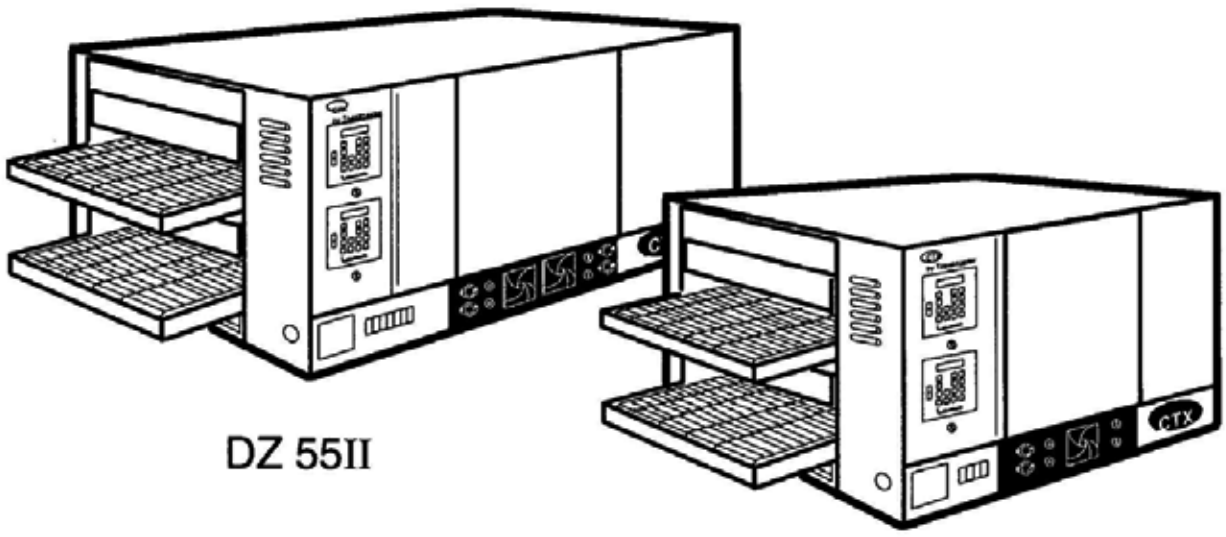
OWNER'S OPERATING
& INSTALLATION
MANUAL
CTX GEMINI SERIES OVENS
DZ33II, DZ55II, DZ33 & DZ55



DZ 55II

DZ 33II

CTX® • 1400 Toastmaster Drive • Elgin, IL 60120 • (847)741-3300 • FAX (847) 741-4406
A Middleby Company

Middleby Corp 24 Hour Service Hotline 1-800-238-8444

Part No. 310-2414
01/12

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 OBLIGATION UNDER THIS WARRANTY SHALL BE LIMITED 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 for 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.

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Ligne directe d'aide technique de la Middleby Corporation 1-800-238-8444

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 manufacturers certified service agent.

FOR YOUR SAFETY
DO NOT STORE OR USE GASOLINE
OR OTHER FLAMMABLE VAPORS AND 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.

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.

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SECTION 1
DESCRIPTION

CTX Gemini Series ovens are:
- Electrically powered
- Zone heated by infrared panels
- Conveyorized
- Electronically controlled

CTX Oven Models:
- Gemini 33II (DZ33II) - Two 31"(787mm) long decks with a separate MenuSelect controller for each deck.
- Gemini 55II (DZ55II) - Two 55"(1398mm) long decks with a separate MenuSelect controller for each deck.
- Gemini 33 (DZ33) - Two 31"(787mm) long decks with one non-MenuSelect controller for both decks.
- Gemini 55 (DZ55) - Two 55"(1398mm) long decks with one non-MenuSelect controller for both decks.

NOTE: Early Style DZ33II and DZ55II ovens were manufactured with non-MenuSelect controls.
NOTE: "DZ" designation on Gemini Series ovens stands for: "D" = Dual Conveyor, "Z" = Zone Temperature Control.

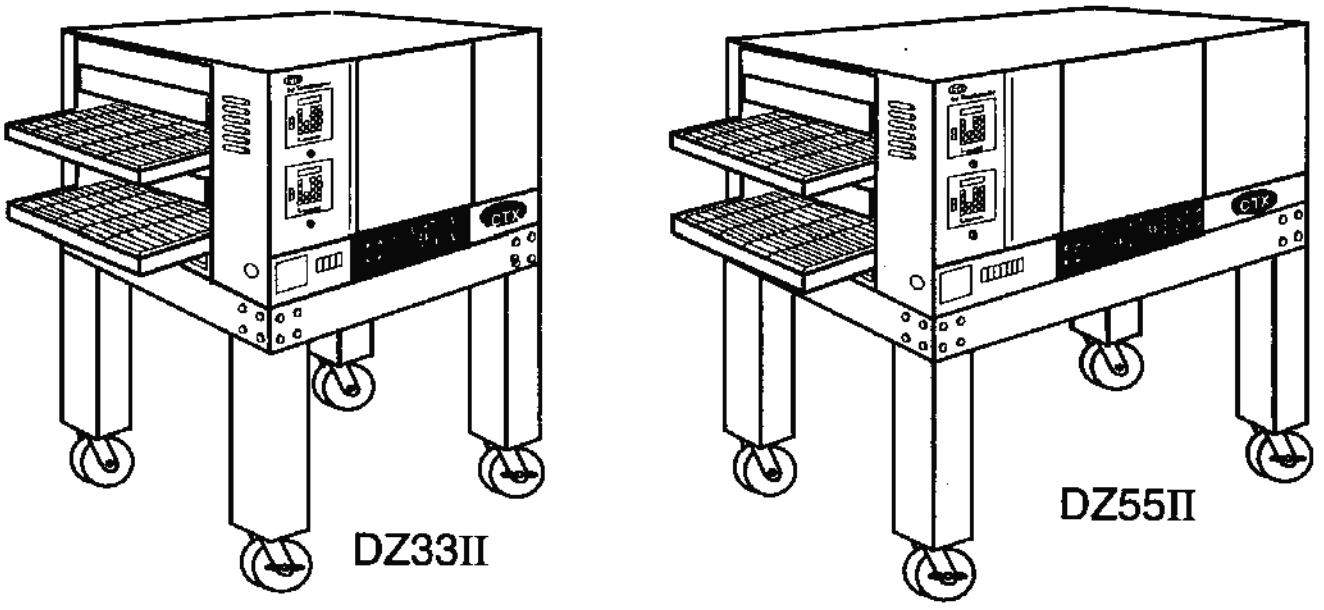


Figure 1-1

A. Component Location

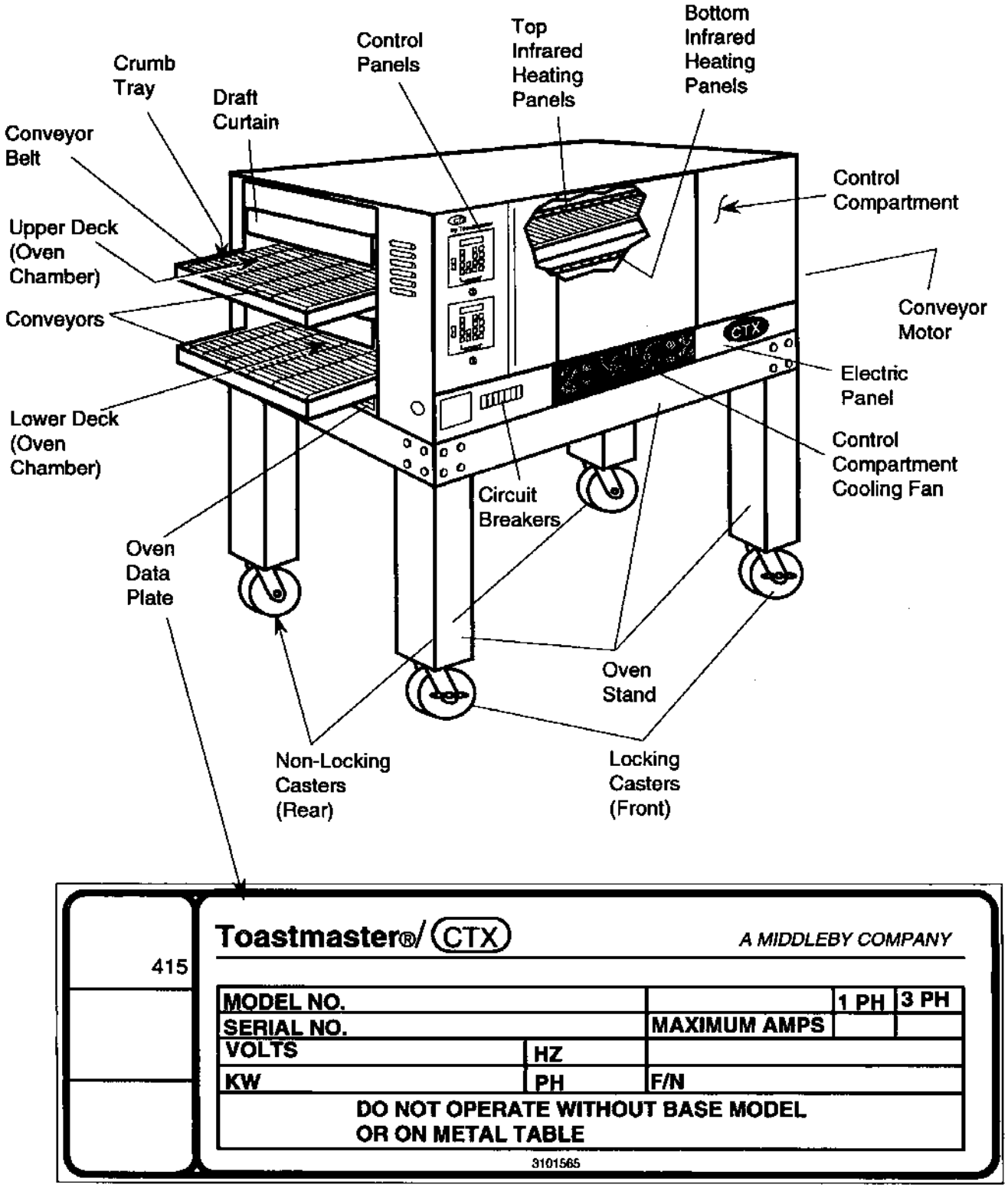


Figure 1-2
Component Location

B. Component Function

1. Oven Decks (Chambers)

Each CTX Gemini Series oven features two oven decks (chambers), which makes each individual unit a "double" oven. The two oven decks are referred to as the Upper Deck and the Lower Deck. Each deck has its own individual product conveyor.

2. Single and Stacked Ovens

The CTX Gemini Series ovens are available as either single ovens or two ovens stacked. The single oven unit contains two oven decks and is mounted on a 32-1/2" (826 mm) high accessory stand with casters.

The stacked oven is made up of two complete oven units which are stacked one oven atop the other. The two units contain a total of 4 oven decks. The stacked oven is mounted on a 17" (432 mm) high accessory stand with casters.

NOTE

Wiring Diagrams Are Contained In This Manual And Are Also Located In The Oven.

This Manual Must Be Kept For Future Reference

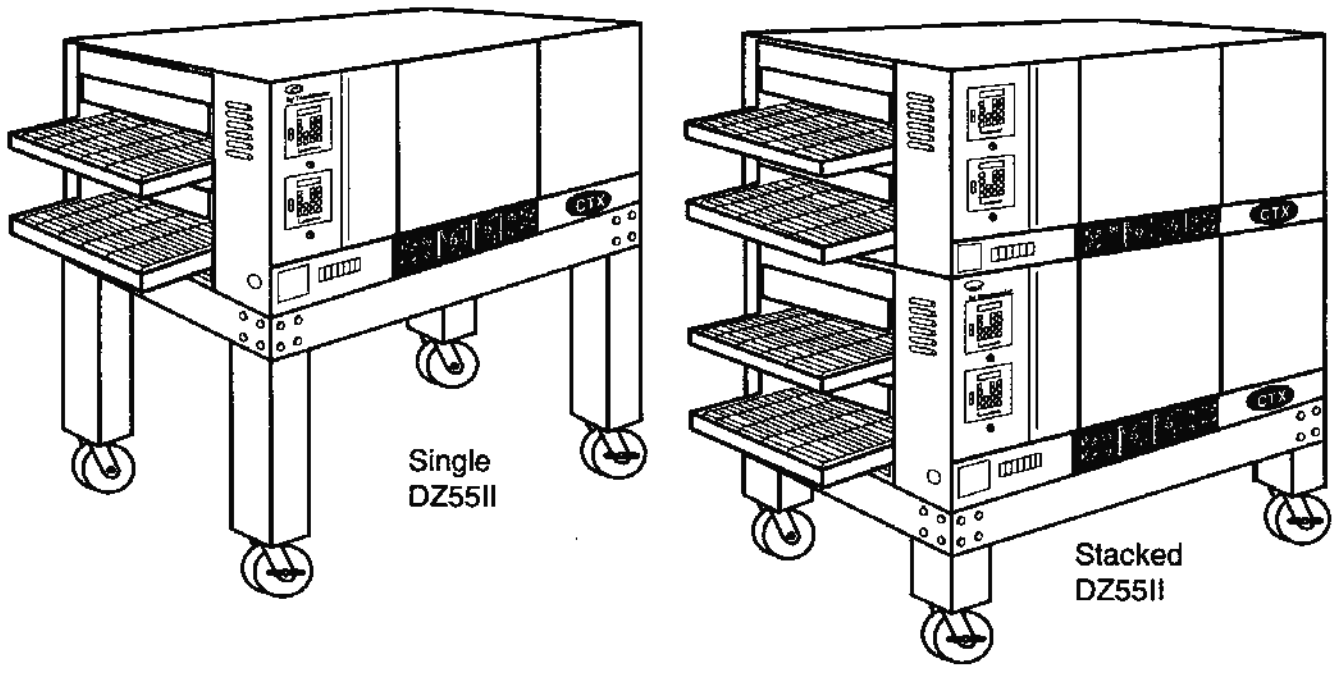


Figure 1-3
Single and Stacked Ovens

3. Oven Controllers

The controllers control all functions of the oven. Cooking temperatures can be set from 200°F to 900°F (93°C to 509°C). Cooking times (conveyor speed) can be set from 1.0 to 240.0 minutes on the DZ33 and DZ33II and from 1.5 to 240.0 minutes on the DZ55 and DZ55II.

Controllers feature 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 MenuSelect control contains 6 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. When using the Early Style ovens with the non-MenuSelect control the temperature and/or cook time must be programmed each time the product being cooked is changed.

a. DZ33II and DZ55II Oven Deck Control

Each individual DZ33II and DZ55II oven deck is controlled with a separate controller. Present style DZ33II and DZ55II ovens are equipped with MenuSelect controllers. Early Style D33II and DZ55II ovens were manufactured with non-MenuSelect controllers.

b. DZ33 and DZ55 Oven Deck Control (Early Style Ovens no longer manufactured)

One controller is used to program both upper and lower oven decks. All DZ33 and DZ55 ovens were manufactured with non-MenuSelect controllers.

4. Infrared Heating Panels

Patented heating panels are positioned above and below the conveyor belt of each oven deck (chamber). When energized these panels emit infrared long waves. These waves do not heat the air trough 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.

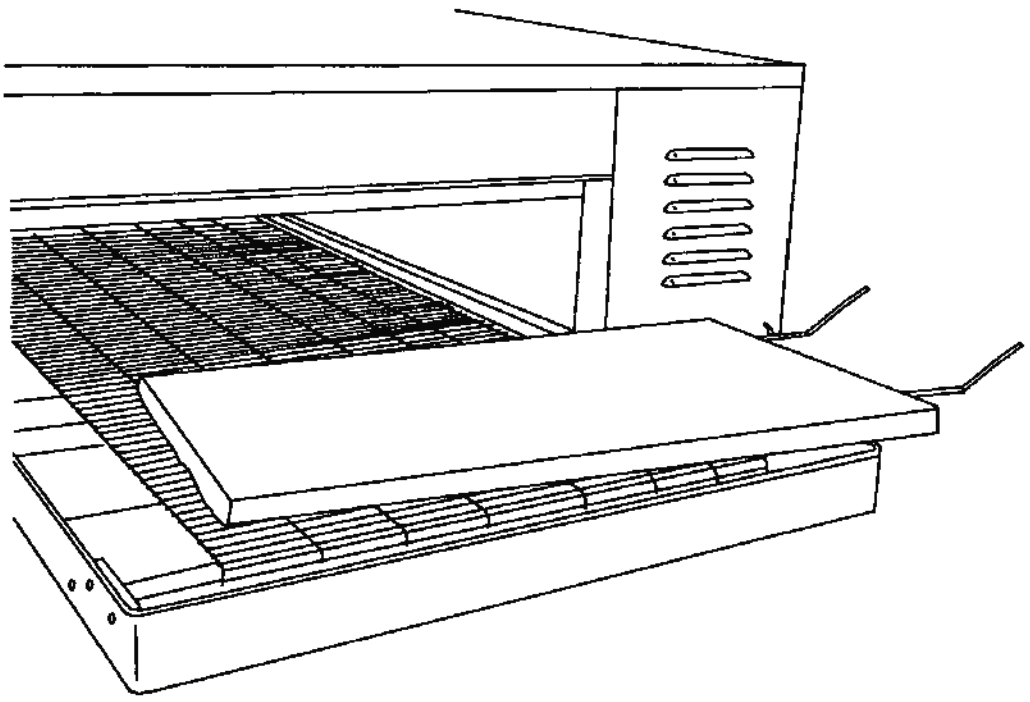


Figure 1-4
Infrared Heating Panels

5. Heat Zones

All DZ Series oven decks (chambers) are divided into four separate heat zones. The heat zones are shown in Figures 1-5 and 1-6.

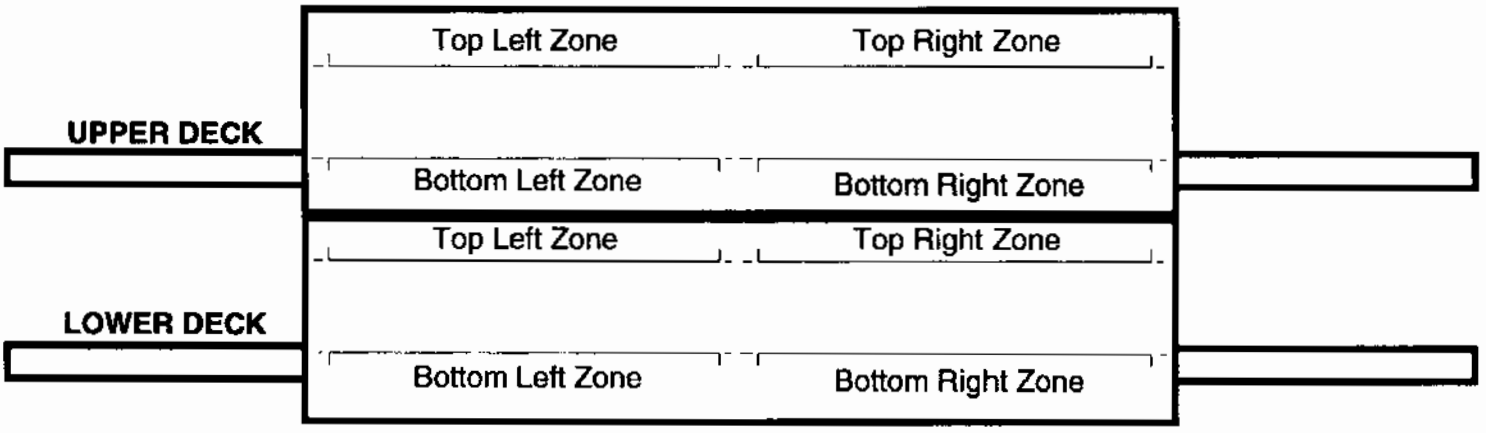


Figure 1-5
DZ33II and DZ55II Heat Zones

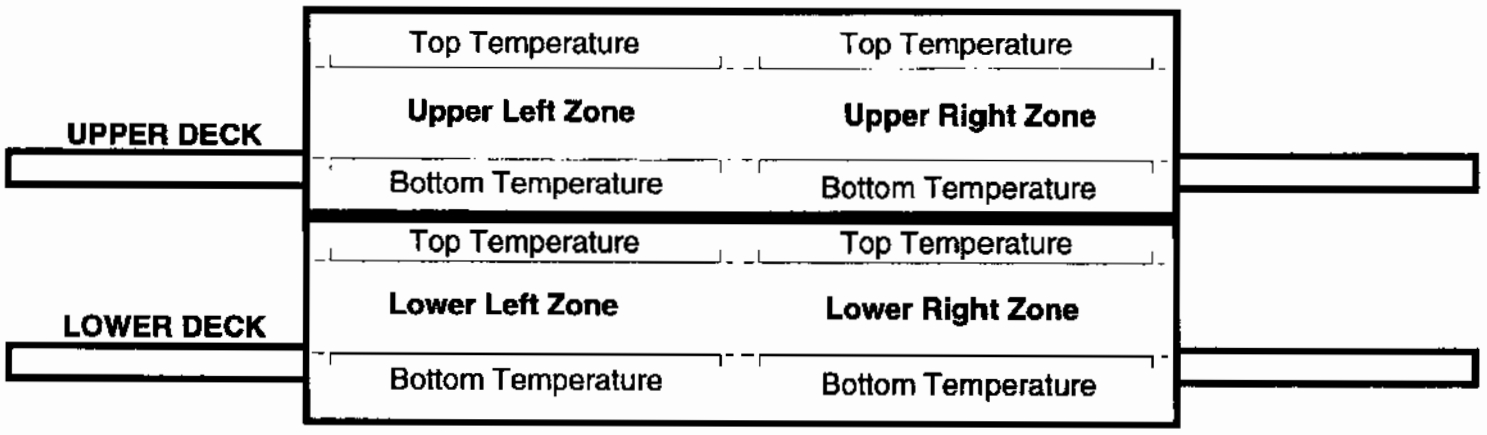


Figure 1-6
DZ33 and DZ55 Heat Zones
(Early Style Ovens - no longer manufactured)

6. Conveyor

The conveyor is used to convey the product through the oven deck (chamber). The conveyor is made up of a frame and a stainless steel wire belt which can travel in either direction around the frame. The conveyor is controlled by the controller and can travel at speeds from 1.0 to 240.0 minutes on the DZ33 and DZ33II and from 1.5 to 240.0 minutes on the DZ55 and DZ55II. The speed of the conveyor determines how long the product will be in the cooking chamber which is the cooking time.

Conveyor width for all models is 18" (457 mm).

NOTICE
CTX (Manufacturer) reserves 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.

C. Oven Specifications

Specification Chart

	DZ33II & DZ 33	DZ 55II & DZ55
Stainless Steel Conveyor Belt Width	18"(457mm)	18"(457mm)
Heating Zone (Oven Chamber) Length	31"(787mm)	55"(1397mm)
Oven Chamber Dimensions	31"(787mm)L x 22.5"(572mm)W x 5.5"(140mm)H	55"(1397mm)L x 22.5"(572mm)W x 5.5"(140mm)H
Conveyor Baking Area	3.88 sq. ft.(0.36 sq. m.)	6.88 sq. ft.(0.64 sq. m.)
Overall Dimensions-Single unit on base	59"(1499mm)L x 36"(914mm)D x 60.5"(1537mm)H	83"(2108mm)L x 36"(914mm)D x 60.5"(1537mm)H
Overall Dimensions-Two stacked units on base	59"(1499mm)L x 36"(914mm)D x 73"(1854mm)H	83"(2108mm)L x 36"(914mm)D x 73"(1854mm)H
Overall Dimensions-Single unit without base	59"(1499mm)L x 36"(914mm)D x 28"(711mm)H	83"(2108mm)L x 36"(914mm)D x 28"(711mm)H
Net Weight of Single Unit	510 lbs.(230 kgm)	770 lbs.(347 kgm)
Shipping Weight - Single Unit	645 lbs.(290 kgm)	910 lbs.(410 kgm)
Shipping Weight - 32-1/2" Base for Single Unit	130 lbs.(59 kgm)	150 lbs.(68 kgm)
Shipping Weight - 17" Base for Stacked Units	115 lbs.(52 kgm)	135 lbs.(61 kgm)
Shipping Dimensions	90"(2286mm)L x 43"(1092mm)D x 44"(1118mm)H	90"(2286mm)L x 43"(1092mm)D x 44"(1118mm)H
Average Operating kw	17.9 kw	kw
Allowable Temperature Range	200°F - 900°F(93°C - 482°C)	200°F - 900°F(93°C - 482°C)
Electric Conduit Knockout Size	1-3/8"(35mm), 1-3/4"(45mm) or 2"(51mm)	1-3/8"(35mm), 1-3/4"(45mm) or 2"(51mm)
Conveyor Drive System	Solid state variable speed control (reversible). 208/230 VAC supply voltage converted to direct current through microprocessor for motor and speed control.	
Cook Time (Conveyor Speed)	Adjustable from 1.0 to 240.0 minutes	Adjustable from 1.5 to 240.0 minutes
Insulation	3"(76mm) on all 4 sides.	
Heat Source - Infrared Heat Emitters	Infrared heat emitters 8 emitters/oven 4 emitters/oven deck (chamber) 2 emitters above each conveyor 2 emitters below each conveyor	Infrared heat emitters 16 emitters/oven 8 emitters/oven deck (chamber) 4 emitters above each conveyor 4 emitters below each conveyor
Oven Chamber Steel	Welded and reinforced 16 gauge aluminized steel.	
Outer Body Steel	18 gauge stainless steel.	

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

OVEN ELECTRICAL SPECIFICATION CHART

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

DZ3311 OVEN ELECTRICAL SPECIFICATION CHART

			Amp Loading		
Voltage	**Phase**	**kw**	**L1**	**L2**	**L3**
208 VAC	3	17.9	48.0	56.0	48.0
208 VAC	1	17.9	86.0	86.0	N/A
230 VAC	3	17.9	43.0	51.0	43.0
230 VAC	1	17.9	78.0	78.0	N/A

DZ5511 SINGLE POWER SUPPLY
OVEN ELECTRICAL SPECIFICATION CHART

			Amp Loading		
Voltage	**Phase**	**kw**	**L1**	**L2**	**L3**
208 VAC	3	40.0	126.0	126.0	84.0
208 VAC	1	36.0	173.0	173.0	N/A
230 VAC	3	36.7	106.0	106.0	69.0
230 VAC	1	36.0	157.0	157.0	N/A

DZ5511 DUAL POWER SUPPLY
OVEN ELECTRICAL SPECIFICATION CHART

			Amp Loading					
Voltage	**Phase**	**kw**	**L1**		**L2**		**L3**	
			A	**B**	**A**	**B**	**A**	**B**
208 VAC	3	40.0	48.1	83.3	83.3	48.1	48.1	48.1
230 VAC	3	36.7	40.0	69.3	69.3	40.0	40.0	40.0

DZ3311 EXPORT HIGH VOLTAGE OVEN ELECTRICAL SPECIFICATION CHART

			Amp Loading		
Voltage	**Phase**	**kw**	**L1**	**L2**	**L3**
380/220 VAC	3	15.7	26.8	17.8	26.8
415**/240 VAC	3	18.7	29.0	19.4	29.0

**On all 415 V ovens the contactor coil must be changed to a high voltage coil (Part No. 3000644).

DZ5511 EXPORT HIGH VOLTAGE, SINGLE POWER SUPPLY
OVEN ELECTRICAL SPECIFICATION CHART

			Amp Loading		
Voltage	**Phase**	**kw**	**L1**	**L2**	**L3**
380/220 VAC	3	32.8	56.0	37.3	56.0
415**/220 VAC	3	39.8	61.3	40.0	61.3

**On all 415 V ovens the contactor coil must be changed to a high voltage coil Part No. 3000644).

DZ5511 EXPORT HIGH VOLTAGE, DUAL POWER SUPPLY
OVEN ELECTRICAL SPECIFICATION CHART

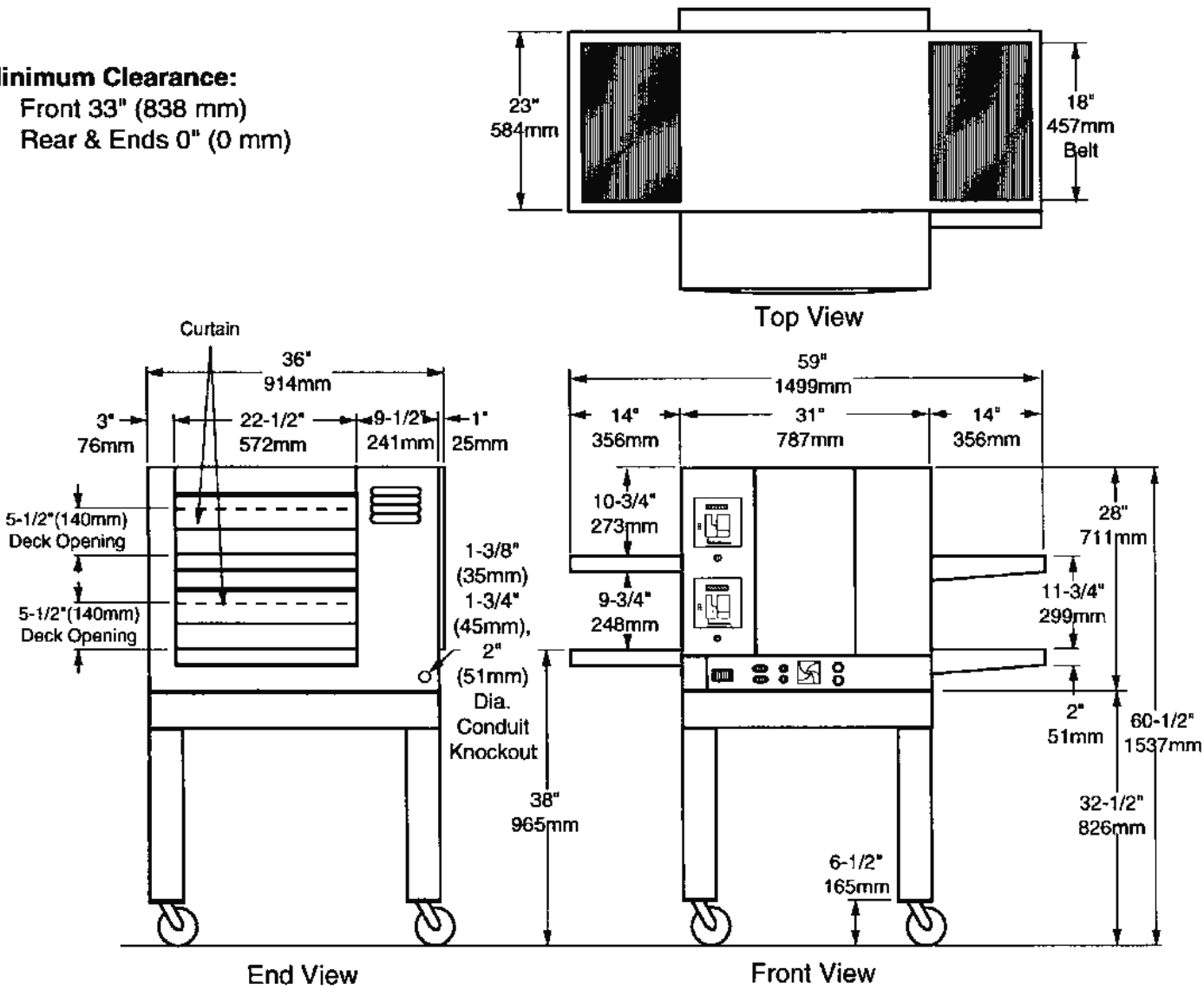
			Amp Loading					
Voltage	**Phase**	**kw**	**L1**		**L2**		**L3**	
			A	**B**	**A**	**B**	**A**	**B**
380/220 VAC	3	32.8	37.3	18.7	18.7	18.7	18.7	37.3
415**/240 VAC	3	39.8	40.0	20.0	20.0	20.0	20.0	40.0

**On all 415 V ovens the two contactor coils must be changed to a high voltage coil (Part No. 3000644).

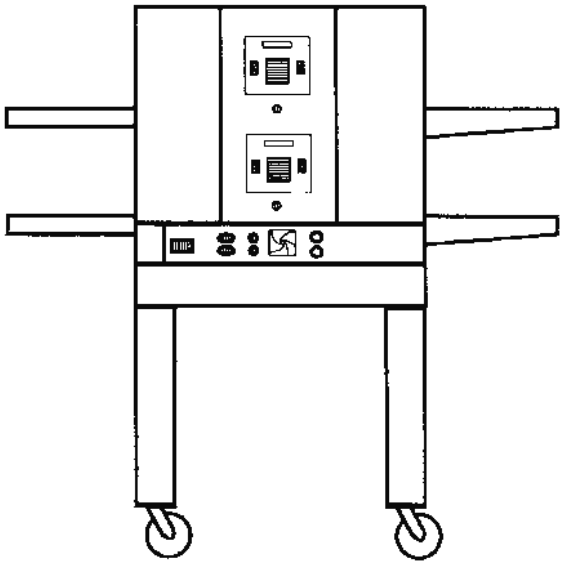
D. Dimension Drawings

1. Dimension drawing of Single DZ33II and DZ 33 Ovens on bases.

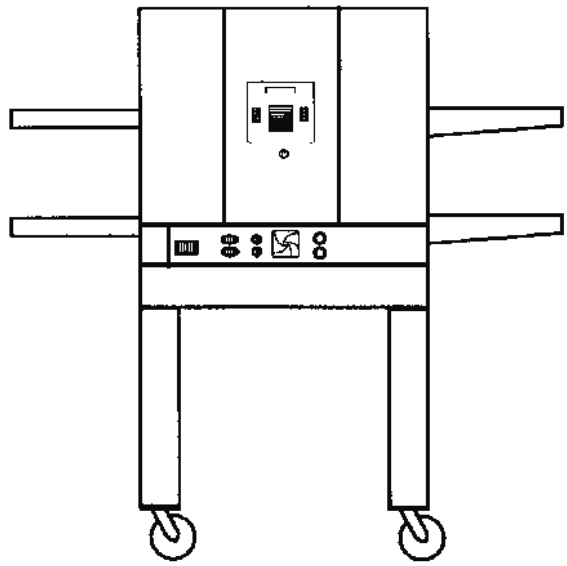
Minimum Clearance:
Front 33" (838 mm)
Rear & Ends 0" (0 mm)



Model DZ33II Single Oven on Base with Two MenuSelect Controls



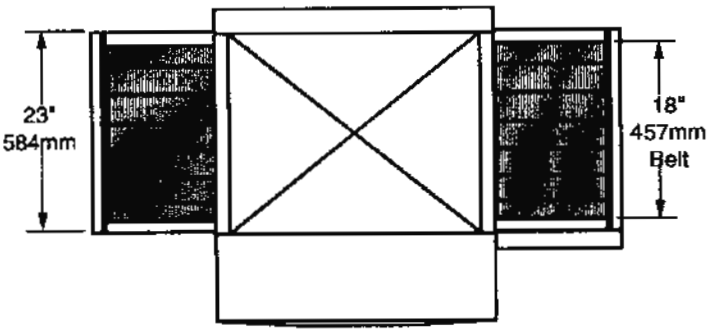
Model DZ33II Single Oven on Base with Two Early Style Non-MenuSelect Controls



Model DZ33 Single Oven on Base with One Early Style Non-MenuSelect Controls

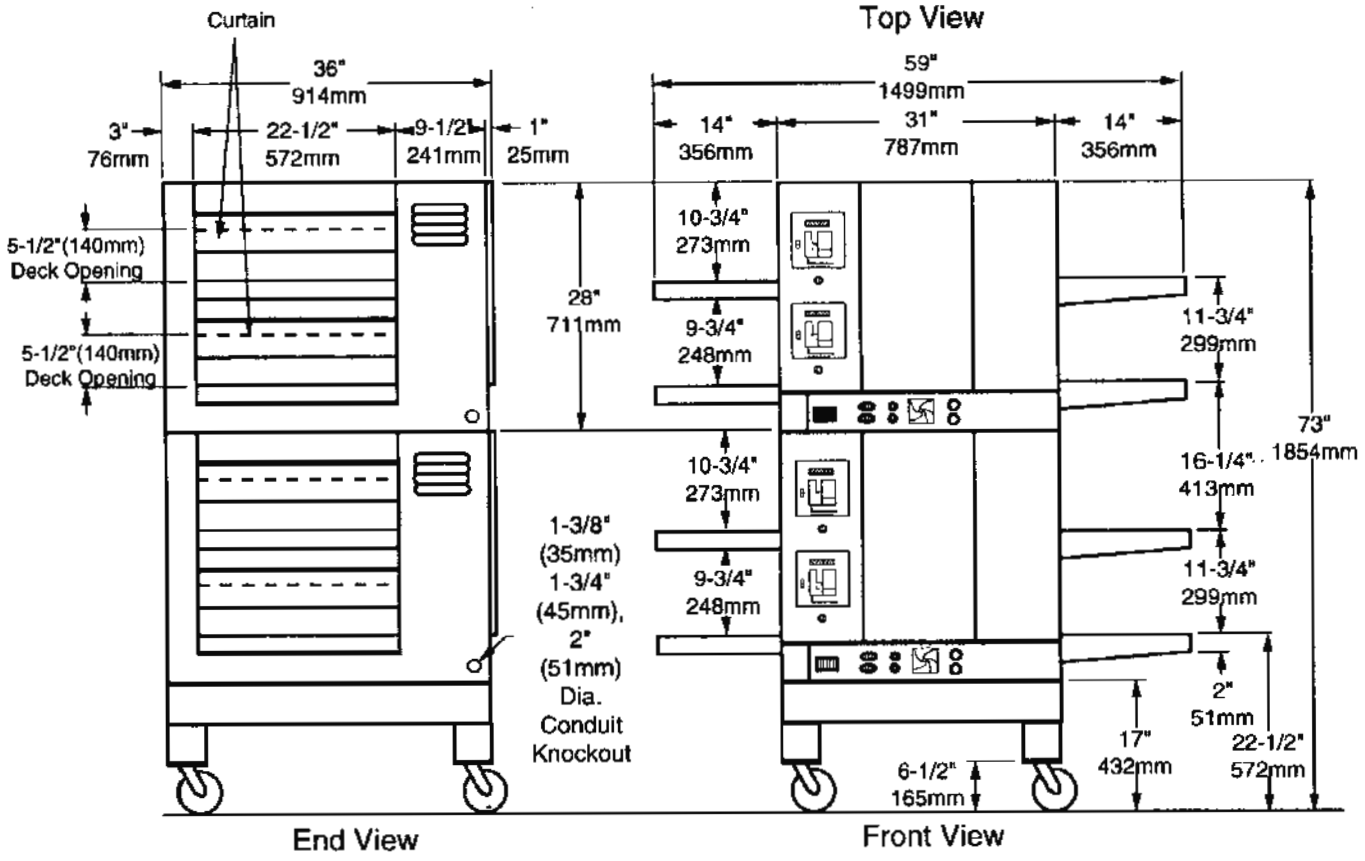
Figure 1-7

2. Dimension drawing of two stacked DZ33II and DZ 33 Ovens on their bases.



Top View

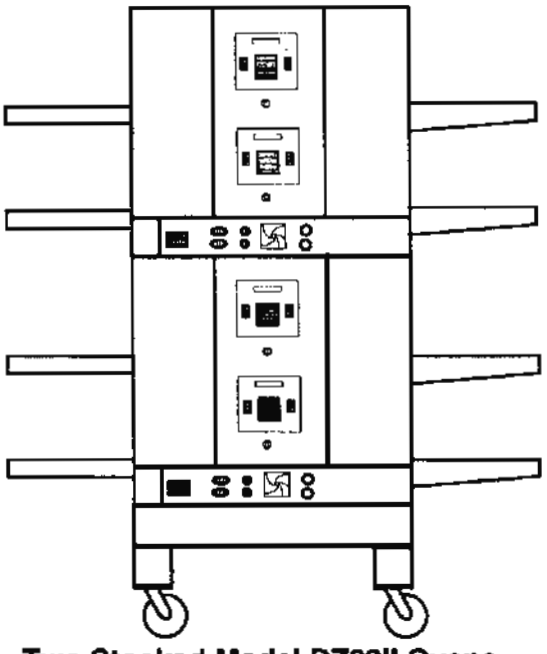
Minimum Clearance:
Front 33" (838 mm)
Rear & Ends 0" (0 mm)



