion if you keep accurate records of each test. Choose your first product for test and look it up in the table Section 3-7 of this manual. Now program the oven with the temperatures and cook times shown. (Refer to section 3-7 Time and Temperature Guide)

NOTE: *If you are starting the oven from "cold" please allow 30 minutes heat up time. The elements cycle after approximately 15 minutes, however, additional time for the oven chamber to become stabilized and evenly saturated with heat.*

Begin your first trial run. Examine the finished product and evaluate it based on the following guidelines.

RESULTS	SOLUTION
Outside too dark or burned	Reduce Temperatures
Outside too light or not cooked	Increase Temperatures
Inside Overdone or dried out	Shorten Cooking Time
Inside Underdone or raw	Lengthen Cooking Time

NOTE: *Sometimes an increase in temperature may require a corresponding decrease in cooking time. Conversely a decrease in temperature may require a corresponding increase in cooking time.*

After evaluating the results, make the indicated time/temperature setting adjustments and allow about 15 minutes for the oven to stabilize at the new temperature settings. It may be necessary to run several tests before you obtain the exact results you want.

2. Loading the Conveyor
Achieving maximum production is dependent on proper utilization of the conveyor belt. Depending on size, pans can be placed on the conveyor belt in a variety of configuration to best utilize the space available.

The following illustrations show placement of various size round and square pans to achieve maximum production rates. Pans in other sizes or shapes will require different placement. You will have to determine the best placement configuration for your pans. **Do not place pans off the edge of the belt or allow them to overhang.**
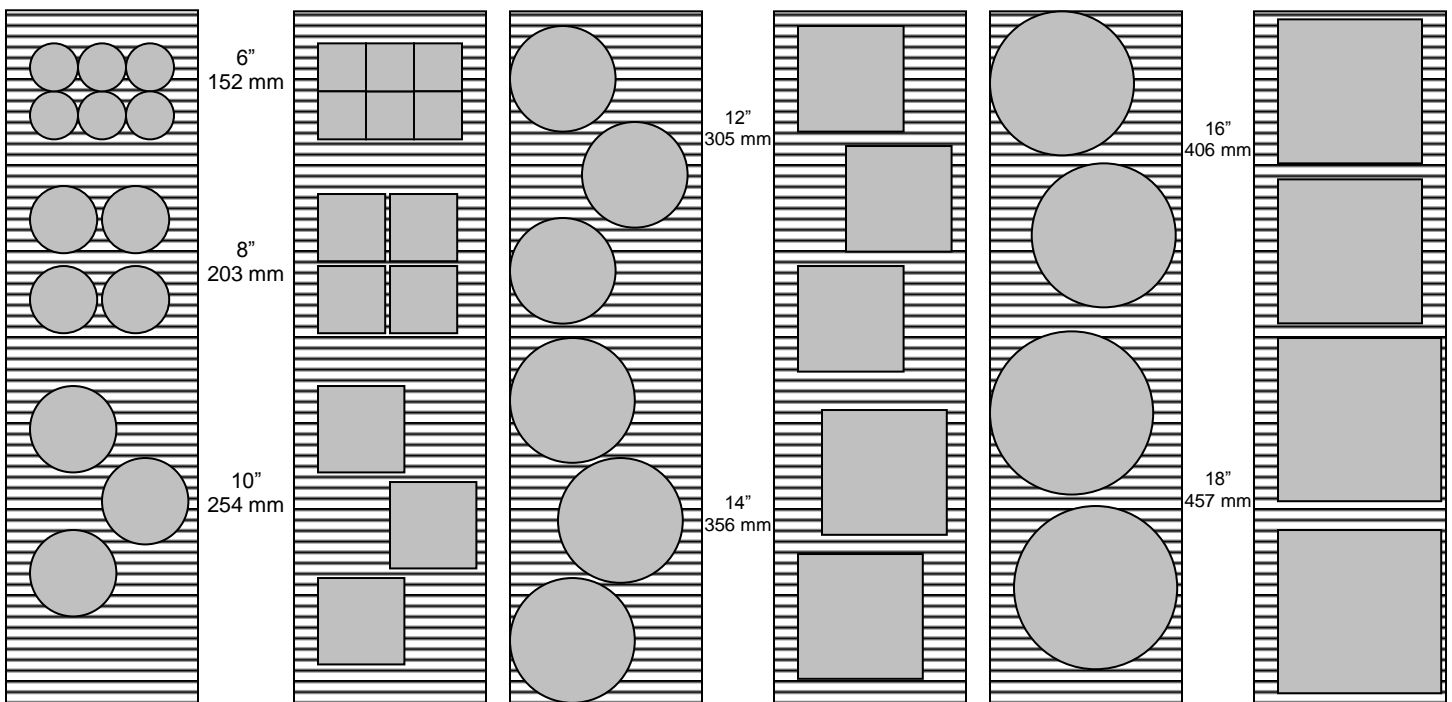
Production output for any pan size can be easily calculated using the following formula:

$$\boxed{\begin{array}{c}\text{Length}\\\text{of Oven}\\\text{Chamber}\\\text{(Inches)}\end{array}} \div \boxed{\begin{array}{c}\text{Cooktime}\\\text{(Min.)}\end{array}} \div \boxed{\begin{array}{c}\text{Pan Length}\\\text{(Inches)}\end{array}} \times \boxed{\begin{array}{c}60\text{ Min.}\\\text{Per Hour}\end{array}} = \boxed{\begin{array}{c}\text{Hourly}\\\text{Production}\\\text{Rate per}\\\text{Conveyor}\end{array}}$$

This formula is based on a succession of single pans being placed on the belt. No consideration is given to multiple pans across the 18" wide belt nor to staggered loading. The hourly production rate obtained by the above calculation must be multiplied by a factor equal to the number of pans placed across the belt.

3. Production Capacity Charts
The production output figures shown below are based on using round pans in the various sizes shown. These figures reflect output.

