Middleby Marshall®
A MIDDLEBY COMPANY

OWNER'S OPERATING & INSTALLATION MANUAL

PS629E-Series Electric Ovens
Model PS629E

Combinations:

- Single Oven
- Double Oven (Two-Stack)
- Triple Oven (Three-Stack)

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P/N 77154 rev B

NOTICE:

This Owner's Operating and Installation Manual should be given to the user. The operator of the oven should be familiar with the function and operation of the oven.

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

Middleby Marshall suggests a service contract with a Middleby Authorized Service Agent (ASA).

DEFINITIONS

DANGER

INDICATES A HAZARDOUS SITUATION THAT, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.

WARNING

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates situations not related to physical injury that, if not avoided, could cause damage to the machine or surrounding property and could affect warranty coverage.

IMPORTANT

Includes other information required by the operator or installer.

WARNING

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

• Children should be supervised to ensure that they do not play with the appliance.

• Cleaning and user maintenance shall not be made by children without supervision.

WARNING

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, operation, and maintenance instructions thoroughly before installing or servicing the equipment.

IMPORTANT

An electrical wiring diagram for the oven is located inside the machinery compartment.

IMPORTANT

It is the customer's responsibility to report any concealed or non-concealed damage to the freight company. Retain all shipping materials until it is certain that the equipment has not suffered concealed shipping damage.

NOTICE

Contact your Middleby Authorized Service Agent to install and perform maintenance and repairs. An authorized service agency directory is supplied with your oven and available here: https://middlebymarshall.com

NOTICE

Using parts other than genuine Middleby Marshall Factory manufactured parts relieves the manufacturer of all warranty and liability.

NOTICE

Middleby Marshall (Manufacturer) reserves the right to change specifications at any time.

NOTICE

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

NOTICE

The equipment is only for professional use and shall be used by qualified personnel.

CAUTION

In order to avoid a hazard due to inadvertent resetting of the thermal cut-out, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

RETAIN THIS MANUAL FOR FUTURE REFERENCE

MIDDLEBY MARSHALL 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 PURCHASE, 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-authorized installer.

Abuse, acts of God, belt jams, cleaning, customer abuse, insufficient utilities, lubrication, maintenance, non-oven related issues, preventative maintenance, or normal maintenance function including adjustment of airflow, burners, conveyor components, door mechanisms, microswitches, pilot burners, thermostats, and replacement of bushings, light bulbs, fuses, indicating lights, and wear points, 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 shall be the 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 the buyer.

This warranty is effective on Middleby Marshall equipment sold on, or after January 1st, 2007.

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MIDDLEBY MARSHALL OVEN LIMITED WARRANTY (Non U.S.A.)

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, F.O.B. Seller's factory, any part found defective and any labor and material expense incurred by Seller in repairing or replacing such part. Such warranty is limited to a period of one year from the date of original installation or 15 months from date of shipment from Seller's factory, whichever is earlier, provided that terms of payment have been fully met. All labor shall be performed during regular working hours. Overtime premium will be charged to the Buyer.

This warranty is not valid unless equipment is installed, started, and demonstrated under the supervision of a factory-authorized installer.

Normal maintenance functions including lubrication, adjustment of airflow, thermostats, door mechanisms, microswitches, burners and pilot burners, and replacement of light bulbs, fuses, and indicating lights, are not covered by warranty.

Any repair or replacement of defective parts shall be performed by Seller's authorized service personnel. Seller shall not be responsible for any costs incurred if the work is performed by anyone other than the Seller's authorized service personnel.

When returning any part under warranty, the part must be intact and complete, without evidence of misuse or abuse, freight prepaid.

Seller shall not be liable for any consequential damages of any kind which occur during the course of installation of equipment, or which result from the use or misuse by Buyer, its employees or others of the equipment supplied hereunder, at Buyer's sole and exclusive remedy against Seller for any breach of the foregoing warranty or otherwise shall be for the repair or replacement of the equipment or parts thereof affected by such breach.

The foregoing warranty shall be valid and binding upon Seller if and only if Buyer loads, operates, and maintains the equipment supplied hereunder in accordance with the instruction manual provided to Buyer. Seller does not guarantee the process of manufacture by Buyer or quality of product to be produced by the equipment supplied hereunder and Seller shall not be liable for any prospective or lost profits of Buyer.

The foregoing shall be Seller's sole and exclusive obligation and Buyer's sole and exclusive remedy for any action, whether in breach of contract or negligence. In no event shall Seller be liable for a sum in excess of the purchase price of the item.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER. SPECIFICALLY THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Table of Contents

SECTION 1
DESCRIPTION

I. MODEL IDENTIFICATION

The Middleby Marshall PS629E-Series has a 15" (381mm) wide front window and reversible conveyor. The PS629 may be used either as a single oven or stacked for use as double or triple ovens.

A single PS629E-Series Oven (Figure 1) is mounted on a base pad with 4" (102mm) legs. Stacked ovens are mounted on a base pad and the lower oven is mounted on a base pad with legs. All models are available with optional large legs with casters.

On a double or triple oven, the ovens operate independently. All ovens use identical controls and components. One oven can be cleaned or serviced, while the others are operating.

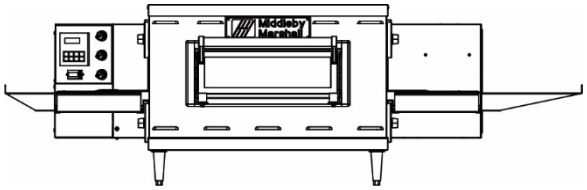


Figure 1. PS629E-1

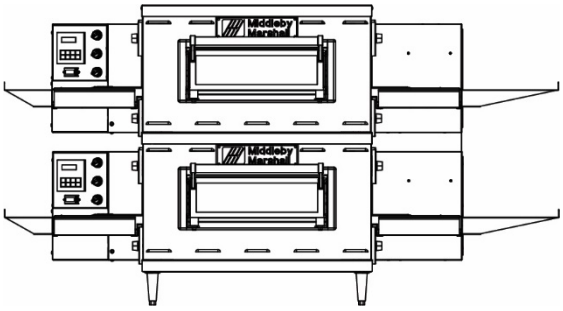


Figure 2. PS629E-2

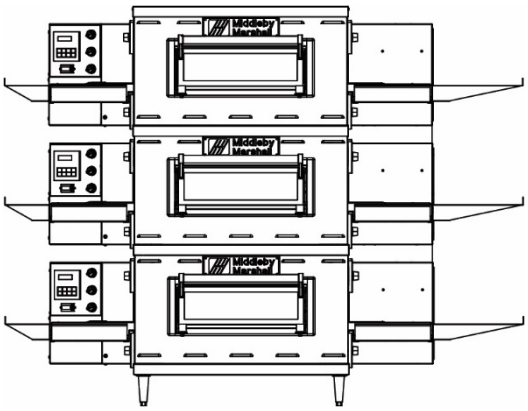


Figure 3. PS629E-3

II. PS629E SERIES SPECIFICATIONS

RECOMMENDED MINIMUM CLEARANCES

There are no recommended clearances from the rear, control end, or non-control end of the oven to the wall.

PS629E SERIES OVEN SPECIFICATIONS

	Heating Zone	*Baking Area*	*Belt Length*	*Belt Width*	*Overall Length exit trays installed*	*Height 4" legs installed*	*Depth*	*Maximum Operating Temp*	*Bake Time Range*	*Ship Wt*	*Ship Cube*
PS629E-1	28"	3.5 ft^2	50"	18"	68"	21.00"	40.74"	600°F	1-10 min	325 lbs	22.1 ft^3
	711mm	0.33m^2	1270mm	457mm	1727mm	533mm	1035mm	316°C		147.42kg	0.62m^3
PS629E-2	56"	7 ft^2	50"	18"	68"	36.55"	40.74"	600°F	1-10 min	650 lbs	44.2 ft^3
	1422mm	0.66m^2	1270mm	457mm	1727mm	930mm	1035mm	316°C		294.48kg	1.24m^3
PS629E-3	84"	11.5 ft^2	50"	18"	68"	52.09"	40.74"	600°F	1-10 min	975 lbs	66.3 ft^3
	2134mm	0.99m^2	1270mm	457mm	1727mm	1322mm	1035mm	316°C		442.25kg	1.86m^3

SERIES PS629E ELECTRICAL SPECIFICATIONS

Main Blower & Elements Voltage	*Control Circuit Voltage*	*Phase*	*Freq*		*kW*	*Amperage**				*Supply*	*Breakers*
						L1	*L2*	*L3*	*N*		
208-240V	208-240	3	50/60 Hz	208	12	35.3	35.3	33.3	-	3 pole, 4 wire (3 hot, 1 grd)	As per local codes
		3	50/60 Hz	240	12	30.8	30.8	28.8	-	3 pole, 4 wire (3 hot, 1 grd)	As per local codes
380V Export & Export CE	208-240	3	50/60 Hz	380	12	20.2	18.2	18.2	2.0	4 pole, 5 wire (3 hot, 1 neu, 1 grd)	As per local codes
208-240V	208-240	1	50/60 Hz	208	10	48.1	48.1	-	-	2 pole, 3 wire (2 hot, 1 grd)	As per local codes
	EXPORT CE	1	50/60 Hz	230	9.2	40.0	40.0	-	-	2 pole, 3 wire (2 hot, 1 grd)	As per local codes
		1	50/60 Hz	240	10	41.7	41.7	-	-	2 pole, 3 wire (2 hot, 1 grd)	As per local codes

** The current draw ratings are maximum values for normal operation; amperage draw will be less than the listed value.*

208/240V ovens supplied with 6 ft cord with NEMA# L6-20P plug for 3ph ovens. Customer to provide NEMA# L6-20R receptacle.

NOTE: Wiring Diagrams are contained in Section 6 of this Manual and are also located inside the oven at the bottom of the Control Panel. Additional electrical information is provided on the oven's serial plate.

This Manual Must Be Kept For Future Reference.

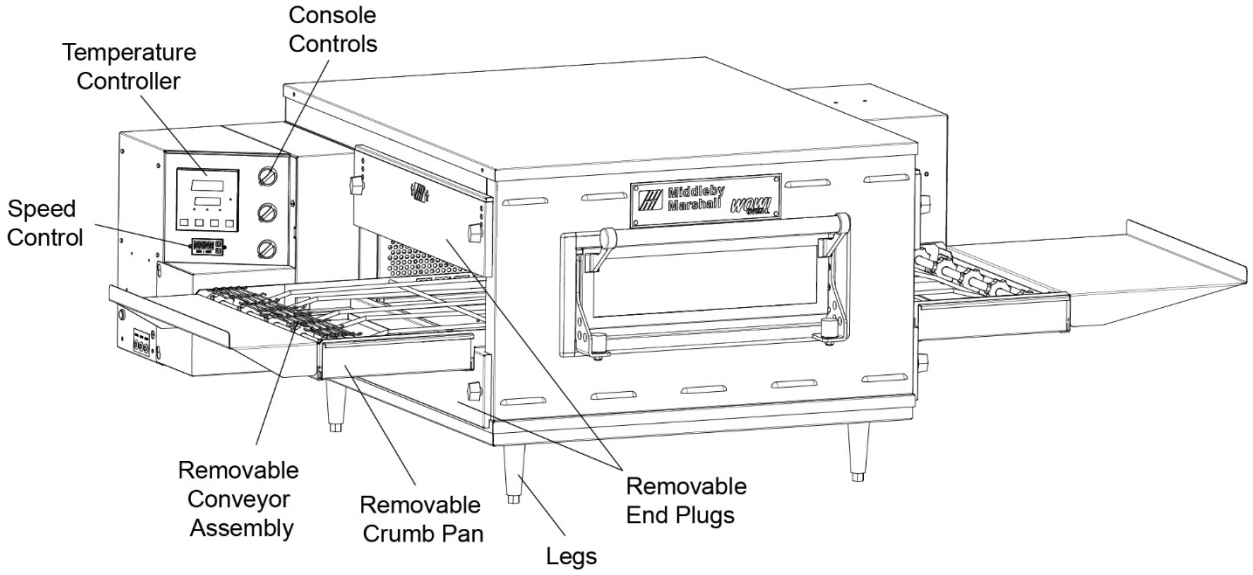


Figure 4. PS629E-Series Oven Components Locations

III. COMPONENT FUNCTION

A. Conveyor Motor and Conveyor Belt

The conveyor belt is driven by a variable-speed electric motor (Figure 5) operating through a gear reducer. The motor speed is controlled by a digital control. The stainless-steel wire belt can travel in either direction at variable rates ranging from 1 to 10 minutes; this is the time that a product can take to pass through the oven.

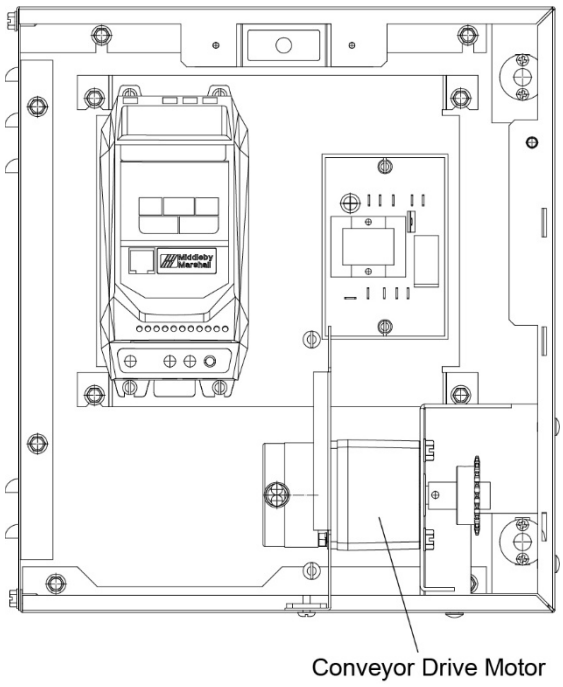


Figure 5. Right Control Box

B. Blower Fan

The blower fans are located at the rear of the oven. These blowers force heated air through the air fingers. The BLOWER switch must be set to “ON” or “I” for oven warmup and baking.

C. Electric Heater

There is one heater element mounted on the inside of the rear panel. The element is connected to an electrical control which is energized by the temperature controller.

D. Cooling Fan

See Figure 6 and Figure 7.

The cooling fan is located in the back of the oven. The cooling fan draws air through its grille, blowing it through the blower motor compartment and the control compartments, then into the oven top. The air exits out the front louvers.

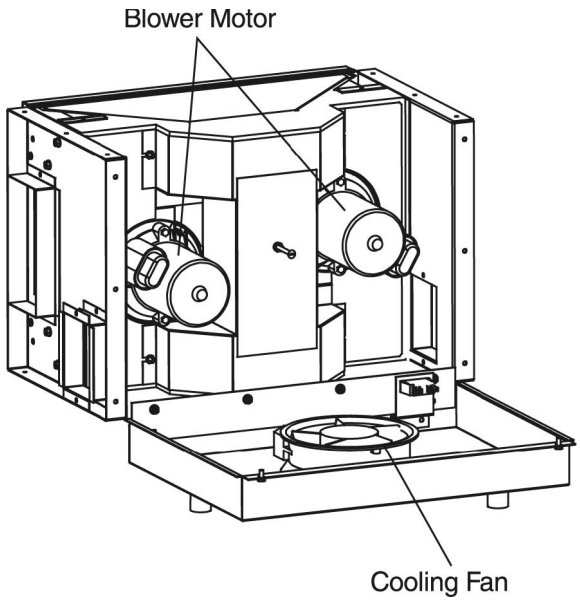


Figure 6. Blower Assembly

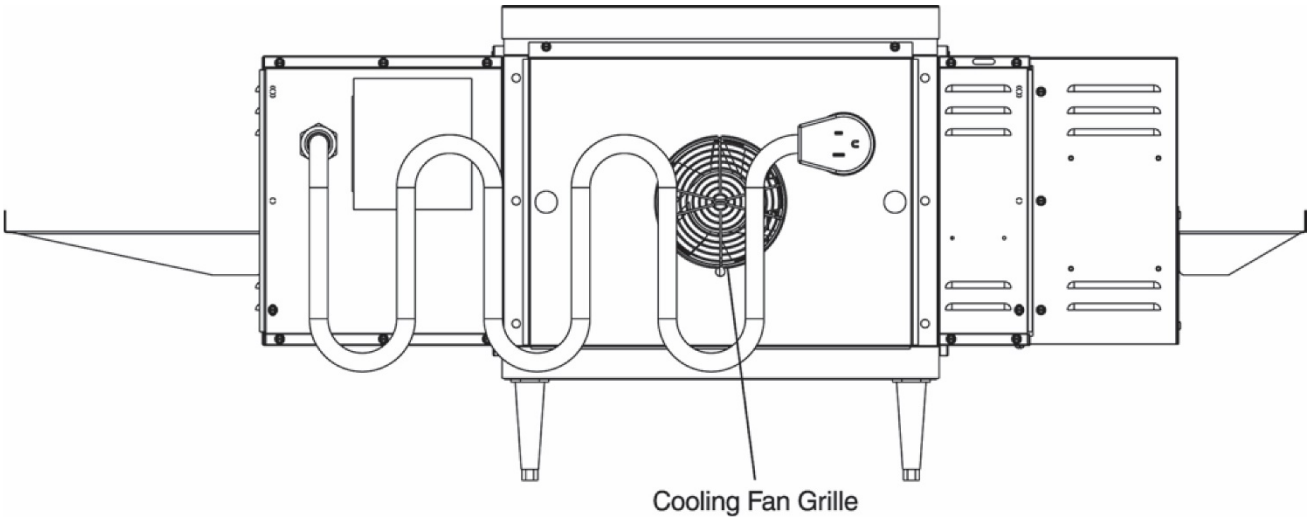


Figure 7. Cooling Fan

E. Air Fingers and Blank Plates

See Figure 8.

E1. Air Fingers

An Air Finger Assembly is made up of three parts:

1. **Outer Plate** - The Outer Plate is the removable covering with tapered holes, which direct the air stream onto the product being baked.
2. **Inner Plate** - The perforated Inner Plate is vital in forming the unique air jets. It must be assembled into the manifold with its holes aligned with the holes of the outer plate.
3. **Manifold** - The Manifold is the assembly which slides on tracks into the oven plenum.

E2. Blank Plates

1. **Blank Plates** - The Blank Plates are available to install on the plenum where an air finger is not required.