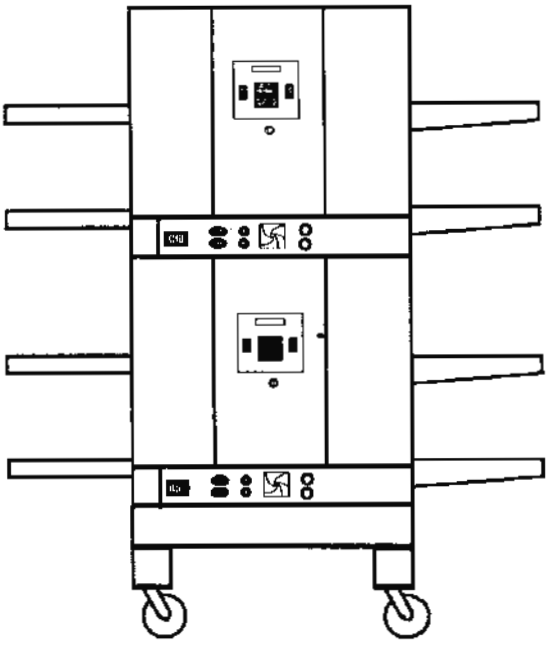
End View

Front View

Two Stacked Model DZ33II Ovens on Base with Two MenuSelect Controls/Oven



Two Stacked Model DZ33II Ovens on Base with Two Early Style Non-MenuSelect Controls/Oven

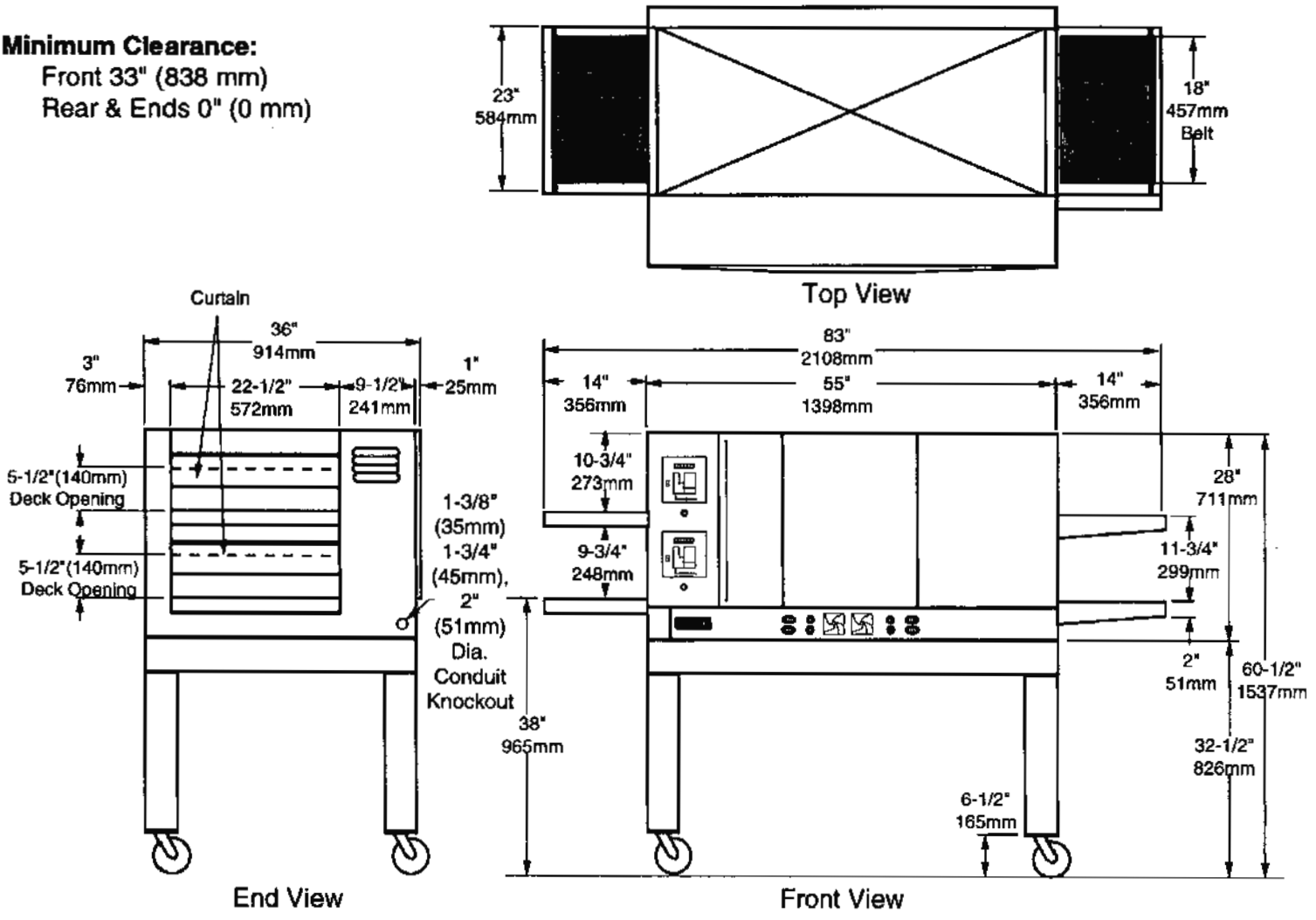


Two Stacked Model DZ33 Ovens on Base with One Early Style Non-MenuSelect Controls/Oven

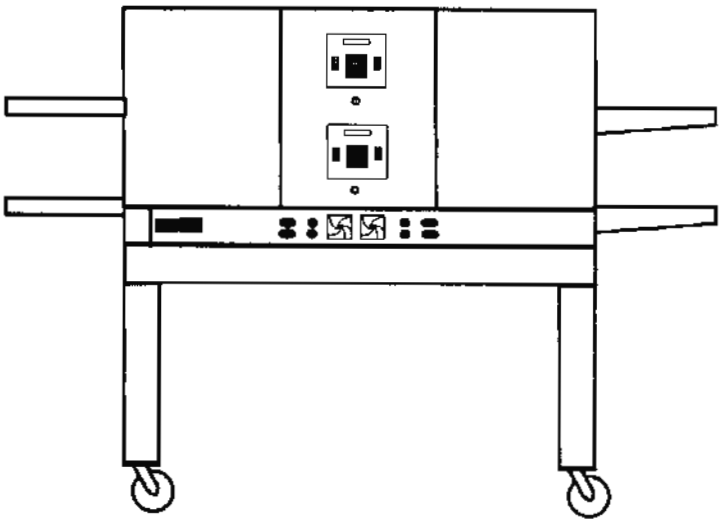
Figure 1-8

3. Dimension drawing of Single DZ55II and DZ 55 Ovens on their bases.

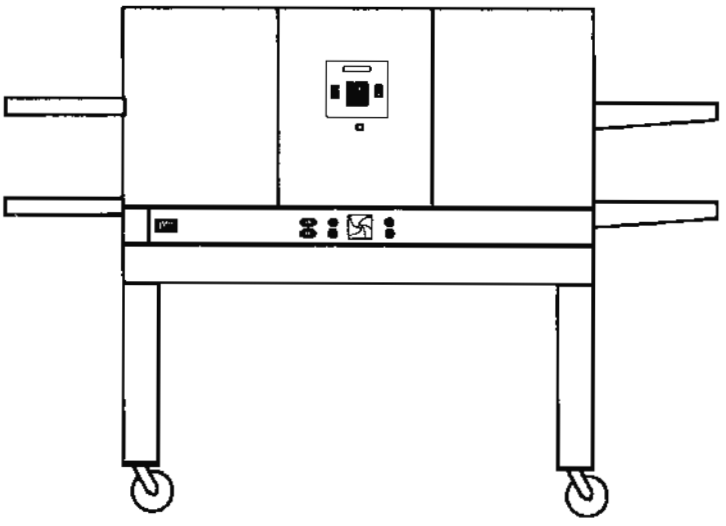
Minimum Clearance:
Front 33" (838 mm)
Rear & Ends 0" (0 mm)



Model DZ55II Single Oven on Base with Two MenuSelect Controls



Model DZ55II Single Oven on Base with Two Early Style Non-MenuSelect Controls

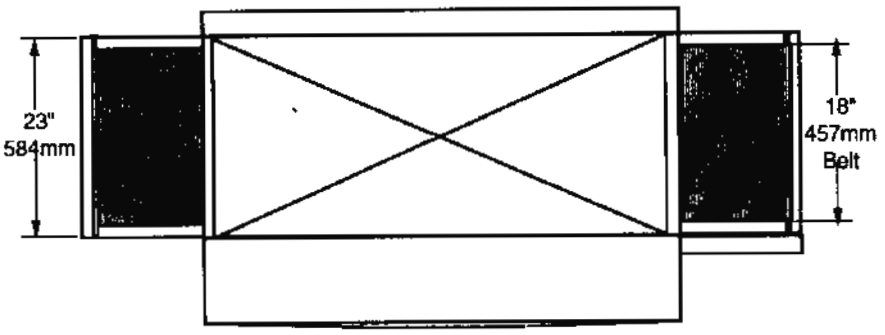


Model DZ55 Single Oven on Base with One Early Style Non-MenuSelect Controls

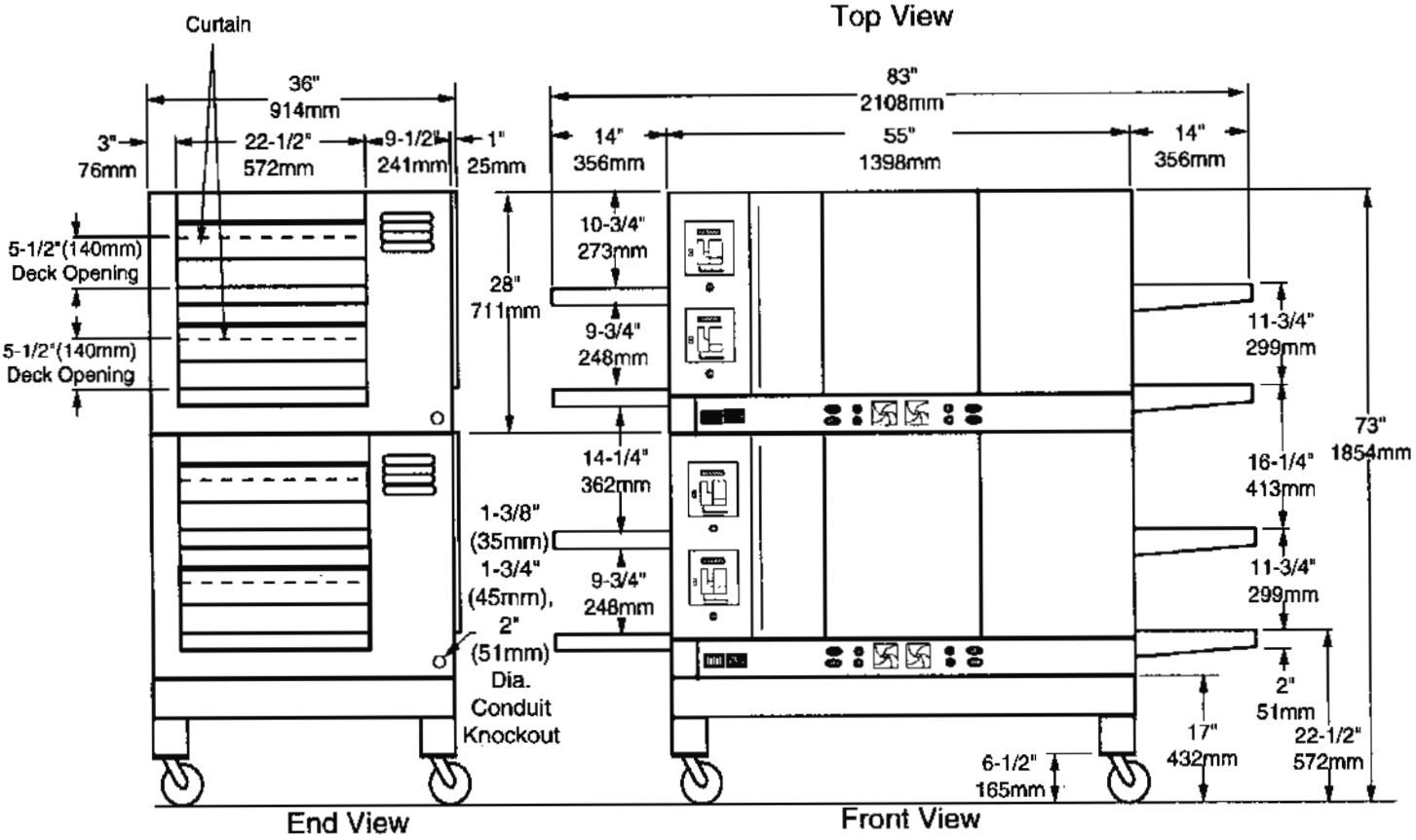
Figure 1-9

4. Dimension drawing of two stacked DZ55II and DZ 55 Ovens on their bases.

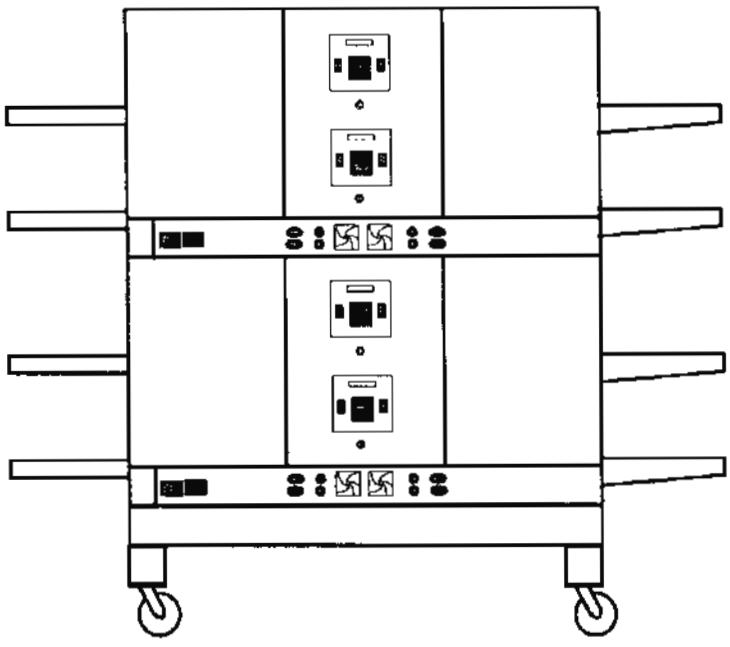
Minimum Clearance:
Front 33" (838 mm)
Rear & Ends 0" (0 mm)



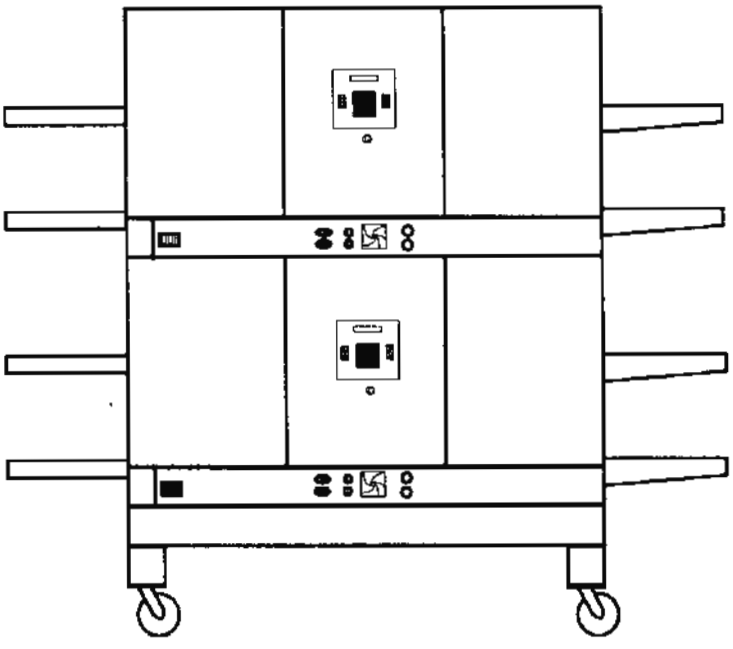
Top View



Two Stacked Model DZ55II Ovens on Base with Two MenuSelect Controls/Oven



Two Stacked Model DZ55II Ovens on Base with Two Early Style Non-MenuSelect Controls/Oven



Two Stacked Model DZ55 Ovens on Base with One Early Style Non-MenuSelect Controls/Oven

Figure 1-10

NOTES

SECTION 2
INSTALLATION

A. Inspect for Shipping Damage

All shipping containers 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.

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

2. 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.

3. Oven should be positioned so hot air from another 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 thru I of installation.*

C. Unpacking Oven

The oven components should be moved as close as possible to final location before being assembled/stacked. The oven setting on its bottom, requires door openings wider than 36"(914mm). When placed on its back, an oven unit will pass through an opening as narrow as 28"(711mm).

Tied down to the conveyor belt is a box containing two (2) exit trays and four (4) heat curtains. Refer to Figure 2-1. Check to make sure you received the correct quantity of parts.

D. Items for Stacking Oven

The following items are required for stacking ovens:

Quantity	Description
2	4" x 4" x 2' (10.2cm X 10.2cm X 61cm) board
2	4" x 4" x 4' (10.2cm X 10.2cm X 122cm) board
2	1-1/2" x 7' (3.8cm X 213cm) rigid pipe
2	Custom M5 Lift

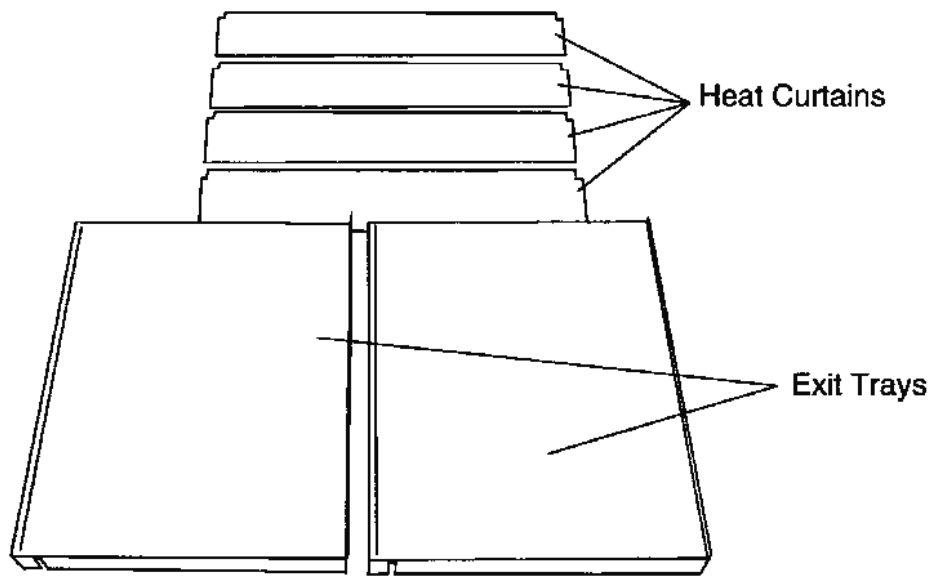


Figure 2-1

E. Base Section Assembly

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

DZ33II and DZ33 Single Oven 37-1/2" (953 mm) High Stand (Part No. ACHST33TL)
Parts List

Item No.	Part No.	Description	Quantity
1	7608616	Frame Assembly, 31"L x 36"D (787mm L x 914mm D)	1
2	7608613	Leg Assembly	4
3	2000967	Hex Head 3/8"-16 x 1" Bolt	48
4	A21924	Flat Washer 3/8"	96
5	A11039	Lockwasher, 3/8"	48
6	A7008	Hex 3/8" - 16 Nut	48
7	14614	Swivel Caster-Locking	2
8	14612	Swivel Caster-Non-Locking	2
9	2000552	Hex Head 5/16"-18 x 3/4" Bolts	4
10	A26610	Flat Washer 5/16"	4
11	4039A8803	Lockwasher 5/16"	4

DZ33II and DZ33 Stacked Oven 17" (432 mm) High Stand (Part No. ACHST33SH)
Parts List

Item No.	Part No.	Description	Quantity
1	7608616	Frame Assembly, 31"L x 36"D (787mm L x 914mm D)	1
2	7608614	Leg Assembly	4
3	2000967	Hex Head 3/8"-16 x 1" Bolt	48
4	A21924	Flat Washer 3/8"	96
5	A11039	Lockwasher, 3/8"	48
6	A7008	Hex 3/8" - 16 Nut	48
7	14614	Swivel Caster-Locking	2
8	14612	Swivel Caster-Non-Locking	2
9	2000552	Hex Head 5/16"-18 x 3/4" Bolts	4
10	A26610	Flat Washer 5/16"	4
11	4039A8803	Lockwasher 5/16"	4

DZ55II and DZ55 Single Oven 37-1/2" (953 mm) High Stand (Part No. ACHST55TL)
Parts List

Item No.	Part No.	Description	Quantity
1	7608615	Frame Assembly, 55"L x 36"D (1397mm L x 914mm D)	1
2	7608613	Leg Assembly	4
3	2000967	Hex Head 3/8"-16 x 1" Bolt	48
4	A21924	Flat Washer 3/8"	96
5	A11039	Lockwasher, 3/8"	48
6	A7008	Hex 3/8" - 16 Nut	48
7	14614	Swivel Caster-Locking	2
8	14612	Swivel Caster-Non-Locking	2
9	2000552	Hex Head 5/16"-18 x 3/4" Bolts	4
10	A26610	Flat Washer 5/16"	4
11	4039A8803	Lockwasher 5/16"	4

DZ55II and DZ55 Stacked Oven 17" (432 mm) High Stand (Part No. ACHST55SH)
Parts List

Item No.	Part No.	Description	Quantity
1	7608615	Frame Assembly, 55"L x 36"D (1397mm L x 914mm D)	1
2	7608614	Leg Assembly	4
3	2000967	Hex Head 3/8"-16 x 1" Bolt	48
4	A21924	Flat Washer 3/8"	96
5	A11039	Lockwasher, 3/8"	48
6	A7008	Hex 3/8" - 16 Nut	48
7	14614	Swivel Caster-Locking	2
8	14612	Swivel Caster-Non-Locking	2
9	2000552	Hex Head 5/16"-18 x 3/4" Bolts	4
10	A26610	Flat Washer 5/16"	4
11	4039A8803	Lockwasher 5/16"	4

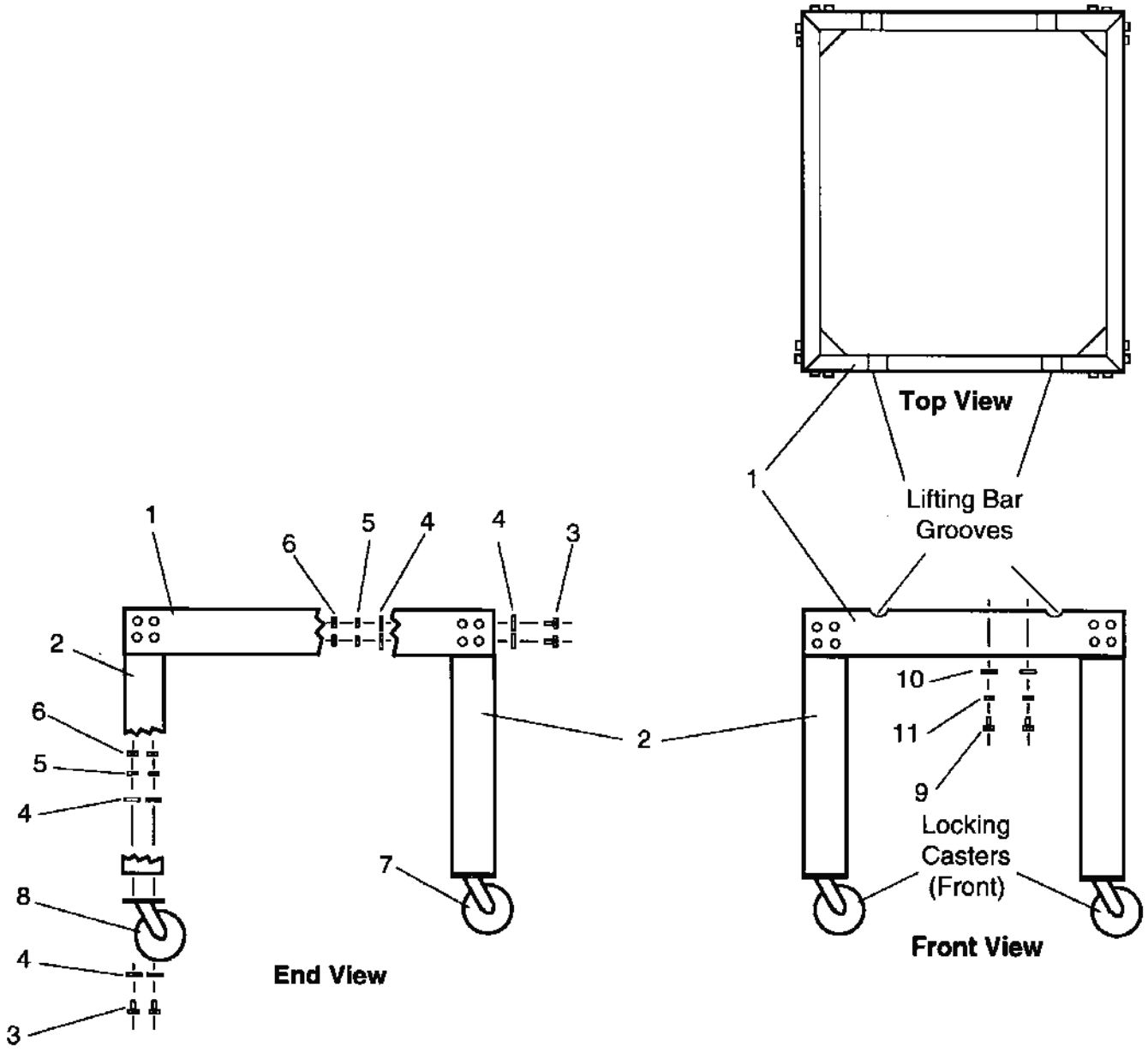


Figure 2-2
Oven Stand Parts
(Model DZ33II Single Oven 32-1/2" Stand is Shown)

2. Lay Frame Assembly (Item 1, Figure 2-2) upside down on the floor and attach the four Leg Assemblies (Item 2) using 32 Hex Head 3/8"-16 x 1" Bolts (Item 3), 64 Flat 3/8" Washers (Item 4), 32 Lockwashers 3/8" (Item 5) and 32 Hex 3/8"-16 Nuts (Item 6). Refer to Figure 2-2.

3. Attach four casters to the four legs. There are two locking casters (Item 7) and two non-locking casters (Item 8). Assemble the 2 locking casters on a side of the stand with 2 lifting bar grooves (Refer to Figure 2-2). The side where the locking casters are installed then becomes the front of the stand. Attach the four casters using 16 Hex Head 3/8"-16 x 1" Bolts (Item 3), 32 Flat 3/8" Washers (Item 4), 16 Lockwashers 3/8" (Item 5) and 16 Hex 3/8"-16 Nuts (Item 6). Refer to Figure 2-2.

4. Turn Base Assembly upright and set aside. Also set aside 4 each of Hex Head 5/16"-18 x 3/4" Bolts (Item 4), Flat 5/16" Washers (Item 10), and 5/16" Lockwashers (Item 11). These will be used later to attach the oven to the base.

F. Mounting Single Oven Onto Base Assembly

NOTE: *This mounting procedure is for both the DZ 33II Series Oven and the DZ 55II Series Oven. The only difference in the oven stands is the length of the Top Frame 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. Each end of the oven is bolted to a wooden cross member. Remove the lag bolts that secure these two wooden cross members to the skid. See Figure 2-3.

NOTE: *It is very important for you to locate and use the two each "U" shaped metal pipe guides used for lifting that are found to the inside of each wooden cross member underneath the oven. For shipping purposes the "U" shaped brackets push into the bottom of the oven and are taped in. Remove the tape and pull down on the bracket.*

3. Slide the two 7' (213 cm) lengths of 1-1/2" (3.8 cm) OD rigid pipe through the "U" shaped metal brackets located under the oven. The pipes should stick out 2' (61 cm) at front and rear of oven.

Position the Genie Lifts between the lifting pipes at the front and rear. Place a 4" x 4" x 4' (10.2 cm x 10.2 cm x 122 cm) board across the arms of each lift. Lift up on the pipes and slide the 4" x 4" (10.2 cm x 10.2 cm) under the lifting pipes as shown in Figure 2-4.

IMPORTANT: Lift the oven from the bottom **only. DO NOT** lift the oven using the conveyor supports as handles. **Damage WILL result.**

4. Elevate the oven high enough to allow the base assembly to be moved underneath. From below the oven remove the four bolts that hold the two wooden cross members to the oven bottom. Refer to Figure 2-5.

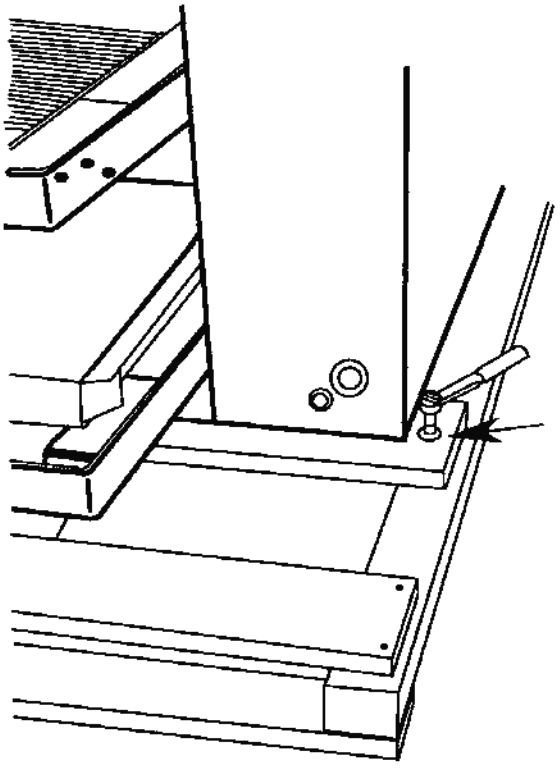


Figure 2-3

5. Save the cross members for use during a stacked oven installation.

6. Maneuver the base assembly into position beneath the elevated oven.

7. Carefully lower the oven onto the base assembly. The fit on all sides should be flush. Refer to Figure 2-6.

8. Secure the oven to the base by screwing the four remaining bolts with lockwashers and flat washers up through the 2 holes on the right and left sides in the base and into the threaded holes in the oven bottom. Refer to Figure 2-2.

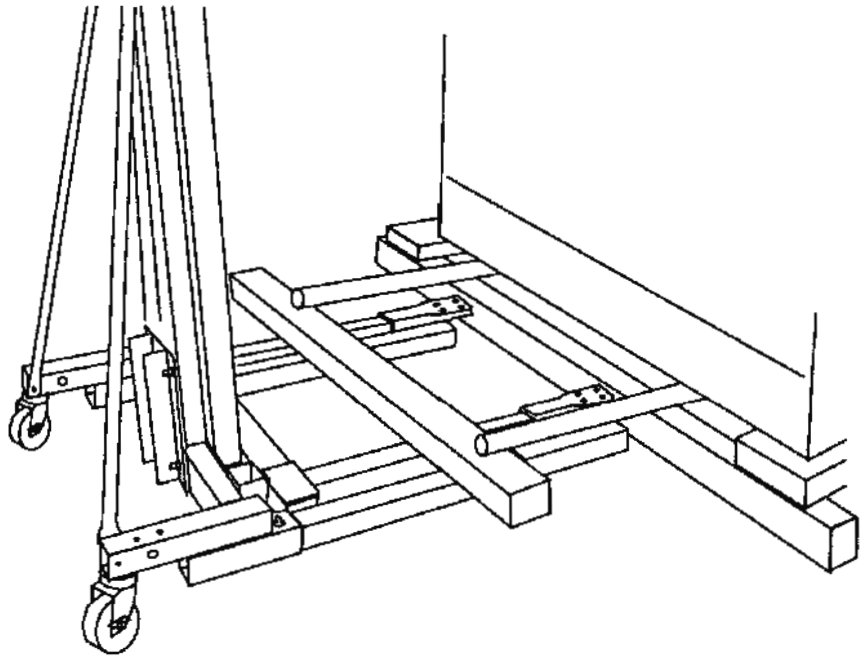


Figure 2-4

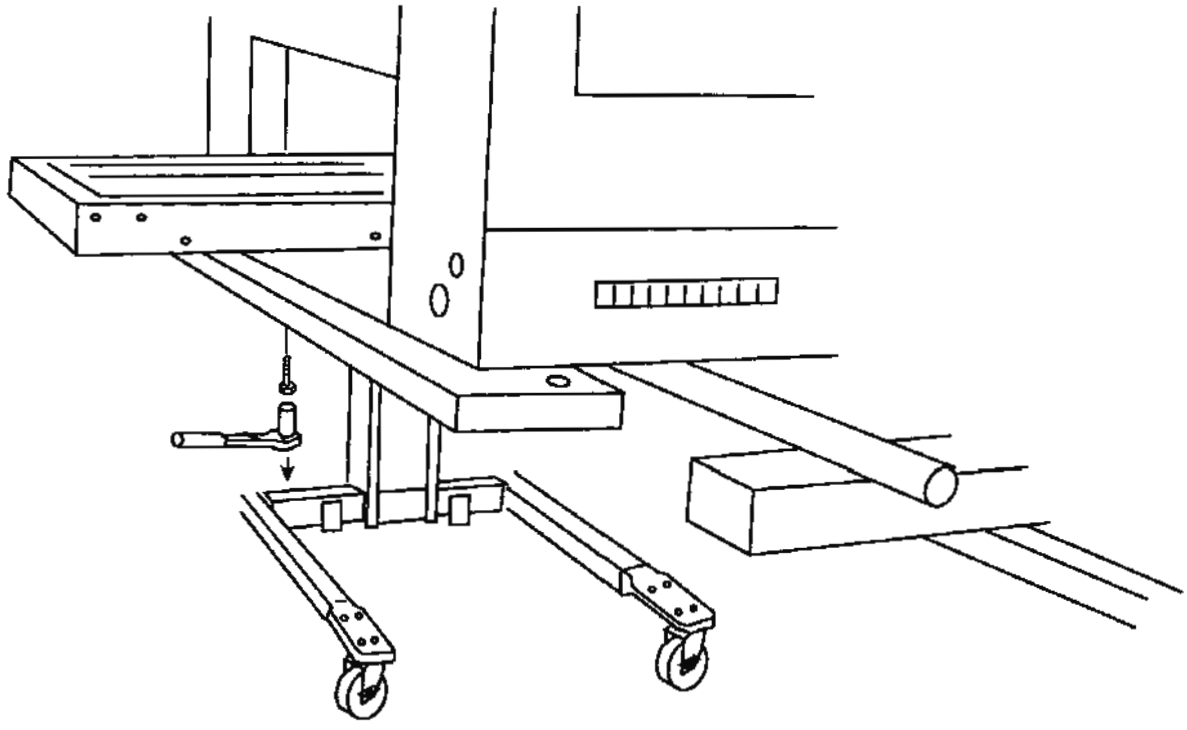


Figure 2-5

G. Stacking and Mounting Two Ovens

NOTE: *This stacking and mounting procedure is for both the DZ33II Series oven and the DZ 55II Series oven. The only difference in the oven stands is the length of the Top Frame Assembly.*

NOTE: *When stacking a DZ33 Series oven over a DZ55II Series oven you must use stacking bracket (Part No. ACSB3355) between the two ovens. Failure to use this bracket will void all warranty. The bracket is shown in Figure 2-7. This bracket properly aligns and helps support the weight of the DZ33II Series oven.*

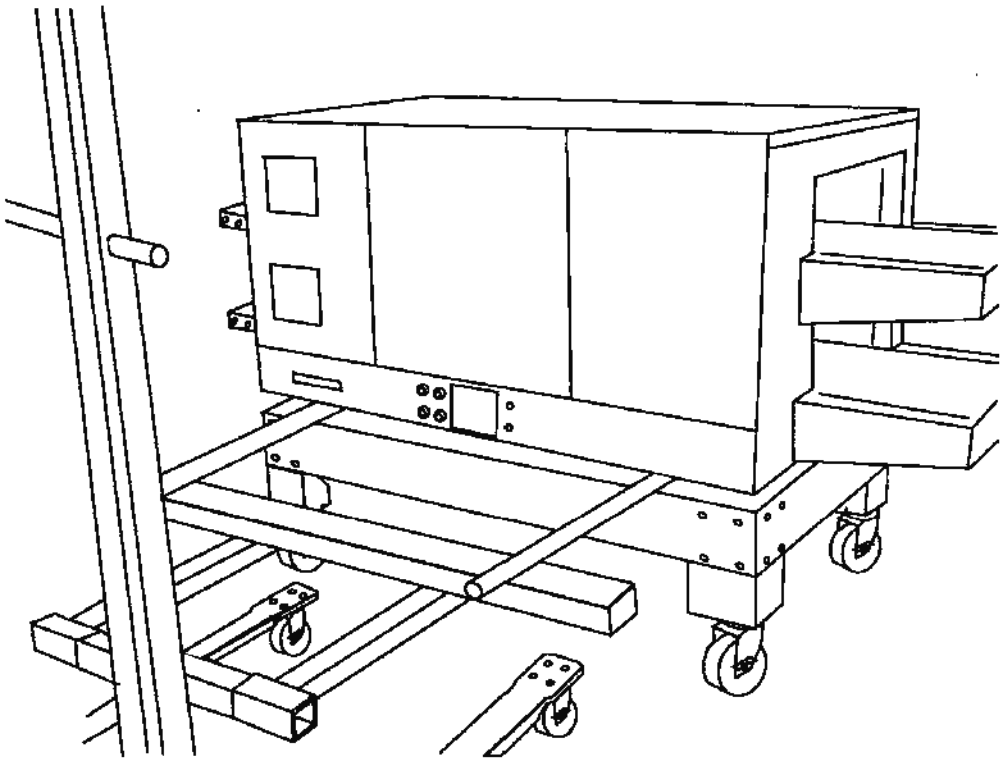


Figure 2-6

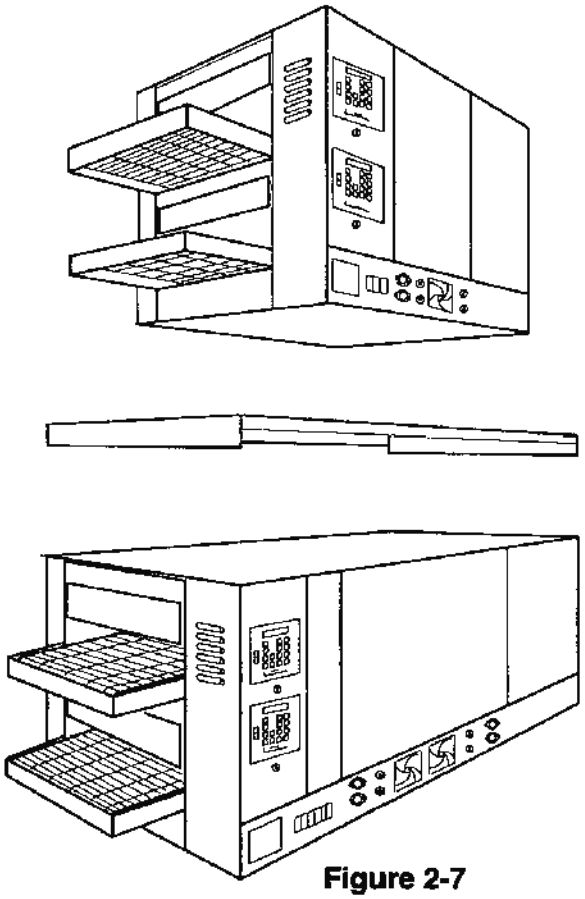


Figure 2-7
Stacking Bracket

The ACSB3355 stacking bracket is required when stacking a DZ33II Series oven over a DZ55II Series oven. The lips on the bracket overhang the DZ 55II Series oven. The DZ33II Series oven is then stacked on top, no bolts are required.