Model DZ33I Series Oven

COOK TIME	6"	8"	9"	10"	12"	14"	16"	18"
4 min.	232	116	103	66	47	33	29	26
5 min.	186	93	83	53	37	27	24	21
6 min.	155	78	69	44	31	22	20	17
7 min.	133	66	59	37	27	19	17	15
8 min.	116	52	52	33	23	17	15	13
9 min.	103	52	46	30	21	15	13	11
10 min.	93	47	41	26	19	13	12	10
12 min.	78	39	34	22	16	11	10	9
14 min.	66	33	30	19	13	9	9	7
16 min.	58	29	26	17	12	8	8	6
18 min.	52	26	23	15	10	7	7	6
20 min.	47	23	21	13	9	6	6	5

D.   Time and Temperature Guide

Figure 3-7

Product	Zone Temperature		Cook Time Min.	Pan Type and Size	Amount Weight or Count	State
	Entrance	**Exit**				
	Top / Bott	**Top / Bott**				
	Appetizers					
Nachos	850/850 F 454/454 C	750/750 F 398/398C	3	Alum.10"	10 oz.	Fresh
Oysters Rockefeller	900/900 F 482/482 C	850/850 F 454/454 C	4	Alum	8-Jun	Fresh
Potato Skins	850/850 F 454/454 C	750/750 F 398/398 C	3	Alum 10"	10 oz.	Fresh
Rurmaki	850/850 F 454/454 C	750/750 F 398/398 C	6	Alum	8-Jun	Fresh
Seafood Kabob	900/900 F 482/482 C	850/850 F 454/454 C	6	Alum 6"	4-6 oz.	Fresh

Product	Zone Temperature		Cook Time Min.	Pan Type and Size	Amount Weight or Count	State
	Entrance	**Exit**				
	Top / Bott	**Top / Bott**				
<td colspan="7" align="center"># Baked Goods</td>
Bagels	750/750 F 398/398 C	650/650 F 343/343 C	8	Wire Mesh	3 oz.	Fresh
Bread Sticks	850/850 F 454/454 C	750/750 F 399/399 C	6	Alum. ½ Size	2 oz.	Fresh
Brown & Serve Rolls	700/700 F 370/370 C	600/600 F 315/315 C	4	Alum.	1 oz.	Thawed
Corn Bread	600/600 F 315/315 C	750/700 F 399/371 C	15	Alum. ½ Size	2-1/2 oz.	Fresh
Dinner Rolls	700/700 F 370/370 C	600/600 F 315/315 C	8	Alum. ½ Size	3 oz.	Fresh
Fresh Bread	700/700 F 370/370 C	600/600 F 315/315 C	10	Alum. ½ Sheet	1 lb.	Fresh
Garlic Bread	900/900 F 482/482 C	800/800 F 426/426 C	2	Alum. ½ Size	1 lb.	Fresh
Muffins	600/600 F 315/315 C	750/700 F 399/371 C	15	Dark Alum.	3 oz.	Fresh
Popovers	550/550 F 288/288 C	650/650 F 343/343 C	30	Dark Alum.	3 oz.	Fresh
Soft Pretzels	800/800 F 426/426 C	700/700 F 370/370 C	8	Alum. ½ Size	2 oz.	Fresh
Toast	900/900 F 482/482 C	800/800 F 426/426 C	2	None	Slice	Fresh
<td colspan="7" align="center"># Beef</td>
Beef Ribs – Finish	900/850 F 482/454 C	900/850 F 482/454 C	8	Alum. ½ Size	8 ribs	Precooked
Hamburger 4:1	900/900 F 482/482 C	900/900 F 482/482 C	4	Alum. ½ Size	4 oz.	Fresh
Hamburger 4:1	900/900 F 482/482 C	900/900 F 482/482 C	5:30	Alum. ½ Size	4 oz.	Frozen
Hamburger 2:1	900/900 F 482/482 C	900/900 F 482/482 C	10	Stainless	8 oz.	Fresh
Liver & Onions	850/850 F 454/454 C	750/750 F 398/398 C	10	Alum. ½ Size	4 oz.	Fresh
Meatballs	900/900 F 482/482 C	800/800 F 426/426 C	8	Alum. ½ Size	2 oz.	Refrig.
Rib Eye Steak	900/900 F 482/482 C	900/900 F 482/482 C	8	Stainless 4 X 7	10 oz.	Fresh

Product	Zone Temperature		Cook Time Min.	Pan Type and Size	Amount Weight or Count	State
	Entrance	**Exit**				
	Top / Bott	**Top / Bott**				
Beef Continued						
Salisbury Steak	900/900 F 482/482 C	800/800 F 426/426 C	6	Alum. ½ Size	4 oz.	Fresh
Strip Steak	900/900 F 482/482 C	900/900 F 482/482 C	8	Stainless 4 X 7	8 oz.	Fresh
Strip Steak	900/900 F 482/482 C	900/900 F 482/482 C	10	Stainless 4 X 7	12 oz.	Fresh
Tenderloin	850/850 F 454/454 C	750/750 F 399/399 C	15	Alum. ½ Size	4 lbs.	Fresh
Breakfast Foods						
Bacon	900/900 F 482/482 C	800/800 F 426/426 C	6	Alum. w/rack	1 lb.	Refrig.
Biscuits	800/800 F 426/426 C	700/700 F 370/370 C	8	Alum. ½ Size	3 lbs.	Fresh
Egg Patty	750/750 F 398/398 C	650/650 F 343/343 C	4	Alum 5"	2 Eggs	Fresh
Fried Eggs	750/750 F 396/396 C	650/650 F 343/343 C	4	Alum. 5"	2 Eggs	Fresh
Puffy Omelet	750/750 F 398/398 C	650/650 F 343/343 C	8	Alum. Skillet 9"	6 oz.	Fresh
Quiche	700/700 F 370/370 C	600/600 F 315/315 C	25	Dk. Alum. Pie	24 oz.	Fresh
Sausage Links	900/900 F 482/482 C	800/800 F 426/426 C	6	Alum. ½ Size	1.5 oz.	Refrig.
Sausage Patty	900/900 F 482/482 C	800/800 F 426/426 C	4	Alum ½ Size	1.5 oz.	Refrig.
Casseroles						
Enchiladas	900/900 F 482/482 C	800/800 F 426/426 C	8	Oven China	12 oz.	Refrig.
Lasagna	850/850 F 454/454 C	750/750 F 396/396 C	12	Oven China	12 oz.	Refrig.
Macaroni & Cheese	700/700 F 370/370 C	600/600 F 315/315 C	25	Stainless 20 X 20	5 lbs.	Refrig.
Pasta & Sauce	850/850 F 454/454 C	750/750 F 396/396 C	8	Oven China	12 oz.	Refrig.

Product	Zone Temperature		Cook Time Min.	Pan Type and Size	Amount Weight or Count	State
	Entrance	Exit				
	Top / Bott	Top / Bott				
Cookies						
Bar Cookies	650/650 F 343/343 C	600/600 F 315/315 C	10	Alum. ½ Size	1 lb.	Fresh
Brownies	700/700 F 370/370 C	600/600 F 315/315 C	15	Alum. ½ Size	3-1/2 lbs.	Fresh
Chocolate Chip	650/650 F 343/343 C	600/600 F 315/315 C	7	Alum ½ Size	¾ oz.	Fresh
Chocolate Chip	650/650 F 343/343 C	600/600 F 315/315 C	8	Alum ½ Size	½ oz.	Fresh
Macaroons	650/650 F 343/343 C	600/600 F 315/315 C	15	Alum. ½ Size	1 oz.	Fresh
Oatmeal	650/650 F 343/343 C	600/600 F 315/315 C	7	Alum. ½ Size	1-1/2 oz.	Fresh
Desserts						
Baked Apple	700/700 F 370/370 C	600/600 F 315/315 C	25	Stainless 12 X 20	12 Apples	Fresh
Baked Custard	700/700 F 370/370 C	600/600 F 315/315 C	25	Custard dish ½ Size	4 oz.	Fresh
Cream Puffs	550/550 F 287/287 C	650/650 F 343/343 C	30	Alum ½ Size	2 oz.	Fresh
Fruit Pie	550/550 F 287/287 C	650/650 F 343/343 C	30	10" Pie	25 oz.	Fresh
Layer Cake	650/650 F 343/343 C	600/500 F 315/260 C	15	Alum ½ Size	3 lbs.	Fresh
Meringue Pie	650/650 F 343/343 C	600/600 F 315/315 C	7	10" Pie	26 oz.	Fresh
Puff Pastry	650/650 F 343/343 C	600/600 F 315/315 C	15	Alum ½ Size	4 oz.	Fresh