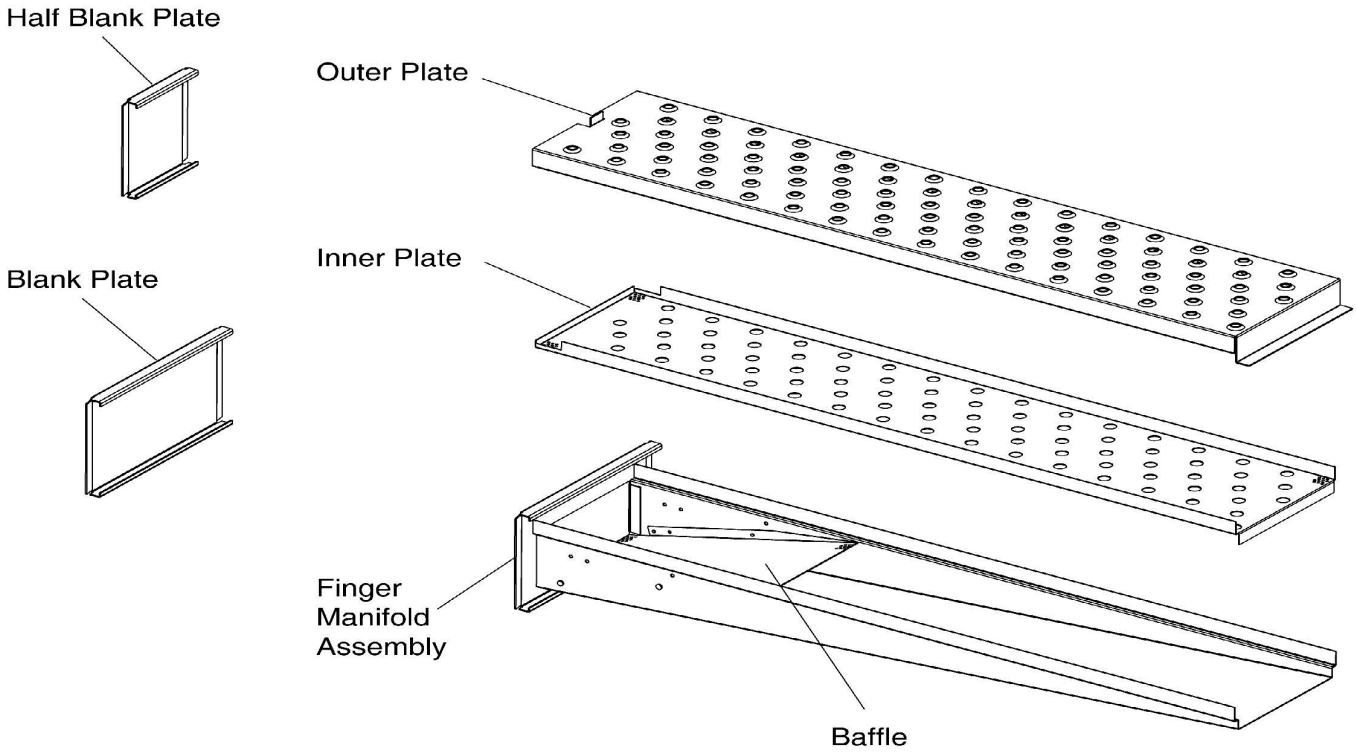


Figure 8. Blank Plates (two sizes) and an Air Finger

NOTES

SECTION 2
INSTALLATION

WARNING

Keep the appliance area free and clear of combustibles.

WARNING

The oven must be installed on an even (level) non-flammable flooring and any adjacent walls must not be flammable. Recommended minimum clearances are specified in the Description section of this manual.

WARNING

Do not obstruct the flow of ventilation air to and from your oven. There must be no obstruction around or underneath the oven. Constructional changes to the area where the oven is installed shall not affect the air supply to the oven.

CAUTION

To reduce the risk of fire, the appliance is to be mounted on floors of noncombustible construction with noncombustible flooring and surface finish and with no combustible material against the underside thereof, or on noncombustible slabs or arches having no combustible material against the underside thereof. Such construction shall in all cases extend not less than 12 inches (304mm) beyond the equipment on all sides.

NOTICE

For additional installation information, contact your local Authorized Service Agent.

NOTICE

There must be adequate clearance between the oven and combustible construction. Clearance must also be provided for servicing and for proper operation.

IMPORTANT

An electrical wiring diagram for the oven is located inside the machinery compartment.

NOTE: All aspects of the oven installation, including placement, utility connections, and ventilation requirements, must conform with any applicable local, national, or international codes. These codes supersede the requirements and guidelines provided in this manual.

NOTE: In the USA, the oven installation must conform to local codes. Electric ovens, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code (NEC), or ANSI/NFPA 70.

NOTE: In Canada, the oven installation must conform with local codes. Electric ovens, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with Canadian Electrical Code, CSA C22.2.

CAUTION

It is recommended that the oven be placed under a ventilation hood for adequate air supply and ventilation.

CAUTION

Do not obstruct the flow of ventilation air to and from your oven. Do not obstruct the fan holes in the rear of the unit.

NOTICE

On ovens with the machinery drive compartment located at the right end, a minimum clearance of 0" to a left side wall, 18" (457mm) to a right side wall and 6" (152mm) from a back wall to air openings at the rear of the oven must be maintained. For servicing and cleaning, a minimum of 18" (457mm) clearance from all walls is recommended.

I. UNLOADING, DIMENSIONS, AND ROUGH-IN

Your Middleby Marshall PS629E-Series Oven is shipped partially assembled. It will arrive in a carton on a crate.

The crate and carton must be examined before signing the Bill of Lading. Report any visible damage to the transport company, and check for the proper number of crates. If apparent damage is found, make arrangements to file a claim against the carrier. Surface Interstate Commerce Regulations (U.S.A.) require that the claim must be initiated by the consignee within 10 days from the date that the shipment is received.

PARTS LIST FOR SERIES PS629E ELECTRIC OVEN INSTALLATION KIT
Single and Double Stack Ovens

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	4	3101908	LEG 4″ AD FT
2	1	62208	INSULATION BOTTOM TRAY
3	1	62206	BOTTOM TRAY WELDMENT
4	1	61650	TOP COVER
5	4	51387	SCREW MSSLT THREAD 8-32 × 1/2, 18-8
6	1	77154	OWNER'S OPERATING & INSTALLATION MANUAL
7	4	62207	INSULATION

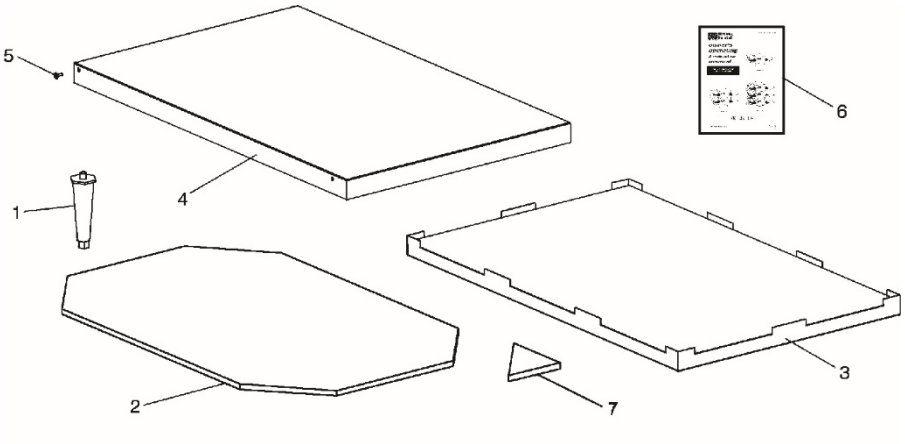


Figure 9. PS629E-Series Electric Oven Installation Parts

PARTS LIST FOR SERIES PS629E ELECTRIC OVEN
INSTALLATION KIT Triple Stack Oven

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	4	3101908	LEG 4″ AD FT
2	2	62208	INSULATION BOTTOM TRAY
3	1	62206	BOTTOM TRAY WELDMENT
4	1	61650	TOP COVER
5	4	51387	SCREW MSSLT THREAD 8-32 × 1/2, 18-8
6	1	77154	OWNER'S OPERATING & INSTALLATION MANUAL
7	4	62207	INSULATION

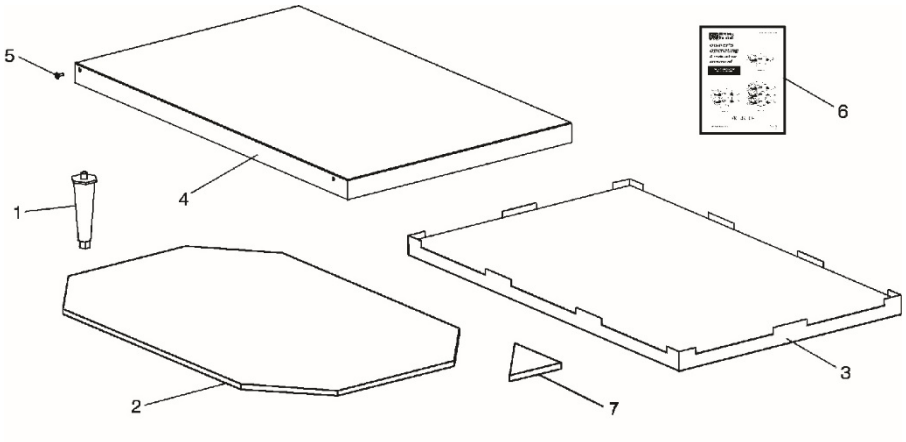
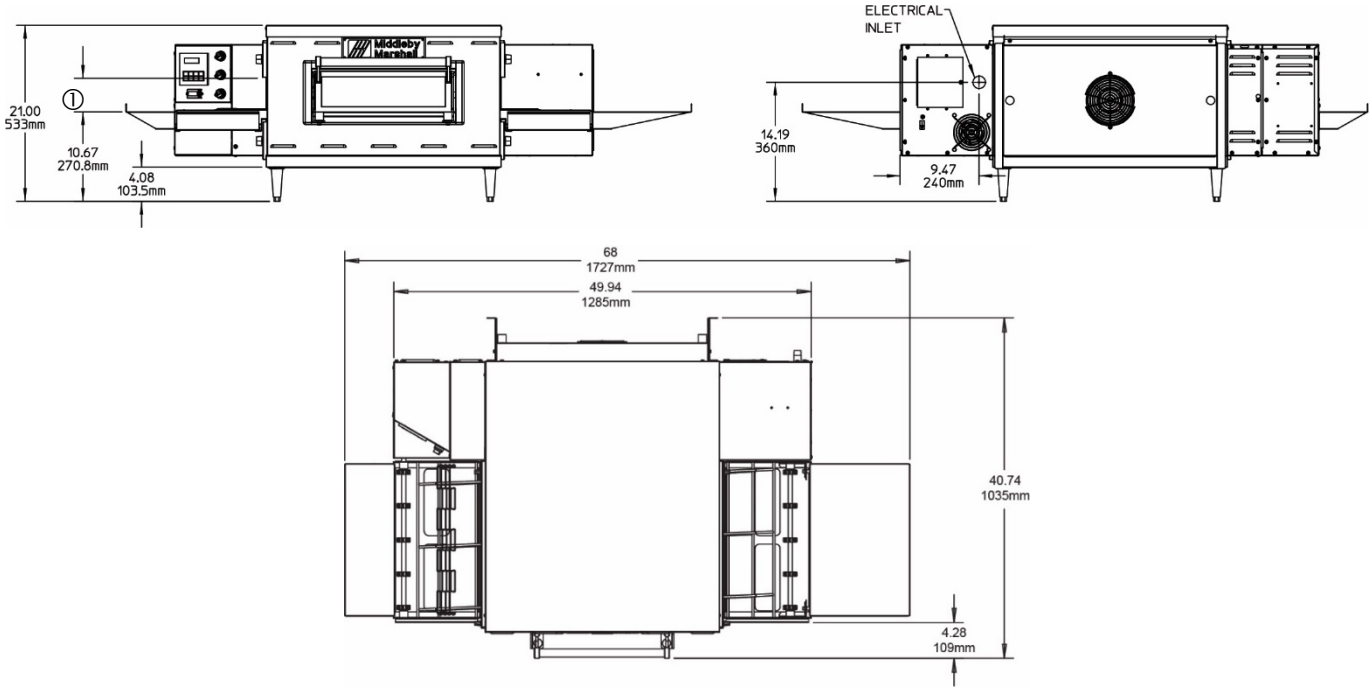
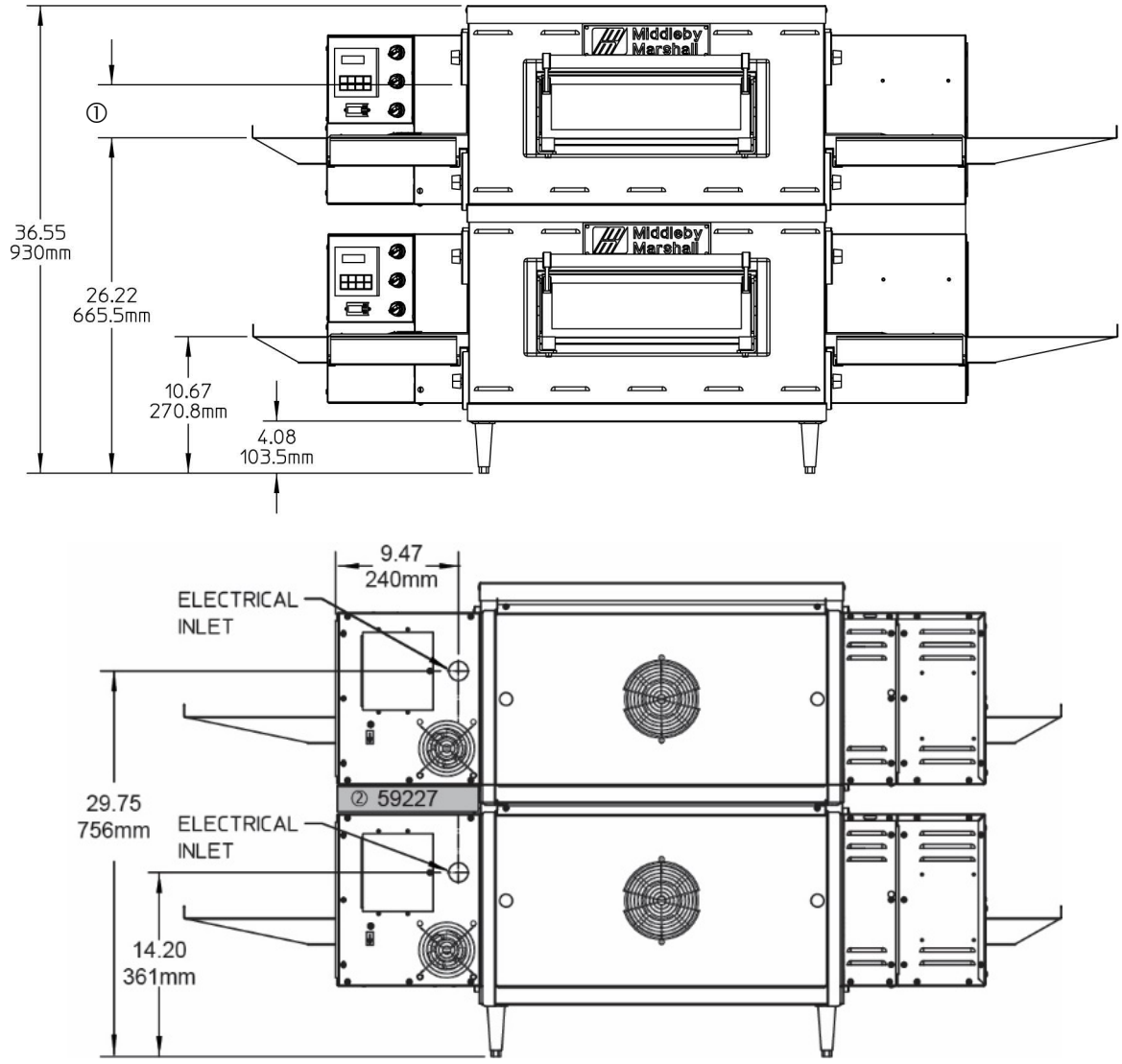


Figure 10. PS629E-Series Electric Oven Installation Parts



① *The Opening Height is Adjustable from 2-1/4" (57mm) minimum to 3-3/4" (95mm) maximum in 1/2" (13mm) increments.*

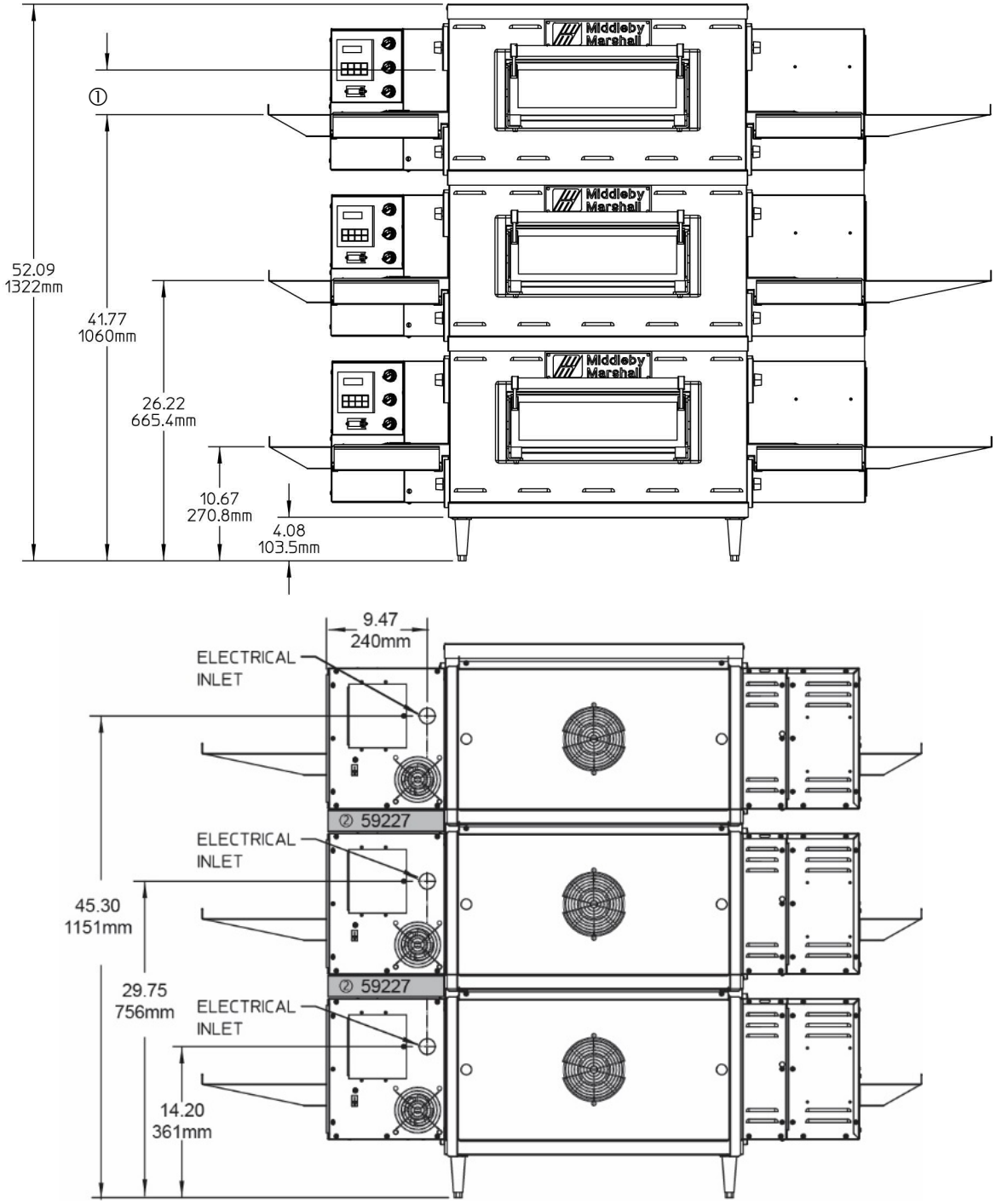
Figure 11. Model PS629E Single Oven Dimensions