1. Follow the previous procedures in Steps C, D, E and F to mount the lower oven onto the base. Then complete the following steps to stack the upper oven onto the lower oven.

IMPORTANT: Lift the oven from the bottom **only. DO NOT** lift the oven using the conveyor supports as handles. **Damage WILL result.**

2. Elevate the upper oven high enough to allow the lower oven to be moved underneath.

3. Move the lower oven into a position of alignment below the upper oven.

4. Place a 2' (61 cm) long 4" x 4" (10.2 cm x 10.2 cm) board across each end of the top of the lower oven. Then carefully lower the upper oven onto the 4" x 4 " (10.2 cm x 10.2 cm) boards. See Figure 2-8. Remove the lifting pipes.

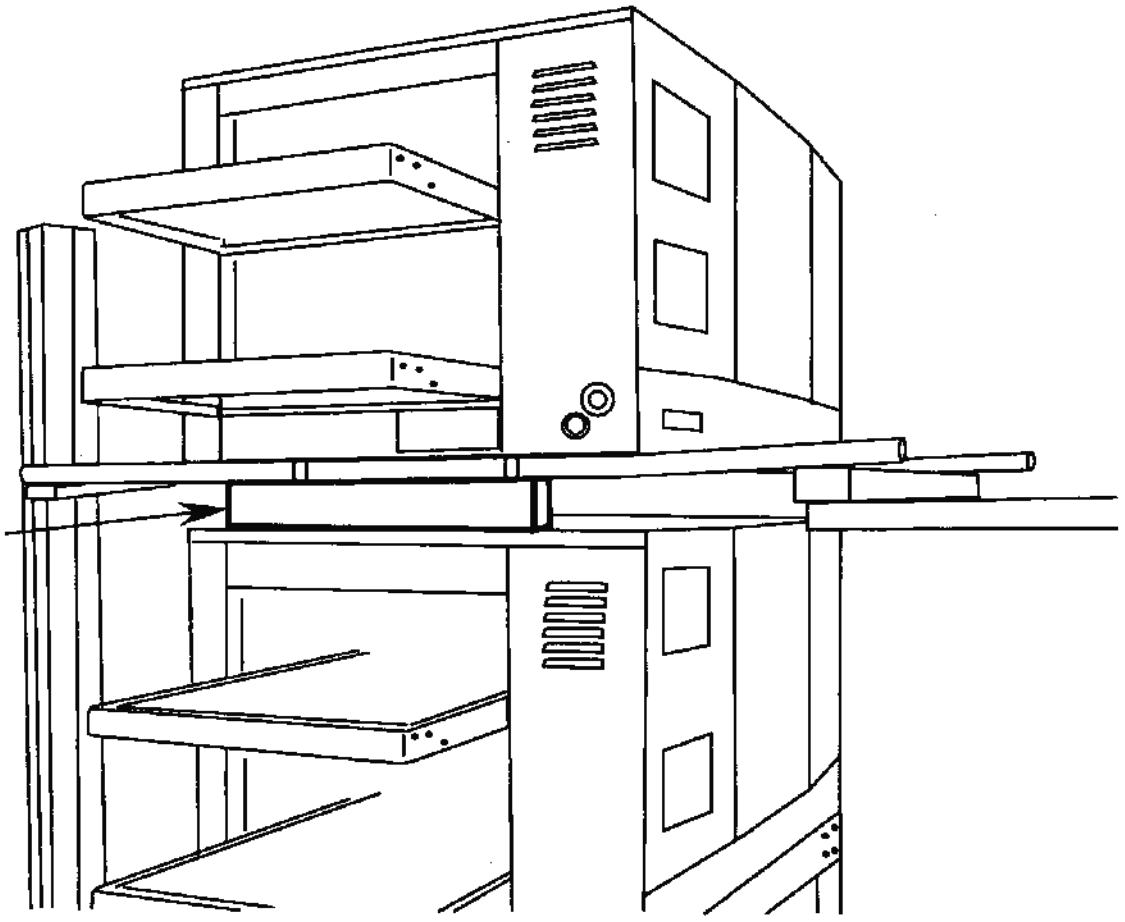


Figure 2-8

5. Refer to Figure 2-9. Using the cross member boards as pry bars elevate one end of the oven at a time, remove the 4" x 4" (10.2 cm x 10.2 cm) board from the lower oven and gently lower upper oven until it rests on the lower oven. The "U" Brackets under the upper oven will retract into the oven base.

NOTE: *Upper and lower ovens (both same model) do not have to be fastened together as the upper oven's weight will hold it in position.*

NOTE: *If you plan to transport the ovens we recommend you install accessory kit ACSBDZ which secures the two ovens together. See Figure 2-10*

IMPORTANT: When stacking a DZ 33II Series oven atop a DZ 55II Series oven it is necessary to use accessory stacking bracket model ACSB3355 to provide adequate support for the shorter DZ 33II Series oven. See Figure 2-7

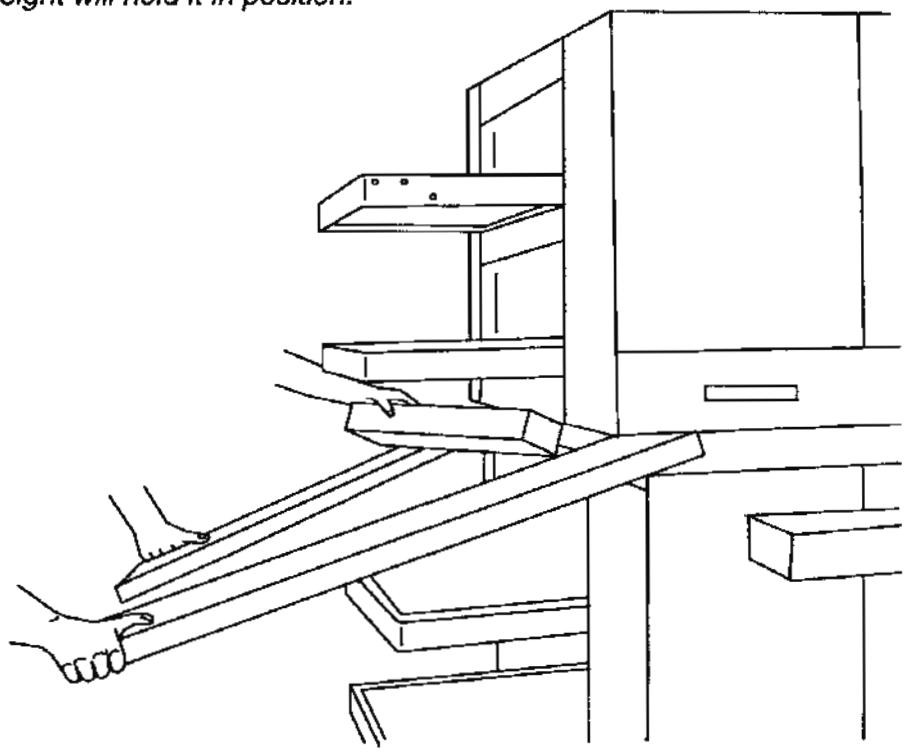


Figure 2-9

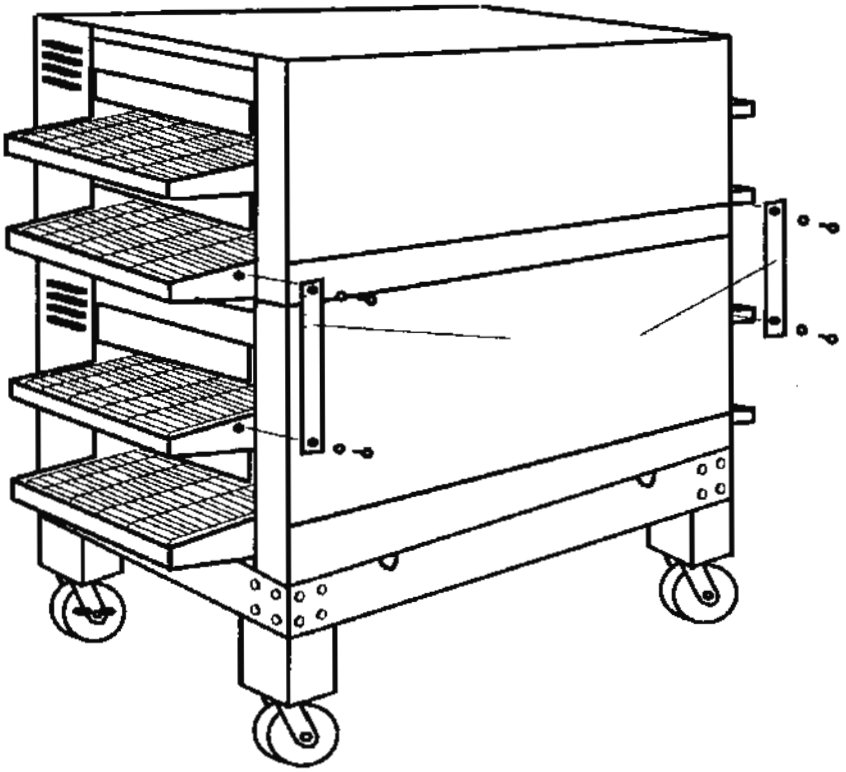


Figure 2-10

H. Electrical Connection

All wiring and electrical connections required for the oven(s) must be performed by a certified electrician. On all DZ33II Series and DZ55II Series domestic units split bolt electrical connectors must be used on incoming power connections at the utility panel. 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 voltage specific operation. Early style ovens were rated 208/230 VAC and were then built with 230 VAC elements to handle the multi-range voltages. To improve oven performance on 200-208 VAC applications we added 208 VAC elements. Voltage specific ovens shipped with either 208 or 230 VAC elements begin with:

- Serial # 11-20389-93 for DZ33II ovens.
- Serial # 10-20433-93 for DZ55II ovens.

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.

Never use 208 VAC elements or contactors to replace failed parts on an oven marked "208/230 VAC". This could cause possible amperage load imbalance and invalidation of UL agency approvals.

A junction box for making field wiring connections is located at the bottom left front of the oven. Two screws hold the cover plate in place. A 1-3/8" (35mm), 1-3/4" (45mm), 2"(51mm) conduit knockout is provided in the left side oven panel for wiring conduit entry. 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.

I. "Loose" Parts

The stainless steel belt supports are shipped mounted in place. They are removable for cleaning and are considered "loose" parts. They should be checked prior to start up to be sure they are properly in place.

Belt Supports, stainless steel (PN 320691) (4 per oven). These support the belt immediately as it enters and exits the cooking chamber. Install belt supports (refer to Figure 2-11) by inserting turned down edge between the oven bottom bracket and the hearth plate. The belt supports should be flush with the oven bottom hearth plate.

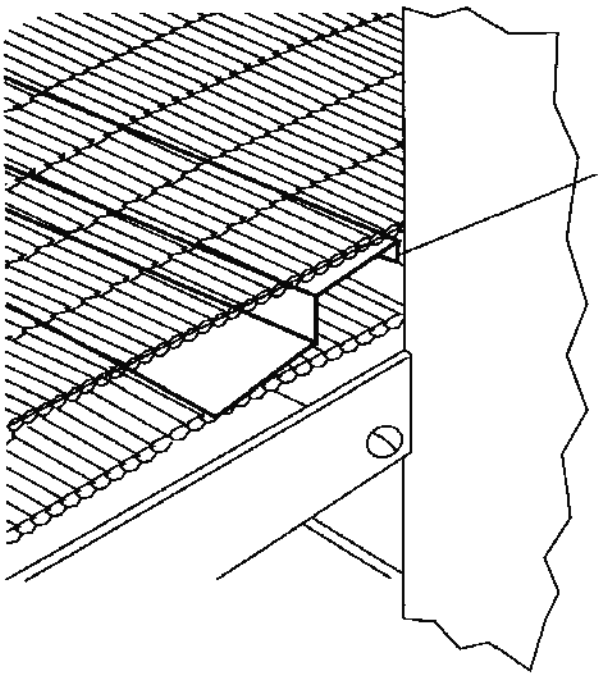


Figure 2-11
Installing Belt Supports

1. **Crumb Trays**, stainless steel (PN 322221) (4 per oven). These fit into the conveyor extension outward from the belt supports and serve a two-fold purpose. They catch food product residue that falls through the conveyor, plus they provide additional support for the conveyor belt. To install, lift the belt up ward and slide crumb tray into the space beneath the belt. Move the crumb tray so the trough closest to the oven body fits into the outer portion of the belt support. Repeat to install each crumb tray.

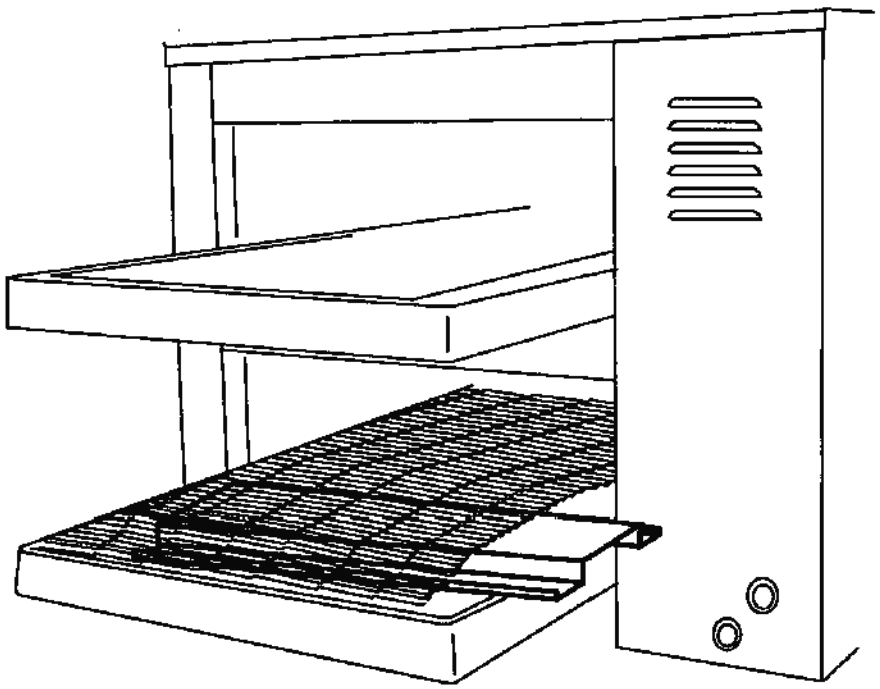


Figure 2-12
Installing Crumb Tray

The stainless steel draft curtain and exit shelves are packed in a separate carton inside oven. See the following illustrations for identification and relative placement.

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

2. **Draft Curtains**, stainless steel (PN 322904) (4 per oven). These mount above the conveyors at the ends of the cooking chambers. 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 heat 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.

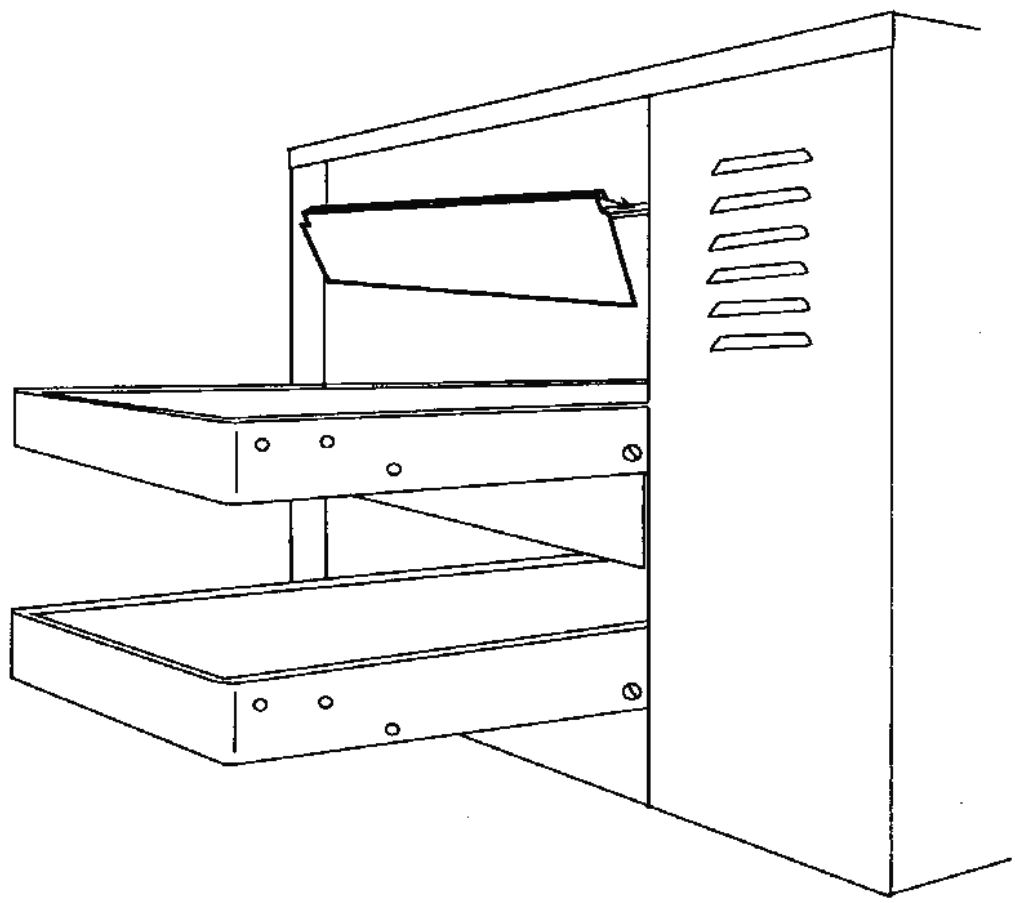


Figure 2-13
Installing Draft Curtains

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

3. **Exit Shelves**, stainless steel (PN 322219) (2 per oven). These shelves mount in cantilever fashion at the exit 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.

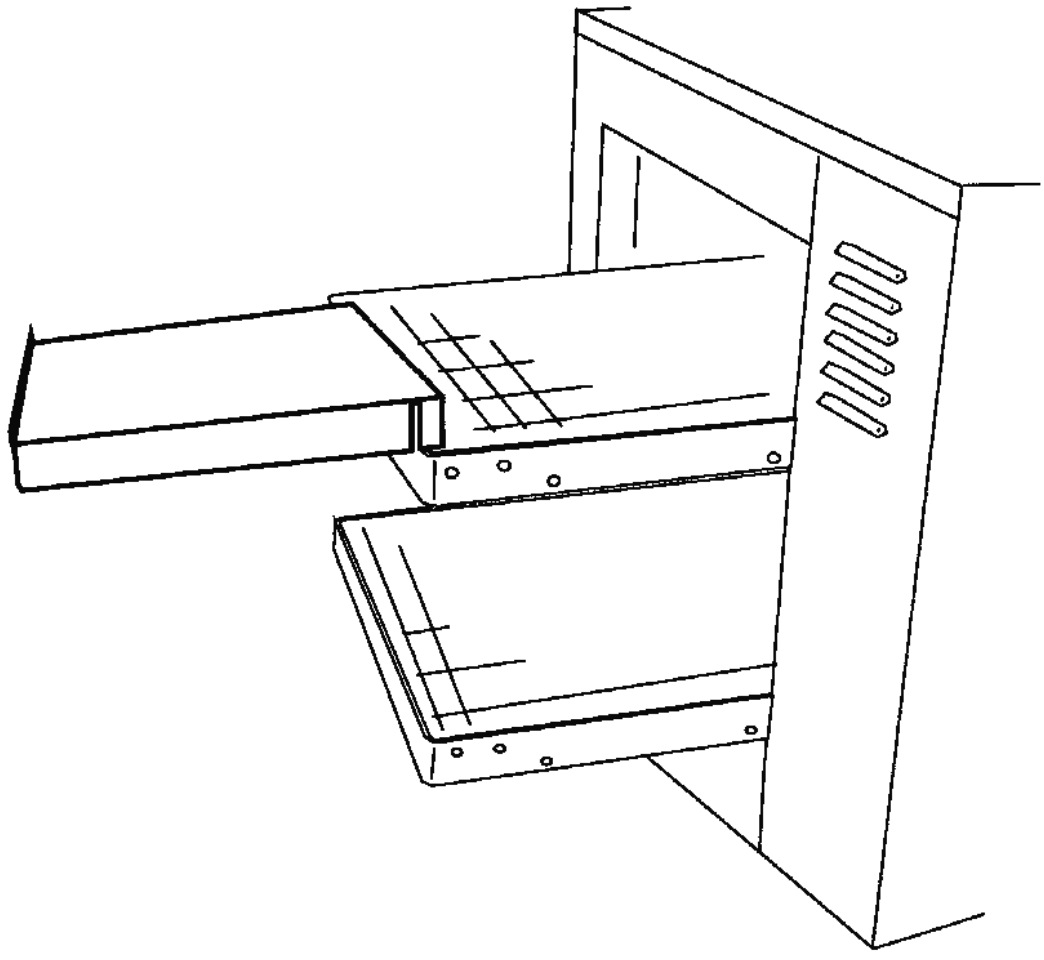


Figure 2-14
Installing Exit Shelf

SECTION 3
OPERATION

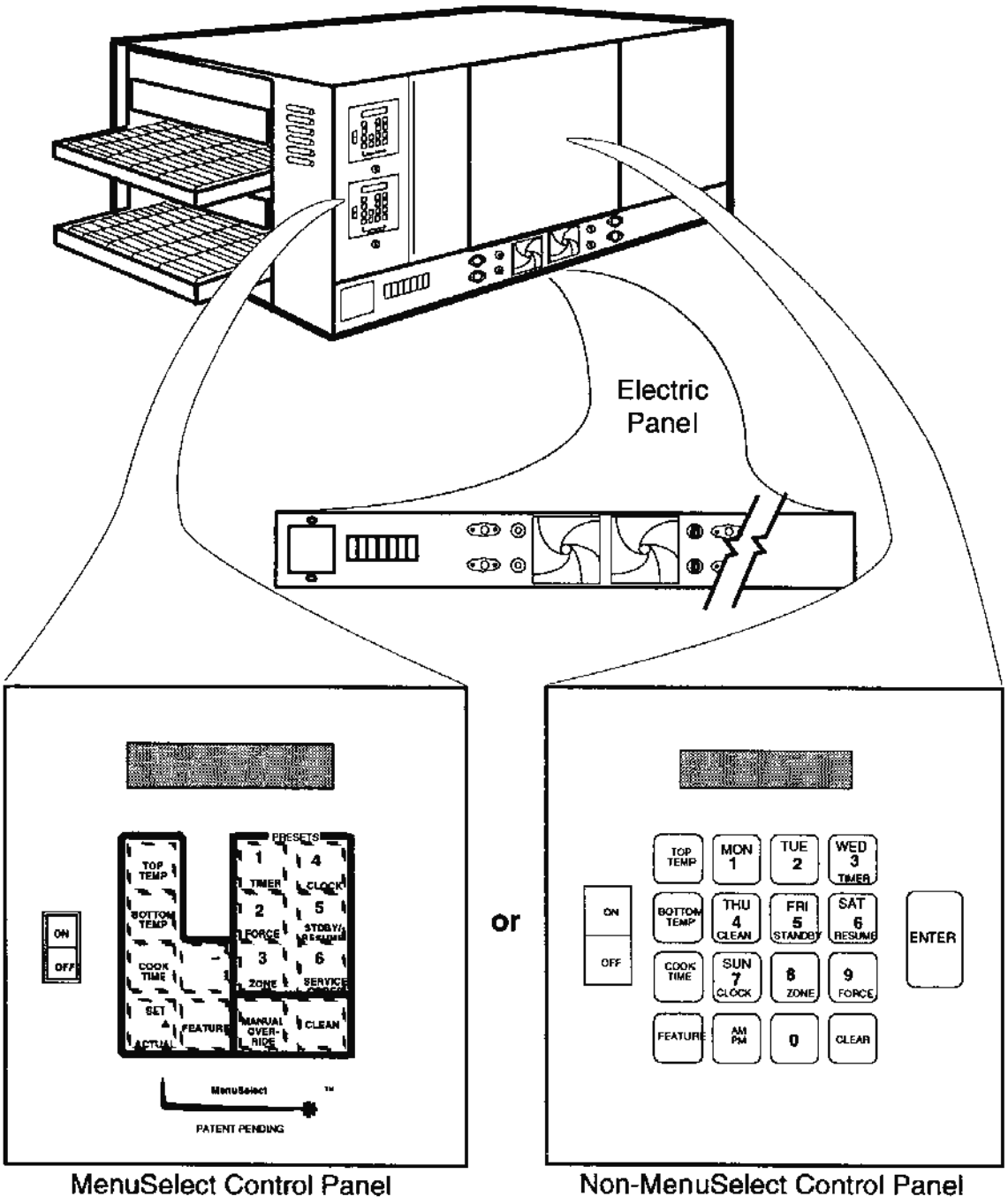
NOTE: *DZ Series ovens have been manufactured with MenuSelect™ and with non-MenuSelect controls. This Operation Section covers both types of controllers as shown in the following Operation Section Outline:*

A. Location of Controls - Applies to both MenuSelcect and non-MenuSelect controls.
B. MenuSelect Control Operation and Programming.
C. Non-MenuSelect Control Operation and Programming.
D. Cooking in a DZ oven - Applies to both MenuSelect and non-MenuSelect controls.

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.



MenuSelect Control Panel — Non-MenuSelect Control Panel

Figure 3-1
Operating Controls

2. Electric Panel Controls

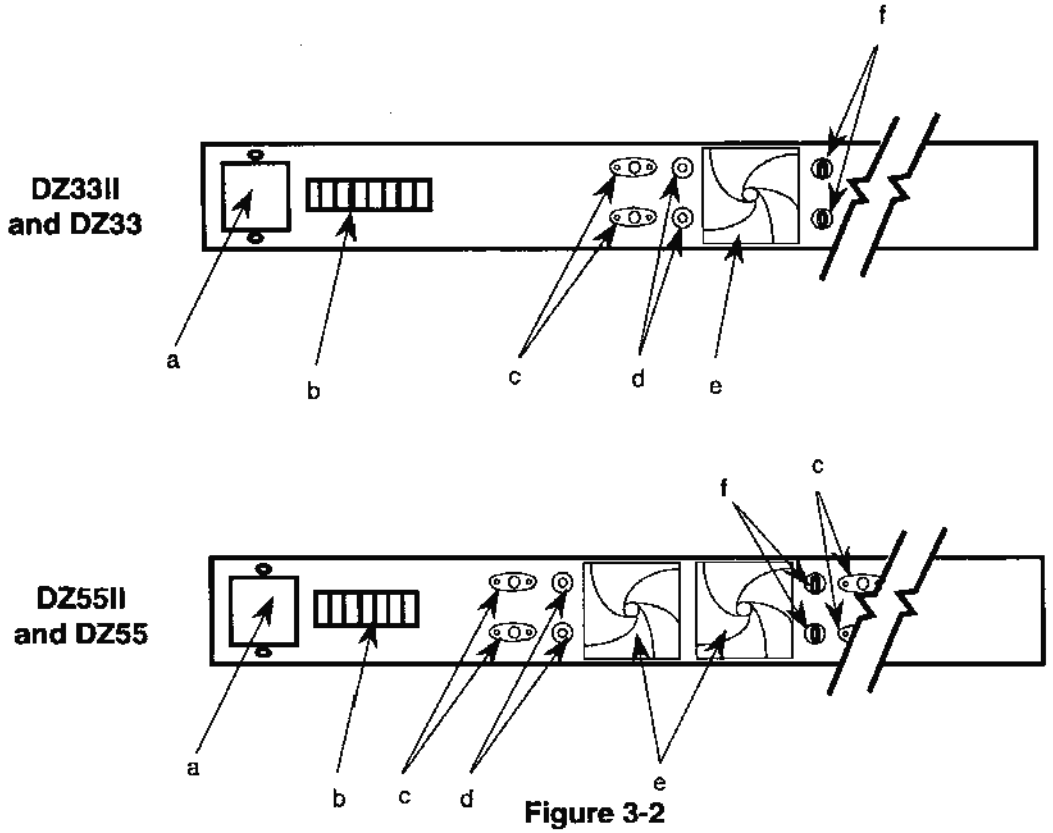


Figure 3-2
Electric Panel

a. **Junction Box Cover:** located at the left end of the control panel, it provides access to the junction box containing the power supply connections.

WARNING
DO NOT REMOVE
JUNCTION BOX COVER -
SHOCK HAZARD.

b. **Oven Power Circuit Breaker(s):** turns power ON and OFF to the oven. Breaker(s) should be left ON unless service is required.

NOTE: *The cooling fan is controlled by a thermal switch that will turn the fan ON and OFF even if the oven isn't running. In order for the fan to run the power circuit breaker(s) must be ON.*

c. **Fuseholders:** contain SC15 (15 amp) fuses and provide overload protection for the two transformers and the high limit temperature control.

d. **Reset Buttons:** small circuit breakers for the two conveyor drive motors. If an object jams or stops a conveyor, the respective breaker will trip and a button will pop out 1/4". After clearing jam press button in to reset.

e. **Cooling Fan, Grille and Filter:** air is drawn through this grille and foam filter by a 208/240V cooling fan located immediately behind. The fan circulates air throughout the entire electrical raceway to cool the components.

f. **Belt Reversing Switches:** control the direction of travel for the oven's two conveyors; require special key to operate. Keyslot vertical, conveyor moves left to right; keyslot horizontal, conveyor moves right to left. Oven ON/OFF switch should be in the OFF position when changing conveyor direction.

B. MenuSelect™ CONTROL OPERATION AND PROGRAMMING

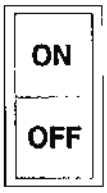
NOTE: *For non-MenuSelect control operation go to Page 39.*

I. Function of Controls

The oven operating controls are located to the left of the stainless steel front panel. They all relate to the controller for programming and for operating the oven.The control panel consists of an ON/OFF switch, a keypad with multi-function keys, a liquid crystal display, and a key-operated programming lockout switch. The letter callouts in Figure 3-3 coincide with the following list which explains the keypad.

The following information provides a basic description of the oven controls, their location and the function they perform. Refer to Figure 3-3.

A. POWER ON/OFF



- Used to turn oven ON and OFF

NOTE: *The POWER circuit breakers should be left on at all times except in case of an emergency or if service procedures are being performed. The cooling fan is controlled by a temperature switch that will turn the fan ON and OFF even if the oven isn't running. In order for the fan to operate the POWER circuit breaker(s) must be ON.*

B. TOP TEMPERATURE

- used to display actual temperature of the top zones when used in conjunction with the SET/ACTUAL key.
- used to display set temperature of the top zone(s) during operation.
- used to change set temperature of the top zone(s) during programming.

C. BOTTOM TEMPERATURE

- used to display actual temperature of the 2 bottom zones when used in conjunction with the SET/ACTUAL key.
- used to display set temperature of the top zone(s) during operation.
- used to change set temperature of the top zone(s) during programming.

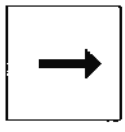
D. COOK TIME

- used to display and/or change cook time setpoint of a preset menu.

E. SET/ACTUAL and "▲" key

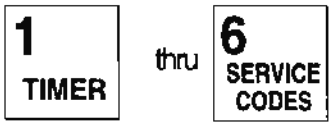
- used to display actual temperature of either the top zones or bottom zones when used in conjunction with the TOP or BOTTOM TEMP keys.
- used when programming to increase one number at a time 0 to 9 and then roll over to 0.

F. "→"Cursor key



- used to move the cursor to the next digit from left to right.

G. Preset Menu Keys 1-6



- used to operate or program oven in one of six 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.*

H. MANUAL OVERRIDE

- used to override preset menu setting and operate oven at any desired temperature and cook time.

I. CLEAN

CLEAN

- used to enter the self-cleaning mode of oven operation.

J. FEATURE

FEATURE

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

K. TIMER

1 TIMER

- used to set ON/OFF times for automatic timing.

L. FORCE

2 FORCE

- used to take a deck out of timing (auto) mode or cleaning mode.

M. ZONE

3 ZONE

- on current ovens this control is non-operative and is not used. The four zones always function individually. If you have an early style MenuSelect control and the "ZONE" control is operative then set the control to the preferred "MULTI-ZONE" mode.

N. CLOCK

4 CLOCK

- used to set the oven clock.

O. STDBY/RESUME

5 STDBY/ RESUME

- used to enter and exit 25% reduced power standby mode.

P. SERVICE CODES

6 SERVICE CODES

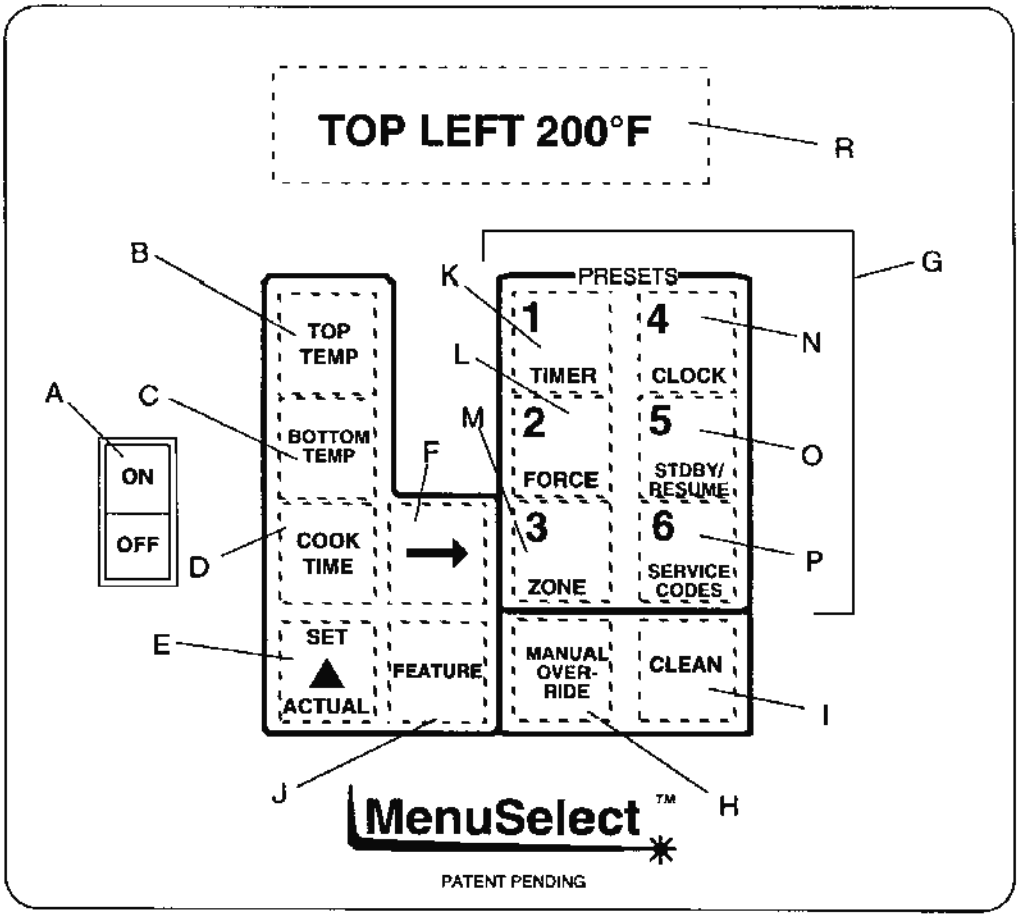
- used to access service modes.

Q. Lockout Key Switch

- used to lockout the preset menu select programmability when the key is in the horizontal position.

R. Display. Provides readout of data including:

- Data being entered
- Error and service information
- Set and actual temperatures
- Set cook times
- Oven status



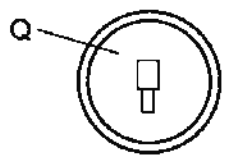


Figure 3-3

2. OPERATION of the DZ33II and the DZ55II MenuSelect Control Ovens

a. Turn Oven Deck ON

1. Turn ON main disconnect switch at the wall box.
2. Turn ON oven deck power circuit breakers located at the front electric panel.
3. 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.*

b. Preset Menu Select Operation

Step	***Press Key***	***Display Reads***
		P - - # (HEATING)
		The preset menu that was being used when the oven was turned OFF.
1. Press desired preset menu #	1 TIMER thru 6 SERVICE CODES	P - - # (HEATING)
		Oven deck is ready for cooking when "READY" is displayed.

c. View Actual Temperatures in all 4 zones.

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

Step	***Press Key***	***Display Reads***
		P - - # (READY, HEATING or COOLING) READY = Oven at set temperature HEATING = Oven heating up to set temperature COOLING = Oven cooling down to set temperature
1.	SET ▲ ACTUAL	P - - # (READY, HEATING or COOLING)
2. View top left temperature	TOP TEMP	TOP LEFT 325°F Top Temp 325°F (For Top-bot Mode)
3. View top right temperature	TOP TEMP	TOP RIGHT 350°F
4. Wait 10 seconds or press any key:	1 TIMER thru 6 SERVICE CODES	P - - # (READY, HEATING or COOLING)
5.	SET ▲ ACTUAL	P - - # (READY, HEATING or COOLING)
6. View bottom left temperature	BOTTOM TEMP	BOT LEFT 300°F Bot Temp 325°F (For Top-bot Mode)
7. View bottom right temperature	BOTTOM TEMP	BOT RIGHT 375°F

d. View Set Temperatures in all 4 zones.

Step	*Press Key*	*Display Reads*
		P - - # (READY, HEATING or COOLING)
1. View top left temperature	TOP TEMP	TOP LEFT 325°F / Top Temp 325°F (For Top-bot Mode)
2. View top right temperature	TOP TEMP	TOP RIGHT 350°F
3. View bottom left temperature	BOTTOM TEMP	BOT LEFT 300°F / Bot Temp 300°F (For Top-bot Mode)
4. View bottom right temperature	BOTTOM TEMP	BOT RIGHT 325°F

e. Viewing COOKTIME

Step	*Press Key*	*Display Reads*
		P - - # (READY, HEATING or COOLING)
		Minutes (001.5 to 240.0)
1. View cooktime	COOK TIME	Cooktime: 010.0

f. Viewing CLOCK Feature

Step	*Press Key*	*Display Reads*
		P - - # (READY, HEATING or COOLING)
1.	FEATURE	SET FEATURE
2. View clock time	4 CLOCK	10:00AM MON

g. Viewing TIMER Feature

Step	*Press Key*	*Display Reads*
		P - - # (READY, HEATING or COOLING)
1.	FEATURE	SET FEATURE
2. View timer setting	1 TIMER	11:00AM MON On Continue pressing TIMER to view the On and Off times for each day of the week.

h. Put Oven Deck in Standby Mode

This feature allows a deck to be put into an energy conserving standby mode which reduces the temperature of the deck(s) by 25%.

Step	*Press Key*	*Display Reads*
		P - - # (READY, HEATING or COOLING)
1	FEATURE	SET FEATURE
2	5 STDBY/ RESUME	P - - # Standby Wait 10 seconds

i. Resume Normal Operation From Standby

This feature is used to return a deck to normal operation from the "standby" mode.

Step	*Press Key*	*Display Reads*
		P - - # Standby
1	FEATURE	SET FEATURE
2	5 STDBY/ RESUME	P - - # (READY, HEATING or COOLING)

j. Cleaning Operation

Step	*Press Key*	*Display Reads*
		P - - # (READY, HEATING or COOLING)
1. Start cleaning operation	CLEAN	CLEANING

(Press and hold for 2 seconds)

Machine will remain in cleaning mode for 60 minutes.

Cancel Cleaning Operation

1.	FEATURE	SET FEATURE
2. Cancel cleaning	2 FORCE	P - - # (READY, HEATING or COOLING)

Oven deck will return to preset menu that was used previous to cleaning.

3. PROGRAMMING the DZ33II and the DZ55II MenuSelect Control Ovens

The DZ33II and the DZ55II Ovens contain two controllers. The Upper Deck is controlled by one controller and the Lower Deck is controlled by the other controller.

The upper and lower decks both have four zones as shown in Figure 3-4.