Product	Zone Temperature		Cook Time Min.	Pan Type and Size	Amount Weight or Count	State
	Entrance	**Exit**				
	Top / Bott	**Top / Bott**				
Fish and Seafood						
Filet of Sole	900/900 F 482/482 C	900/900 F 482/482 C	6	Stainless 4 X 7	6 oz.	Fresh
Lobster Tail	900/900 F 482/482 C	900/900 F 482/482 C	8	Stainless 4 X 7 with water	8 oz.	Fresh
Sea Scallops	900/900 F 482/482 C	900/900 F 482/482 C	6	Stainless 4 X 7	8 oz.	Fresh
Shrimp Scampi	900/900 F 482/482 C	900/900 F 482/482 F	6	Stainless 4 X 7	8 oz.	Fresh
Snow Crab	900/900 F 482/482 C	900/900 F 482/482 C	6	Stainless 4 X 7	8 oz.	Fresh
Stuffed Flounder	900/900 F 482/482 C	900/900 F 482/482 C	8	Stainless 4 X 7	8 oz.	Fresh
White Fish Fillet	900/900 F 482/482 C	900/900 F 482/482 C	8	Stainless 4 X 7	8 oz.	Fresh
Whole Trout	900/900 F 482/482 C	900/900 F 482/482 C	8	Stainless 4 X 7	9 oz	Fresh
Poultry						
Chicken Cordon Bleu	800/800 F 426/426 C	700/700 F 370/370 C	15	Alum ½ Size	12 pcs.	Fresh
Chicken Pieces	800/800 F 426/426 C	700/700 F 370/370 C	18	Alum ½ Size	12 pcs.	Fresh
Half Chicken	800/800 F 426/426 C	700/700 F 370/370 C	20	Alum ½ Size	1-1/4 lbs.	Fresh
Whole Chicken	800/800 F 426/426 C	700/700 F 370/370 C	25	Alum ½ Size	2-1/2 lbs.	Fresh

Product	Zone Temperature		Cook Time Min.	Pan Type and Size	Amount Weight or Count	State
	Entrance	**Exit**				
	Top / Bott	**Top / Bott**				
			Pork			
Breaded Chop	800/800 F 425/425 C	700/700 F 370/370 C	8	Alum ½ Size	4 oz.	Fresh
Pork Chop	800/800 F 425/425 C	700/700 F 370/370 C	15	Alum ½ Size	4 oz.	Fresh
Pork Ribs (Finish)	900/900 F 482/482 C	850/850 F 454/454 C	8	Alum ½ Size	Slab	Fresh
			Pizza			
Deep Dish	750/750 F 398/398 C	650/650 F 343/343 C	10	Black Deep Pan		Fresh
Calzone	675/675 F 375/375 C	625/625 F 329/329 C	8	Pizza Screen or Black Sheet Pan		Fresh
Stuffed	650/650 F 343/343 C	550/550 F 287/287 C	20	Black Deep Pan		Fresh
Thick Crust	775/775 F 412/412 C	675/675 F 357/357 C	6:30	Black Pizza Pan		Fresh
Thin Crust	800/800 F 426/426 C	700/700 F 370/370 C	5:30	Pizza Screen		Fresh
Thin Crust	650/650 F 343/343 C	550/550 F 287/287 C	9	Pizza Screen		Frozen
Thin Crust	800/800 F 426/426 C	750/750 F 398/398 C	5	Pizza Screen		Pre-Bake

SECTION 4- CLEANING

Frequent cleaning will help your oven operate at peak performance and efficiency.

Keep your oven clean!

A. Cleaning the cooling Fan Filter

The foam filter and the protective grille of the cooling fan should be cleaned weekly. Daily cleaning may be required if flour has built up on filter. Snap the protective grille off and wipe clean with a cloth. Remove the foam filter and inspect it. If dusty, shake briskly. If there is greasy dirt, gently wash in warm soapy water, rinse, squeeze and set aside to dry completely. Reinstall filter and grille.

```
CAUTION:
Electrical Components are directly behind the
cooling fan.
BE SURE filter is dry before reinstalling.
```

B. Oven Cleaning Operation

CTX series oven features a self-cleaning cycle already programmed into the control. When the cleaning cycle is engaged the control automatically increases all heat zones to 900°F (482°C). When all four hearing zones are at 900° the control will count down from 60:00 till it reaches 00:00 minutes. At the conclusion of the cycle the control returns the oven chamber to the status in effect prior to engagement of the cleaning cycle. If the oven is programmed to shut OFF (timing Mode) during the CLEAN cycle the CLEAN Mode will override program and continue at 900°F (282°C) for the full 60 minutes. Oven will then shut OFF in Timing Mode.

. **Cleaning Operation**

Step	**Press Key**	**Display Reads**
		P: 1 Ready / Top Left: 750 F
1. Push and hold for 2 seconds to start cleaning operation	CLEAN	Cleaning Heating Up

		Cleaning 00:30

2. Display will count up from 60:00
to 00:00

		P: 1 Ready / Top Left: 750 F

3. After the Clean cycle has completed
the preset menu prior to the Cleaning
cycle is re-initiated

i.   Cancel cleaning operation

Step	**Press Key**	**Display Reads**
	FEATURE	Select Feature
1. Press FEATURE key		
	5 FORCE	P: 1 Cooling / Top Left: 750 F
2. Press FORCE key		

3.The oven deck will return to the
  preset menu that was in use prior to
  the cleaning cycle

> **CAUTION: Be sure oven is off and cool to the touch and the conveyor is
> stopped before attempting to wipe out the oven chambers**

C. Cleaning "Loose" Parts

The following items must be removed from the oven to be cleaned manually.

> **CAUTION: These procedures should be performed only when the oven is OFF, cool to the touch and the
> conveyor is stopped**

Crumb Trays: Clean daily. To remove: On the idler side lift and slide the tray toward the front of the oven. On the
drive side lift up the side of the tray closest to the oven, push into chamber slightly, lower outer edge and remove.
Empty residue, wash, rinse and dry thoroughly. Re-install.
Note: *These trays are made of aluminum, **do not** use commercial oven cleaners, this will damage the trays.*

Exit Trays: Clean Daily. To remove: Lift off from end of conveyor. Wash, rinse, and dry thoroughly.