① *The Opening Height is Adjustable from 2-1/4" (57mm) minimum to 3-3/4" (95mm) maximum in 1/2" (13mm) increments.*

② *P/N 59227 is shown in its correct installed position.*

Figure 12. Model PS629E Double Oven Dimensions



① *The Opening Height is Adjustable from from 2-1/4" (57mm) minimum to 3-3/4" (95mm) maximum in 1/2" (13mm) increments.*

② *P/N 59227 is shown in its correct installed position.*

Figure 13. Model PS629E Triple Oven Dimensions

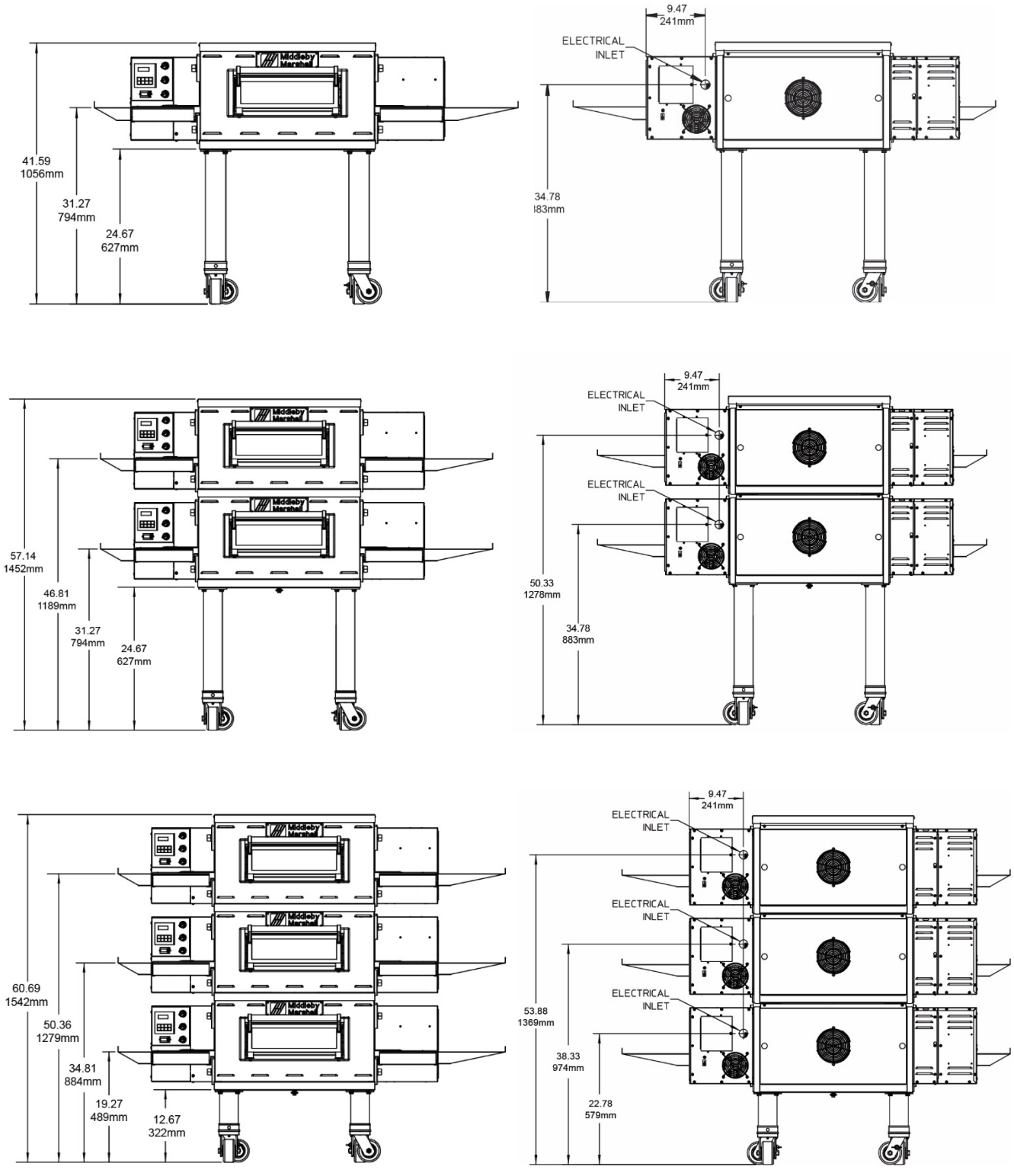


Figure 14. Model PS629E Dimensions with Optional Legs/Casters

UTILITY ROUGH-IN DIMENSIONS AND POSITIONING FOR PS629E-SERIES OVEN

WARNING

Do not use conduit for ground connection.

CAUTION

It is recommended that the oven be placed under a ventilation hood for adequate air supply and ventilation.

IMPORTANT

Electric supply to be provided by customer.

CIRCUIT BREAKER

Separate circuit breaker with lockout/tagout electrical shutoff for each oven. Wire each oven separately.

60 Amp circuit breaker for 208-240V 1ph, 50 Amp circuit breaker for 208-240V 3ph, or 30 Amp circuit breaker for 380-480V.

ELECTRICAL SPECIFICATIONS

Blower/ Element	208V	240V	380V	280V	230V	240V
Phase	3	3	3	1	1	1
Circuit	208/ 240	208/ 240	208/ 240	208/ 240	208/ 240	208/ 240
kW	12	12	12	10	9.2	10
Frequency	50/60	50/60	50/60	50/60	50/60	50/60
Poles	3	4	4	2	2	2
Wires	4	5	5	3	3	2
L1	35.3	30.8	20.2	48.1	40.0	41.7
L2	35.3	30.8	18.2	48.1	40.0	41.7
L3	33.3	28.8	18.2	-	-	-
N	-	-	2.0	-	-	-

SUPPLY WIRE

Supply wire size must be in accordance with the National Electrical Code (current edition) and must be in compliance with local codes.

SUGGESTED

If space permits, service should be located near the control console end of the oven(s) to allow convenient access to safety switches.

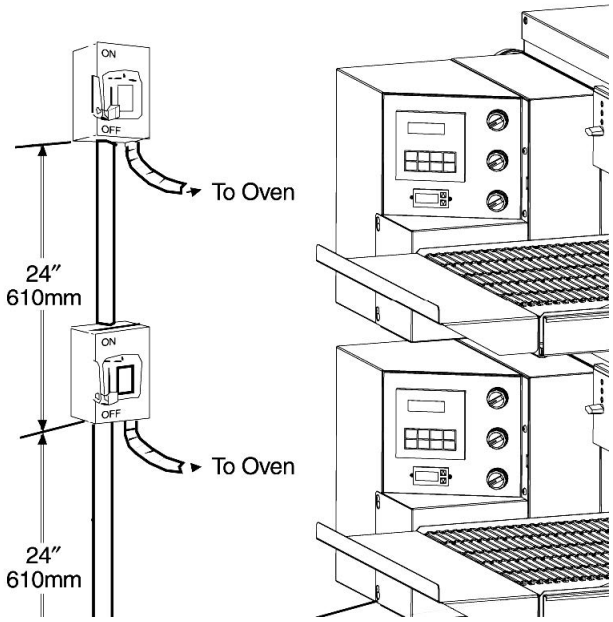


Figure 15. Typical PS629E-Series Oven(s) Installation

NOTICE

Where national or local codes require the installation of fire suppression equipment or other supplementary equipment, DO NOT mount the equipment directly to the oven.

Mounting such equipment may:

- Void agency certifications
- Restrict service access
- Lead to increased service expenses for the owner

NOTICE

Unit must have plate air vents installed or warranty will be void.

II. VENTILATION GUIDELINES

A mechanically driven ventilation system is recommended for the PS629E Series Middleby Marshall conveyorized electric ovens.

Local codes and conditions vary greatly from one area to another and must be complied with. Following are the suggested requirements for good ventilation. Please remember these are recommendations or guidelines, you may have a special condition or problem that will require the services of a ventilation engineer or specialist. Proper ventilation is the oven

owner's responsibility. Improper ventilation can inhibit oven performance.

Please Note: There is now one heat guard on double units and two heat guards on triple units. See Figure 12 and Figure 13.

Please Note: There are now two "stand off" plate air vents that must be installed in the field. See Figure 16.

C-channel brackets are installed in the vertical plane using existing screws to support plate air vents, using the upper and lower Key Hole openings in the C-channels. The plate air vents are identical and once installed will allow ample amounts of air through the cooling fan mounted on the rear side of the oven by keeping the oven away from the rear wall.

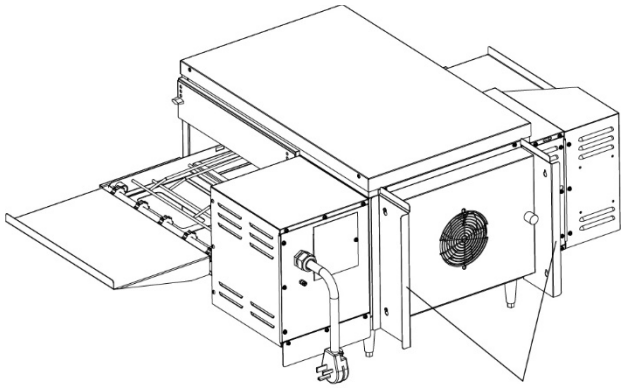


Plate Air Vents

Figure 16.

III. ELECTRICAL CONNECTION INFORMATION FOR PS629E-SERIES OVENS

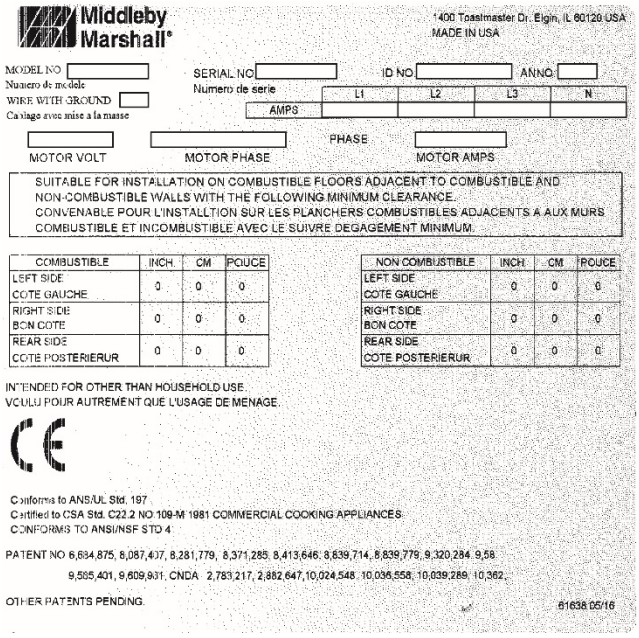
WARNING

Authorized supplier personnel normally accomplish the connections for the ventilation system and electric supply, as arranged by the customer. Following these connections, the factory-authorized installer can perform the initial start-up of the oven.

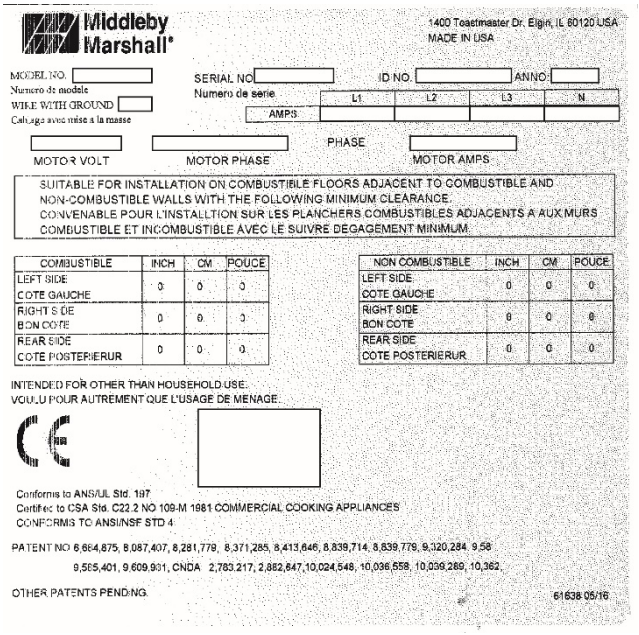
Check the oven data plate (Figure 17) before making any electric supply connections. Electric supply connections must agree with data on the oven data plate.

NOTE: The electric supply installation must satisfy the requirements of the appropriate statutory authority, such as the National Electrical Code (NEC), ANSI/NFPA70, (U.S.A.); the Canadian Electrical Code, CSA C22.2; the Australian Code AS/NZ5601; or other applicable regulations.

A fused disconnect switch or a main circuit breaker (customer furnished) MUST be installed in the electric supply line for each oven; it is recommended that this switch/circuit breaker have lockout/tagout capability. The electric supply connection must meet all national and local electrical code requirements. Copper is the recommended material for the electrical supply conductors.



INTERNATIONAL CE PLATE



DOMESTIC PLATE

Figure 17. Typical Oven Data Plate

IV. ELECTRIC SUPPLY FOR ELECTRICALLY HEATED OVENS

Power requirements for electrically heated ovens are usually 208 - 240VAC, 1-phase, 3-wire (2 “hot”, 1 ground) or 208-240VAC, 3-phase, 4-wire (3 “hot”, 1 ground), although ovens built for export can have power requirements of 380VAC. (These ovens have a 5-wire system [3 “hot”, 1 neutral, 1 ground].) A 1.5" (38mm) diameter cutout/hole in the back of the machinery compartment provides access for the electrical supply connections on 380V units. 208V and 240V 3-phase units have a cord and plug. Using flexible cable(s) for the electrical power supply conductors requires a 2" (51mm) strain-relief fitting to enable safe access to the terminal block from which oven power is distributed.

The supply conductors must be of the size and material (copper) recommended to provide the current required (refer to the data plate for the ampere specifications). The electric current rating for each conductor supplying a PS629E-Series Oven ranges from a minimum of 18.2A to a maximum of 48.1A.

Typical specifications for each PS629-Series Oven are 208 or 240VAC, 1-phase, 3-wire, 10kW; this oven requires 60A service. A PS629-Series Double Oven (Figure 2) installation would require two 60A service connections, one for each oven; the 10kW power consumption also doubles for such an installation to 20kW.

The 208 or 240VAC electrically heated oven uses two legs of the supplied power to provide 208 or 240VAC power for the oven control circuitry.

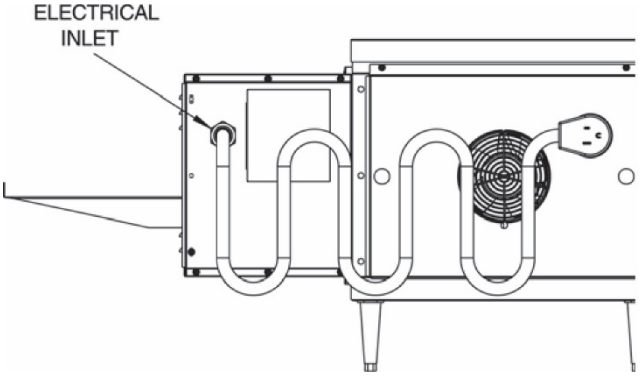


Figure 18. Junction Connection Box

NOTES

SECTION 3
OPERATION

I. CONTROL FUNCTIONS

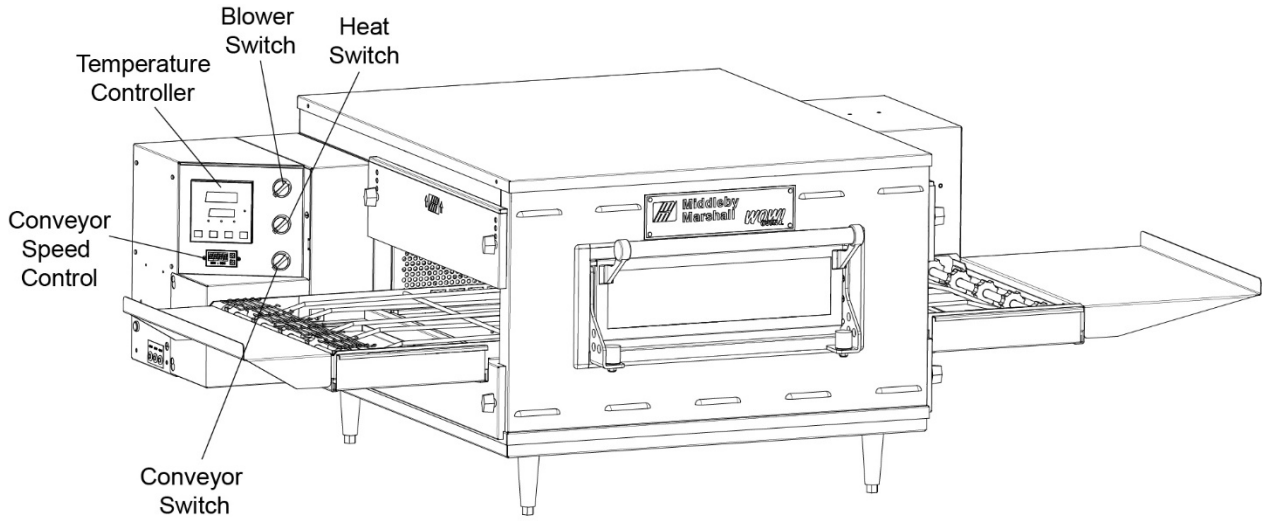


Figure 19. PS629E-Series Oven Control Functions

WARNING

Possibility of injury from rotating parts and electric shock.

Never disassemble or clean the oven with the BLOWER switch or any other oven control turned "ON" or "I". Turn "OFF" or "O" and lockout or tagout all electric power to the oven before attempting to clean or service this oven.

II. COMPONENT INFORMATION AND LOCATION

See Figure 20 and Figure 21.

A. Door Safety Switch

The door safety switch is located at the top center of control panel opening. Opening the control panel door permits this switch to open, disconnecting power to all electrical controls.

CAUTION

DO NOT touch the wires going to this safety switch. Current is always present.

B. Blower Switch

The blower switch must be "ON" or "I" for the main blowers to come on and to permit the oven to run. The fan circulates the air through the air fingers and must stay on during baking. The main blower will continue to run after the blower switch is turned to the "OFF" or "O" position if the temperature inside the oven is over 200°F (93°C). To prevent blower motor and bearing damage, a thermostatic override is built into the oven.

The switch also turns on the rear oven cooling fans to cool the control components and blower motor. The cooling fans remain on during the cool down cycle at control console temperatures above 200°F (93°C).

C. Heat Switch

Turning the HEAT switch to "ON" or "I" will energize the electric heating system. This switch is in series with the blower fan motor and high temperature override switch. Both switches must be closed before the heating elements can be energized.

D. Temperature Controller

The temperature controller is a solid-state, PID type to maintain the temperature set point. The temperature controller continuously monitors the oven temperature and turns on the modulating solid-state relay controller. The heat is on for the time required to maintain a constant oven temperature.

The temperature controller contains a low-limit switch which allows the oven to cool down to 200°F (93°C) before shutting off the blower. An OVER TEMP LED lights if the oven reaches 650°F (343°C).