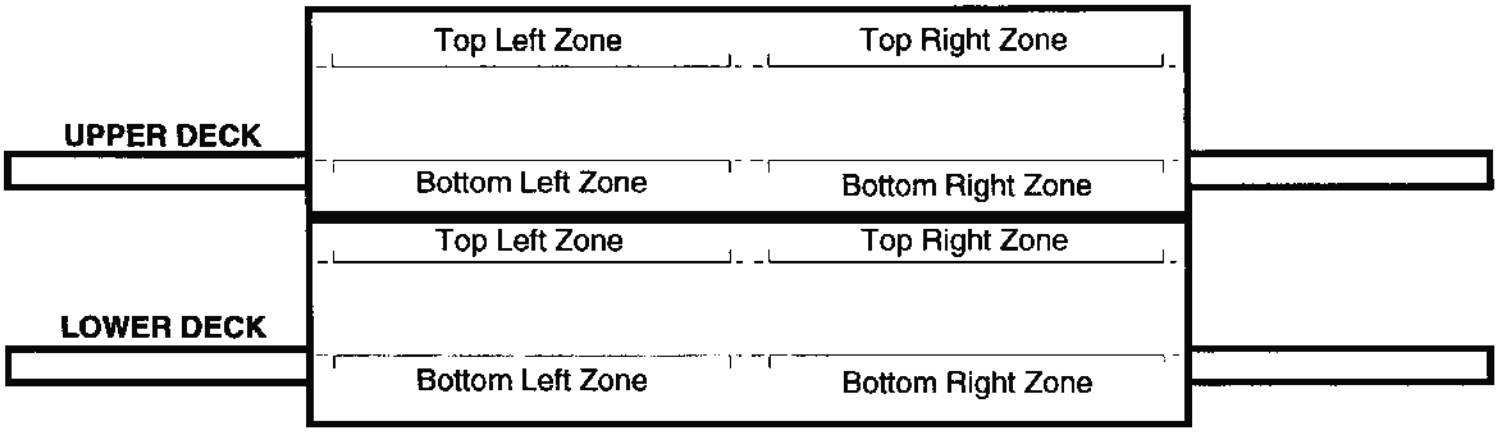


Figure 3-4

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

NOTE: *This exercise assumes first time start after installation. Programming from factory is 200°F (93°C) temperature settings and 2 minute cooktimes.*

a. Turn Oven Deck ON

1. Turn ON the main disconnect switch at the wall box.
2. Turn ON the POWER circuit breaker(s) at the left of the bottom electrical panel. You will hear an audible BEEP signal. Display will read **Oven Off**.
3. Place the key into the slot in the control board located below the keypad and turn it to the vertical position.
4. Press keypad ON/OFF switch to ON position. Oven will startup in a preset default mode of 200°F (93°C) for top and bottom zones and at a 2 minute cook time. Control will display **P - - #(READY, HEATING or COOLING)*** . You are now ready to proceed with programming.

* READY = Oven at set temperature
HEATING = Oven heating up to set temperature
COOLING = Oven cooling down to set temperature

b. Setting Preset MenuSelect Temperatures and Cook Time in all 4 zones.

The MenuSelect controls the cooking time (DZ33II = 1.0 to 240.0 minutes and DZ55II = 1.5 to 240.0 minutes) and temperature (200°F [93°C] to 900°F [482°C]). The MenuSelect control must be programmed to cook your products. The control is equipped with 6 preset menu keys. Each of these keys can be programmed to control the cooking time and temperature for an individual product. The following pages contain a step-by-step "hands on" programming exercise. You can actually program your oven by using the examples.

Step	*Press Key*	*Display Reads*
1. Select preset menu key to be programmed	1 TIMER thru 6 SERVICE CODES	P - - # (READY, HEATING or COOLING)
2. View top left temperature setpoint	TOP TEMP	TOP LEFT 200°F
3. Enter new top left temperature setpoint	SET ▲ ACTUAL	TOP LEFT 300°F

Flashing digit will increase one number at a time 0 to 9 and then roll over to 0. Set the digits to your desired top temperature.

	→	TOP LEFT 300°F (example only)

Pressing the cursor key will move the cursor left to right to the digit to be changed. The digit will start flashing and can then be changed using the "▲" key.

NOTE *The displayed setting is then entered when you press "TOP TEMP" in Step 4. If you are programming only one zone then press any key except "▲" or "→" and the displayed setting will be entered.*

4. View top right temperature setpoint	TOP TEMP	TOP RIGHT 200°F
5. Enter new top right temperature setpoint	SET ▲ ACTUAL	TOP RIGHT 300°F
	→	TOP RIGHT 300°F (example only)
6. Continue to bottom temperatures	BOTTOM TEMP	P - - # (READY, HEATING or COOLING)
7. View bottom left temperature setpoint	BOTTOM TEMP	BOT LEFT 200°F

8. Enter new bottom left temperature setpoint

BOT LEFT 200°F

BOT LEFT 250°F (example only)

9. View bottom right temperature setpoint

BOT RIGHT 200°F

10. Enter new bottom right temperature setpoint

BOT RIGHT 200°F

BOT RIGHT 240°F (example only)

11. Continue on to set cooktime

P - - # (READY, HEATING or COOLING)

Minutes (001.5 to 240.0)

12. View cook time setpoint

Cooktime: 002.0

13. Enter new cook time setpoint

Cooktime: 010.0

Set all digit values. Wait 5 seconds or press any key except "▲" or "→" and new displayed digits will be entered into memory. When all preset keys have been programmed with new temperature and cook time oven will then operate with MenuSelect preset values.

c. 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 next page for a chart to assist in choosing ON/OFF times.

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 it to come ON for one minute only.

Step	*Press Key*	*Display Reads*
1	FEATURE	SET FEATURE
2	1 TIMER	00:00AM MON On
3	SET ▲ ACTUAL	10:00AM MON On
4	→	10:00AM MON On
5		Continue setting "ON" time by pressing "→"to move to the next digit and then press "▲" to change the value of the digit.
6	1 TIMER	00:00AM MON Off
7		Set "OFF" time using the same method used to set the "ON" time. Be sure the AM/PM is set correctly. The oven is now set to turn ON and OFF at the set times on MONDAY. You are now ready to proceed to Tuesday.
8	1 TIMER	00:00AM TUE On
9		When every day of the week has been programmed wait 10 seconds and new times will be entered into memory.

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 ON 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 one ON and OFF cycle per 24 hour day, midnight to midnight. When choosing your ON and OFF times use the following chart. When you plot your chosen times you will know immediately if there is a time conflict. It also provides reference while you are setting the timer. **Important: OFF times cannot fall into the AM hours of the next day.**

		Midnight											Noon											Midnight
		AM											PM											
Key	Day	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	11:59
[1]	Monday									*8:00-ON															*9:00-OFF	
[2]	Tuesday																									
[3]	Wednesday																									
[4]	Thursday																									
[5]	Friday																									
[6]	Saturday																									
[7]	Sunday																									

*Example ONLY.

d. Force Out of Automatic Timing

The FORCE feature allows you to remove the oven from the automatic "Timing" mode and turn it ON without changing the timer settings. When in normal operational mode FORCE has no effect.

Step	***Press Key***	***Display Reads***
		TIMING
1	FEATURE	SET FEATURE
2	2 FORCE	P - - # (READY, HEATING or COOLING)

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

3	1 TIMER	thru	6 SERVICE CODES	P - - # (READY, HEATING or COOLING)

To change preset menu #

NOTE: *These steps can also be used to force out of automatic cleaning.*
To return the oven to the automatic "Timing" mode, press ON/OFF switch to OFF then ON.

e. Setting the Clock

The clock contains hour, minute and day of the week. It should be set accurately to assure proper operation of the oven.

Step	*Press Key*	*Display Reads*
1	FEATURE	SET FEATURE
2	4 CLOCK	00:00AM MON
3	→	00:00AM MON
4		Continue setting time by pressing "→"to move to the next digit and then press "▲" to change the value of the digit.
5	Wait 10 seconds	

f. Manual Override Operation

This feature is used to operate a deck manually. The deck is taken out of the menu select mode by entering new parameters and is returned to the menu select mode without saving the parameters.

Step	*Press Key*	*Display Reads*
		P - - # (READY, HEATING or COOLING)
1	MANUAL OVER-RIDE	P - - # (Flashing)

Set oven deck temperature and cooktime as in Step b.
Oven deck will function as set but settings will not be saved.

Cancel Override Operation

Step	*Press Key*	*Display Reads*
		P - - # (Flashing)
1	1 TIMER thru 6 SERVICE CODES	P - - # (READY, HEATING or COOLING)

g. 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	FEATURE		SET FEATURE
2	6 SERVICE CODES		SERVICE CODE 00
3	SET ▲ ACTUAL	Press eight times	SERVICE CODE 80
4	6 SERVICE CODES		Deg F or Deg C
5	SET ▲ ACTUAL	Press to change to either °F or °C	Deg F or Deg C
6	FEATURE	Press twice to exit to normal operation status display	

h. Error Codes

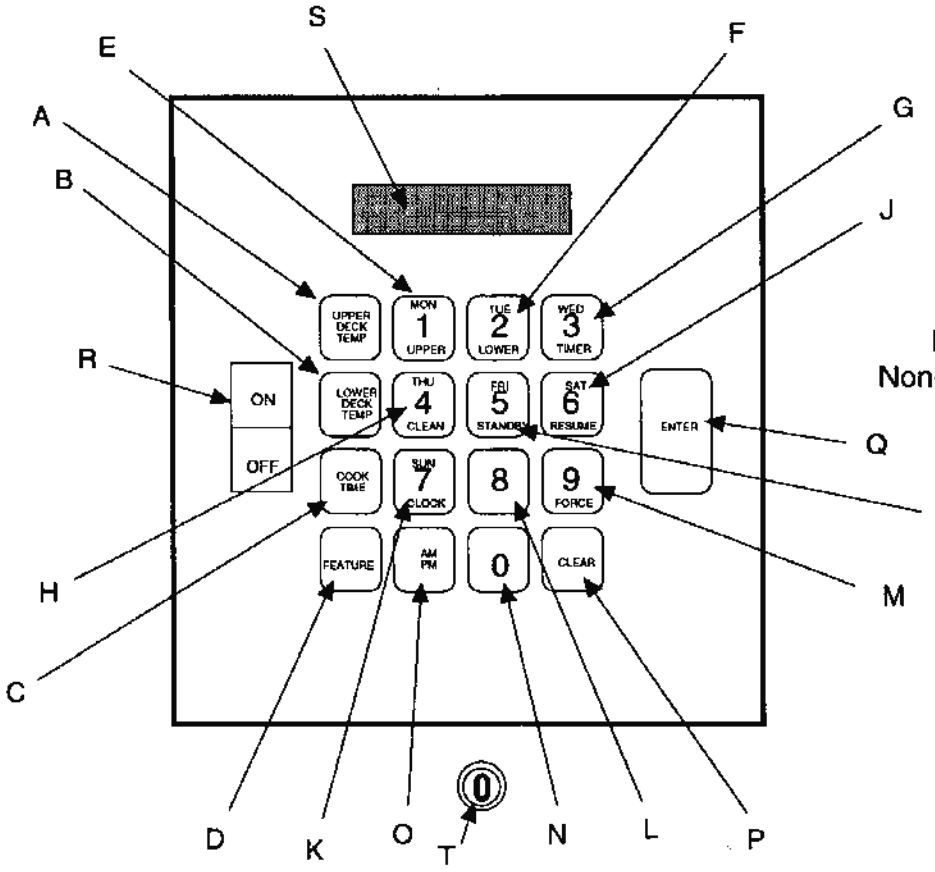
NOTE: *An authorized CTX service representative must be contacted for any failures that cannot be remedied by reprogramming.*

CAUTION: *Do not remove access panel at rear of control compartment. High voltage exists inside compartment which can cause serious injury or death.*

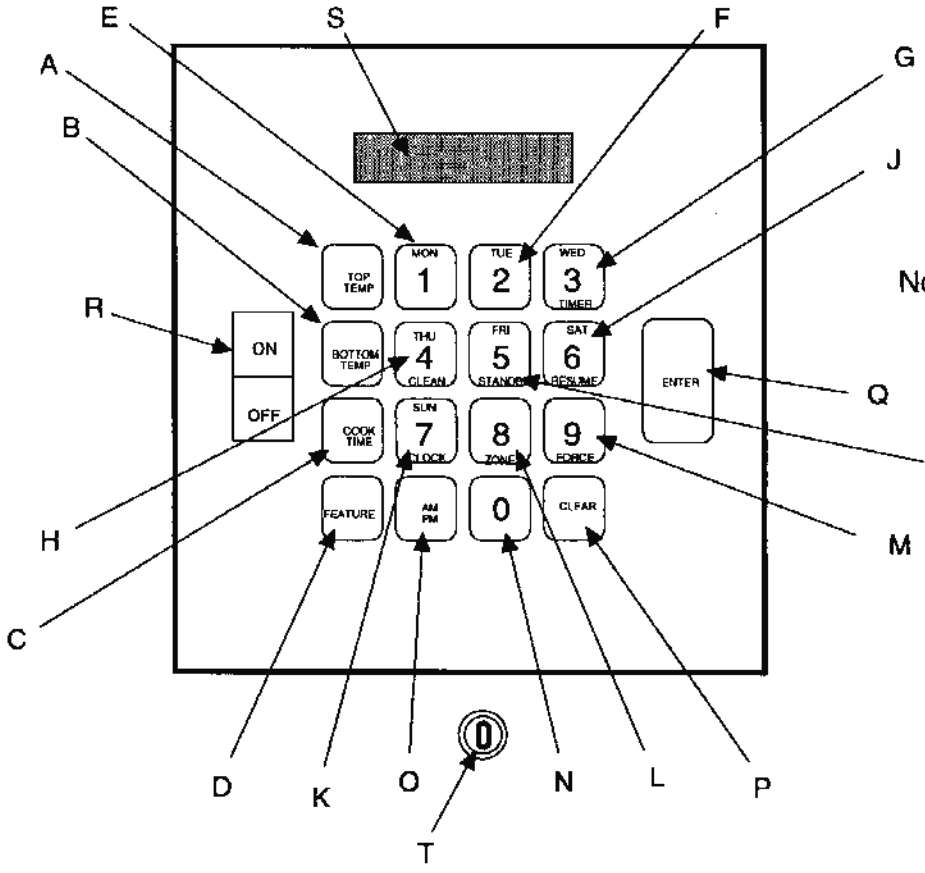
DISPLAYED ERROR CODE	EXPLANATION	CORRECTIVE ACTION
OVER TEMP SHUTDN Zone: #	1 - Over Temperature Error This occurs if at least one zone's actual temperature exceeds the maximum allowed temperature of 980°F (526°C).	Call your local authorized service agent.
EXT. AMB SHUTDN	2 - External Ambient Error This occurs if the external ambient temperature exceeds 150°F (65°C).	Temperature of area surrounding oven must be reduced.
INT. AMB SHUTDN	3 - 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. If fan is not running call your local authorized service agent.
MOTOR JAMMED	4 - Conveyor Jammed Conveyor stopped when speed setting is between 1 and 240 minutes.	Clear item that is jamming conveyor. If conveyor still does not operate call your local authorized service agent.
MOTOR RUNAWAY	5 - Conveyor Runaway Conveyor runs full speed.	Check for proper speed setting. If speed setting is correct call your local authorized service agent.

C. NON-MenuSelect OPERATION & PROGRAMMING

1. **Control Panel - Function of Controls.** The list of controls is on the following page.



Model 33 and 55
Non-MenuSelect Control
Panel



Model 33II and 55II
Non-MenuSelect Control
Panel

Figure 3-5
Non-MenuSelect Control Panels

The basic oven operating controls are in the control panel faceplate located in the center of the stainless steel front panel. They all relate to the microprocessor for programming and for operating the oven.

The control panel consists of an ON/OFF switch, a keypad with multi-function keys, a liquid crystal display, and a key-operated ENTER pad lockout switch. The letter callouts in Figure 3-3 coincide with the following list which explains the keypad and provides explanations of various terms, symbols, status messages and states of the oven.

Explanation of Controls (keyed to Figure 3-3)

A. UPPER DECK TEMP (TOP TEMP on DZ33II and DZ55II)
Used to set or change temperature settings of the upper deck.

B. LOWER DECK TEMP (BOTTOM TEMP on DZ33II and DZ55II)
Used to set or change temperature settings of the lower deck.

C. COOK TIME
Used to set or change cooktime for both decks individually.(On DZ33II and DZ55II each deck has separate keypad)

D. FEATURE
Used to initiate the special features listed below the numbers on the key pad. When FEATURE is pressed, it must be followed by pressing another key pad.

E.	MON	Monday
	1	**One**
	UPPER	Refers to upper deck (Not on DZ33II and DZ55II)
F.	TUE	Tuesday
	2	**Two**
	LOWER	Refers to lower deck (Not on DZ33II and DZ55II)
G.	WED	Wednesday
	3	**Three**
	TIMER	Used to set automatic timing for ON/OFF
H.	THU	Thursday
	4	**Four**
	CLEAN	Used to start self-cleaning cycle
I.	FRI	Friday
	5	**Five**
	STANDBY	Used to enter 25% reduced power standby mode
J.	SAT	Saturday
	6	**Six**
	RESUME	Returns to full power mode. Exits from standby.
K.	SUN	Sunday
	7	**Seven**
	CLOCK	Used to set the oven's clock
L.	**8**	**Eight**

FOR DZ33II and DZ55II Only:

8	**Eight**
ZONE	Used to set oven in Top/Bottom Mode or Multi-Zone Mode

M. **9** **Nine**
FORCE Used to take a deck out of timing (auto) mode (DZ33II and DZ55II will also be taken out of Cleaning)

N. **0** **Zero**

O. AM/PM Used when setting clock and timer to change display indication from AM to PM or vice-versa

P. CLEAR Used to clear data entered

Q. ENTER Completes key sequence by entering data

R. ON/OFF Switch used to turn oven ON and OFF manually, it supplies power to the microprocessor which controls all oven functions.

NOTE: *The POWER circuit breaker(s) should be left on at all times except in case of an emergency or if service procedures are being performed. The cooling fan is controlled by a temperature switch that will turn the fan ON and OFF even if the oven isn't running. In order for the fan to operate the POWER circuit breaker(s) must be ON.*

S. DISPLAY Liquid crystal type (LCD) - provides readout of data being entered, data already entered, functions monitored, oven status and service information.

T. LOCKOUT SWITCH Locks out the ENTER pad to prevent unauthorized personnel from changing setting. The Lockout Switch is key operated and locks out the ENTER pad so temperatures and times cannot be changed by unauthorized personnel. To make changes, insert key and turn to the vertical position. The ENTER pad is now unlocked and new data can be entered. When data entry is complete turn the key back to the horizontal position and remove. The ENTER pad is once again locked and the oven will operate according to the data entered.

2. Displays

Symbols used in this manual:

" " Indicates information depicted on the liquid crystal display.
[ ] Indicates a specific key pad of the keyboard.

a. Status Display

The status display is the information that is constantly displayed during normal operation. The displayed information cycles through the current operational state and temperature settings of each deck. The status display cycle begins immediately when the oven is turned ON.

DZ33 and DZ55 STATUS DISPLAYS

Following is the order in which the information is displayed for DZ33 and DZ55 ovens.
NOTE: *For DZ55II ovens status display see the following page.*

1. Upper deck operational state
2. Lower deck operational state
3. Lower left hand zone top/bottom set temperatures
4. Lower right hand zone top/bottom set temperatures
5. Lower deck cooktime
6. Upper deck operational state
7. Upper left hand zone top/bottom set temperatures
8. Upper right hand zone top/bottom set temperatures
9. Upper deck cooktime

Cycle now repeats, starting with number 2.

DZ33II and DZ55II NON-MenuSelect STATUS DISPLAYS

Following is the order in which the information is displayed for DZ33II and DZ55II ovens.

Multi-Zone Mode

1. Top Left Temperature
2. Bottom Left Temperature
3. Top Right Temperature
4. Bottom Right Temperature
5. Cooktime
6. Heating or Ready or Cooling

Cycle now repeats, starting with Top Left Temperature again.

Top/Bottom Mode

1. Top Temperature
2. Bottom Temperature
3. Cooktime
4. Heating or Ready or Cooling

Cycle now repeats, starting with Top Temperature again.

b. Operational States

a. **OFF** - Indicates specific deck selectively turned OFF by user.

"Upper deck off"
"Lower deck off"

b. **Heating** - Indicates specific deck is ON and heating

"Upper Dk Heating"

"Lower Dk Heating"

NOTE: *DZ33II and DZ55II will display "Heating" or "Cooling". ("Cooling will be displayed only if two or more zones are 30°F over set temperature.)*

c. **Ready** - Indicates set temperatures have been attained.

"Upper Dk Ready"
"Lower Dk Ready"

NOTE: *DZ33II and DZ55II will display "Ready".*

d. **Standby** - Indicates specific deck selectively placed in standby mode.

"Upper Dk Standby"
"Lower Dk Standby"

NOTE: *DZ33II and DZ55II will display "Standby".*

e. **Timing** - Indicates that automatic timer has turned oven OFF.

"Timing"

f. **Decks Cleaning** - Indicates self-cleaning cycle selectively started.

"Decks Cleaning"

NOTE: *DZ33II and DZ55II will display "Deck Cleaning".*

g. **Mode Change (DZ33II and DZ55II Only).** When changing from a multi-zone to a Top/Bottom mode the microprocessor will immediately beep once and the display will show "Zones Unequal". This is a reminder that the temperatures either top or bottom are different.

"Reenter Temperature" will be displayed, you must reenter a new temperature for the top and a new temperature for the bottom. Because of this new setting in this mode the microprocessor will be controlling the temperatures for the entire top and the entire bottom. See Programming for more information.

c. Failure States

There are two failure states that affect the operation of the oven. In the event that either failure state should occur contact your local authorized factory service agency immediately.

OVERTEMPERATURE SHUTDOWN

Indicates that temperature in one or both decks has exceeded 980°F. and the deck in question has been automatically shut down.

On all DZ models the following sequence of events will occur and remain constant until manually corrected by operator.

a. Oven sounds two audible BEEPS.
b. "Overtemp shtdn" will be displayed. Indicates failure state.
c*. "Zone: X" will be displayed. Indicates zone where failure occurred.
d. "Upper (or lower) deck off" will be displayed. Indicates deck where shutdown occurred.
(DZ33 & DZ55 only)

***NOTE:** DZ33 and DZ55 failure in zones 1 through 4; upper deck will shutdown. Failure in zones 5 through 8; lower deck will shut down. On a DZ33II and DZ55II only zones 1-4 will show on each display.*

To stop the audible BEEP signal follow these steps:

a. Press [OFF] turns oven OFF.
b. Press [ON] turns remaining operational deck back on for use. The shutdown deck will remain OFF.
c. Call authorized service agency to schedule repairs.

WARNING: If only one deck has failed and the other is still operational, you can continue to use the operational deck. Under certain failure conditions, however, the operational deck may also be affected.

AMBIENT SHUTDOWN

Indicates that the ambient temperature in the control compartment has reached 140°F (60°C) and both decks have been automatically shut down.

Sequence of events for DZ33 and DZ55:

a. Oven sounds two audible BEEPS.
b. "Ambient shutdn" Indicates failure state.

Sequence of events for DZ33II and DZ55II:

a. Oven sounds two audible BEEPS Indicates failure state.
b. INT or EXT AMB Shutdown will be displayed until problem is fixed Indicates if its INT (Internal) Temp (MCP Board) or EXT (External) Temp (Distribution Board). Both have 140°F (60°C) range.

This failure state is generally caused by:
1. Reduced air flow through the control compartment, usually due to obstruction of the cooling fan air intake or the foam filter pad.

2. Extremely hot ambient air outside the oven being drawn into the cooling fan air inlet.

3. Failure of the cooling fan itself.

Corrective Steps:
1. Turn oven OFF and allow oven to cool down.

2. Check air intake and remove obstructions. Snap off the plastic grill and thoroughly clean (and dry) the foam filter and replace.

3. Be sure hot air expelled from another appliance is not entering the cooling fan air inlet.

4. Turn oven back on.

5. Observe if cooling fan is running. If the fan does not run, turn oven OFF and call authorized service agency.

NOTE: *Cooling fan operation is controlled by a thermal switch. It does not necessarily run all the time the oven is operating. If the oven has been allowed to cool sufficiently the fan may not start immediately when the oven is turned back ON.*

d. Error Messages

The following messages may appear in the display:
1. Ambient hi - Indicates that the ambient temperature in the control compartment has reached 135°F (57°C). Fan and air inlet should be checked for operation or obstruction.

2. Error detected - Microprocessor perceives error. Use the ON/OFF switch to clear the microprocessor. Press OFF and then ON. If error continues call authorized service agency for repairs.

3. Illegal srv code - This indicates that an invalid service code has been entered.

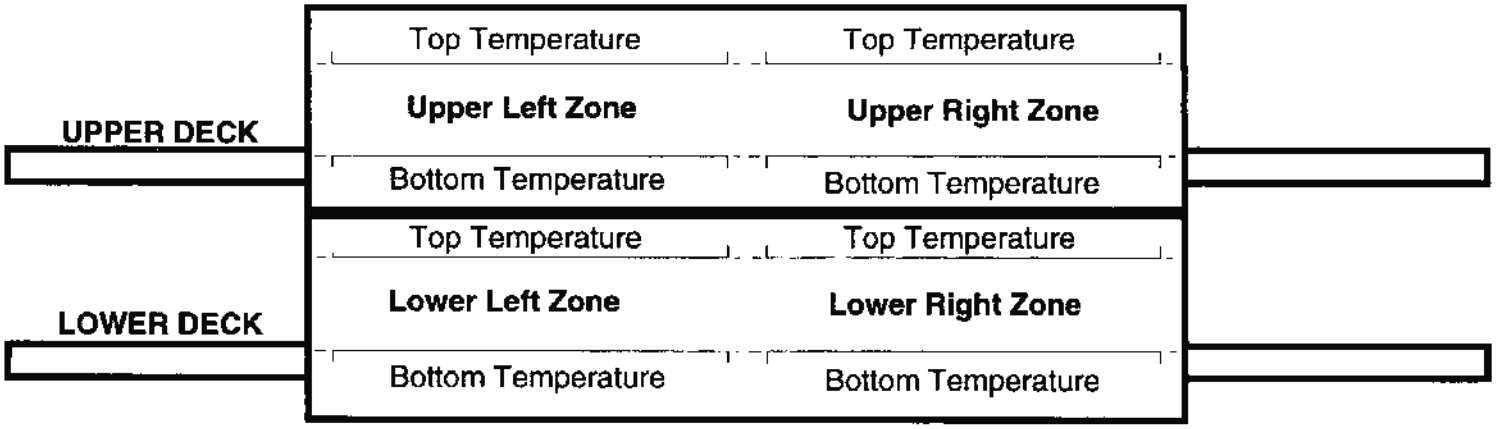
4. Illegal temp - Indicates that the set temperature is not within the allowable range of 200°F (93°C) to 950°F (510°C). ***NOTE:*** *Maximum recommended operating temperature is 900°F (482C).*

5. Illegal time - Indicates that the time being set is not a valid time.

6. Invalid setup - Indicates that you have attempted to program the controller to turn both decks OFF at the same time.
Use ON/OFF switch to turn both decks OFF.

7. Memory loss - Indicates that all settings have been lost.

8. Re-enter settings - Re-enter all settings: Upper and lower temperatures.
Upper and lower cooktimes.
Clock settings.
Timer settings (If using this feature).



DZ33 and DZ55 Non-MenuSelect Heat Zones
Figure 3-6

3. Programming the DZ33 and DZ55 Ovens

NOTE: *Programming the DZ33II and DZ55II non-MenuSelect control oven is explained separately on Page 60.*

NOTE: *Most export ovens MCP's are programmed in Centigrade (°C). All programming of Centigrade oven keypads must be done in °C. All the examples in this section must be programmed in °C if you are programming an export oven.*

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

NOTE: *This exercise assumes first time start after installation. Programming from factory is 200°F (93°C) temperature settings and 10 minute cooktimes.*

a. Turn Oven ON

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

2. Turn ON the POWER circuit breaker(s) at the left of the bottom electrical panel. You will hear an audible BEEP signal. Display will read "Oven Off".

3. Place the key into the slot in the control board just below the keypad faceplate and turn it to the vertical position.

4. Press ON/OFF switch to ON position. You are now ready to proceed with programming.

b. Set Upper Deck Temperatures

(Allowable range: 200°F [93°C] to 900°F [482°C])
Example: Set left hand and right hand zone top and bottom temperatures for both decks to 565°F.
NOTE: *Refer to Figure 3-6*

Step	Press Key	Display Reads
1	[UPPER DECK TEMP]	"Up Lh 200/200F"
		Upper Deck; Left Hand Zone; Top Temperature; Cursor Flashing - Top temperature can be set; Bottom Temperature
		This means upper deck, left hand zone top/bottom temperatures. A cursor is beneath the third digit which is flashing; indicates top temperature can be set.
2	[5] [6] [5]	"Up Lh 565/200F"
3	[ENTER]	"Up Lh 565/200F" The cursor has now moved under the sixth digit which is flashing; indicates bottom temperature can be set.
4	[5] [6] [5]	"Up Lh 565/565F"

5	[ENTER]	"Up Rh 200/200F" This means upper deck, right hand zone top/bottom temperatures. The cursor is again beneath the third digit which is flashing; indicates top temperature can be set.
6	[5] [6] [5]	"Up Rh 565/200F"
7	[ENTER]	"Up Rh 565/200F" The cursor has now moved beneath the sixth digit which is flashing; indicates, bottom temperature can be set.
8	[5] [6] [5]	"Up Rh 565/565F"
9	[ENTER]	"Upper Dk Heating"

You have set the upper deck left and right hand zone top and bottom temperatures to 565°F (296°C).

c. Set Lower Deck Temperatures

Step	Press Key	Display Reads
1	[LOWER DECK TEMP]	"Lo Lh 200/200F"
2	[5] [6] [5]	"Lo Lh 565/200F"
3	[ENTER]	"Lo Lh 565/200F"
4	[5] [6] [5]	"Lo Lh 565/565F"
5	[ENTER]	"Lo Rh 200/200F"
6	[5] [6] [5]	"Lo Rh 565/200F"
7	[ENTER]	"Lo Rh 565/200F"
8	[5] [6] [5]	"Lo Rh 565/565F"
9	[ENTER]	"Lower Dk Heating"

d. Set BOTH Upper Deck and Lower Deck Cooktimes

NOTE: *When setting cooktime you are setting the speed of the conveyor.*

Allowable range 1.0 to 240.0 minutes (DZ 33) and 1.5 to 240.0 minutes (DZ 55).

Cooktime is set and displayed in whole minutes and tenths of minutes (0.1 minute = 6 seconds)

Example: Set upper deck cooktime to 6.3 minutes and lower deck cooktime to 6.3 minutes.

Step	Press Key	Display Reads
		Status Display
1	[COOKTIME]	"Up Ck Time 10.0"
2	[6] [3]	"Up Ck Time 6.3"
3	[ENTER]	"Lo Ck Time 10.0

You have set upper deck cooktime to 6.3 minutes.

4	[6] [3]	"Lo Ck Time 6.3"
5	[ENTER]	Exits to Status Display

Both decks of the oven are now set the same. Top and bottom temperatures for the left hand and right hand zones of both upper and lower decks are set at 565°F (296°C). Cooktime for both decks is set at 6.3 minutes. To change these settings you must repeat the preceding steps using desired settings in place of the examples.

e. Set ONLY Upper Deck Cooktime

NOTE: *When setting cooktime you are setting the speed of the conveyor.*

Allowable range 1.0 to 240.0 minutes (DZ 33) and 1.5 to 240.0 minutes (DZ 55).

Cooktime is set and displayed in whole minutes and tenths of minutes (0.1 minute = 6 seconds)

Example: Set upper deck cooktime to 6.3 minutes.

Step	Press Key	Display Reads
		Status Display
1	[COOKTIME]	"Up Ck Time 10.0"
2	[6] [3]	"Up Ck Time 6.3"
3	[ENTER] [ENTER]	Exits to Status Display

You have set upper deck cooktime to 6.3 minutes.

f. Set ONLY Lower Deck Cooktime

NOTE: *When setting cooktime you are setting the speed of the conveyor.*

Example: Set lower deck cooktime to 6.3 minutes.

Step	Press Key	Display Reads
		Status Display
1	[COOKTIME] [COOKTIME]	"Lo Ck Time 10.0"
2	[6] [3]	"Lo Ck Time 6.3"
3	[ENTER] [ENTER]	Exits to Status Display

Both decks of the oven are now set the same. Top and bottom temperatures for the left hand and right hand zones of both upper and lower decks are set at 565°F (296°C). Cooktime for both decks is set at 6.3 minutes. To change these settings you must repeat the preceding steps using desired settings in place of the examples.

g. Set the Clock

The clock contains the hour, minute and day of the week. It should be set accurately to assure proper operation of the oven.

Example: Set the clock to 9:15 p.m. Wednesday.

Step	Press Key	Display Reads
1	[FEATURE]	"Set Feature 0"
2	[7 (CLOCK)]	"Set Feature 7"
3	[ENTER]	"Time now: 00:00 a.m."
4	[9] [1] [5]	"Time now: 9:15 a.m."
5	[AM/PM]	"Time now: 9:15 p.m."
6	[ENTER]	"Day: "
7	[3 (WED)]	"Day: Wednesday"
8	[ENTER]	Exits to status display

h. 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.

Example: Set the oven to turn ON at 8:00 a.m. and turn OFF at 5:00 p.m. on Monday.

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[3 (TIMER)]	"Set Feature 3"
3	[ENTER]	"What Day? "
4	[1 (MON)]	"On MON 0:00 a.m."
5	[8] [0] [0]	"On MON 8:00 a.m."

The oven will be turned ON on Monday at 8:00 a.m.

6	[ENTER]	"Off MON 0:00 a.m."
7	[5] [0] [0]	"Off MON 5:00 a.m."
8	[AM/PM]	"Off MON 5:00 p.m."
9	[ENTER]	"What Day? "

The oven will be turned OFF on Monday at 5:00 p.m.

The oven is now set to turn ON at 8:00 a.m. and OFF at 5:00 p.m. on Mondays. You are now ready to proceed to Tuesday. In order to set automatic ON/OFF times for Tuesday through Sunday you must repeat Steps 4 through 11 for each day. Be sure to press the appropriate keypad for each succeeding day in Step 4.

Different times can be set for each day simply by pressing the appropriate digits in Steps 5 and 7 for the times desired.

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 it to come ON for one minute only.

After setting ON/OFF times for Sunday you will press [ENTER] then [ENTER] again as the last step. This will exit the timer setting mode and return to the operational status display.

The oven is now programmed for automatic timing. **DO NOT** use the ON/OFF switch to turn the oven ON and OFF. 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 one ON and OFF cycle per 24 hour day, midnight to midnight. When choosing your ON and OFF times use the following chart. When you plot your chosen times you will know immediately if there is a time conflict. It also provides reference while you are setting the timer.

		Midnight											Noon											Midnight
		AM											PM											
Key	Day	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	11:59
[1]	Monday									*8:00-ON													*9:00-OFF		
[2]	Tuesday																									
[3]	Wednesday																									
[4]	Thursday																									
[5]	Friday																									
[6]	Saturday																									
[7]	Sunday																									

*Example ONLY.

IMPORTANT: OFF times cannot fall into the AM hours of the next day. When you complete the chart be sure you have only two times (one ON and one OFF) per day. Re-adjust schedule if necessary.

If you choose not to use the automatic timing feature you must turn the oven ON and OFF manually using the ON/OFF switch on the control panel. To be sure the timing feature does not affect the oven during normal operation you must go through the timer setting procedure for each day and clear all time data. In effect you are skipping all seven days.

i. Force Out of Automatic Timing

The FORCE feature allows you to bypass the automatic "Timing" mode and run the oven without changing the programmed timer settings.

Example:

Step	Press Key	Display Reads
		"Timing"
1	[FEATURE]	"Set Feature 0"
2	[9 (FORCE)]	"Set Feature 9"
3	[ENTER]	Exits to Status Display

To return the oven to the automatic "Timing" mode, press ON/OFF switch to OFF then ON.

j. Put Oven in Standby Mode

This feature allows one or both decks to be put into an energy conserving standby mode which reduces the temperature of the deck(s) by 25%.

Example: Set both decks to "standby".

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[5 (STANDBY)]	"Set Feature 5"
3	[ENTER]	Exits to Status Display which shows both decks in "standby".

Example: Set upper deck to "standby".

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[5 (STANDBY)]	"Set Feature 5"
3	[1 (UPPER)]	"Set Feature 51"
4	[ENTER]	Exits to Status Display which shows upper deck in "standby".

Example: Set lower deck to "standby".

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[5 (STANDBY)]	"Set Feature 5"
3	[2 (LOWER)]	"Set Feature 52"
4	[ENTER]	Exits to Status Display which shows lower deck in "standby".

k. Resume Normal Operation From Standby

This feature is used to return one or both decks to normal operation from the "standby" mode.

Example: Resume normal operation of <u>both</u> decks:

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[6 (RESUME)]	"Set Feature 6"
3	[ENTER]	Exits to Status Display which shows both decks in normal operation.

Example: Resume normal operation of upper deck:

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[6 (RESUME)]	"Set Feature 6"
3	[1 (UPPER)	"Set Feature 61"
4	[ENTER]	Exits to Status Display which shows upper deck in normal operation.

Example: Resume normal operation of lower deck:

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[6 (RESUME)]	"Set Feature 6"
3	[2 (LOWER))	"Set Feature 62"
4	[ENTER]	Exits to Status Display which shows lower deck in normal operation.

I. Turn upper deck only heat OFF and back ON.

Used to turn heat OFF and ON in upper deck only without affecting the conveyor belt or the lower deck.

Example: Turn upper deck only heat OFF.

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[1 (UPPER)]	"Set Feature 1"
3	[ENTER]	"Upper deck off"
		Exits to Status Display which shows upper deck OFF.

NOTE: *This turns OFF the upper deck heating elements only. If the lower deck has already been turned OFF, "INVALID SETUP" will appear on display. The conveyor will continue to operate. For this reason it is important to note and remember which deck has been turned OFF.*

Example: Turn upper deck heat back ON.

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[1 (UPPER)]	"Set Feature 1"
3	[ENTER]	"Upper deck on"
		Exits to Status Display

m. Turn lower deck only heat OFF and back ON.

Used to turn heat OFF and ON in lower deck only without affecting the conveyor belt or the upper deck.

Example: Turn lower deck only heat OFF.

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[2 (LOWER)]	"Set Feature 2"
3	[ENTER]	"Lower deck off"
		Exits to Status Display which shows lower deck OFF.

NOTE: *This turns OFF the lower deck heating elements only. If the upper deck has already been turned OFF, "INVALID SETUP" will appear on display. The conveyor will continue to operate. For this reason it is important to note and remember which deck has been turned OFF.*

Example: Turn lower deck heat back ON.

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[2 (LOWER)]	"Set Feature 2"
3	[ENTER]	"Lower deck on"
		Exits to Status Display

n. Self-Cleaning Cycle

The CLEAN feature is used to place both decks of the oven into self-cleaning. When activated the decks will heat to 900°F (482°C). for one hour. At the end of the cycle the decks will automatically return to the operational state that preceded the "clean" cycle. IF oven(s) are programmed to shut OFF (timing Mode) during the CLEAN cycle the CLEAN Mode will override program and continue at 900°F (482°C) for the full 60 minutes. Oven will then shut OFF in Timing Mode.

Example: Start the Self-Cleaning Cycle

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[4 (CLEAN)]	"Set Feature 4"
3	[ENTER]	"Decks cleaning"
		This will be displayed during the cleaning cycle. At the end of the cleaning cycle it will exit to the Status Display or "Timing".

Example: Interrupt the Self-Cleaning Cycle

The self-cleaning cycle can be interrupted using the ON/OFF switch.

Step	Press Key	Display Reads
		"Decks Cleaning"
1	[OFF]	"Oven off"
2	[ON]	Exits to Status Display or "Timing"

NOTE: *One deck can be cleaned individually by turning the other deck OFF prior to initiating the cleaning cycle.*

4. Programming the DZ33II and DZ55II Non-MenuSelect Control Oven

NOTE: *The following is only for DZ33II and DZ55II programming.*

The DZ33II and DZ55II Ovens contain two controllers. The Upper Deck is controlled by one controller and the Lower Deck is controlled by the other controller.

The controllers control all functions of the oven. To operate the oven you must know how to program the controllers. The following pages contain a step by step "hands on" programming exercise. We invite you to actually program your oven by following the examples.