Heat Curtains: Clean as needed. Unhook heat curtains from the rods above the entrance and exit end of the
oven. Wash, rinse and dry thoroughly. Re-install.

NOTE: *Commercial oven cleaners can be used to clean stainless steel "loose" parts.*

D. Cleaning the Exterior

CAUTION: Turn off power to the oven at the wall box by pulling the main disconnect switch.

The body of the oven is stainless steel. It can be wiped clean using any commercially available stainless steel spray cleaner or you can clean the oven using a **DAMP** cloth wrung out of mild detergent solution. Rinse in similar fashion with clear water. **DO NOT** allow excess fluid to enter any of the cracks around the keypad or the lower control panel. **DO NOT** use abrasive compounds.

SECTION 5- MAINTENANCE & TROUBLESHOOTING

Note: *An authorized CTX service representative must be contacted for any failures that cannot be remedied by Reprogramming or Rebooting System.*

Caution: Do not remove access panels at the front or rear of oven. High voltage exists inside these compartments which can cause serious injury or death.

Maintenance:

1.   **3 Months**

➢   Check and tighten all electrical connections.

Troubleshooting:

A. Chart 1- Error Messages

| Display Error Code	Explanation	Corrective Action
OVER TEMP SHUTDN ZONE#	Over Temperature Error: This occurs if at least one zone's actual temperature exceeds the maximum allowed temperature of 980°F (526°C)	Call for service
EXT. AMB SHUTDN	External Ambient Error: This occurs if the external ambient temperature exceeds 150°F (65°C).	Check axial cooling fan at lower front of oven for proper operation and cleanliness. Also it may be the temperature of the area surrounding the oven must be reduced. If the fan is not running call for service.
INT. AMB SHUTDN	Internal Ambient error: This occurs if the internal ambient temperature exceeds 150°F (65°C).	Check axial cooling fan at lower front of oven for proper operation and cleanliness. Also it may be the temperature of the area surrounding the oven must be reduced. If the fan is not running call for service.
MOTOR JAMMED	Conveyor Jammed: Conveyor stopped when speed setting is between 1 and 60 minutes or conveyor runs full speed.	Clear item that is jamming the conveyor and/or reset circuit breaker on the front of the control panel. If conveyor still does not operate call for service.
MOTOR RUNAWAY	Conveyor Runaway: Conveyor runs at full speed.	Check for proper speed setting. If speed setting is correct call for service.

B. Chart 2- Troubleshooting

| Symptom	Probable Cause	Remedy
Display shows irregular or illegible characters.	• Could have been caused by voltage spikes which caused interruption to programming. • Could be caused by the display is overheating.	1. Turn keypad to OFF and then back ON. 2. Turn main circuit breakers on electrical panel OFF and then back ON. This will completely restart program. 3. If display remains illegible, see step 4. 4. Check to see filter is clean and the cooling fan is running if not call service.
Conveyor belt stops completely or intermittently.	• If belt time is 15 mins or greater, belt will occasionally stop. This is called belt indexing and is not a problem. • If belt time is set less than 15 mins check to see if drive roller is turning.	1. Check to see if reset is tripped. 2. Check for objects jammed in conveyor and remove. 3. Turn oven off, reset the breaker, and turn oven on. 4. If motor still does not run, call for Service.
Display does not show **READY** after oven has been on for 20 min.	• Oven has not reached set temp, maybe caused by a contact not closing or a failed temp probe or element.	1. Check Set & Actual Temps for all zones. 2. If actual temps are not within + or - 6°F (-14°C) within 30 min call for service.
Product is not cooking.	• Check cook time and temp for proper settings, conveyor could be running too fast or temp could be set wrong. • Display shows temp low or zone(s) failed. • Check for possible air flow	• Adjust cook time and temp to correct settings. • Turn ON/OFF switch OFF then flip main circuit breakers OFF and ON 2 or 3 times. • Redirect air flow.

SECTION 6 - Parts Lists

A. Parts List

Part Number	Description	DZ33I, 208/240	DZ33I, 380/415
3102458	Plastic fan filter guard	1	1
3102469	Filter media	1 pkg.	1 pkg.
69799	24 VDC cooling fan	1	1
35823	On/Off switch	1	1
66195	Keypad control interface	1	1
67975	Contactor 4 pole	1	1
67857	Solid state relay	2	2
45036	3A Circuit breaker	1	1
67872	Thermocouple	2	2
97393	Bayonet Lock Assembly	2	2
30089	208V Hearth plate	1	0
340931	240V Hearth plate	1	1
65756	Gear motor	1	1
69765	Current sensing board	1	1
68310	Motor control board	1	1
69649	I/O board	1	1
68030	4 Pole circuit breaker	1	1
69079	24V power supply	1	1
66192	High limit board	1	1
63909	Interlock switch	1	1