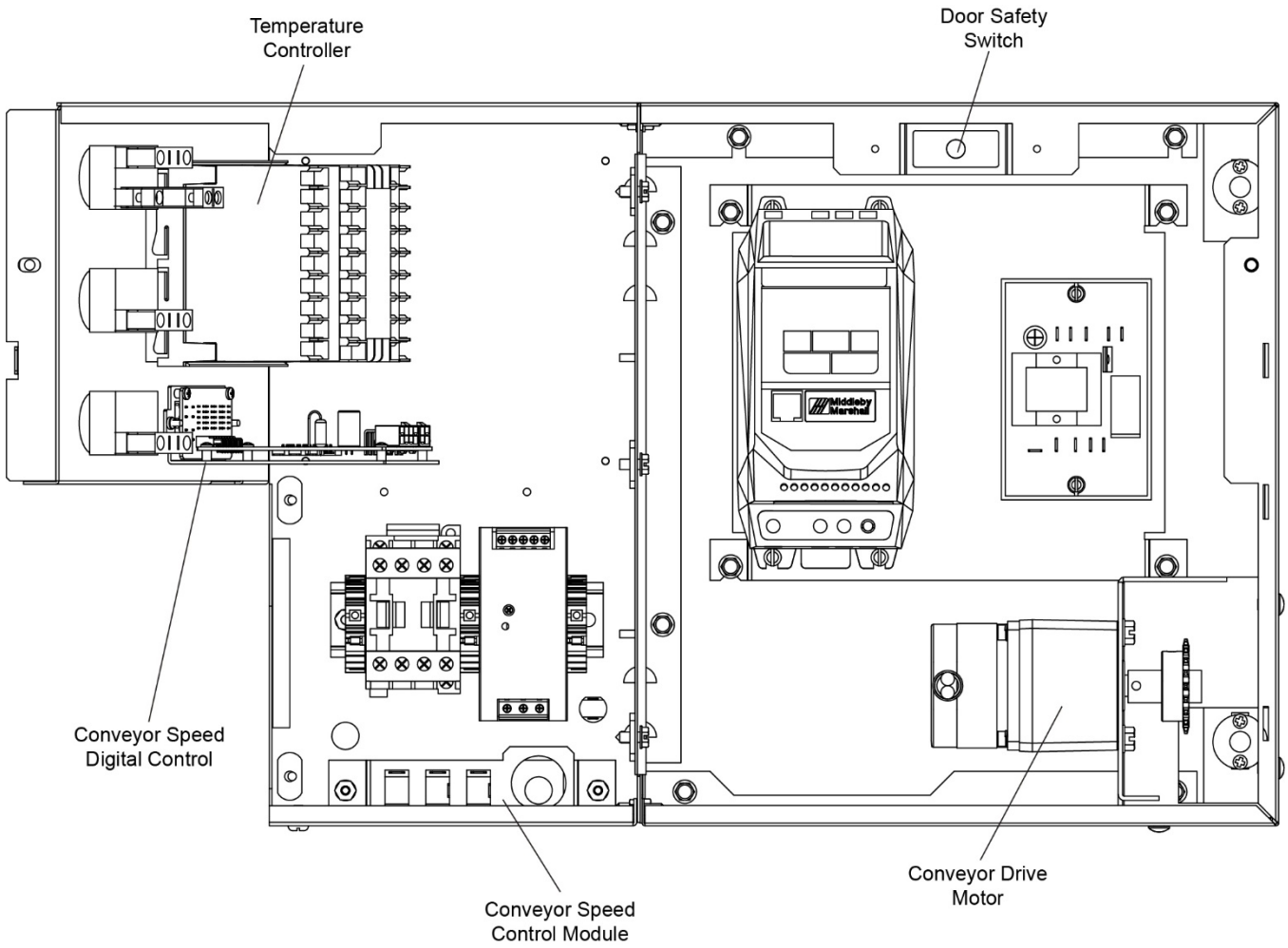


Figure 20. Interior View of Control Console

E. Conveyor Switch and Speed Controller

On the control panel is an on-off switch for the conveyor motor, and under the temperature controller is the conveyor speed controller. The digital controller can be adjusted from 1-10 min. bake time (conveyor speed). Refer to Figure 21.

Conveyor speed is measured by the amount of time it takes for an item to go through the bake chamber of the oven.

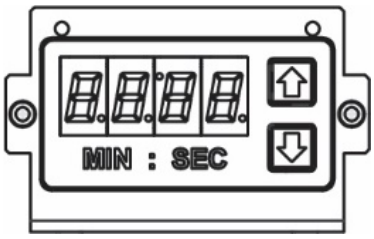


Figure 21. Conveyor Speed Digital Control

III. MEASURING CONVEYOR SPEED

See Figure 22 and Figure 23.

To check conveyor speed, place a product item at the entrance end of baking chamber as shown. Time how long it takes for the leading edge of the item to go from the entrance end of the baking chamber to the exit end. This should be the conveyor speed shown on the conveyor speed digital control.

NOTE: In Figures 22 and 23, the oven shown is with the conveyor running right to left.

WARNING

Possibility of injury from rotating parts and electrical shock.

Never disassemble or clean the oven with the blower switch or any other part of the oven turned "ON" or "I". Turn "OFF" or "O" and lockout or tagout all electrical power to the oven before attempting to clean or service this oven.

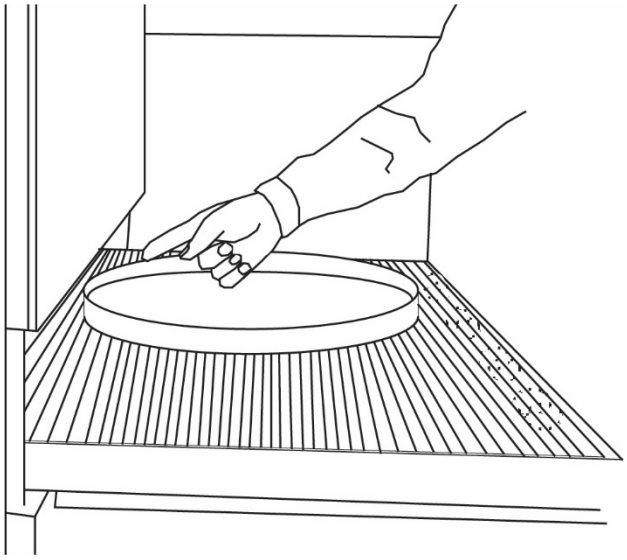


Figure 22. Product at entrance end of baking chamber – BEGINNING OF TIMING

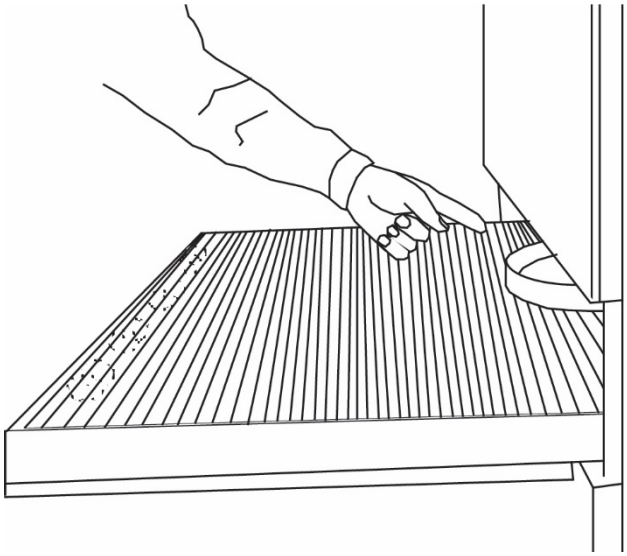


Figure 23. Product at exit end of baking chamber – END OF TIMING

WARNING

Keep oven clear of combustibles at all times.

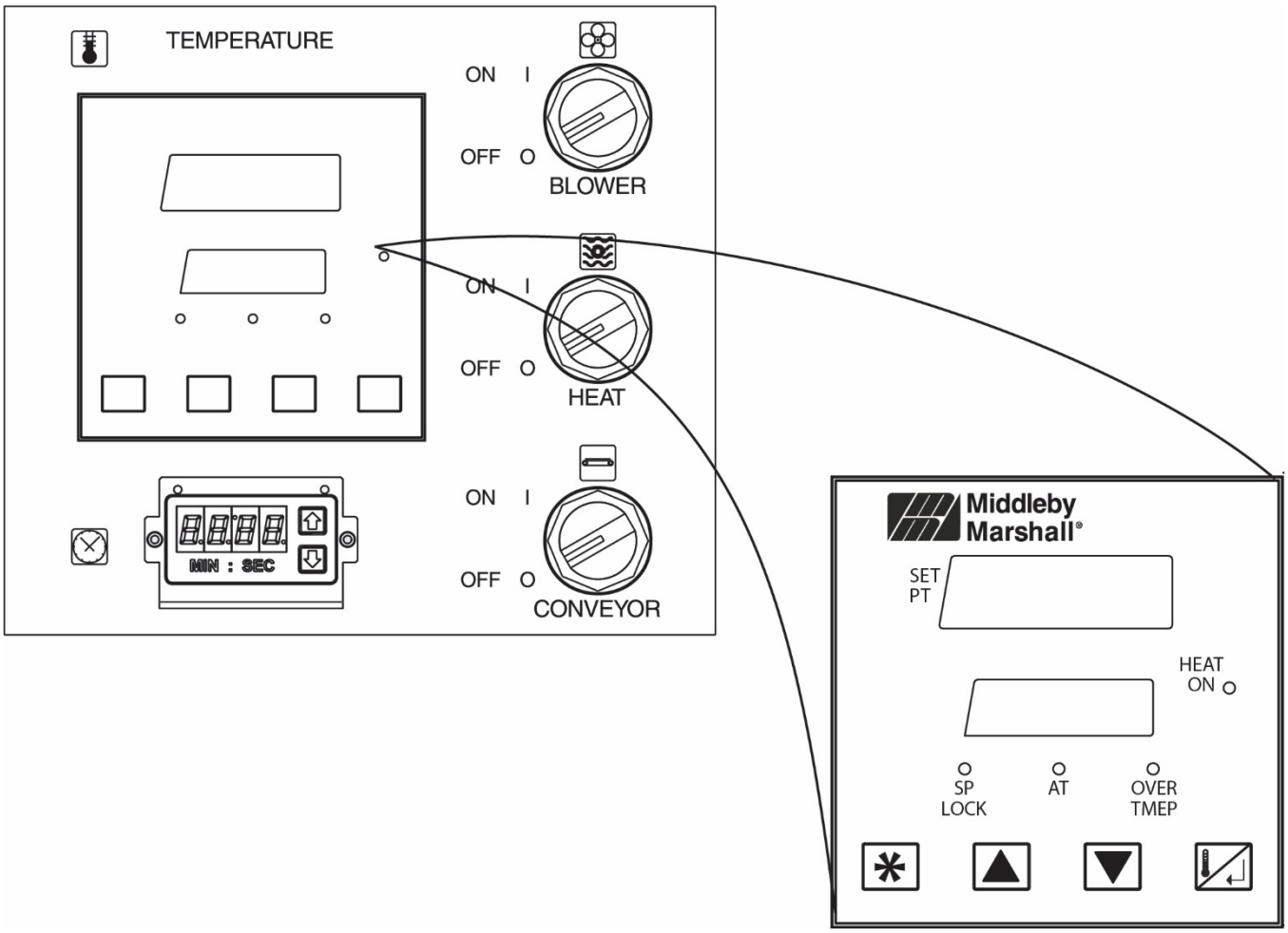
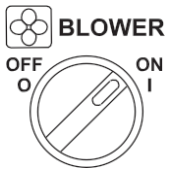


Figure 24. Control Panel

IV. STEP-BY-STEP OPERATION

A. Daily Start-up Procedure

1. Check that the circuit breaker/fused disconnect is in the on (closed) position.
2. Turn the BLOWER switch to the "ON" or "I" position. This starts the main blower fan and the cooling fans. The blower circulates air through the air fingers and must stay on during the cooking or baking process.

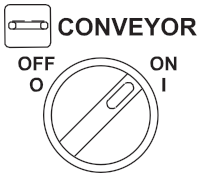


3. Check to see if the cooling fans, located at the rear of the oven (see Figure 7 in Section 1), are operating when the blower switch is turned "ON" or "I". The cooling fans cool the control components and blower motor by blowing air into and through the cabinet. Air travels to the front of the cabinet and out the front of the oven. Refer to Daily Maintenance Section for the fan intake checking procedure.

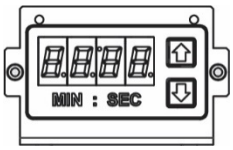
IMPORTANT

The cooling fan operates when the BLOWER switch is turned "ON" or "I". It must operate to keep the control console below 140°F (60°C).

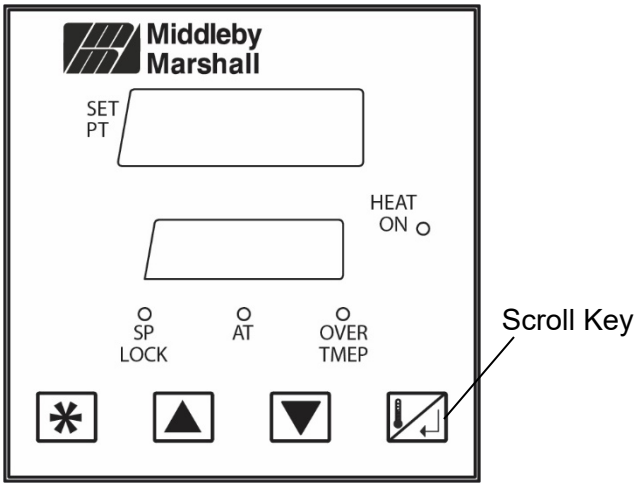
4. Turn the CONVEYOR switch to the "ON" or "I" position. This starts the conveyor belt moving through the oven.



5. Set the conveyor speed for 1 to 10 minutes using the up and down arrow buttons. The conveyor speed is the amount of time it takes for the item to go through the bake chamber, which is the bake time.



6. Verify the temperature controller's set point for baking and adjust if necessary:
   - The set point appears in the upper display.
   - Adjusting the set point requires a "Set Point Only" display, where nothing is in the lower display. To get to "Set Point Only", press the Scroll key until the lower display is blank.
   - From this "Set Point Only" display, use the up and down keys to adjust the temperature. Holding in the pressed key will adjust at a faster rate.



7. Turn the HEAT switch to the "ON" or "I" position. The HEAT ON LED lights to show that the oven is heating.

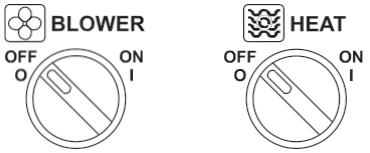
IMPORTANT

On electric ovens, if the HEAT ON LED does not light, OR if the oven does not heat, the electric heater may not have gotten power. Turn the HEAT, BLOWER, and CONVEYOR switches to the "OFF" ("O") position. WAIT FOR AT LEAST FIVE MINUTES before restarting the oven. Then, restart the Daily Start-up procedure.

8. With the HEAT ON LED lit, press the Scroll key one time from the "Set Point Only" display. The actual temperature will appear in the lower display.
9. Wait while the actual temperature reaches the set point. Higher set point temperatures will require a longer wait. The oven can reach a temperature of 500°F (232°C) in approximately 15 minutes.
10. After the actual temperature has reached the set point, allow the oven to preheat for 10 more minutes to stabilize the temperature.

B. Daily Shutdown Procedure

1. Turn the BLOWER and HEAT switches to the "OFF" or "O" position. The blowers will remain in operation until the oven has cooled to below 200°F (93°C).



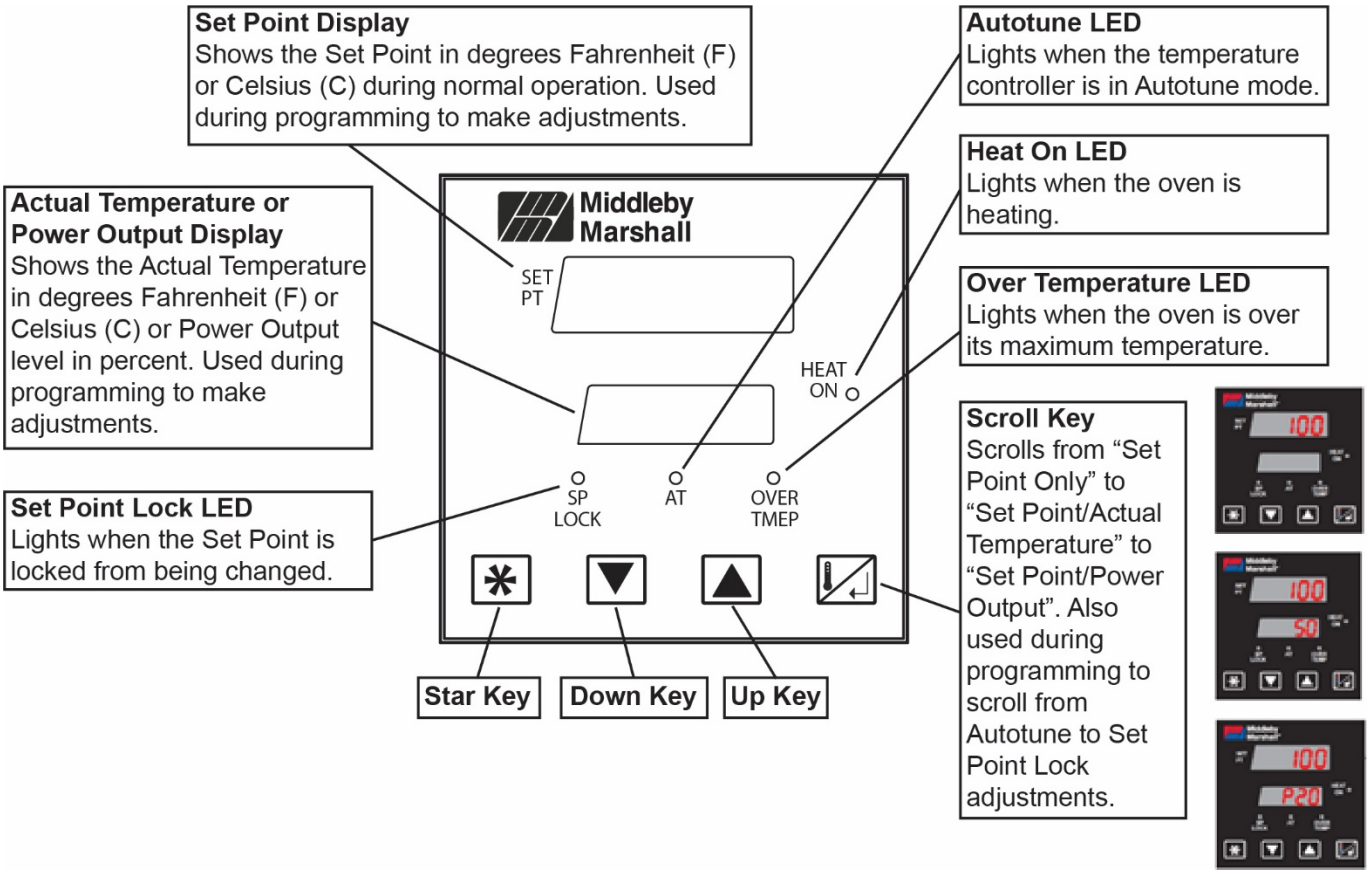
2. Make sure there are no products left on the conveyor inside the oven.
3. Turn the CONVEYOR switch to the "OFF" or "O" position.