NOTE: *This exercise assumes first time start after installation. Programming from factory is 200°F (93°C) temperature settings and 10 minute cooktimes.*

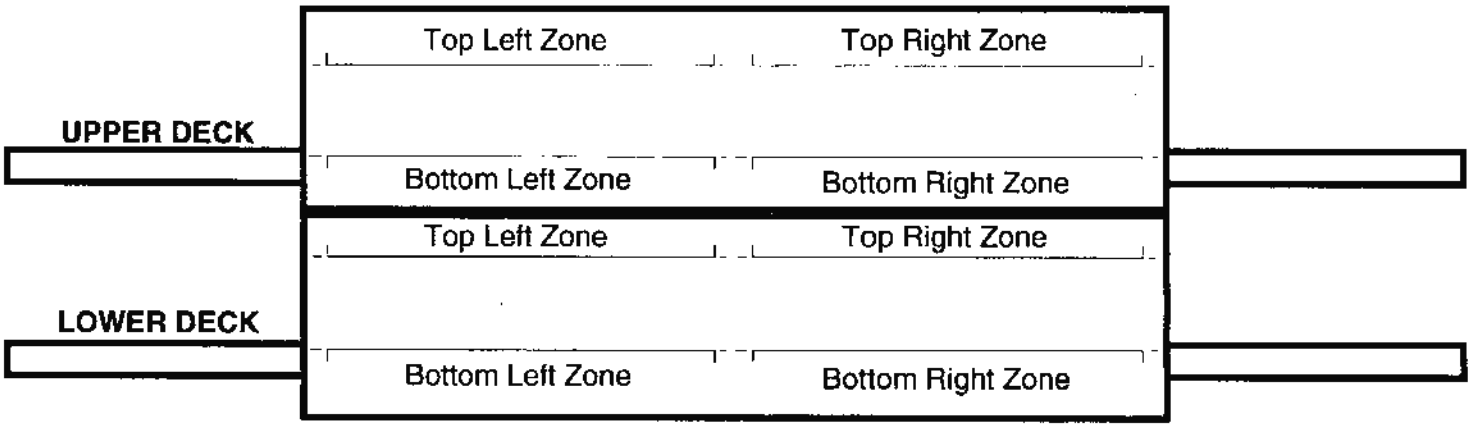
a. Turn Oven ON

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

2. Turn ON the POWER circuit breaker(s) at the left of the bottom electrical panel. You will hear an audible BEEP signal. Display will read "Oven Off".

3. Place the key into the slot in the control board just below the keypad faceplate and turn it to the vertical position.

4. Press ON/OFF switch to ON position. You are now ready to proceed with programming.



DZ33II and DZ55II Non-MenuSelect Heat Zones
Figure 3-7

b. Set the Oven into the Multi-Zone Mode

Example: To check what mode the oven is in and then change to the Multi-Zone if necessary.

Step	Press Key	Display Reads
1	[FEATURE]	
2	[8/Zone]	
3	[ENTER]	"Multi-Zone" or "Top-Bot Mode"

- If the display reads "Multi-Zone" you can continue on to "3. Setting Temperatures in all four zones (Multi-Zone)".
- If the display reads "Top-Bot Mode" you can change it to "Multi-Zone" by:

4	[FEATURE]	
5	[8/Zone]	
6	[ENTER]	"Multi-Zone"

c. Setting Temperature in all Four Zones (Multi-Zone)

Example: Set zones for - Top Left 600°F, Top Right 650°F, Bottom Left 500°F, Bottom Right 550°F.

Step	Press Key	Display Reads
NOTE: *Refer to Figure 3-7*		
1	[TOP TEMP]	"Top Left 200°F"
2	[6] [0] [0]	"Top Left 600°F"
3	[ENTER]	"Top Right 200°F"

"Heating" will be displayed if the oven chamber temperature is below the new set temperature. "Cooling" will be displayed if the oven chamber temperature is above the new set temperature.

4	[6] [5] [0]	"Top Right 650°F"
5	[ENTER]	"Heating" or "Cooling"
6	[Bot TEMP]	"Bot Left 200°F"
7	[5] [0] [0]	"Bot Left 500°F"
8	[ENTER]	"Bot Right 200°F"
9	[5] [5] [0]	"Bot Right 550°F"
10	[ENTER]	"Heating" or "Cooling"

d. Setting the Oven into the Top-Bottom Mode

Example: To check what mode the oven is in and then change to the Top-Bot mode if necessary.

Step	Press Key	Display Reads
1	[FEATURE]	
2	[8/Zone]	
3	[ENTER]	"Multi-Zone" or "Top-Bot Mode"

- If the display reads "Top-Bot Mode" you can continue on to "5. Setting Temperatures in Top-Bot Mode".

- If the display reads "Multi-Zone" you can change it to "Top-Bot Mode" by:

4	[FEATURE]	
5	[8/Zone]	
6	[ENTER]	"TOP-bot Mode"

NOTE: *At this point the display may read "Zones Unequal". This means the zones were previously programmed in "Multi-Zone". To correct this follow the procedure below to set the Top-bottom Temperatures.*

e. Setting temperatures in TOP-BOTTOM Zones.

Example: Set zones for - Top Zone 600°F, Bottom Zone 500°F.

Step	Press Key	Display Reads
1	[TOP TEMP]	"Top Temp 200°F"
2	[6] [0] [0]	"Top Temp 600°F
3	[ENTER]	"Heating" or "Cooling"
4	[Bot Temp]	"Bot Temp 200°F"
5	[5] [0] [0]	"Bot Temp 500°F"
6	[ENTER]	"Heating" or "Cooling"

f. Setting the Cooktime (in any mode: Multi-zone or Top-Bot).

Example: From XX.X minutes to 6.3 minutes.

Step	Press Key	Display Reads
1	[COOKTIME]	"XX.X min"
2	[6] [3]	"6.3 min"
3	[ENTER]	"Heating", "Ready", or "Cooling"

g. Set the Clock

The clock contains the hour, minute and day of the week. It should be set accurately to assure proper operation of the oven.

Example: Set the clock to 9:15 p.m. Wednesday.

Step	Press Key	Display Reads
1	[FEATURE]	"Set Feature 0"
2	[7 (CLOCK)]	"Set Feature 7"
3	[ENTER]	"Time now: 00:00 a.m."
4	[9] [1] [5]	"Time now: 9:15 a.m."
5	[AM/PM]	"Time now: 9:15 p.m."
6	[ENTER]	"Day: "
7	[3 (WED)]	"Day: Wednesday"
8	[ENTER]	Exits to status display

h. 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.

Example: Set the oven to turn ON at 8:00 a.m. and turn OFF at 5:00 p.m. on Monday.

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[3 (TIMER)]	"Set Feature 3"
3	[ENTER]	"What Day? "
4	[1 (MON)]	"On MON 0:00 a.m."
5	[8] [0] [0]	"On MON 8:00 a.m."

The oven will be turned ON on Monday at 8:00 a.m.

6	[ENTER]	"Off MON 0:00 a.m."
7	[5] [0] [0]	"Off MON 5:00 a.m."
8	[AM/PM]	"Off MON 5:00 p.m."
9	[ENTER]	"What Day? "

The oven will be turned OFF on Monday at 5:00 p.m.

The oven is now set to turn ON at 8:00 a.m. and OFF at 5:00 p.m. on Mondays. You are now ready to proceed to Tuesday. In order to set automatic ON/OFF times for Tuesday through Sunday you must repeat Steps 4 through 11 for each day. Be sure to press the appropriate keypad for each succeeding day in Step 4.

Different times can be set for each day simply by pressing the appropriate digits in Steps 5 and 7 for the times desired.

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 it to come ON for one minute only.*

After setting ON/OFF times for Sunday you will press [ENTER], then [ENTER] again as the last step. This will exit the timer setting mode and return to the operational status display.

The oven is now programmed for automatic timing. **DO NOT** use the ON/OFF switch to turn the oven ON and OFF. 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 one ON and OFF cycle per 24 hour day, midnight to midnight. When choosing your ON and OFF times use the following chart. When you plot your chosen times you will know immediately if there is a time conflict. It also provides reference while you are setting the timer.

		Midnight											Noon											Midnight
		AM											PM											
Key	Day	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	11:59
[1]	Monday									*8:00-ON													*9:00-OFF		
[2]	Tuesday																									
[3]	Wednesday																									
[4]	Thursday																									
[5]	Friday																									
[6]	Saturday																									
[7]	Sunday																									

*Example ONLY.

IMPORTANT: OFF times cannot fall into the AM hours of the next day. When you complete the chart be sure you have only two times (one ON and one OFF) per day. Re-adjust schedule if necessary.

If you choose not to use the automatic timing feature you must turn the oven ON and OFF manually using the ON/OFF switch on the control panel. To be sure the timing feature does not affect the oven during normal operation you must go through the timer setting procedure for each day and clear all time data. In effect you are skipping all seven days.

i. Force Out of Automatic Timing

The FORCE feature allows you to remove the oven from the automatic "Timing" mode and run it without changing the timer settings.

Example:

Step	Press Key	Display Reads
		"Timing"
1	[FEATURE]	"Set Feature 0"
2	[9 (FORCE)]	"Set Feature 9"
3	[ENTER]	Exits to Status Display

NOTE: *These steps can also be used to force out of automatic cleaning.*

To return the oven to the automatic "Timing" mode, press ON/OFF switch to OFF then ON.

j. Put Oven in Standby Mode

This feature allows one or both decks to be put into an energy conserving standby mode which reduces the temperature of the deck(s) by 25%.

Example: Set top or bottom deck to "standby".

NOTE: *Use the keypad of the deck you want to put in "standby".*

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[5 (STANDBY)]	"Set Feature 5"
3	[ENTER]	Exits to Status Display which shows deck in "standby".

k. Resume Normal Operation From Standby

This feature is used to return a deck to normal operation from the "standby" mode.

Example: Resume normal operation of deck.

NOTE: *Use the keypad of the deck you want to return to Normal Operation.*

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[6 (RESUME)]	"Set Feature 6"
3	[ENTER]	Exits to Status Display which shows deck in normal operation.

I. Self-Cleaning Cycle

The CLEAN feature is used to place a deck of the oven into self-cleaning. When activated the deck will heat to 900°F (482°C) for one hour. At the end of the cycle the deck will automatically return to the operational state that preceded the "clean" cycle. IF oven(s) are programmed to shut OFF (timing Mode) during the CLEAN cycle the CLEAN Mode will override program and continue at 900°F (482°C) for the full 60 minutes. Oven will then shut OFF in Timing Mode.

Example: Start the Self-Cleaning Cycle

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[4 (CLEAN)]	"Set Feature 4"
3	[ENTER]	"Cleaning" This will be displayed during the cleaning cycle. At the end of the cleaning cycle it will exit to the Status Display or "Timing".

Example: Interrupt the Self-Cleaning Cycle

The self-cleaning cycle can be interrupted using the ON/OFF switch or the steps below.

Step	Press Key	Display Reads
		"Cleaning"
1	[FEATURE]	"Set Feature"
2	[9/Force On]	"Set Feature 9"
3	[ENTER]	"Cooling" Display will read "Cooling" until temperature falls back to ± 30°F (±16°C) of set temperature and then the display will read "Ready".

D. Cooking in a CTX Oven

Before you begin to cook with your new oven you must understand the differences between cooking in it and cooking in more conventional ovens. You will produce better results if you understand the technology and follow the "rules".

1. Infrared Cooking Technology

The technology of infrared cooking used in the CTX Gemini series ovens was first introduced by CTX in 1969. Each deck is fitted with patented infrared emitting heat panels (heating elements). These elements form the top and bottom surfaces of each oven chamber. DZ33II and DZ 33 has two elements at the top and two at the bottom of each deck, a total of eight elements per unit. DZ55II and DZ 55 have four elements at top and bottom of each deck totaling sixteen elements per unit.

These elements emit infrared "longwaves" which are absorbed by almost all matter in varying degrees. Absorption of these waves by an object causes molecular agitation which causes friction which generates heat. In this instance the object is food and the heat generated is used to cook the food. Infrared waves penetrate the outer surfaces of the food where they are absorbed by virtually all ingredients plus the container in which the food is placed. As a result, food cooks from the outside toward the center in very traditional fashion.

Infrared waves, unlike conventional heat sources, do not heat the air through which they pass, nor do they create any air currents in the oven chamber to dry out the food product. If there is no food product in the oven the infrared waves are absorbed by the heating elements located opposite. These unique properties translate into less food waste, a more moist product and excellent energy efficiency.

2. Heat Zoning

Each oven chamber (deck) is divided into 4 zones. The controller accurately controls zone temperatures and cooking times for each chamber (deck).

Individually controlled heat zones, top and bottom directional heat intensity and accurate cook times (conveyor speed) mean the food product can be cooked according to its specific cooking profile. Very moist product will usually take a higher entrance zone temperature and a lower exit zone temperature. Conversely, drier surface foods or partially cooked products usually require a lower entrance zone temperature and a higher exit zone temperature.

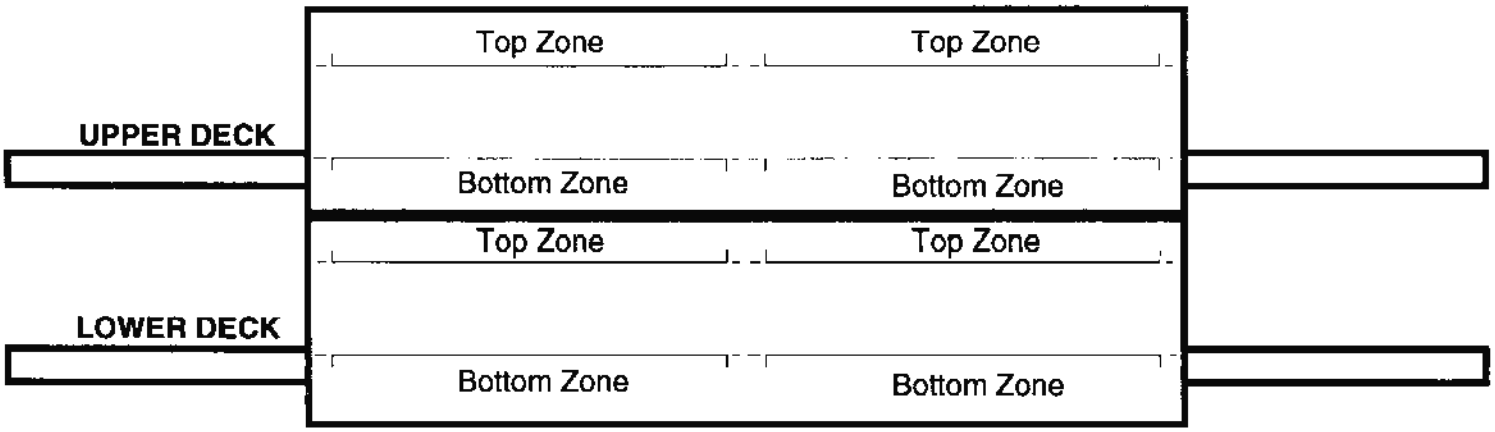


Figure 3-8
Heat Zones

3. Temperature Setting Variations

With very few exceptions temperature variation between entrance and exit zones should not exceed 100°F (38°C). Variation between top and bottom temperatures within a zone should not exceed 75°F (24°C). Greater variations between top and bottom heat will result in the lower temperature element being heated by the higher temperature element. This will result in incorrect temperature sensing and may cause inconsistent cooking results.

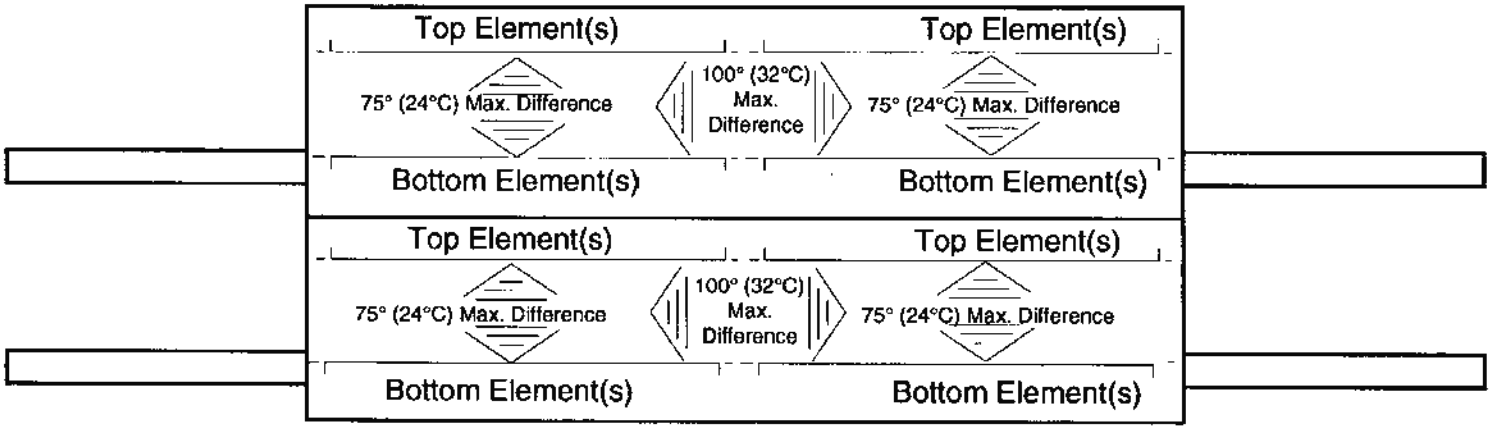


Figure 3-9
Temperature Variations

4. General "Rules of Thumb"

Cooking in a CTX Gemini infrared conveyor oven is different than cooking in any other type of oven including microwave ovens. Because of these differences there are some "rules" that must be considered.

a. Leavening Agents

Products with a biological leavening agent (yeast) can take a higher entrance zone temperature while products with a chemical leavening agent (baking powder) require a lower entrance zone temperature.

b. Continuous "Flow" Operation

CTX ovens perform best in a continuous type of operating environment. They are not well suited to a batch type operation. Greatest efficiency is attained when as many steps as possible in the operation are put into a continuous "flow" pattern.

c. Pans

The type of vessel used to hold the food has a bearing on cooking time and consistency of results.

1. Pans with a dull black finish absorb maximum infrared heat. Product cooks faster in dull black pans than in shiny silver ones.

2. Heavier (thicker gauge) pans cook more evenly. They heat slower but hold their heat longer.

   Lighter (thinner gauge pans transfer heat faster but less evenly. They also cool faster.

d. Product

Best results are obtained when product entering the oven is consistent.

1. Food portions entering the oven should all be approximately the same temperature. When food portions entering the oven vary in temperature, the temperature of those portions coming out of the oven, though cooked, will also vary.

2. Product size should be the same. If product is 1/2" thick one time and 3/4" thick the next, cooking results will be different.

3. Product loading density also affects results. If portion size and pan size are the same, two portions per pan will cook differently than ten portions per pan.

e. Cooking Temperatures

Because infrared waves do not heat the air in the oven chamber the temperature settings and readings are surface temperatures of the infrared heat panels themselves. For this reason temperature settings will be higher than those for a conventional oven.

Type of Product	Conventional Oven	CTX Oven
Bakery Products	300° - 350°F (149° - 176°C)	450° - 550°F (232° - 287°C))
Pizza, Casseroles, Flat Meats, etc.	350° - 450°F (176° - 260°C)	600° - 750°F (315° - 398°C)
Broiled Fish, Steaks, etc.	500° - 550°F (260° - 287°C)	750° - 850°F (398° - 454°C)

5. 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. The following table provides average time and temperature settings for a wide variety of products. We recommend they be used as beginning set points for your tests. Please note that two sets of times and temperatures are given; one set for model DZ33II Series ovens and one set for model DZ55II Series ovens. Be sure to use the appropriate settings for your oven model.

Testing can be completed easier and faster and with less confusion if you keep accurate records of each test. To assist you we have included a sample product test form that you can copy.

Choose your first product for test and look it up in the table on the following pages. Now program the oven with the temperatures and cooktimes shown.

NOTE: *If you are starting the oven from "cold" please allow 45 minutes heat up time. The elements cycle after approximately 15 minutes, however, additional time is needed for the oven chamber(s) 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. Be sure to document each test in the "Product Test Record" below so you can ultimately produce a cooking chart for your specific items.

PRODUCT TEST RECORD

Product:_____

Oven Model Number:_____Date:_____

Data	Test No.1	2	3	4	5	6
Entrance Zone Temperatures Top/Bottom	___/___	___/___	___/___	___/___	___/___	___/___
Exit Zone Temperatures Top/Bottom	___/___	___/___	___/___	___/___	___/___	___/___
Cook Time						
Product State (Frozen, raw, refrigerated, etc.)						
Product Weight (Oz.)						
Container Type						
Container Size						
Internal Temperature (Start)						
Internal Temperature (Finish)						
Comments						

6. Time and Temperature Guide

Product	Zone Temperatures: Model DZ33II Series Ovens, Entrance Top/Bott	Zone Temperatures: Model DZ33II Series Ovens, Exit Top/Bott	Zone Temperatures: Model DZ55II Series Ovens, Entrance Top/Bott	Zone Temperatures: Model DZ55II Series Ovens, Exit Top/Bot	Cook Time (Min.)	Pan Type and Size	Amount (Weight) or Count)	State
Appetizers								
Nachos	850/850°F 454/454°C	750/750°F 398/398°C	750/750°F 398/398/°C	650/650°F 343/343°C	3.0	Alum. 10"	10 oz.	Fresh
Oysters Rockefeller	900/900°F 482/482°C	850/850°F 454/454°C	850/850°F 454/454°C	750/750°F 398/398°C	4.0	Alum.	6-8	Fresh
Potato Skins	850/850°F 454/454°C	750/750°F 398/398°C	750/750°F 398/398°C	650/650°F 343/343°C	3.0	Alum. 10"	10 oz.	Fresh
Rumaki	850/850°F 454/454°C	750/750°F 398/398°C	750/750°F 398/398°C	650/650°F 343/343°C	6.0	Alum.	6-8	Fresh
Seafood Kabob	900/900°F 482/482°C	850/850°F 454/454°C	850/850°F 454/454°C	750/750°F 398/398°C	6.0	Alum. 6"	4-6 oz.	Fresh
Baked Goods								
Bagels	750/750°F 398/398°C	650/650°F 343/343°C	650/650°F 343/343°C	550/550°F 287/287°C	8.0	Wire Mesh	3 oz.	Fresh
Bread Sticks	850/850°F 454/454°C	750/750°F 398/398°C	750/750°F 398/398°C	650/650°F 343/343°C	6.0	Alum. 1/2 size	2 oz.	Fresh
Brown & Serve Rolls	700/700°F 370/370°C	600/600°F 315/315°C	600/600°F 315/315°C	500/500°F 260/260°C	4.0	Alum.	1 oz.	Thawed
Corn Bread	600/600°F 315/315°C	750/700°F 398/370°C	500/500°F 260/260°C	650/650°F 343/343°C	15.0	Alum. 1/2 size	2-1/2 lbs.	Fresh
Dinner Rolls	700/700°F 370/370°C	600/600°F 315/315°C	600/600°F 315/315°C	500/500°F 260/260°C	8.0	Alum. 1/2 size	3 oz.	Fresh
Fresh Bread	700/700°F 370/370°C	600/600°F 315/315°C	600/600°F 315/315°C	500/500°F 260/260°C	10.0	Alum. 1/2 Sheet	1 lb.	Fresh
Garlic Bread	900/900°F 482/482°C	800/800°F 426/426°C	800/800°F 426/426°C	700/700°F 370/370°C	2.0	Alum. 1/2 size	1 lb.	Fresh
Muffins	600/600°F 315/315°C	750/700°F 398/398°C	500/500°F 260/260°C	650/650°F 343/343°C	15.0	Dark Alum.	3 oz.	Fresh
Popovers	550/550°F 287/287°C	650/650°F 343/343°C	450/450°F 232/232°C	550/550°F 287/287°C	30.0	Dark Alum.	3 oz.	Fresh
Soft Pretzels	800/800°F 426/426°C	700/700°F 370/370°C	700/700°F 370/370°C	600/600°F 315/315°C	8.0	Alum. 1/2 size	2 oz.	Fresh
Toast	900/900°F 482/482°C	800/800°F 426/426°C	800/800°F 426/426°C	700/700°F 370/370°C	2.0	None	Slice	Fresh
Beef								
Beef Ribs (Finish)	900/850°F 482/454°C	900/850°F 482/454°C	850/750°F 454/398°C	850/750°F 454/398°C	8.0	Alum. 1/2 size	8 ribs	Precooked
Hamburger 4/1	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	4.0	Alum. 1/2 size	4 oz.	Fresh
Hamburger 4/1	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	6.6	Alum. 1/2 size	4 oz.	Frozen
Hamburger 2/1	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	10.0	Stainless	8 oz.	Fresh
Liver & Onions	850/850°F 454/454°C	750/750°F 398/398°C	750/750°F 398/398°C	650/650°F 343/343°C	10.0	Alum. 1/2 size	4 oz.	Fresh
Meatballs	900/900°F 482/482°C	800/800°F 426/426°C	800/800°F 426/426°C	700/700°F 370/370°C	8.0	Alum. 1/2 size	2 oz.	Refrig.
Rib Eye Steak	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	8.0	Stainless 4 x 7	10 oz.	Fresh
Salisbury Steak	900/900°F 482/482°C	800/800°F 426/426°C	800/800°F 426/426°C	700/700°F 370/370°C	6.0	Alum. 1.2 size	4 oz.	Fresh
Strip Steak	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	8.0	Stainless 4 x 7	8 oz.	Fresh
Strip Steak	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	10.0	Stainless 4 x 7	12 oz.	Fresh
Tenderloin, Whole	850/850°F 454/454°C	750/750°F 398/398°C	750/750°F 398/398°C	650/650°F 343/343°C	15.0	Alum. 1/2 size	4 lb.	Fresh

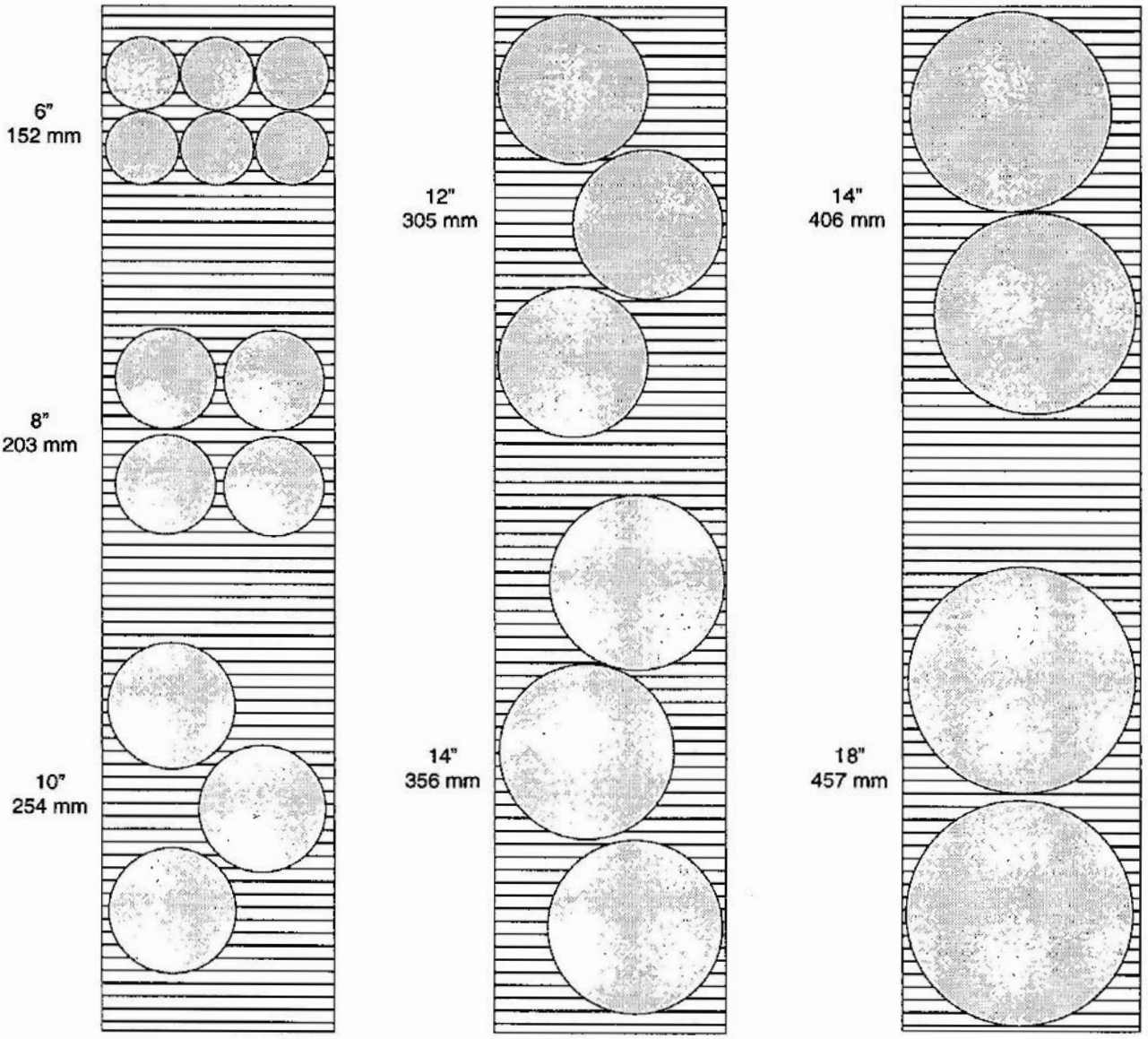
Product	Zone Temperatures: Model DZ33II Series Ovens Entrance Top/Bott	Zone Temperatures: Model DZ33II Series Ovens Exit Top/Bott	Zone Temperatures: Model DZ55II Series Ovens Entrance Top/Bott	Zone Temperatures: Model DZ55II Series Ovens Exit Top/Bot	Cook Time (Min.	Pan Type and Size	Amount (Weight) or Count)	State
Breakfast Foods								
Bacon	900/900°F 482/482°C	800/800°F 426/426°C	800/800°F 426/426°C	700/700°F 370/370°C	6.0	Alum. w/Rack	1 lb.	Refrig.
Biscuits	800/800°F 426/426°C	700/700°F 370/370°C	700/700°F 370/370°C	600/600°F 315/315°C	8.0	Alum. 1/2 size	3 lb.	Fresh
Egg Patty	750/750°F 398/398°C	650/650°F 343/343°C	650/650°F 343/343°C	550/550°F 287/287°C	4.0	Alum. 5 "	2 eggs	Fresh
Fried Eggs	750/750°F 398/398°C	650/650°F 343/343°C	650/650°F 343/343°C	550/550°F 287/287°C	4.0	Alum. 5 "	2 eggs	Fresh
Puffy Omelet	750/750°F 398/398°C	650/650°F 343/343°C	650/650°F 343/343°C	550/550°F 287/287°C	8.0	Alum. Skillet 9 "	6 oz.	Fresh
Quiche	700/700°F 370/370°C	600/600°F 315/315°C	600/600°F 315/315°C	500/500°F 260/260°C	25.0	Dk. Alum. Pie	24 oz.	Fresh
Sausage, Link	900/900°F 482/482°C	800/800°F 426/426°C	800/800°F 426/426°C	700/700°F 370/370°C	6.0	Alum. 1/2 size	1-1/2 oz.	Refrig.
Sausage, Patty	900/900°F 482/482°C	800/800°F 426/426°C	800/800°F 426/426°C	700/700°F 370/370°C	4.0	Alum. 1/2 size	1-1/2 oz.	Refrig.
Casseroles								
Enchiladas	900/900°F 482/482°C	800/800°F 426/426°C	800/800°F 426/426°C	700/700°F 370/370°C	8.0	Oven China	12 oz.	Refrig.
Lasagna	850/850°F 454/454°C	750/750°F 398/398°C	750/750°F 398/398°C	650/650°F 343/343°C	12.0	Oven China	12 oz.	Refrig.
Macaroni & Cheese	700/700°F 370/370°C	600/600°F 315/315°C	600/600°F 315/315°C	500/500°F 260/260°C	25.0	Stainless 12 x 20	5 lb.	Refrig.
Pasta & Sauce	850/850°F 454/457°C	750/750°F 398/398°C	750/750°F 398/398°C	650/650°F 343/343°C	8.0	Oven China	12 oz.	Refrig.
Cookies								
Bar Cookies	650/650°F 343/343°C	600/600°F 315/315°C	550/550°F 287/287°C	500/500°F 260/260°C	10.0	Alum. 1/2 size	1 lb.	Fresh
Brownies	700/700°F 370/370°C	600/600°F 315/315°C	600/600°F 315/315°C	500/500°F 260/260°C	15.0	Alum. 1/2 size	3-1/2 lb.	Fresh
Chocolate Chip	650/650°F 343/343°C	600/600°F 315/315°C	550/550°F 287/287°C	500/500°F 260/260°C	7.0	Alum. 1/2 size	3/4 oz.	Fresh
Chocolate Chip	650/650°F 343/343°C	600/600°F 315/315°C	550/550°F 287/287°C	500/500°F 260/260°C	8.0	Alum. 1/2 size	1/2 oz.	Fresh
Macaroons	650/650°F 343/343°C	600/600°F 315/315°C	550/550°F 287/287°C	500/500°F 260/260°C	15.0	Alum. 1/2 size	1 oz.	Fresh
Oatmeal	650/650°F 343/343°C	600/600°F 315/315°C	550/550°F 287/287°C	500/500°F 260/260°C	7.0	Alum. 1/2 size	1-1/2 oz.	Fresh
Desserts								
Baked Apple	700/700°F 370/370°C	600/600°F 315/315°C	600/600°F 315/315°C	500/500°F 260/260°C	25.0	Stainless 12 x 20	12 apples	Fresh
Baked Custard	700/700°F 370/370°C	600/600°F 315/315°C	600/600°F 315/315°C	500/500°F 260/260°C	25.0	Custard Dish in 1/2 size pan	4 oz.	Fresh
Cream Puffs	550/550°F 287/287°C	650/650°F 343/343°C	450/450°F 232/232°C	550/550°F 287/287°C	30.0	Alum. 1/2 size	2 oz.	Fresh
Fruit Pie	550/550°F 287/287°C	650/650°F 343/343°C	450/450°F 232/232°C	550/550°F 287/287°C	30.0	10" Pie	26 oz.	Fresh
Fruit Pie	550/550°F 287/287°C	650/650°F 343/343°C	450/450°F 232/232°C	550/550°F 287/287°C	50.0	10" Pie	26 oz.	Fresh
Layer Cake	650/650°F 343/343°C	600/600°F 315/315°C	550/550°F 287/287°C	500/500°F 260/260°C	15.0	Alum. 1/2 size	3 lb.	Fresh
Meringue Pie	650/650°F 343/343°C	600/600°F 315/315°C	550/550°F 287/287°C	500/500°F 260/260°C	7.0	10" Pie	26 ox.	Fresh
Puff Pastry	650/650°F 343/343°C	600/600°F 315/315°C	550/550°F 287/287°C	500/500°F 260/260°C	15.0	Alum. 1/2 size	4 oz.	Thawed

Product	Zone Temperatures: Model DZ33II Series Ovens Entrance Top/Bott	Zone Temperatures: Model DZ33II Series Ovens Exit Top/Bott	Zone Temperatures: Model DZ55II Series Ovens Entrance Top/Bott	Zone Temperatures: Model DZ55II Series Ovens Exit Top/Bot	Cook Time (Min.)	Pan Type and Size	Amount (Weight) or Count)	State
Fish & Seafood								
Filet of Sole	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	6.0	Stainless 4 x 7	6 oz.	Fresh
Lobster Tail	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	8.0	Stainless 4 x 7 w/water	8 oz.	Fresh
Sea Scallops	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	6.0	Stainless 4 x 7	8 oz.	Fresh
Shrimp Scampi	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	6.0	Stainless 4 x 7	8 oz.	Fresh
Snow Crab	900/900°F 482/482°C	900/900°F 482/428°C	850/850°F 454/454°C	800/800°F 426/426°C	6.0	Stainless 9 x 11	8 oz.	Fresh
Stuffed Flounder	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	8.0	Stainless 4 x 7	8 oz.	Fresh
White Fish Fillet	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	8.0	Strainless 4 x 7	8 oz.	Fresh
Whole Trout	900/900°F 482/482°C	900/900°F 482/482°C	850/850°F 454/454°C	800/800°F 426/426°C	8.0	Stainless 9 x 11	9 oz.	Fresh
Pizza								
Deep Dish	750/750°F 398/398°C	650/650°F 343/343°C	700/700°F 370/370°C	600/600°F 315/315°C	10.0	Black Deep Pan		Fresh
Calzone	675/675°F 357/357°C	625/625°F 329/329°C	650/650°F 343/343°C	600/600°F 315/315°C	8.0	Pizza Screen or Black Sheet Pan		Fresh
Stuffed	650/650°F 343/343°C	550/550°F 287/287°C	600/600°F 315/315°C	500/500°F 260/260°C	20.0	Black Deep Pan		Fresh
Thick Crust	775/775°F 412/412°C	675/675°F 357/357°C	750/750°F 398/398°C	650/650°F 343/343°C	6.5	Black Pizza Pan		Fresh
Thin Crust	800/800°F 426/426°C	700/700°F 370/370°C	775/775°F 412/412°C	675/675°F 357/357°C	5.5	Pizza Screen		Fresh
Thin Crust	650/650°F 343/343°C	550/550°F 287/287°C	600/600°F 315/315°C	500/500°F 260/260°C	9.0	Pizza Screen		Frozen
Thin Crust	800/800°F 426/426°C	750/750°F 398/398°C	800/800°F 426/426°C	700/700°F 370/370°C	5.0	Pizza Screen		Pre-bake
Pork								
Breaded Chop	800/800°F 426/426°C	700/700°F 370/370°C	700/700°F 370/370°C	600/600°F 315/315°C	8.0	Alum. 1/2 size	4 oz.	Precooked
Pork Chops	800/800°F 426/426°C	700/700°F 370/370°C	700/700°F 370/370°C	600/600°F 315/315°C	15.0	Alum. 1/2 size	4 oz.	Fresh
Pork Ribs (Finish)	900/900°F 482/482°C	850/850°F 454/454°C	850/850°F 454/454°C	750/750°F 398/398°C	8.0	Alum. 1/2 size	Slab	Precooked
Poultry								
Chicken Cordon Bleu	800/800°F 426/426°C	700/700°F 370/370°C	700/700°F 370/370°C	600/600°F 315/315°C	15.0	Alum. 1/2 size	12 pcs.	Fresh
Chicken Pieces	800/800°F 426/426°C	700/700°F 370/370°C	700/700°F 370/370°C	600/600°F 315/315°C	18.0	Alum. 1/2 size	12 pcs.	Fresh
Half Chicken	800/800°F 426/426°C	700/700°F 370/370°C	700/700°F 370/370°C	600/600°F 315/315°C	20.0	Alum. 1/2 size	1-1/4 lb.	Fresh
Whole Chicken	800/800°F 426/426°C	700/700°F 370/370°C	700/700°F 370/370°C	600/600°F 315/315°C	25.0	Alum. 1/2 size	2-1/2 lb.	Fresh

7. 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 configurations to best utilize the space available.

The following illustrations show placement of various size round 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:

Length of Oven Chamber (Inches)	+	Cooktime (Min.)	+	Pan Length (Inches)	x	60 Min. Per Hour	=	Hourly Production Rate per Conveyor

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.

8. Production Capacity Charts

The production output figures shown below are based on using round pans in the various sizes (diameters) shown. The figures reflect output from one conveyor only. If the same product is run on both conveyors the output figures will double.

Model DZ33II Series Ovens

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

Model DZ55II Series Ovens

COOK TIME	6"	8"	9"	10"	12"	14"	16"	18"
4 min.	413	206	183	118	83	59	52	46
5 min.	329	165	147	94	66	47	42	37
6 min.	275	138	122	79	55	39	34	31
7 min.	235	118	104	67	47	34	30	26
8 min.	206	103	92	59	41	29	26	23
9 min.	183	92	82	52	37	26	23	20
10 min.	165	83	73	47	33	24	21	18
12 min.	137	69	61	39	28	20	17	15
14 min.	118	59	52	34	24	21	15	13
16 min.	103	52	46	29	20	15	13	11
18 min.	92	46	41	26	18	13	12	10
20 min.	83	41	37	24	17	12	11	9

NOTES:

SECTION 4
CLEANING & MAINTENANCE

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 greasy dirt, wash in warm soapy water, rinse, squeeze and set aside to dry completely. Reinstall filter and grille.