Spare Parts Kit
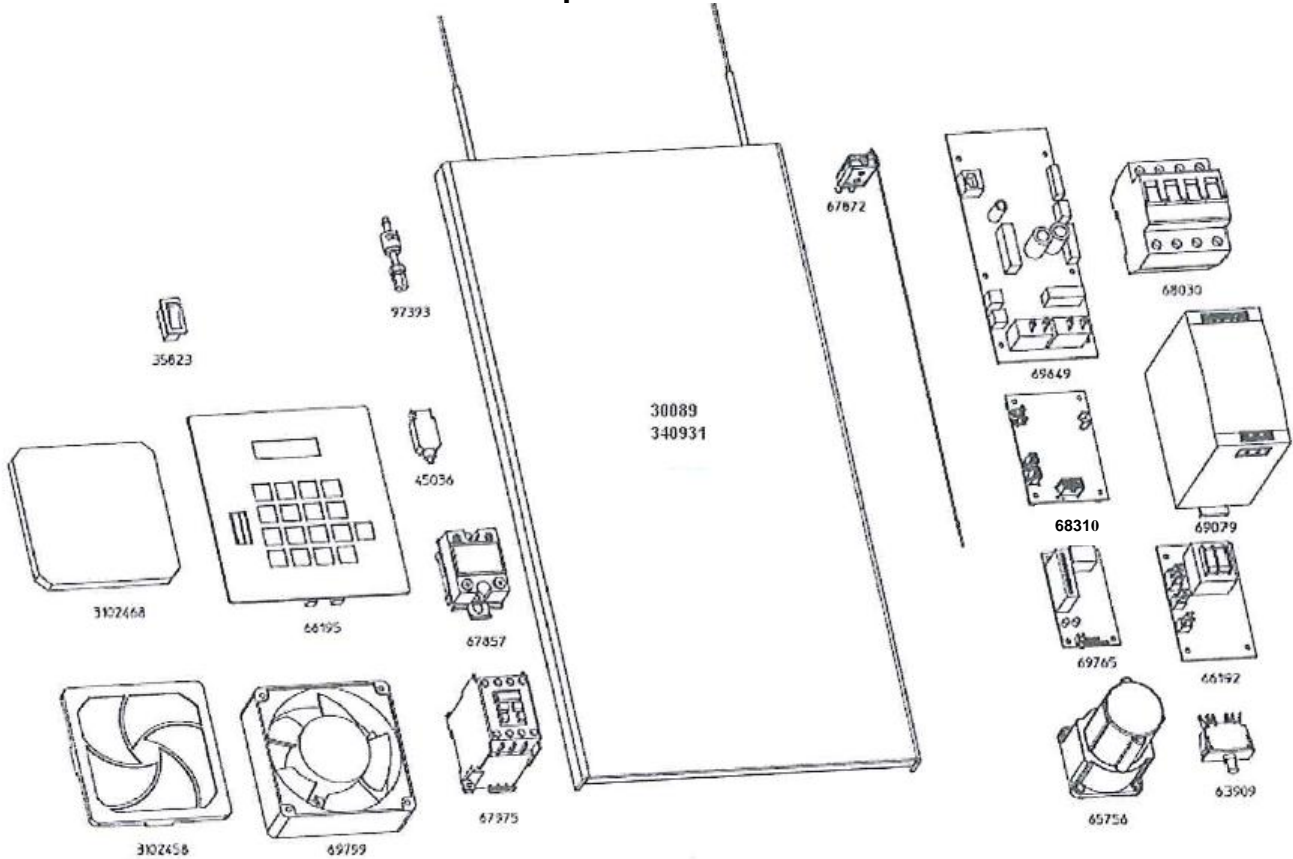
Oven Open Rear View
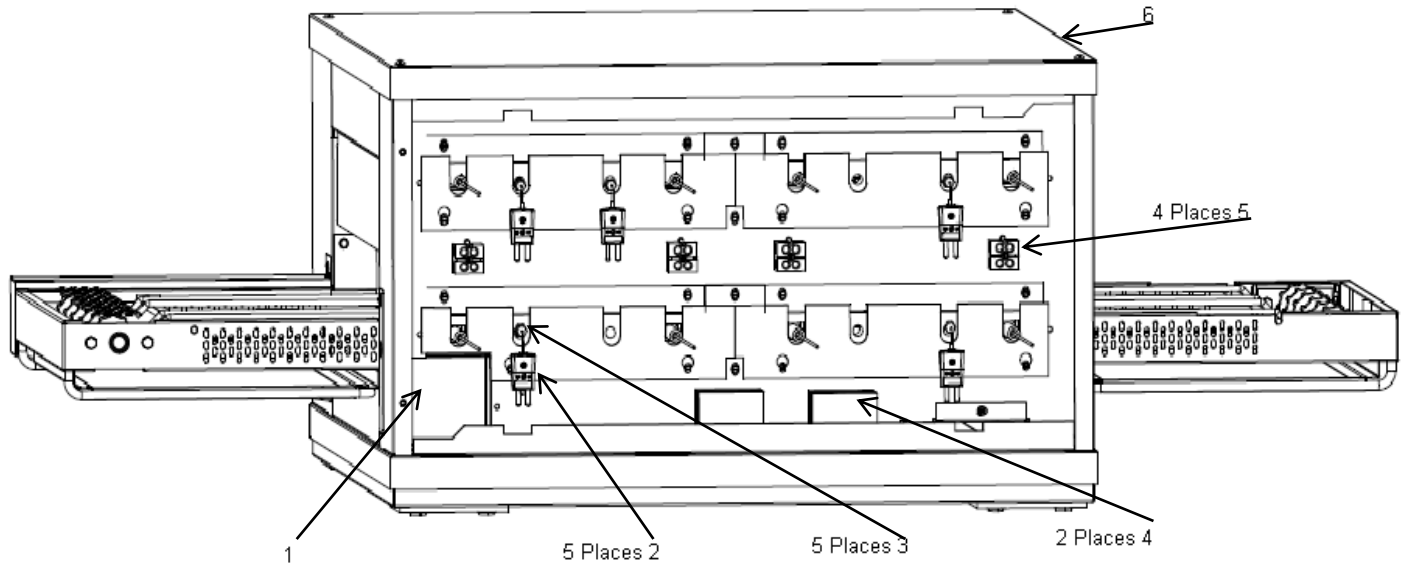
Item	Qty.	Part Number	Description
1	1	65756	Gear Motor (SB)
2	5	67872	Thermocouple
3	5	97393	Bayonet
4	2	27480-0001	Terminal Block 175A
5	4	65806	Terminal Block 85A
6	1	67614	Top Panel

Elements Exposed View

8 Places 2
8 Places 3
8 Places 4

4 Places 1
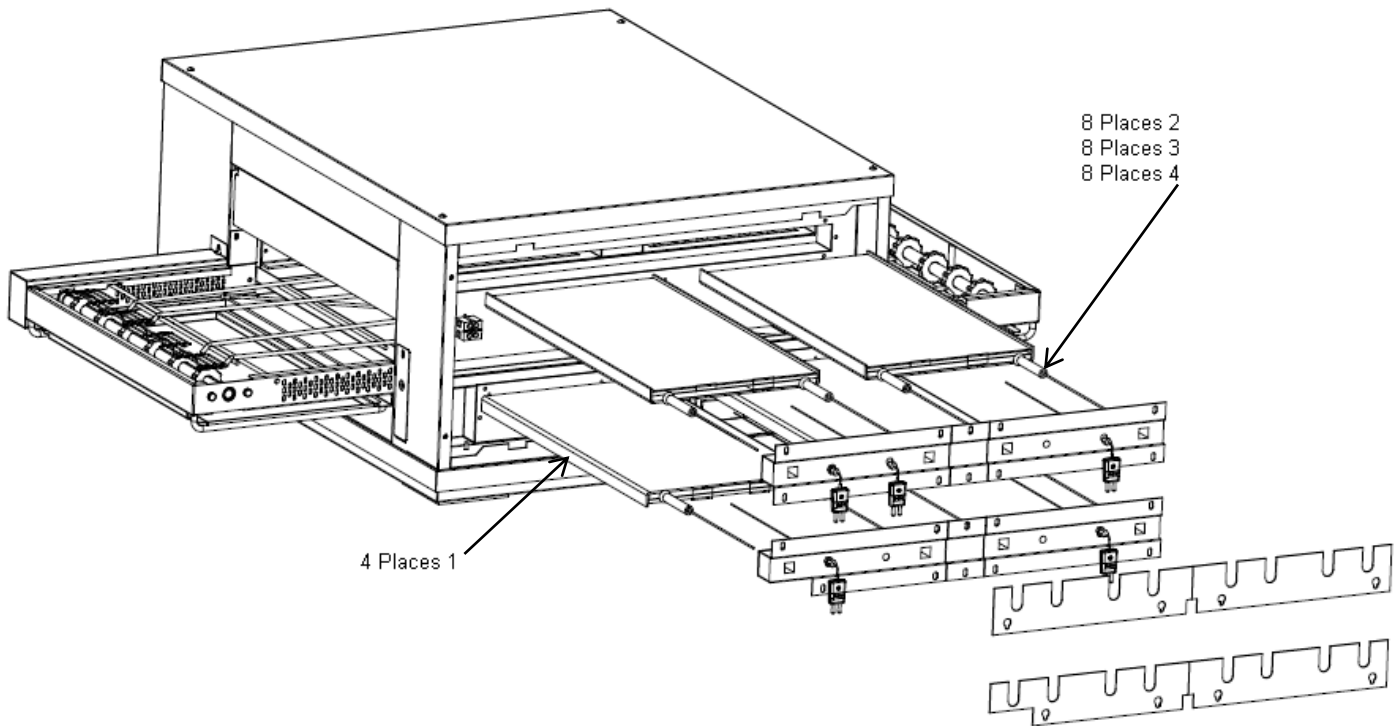
Item	Qty.	Part Number	Description
1	**4**	**30089**	**208V Hearth Plate**
1	**4**	**340931**	**240V Hearth Plate**
2	**8**	**69557**	**Porcelain Tube**
3	**8**	**220018**	**Sleeve, Insulating**
4	**8**	**F706A8701**	**Sleeve, Insulating 3/16" 240C**