4. After the oven has cooled below 200°F (93°C) and the blowers have shut off and the cooling fan has shut off, switch the circuit breaker/fuse disconnect to the off (open) position.

C. Power Failure

In case of power failure, turn all switches to the "OFF" ("O") position and remove the product. After the power has been restored, perform the normal start-up procedure. If HEAT was switched off for less than 5 minutes, WAIT FOR AT LEAST FIVE MINUTES before restarting the oven.

V. TEMPERATURE CONTROLLER OPERATION



NOTE: After 1 minute of no key activity, the controller will go to "Set Point Only" with the lower display blank.

A. Operation Adjustments

Adjusting the Set Point

The set point appears in the upper display and can only be adjusted when the lower display is blank. Press the Scroll key until you reach this "Set Point Only" display. Use the Up and Down keys to adjust the temperature. Holding in the pressed key will adjust at a faster rate.

Adjusting for °F/°C

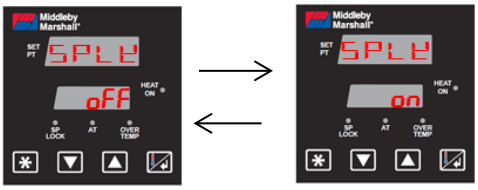
Press the Up and Down keys together for 3 seconds. The units will switch between Fahrenheit and Celsius.

B. Programming Adjustments

Adjusting Power Output

Press the Star and Up keys together for 3 seconds. The display shows "PXX", where "XX" is the percent of power output. Use the Up and Down keys to adjust the percent, then press the Star and Up keys together for 3 seconds to exit.

Locking and Unlocking Set Point



The Set Point can be locked so that it isn't changed during operation. Press the Star key for 3 seconds, then use the Scroll key to choose Set Point Lock. Use the Up and Down keys to turn the Set Point Lock on and off. Press the Star key for 3 seconds to exit.

V. QUICK REFERENCE: TROUBLESHOOTING

SYMPTOM	PROBLEM	SOLUTION
Over Temperature LED is lit, food product is undercooked	The oven temperature exceeded 650°F (343°C), and the heating system was automatically shut down.	• Follow the procedures under Daily Shutdown Procedures in this section to shut down the oven. Contact your Middleby Marshall Authorized Service Agent to determine and correct the cause of the condition to prevent damage to the oven.
Oven will not turn on at all	Electrical power may not be reaching the oven, or the controls may be set incorrectly.	• Check that the circuit breaker/fused disconnect is turned on. • Check that the BLOWER switch is in the “ON” (“I”) position. • Turn the HEAT, BLOWER, and CONVEYOR switches to the “OFF” (“O”) position.
It appears in display that oven is not heating	The oven did not reach 200°F (93°C) within 15 minutes of start-up, and the oven has stopped heating	• Wait for AT LEAST FIVE MINUTES before restarting the oven. • Repeat the Daily Start-up procedure. • Check that the Set Point is correctly set. • Check that both the BLOWER and HEAT Switches are in the “ON” (“I”) position.
Oven will not heat	Controls may be set incorrectly.	• If the oven still will not heat, turn the HEAT, BLOWER, and CONVEYOR switches to the “OFF” (“O”) position. • Wait for AT LEAST FIVE MINUTES before restarting the oven. • Repeat the Daily Start-up procedure. Check that the Set Point is above 200°F (93°C).
Oven is operating, but little or no air is blowing from air fingers	Air fingers may have been reassembled incorrectly after cleaning.	• Turn the oven to the “OFF” (“O”) position, and allow it to cool. • Disconnect electrical power to the oven. • Refer to Section 4, Maintenance, for instructions on reassembling the air fingers.
Conveyor moves with a jerky motion, or will not move at all	Conveyor may be jammed on an object in the oven, or conveyor belt or drive chain tension may be incorrect.	• Turn the oven to the “OFF” (“O”) position, and allow it to cool. • Disconnect electrical power to the oven. • Check if the conveyor is blocked by an object inside the oven. • Refer to Section 4, Maintenance, for instructions on checking the conveyor and drive chain tension. • Check that the set temperature and bake time settings are correct.

IF THESE STEPS FAIL TO RESOLVE THE PROBLEM, CONTACT YOUR LOCAL MIDDLEBY MARSHALL AUTHORIZED SERVICE AGENT. A SERVICE AGENCY DIRECTORY IS SUPPLIED WITH YOUR OVEN.

NOTES

SECTION 4
MAINTENANCE

WARNING

Before ANY cleaning or servicing of the oven, perform the following procedure:

1. Switch off the oven and allow it to cool. Do NOT service the oven while it is warm.
2. Turn off the electric supply circuit breaker(s) and disconnect the electric supply to the oven.

When all cleaning and servicing is complete:

1. If the oven was moved for servicing, return the oven to its original location.
2. If the restraint cable was disconnected to clean or service the oven, reconnect it at this time.
3. Reconnect the electrical supply.
4. Turn on the electric supply circuit breaker(s).
5. Perform the normal start-up procedure.

WARNING

Possibility of injury from rotating parts and electrical shock exist in this oven. Switch off and lockout/tagout the electric supply BEFORE beginning to disassemble, clean, or service any oven. Never disassemble or clean an oven with the BLOWER switch or any other circuit of the oven switched on.

NOTICE

NEVER use a water hose or pressurized steam-cleaning equipment when cleaning this oven. To avoid saturating the oven insulation, DO NOT use excessive amounts of water. DO NOT use a caustic oven cleaner, which can damage the bake chamber surfaces.

NOTICE

ANY replacement parts that require access to the interior of the oven may ONLY be replaced by a Middleby Marshall Authorized Service Agent. It is also strongly recommended that the 3-Month Maintenance and 6-Month Maintenance procedures in this section be performed ONLY by a Middleby Marshall Authorized Service Agent.

I. MAINTENANCE - DAILY

A. Exterior

Clean the outside of the oven every day with a soft cloth and mild detergent.

NOTICE

Never use a water hose or pressurized steam cleaning equipment when cleaning the oven.

B. Cooling Fan

1. ONE COOLING FAN GRILLE AT THE REAR OF THE OVEN MUST BE CLEANED DAILY - Clean grille with a stiff nylon type brush.
2. Check the air intake of the cooling fan daily. The best time to check is right after starting the oven.

IMPORTANT

The cooling fan operates when the blower switch is turned to “ON” (“I”). It must operate to keep the electrical control cabinet below 140°F (60°C).

NOTICE

IF FAN BLADE IS NOT ROTATING, BROKEN, OR FAN ASSEMBLY IS MISSING FROM MAIN BLOWER MOTOR SHAFT, DO NOT OPERATE OVEN. REPLACE COOLING FAN BLADE BEFORE OPERATING OVEN. Serious damage could be done to the blower motor and/or solid-state electrical components if oven is operated while cooling fan is not running or vent grille is plugged.

3. Using a stiff nylon brush, clean control compartment vent grille.

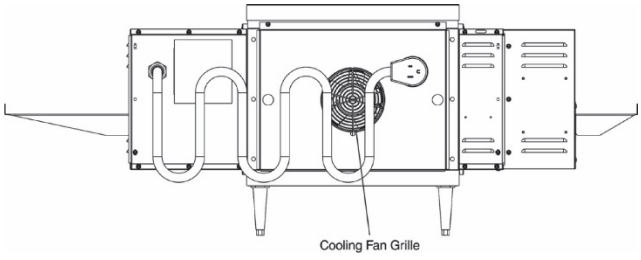


Figure 25. Oven Cooling Fans

C. Conveyor Belt (Figure 26)

Every day, just after starting the oven, stand at the unloading end of the conveyor, and use a brush to remove food particles (crumbs, etc.) clinging to the conveyor belt, collecting them in the crumb pan.

D. Crumb Pans (Figure 26)

CAUTION

Crumb pan is extremely hot while oven is operating. Allow oven to cool before removing crumb pan.

When the oven is cool remove and clean the crumb pan at each end of the oven. Each crumb pan can be removed by sliding it out, as shown in Figure 26. Reinstall the crumb pans after cleaning.

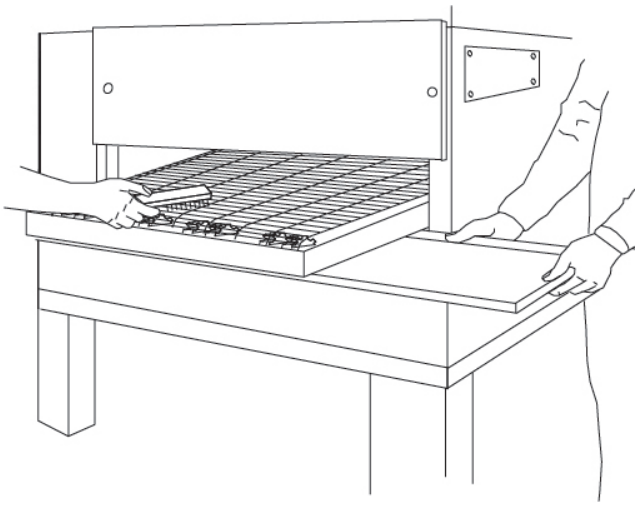


Figure 26. Conveyor Belt and Crumb Pan Cleaning

II. MAINTENANCE - MONTHLY

NOTE: The oven interior may require cleaning more than once a month depending on the volume of baking.

To clean the interior, you have to disassemble some parts of the oven.

NOTICE

1. Do not use excessive water when cleaning, or saturation of oven insulation will occur.
2. Do not use a caustic oven cleaner or the aluminized finger manifold surfaces will be severely damaged.

When cleaning your oven, first remove all heavy debris with a vacuum cleaner. Use a damp cloth for light cleaning. For heavier cleaning of baked-on grease and carbon deposits, use a non-caustic cleaner that will not react with the aluminized finger manifold surfaces.

You can order non-caustic cleaner from your local authorized Middleby Marshall Parts Distributor.

A. Removing Conveyor from Oven and Cleaning

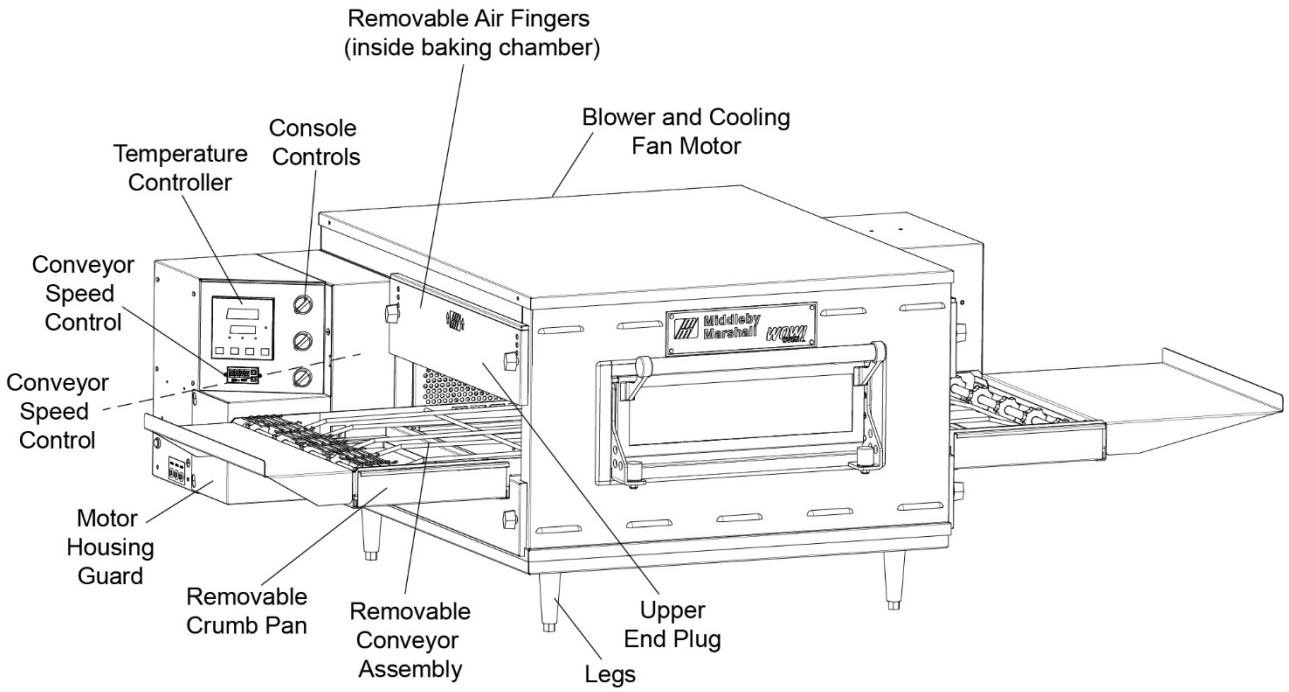


Figure 27.

1. Remove entry and exit trays.
2. Loosen two wing screws on the upper end plugs and remove the end plugs.
3. Remove motor housing guard (Figure 28).
4. Lift conveyor and remove chain (Figure 29).
5. Lift other side of conveyor and push toward first side.
6. Remove conveyor as shown (Figure 30 and Figure 31).

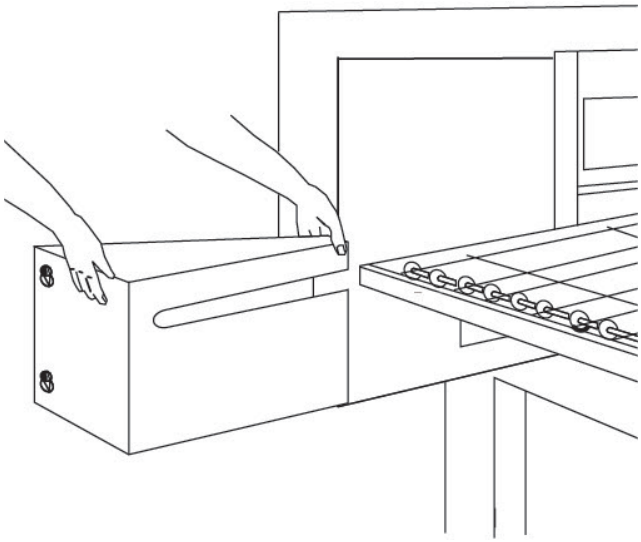


Figure 28.

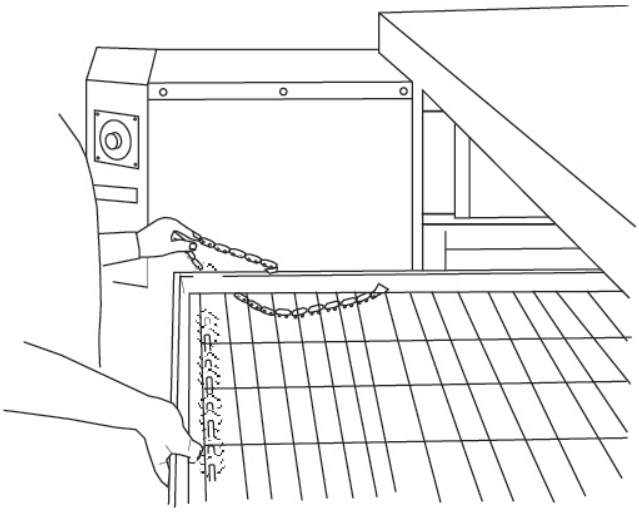


Figure 29.

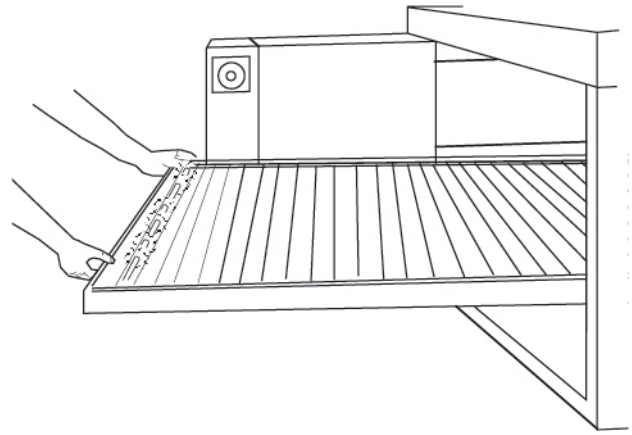


Figure 30.

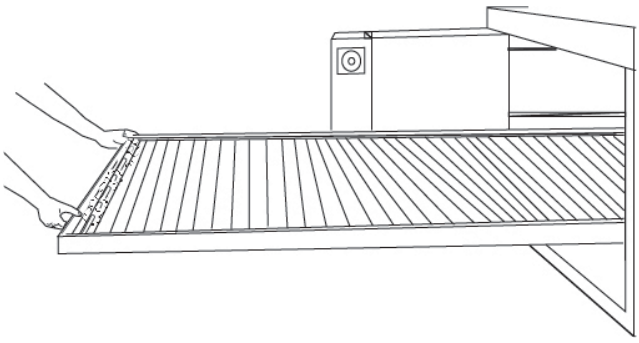


Figure 31.

NOTICE

Be careful not to bump the drive sprocket while handling the conveyor, to avoid damaging the drive shaft.

7. Loosen the wing screw on the lower end plug and remove the lower end plug.
8. Clean the stainless steel conveyor by either soaking in a hot, strong detergent solution or using a caustic cleaner.

B. Air Fingers Disassembly and Cleaning

1. Get a felt tip pen. As the air fingers are removed, you need it to mark all parts of the fingers. This includes the finger manifold, inner plate, and the outer plate. If a blank or choke plate is used, mark that plate also. Fingers are marked in the order shown; as viewed from the front of the oven. (The marks for an upper oven should be preceded with a “U”, example UB1, UT2, etc.)

T1	T2	T3
B1	B2	B3

Standard Fingers

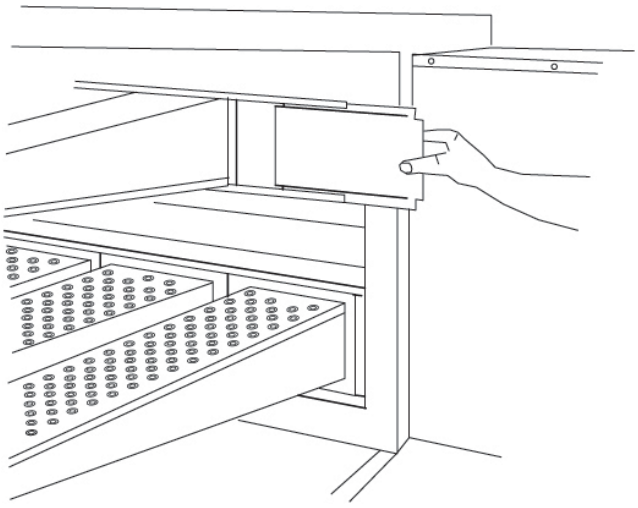


Figure 32.