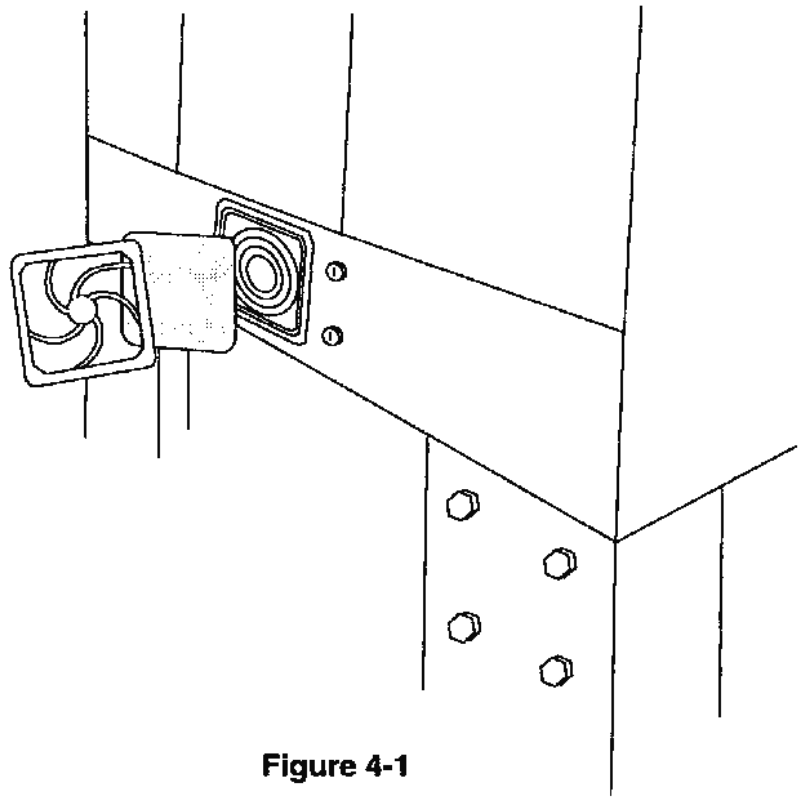


Figure 4-1

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

B. Cleaning the Oven Chambers

CTX Gemini series ovens feature a self-cleaning cycle already programmed into the microprocessor. When the cleaning cycle is engaged the microprocessor automatically increases all heat zones to 900°F (482°C) for 60 minutes. At the conclusion of the cycle the microprocessor returns the oven chambers to the status in effect prior to engagement of the cleaning cycle. If oven(s) are programmed to shut OFF (timing Mode) during the CLEAN cycle the CLEAN Mode will override program and continue at 900°F (482°C) for the full 60 minutes. Oven will then shut OFF in Timing Mode.

Cleaning Operation for all MenuSelect Control Ovens

Step	***Press Key***	***Display Reads***
		P - - # (READY, HEATING or COOLING)
1. Start cleaning operation	CLEAN	CLEANING

(Press and hold for 2 seconds)

Machine will remain in cleaning mode for 60 minutes.

Cancel Cleaning Operation

1.	FEATURE	SET FEATURE
2. Cancel cleaning	2 FORCE	P - - # (READY, HEATING or COOLING)

Oven deck will return to preset menu that was used previous to cleaning.

CAUTION:

Be sure oven is off and cool to the touch and the conveyor is stopped before attempting to wipe out the oven chambers.

Cleaning Operation for all Non-MenuSelect Control Ovens

DZ33II and DZ55II

Example: Clean each deck
Each deck must be programmed with corresponding keypad.

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[4 (CLEAN)]	"Set Feature 4"
3	[ENTER]	"Decks Cleaning"

Any remaining residue can be wiped from the oven walls.

DZ33 and DZ55

Normally both decks are cleaned at the same time. It is possible, however, to clean each deck independently. Usage may require one deck to be cleaned more frequently than the other.

Example: Clean both decks simultaneously

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[4 (CLEAN)]	"Set Feature 4"
3	[ENTER]	"Decks Cleaning"

Example: Clean bottom deck only

Step	Press Key	Display Reads
		Status Display
1	[FEATURE]	"Set Feature 0"
2	[1]	"Set Feature 1"
3	[ENTER]	"Upper Deck off"
4	[FEATURE]	"Set Feature 0"
5	[4 (CLEAN)]	"Set Feature 4"
6	[ENTER]	"Decks Cleaning"

To clean the upper deck only follow the above example except press [2] in Step number two.

Any remaining residue can be wiped from the oven walls.

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 in the pot sink.

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. Lift the belt and remove the crumb trays from both entrance and exit end of each conveyor. Empty residue, wash, rinse and dry thoroughly. Re-install.

Belt Supports: Clean weekly or as needed. Lift the belt and remove the crumb trays from both entrance and exit end of each conveyor. Now remove belt support. Wash, rinse and dry thoroughly. Re-install, being sure they hook over the upturned flanges at the ends of the oven chambers.

Heat Curtains: Clean as needed. Unhook the heat curtains from the rods above the entrance and exit end of each conveyor. 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 fluids to enter any of the cracks around the keypad or the lower control panel. **DO NOT** use abrasive compounds.

E. Spare Parts Kits
(Refer to Figure 4-2)

Domestic Spare Parts Kit

Item #	Part #	Description	DZ33II MenuSelect Kit # ACSKDZ33BD	DZ55II MenuSelect Kit # ACSKDZ55BD
2	3422197B	26 Cond. Ribbon S/S	1	1
3	8001296	14 Cond. Ribbon P/P	1	1
4	8001295	14 Cond. Display Ribbon P/S	1	1
5	3422198B	34 Cond. Ribbon S/S	1	1
11	ACSKDSTRAP	MCP	1	1
12	97589	Fuses 15A	4	4
14	7610252	MenuSelect Keypad Assembly	1	1
17	82905	Relay	1	1

International Spare Parts Kit

Item #	Part #	Description	DZ33II MenuSelectt Kit # ACSKMS33BDI	DZ55II MenuSelect Kit # ACSKMS55BDI
1	343602	Conveyor Motor	1	1
2	3422197B	26 Cond. Ribbon S/S	1	1
3	8001296	14 Cond. Ribbon P/P	1	1
4	8001295	14 Cond. Display Ribbon P/S	1	1
5	3422198B	34 Cond. Ribbon S/S	1	1
6	340931	Hearth Plate, 240	1	0
6	340933	Hearth Plate, 120V	0	1
7	97393	Bayonet Fitting for Thermocouple	1	1
8	97392	Thermocouple	1	1
9	97398	Transformer 240/42V	1	1
10	97397	Transformer 240/12V	1	1
11	ACSKDSTRAP	MCP	1	1
12	97589	Fuses 15A	4	4
13	7610127	Distribution Board	1	1
14	7610252	MenuSelect Keypad Assembly	1	1
15	97525	Cooling Fan	1	1
16	97598	Circuit Breaker, 0.5A	1	1
17	82905	Relay	1	1
18	82221	Contactor	1	1
19	97312	High Limit Control	1	1

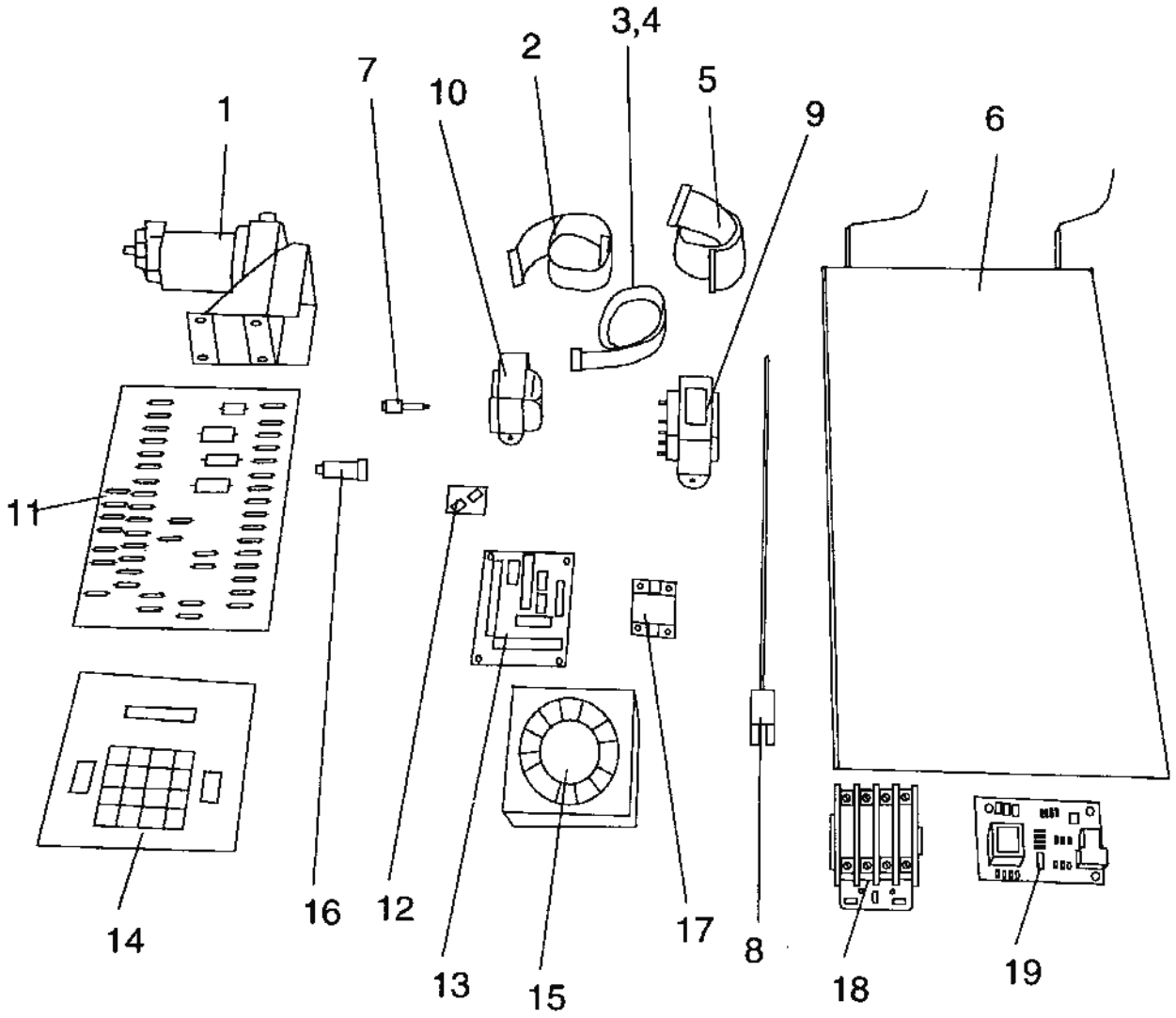
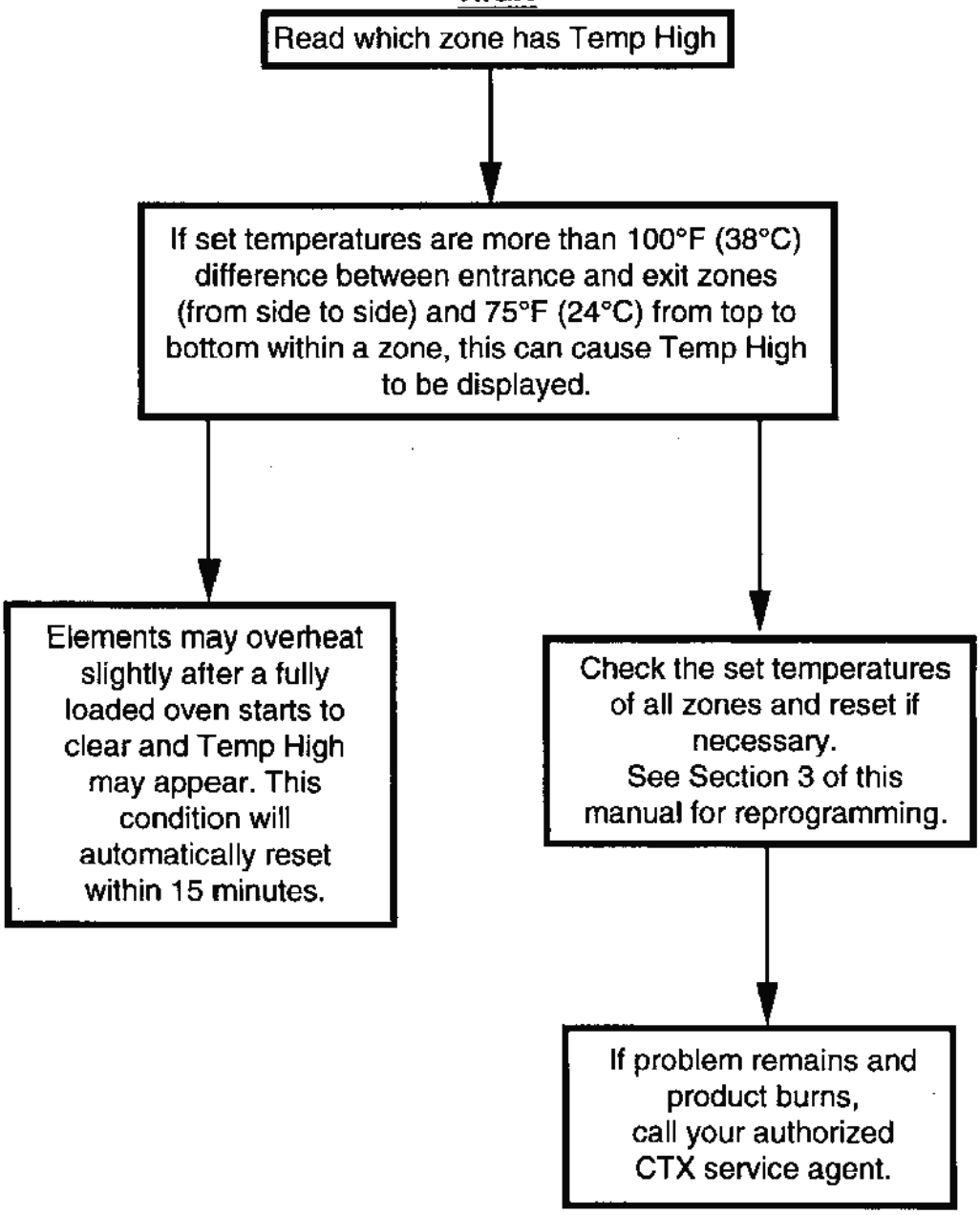


Figure 4-2
Spare Parts Kits

SECTION 5
TROUBLESHOOTING

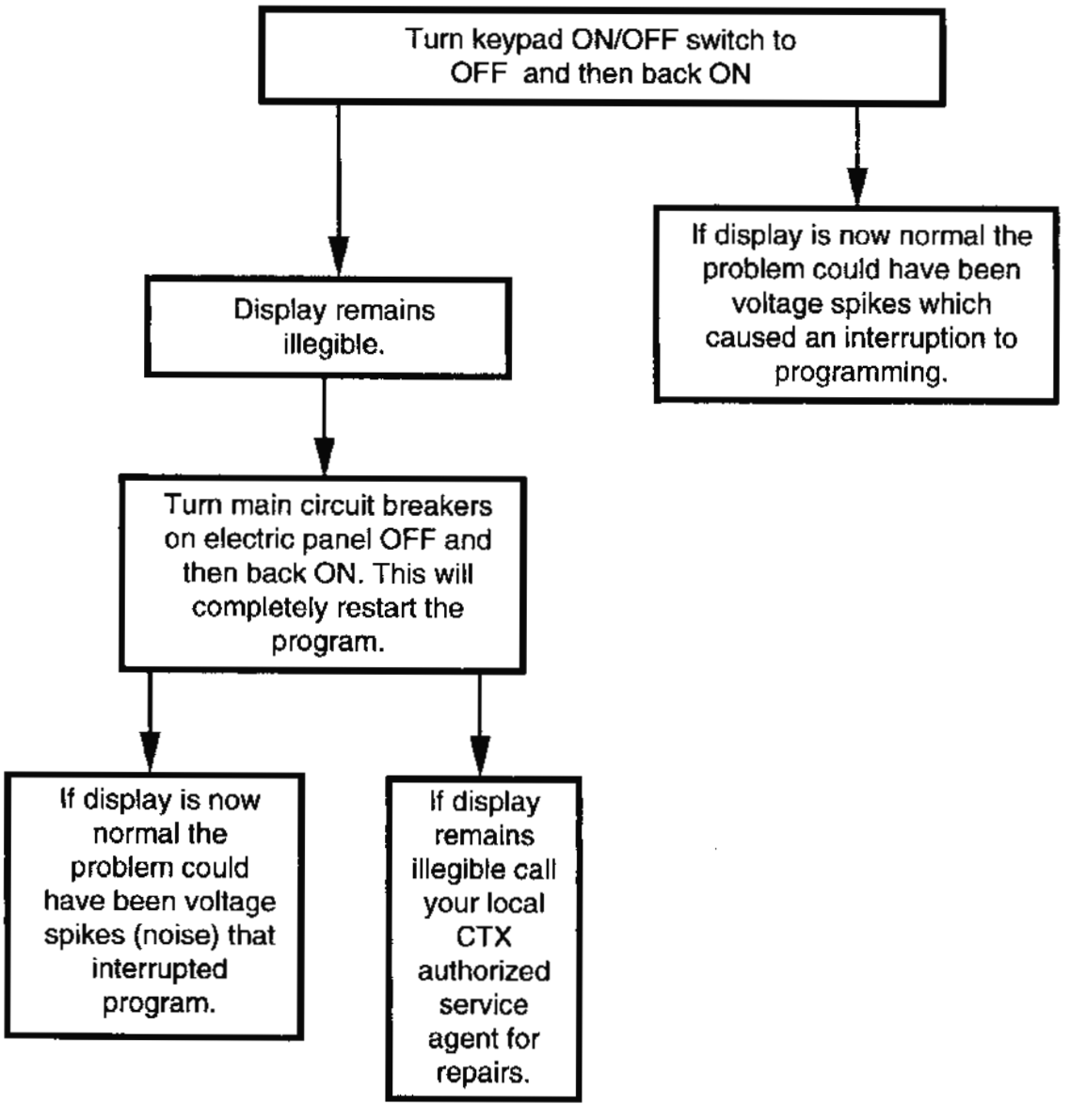
TROUBLESHOOTING
CHART 1

DISPLAY SHOWS TEMP HIGH



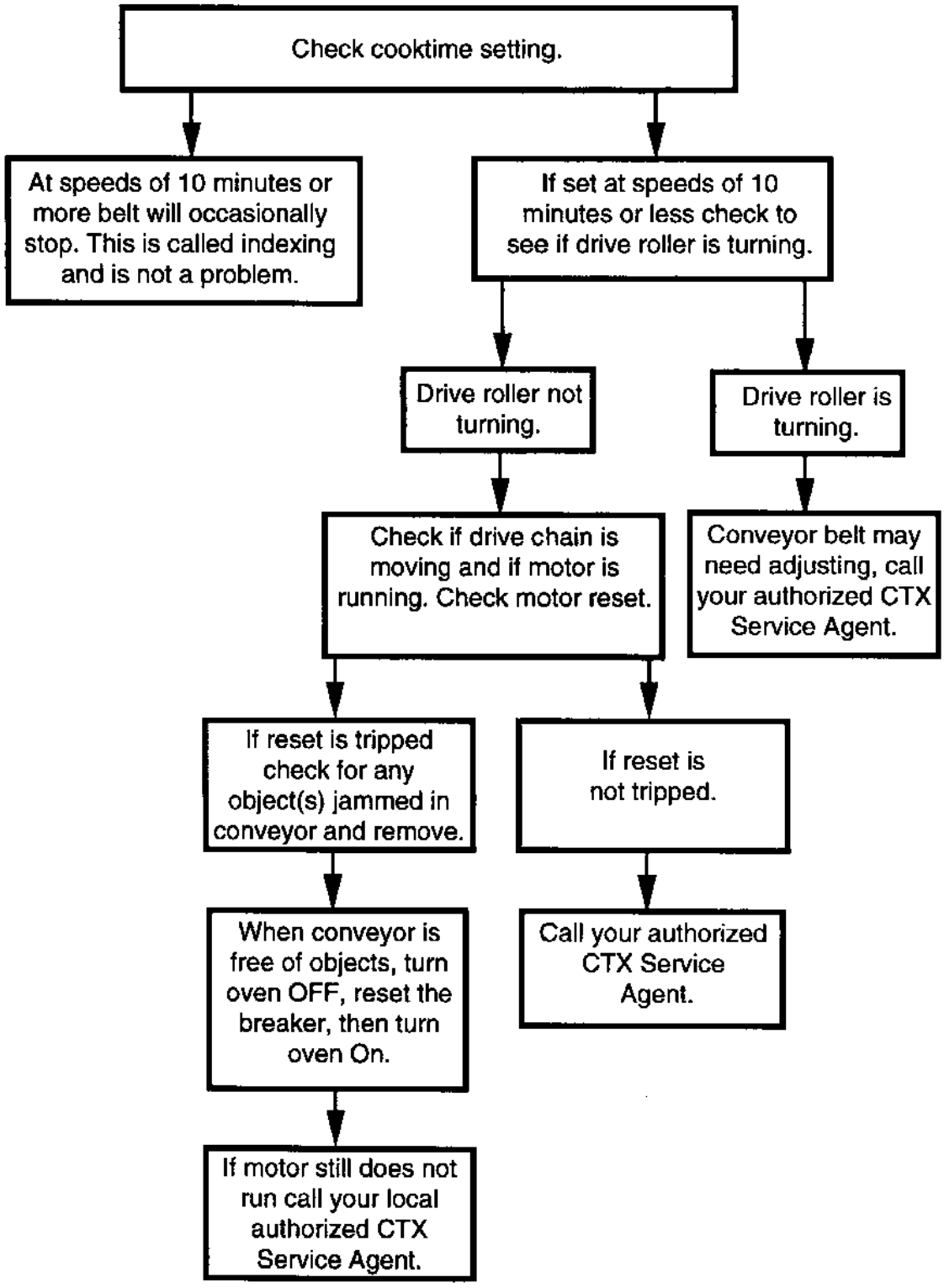
TROUBLESHOOTING CHART 2

DISPLAY SHOWS IRREGULAR OR ILLEGIBLE CHARACTERS



TROUBLESHOOTING CHART 3

CONVEYOR BELT STOPS COMPLETELY OR INTERMITTENTLY



TROUBLESHOOTING
CHART 4

PRODUCT IS NOT COOKING.

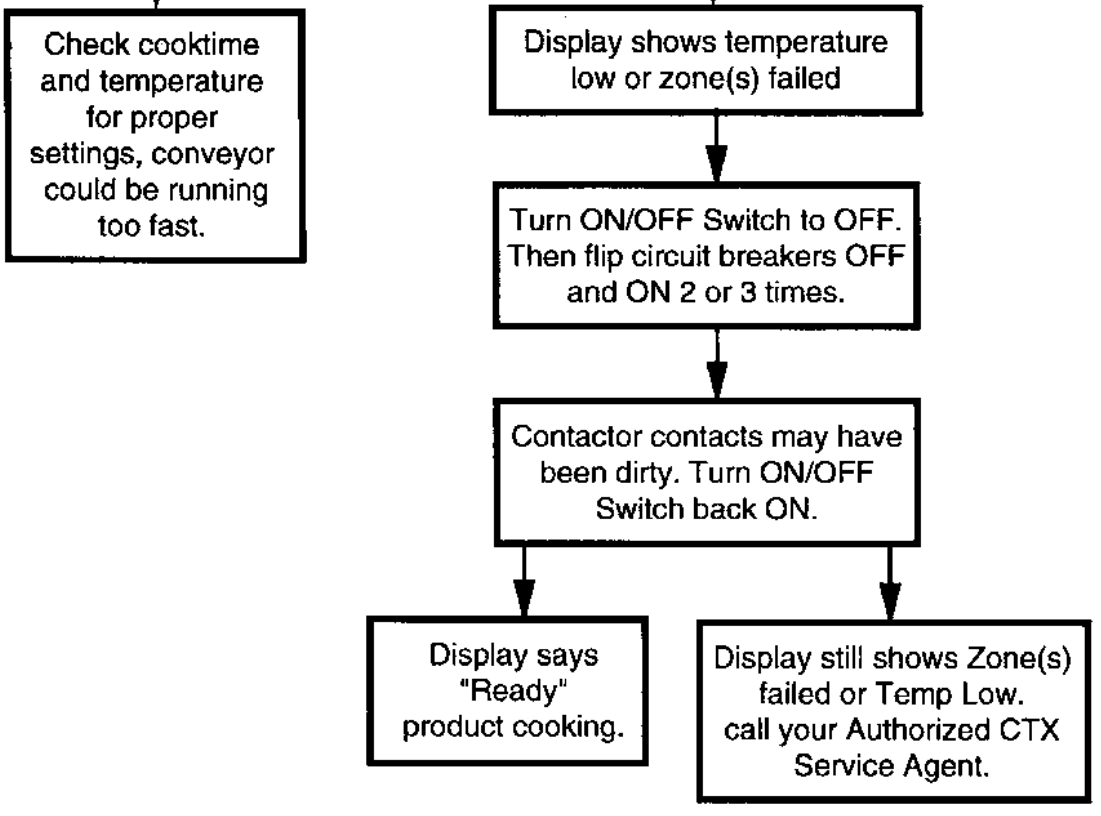
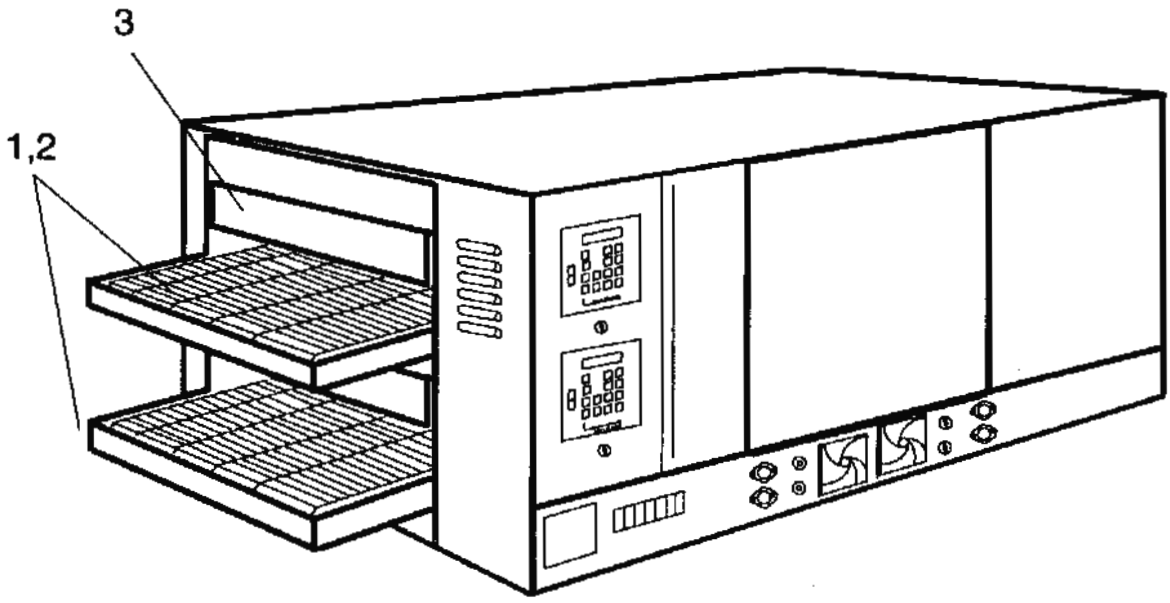
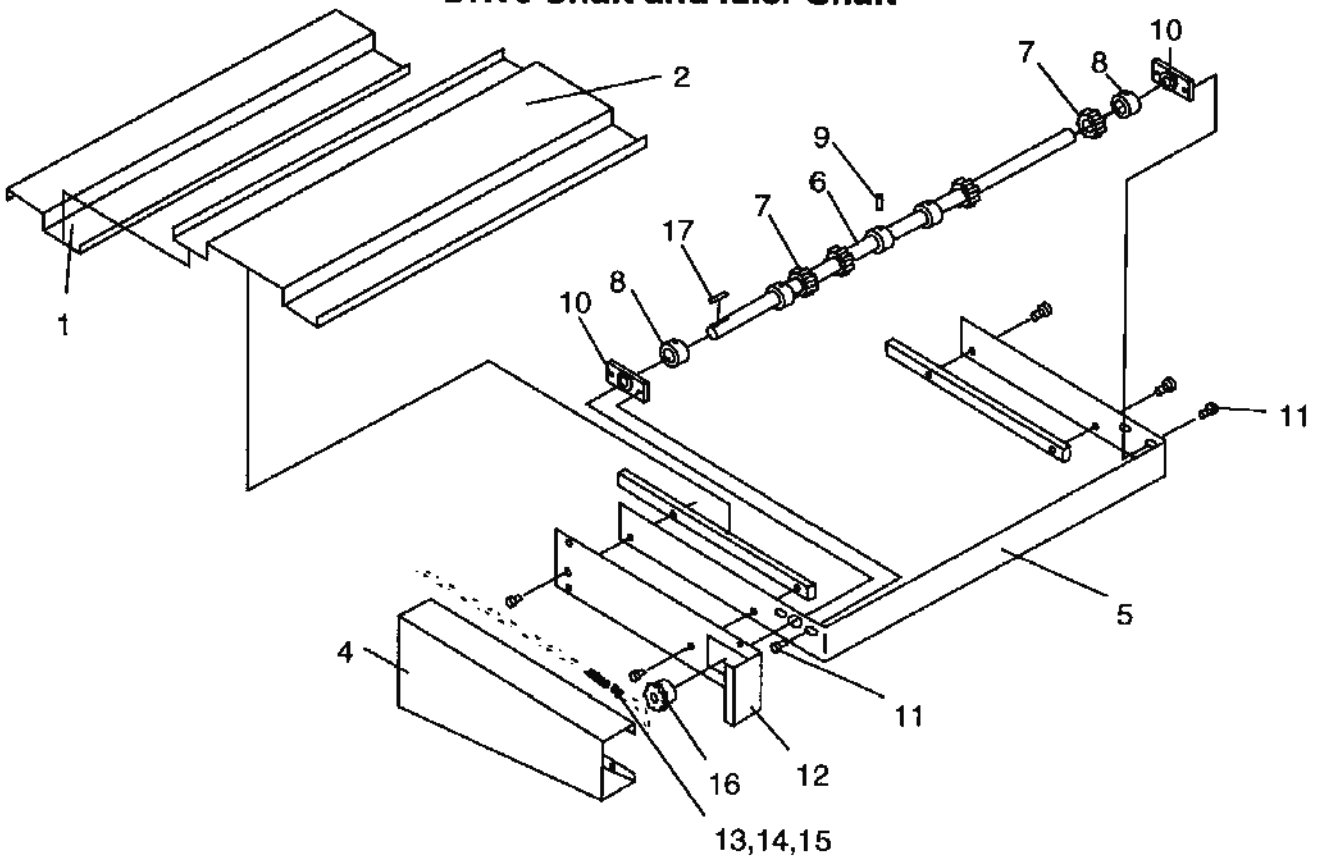


Figure 6-1
Conveyor Belt and Draft Curtain

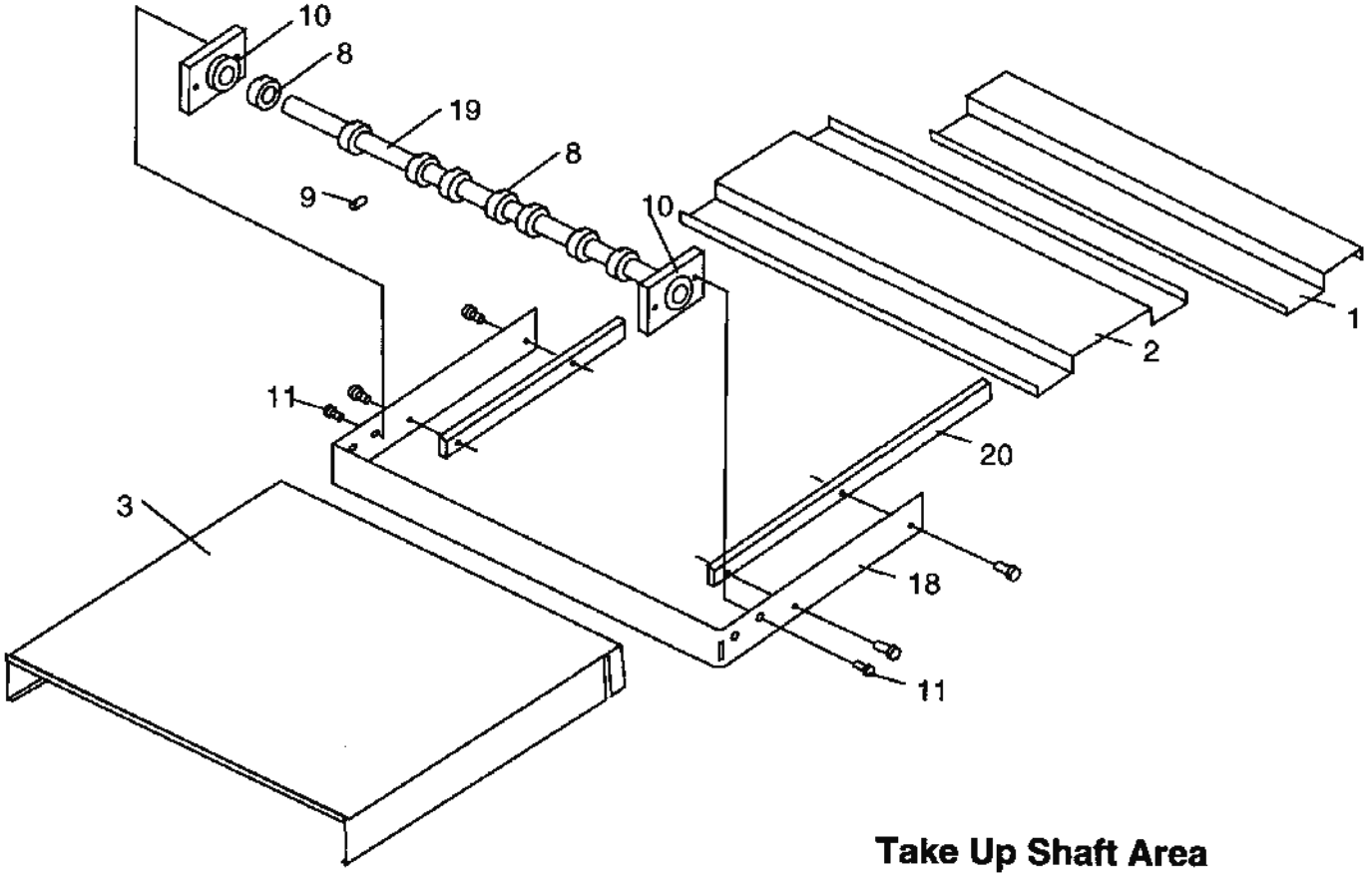


ITEM #	PART #	QTY	DESCRIPTION
1	8500236	A/R	CONVEYOR BELT (Order Per Foot)
2	97733	8	MASTER CLIP - WIRE BELT
3	322904	4	DRAFT CURTAIN - ADJUSTABLE

Figure 6-2
Drive Shaft and Idler Shaft



Drive Shaft Area

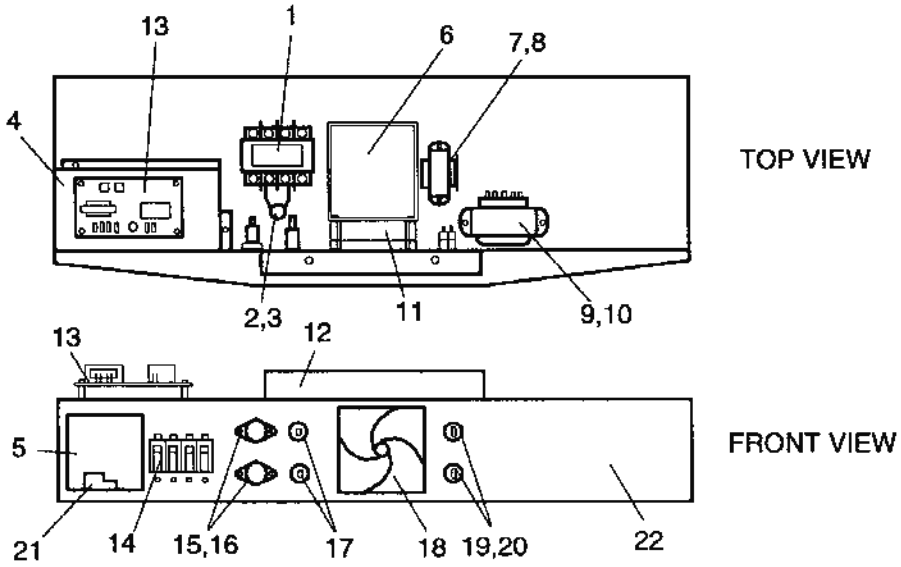


Take Up Shaft Area

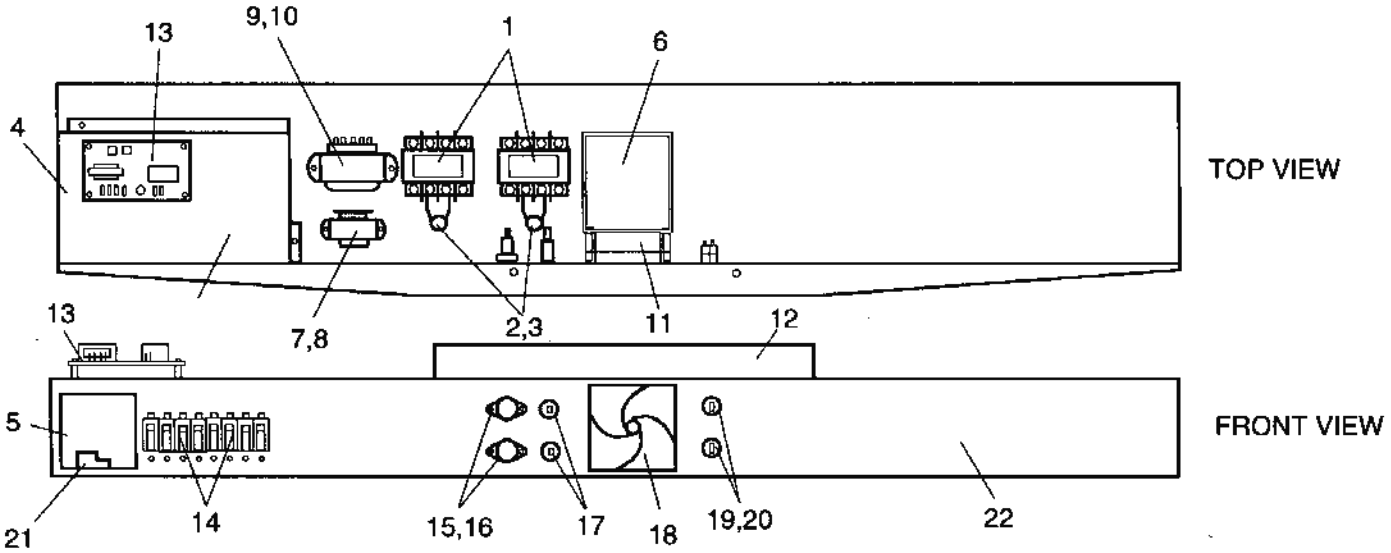
Drive Shaft and Idler Shaft
Parts List

ITEM #	PART #	QUANTITY DZ33 & DZ33II	QUANTITY DZ55 & DZ55II	DESCRIPTION
1	320691	4	4	BELT SUPPORT
2	322221	4	4	CRUMB TRAY
3	322219	2	2	EXIT TRAY - 18"
4	3208105C	2	2	COVER - CHAIN
5	320689	2	2	SUPPORT - BEARING - DRIVE
6	321636	2	2	SHAFT - DRIVE
7	324503	8	8	SPROCKET - GEMINI WIRE BELT
8	325001	26	26	BLANK BUSHING
9	1455A8805	34	34	SET SCREW - SPROCKET & BLANK
10	344101	4	4	BEARING ASSEMBLY
11	2000346	8	8	BOLT - BEARING ASSEMBLY
12	341311	2	2	GUARD CHAIN
13	18411	2	2	ROLLER CHAIN - 31.5"
14	18412	2	2	LINK - MASTER
15	18413	2	2	LINK - OFF SET
16	324502	2	2	SPROCKET
17	220026	2	2	KEY - SPROCKET
18	320690	2	2	SUPPORT - BEARING - TAKE UP
19	321635	2	2	SHAFT - TAKE UP
20	324801	2	0	CONVEYOR ENTRANCE BAR
20	324802	0	2	CONVEYOR ENTRANCE BAR