Front Closed View
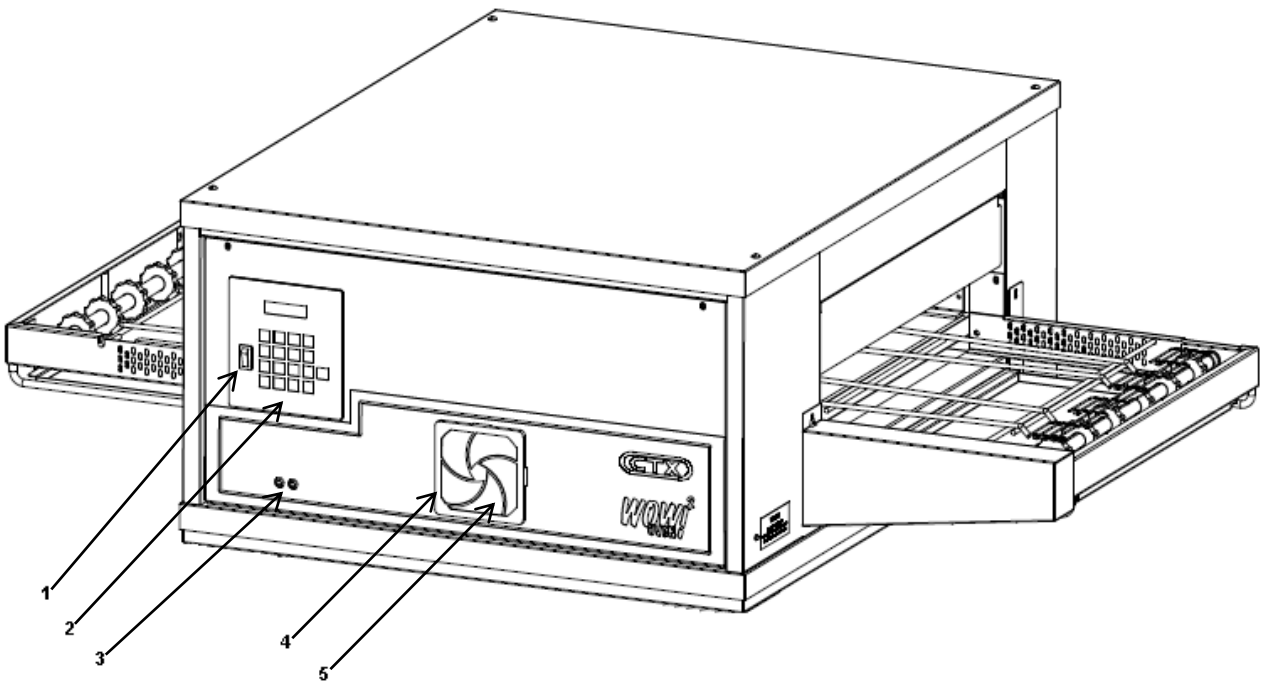
Item	Qty.	Part Number	Description
1	1	35823	On/Off Switch
2	1	66195	Keypad Interface
3	2	45036	3A Circuit Breaker
4	1	3102458	Fan Filter Guard
5	1	3102468	Filter Media

Front Open View
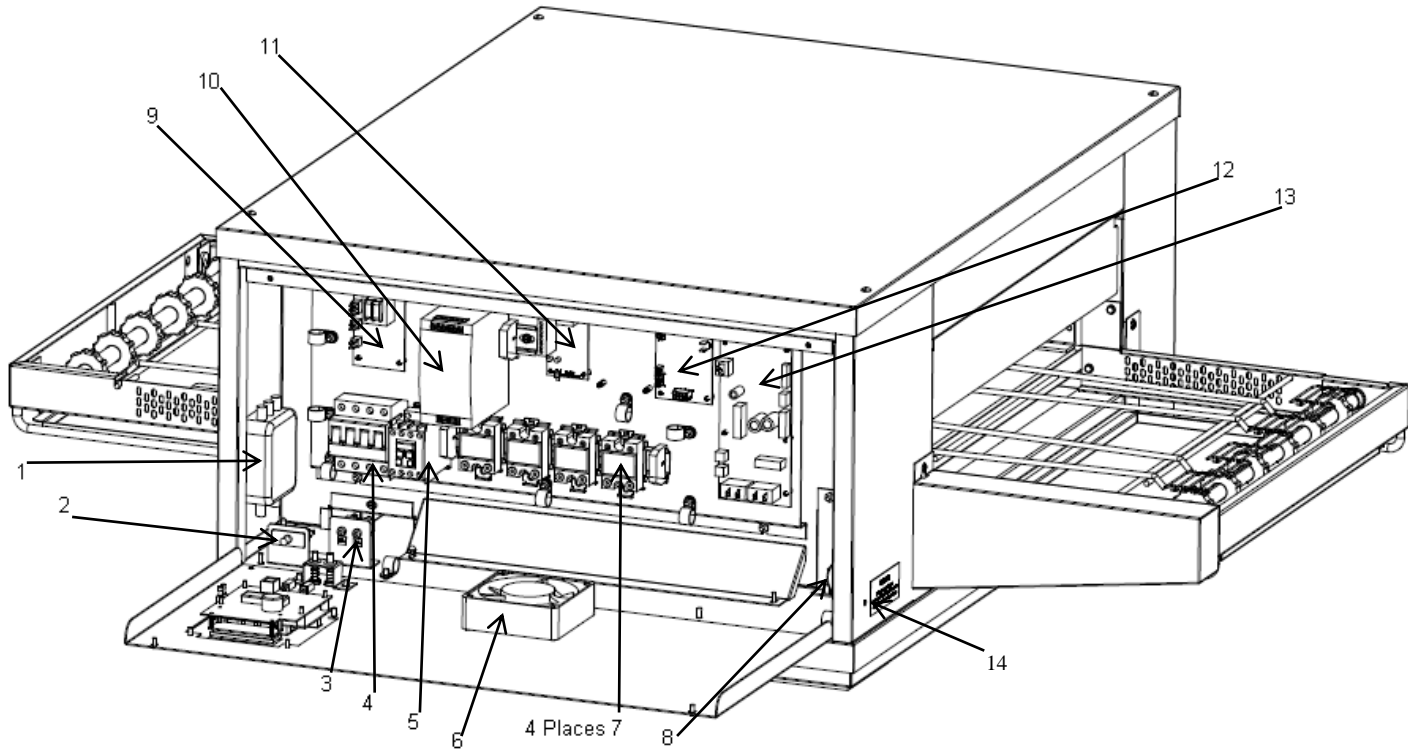
Item	Qty.	Part Number	Description
1	1	33813	RFI Filter
2	1	63909	Interlock Switch
3	2	45036	3 Amp Breaker
4	1	68030	4 Pole Circuit Breaker
5	1	67975	4 Pole Contactor
6	1	69799	24 VDC Cooling Fan
7	4	67857	75 A Solid State Relay
8	1si., 2sb.	65756	Gear Motor
9	1	66192	Limit Control
10	1	69079	24V Power Supply
11	1	69765	Current Sensing Board
12	1 si., 2sb.	68310	Motor Control Board
13	1	69649	I/O Board
14	1	69711	LED, Panel Mount Indicator