2. Slide blank plates straight out and remove air fingers.

NOTE: Some oven users require a custom finger arrangement where the quantity of air fingers may vary.

You can remove top and bottom fingers and blank plates from each or either end. Mark each finger before removing so it is placed in exactly the same position when reassembled (refer to step 1).

To remove the air fingers, pull the finger at the back side and pull straight out (refer to Figure 33).

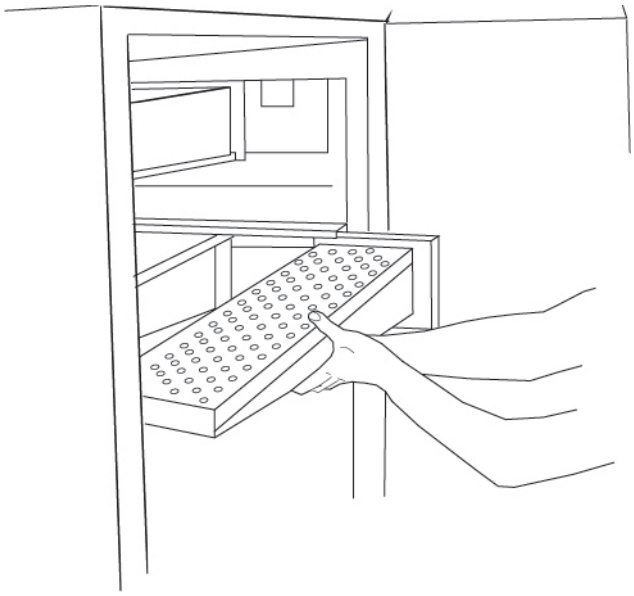


Figure 33.

3. With air fingers out, place them in an upright position to remove the outer plate.
4. Gently step on the lip of the finger and pull the outer plate off.

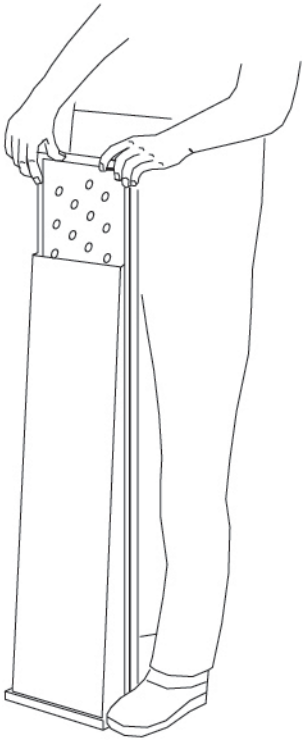


Figure 34.

5. To remove the inner plate, pull the plate out and then up.

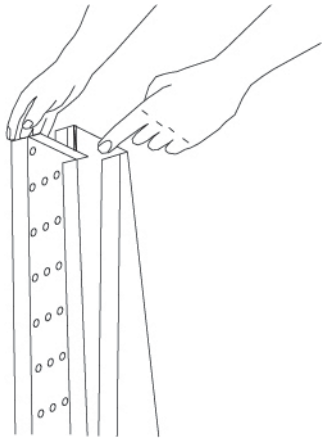


Figure 35.

6. The outer finger plate is stainless and may be cleaned by either soaking in a hot, strong detergent solution or using a caustic cleaner.

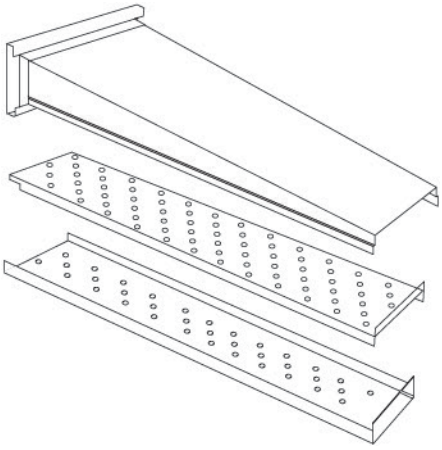


Figure 36. Standard Upper Finger

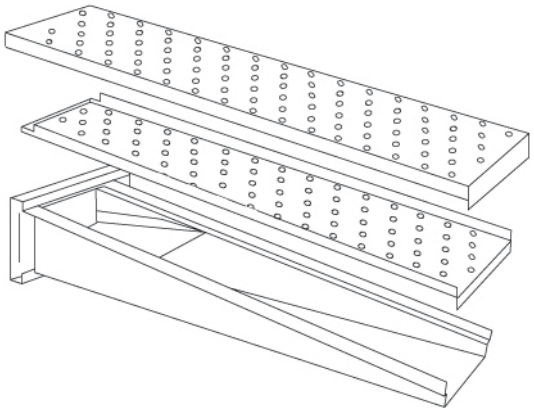


Figure 37. Standard Lower Finger

C. Reassembly of Air Fingers

1. Gather the air finger parts for reassembly. Air fingers are made up of one inner plate, one outer plate, and the finger housing manifold. Be sure to match up the markings (T1, T2, T3, etc.) on all the parts of each air finger.

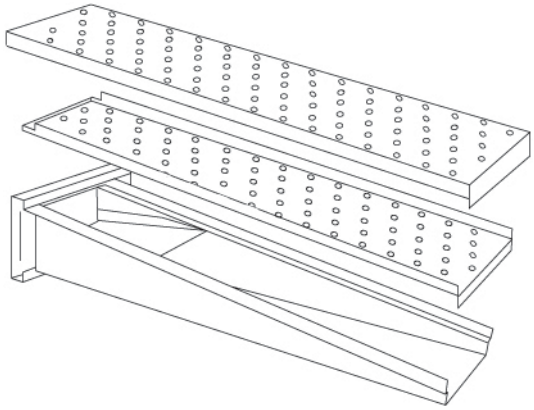


Figure 38.

2. Reassemble each finger by first inserting the inner plate into the housing. Keep your fingers clear so you won't pinch them. The inner plate of a finger will only go in one way because of its design.
3. Replace each outer plate by placing your hands flat on the top of the plate and pushing down. Keep your fingers clear so you won't pinch them.

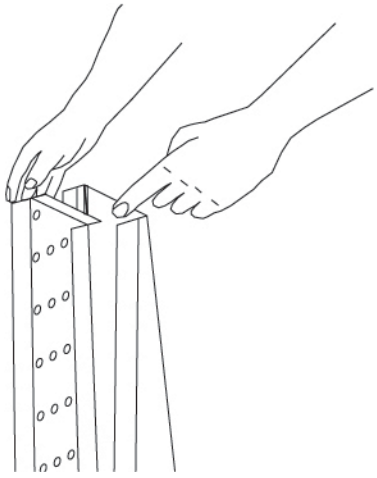


Figure 39.

4. Reinstall the air fingers by pushing in at the back side. Remember to replace them according to the numbers marked on them when they were removed. They must go back in the same way they came out.

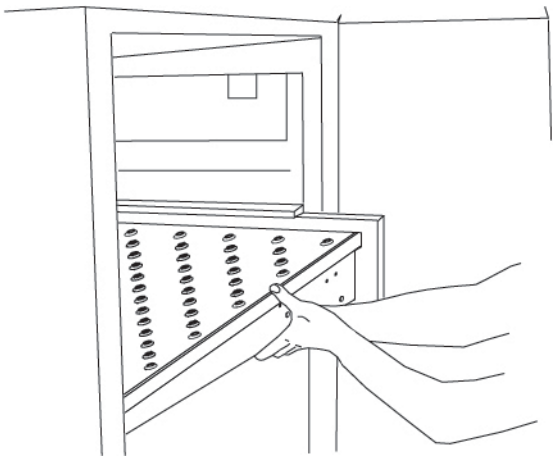


Figure 40.

IMPORTANT

When inserting fingers, the tab on the outer plate must be in the groove as shown in Figure 41. There is a blocking tab on the outside of the groove which will prevent inserting the finger in the groove if the outer plate is moved away from the flange of the finger manifold.

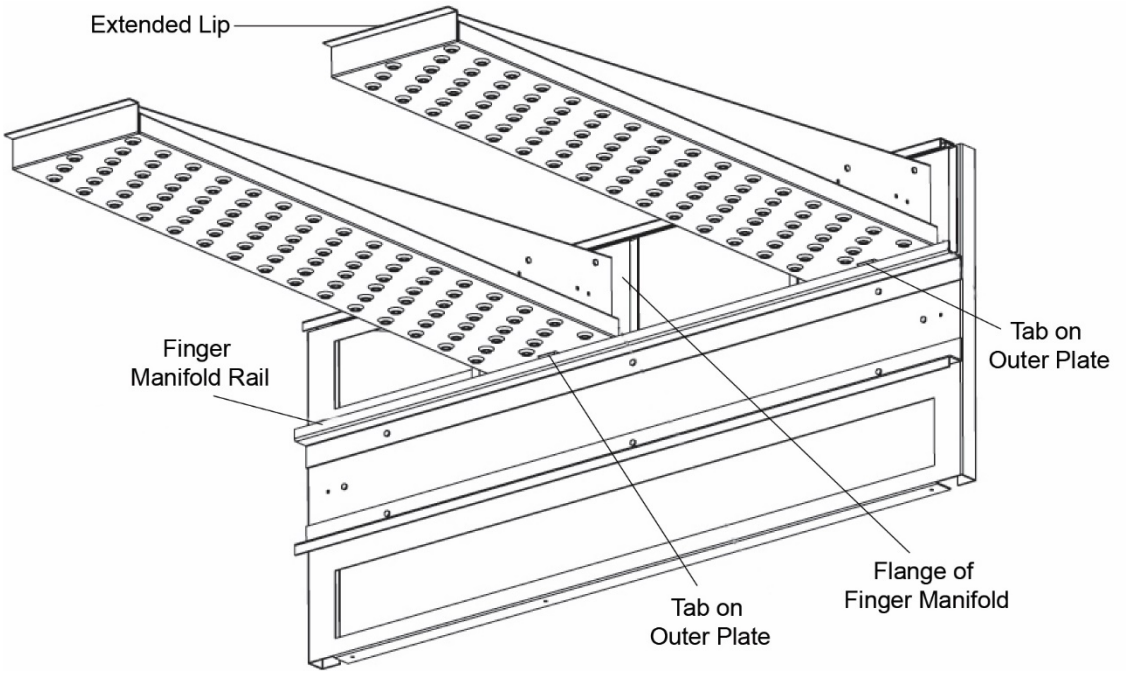

Extended Lip
Finger
Manifold Rail
Tab on
Outer Plate
Flange of
Finger Manifold
Tab on
Outer Plate

Figure 41.

5. Install fingers and blank plates correctly with edges interlocked and no space between edges.

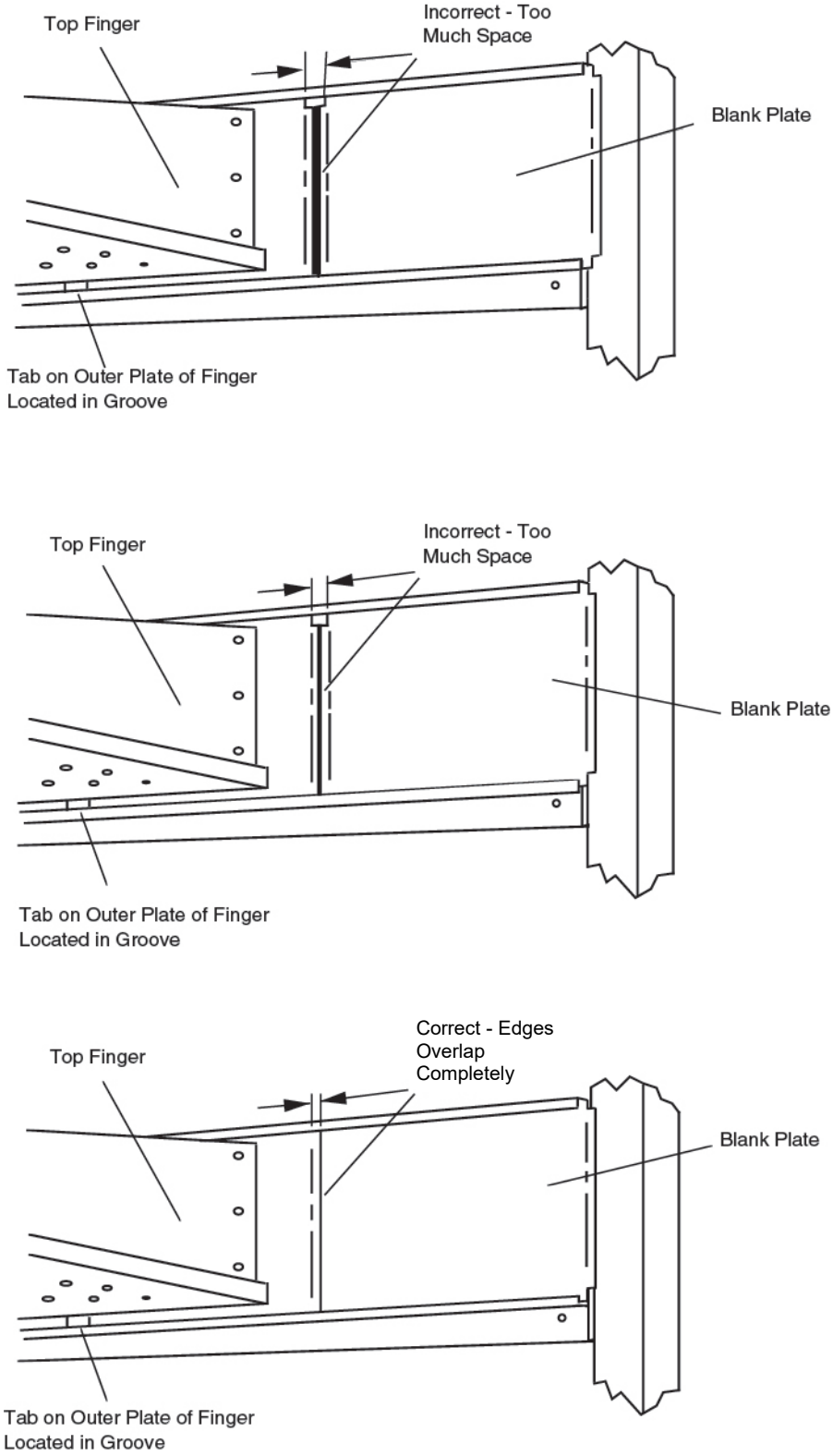


Figure 42.

D. Conveyor Reassembly Into Oven

1. Reinstall lower end plug. Be sure to tighten the wing screw on the end plug.
2. Lift conveyor and position it in oven as shown.

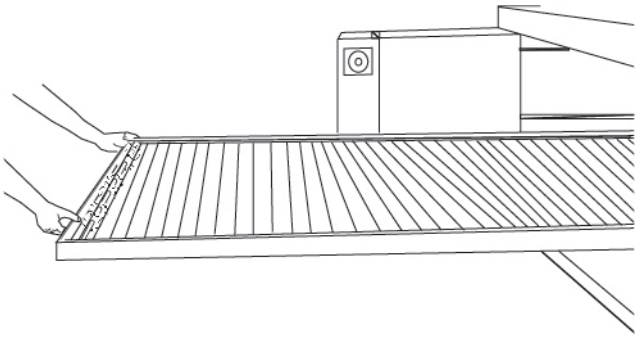


Figure 43.

3. Reinstall the conveyor extension.

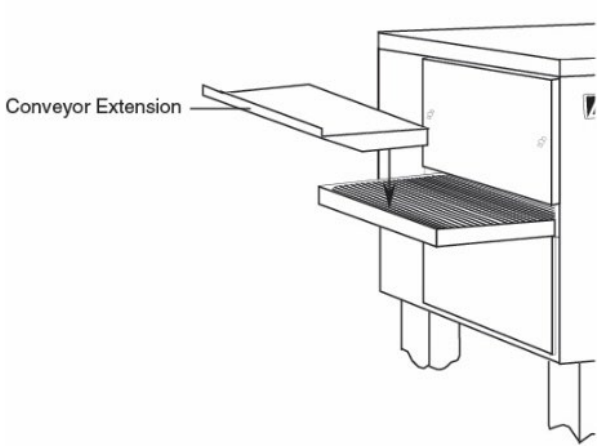


Figure 44.

E. Checking Conveyor Belt Tension

WARNING

Oven conveyor belt must be cool when adjusting belt. Do not adjust belt if HOT.

1. With the conveyor assembly in the oven, stand at one end of conveyor and check tension by lifting the conveyor belt at the center of the oven chamber opening. The belt should not lift higher than 1 to 2 inches (25 to 50mm) (Figure 48).
2. To loosen the belt tension, turn the idler adjustment screws (located on the idler end of the conveyor) counter-clockwise. To tighten tension, turn clockwise.
3. If conveyor belt is still not under proper tension, an entire link must be removed. Use the following procedure “F. Conveyor Belt Link Removal” to remove a link. If conveyor belt is under proper tension proceed directly to “G. Attaching Drive Chain”.

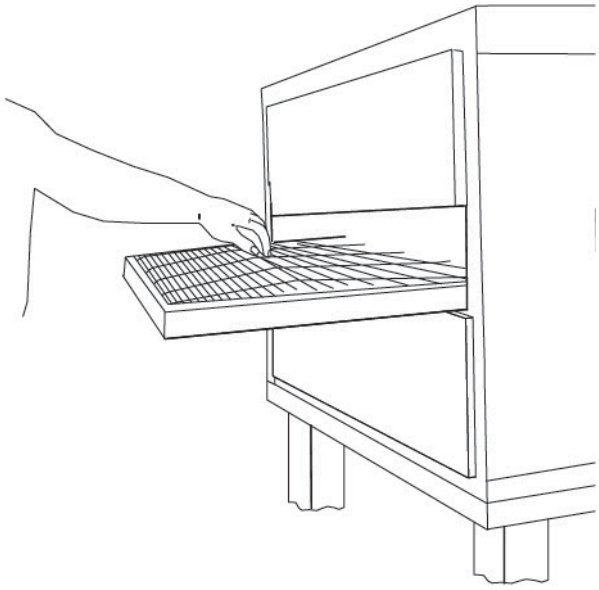


Figure 45.

F. Conveyor Belt Link Removal

1. Using long nose pliers, an entire link can be removed with the conveyor assembly either in or out of the oven. Position master links at end of conveyor as shown in Figure 46.

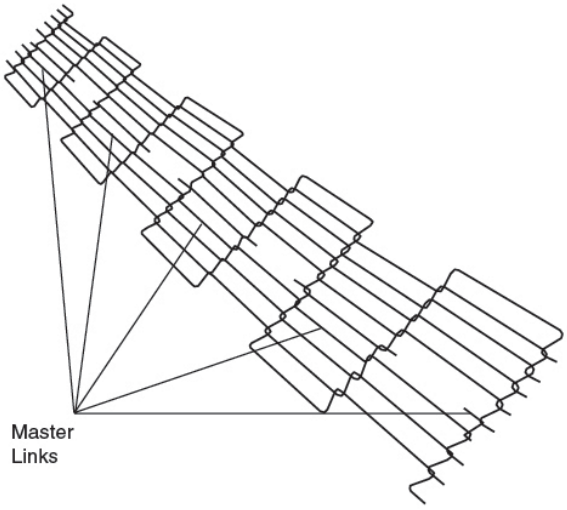


Figure 46.