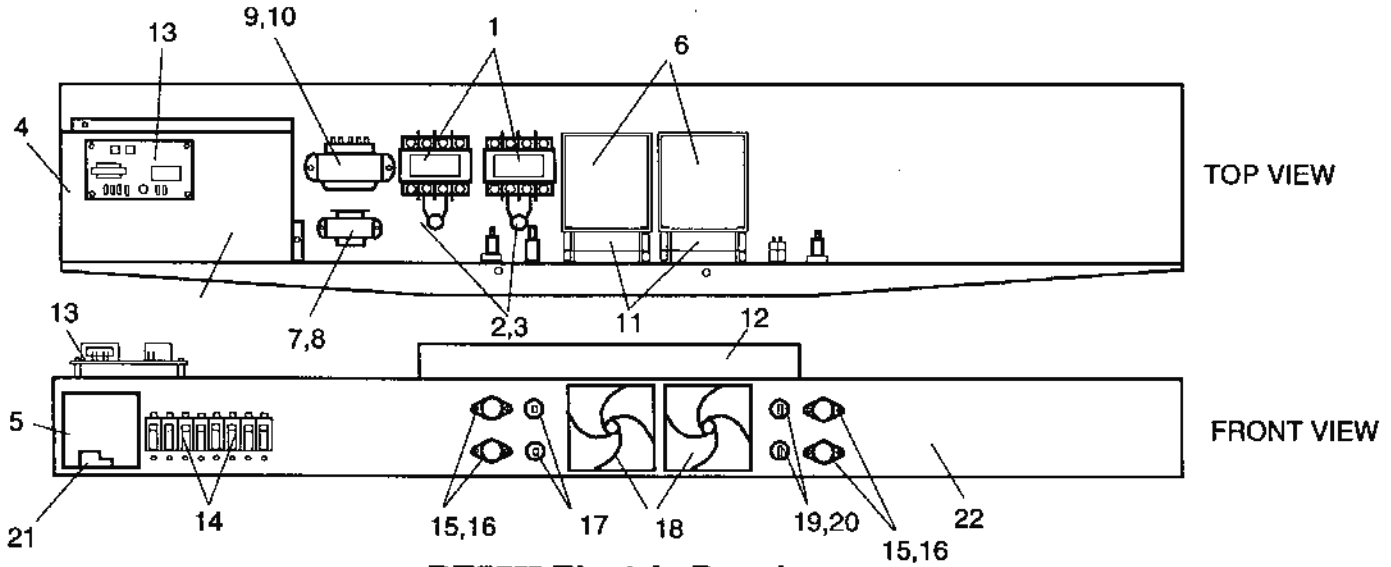
Figure 6-3
Electric Panel



DZ33II and DZ33 Electric Panel



DZ55 Electric Panel



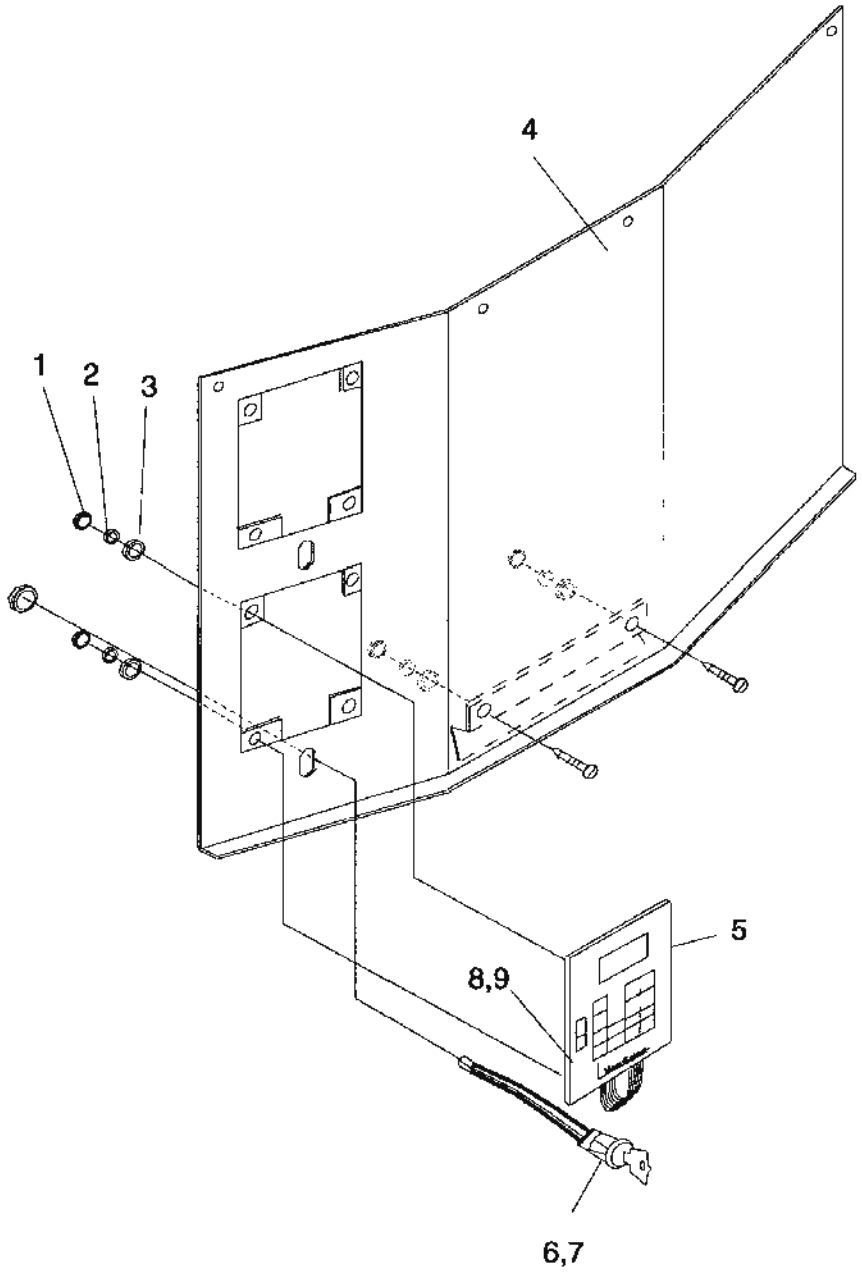
DZ55II Electric Panel

Electric Panel
Parts List

ITEM #	PART #	QUANTITY DZ33 & DZ33II	QUANTITY DZ55	QUANTITY DZ55II	DESCRIPTION
1	300647	1	0	2	CONTACTOR-4 POLE, 50A (for 208V Ovens)
1	82221	1	1	2	CONTACTOR-4 POLE, 50A (for 230V & 380V Ovens)
NOTE: *For all early style multi-range (208-230V) ovens with the following serial #'s use Contactor part # 82221:*					
	DZ33II serial # 11-20389-93 and lower				
	DZ55II serial # 10-20433-93 and lower				
1	3000644	1	1	2	HIGH VOLTAGE COIL FOR CONTACTOR USED WITH ALL 415V & 480V EXPORT OVENS
2	343098	2	2	4	VARISTOR W/TERMINALS
3	97415	2	2	4	VARISTOR ONLY - 240V
4	323508	1	0	0	HOUSING - JUNCTION BOX
4	323509	0	1	1	HOUSING - JUNCTION BOX
5	340835	0	1	1	COVER - JUNCTION BOX
5	340836	1	0	0	COVER - JUNCTION BOX
6	322657	1	1	2	DEFLECTOR - FAN
7	97397	1	1	2	TRANSFORMER - 240/12V AC
8	97416	1	1	2	VARISTOR - 12V
9	97398	1	1	2	TRANSFORMER - 240/42V AC
10	97417	1	1	2	VARISTOR - 42V
11	97525	1	1	2	FAN
12	320696	0	1	1	SUPPORT - BOTTOM - FRONT PANEL
12	320699	1	0	0	SUPPORT - BOTTOM - FRONT PANEL
13	97312	2	1	2	HIGH LIMIT CONTROLLER
14	97545	1	2	2	CIRCUIT BREAKER - 50A - 4 POLE
15	97589	2	2	4	FUSE - 15A
16	91695	2	2	4	FUSE HOLDER
17	97598	2	2	2	CIRCUIT BREAKER - 0.5A - PUSH
18	3102458	1	1	2	FILTER & GRILLE ASSEMBLY
18	3102468	1	1	2	FILTER ONLY
19	3422201B	2	2	2	SWITCH W/WIRES - BLACK - CONVEYOR
20	97597	2	2	2	SWITCH ONLY
21	87037	1	1	1	LUG - TERMINAL GROUNDING
22	324713	1	0	0	ELECTRIC PANEL
22	324716	0	1	0	ELECTRIC PANEL
22	7608996	0	0	1	ELECTRIC PANEL
	87099	0	0	6(8*)	TERMINAL BLOCK (NOT SHOWN)
	87098	0	0	2	TERMINAL END (NOT SHOWN)
	87102	0	0	2	END ANCHOR - TERMINAL BLOCK (NOT SHOWN)
	220020	0	0	1	CHANNEL MOUNTING TRACK for TERMINAL BLOCKS (NOT SHOWN)

* Export units have 8 terminal blocks

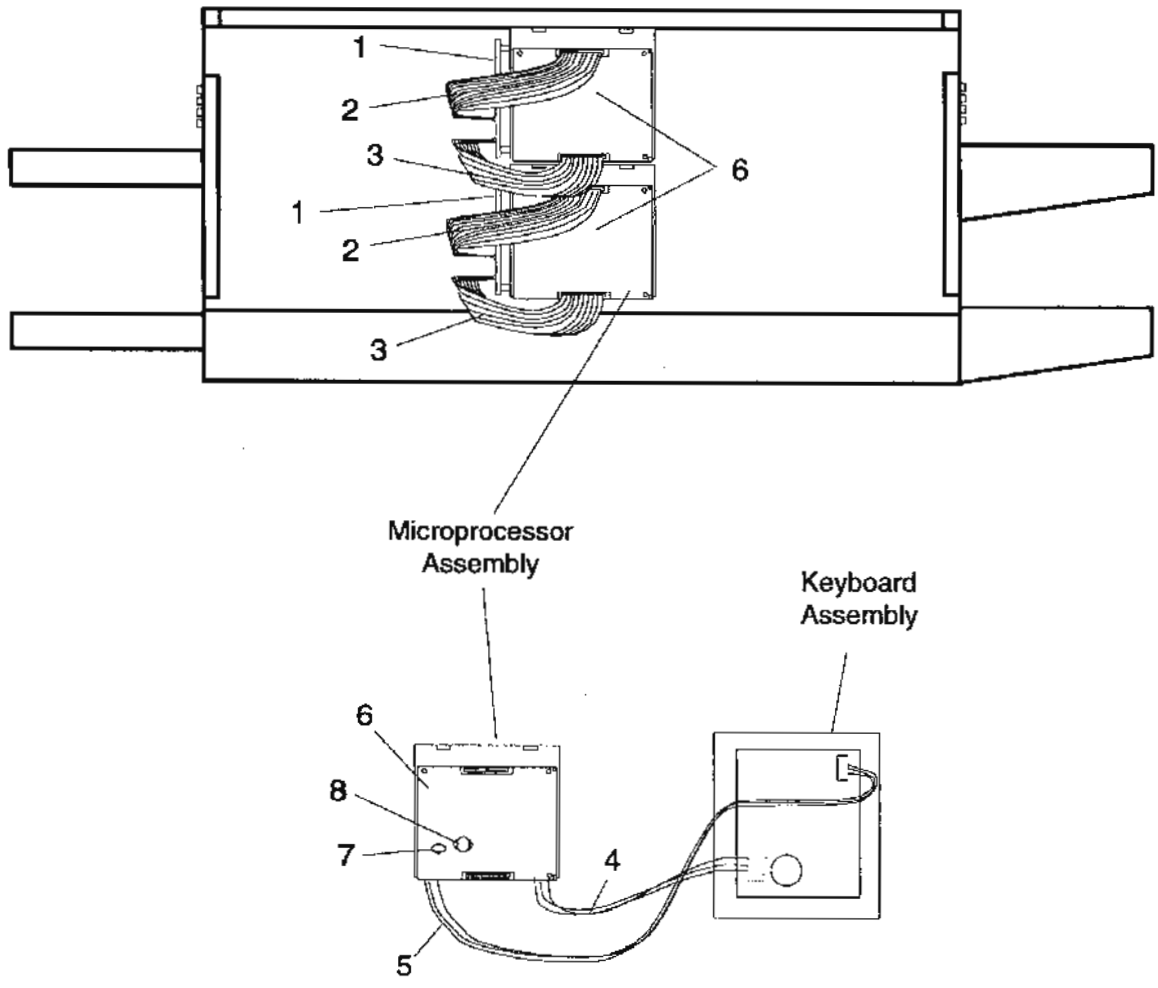
Figure 6-4
Control Panel

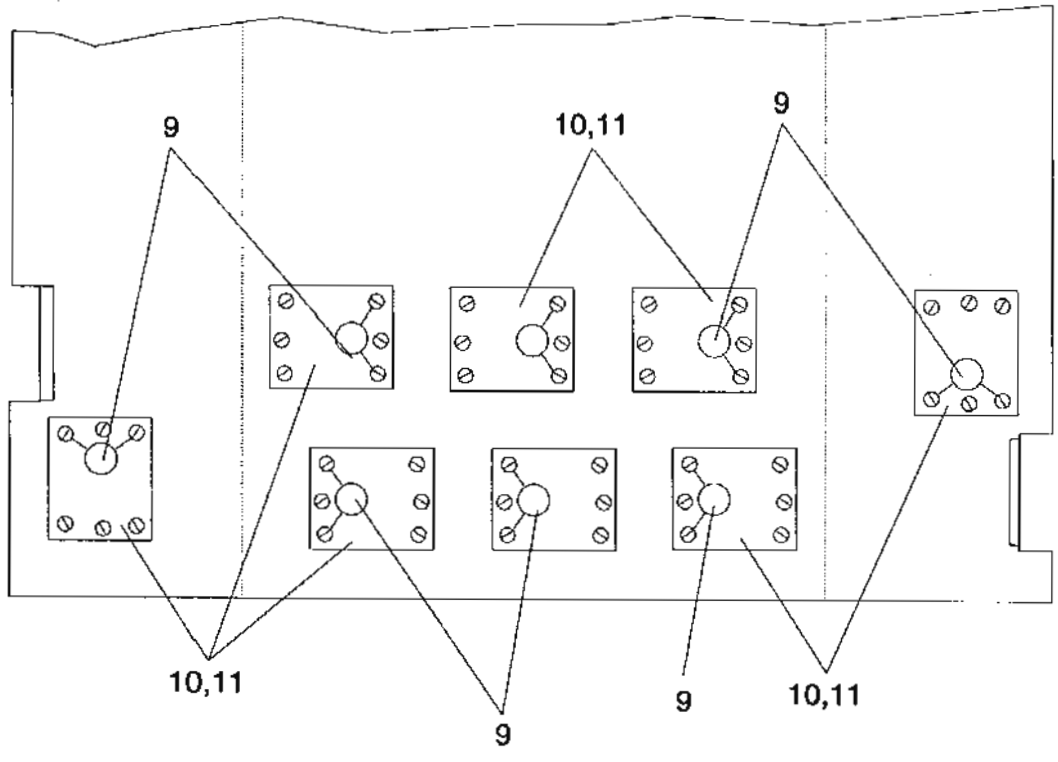


Control Panel
Parts List

ITEM #	PART #	QUANTITY DZ33	DZ55	DZ33II & DZ55II	DESCRIPTION
1	B301A8857	4	4	4	NUT - CONTROL PANEL
2	K1DS12	4	4	4	LOCKWASHER - CONTROL PANEL
3	7A2S20	4	4	4	WASHER - CONTROL PANEL
4	324706	1	0	0	PANEL - FRONT
4	324712	0	1	0	PANEL - FRONT
4	7005604	0	0	1	PANEL - FRONT
5	7610129	1	1	0	KEYPAD ASSEMBLY DZ33 AND DZ55
5	7610129	0	0	2	KEYPAD ASSEMBLY, DZ33II AND DZ55II NON-MENUSELECT
5	7610252	0	0	2	KEYPAD ASSEMBLY, DZ33II AND DZ55II MENUSELECT
6	343097	1	1	2	KEY SWITCH W/WIRES
7	97566	1	1	2	KEY SWITCH - ONLY
8	343096	1	1	2	SWITCH W/PLUG - ON/OFF
9	97564	1	1	2	SWITCH ONLY

Figure 6-5
PC Boards and Solid State Relays





PC Boards and Solid State Relays
Parts List

ITEM #	PART #	QUANTITY DZ33 & DZ55	QUANTITY DZ33II	QUANTITY DZ55II	DESCRIPTION
1	7610127	1	2	2	DISTRIBUTION BOARD
2	3422197B	1	2	2	CABLE - 26 CONDUCTOR
3	3422198B	1	2	2	CABLE - 34 CONDUCTOR
NOTE: *Do not use the Items 4 & 5 current cables in place of the early style cables. Effects from radiated noise can result.*					
4	8001296	0	2	0	CABLE - 14 CONDUCTOR (For current style oven w/control panel at left end of oven)
4	8001325	0	0	2	CABLE - 14 CONDUCTOR (For current style oven w/control panel at left end of oven)
4	3422197B	1	2	2	CABLE - 14 CONDUCTOR (For early style oven with control panel centered on front of oven)
5	8001295	0	2	0	CABLE - DISPLAY, 16 CONDUCTOR (For current style oven w/control panel at left end of oven)
5	8001326	0	0	2	CABLE - DISPLAY, 16 CONDUCTOR (For current style oven w/control panel at left end of oven)
5	3422146B	1	2	2	CABLE - DISPLAY, 16 CONDUCTOR (For early style oven with control panel centered on front of oven)
6	ACSKDSTRAP	1	2	2	MICROPROCESSOR
NOTE: *Replaces all other MCP Part Numbers. Also EPROM Chip no longer available - complete MCP must be replaced. MCP is programmed at installation for DZ model - also converts to either °F or °C.*					
7	3004268	1	2	2	FAN T-STAT 98 - 174 - F95 N.O.
8	3004270	1	2	2	HI LIMIT T-STAT 98-174-L160 N.C.
9	3430108A	8	8	8	VARISTOR W/TERMINALS
9	97415	9	10	10	VARISTOR - ONLY - 240V
10	82905	8	8	8	RELAY-SOLID STATE 75A (REPLACES PART#82910, 45 AMP RELAY)
11	220009	8	8	8	SILICON PAD (USED WITH EACH RELAY)
	3001090	1	1	1	WIRING HARNESS, TOP DECK (NOT SHOWN)
	3001091	1	1	1	WIRING HARNESS, BOTTOM DECK (NOT SHOWN)

Figure 6-6
Drive Motor

ITEM #	PART #	QTY	DESCRIPTION
1	97570	2	PLUG - 6 PIN
2	342146	2	SENSOR
3	220416	2	CLAMP - HOSE
4	97217	2	MAGNET - CERAMIC
5	343602	2	MOTOR ASSEMBLY - COMPLETE CONVEYOR
6	36004	2	MOTOR - ONLY
7	324501	2	SPROCKET
8	1455A8805	2	SET SCREW
9	220035	2	KEY - 1/8"
10	342923	2	MOUNT - MOTOR
11	3002756	2	BRUSH CAP
12	3002755	2	BRUSH

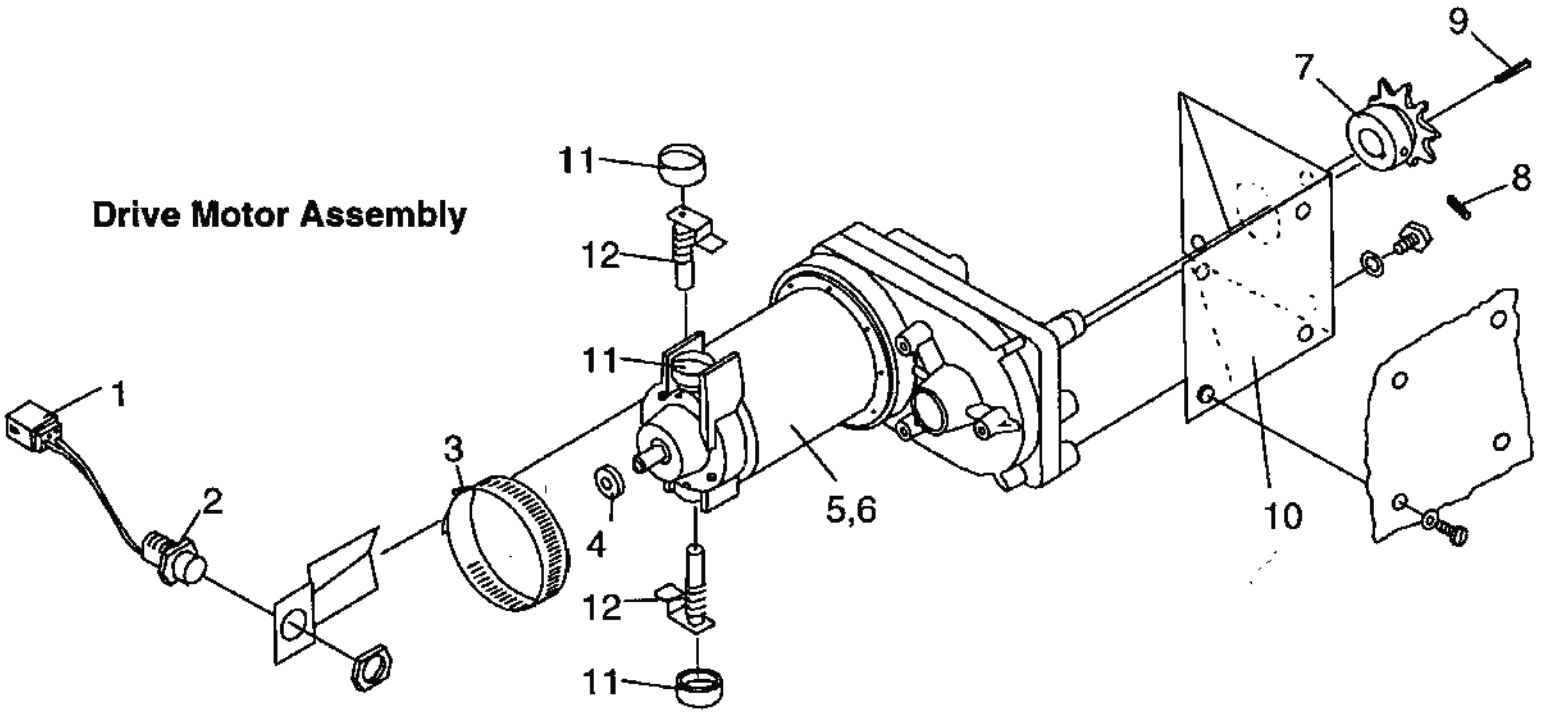


Figure 6-7
Heating Units and Thermocouples

ITEM #	PART #	QUANTITY DZ33 & DZ33II	QUANTITY DZ55 & DZ55II	DESCRIPTION
1	30089	8	0	HEATING UNIT W/HEARTH PLATE (For 208V oven)
1	30242	0	16	HEATING UNIT W HEARTH PLATE (For 208V oven)
1	340931	8	0	HEATING UNIT W/HEARTH PLATE (For 230, 380V & 415V oven)
1	340933	0	16	HEATING UNIT W/HEARTH PLATE (For 230, 380V & 415V oven)
NOTE: *For all early style multi-range (208-230V) ovens with the following serial #'s use Heating Unit part # 340931 or 340933):*				
	DZ33II serial # 11-20389-93 and lower			
	DZ55II serial # 10-20433-93 and lower			
2	87005	16	24	WIRE CONNECTOR/SET SCREW (FOR ELEMENT CONNECTION)
3	33055	16	32	TUBE - PORCELAIN
4	3208102C	4	0	COVER - RACEWAY
4	3208106C	0	8	COVER - RACEWAY
5	97392	8	8	THERMOCOUPLE - 14-1/2" *SEE NOTE
NOTE: ALWAYS REPLACE PART# 97393, BAYONET LOCK FITTING WHEN REPLACING THERMOCOUPLE				
6	97394	8	8	ADAPTER - BAYONET
7	97393	8	8	BAYONET - LOCK FITTING - ADJUSTABLE (INCLUDES COMPRESSION NUT AND FERRULE)
8	3004669	2	2	WIRE NUT

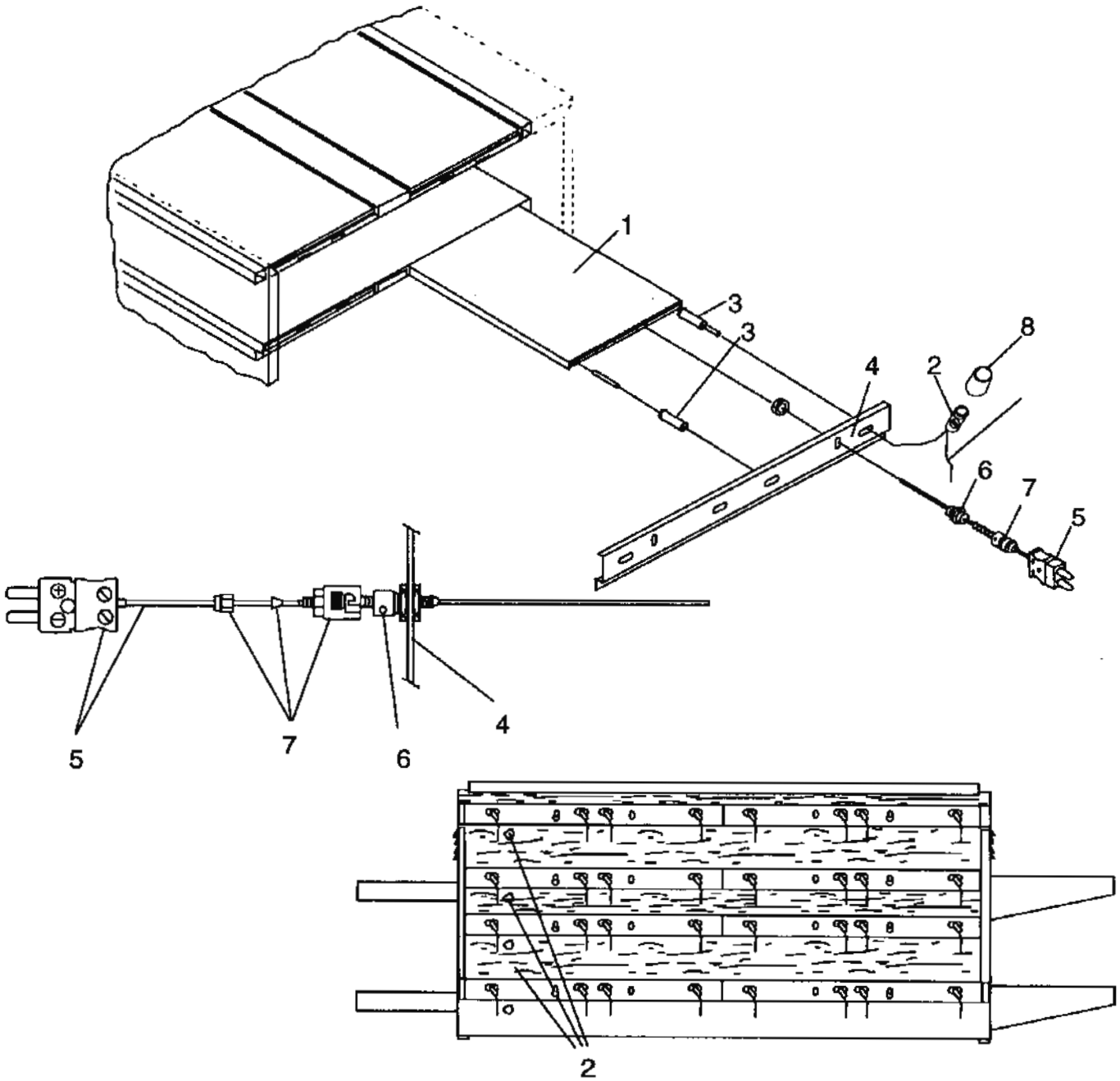
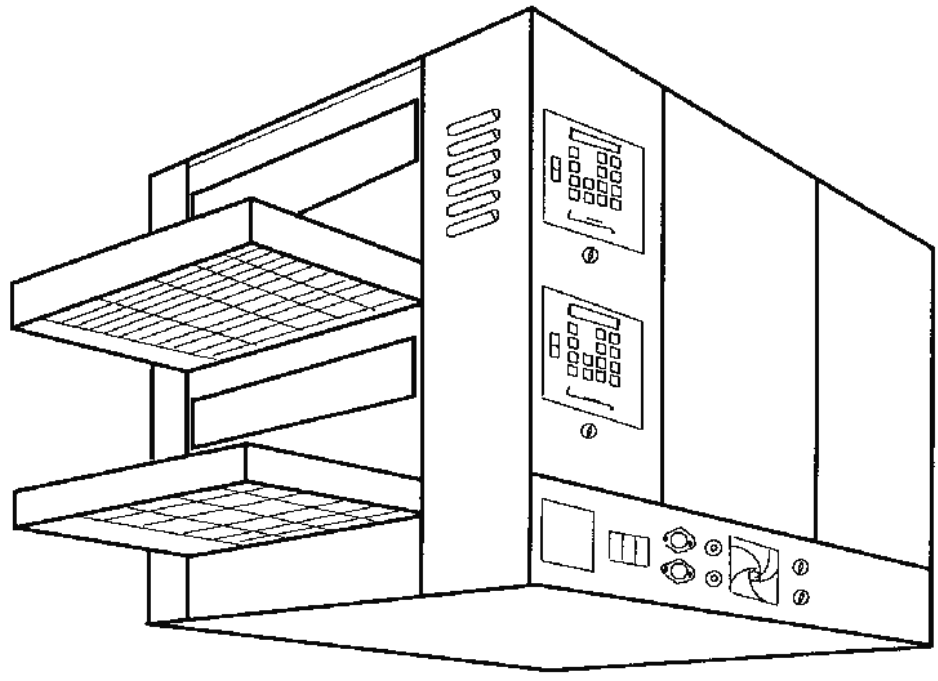
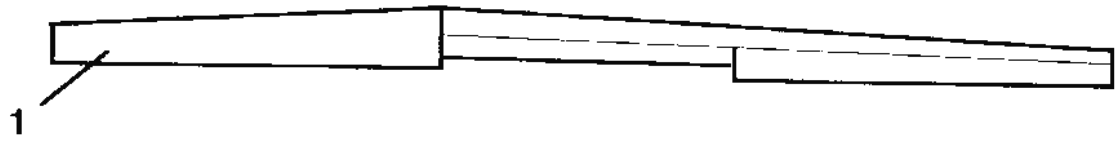


Figure 6-8
Stacking Bracket

NOTE: The ACSB3355 Stacking Bracket is only used when stacking a DZ33 over a DZ55 or DZ55II.

ITEM #	PART #	QTY	DESCRIPTION
1	ACSB3355	1	STACKING BRACKET





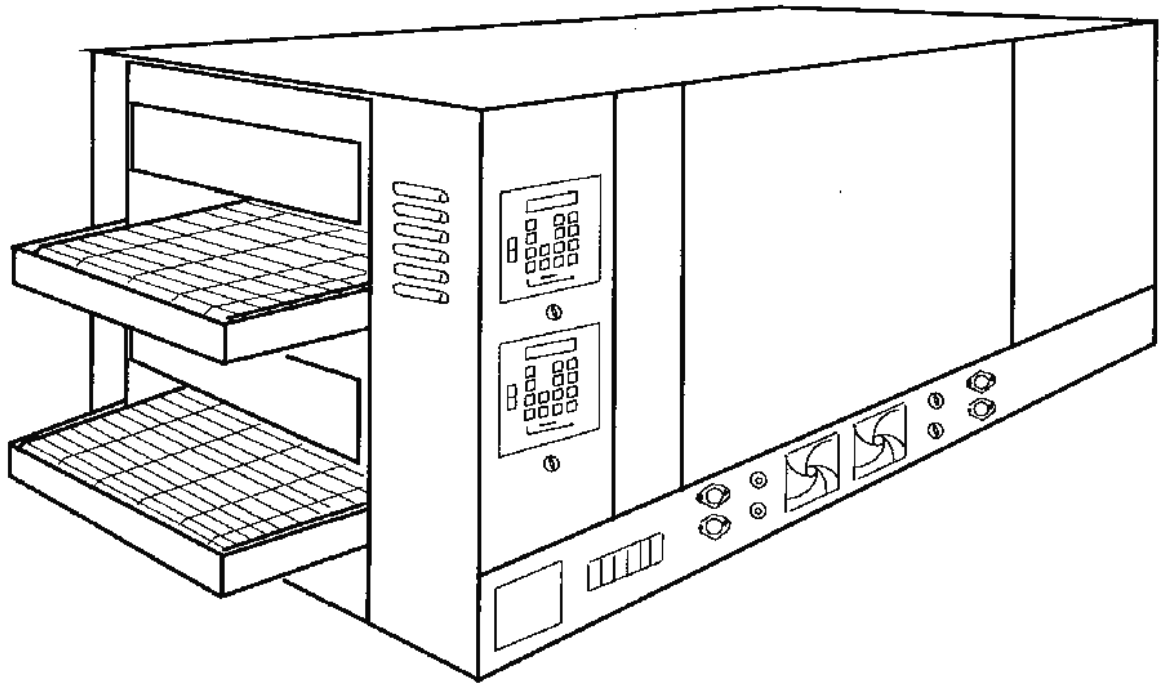
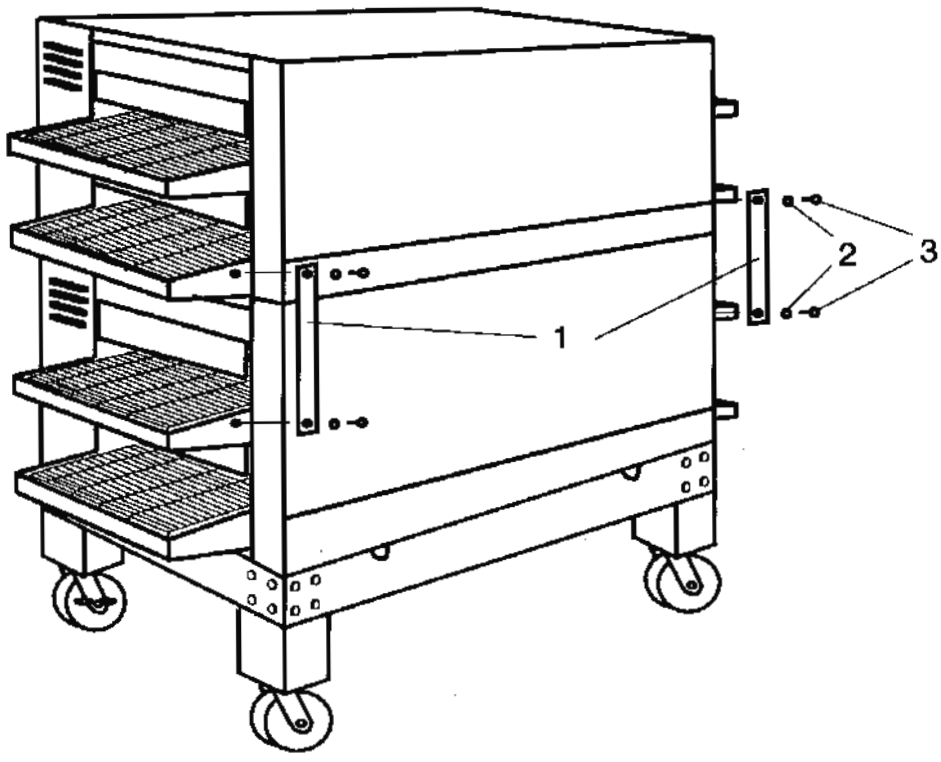


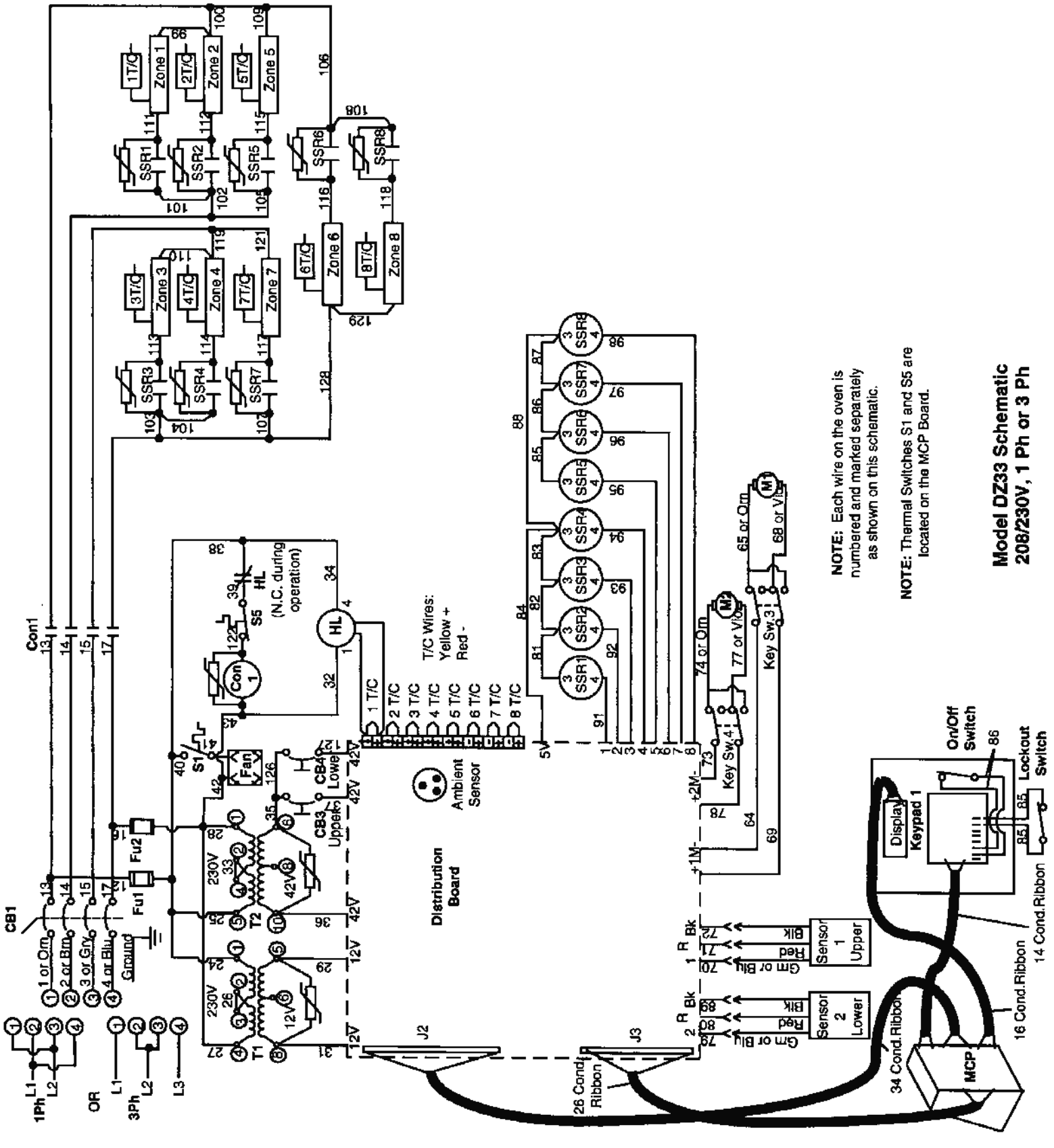
Figure 6-9
Stacking Bracket
Kit # ACSBDZ

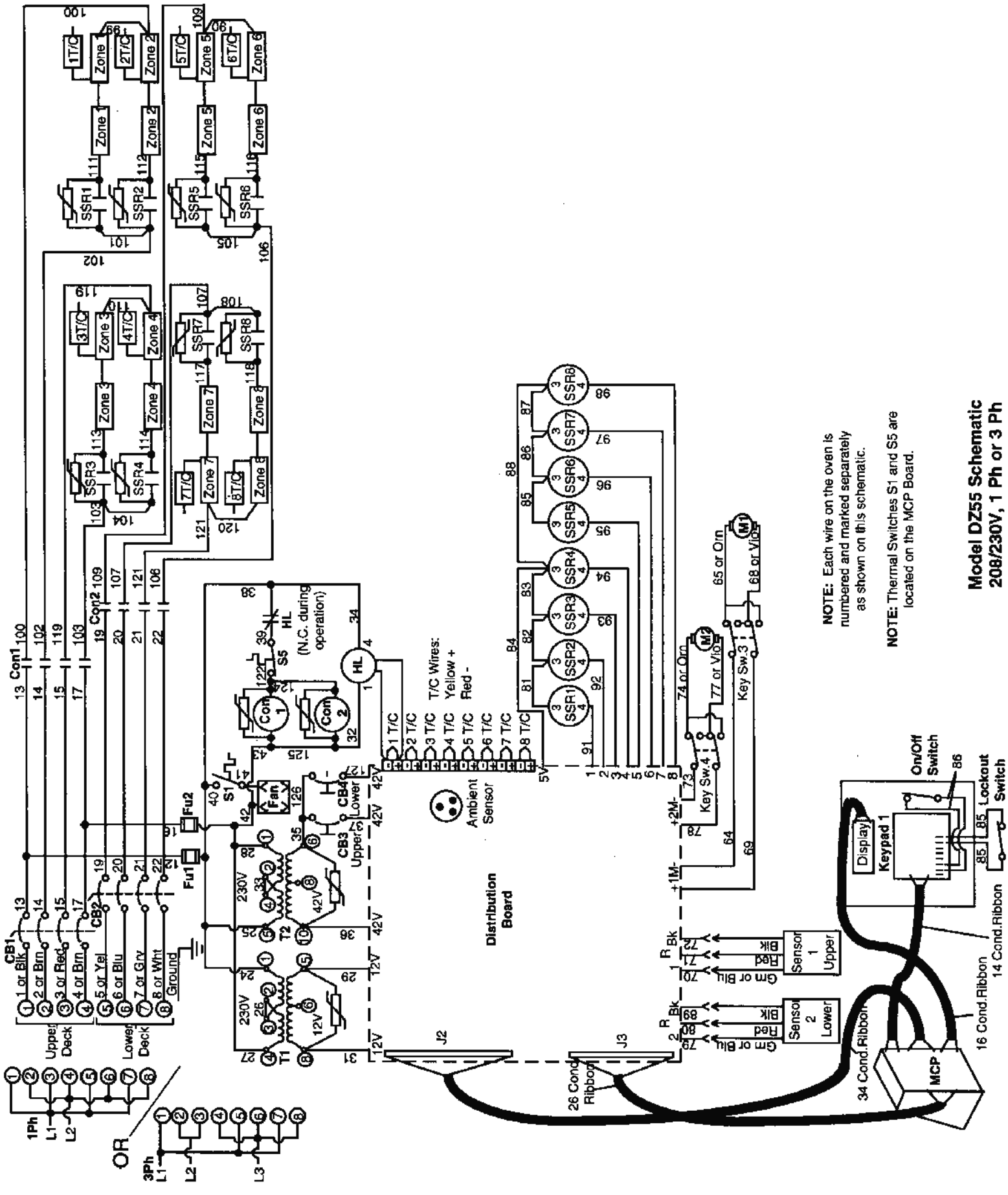
ITEM #	QTY	PART #	DESCRIPTION
1	2	7005484	BRACKET
2	4	2000457	3/8-16 X 1" RH SCREW
3	4	AA4720	FLAT WASHER

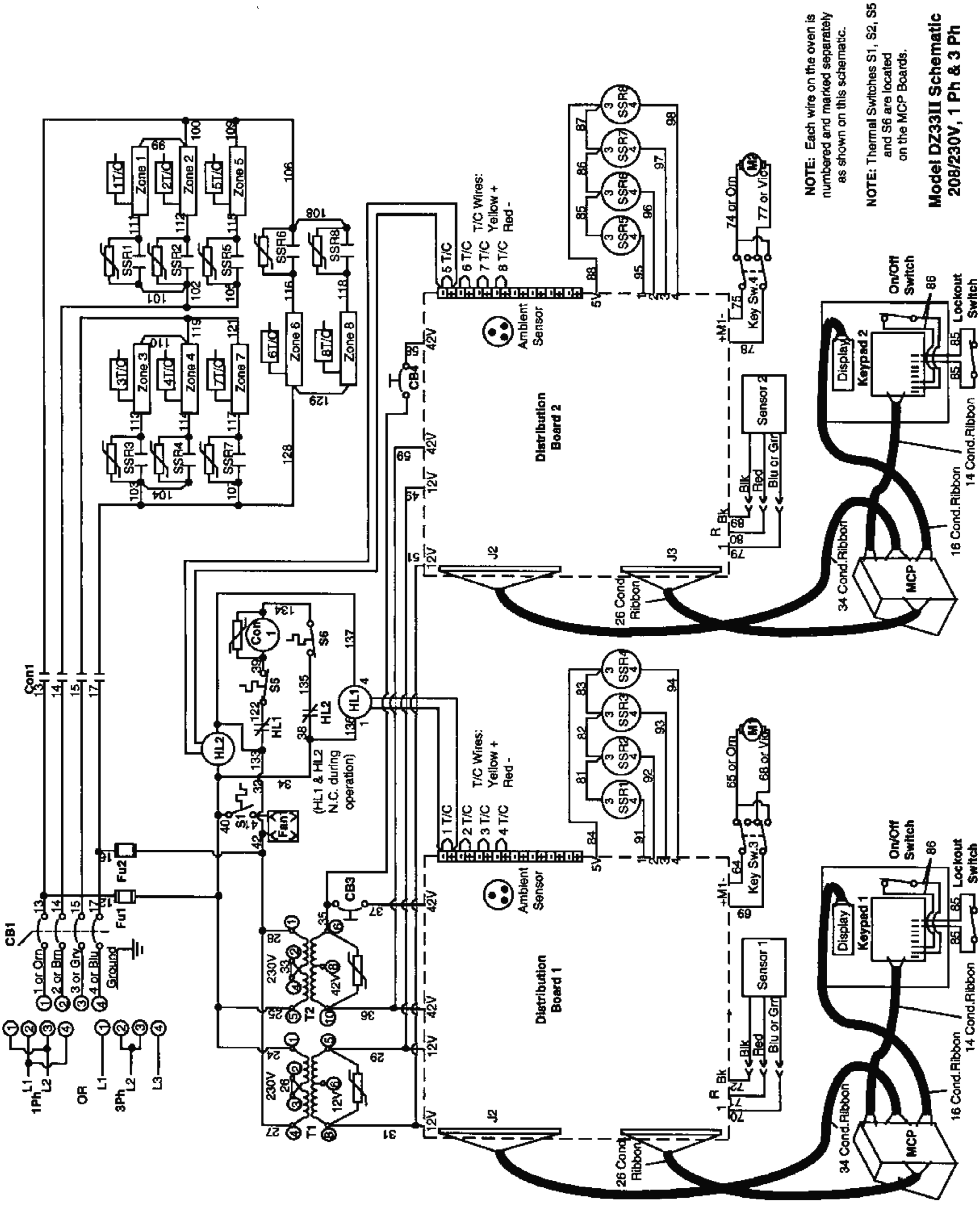


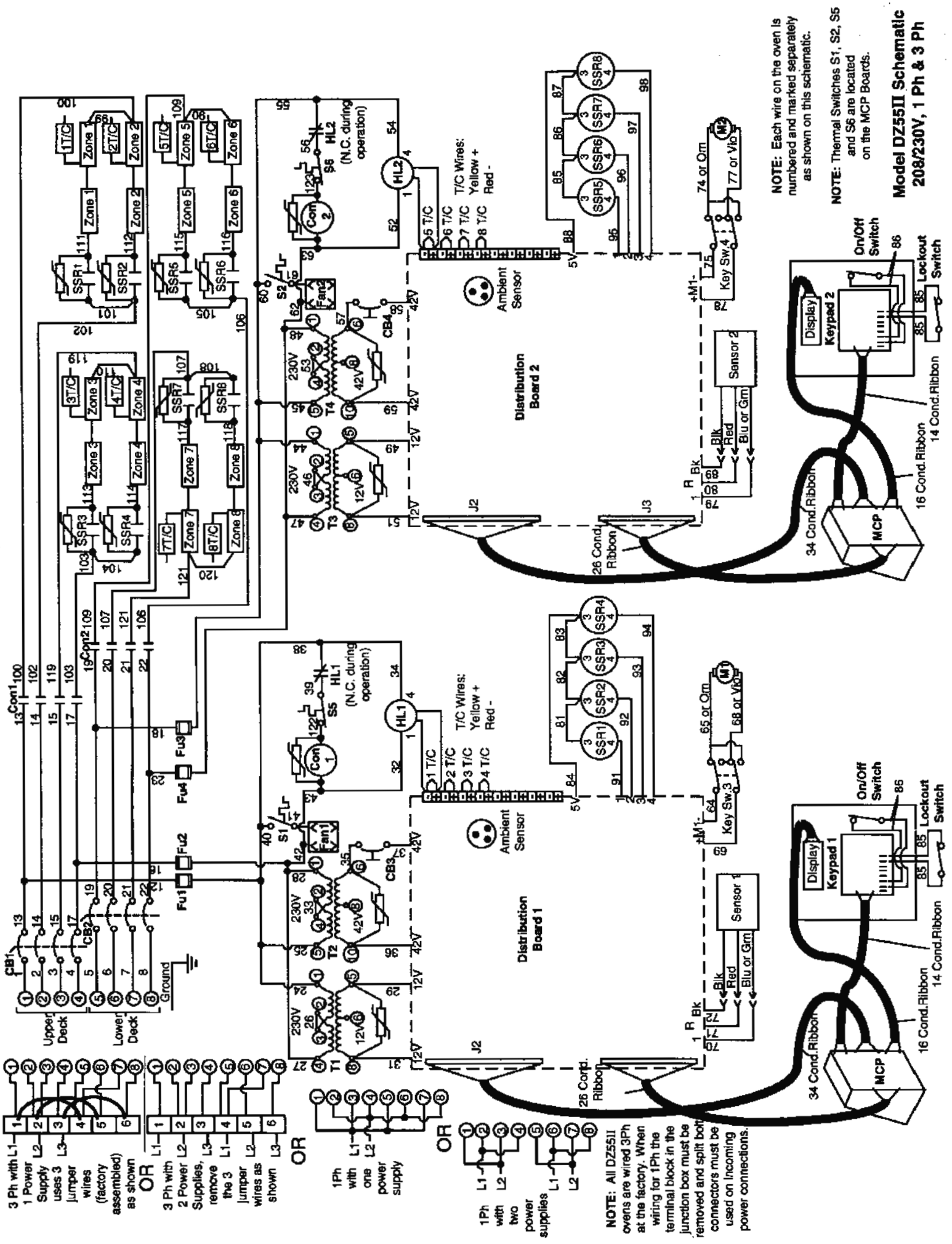
NOTES

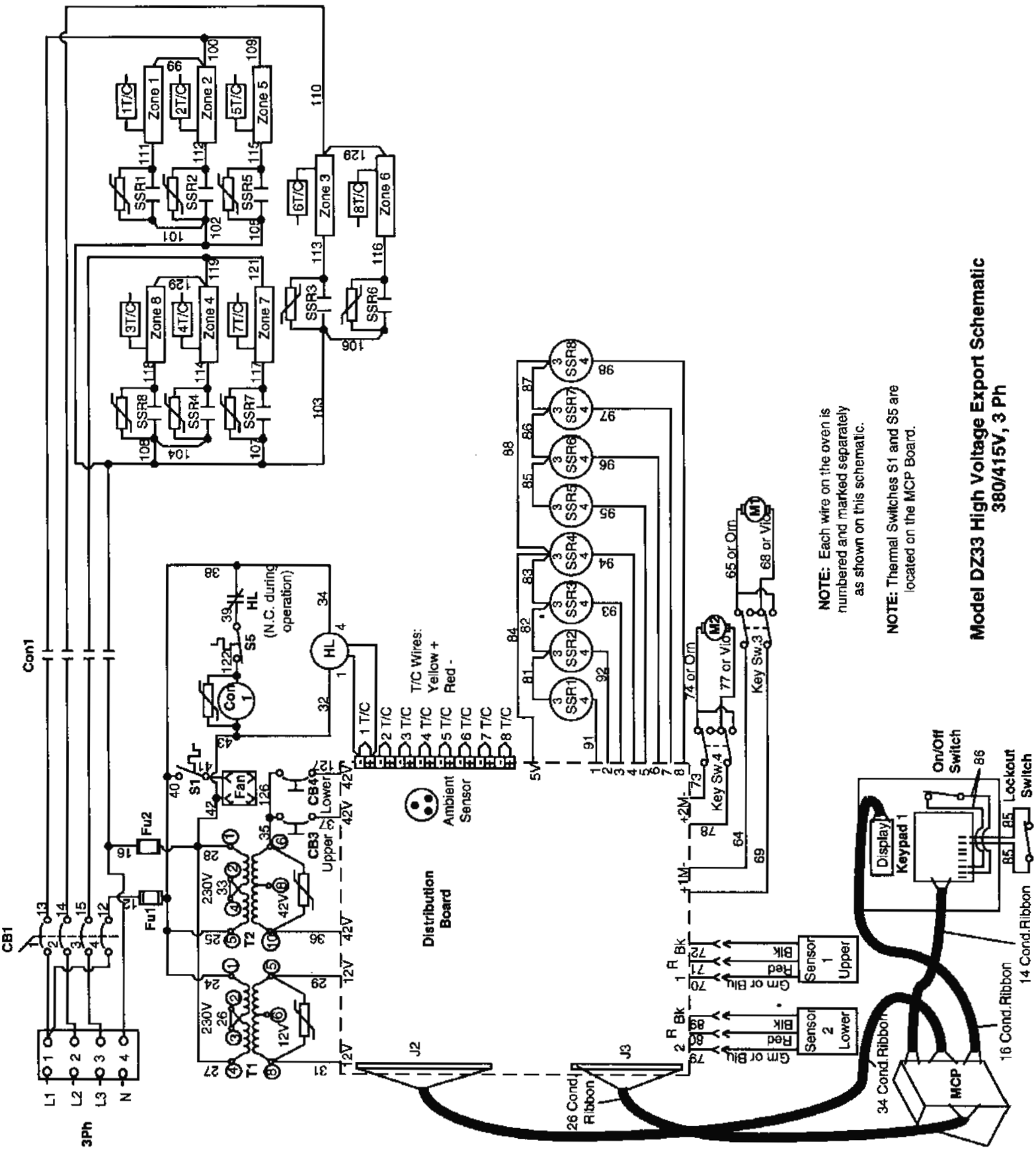
SECTION 7
ELECTRICAL SCHEMATICS

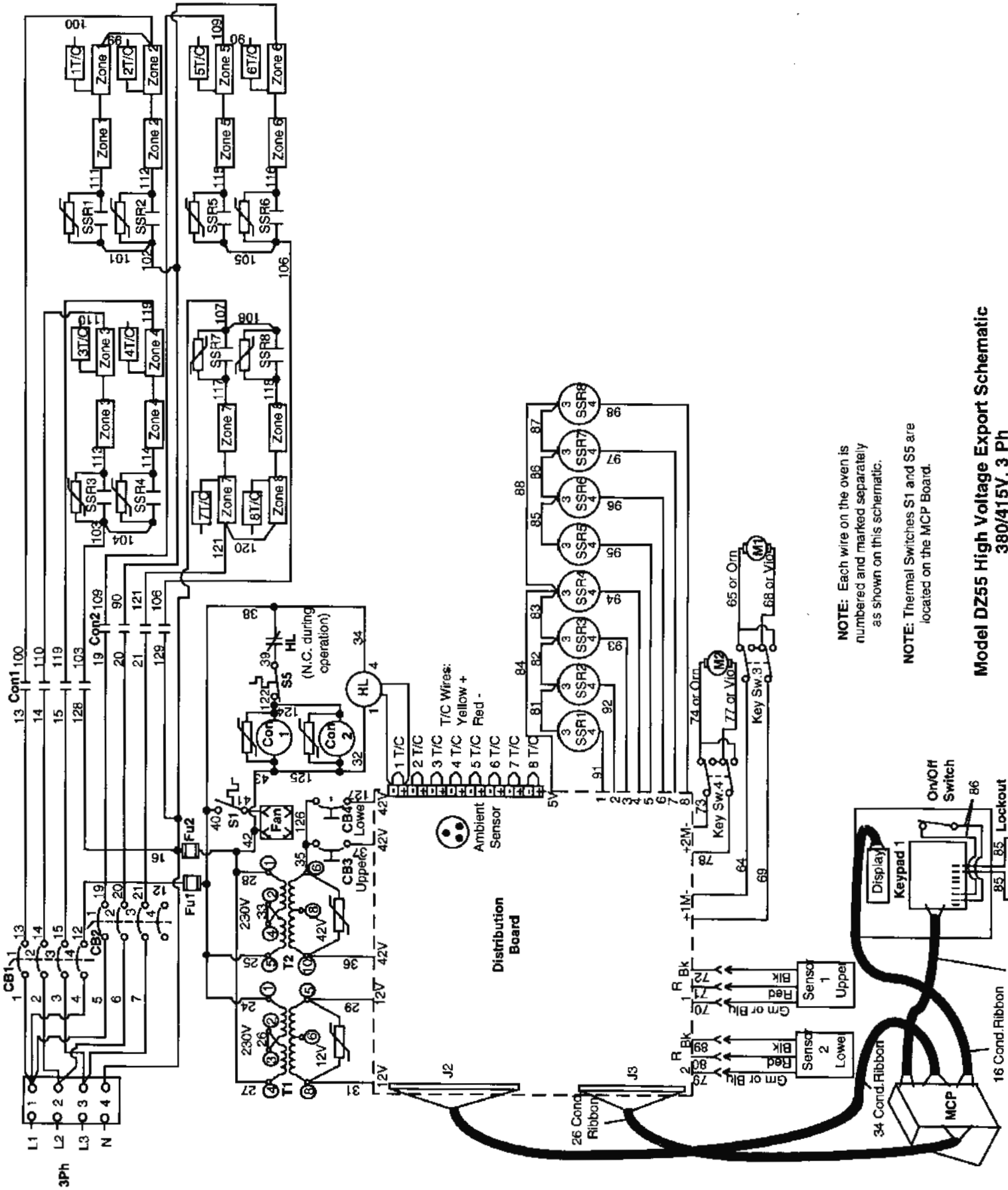


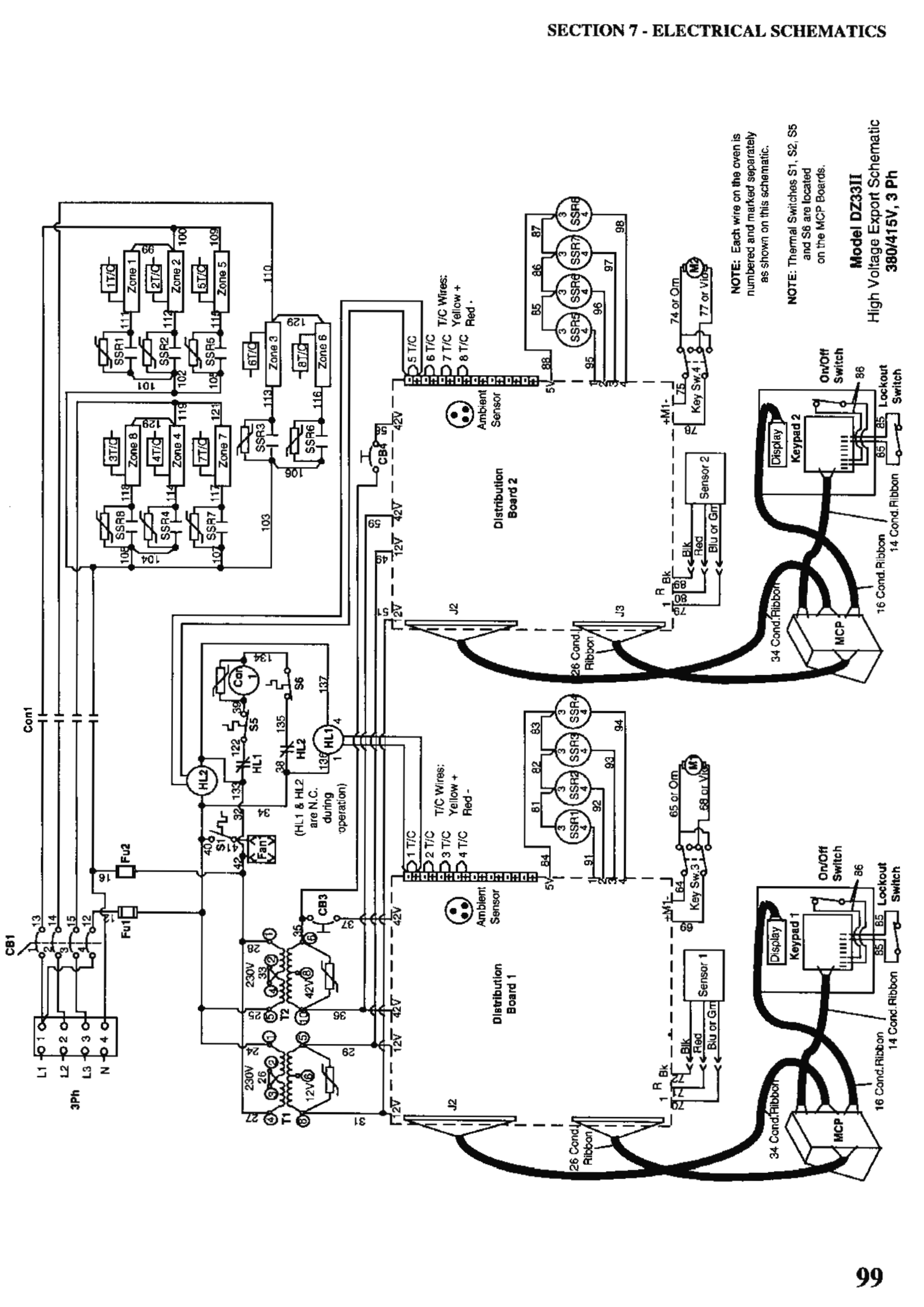

Model DZ55 Schematic
208/230V, 1 Ph or 3 Ph
NOTE: Each wire on the oven is numbered and marked separately as shown on this schematic.
NOTE: Thermal Switches S1 and S5 are located on the MCP Board.
Distribution Board
MCP
Keypad 1
Display
On/Off Switch
Lockout Switch
Key Sw 1
Key Sw 2
Key Sw 3
Key Sw 4
Ambient Sensor
Sensor 1 Upper
Sensor 2 Lower
T/C Wires:
Yellow +
Red -
(N.C. during operation)
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5
Zone 6
Zone 7
Zone 8
SSR1
SSR2
SSR3
SSR4
SSR5
SSR6
SSR7
SSR8
Fan
CB1
CB2
CB3 Upper
CB4 Lower
Fu1
Fu2
1Ph
3Ph
OR
Upper Deck
Lower Deck
Ground
26 Cond. Ribbon
34 Cond. Ribbon
16 Cond. Ribbon
14 Cond. Ribbon

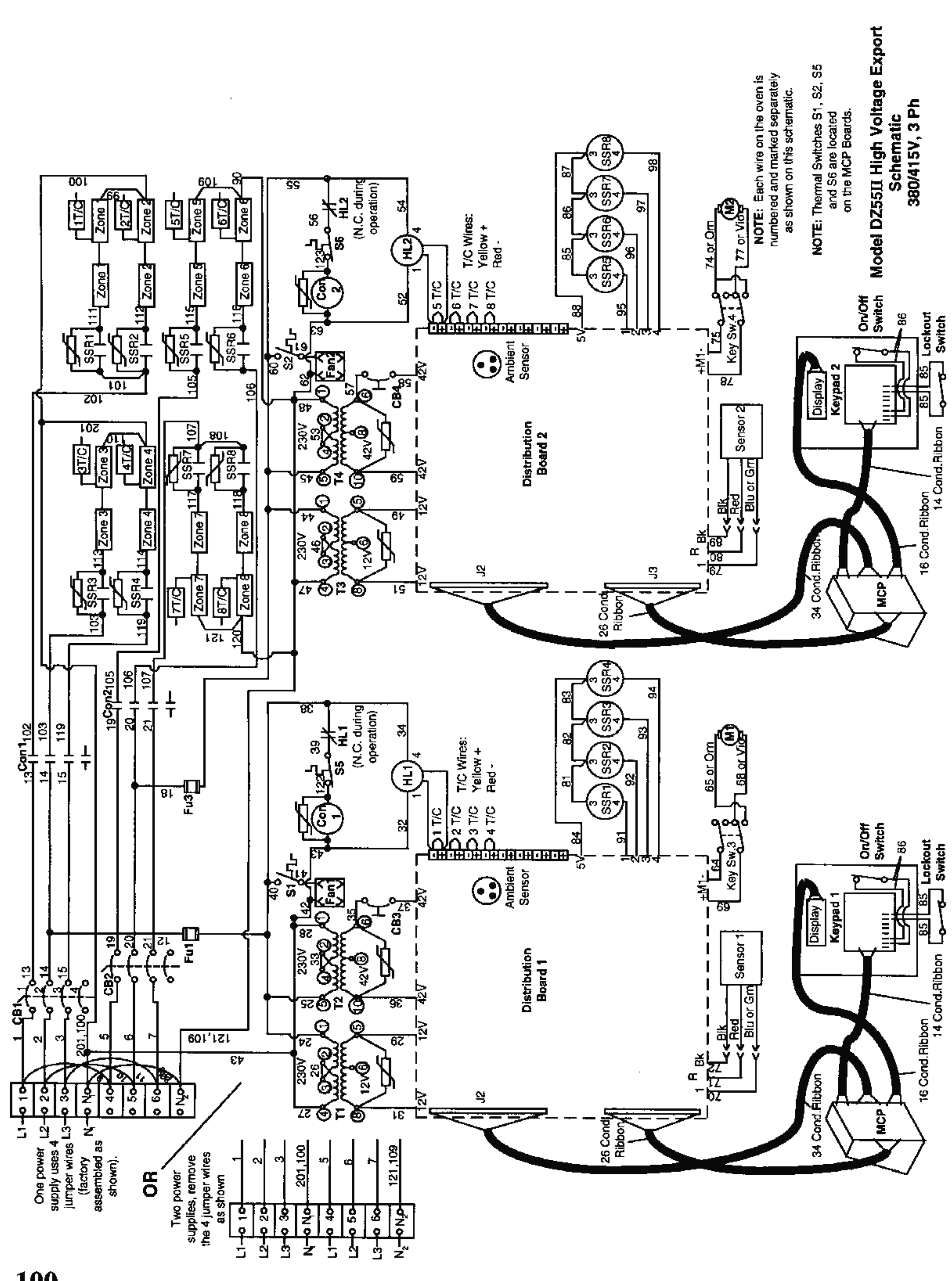

NOTE: Each wire on the oven is numbered and marked separately as shown on this schematic.
NOTE: Thermal Switches S1, S2, S5 and S6 are located on the MCP Boards.
Model DZ33II Schematic
208/230V, 1 Ph & 3 Ph
Distribution Board 1
Distribution Board 2
Ambient Sensor
Sensor 1
Sensor 2
Keypad 1
Keypad 2
Display
On/Off Switch
Lockout Switch
MCP
34 Cond.Ribbon
26 Cond. Ribbon
16 Cond.Ribbon
14 Cond.Ribbon
T/C Wires: Yellow + Red -
(HL1 & HL2 N.C. during operation)
Key Sw.3
Key Sw.4
1Ph
3Ph
OR
Ground
CB1
CB3
CB4
Con1
Fu1
Fu2
T1
T2
Fan

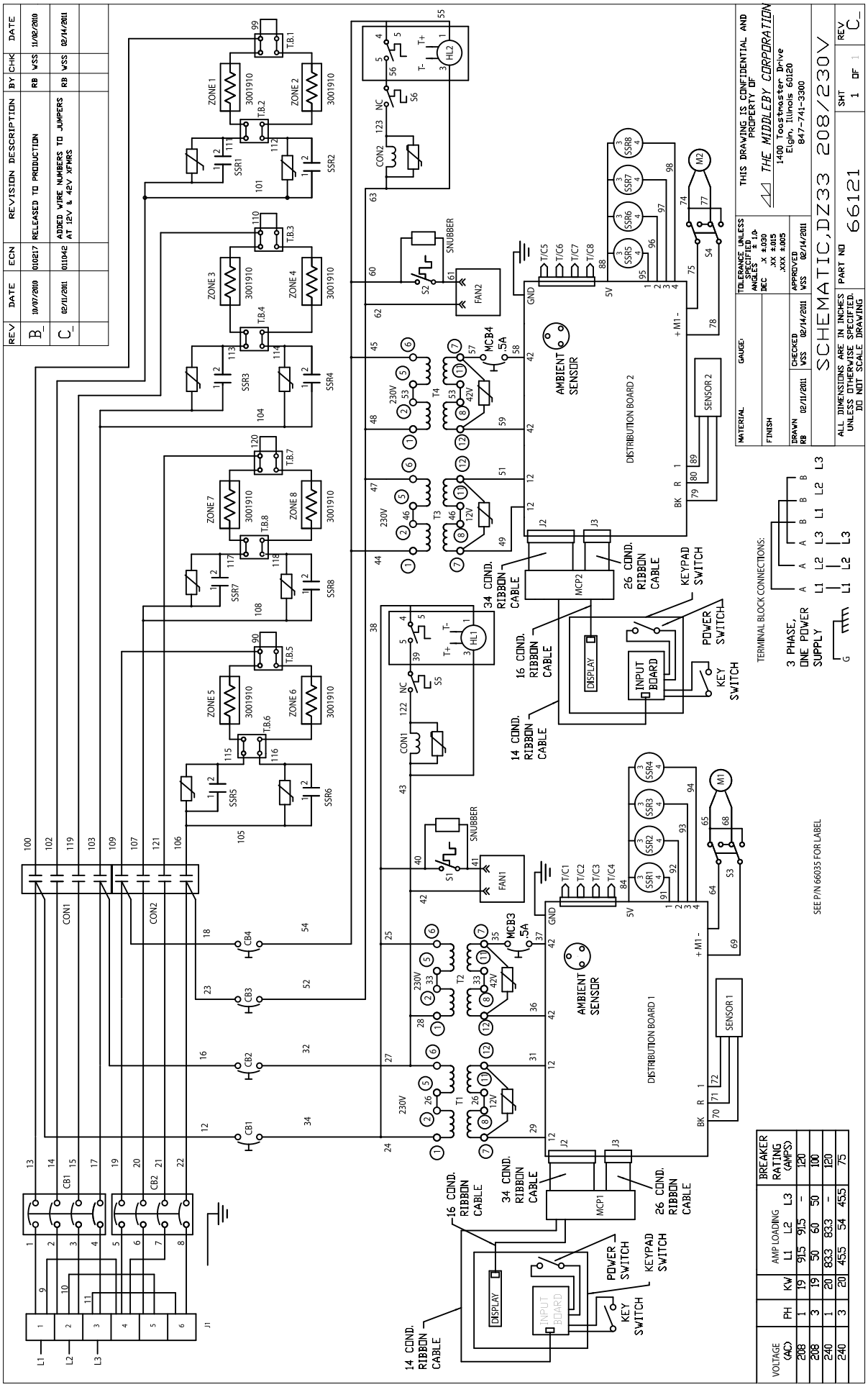

Model DZ55II Schematic
208/230V, 1 Ph & 3 Ph
NOTE: Each wire on the oven is numbered and marked separately as shown on this schematic.
NOTE: Thermal Switches S1, S2, S5 and S6 are located on the MCP Boards.
NOTE: All DZ55II ovens are wired 3Ph at the factory. When wiring for 1Ph the terminal block in the junction box must be removed and split both connectors must be used on incoming power connections.
Distribution Board 1
Distribution Board 2
MCP
Keypad 1
Keypad 2
Display
On/Off Switch
Lockout Switch
Ambient Sensor
Sensor 1
Sensor 2
Key Sw.3
Key Sw.4
Ground
Upper Deck
Lower Deck
3 Ph with L1 1 Power Supply uses 3 jumper wires (factory assembled) as shown
OR
3 Ph with 2 Power Supplies, remove the 3 jumper wires as shown
OR
1Ph with one power supply
OR
1Ph with two power supplies
34 Cond.Ribbon
26 Cond. Ribbon
16 Cond.Ribbon
14 Cond.Ribbon
T/C Wires: Yellow + Red -
(N.C. during operation)
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5
Zone 6
Zone 7
Zone 8
SSR1
SSR2
SSR3
SSR4
SSR5
SSR6
SSR7
SSR8
Fan1
Fan2
Blk
Red
Blu or Grn
74 or Orn
77 or Vio
65 or Orn
68 or Vio


Model DZ33 High Voltage Export Schematic
380/415V, 3 Ph
NOTE: Each wire on the oven is numbered and marked separately as shown on this schematic.
NOTE: Thermal Switches S1 and S5 are located on the MCP Board.
Con1
CB1
3Ph
L1
L2
L3
N
Fu1
Fu2
T1
T2
230V
12V
42V
Distribution Board
J2
J3
26 Cond. Ribbon
34 Cond. Ribbon
16 Cond. Ribbon
14 Cond. Ribbon
MCP
Display/ Keypad 1
On/Off Switch
Lockout Switch
Key Sw.1
Key Sw.2
Key Sw.3
Key Sw.4
Sensor 1 Upper
Sensor 2 Lower
Ambient Sensor
T/C Wires: Yellow + Red -
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5
Zone 6
Zone 7
Zone 8
SSR1
SSR2
SSR3
SSR4
SSR5
SSR6
SSR7
SSR8
HL (N.C. during operation)
S1
S5
Fan
CB3 Upper
CB4 Lower
+1M-
+2M-


Model DZ55 High Voltage Export Schematic
380/415V, 3 Ph
NOTE: Each wire on the oven is numbered and marked separately as shown on this schematic.
NOTE: Thermal Switches S1 and S5 are located on the MCP Board.
Distribution Board
Ambient Sensor
T/C Wires: Yellow + Red -
MCP
Display
Keypad 1
On/Off Switch
Lockout Switch
Key Sw.41
Key Sw.31
Fan
HL (N.C. during operation)
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5
Zone 6
Zone 7
Zone 8
SSR1
SSR2
SSR3
SSR4
SSR5
SSR6
SSR7
SSR8
Sensor 1 Upper
Sensor 2 Lower
26 Cond. Ribbon
34 Cond.Ribbon
16 Cond.Ribbon
14 Cond.Ribbon
L1
L2
L3
N
3Ph


Model DZ33II
High Voltage Export Schematic
380/415V, 3 Ph
NOTE: Each wire on the oven is numbered and marked separately as shown on this schematic.
NOTE: Thermal Switches S1, S2, S5 and S6 are located on the MCP Boards.
3Ph
L1
L2
L3
N
CB1
Con1
Fu1
Fu2
Fan
S1
S5
S6
HL1
HL2
(HL1 & HL2 are N.C. during operation)
T1
T2
230V
42V
12V
CB3
CB4
Distribution Board 1
Distribution Board 2
Ambient Sensor
T/C Wires: Yellow + Red -
1 T/C
2 T/C
3 T/C
4 T/C
5 T/C
6 T/C
7 T/C
8 T/C
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5
Zone 6
Zone 7
Zone 8
SSR1
SSR2
SSR3
SSR4
SSR5
SSR6
SSR7
SSR8
Key Sw 3
Key Sw 4
65 or Om
68 or Vio
74 or Om
77 or Vio
Sensor 1
Sensor 2
Blk
Red
Blu or Grn
J2
J3
26 Cond. Ribbon
34 Cond. Ribbon
16 Cond. Ribbon
14 Cond. Ribbon
MCP
Keypad 1
Keypad 2
Display
On/Off Switch
Lockout Switch


Model DZ55II High Voltage Export
Schematic
380/415V, 3 Ph
NOTE: Each wire on the oven is numbered and marked separately as shown on this schematic.
NOTE: Thermal Switches S1, S2, S5 and S6 are located on the MCP Boards.
Distribution Board 1
Distribution Board 2
One power supply uses 4 jumper wires (factory assembled as shown).
OR
Two power supplies, remove the 4 jumper wires as shown
T/C Wires: Yellow + Red -
(N.C. during operation)
Ambient Sensor
Keypad 1
Keypad 2
Display
On/Off Switch
Lockout Switch
MCP
34 Cond.Ribbon
26 Cond. Ribbon
16 Cond.Ribbon
14 Cond.Ribbon
Sensor 1
Sensor 2


REV | DATE | ECN | REVISION DESCRIPTION | BY | CHK | DATE
B_ | 10/07/2010 | 010217 | RELEASED TO PRODUCTION | RB | VSS | 11/02/2010
C_ | 02/11/2011 | 011042 | ADDED WIRE NUMBERS TO JUMPERS AT 12V & 42V XFMRS | RB | VSS | 02/14/2011
THE MIDDLEBY CORPORATION
1400 Toastmaster Drive
Elgin, Illinois 60120
847-741-3300
SCHEMATIC,DZ33 208/230V
PART NO 66121
REV C_
SHT 1 OF 1
THIS DRAWING IS CONFIDENTIAL AND PROPERTY OF
TOLERANCE UNLESS SPECIFIED ANGLES ± 1.0
DEC .X ±.030 .XX ±.015 .XXX ±.005
MATERIAL GAUGE
FINISH
DRAWN RB 02/11/2011
CHECKED VSS 02/14/2011
APPROVED VSS 02/14/2011
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED. DO NOT SCALE DRAWING
3 PHASE, ONE POWER SUPPLY
TERMINAL BLOCK CONNECTIONS:
L1 L2 L3
SEE P/N 66035 FOR LABEL
DISTRIBUTION BOARD 1
DISTRIBUTION BOARD 2
AMBIENT SENSOR
SENSOR 1
SENSOR 2
FAN1
FAN2
SNUBBER
MCB3 5A
MCB4 5A
CB1
CB2
CB3
CB4
CON1
CON2
MCP1
MCP2
DISPLAY
INPUT BOARD
POWER SWITCH
KEYPAD SWITCH
KEY SWITCH
16 COND. RIBBON CABLE
34 COND. RIBBON CABLE
26 COND. RIBBON CABLE
14 COND. RIBBON CABLE
ZONE 1 3001910
ZONE 2 3001910
ZONE 3 3001910
ZONE 4 3001910
ZONE 5 3001910
ZONE 6 3001910
ZONE 7 3001910
ZONE 8 3001910
SSR1
SSR2
SSR3
SSR4
SSR5
SSR6
SSR7
SSR8
T1
T2
T3
T4
M1
M2
HL1
HL2
S1
S2
S3
S4
S5
S6
T.B.1
T.B.2
T.B.3
T.B.4
T.B.5
T.B.6
T.B.7
T.B.8
T/C1
T/C2
T/C3
T/C4
T/C5
T/C6
T/C7
T/C8
VOLTAGE (AC) | PH | KW | AMP LOADING L1 | L2 | L3 | BREAKER RATING (AMPS)
208 | 1 | 19 | 91.5 | 91.5 | - | 120
208 | 3 | 19 | 50 | 60 | 50 | 100
240 | 1 | 20 | 83.3 | 83.3 | - | 120
240 | 3 | 20 | 45.5 | 54 | 45.5 | 75

For more information on the complete line of **CTX** products, contact your Food Service Equipment Dealer, or write to us at the address below.

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