Single Belt Conveyor
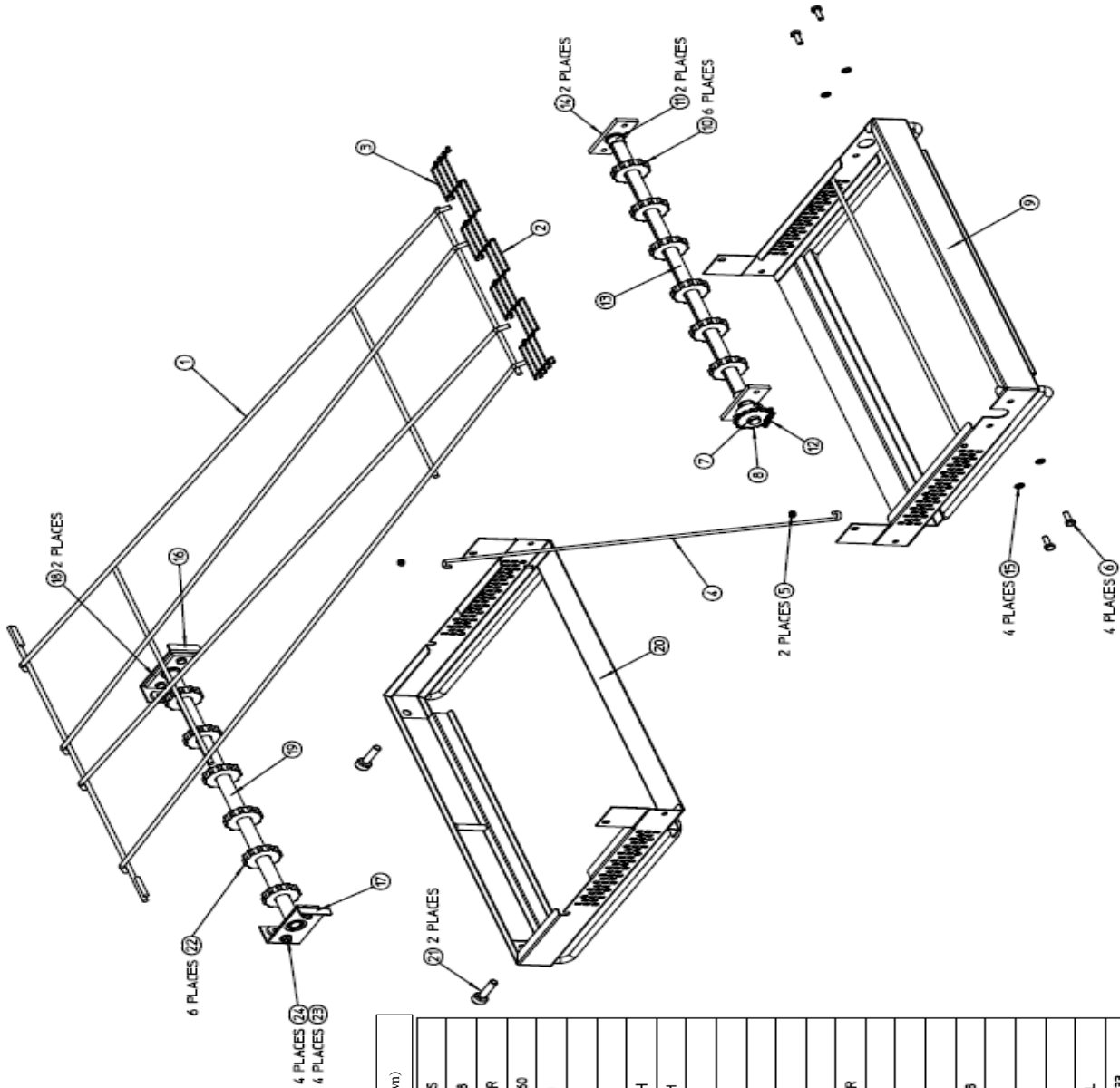
ITEM	QTY	PART NO.	DESCRIPTION
28	8	69776	Extension Tray (not shown)
24	4	200416	NUT,HEX FLANGED 1/4-20 ZPS
23	4	A3333	SCR,HS HXHD 1/4-20X3/4 18-8
22	6	22229-0003	SPRKT,CONV DRIVE 2.0D W/SCR
21	2	35000-1008	SCR,ADJ-CONV IDLER200-3108.60
20	1	67926	WLDMT,IDLE CONV FRM D233
19	1	69579	SHAFT,IDLER-CONV DZ
18	2	69734	ASSY,BEARING BLOCK
17	1	69736	WLDMT,IDLER SPPT PLATE RH
16	1	69739	WLDMT,IDLER SPPT PLATE LH
15	4	388203801	WASHER,LOCK 1/4 INT ZP
14	2	69734	ASSY,BEARING BLOCK
13	1	69578	SHAFT,DRIVE-CONV DZ
12	1	60184	ASSY,CHAIN ROLLER #4-1/4
11	2	43275	SPACER,CONVEYOR
10	6	22229-0003	SPRKT,CONV DRIVE 2.0D W/SCR
9	1	67998	WLDMT,CONV FRM D233
8	1	66581	SPRKT,#35-15T-5/8 BORE
7	1	220026	KEY,SQUARE MACH 3/16X3/4
6	4	A3333	SCR,HS HXHD 1/4-20X3/4 18-8
5	2	2001347	NUT,KEPS 8-32 ZP
4	1	67986	ROD,BELTING LOWER D233
3	4	97733	CLIP,WIRE BELT MASTER
2	1	97713	BELTING,WIRE 18"W X 112-1/2"L
1	1	66880	WLDMT,ROD BELT SUPPORT D233