2. Using long nose pliers, unhook master links at left end of conveyor as shown in Figure 47.

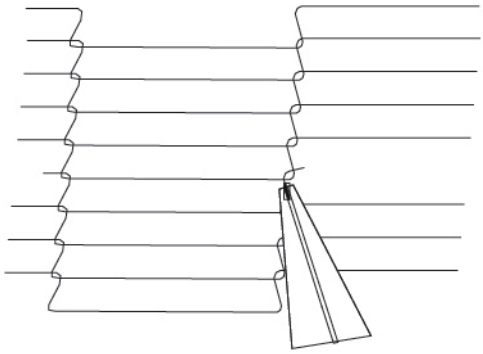


Figure 47.

3. Remove the outside master links on the right and left sides of the conveyor belt as shown in Figure 48.

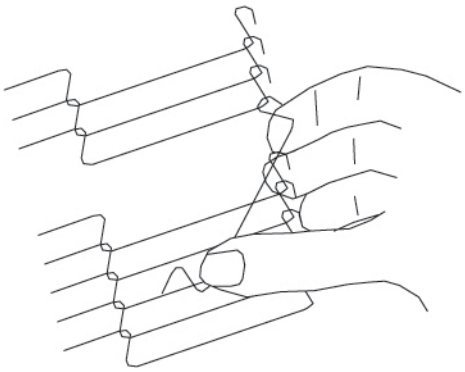


Figure 48.

4. Unhook the link to be removed.

5. Pull up on the belt link section and remove. Do not discard the link removed as it may be used for making spare master links.

NOTE: If a section of the conveyor belt is being replaced, it should be done now. Remove the links that need replacing and use the section of conveyor belt furnished in your installation kit to replace them.

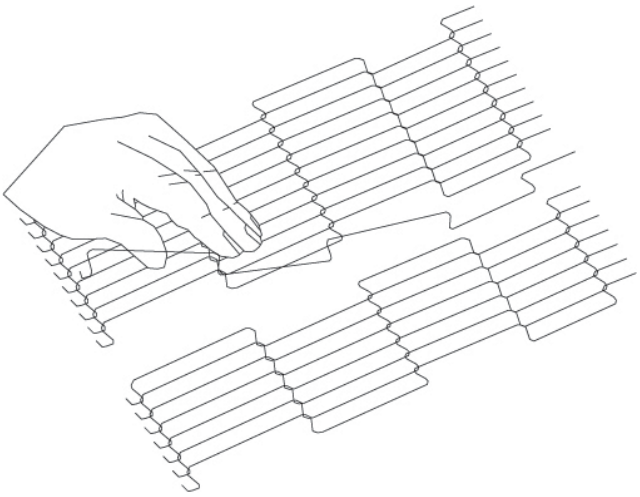


Figure 49.

NOTE: Before connecting the inside master links, notice that these links have a correct position (Figure 50). The link at the right is in the correct (horns up) position for inserting into the conveyor belt. The horns facing down are in the incorrect position.

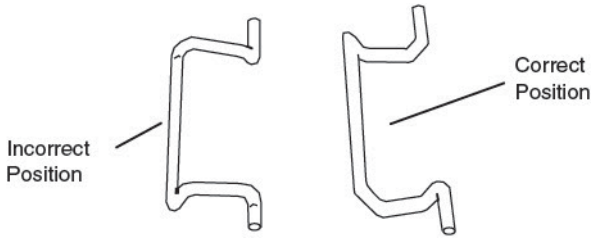


Figure 50.

6. Reconnect the inside master links (Figure 51).

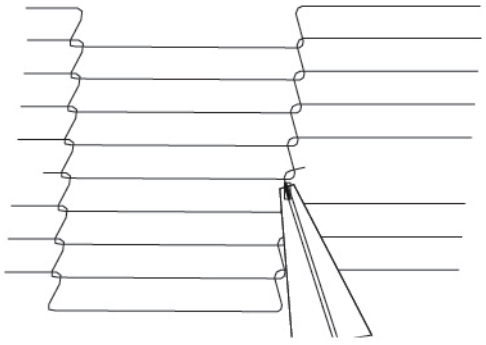


Figure 51.

NOTE: The outside master links have right and left sides to them. The right edge master link has an open hook facing you as shown in Figure 52. This will match up with the outer edges of the conveyor belt. Remember this hook travels backwards on the conveyor.

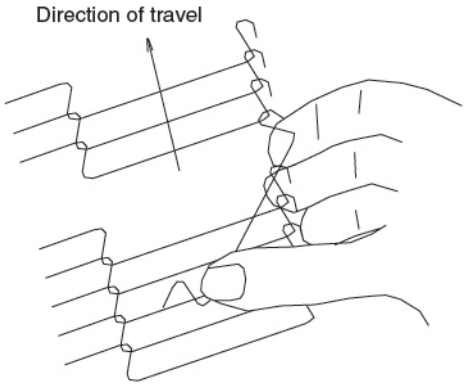


Figure 52.

7. Reconnect the outside master links.
8. Replace all parts removed from the oven.

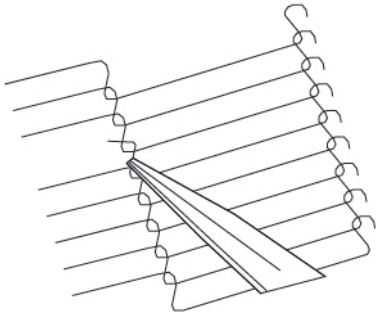


Figure 53.

G. Attaching Drive Chain

1. If drive sprocket assembly was removed, reassemble it into the conveyor drive shaft. Be sure the flat on the end of the drive shaft aligns with the set screw in the conveyor shaft collar. Once in place tighten the 3/32" set screw.
2. Lift the conveyor and install the drive chain to the conveyor drive sprocket and motor sprocket.

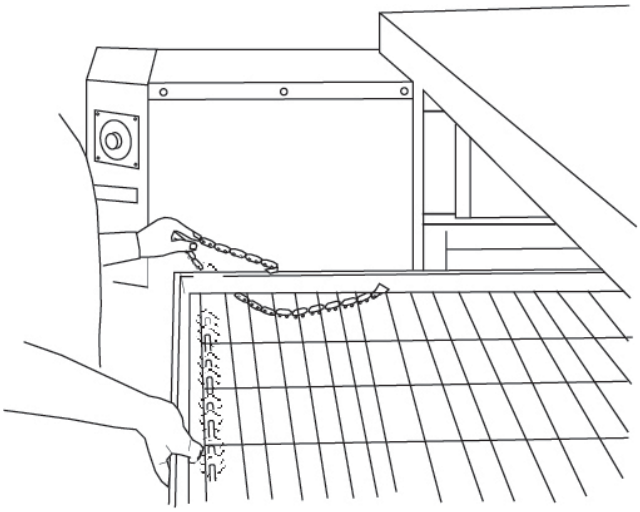


Figure 54.

3. The angle plate located on the underside of the conveyor must be against the lower end plug. This is true on both sides of oven.

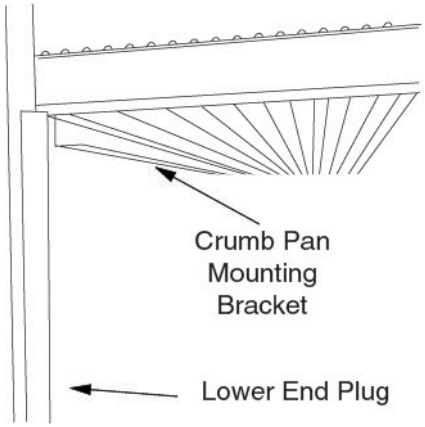


Figure 55.

4. Reattach the conveyor guard to the control panel and secure two screws.

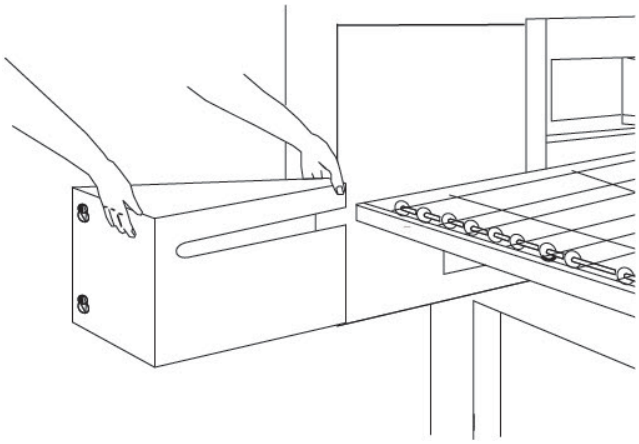


Figure 56.

5. Install the upper end plugs. Be sure to tighten two wing screws on the end plugs.

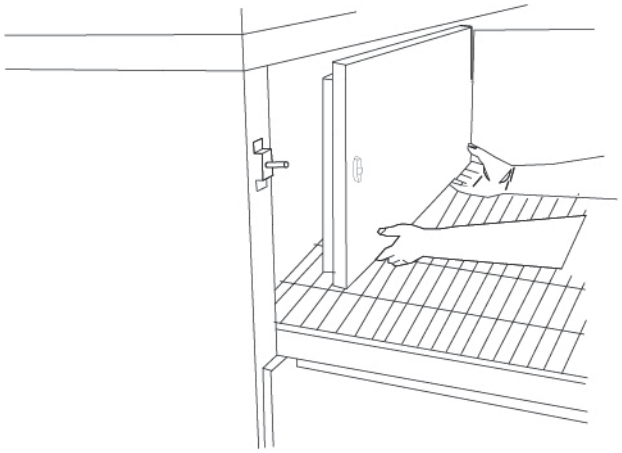


Figure 57.

III. MAINTENANCE - EVERY 3 MONTHS

WARNING

Shut OFF all electrical power and lock/tag out the switch before attempting maintenance work.

NOTE: It is recommended that the 3-month maintenance be performed by an authorized Middleby Marshall technician.

A. Electrical Terminals

Open the control cabinet door by removing the three screws from the control cabinet door. Tighten all electrical control terminal screws including the electrical contactor terminal screws as shown in Figure 58.

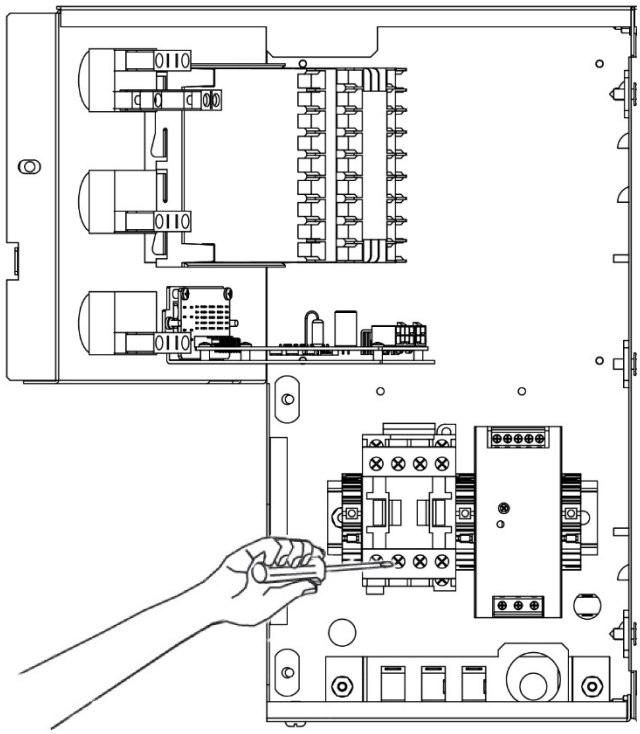


Figure 58.

B. Ventilation

Check that the air circulation throughout the oven is not blocked and is working properly.

IV. MAINTENANCE - EVERY 6 MONTHS

A. Oven Vent Check

Check your oven venting system.

NOTICE

- Installation of replacement parts requiring access to the interior of the oven is permitted only by an authorized service technician.
- If there are any problems with the operation of the oven, the authorized service technician must be called.
- Obtain a service contract with a manufacturer's authorized service technician.

V. KEY SPARE PARTS KIT

An oven can be purchased with a Key Spare Parts Kit (Figure 59). (The kit can be purchased when the oven is ordered, or later, from a Middleby Marshall Authorized Parts Distributor). The kit contains many of the crucial parts that can reduce serious downtime and loss of production, if a failure occurs. Kit part numbers are based on the appropriate heater element and relay for the model:

- P/N 75201 – 208V (12 kW, 3 Phase)
- P/N 77155 – 240V (12 kW, 3 Phase)
- P/N 77156 – 380V (12 kW, 3 Phase+Neutral)
- P/N 77157 – 208V (10 kW, Single Phase)
- P/N 77158 – 240V (10 kW, Single Phase)

Replacement parts for these kits can be purchased from your Middleby Marshall Authorized Parts Distributor.

PS629E-SERIES ELECTRIC OVEN KEY SPARE PARTS KIT (Figure 59)

ITEM	PART NO.	ENGLISH DESCRIPTION	QUANTITY
1	75729	Kit, Temperature Control On/Off	1
2	44914	Solid State Relay 208-240V	1
2	44658	Solid State Relay 380-600V	1
3	74106	Conveyor Motor and Magnet	1
4	72533	Conveyor Speed Control	1
5	33812-9	Thermocouple*	3
6	61747	Heater Element, 208V 12kW	1
6	63932	Heater Element, 208V 10kW	1
6	63929	Heater Element, 240V 12kW	1
6	63933	Heater Element, 240V 10kW	1
6	63930	Heater Element, 380V 12kW	1
7	57408	Contactor Element	1
8	28041-0011	Contactor Blower Motor	1
9	36451	Fan Cooling 230V 295 CFM	1
10	70923	Inverter 1/2HP single PH OUT	1
11	33983	HI-LIMIT 240V	1
12	46831	Circuit Breaker 240V 8A	2
12	48635	Circuit Breaker 240V 0.3A	1
13	62343	Blower Motor CW 208/230 50/60Hz	2
14	76022	Switch, Rotary and Mounting Adapter Kit	1
15	63909	Interlock Switch	1
16	63910	Momentary Switch	1

* The proper location for the thermocouple is as follows: 1) Temperature sensing is located on the entrance end of the unit on the bottom, 2) High limit is located on the exit end of the unit on the top. High limit on the PS629E is 600 degrees.

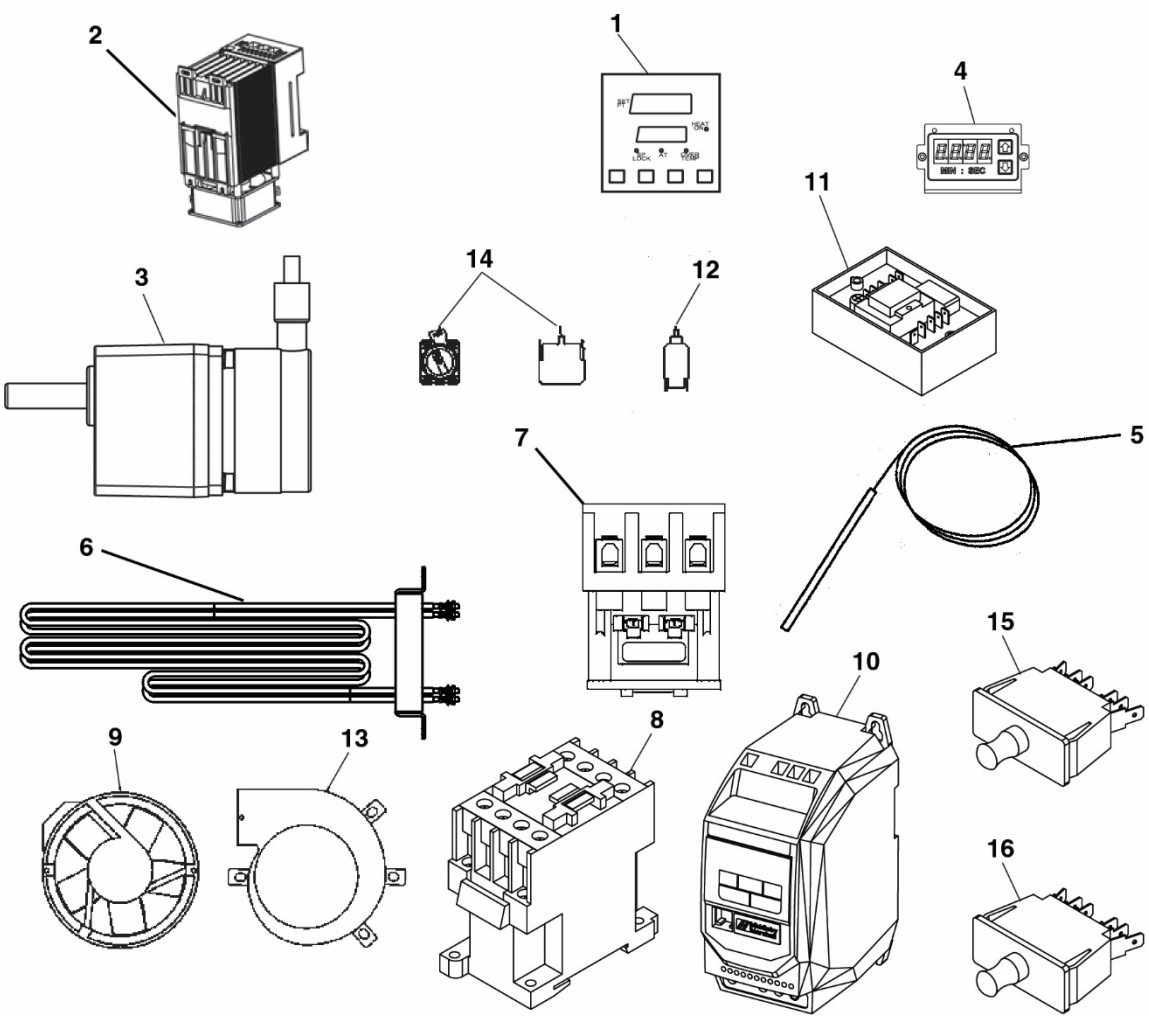


Figure 59.

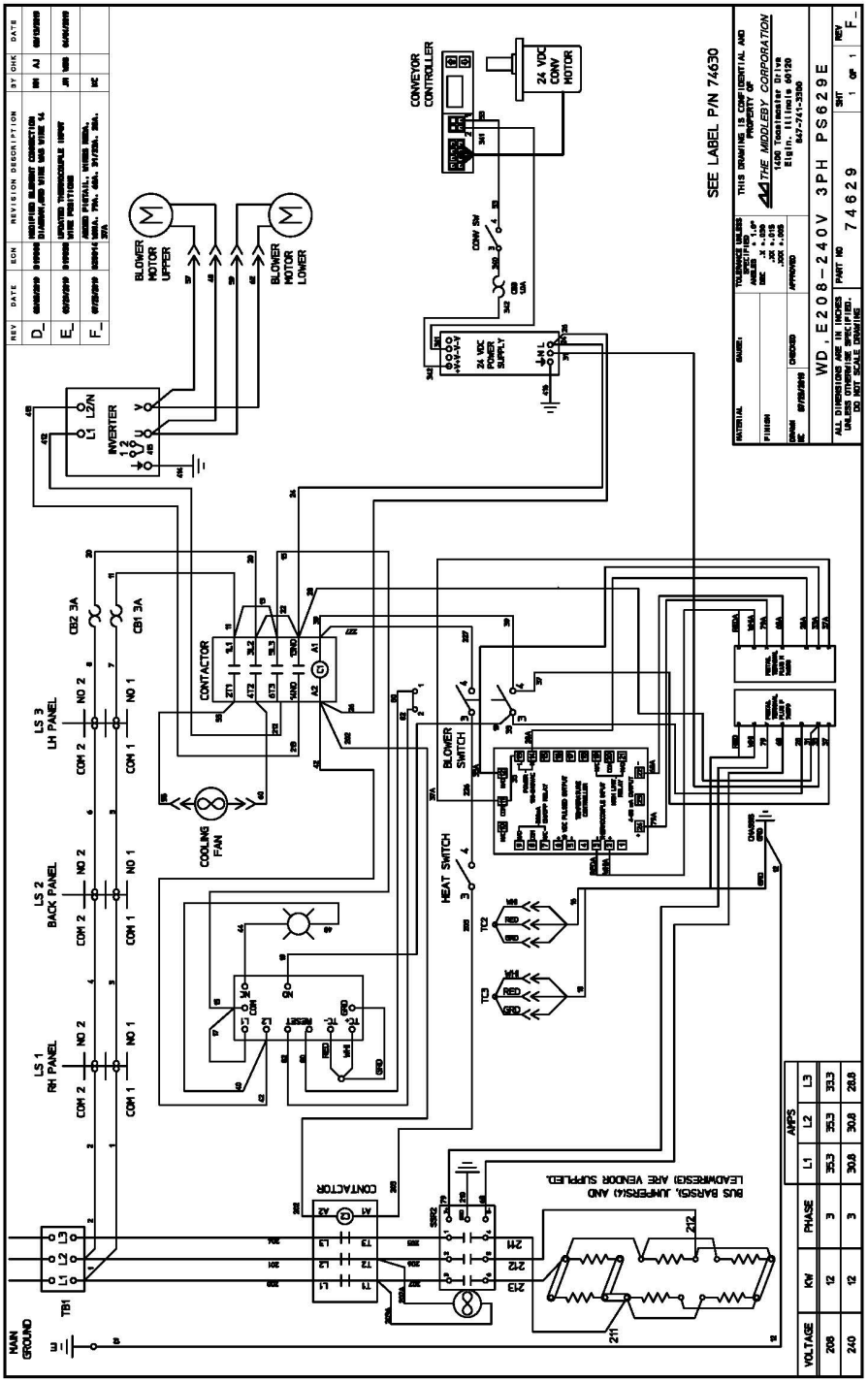
SECTION 5
TROUBLESHOOTING

SYMPTOM	PROBLEM	SOLUTION
PRODUCTS ARE OVERCOOKED OR UNDERCOOKED	Incorrect settings or methods.	Check for correct setting of conveyor speed control. Set the conveyor speed control at correct setting.
		Check for correct setting on temperature controller. Turn temperature control to correct setting.
		Verify the food preparation process.
		If products still cook incorrectly, call your Middleby Marshall Service Agency.
OVEN DOES NOT HEAT	Incorrect switch position.	Check to see if both BLOWER switch and HEAT switch are in the “ON” or “I” position.
		If oven does not heat, call your Middleby Marshall Service Agency.
BLOWER MOTOR IS RUNNING, YET LITTLE OR NO AIR BLOWS FROM AIR FINGERS	Air fingers reassembled incorrectly after cleaning.	Assemble air fingers correctly after cleaning. Refer to Section 4 procedure, or call your Middleby Marshall Service Agency.
OVEN BLOWER AND CONVEYOR OPERATE, YET THE OVEN IS NOT HEATING	Oven needs resetting.	Reset the temperature controller to a new setting (above 200°F), after turning the BLOWER switch to off for 30 seconds. Start the oven again.
		If the oven still does not heat, call your Middleby Marshall Service Agency.
CONVEYOR WILL NOT HOLD PROPER SPEED OR WILL NOT RUN AT ALL	Conveyor is obstructed or loose.	Check whether the conveyor is jammed on something in oven.
		Check for proper tension of conveyor drive chain and conveyor belt. Refer to Section 4 for correct procedure.
		Check that the conveyor drive sprocket is tight.
		If conveyor still does not run correctly, contact your Middleby Marshall Service Agency.
OVEN DOES NOT TURN ON WHEN ITS SWITCHES ARE TURNED ON	Oven is not receiving power.	Check that all electric supply switches are set to the “ON” or “I” position. Then, start the oven.
		If oven still will not start, contact your Middleby Marshall Service Agency.
OVER TEMPERATURE LED IS LIT, FOOD PRODUCT IS UNDERCOOKED	The oven temperature exceeded 650°F (343°C), and the heating system was automatically shut down.	Follow the procedures under Daily Shutdown Procedures in Section 3 to shut down the oven. Contact your Middleby Marshall Authorized Service Agent to determine and correct the cause of the condition to prevent damage to the oven.

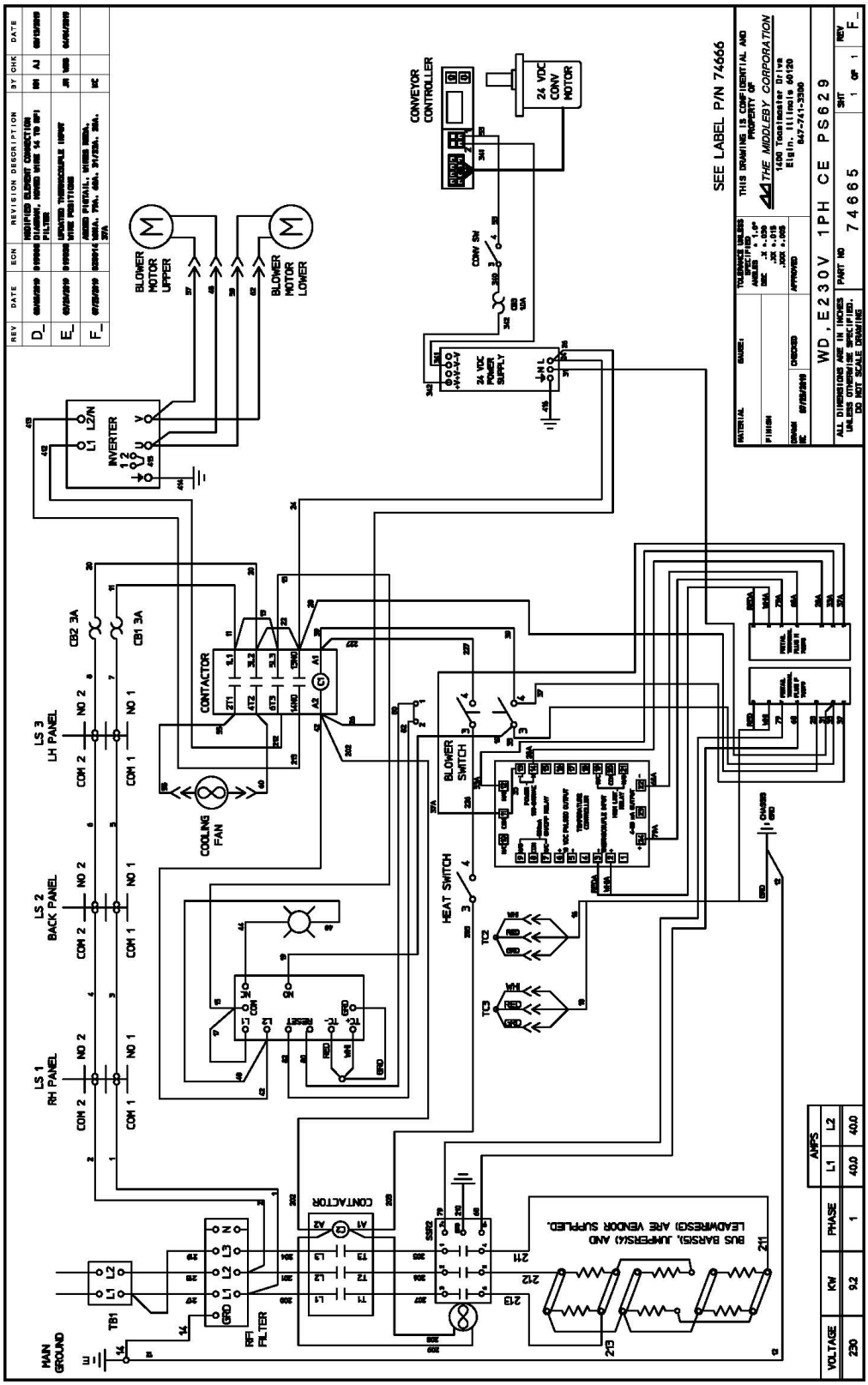
SYMPTOM	PROBLEM	SOLUTION
OVEN WILL NOT TURN ON AT ALL	Electrical power may not be reaching the oven, or the controls may be set incorrectly.	Check that the circuit breaker/fused disconnect is turned on.
		Check that the BLOWER switch is in the “ON” (“I”) position.
		Turn the HEAT, BLOWER, and CONVEYOR switches to the “OFF” (“O”) position.
IT APPEARS IN DISPLAY THAT OVEN IS NOT HEATING	The oven did not reach 200°F (93°C) within 15 minutes of start-up, and the oven has stopped heating	Wait for AT LEAST FIVE MINUTES before restarting the oven.
		Repeat the Daily Start-up procedure in Section 3.
		Check that the Set Point is correctly set.
		Check that both the BLOWER and HEAT Switches are in the “ON” (“I”) position.
OVEN WILL NOT HEAT	Controls may be set incorrectly.	If the oven still will not heat, turn the HEAT, BLOWER, and CONVEYOR switches to the “OFF” (“O”) position.
		Wait for AT LEAST FIVE MINUTES before restarting the oven.
		Repeat the Daily Start-up procedure in Section 3. Check that the Set Point is above 200°F (93°C).
OVEN IS OPERATING, BUT LITTLE OR NO AIR IS BLOWING FROM AIR FINGERS	Air fingers may have been reassembled incorrectly after cleaning.	Turn the oven to the “OFF” (“O”) position, and allow it to cool.
		Disconnect electrical power to the oven.
		Refer to Section 4, Maintenance, for instructions on reassembling the air fingers.
CONVEYOR MOVES WITH A JERKY MOTION, OR WILL NOT MOVE AT ALL	Conveyor may be jammed on an object in the oven, or conveyor belt or drive chain tension may be incorrect.	Turn the oven to the “OFF” (“O”) position, and allow it to cool.
		Disconnect electrical power to the oven.
		Check if the conveyor is blocked by an object inside the oven.
		Refer to Section 4, Maintenance, for instructions on checking the conveyor and drive chain tension.
		Check that the set temperature and bake time settings are correct.

SECTION 6
ELECTRICAL SCHEMATICS

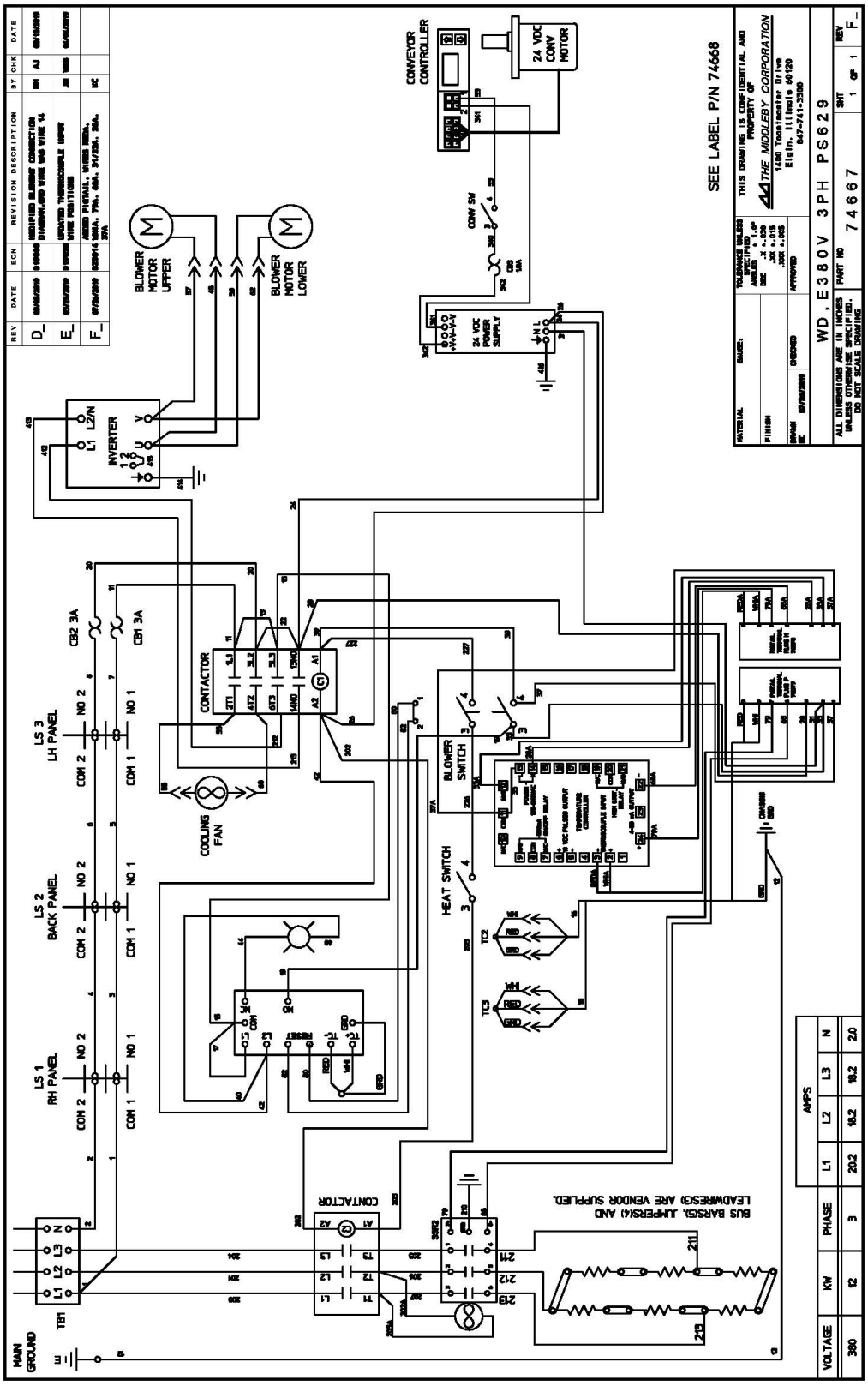
Wiring Diagram, E208-240V 3PH PS629E • 74629 REV F



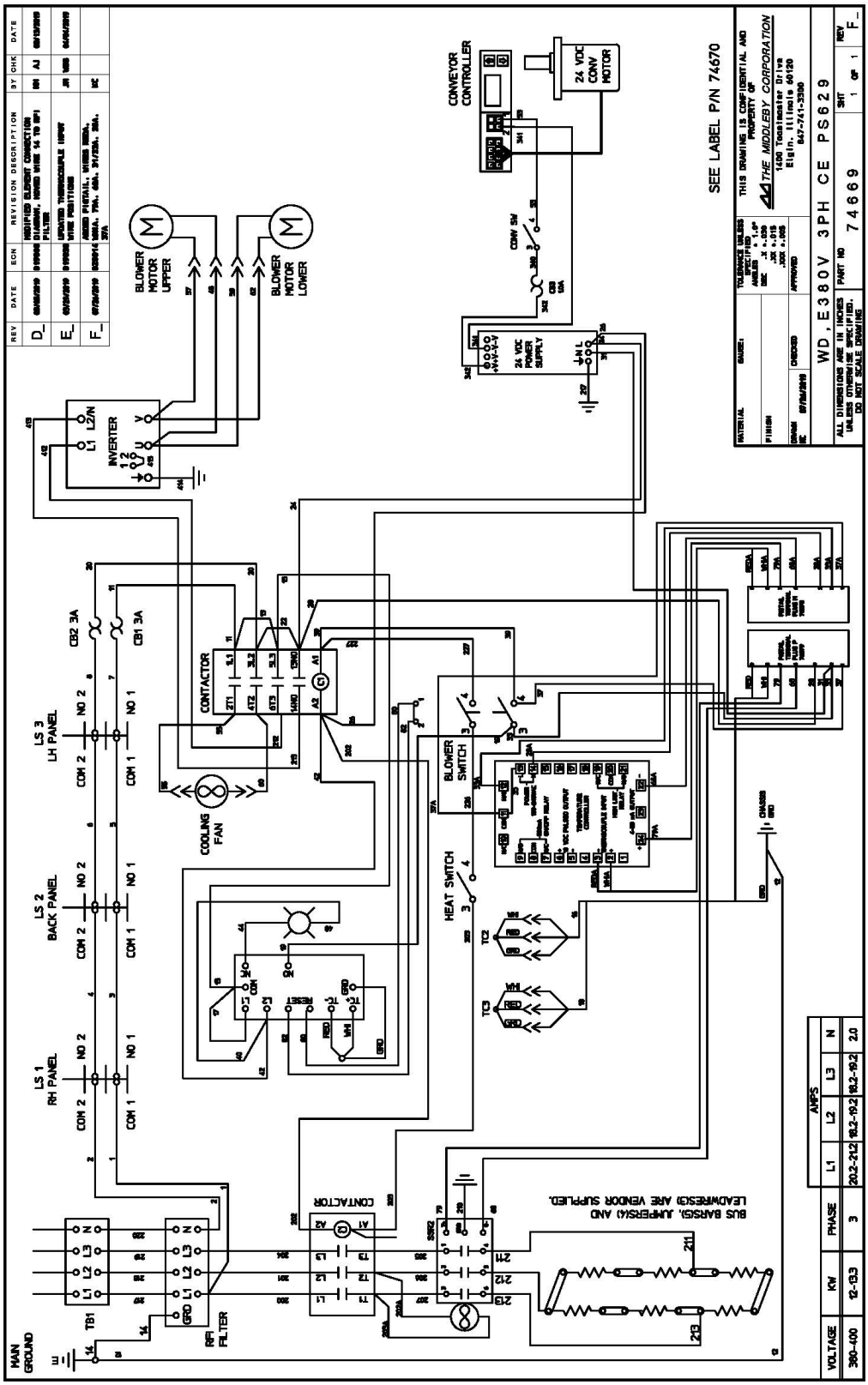
Wiring Diagram, E230V 1PH CE PS629E • 74665 REV F



Wiring Diagram, E380V 3PH PS629E • 74667 REV F



Wiring Diagram, E380V 3PH CE PS629E • 74669 REV F



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

During the warranty period, ALL parts replacement and servicing should be performed by your Middleby Marshall Authorized Service Agent. Service that is performed by parties other than your Middleby Marshall Authorized Service Agent may void your warranty.

NOTICE

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

NOTICE

Middleby Marshall reserves the right to change specifications at any time.

CFESA

Commercial Food Equipment Service Association

Middleby is proud to support the Commercial Food Equipment Service Association (CFESA). We recognize and applaud CFESA's ongoing efforts to improve the quality of technical service in the industry.

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