Split Belt Conveyor

28	8	69776	Extension Tray (not
27	4	2001416	NUT,HEX FLANGED 1/4-20 ZPS
26	1	69739	WLDMT,IDLER SPRT PLATE LH
25	1	69736	WLDMT,IDLER SPRT PLATE RH
24	2	69734	ASSY,BEARING BLOCK
23	6	22229-0003	SPRKT,CONV DRIVE 2.0D W/SCR
22	2	35000-1008	SCR,ADJ-CONV IDLER/200-310&60
21	1	21415-0001	WASHER,FLAT BRZ 1
20	1	67926	WLDMT,IDLE CONV FRM 0233
19	4	A3333	SCR,MS HXHD 1/4-20X3/4 18-8
18	1	68150	SHAFT,REAR CONV IDLER
17	1	68153	ASSY,FRONT CONV IDLER SHAFT
16	4	38820801	WASHER,LOCK 1/4 INT ZP
15	1	21415-0001	WASHER,FLAT BRZ 1
14	6	22229-0003	SPRKT,CONV DRIVE 2.0D W/SCR
13	2	69734	ASSY,BEARING BLOCK
12	2	43275	SPACER,CONVEYOR
11	4	A3333	SCR,MS HXHD 1/4-20X3/4 18-8
10	2	60184	ASSY,CHAIN ROLLER 1/4-1/4
9	2	66581	SPRKT,#35-15T-5/8 BORE
8	1	67918	WLDMT,CONV FRM 0233
7	1	69761	ASSY,CONV DRV SHAFT
6	1	68149	ASSY,FRONT CONV DRV SHAFT
5	4	33900-0017	LNK,MASTER - MIDDLE 1/2P X 32
4	2	50056	BELT,CONVEYOR 1/2PX9/120
3	1	67986	ROJ,BELTING LOWER 0233
2	1	66880	WLDMT,ROD BELT SUPPORT 0233
1	2	2001547	NUT,KEPS 6-32 ZP
ITEM	QTY	PART NO.	DESCRIPTION

Section 7 - Schematics

A. DZ33I, 208/230V, 3Ph Schematic

B. DZ33I, 380/415V, 3 Ph Schematic

49
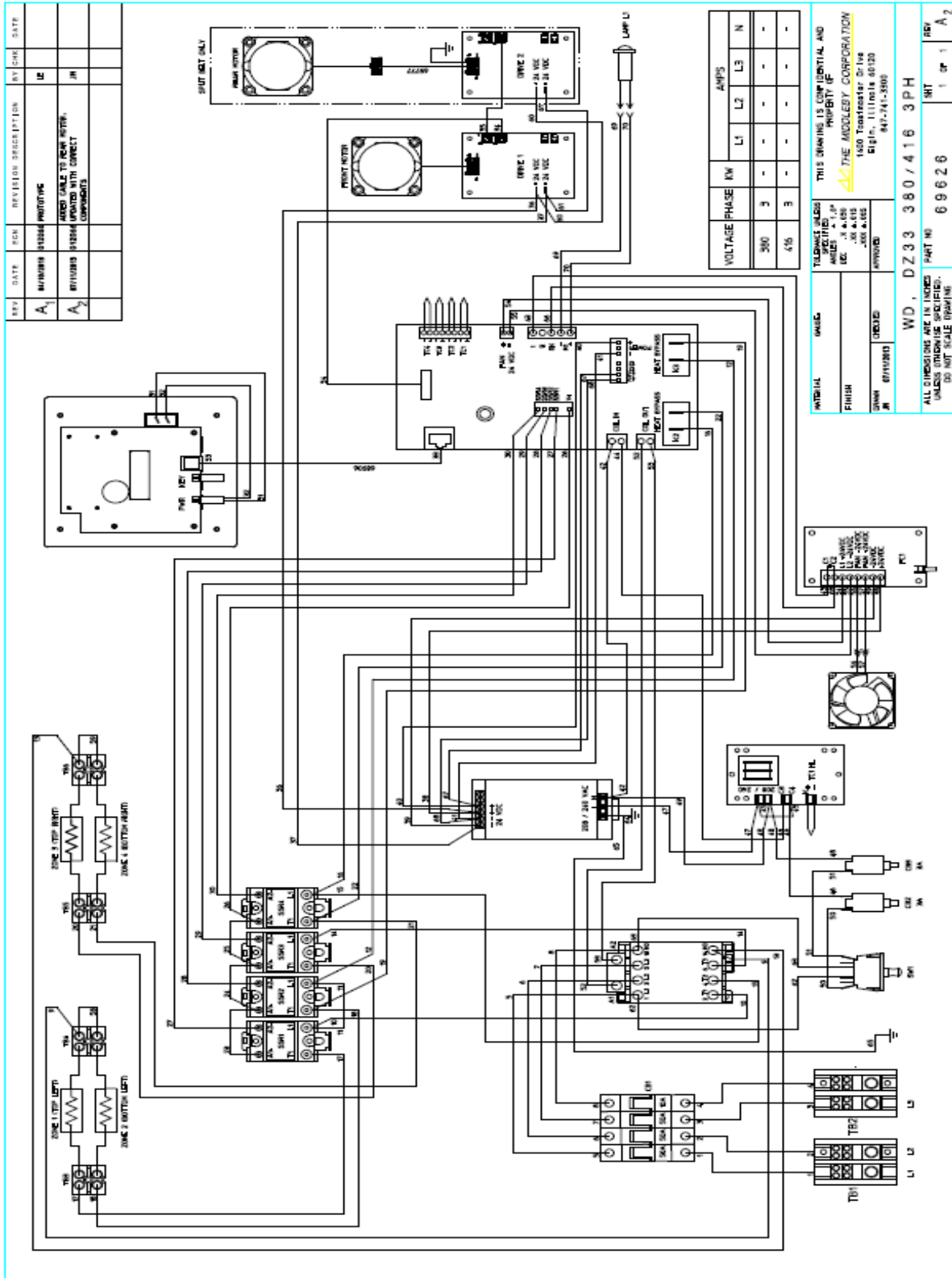
C. DZ33I, 230V CE, 3 Ph Schematic

Notes: