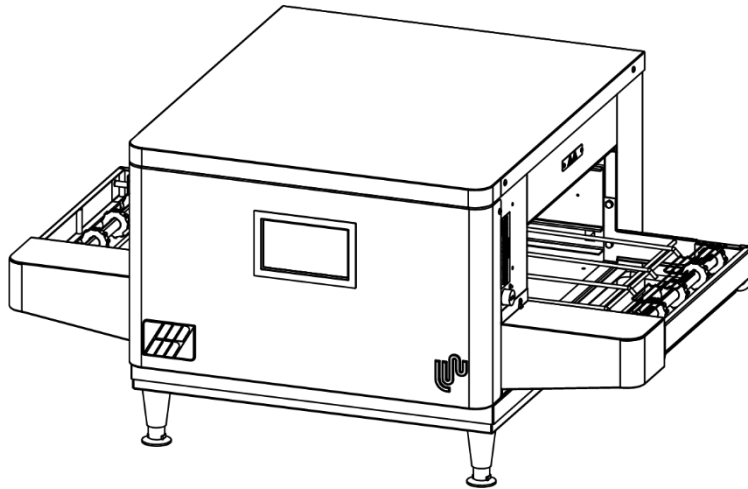


# OWNER'S OPERATING & INSTALLATION MANUAL

**LONGWAVE Electric Ovens  
LW26/LW33-Series**

## **Combinations:**


- Single Oven
- Double Oven (Two-Stack)
- Triple Oven (Three-Stack)
- Quad Oven (Four-Stack, LW33 Only)



### **CAUTION**

***Read the instructions before using the machine.***

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**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.***

**WARNING**

***Flooring adjacent to the equipment may become slippery.***

**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.

**RETAIN THIS MANUAL FOR FUTURE REFERENCE**

**MIDDLEBY MARSHALL 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 THE WARRANTY PERIOD 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 **limited 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, 2024.***

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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 the warranty period 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. 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.

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# SECTION 1 DESCRIPTION

## I. MODEL IDENTIFICATION

LONGWAVE LW26/LW33 conveyor ovens are designed to cook, bake, or broil in high volume with consistent quality results. The LONGWAVE oven may be used either as a single oven or stacked for use as double or triple ovens. LW33 ovens can stack up to four units high. These configurations are available: 15"-leg, 4"-leg, and no-leg.

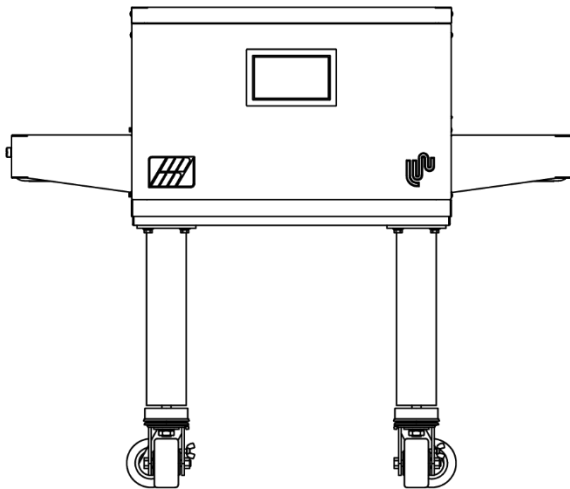
### LONGWAVE Oven Features

- Electrically powered
- Zone-heated by infrared panels
- Conveyorized
- Touch screen controlled

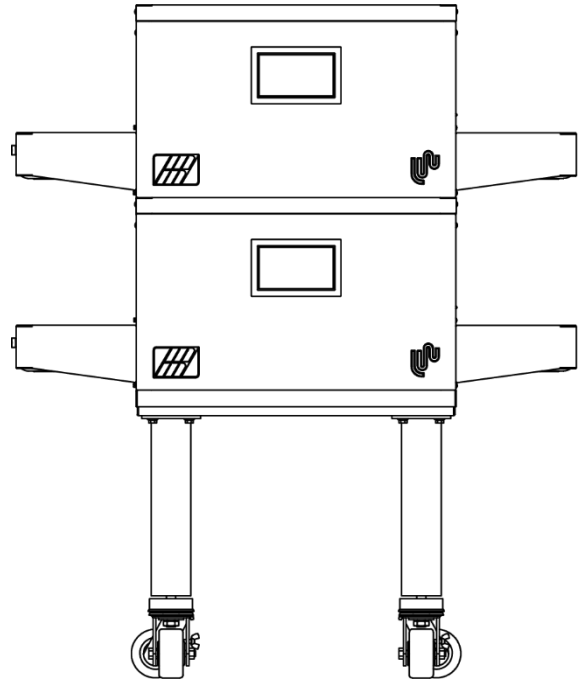
### LONGWAVE Oven Sizes

- LW26 – 26" (660mm) long cooking chamber and touch screen control
- LW33 – 31" (787mm) long cooking chamber and touch screen control

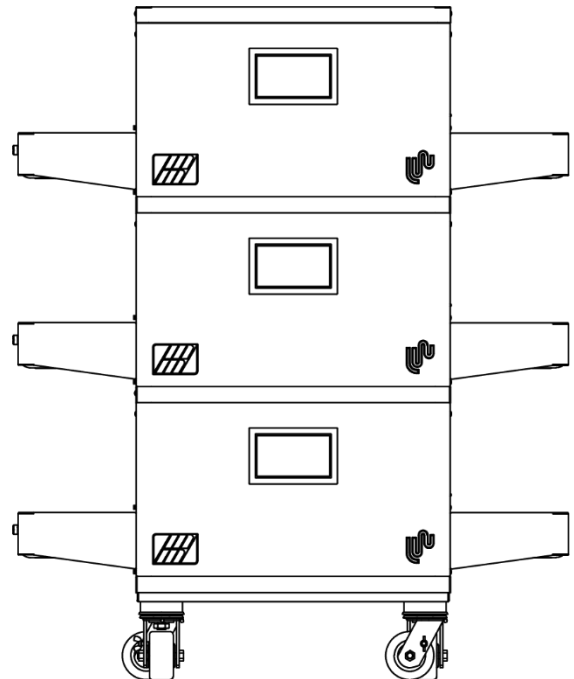
NOTE: LW26 versions are shown.



**Figure 1. Single Oven**



**Figure 2. Double-Stacked Oven**



**Figure 3. Triple-Stacked Oven**

SECTION 1  
DESCRIPTION

**II. LW26/LW33 SERIES SPECIFICATIONS**

**RECOMMENDED MINIMUM CLEARANCES FROM COMBUSTIBLE CONSTRUCTION**

Rear of Oven to Wall - 6" (152mm)	Left Side of Oven to Wall - 24" (610mm)	Right Side of Oven to Wall - 24" (610mm)
--------------------------------------	--	---

**LW26/LW33 SERIES ELECTRICAL SPECIFICATIONS**

Model No.	AC Volts	Phase	Hz	Connected kW	Avg. Operating kW	Connected Load (Amps)				Breakers
						L1	L2	L3	N	
<b>LW26 Domestic</b>										
LW26	208	1	50/60	10.8	4.3	51.9	51.9	--	--	70 A
LW26	208	3	50/60	10.8	4.3	22.5	34.3	34.3	--	50 A*
LW26	240	1	50/60	10.8	4.3	45.0	45.0	--	--	60 A
LW26	240	3	50/60	10.8	4.3	29.8	29.8	19.5	--	40 A*
<b>LW26 International</b>										
LW26 (CE Listed)	230	1	50/60	9.9	4.3	44.0	44.0	--	--	50 A
LW26 (CE Listed)	380	3	50/60	9.0	4.3	43.0	17.0	18.0	18.0	50 A
<b>LW33 Domestic</b>										
LW33	208	1	50/60	13.2	4.7	63.5	63.5	--	--	80 A
LW33	208	3	50/60	13.2	4.7	27.5	41.2	41.2	--	60 A*
LW33	240	1	50/60	13.2	5.0	55.0	55.0	--	--	70 A
LW33	240	3	50/60	13.2	5.0	36.4	36.4	23.8	--	50 A*
<b>LW33 International</b>										
LW33 (CE Listed)	230	3	50/60	13.2	5.0	53.0	53.0	--	--	60 A
LW33 (CE Listed)	380	3	50/60	13.2	5.0	25.0	13.0	13.0	13.0	30 A

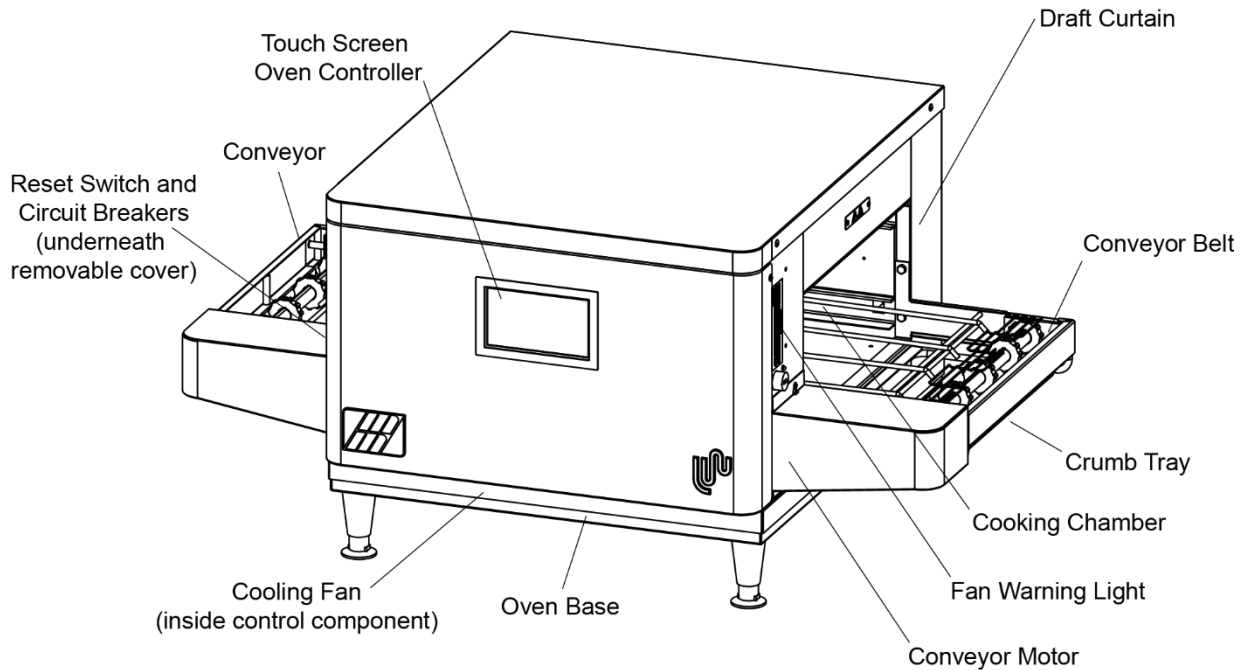
\* A NEMA L15-50R receptacle is also available as an option. Canada and others require a breaker 5 AMPS greater than breaker size shown.

**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.

**LW26/LW33 SERIES OVEN WEIGHTS**

LW26 (Single Unit) = 343 lbs (156 kg)	LW33 (Single Unit) = 458 lbs (208 kg)
---------------------------------------	---------------------------------------

**This Manual Must Be Kept for Future Reference.**



**Figure 4. Components Locations**

### III. COMPONENT FUNCTION

#### A. Touch Screen Oven Controller

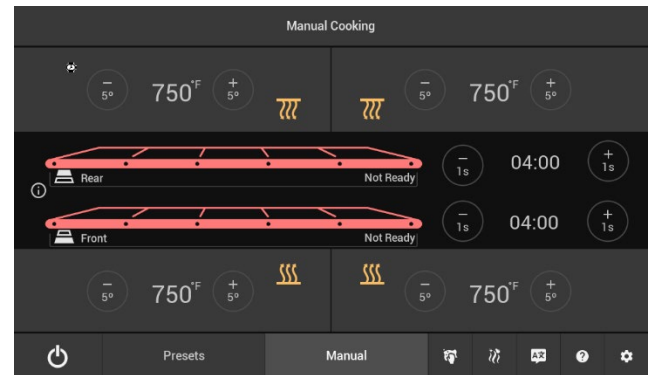
The touch screen controller controls all functions of the oven. The cooking temperatures can be set from 300°F to 1200°F (149°C to 649°C). Cooking times (conveyor speed) can be set from the minimum to the maximum speed, which is dependent on the oven size.

The controller features several modes including:

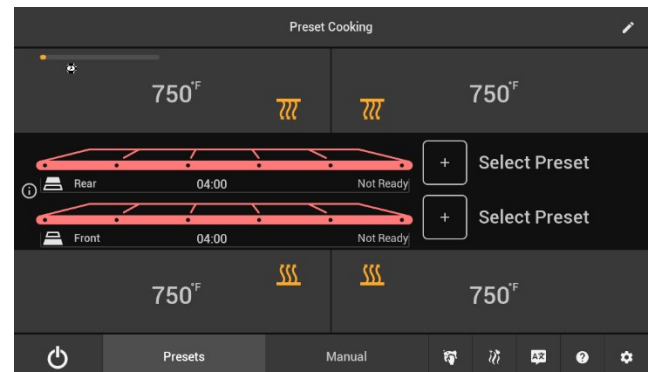
- Manual Operation
- Preset Operation
- Standby
- Self-cleaning
- Setup
- Service

In the Preset Operation mode, oven temperatures and cook times can be preset and chosen with one touch. Any amount of presets can be created, named, and given an icon from a pre-loaded list or from a USB.

Manual Mode:

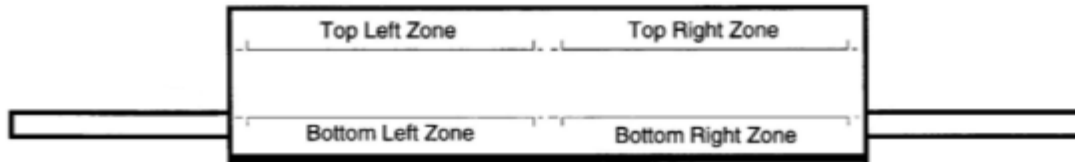


Preset Mode:



**Figure 5. Touch Screen Oven Controller in Manual and Preset Modes**

SECTION 1  
DESCRIPTION



**Figure 6. LONGWAVE Heat Zones**

**B. Infrared Heating Panels**

Heating panels are positioned above and below the conveyor belt in the oven chamber (Figure 4). When energized, these panels emit infrared long waves. These waves do not heat the air through which they pass. Instead, the waves are absorbed by the outer surface of the product being 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 the food to cook from the outside to the center in traditional fashion.

**C. Conveyor**

The conveyor is used to convey the product through the oven deck (chamber). The conveyor is made up of 1 to 2 stainless steel wire belts which can travel in either direction around the frame. The conveyor is controlled by the controller. The conveyor speed range is dependent on oven model (MM:SS):

LW26: 1:00 – 17:00

LW33: 1:00 – 22:00

The speed of the conveyor determines how long the product will be in the cooking chamber, which is the cooking time.

**D. Cooling Fan**

Air is drawn through the filter by a 24-volt DC cooling fan located directly behind the front panel. The fan circulates air throughout the entire electrical raceway to cool the front panel, top panel, and the electrical components.

**NOTICE**

All LW ovens are voltage specific. Check the oven data plate for the voltage. Applying the wrong voltage can immediately damage the oven. Refer to Section 2 Installation for complete instructions before installing an oven.

## 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 control 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.

**NOTE:** The LW26 ovens may be installed directly onto a countertop without the use of legs. To ensure proper sanitation when mounting the oven in this manner, it is essential that no liquid can pass beneath the oven base. To achieve this, the countertop must be flat, non-porous, and free of gaps. Additionally, an NSF-approved temperature-resistant sealing barrier, such as RTV silicone sealant, must be applied around the entire perimeter of the oven base to effectively prevent the ingress of liquid from spills near the base.

### CAUTION

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

SECTION 2  
INSTALLATION

**I. UNLOADING, DIMENSIONS, AND ROUGH-IN**

Your Middleby Marshall LW26/LW33-Series Oven is shipped partially assembled. It will arrive in a carton on a crate.

**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.

- **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.
- **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. See Figure 7 to Figure 16 for dimensions.

- This oven is conveyORIZED and operates continuously. It should be placed so it fits into the “flow” of the operation.
- 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.
- Oven should be positioned so hot air from another piece of equipment cannot enter the oven cooling fan air intake on the oven front. Serious problems could occur.

**NOTICE**

To validate a new oven(s) warranty, a certified LONGWAVE installer must supervise the installation.

**C. Items for Stacking Oven**

The following items are required for stacking ovens:

Quantity	Description
2	10' (305cm) 4-by-4 boards
2	4' (122cm) 4-by-4 boards (stacking ovens only)
2	1-1/2"x7' (213cm) rigid pipe Schedule 40
2	Custom M5 Lift (Vermette)

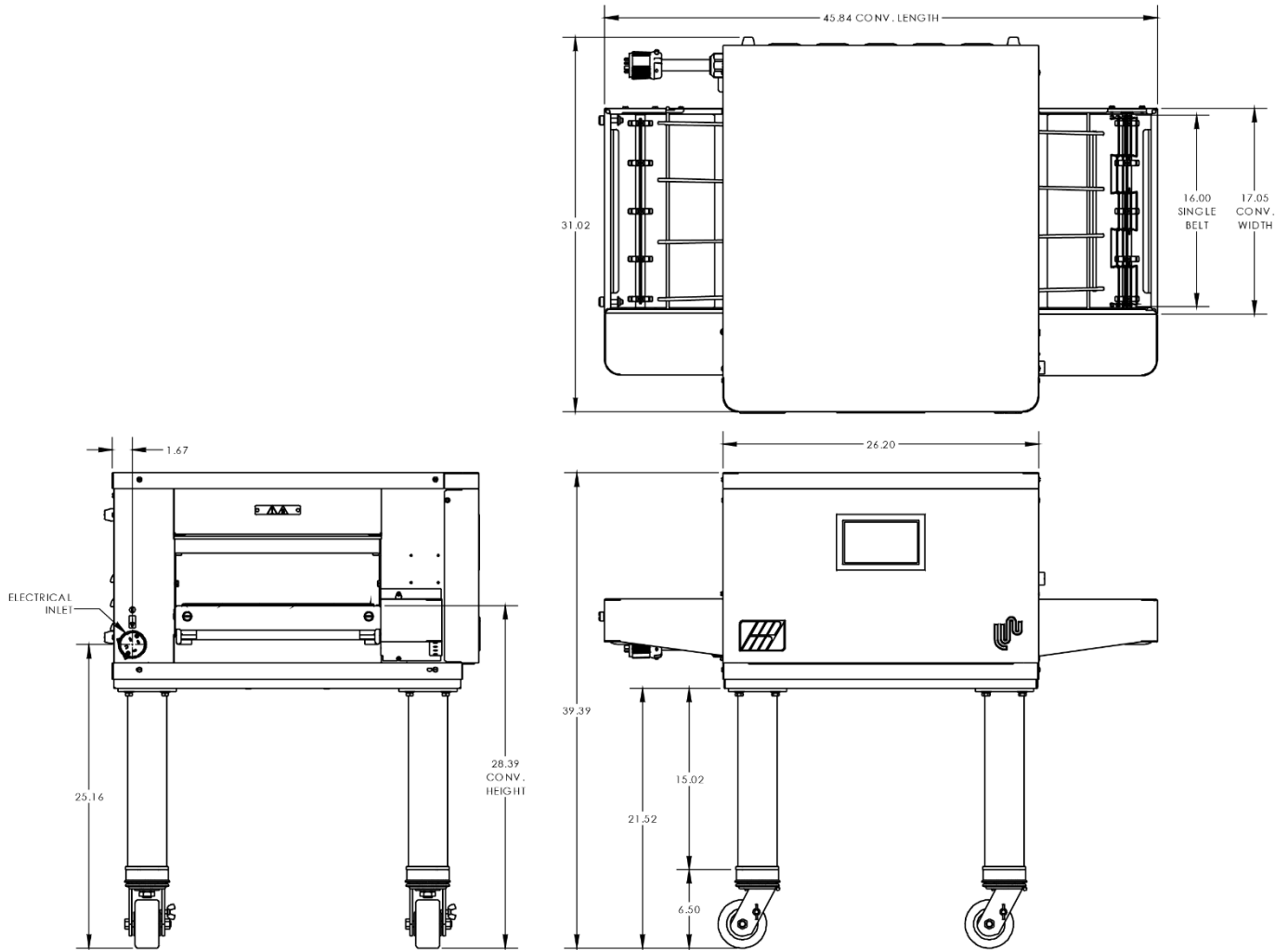


Figure 7. LW26 Single Oven on a Base – 15" Legs

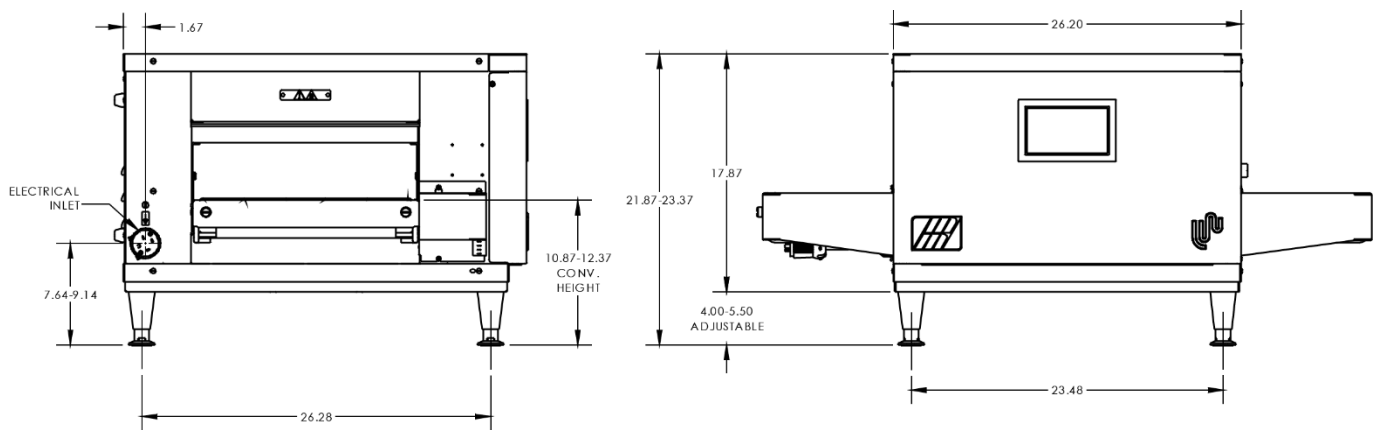


Figure 8. LW26 Single Oven on a Base – 4" Legs

SECTION 2  
INSTALLATION

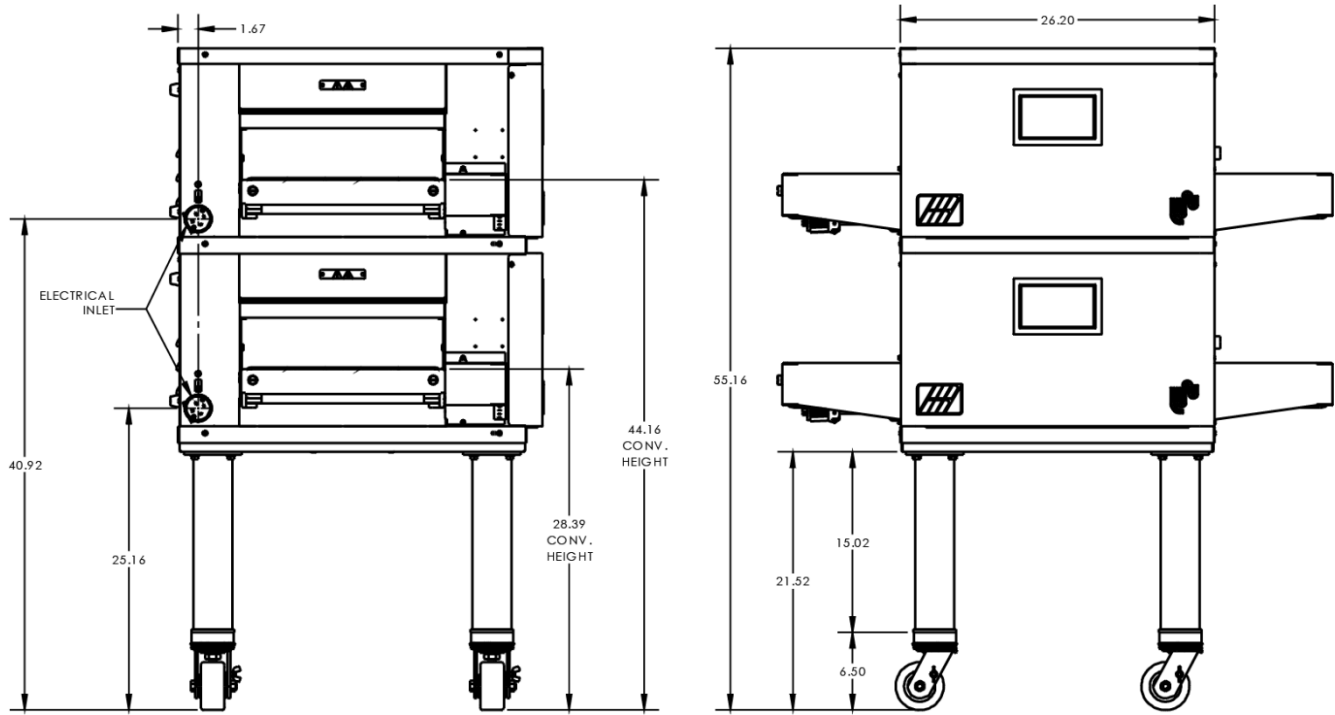


Figure 9. LW26 Double-Stacked Oven on a Base – 15" Legs

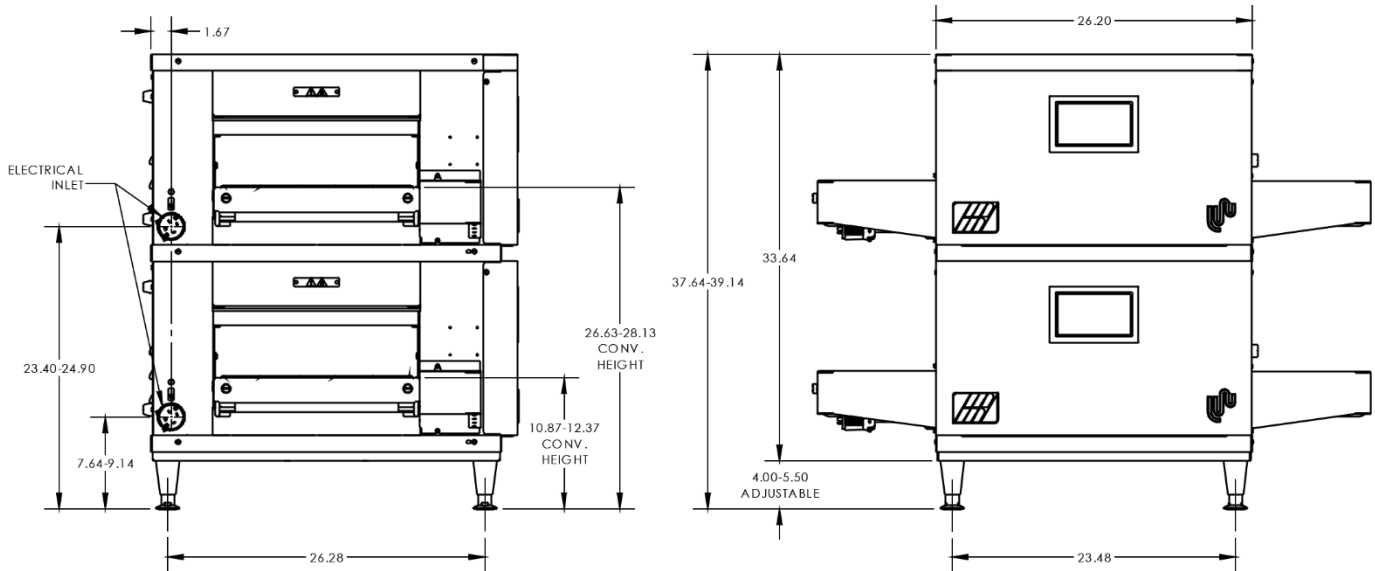


Figure 10. LW26 Double-Stacked Oven on a Base – 4" Legs

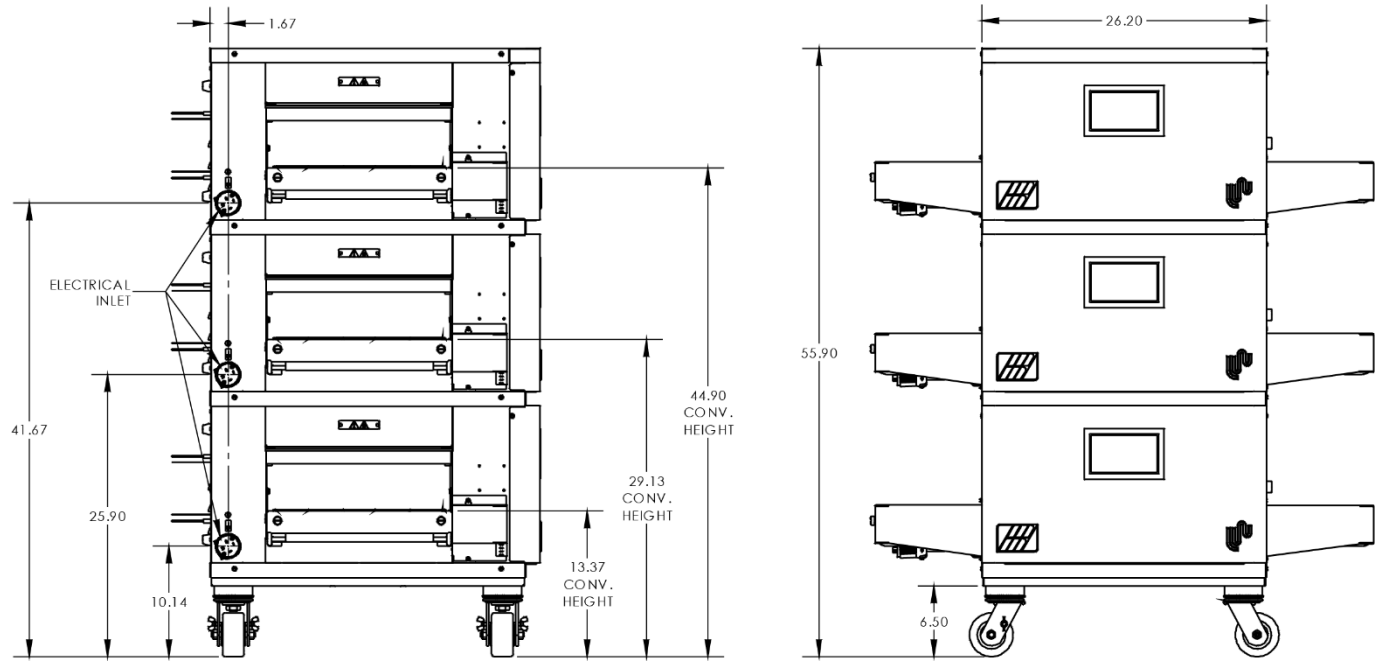


Figure 11. LW26 Triple-Stacked Oven on a Base – No Legs

SECTION 2  
INSTALLATION

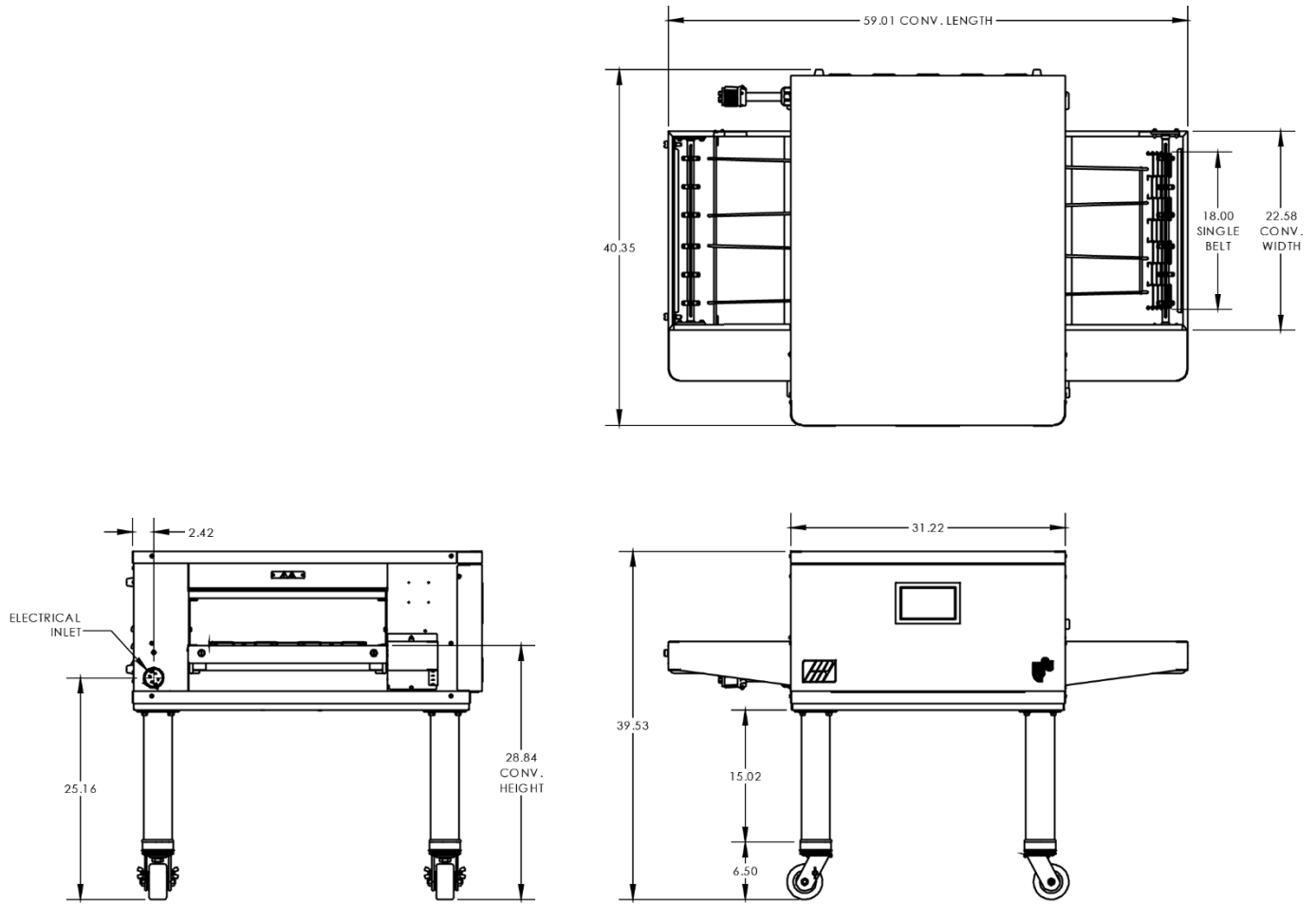


Figure 12. LW33 Single Oven on a Base – 15" Legs

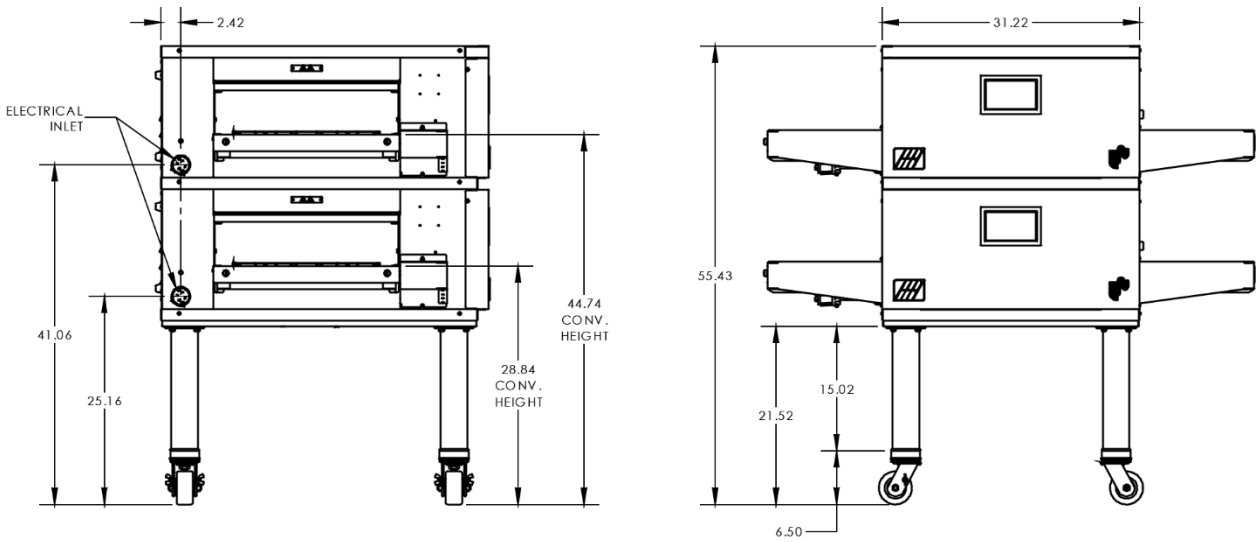


Figure 13. LW33 Double-Stacked Oven on a Base – 15" Legs

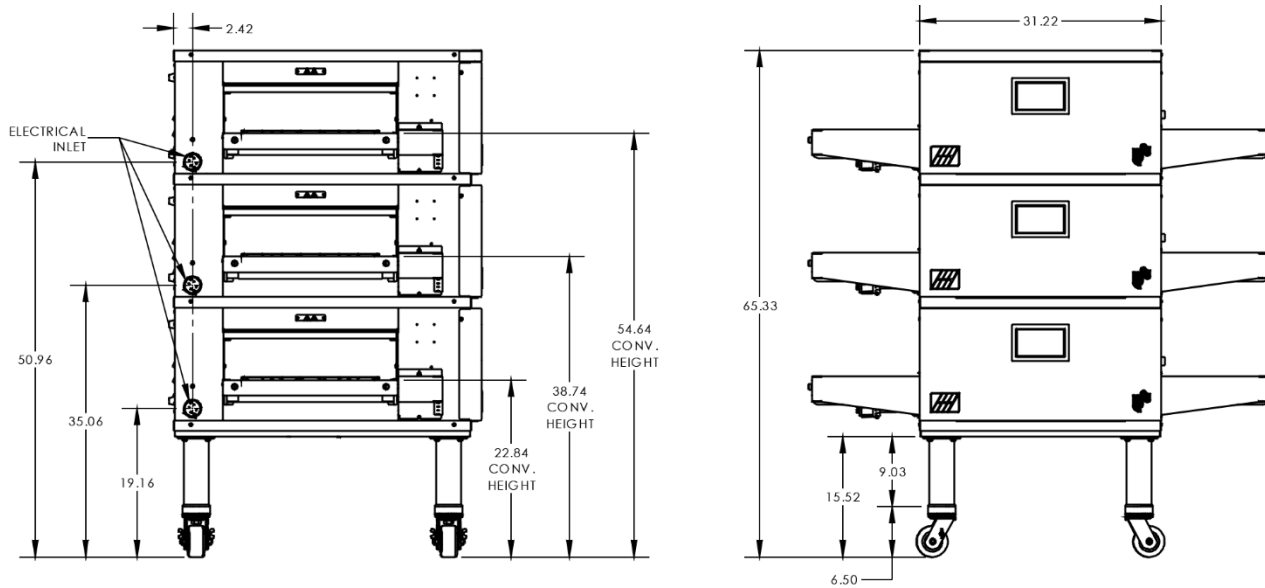


Figure 14. LW33 Triple-Stacked Oven on a Base – 9" Legs

SECTION 2  
INSTALLATION

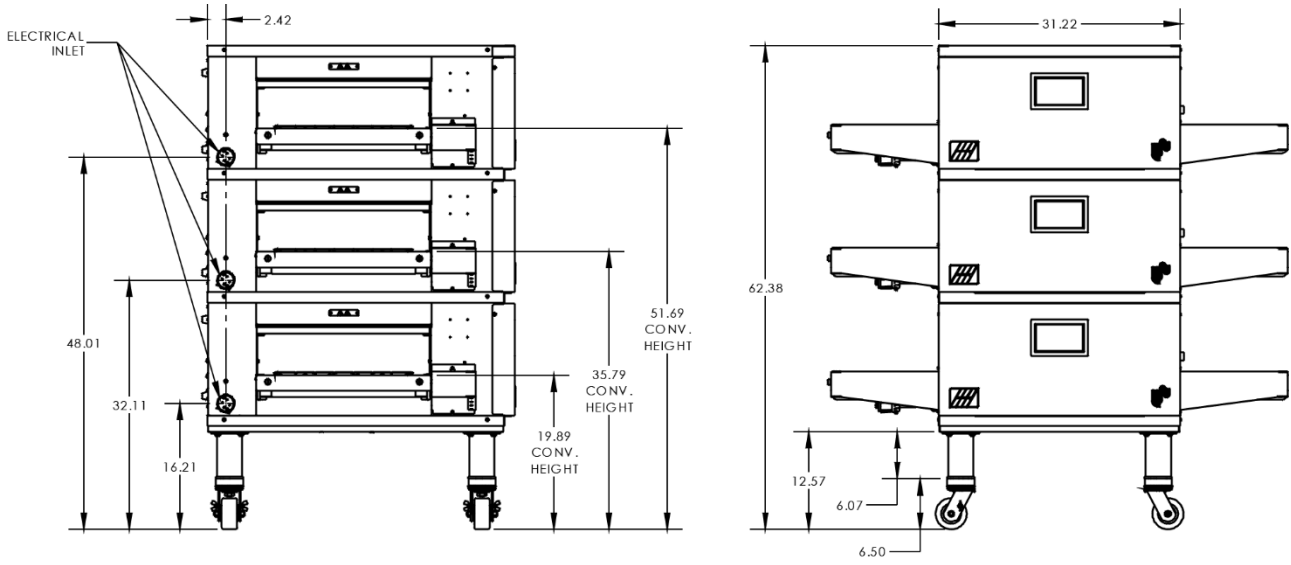


Figure 15. LW33 Triple-Stacked Oven on a Base – 6" Legs

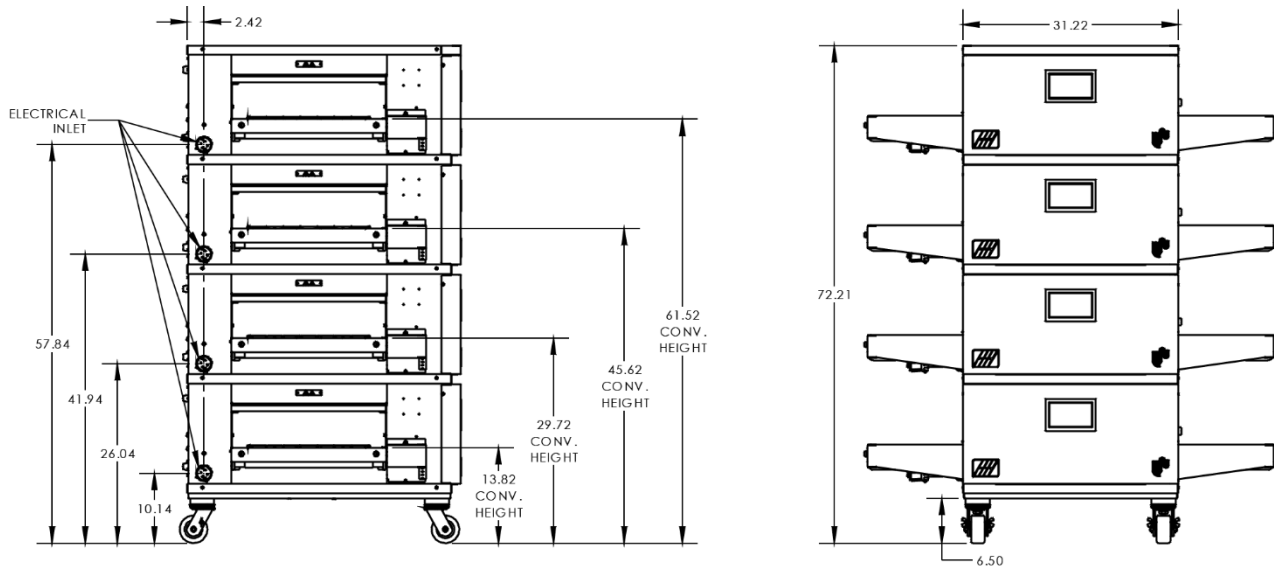


Figure 16. LW33 Quad-Stacked Oven – No Legs

**LW26 Single Oven Stand Parts**

Item	Qty.	Part Number	Description
1	1	79794	KIT, TOP & BASE LW26
2	4	79254	LEG, APPL 4" ADJ NP BODY
3	8	21256-0008	SCR, MS SLT TRHD 10-32X3/8

**LW26 Double Oven Stand Parts**

Item	Qty.	Part Number	Description
1	1	79794	KIT, TOP & BASE LW26
2	4	66948	LEG, 15" COMMON TUBE & CASTER
3	16	2000531	SCR, CAP HX HD 3/8-16X1 NP
4	16	21422-0001	WASHER, SPLIT LOCK 3/8 ZP
5	16	21416-0001	WASHER, FLAT 3/8 SS
6	8	21256-0008	SCR, MS SLT TRHD 10-32X3/8 18-8

**LW26 Triple Oven Stand Parts**

Item	Qty.	Part Number	Description
1	1	79794	KIT, TOP & BASE LW26
2	4	74319	CASTER, STUD W/BRAKE 4" WHEEL
3	12	21256-0008	SCR, MS SLT TRHD 10-32X3/8 18-8

SECTION 2  
INSTALLATION

**LW33 Single/Double Oven Stand Parts**

Item	Qty.	Part Number	Description
1	1	79475	KIT, BASE & TOP NO LEGS LW33
2	4	66948	LEG, 15" COMMON TUBE & CASTER
3	16	21416-0001	WASHER, FLAT 3/8 SS
4	16	2000531	SCR, CAP HX HD 3/8-16X1 NP
5	16	21422-0001	WASHER, SPLIT LOCK 3/8 ZP
6	8	21256-0008	SCR, MS SLT TRHD 10-32X3/8 18-8

**LW33 Triple Oven Stand 9" Legs Parts**

Item	Qty.	Part Number	Description
1	1	79475	KIT, BASE & TOP NO LEGS LW33
2	4	66947	LEG, 9" COMMON TUBE
3	16	21416-0001	WASHER, FLAT 3/8 SS
4	16	2000531	SCR, CAP HX HD 3/8-16X1 NP
5	16	21422-0001	WASHER, SPLIT LOCK 3/8 ZP
6	12	21256-0008	SCR, MS SLT TRHD 10-32X3/8 18-8

**LW33 Triple Oven Stand 6" Legs Parts**

Item	Qty.	Part Number	Description
1	1	79475	KIT, BASE & TOP NO LEGS LW33
2	4	66946	LEG, 6" COMMON TUBE & CASTER
3	16	21416-0001	WASHER, FLAT 3/8 SS
4	16	2000531	SCR, CAP HX HD 3/8-16X1 NP
5	16	21422-0001	WASHER, SPLIT LOCK 3/8 ZP
6	12	21256-0008	SCR, MS SLT TRHD 10-32X3/8 18-8

**LW33 Quad Oven Stand Casters Parts**

Item	Qty.	Part Number	Description
1	1	79475	KIT, BASE & TOP NO LEGS LW33
2	4	74319	CASTER, STUD W/BRAKE 4" WHEEL
3	16	21256-0008	SCR, MS SLT TRHD 10-32X3/8 18-8

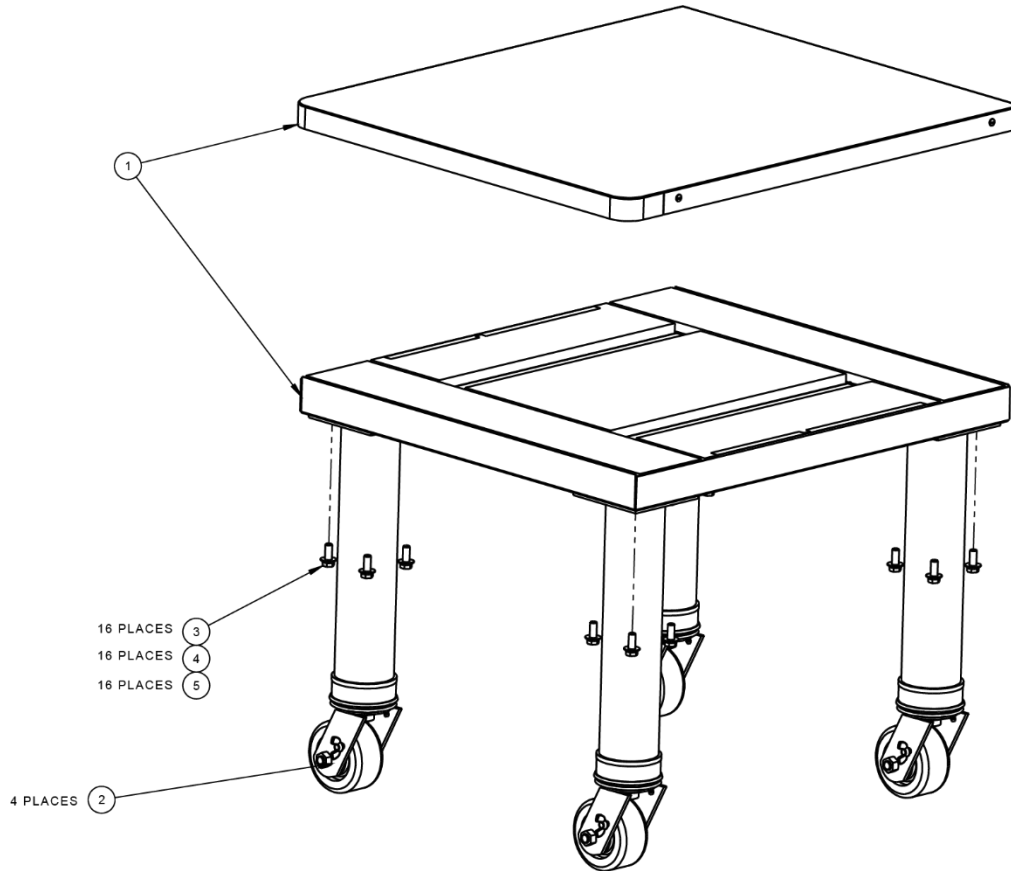


Figure 17. Oven Stand Parts

#### D. Base Section Assembly

1. Locate the carton containing the oven base. Remove and inventory the contents. Refer to the correct parts lists on pages 17 to 18 and to Figure 17.
2. Lay Wldmt. Base (Item 1, Figure 17) upside down on the floor and remove the protective film from base. Attach the four Assy. Leg, Caster (Item 5) using 16 SCR, Cap HX HD 3/8"-16X1" NP (Item 10), 16 Washer, Flat SS 3/8" (Item 9), and 16 Washer, Lock Split 3/8" ZP (Item 8).
3. Turn the base assembly upright and install insulation, then set aside. Also set aside 4 SCR, 10-32X3/8 18-8 SL TRUSS (Item 7), and Panel, Top (Item 5). The base will be used to stack oven on, and the top secures to the top of the top oven.

#### E. Mounting Single Oven onto Base Assembly

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

3. Slide the two 10' (305cm) long 4-by-4 boards through the oven cavity. The boards should be sticking out of the oven equally on both sides. One of the boards should be placed to the rear of the oven and the other in the front of the oven. See Figure 18.
4. Position the two Vermette lifts on opposite ends of the oven under the 10' (305cm) boards, making sure the legs with wheels are up as close as possible to the skid. Place the two 4' (122cm) long 4-by-4 boards across the two Vermette forks, at least 6" (15cm) in from the end of the forks, and centered with the 10' (305cm) boards running through the oven cavity. See Figure 18.

#### NOTICE

Lift the oven with the 10' (305cm) 4-by-4 boards running through the oven **only**. **DO NOT** lift the oven by the conveyor. **Damage WILL result.**

5. With the 4' (122cm) boards positioned under the 10' (305cm) boards, begin to lift the oven with the two Vermette lifts. Keep the oven level at all times.

SECTION 2  
INSTALLATION

- When the oven is completely free from the skid, slide the skid out from under the oven.

**NOTICE**

Dispose of the skid in accordance with local regulations.

- Lift the oven high enough to position the stand under it. Roll the stand under the oven (**do not** roll the oven and lifts over the stand) and lower onto the stand. The bottom of the oven will wrap around the stand. 4 SCR,10-32X3/8 18-8 SL TRUSS screws are used to secure the oven to the base.

**CAUTION**

**Be careful not to place hands or fingers between the oven and stand.**

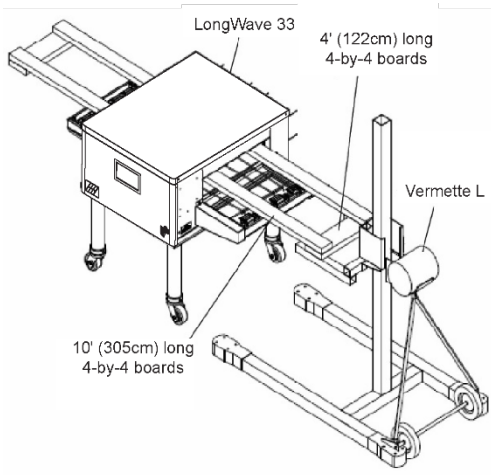


Figure 18.

**F. Stacking and Mounting Two Ovens**

- Cut the bands holding the protective shipping carton to the skid. Carefully remove the bands and lift the carton up off the oven.
- Cut the bands holding the oven to the skid.
- Slide the two 10' (305cm) long 4-by-4 boards through the oven cavity. The boards should be sticking out of the oven equally on both sides. One of the boards should be placed towards the rear of the oven and the other in the front of the oven. See Figure 18.
- Position the two Vermette lifts on opposite ends of the oven under the 10' (305cm) boards, making sure the legs with wheels are up as close as possible to the skid. Place the two 4' (122cm) long 4-by-4 boards across the two Vermette lift forks, at least 6" (15cm) in from the end of the forks, and

centered with the 10' (305cm) boards running through the oven cavity. See Figure 18.

**NOTICE**

Lift the oven with the 10' (305cm) 4-by-4 boards running through the oven **only**. **DO NOT** lift the oven by the conveyor. **Damage WILL result.**

- With the 4' (122cm) boards positioned under the 10' (305cm) boards, begin to lift the oven with the two Vermette lifts. Keep the oven level at all times.
- When the oven is completely free from the skid, slide the skid out from under the oven.

**NOTICE**

Dispose of the skid in accordance with local regulations.

- Elevate the upper oven high enough to position the lower oven underneath.
- Roll the stand with the lower oven under the upper oven (**do not** roll the oven and lifts over the lower oven) and lower onto the lower oven. The bottom of the oven will wrap around the top of the lower oven. SCR,10-32X3/8 18-8 SL TRUSS is used to secure each oven to the oven below it, the bottom oven to the base, and the top to the top oven.

**CAUTION**

**Be careful not to place hands or fingers between the ovens.**

**G. Stacking and Mounting Three Ovens**

- Follow the previous procedures in step F.

**CAUTION**

**Be careful not to place hands or fingers between the ovens.**

**NOTICE**

Lift the oven with the 10' (305cm) 4-by-4 boards running through the oven cavity **only**. **DO NOT** lift the oven by the conveyor. **Damage WILL result.**

**H. Loose Parts**

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

shelves are packed in a separate carton inside oven. The bottom oven should have solid crumb trays, all other ovens should have perforated crumb trays.

**NOTICE**

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

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

outward until they are horizontal and then push in toward oven chamber.

**NOTICE**

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

2. Exit Shelves, stainless steel (2 per oven). These shelves mount in cantilever fashion at the exit and entrance ends 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.

**UTILITY ROUGH-IN DIMENSIONS AND POSITIONING  
FOR LW26/LW33-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.

Consult national or local electrical codes for wire gauge and circuit breaker ratings. LONGWAVE by MM recommends circuit breakers as shown in LW26/LW33 Series Specifications in Section 1.

**ELECTRICAL SPECIFICATIONS**

**NOTICE**  
All LONGWAVE ovens are voltage specific. Check the oven data plate for the voltage. Applying the wrong voltage can immediately damage the oven.

**SUPPLY WIRE**

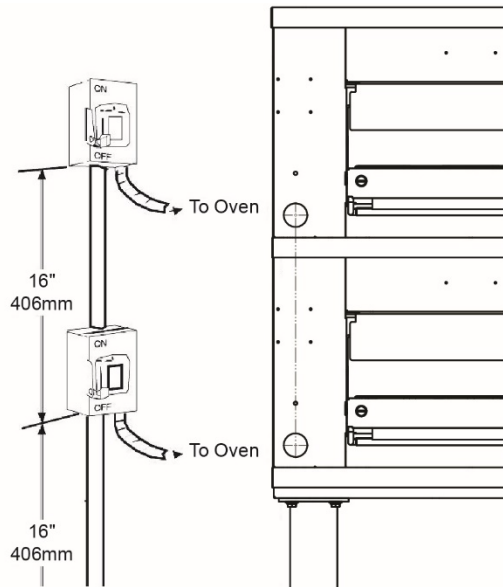
Supply wire size must be in accordance with the National Electrical Code (current edition) and must be in compliance with local codes. If local codes allow, we recommend that flexible conduit be used for final connection when the oven assembly is on casters as the use of flexible conduit will allow movement for cleaning.

**SUGGESTED**

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

**POTENTIAL EQUALIZATION CONDUCTOR ICON**

This symbol is used to mark a terminal for the connection of a potential equalization conductor.



**Figure 19. Typical LW26/LW33 Stacked Oven 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

**II. VENTILATION GUIDELINES**

A mechanically driven ventilation system is recommended for the LW26/LW33 LONGWAVE by MM conveyORIZED electric ovens.

Local codes and conditions vary greatly from one area to another and must be complied with. 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.

### III. ELECTRICAL CONNECTION INFORMATION FOR LW26/LW33-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 startup of the oven.**

Check the oven data plate (Figure 20) 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.

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

MODEL NO. LW33 SERIAL NO. S869840125 ID NO. LW330K00061 ANNO:2025  
Numero de modele Numero de serie

WIRE WITH GROUND  
Cablage avec mise a la masse

	L1	L2	L3	N
AMPS	27.9	42.2	41.9	

208 VAC 13.2 KW(Qn) 3 PHASE 50/60 Hz

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

COMBUSTIBLE	INCH	CM	POUCE	NON COMBUSTIBLE	INCH	CM	POUCE
LEFT SIDE COTE GAUCHE	4	10.2	4	LEFT SIDE COTE GAUCHE	4	10.2	4
RIGHT SIDE BON COTE	4	10.2	4	RIGHT SIDE BON COTE	4	10.2	4
REAR SIDE COTE POSTERIEUR	0	0	0	REAR SIDE COTE POSTERIEUR	0	0	0

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

ETL Intertek 2011688  
ETL Intertek 2011688

Conforms to ANSI/UL Std. 197  
Certified to CSA Std. C22.2 NO 109-M 1981 COMMERCIAL COOKING APPLIANCES  
CONFORMS TO ANSI/NSF STD 4  
PATENT NO. 10,076,000,10,123,543

OTHER PATENTS PENDING. 61838 05/18

DOMESTIC & INTERNATIONAL CE PLATE  
**Figure 20. Typical Oven Data Plate**

## SECTION 3 OPERATION

### I. CONTROL FUNCTIONS

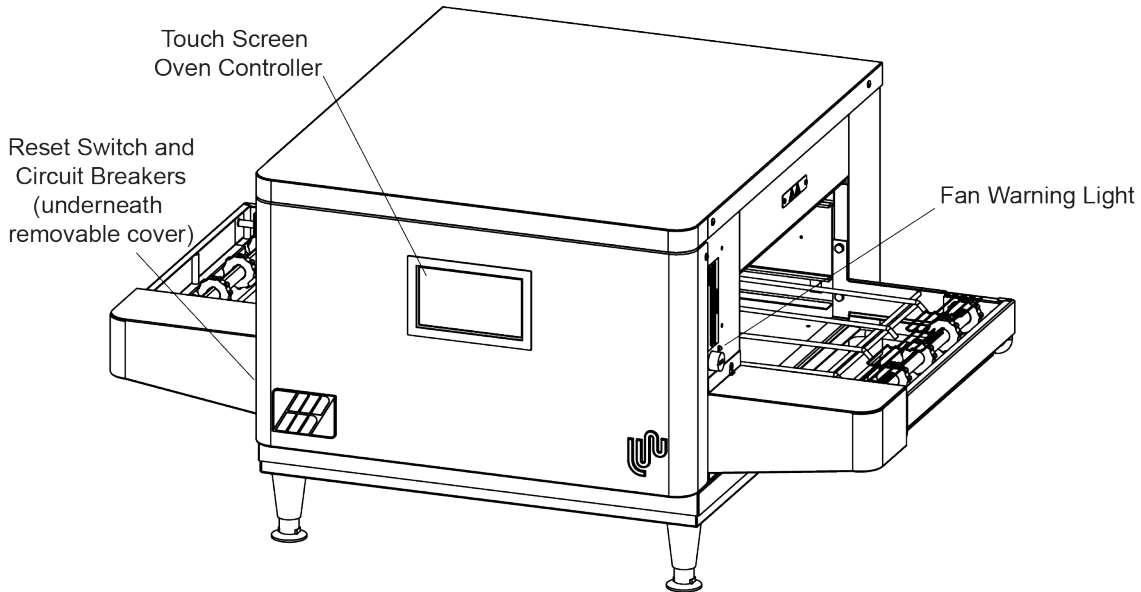


Figure 21. LW26/LW33-Series Oven Control Functions

**WARNING**

*Possibility of injury from rotating parts and electric shock.*

*Never disassemble or clean the oven with the on/off switch turned on. Turn the on/off switch off and lockout or tagout all electric power to the oven before attempting to clean or service this oven.*

**B. Circuit Breakers**

3 amp circuit breakers provide overload protection for the control circuit.

**C. Fan Warning Light**

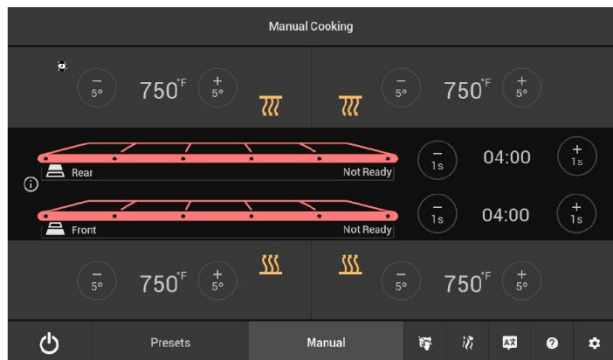
The light illuminates when the cooling fan is not detected as running.

### II. COMPONENT INFORMATION AND LOCATION

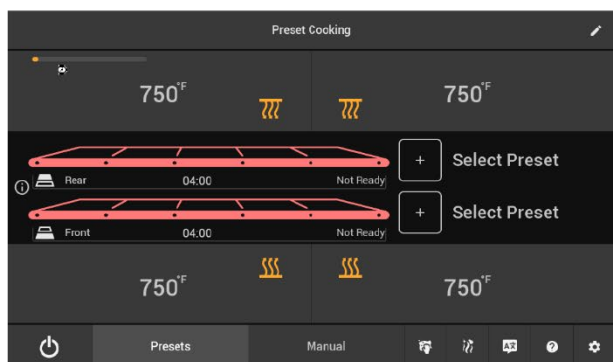
See Figure 21.

**A. Touch Screen Oven Controller**

The touch screen controller controls all functions of the oven: operation, temperature and cook time adjustments, cleaning, and service.



Manual Mode Touch Screen



Preset Mode Touch Screen

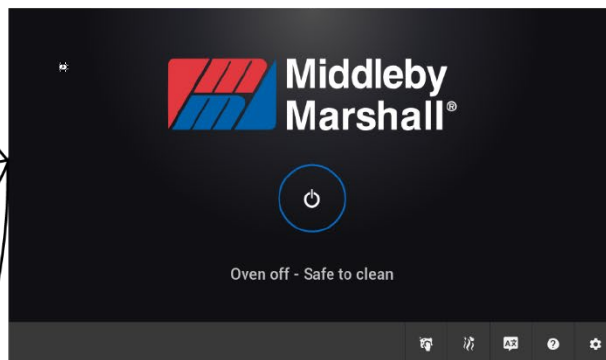


Figure 22. Control Panel

### III. STEP-BY-STEP OPERATION

#### A. Daily Startup Procedure

1. Check that the circuit breaker/fused disconnect is in the on (closed) position.
2. While the oven has electrical power, the main screen will be on.
3. Touch the large onscreen on/off button. The oven will begin to heat, displaying a circular heating progress graphic. The bottom bar will also change to display "Preset" and "Manual." The oven will automatically switch to either the preset screen or the manual screen after set temperature is achieved, but the preset or manual screen can be reached prior to exiting preheat by touching the preset or the manual buttons.
4. During Preheat mode, the screen will display either the Preheat Progress screen or the Manual/Preset screens. The conveyors will be highlighted in red and display "Not Ready," operating at minimum speed until the oven reaches the set temperature or, if the oven is off, until it cools below 200°F.
5. When the oven exits preheat, the screen will switch to the Manual or Preset screens and the conveyors will change color to orange and show "Baking." The conveyors will accelerate to the baking speed.

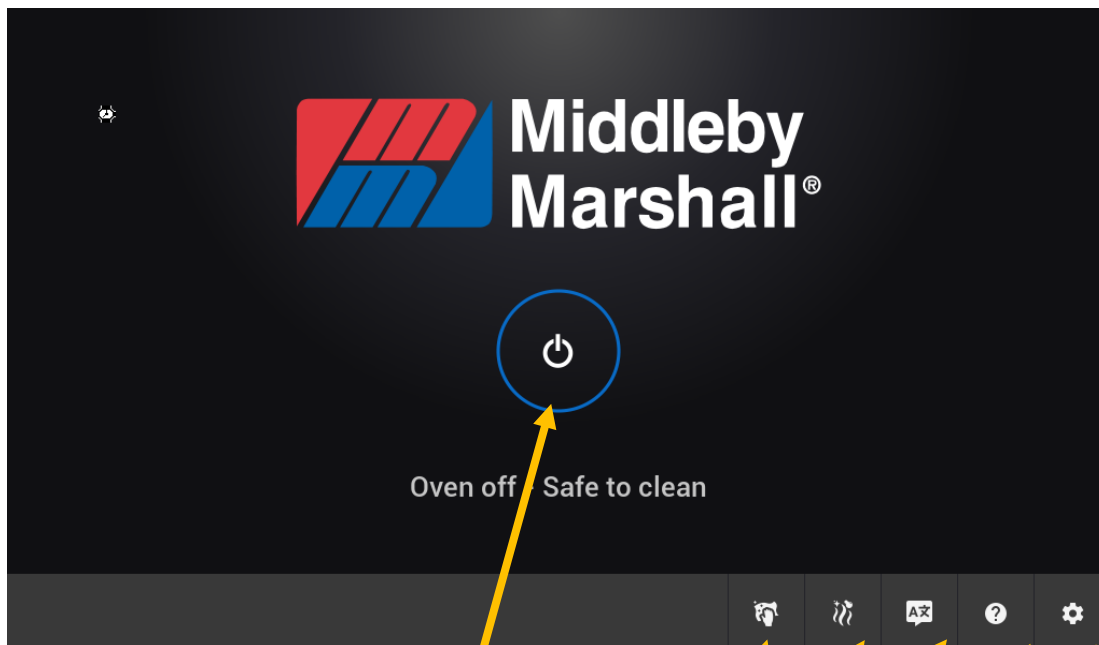
## IV. LONGWAVE QUICK START/OPERATING INSTRUCTIONS

### A. QUICK START INSTRUCTIONS

1. Turn on the circuit breaker and confirm that the screen powers up. This can take several seconds.
2. When the Middleby Marshall logo and Power Button are shown (see STANDBY SCREEN below), press the power button to begin preheat.
3. While the oven is preheating, press either the PRESET button or the MANUAL button on the bottom navigation bar to set the oven's setpoints.
4. IoT/Open Kitchen: See page 41.
5. Accessing Settings: To access settings, press the settings gear icon in the bottom right. Use the manager code (default **8648**) to log in to view and change basic oven settings.
6. If preset editing is disabled, managers may edit presets from the button in the general settings (see page 39).

### B. STANDBY/SPLASH SCREEN

First screen shown on startup, which allows the user to access settings and begin oven preheating.



**POWER BUTTON:** Press to initiate oven startup.

**CLEAN SCREEN:** Locks screen for 10 seconds to allow screen cleaning.

**CLEAN OVEN:** Starts oven self-clean mode.

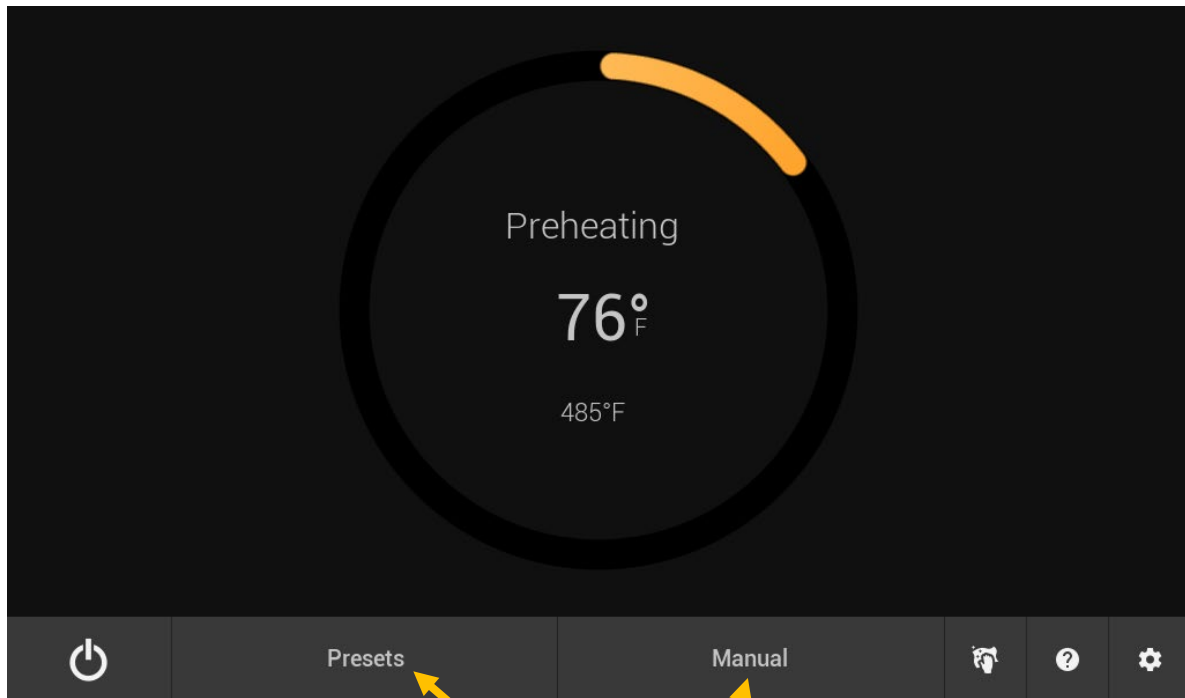
**LANGUAGE:** Allows language selection (if enabled).

**HELP:** Shows help documents.

**SETTINGS:** Allows access to settings for Managers and Service Agents.

### C. PREHEAT SCREEN

Displays preheat status, allows access to oven settings by selecting PRESETS or MANUAL tab, and shows preheat progress. During preheat, the conveyors will creep at low speeds.



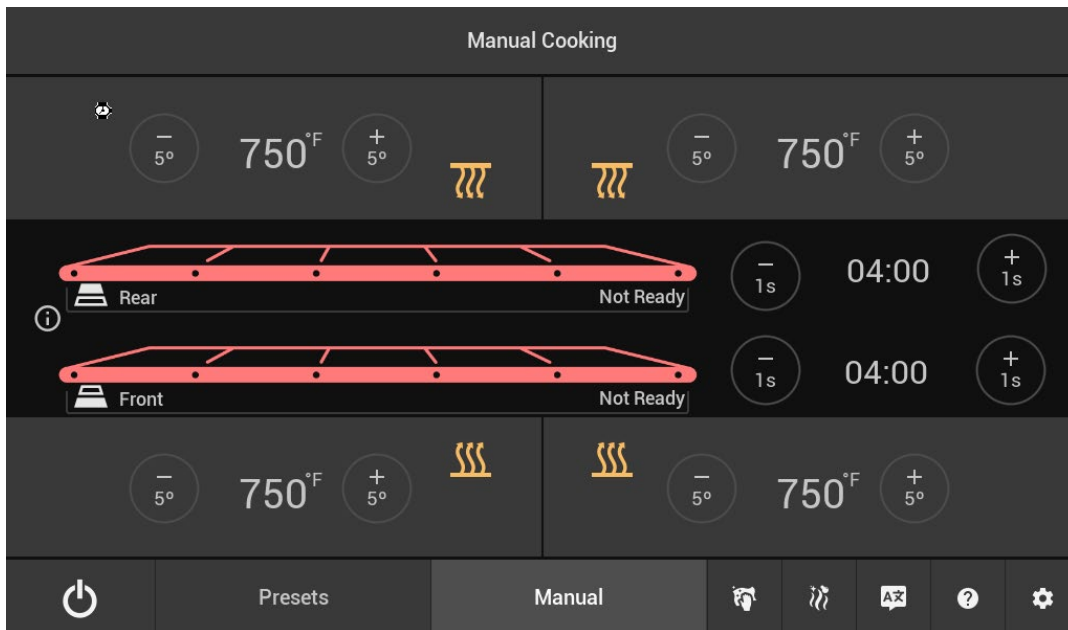
PRESETS: Press to switch to preset screen.

MANUAL: Press to switch to manual screen.

SECTION 3  
OPERATION

**D. MANUAL COOKING**

Allows manually setting oven temperatures and belt times. Temperature changes are in 5-degree Fahrenheit increments (1 degree when switched to Celsius), for more precise temperatures presets must be used. The zone position on the screen matches the zone position in the oven. The zones can be set individually, but setting the zones too far apart may cause issues. It is recommended to keep the maximum difference between zones no more than 200°F.

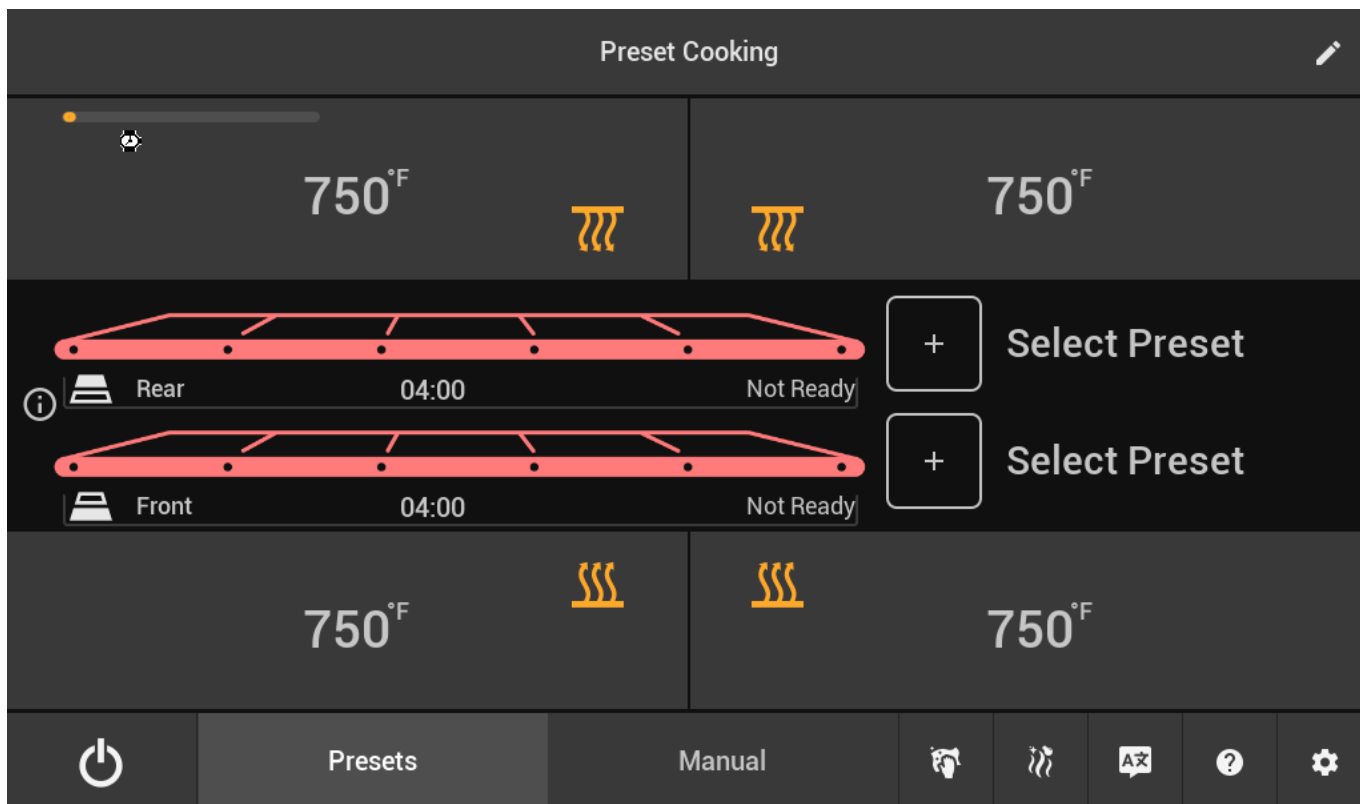


Press the “i” button to display actual temperature and heat effort percentage.



### E. PRESET SCREEN

Allows the creation, editing, and selection of presets.



### F. COOLDOWN

The screenshot shows the 'Manual Cooking' screen with a confirmation dialog box in the center. The dialog box has an information icon at the top, followed by the text 'Turn off oven?'. Below this text are two buttons: 'No' and 'Yes'. Two yellow arrows originate from the text on the right: one points to the 'No' button and the other points to the 'Yes' button.

Hold the power button (~0.3 seconds) to initiate cooldown. A confirmation screen will show.

Press "No" to return to normal operation. The oven operation will not be affected by the dialogue unless "Yes" is pressed.

Press "Yes" to cool down and shut off oven.

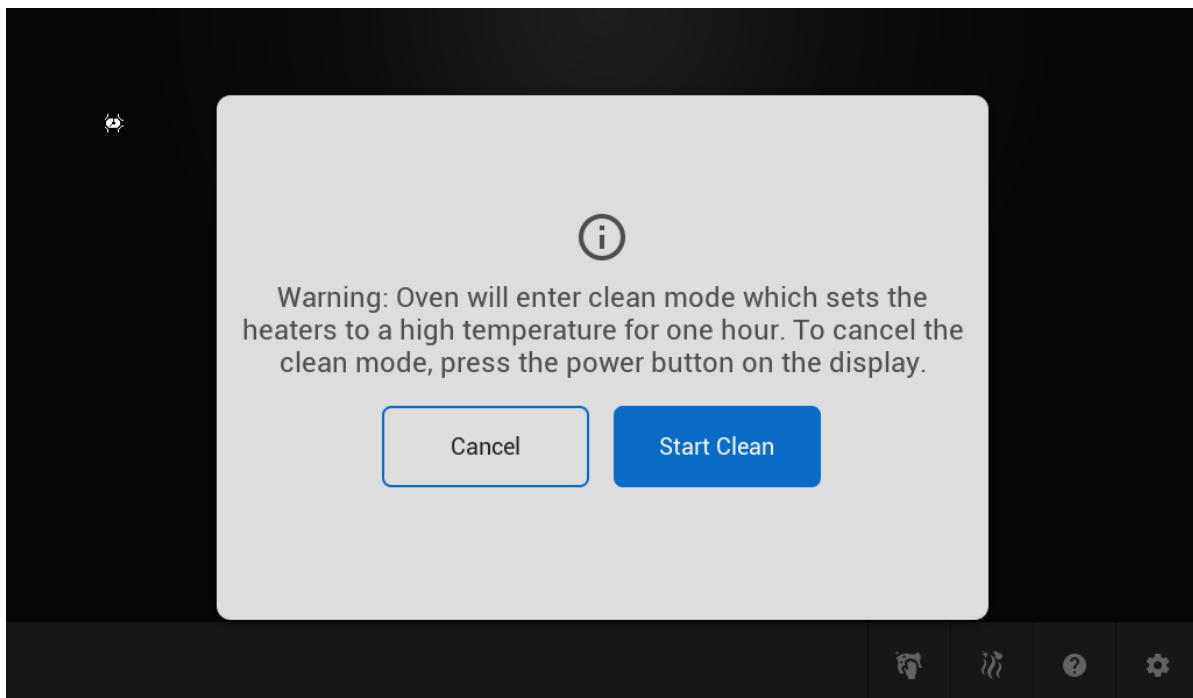
### G. COOLDOWN SCREEN

The cooldown screen will show cooldown progress. Cooldown can be initiated by the user or by a critical error. The conveyors will creep at low speed during cooldown. Once the oven reaches 200°F, the screen will return to the main splash screen, the cooling fan will turn off, and the conveyors will stop.



### H. SELF-CLEAN MODE

Clean mode can be initiated in two ways: under the Manager General Settings or using the Self-Clean button. Upon pressing the clean button, a confirmation dialogue will appear.

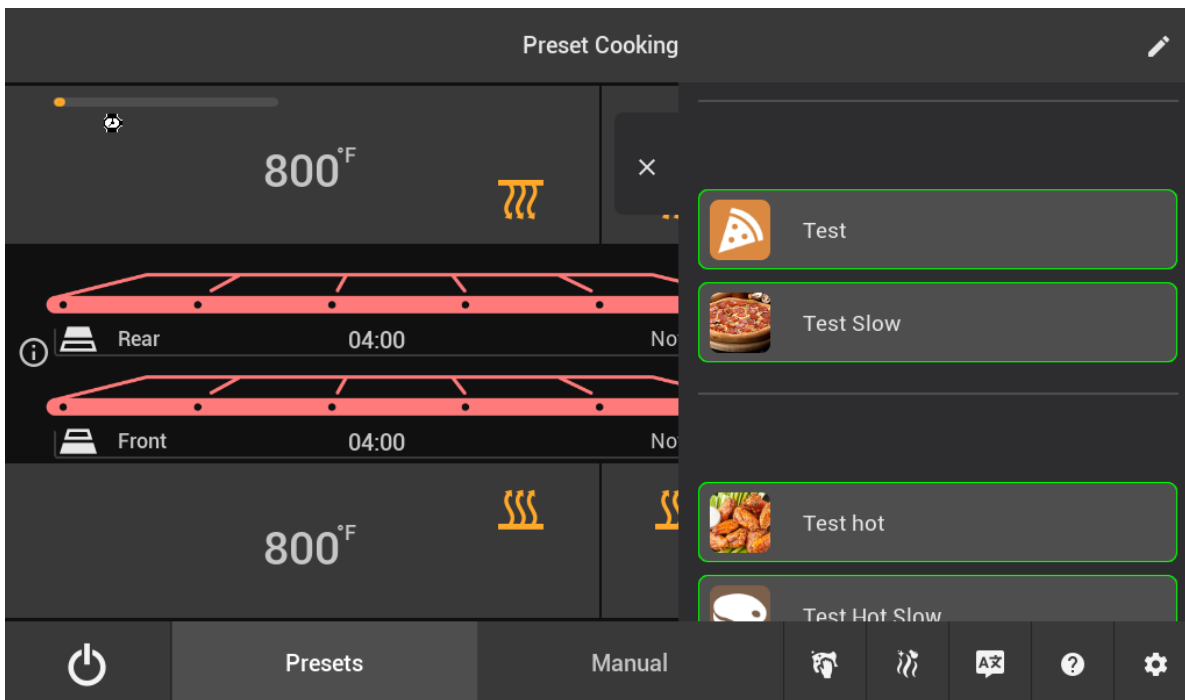


During self-clean, the oven will obtain a high temperature, the conveyors will crawl at a slow speed, and a timer will begin. After the timer has expired, the oven will return to the previous oven state. If the heat was on (the oven was in the Preheat or Bake states), the oven will return to the preheat state. If the heat was off (the oven was in Cooldown or Off states), the oven will return to the cooldown state.



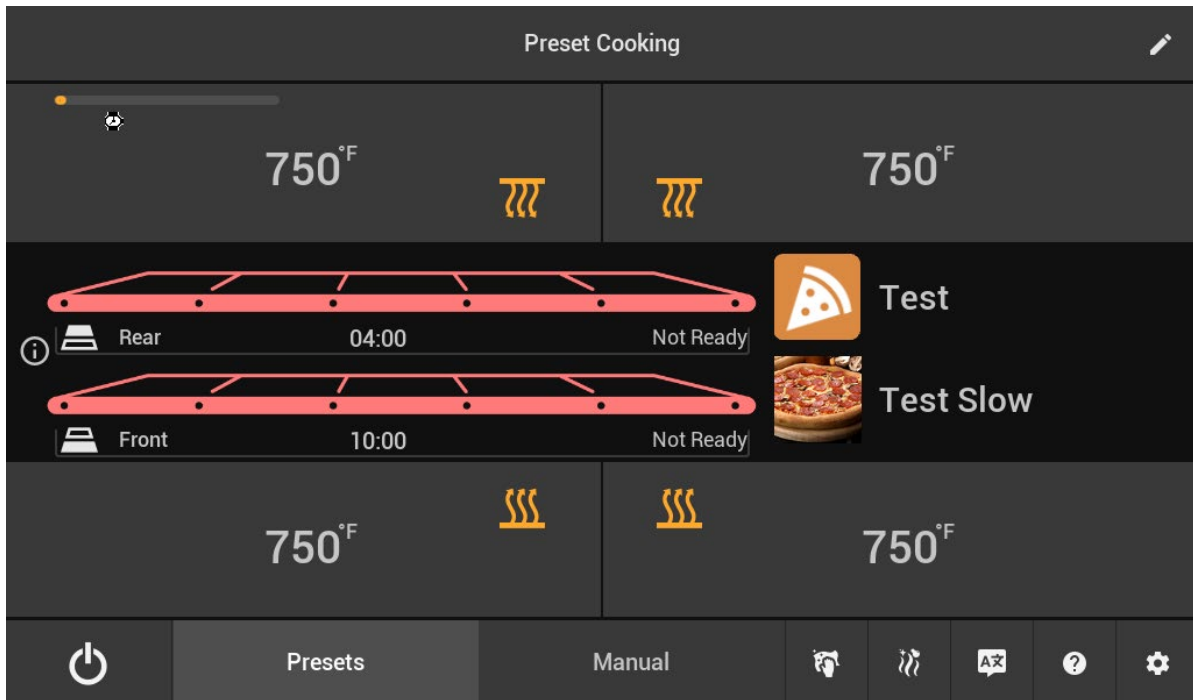
### I. PRESET SCREEN SELECTION PROCESS

Press the “+” button to select a preset. Presets with identical cavity settings (all 4 zone temperatures) will be grouped together. Selecting a preset will set the cavity settings per the preset and apply the preset’s belt speed to the selected belt. In split belt applications, the second belt will need to be assigned a preset as well.

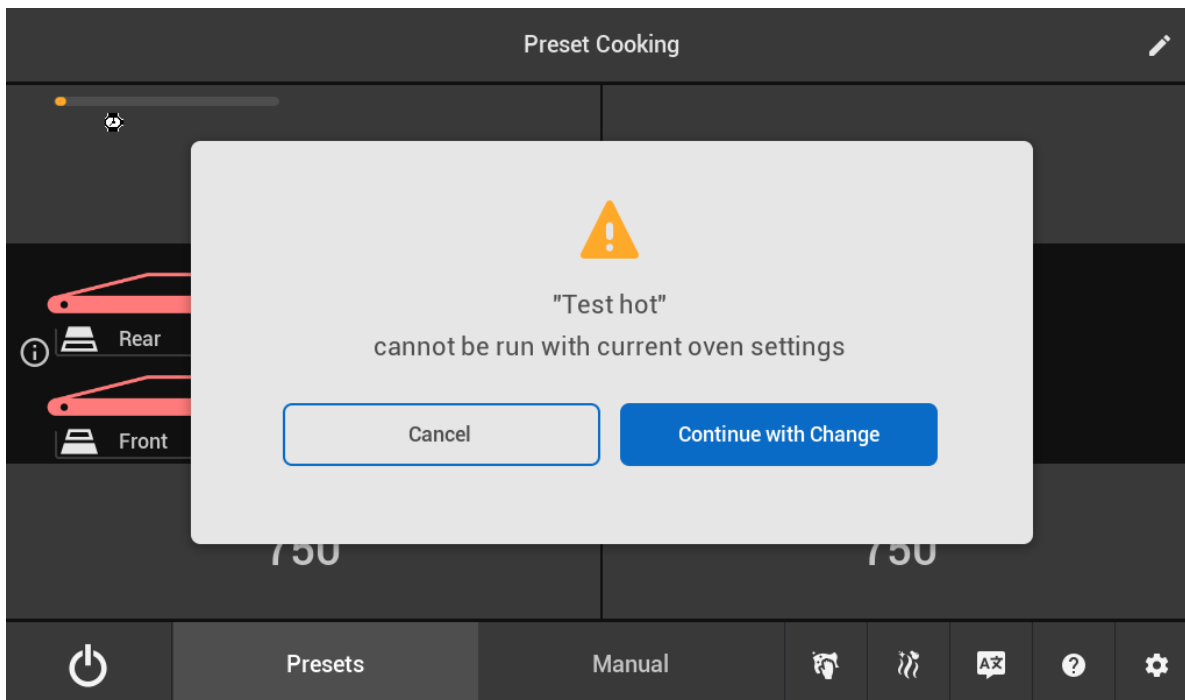


SECTION 3  
OPERATION

Selecting the second belt for preset selection will show compatible cavity settings grouped together with a green border. Presets that are not compatible will be shown with a yellow border.



When a preset is selected that is incompatible with the existing cavity settings, a warning will appear. Pressing “Cancel” will return the user to the selection process. Pressing “Continue with Change” will change the cavity settings and de-select the incompatible preset.

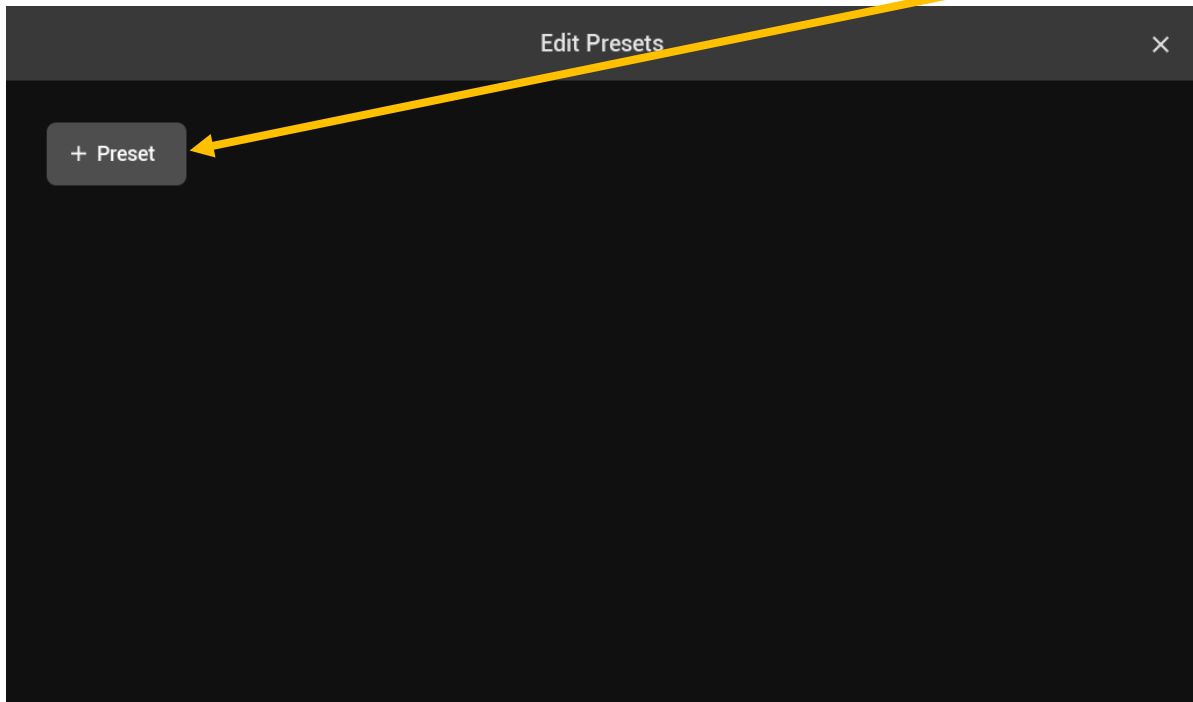
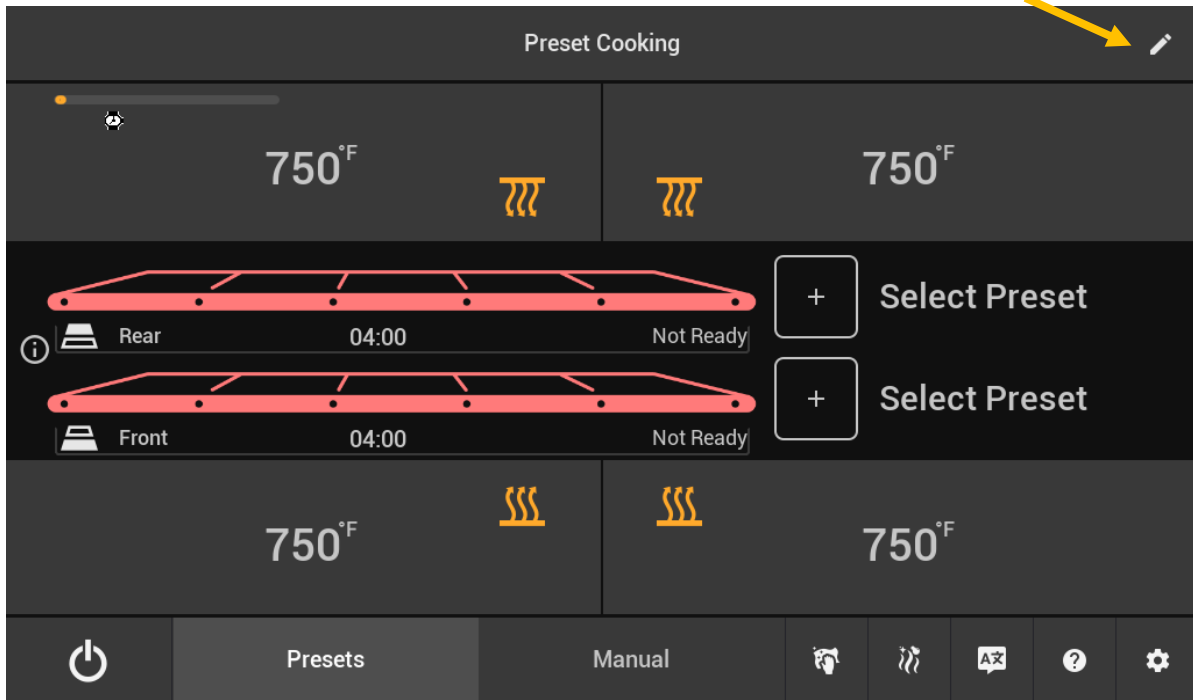


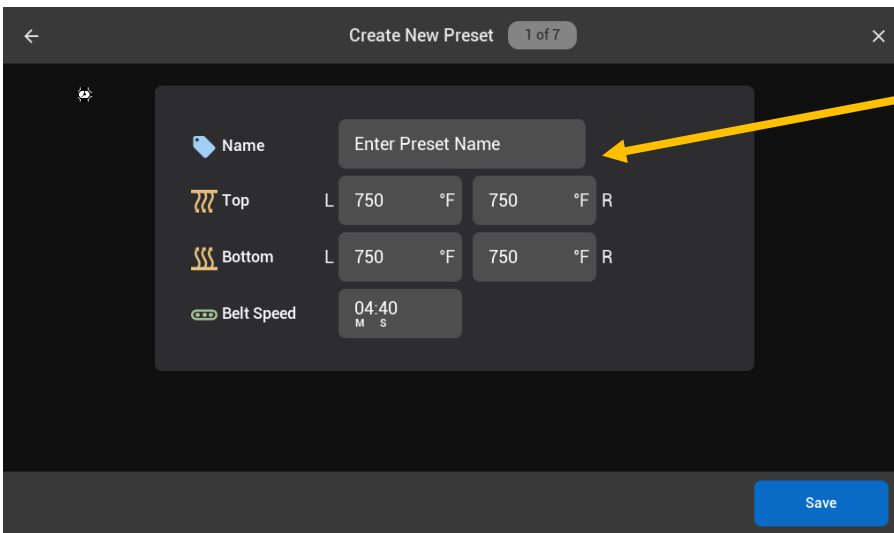
You can also select the same preset if the same belt speed is required for both belts.

SECTION 3  
OPERATION

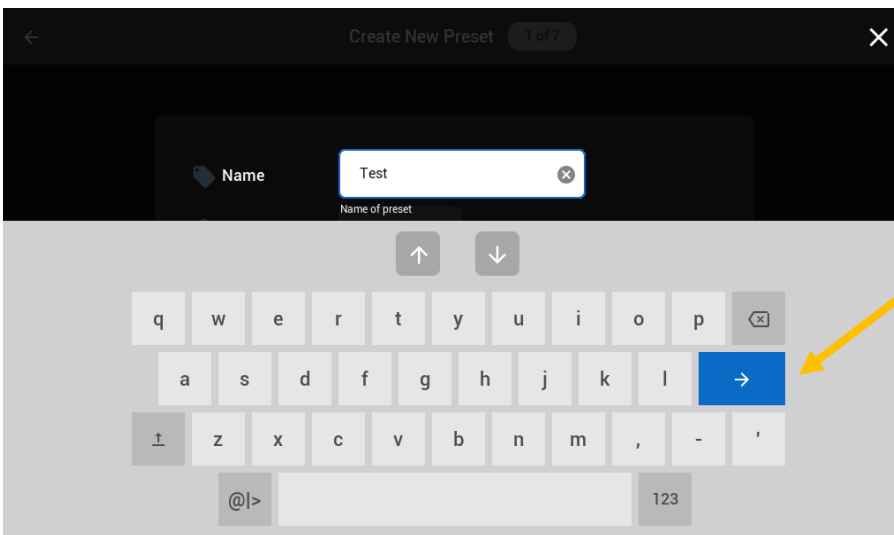
**J. PRESET CREATION/EDIT PROCESS**

Press the pencil icon in the top right of the screen to begin editing presets. You will be taken to the preset edit screen. You can select existing presets to edit them or create new presets. Press the “+ Preset” button to add a new preset.

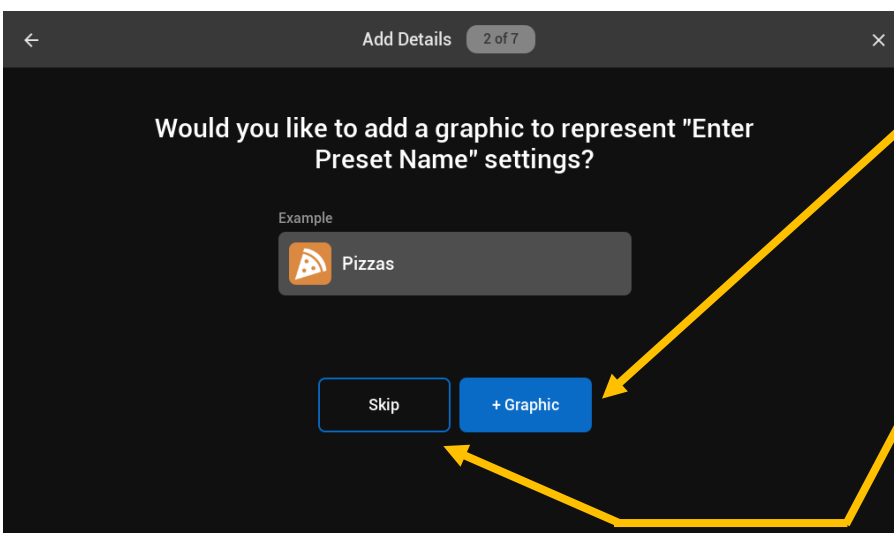




In the “Create New Preset” screen, tap on an entry to edit it, starting with the “Name” field.



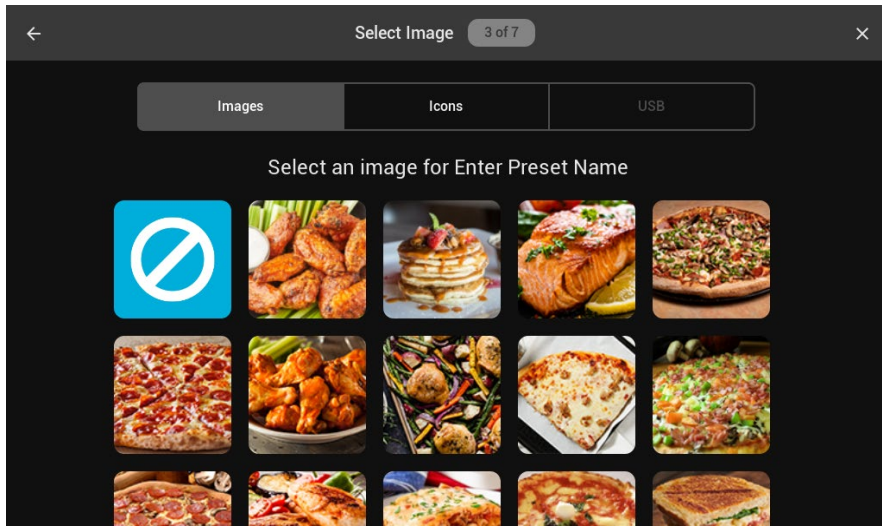
Enter a name for the preset, then press the “Enter” key (right-facing arrow). Pressing the up or down arrow will move to the next field without confirming the entry.



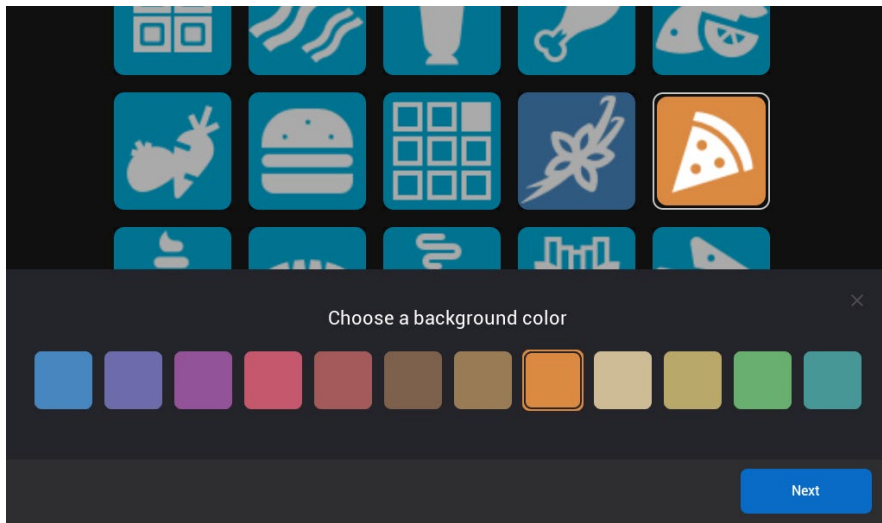
Press the “Graphic” button to enter the graphic library.

Press “Skip” to skip this step. A default graphic will be applied.

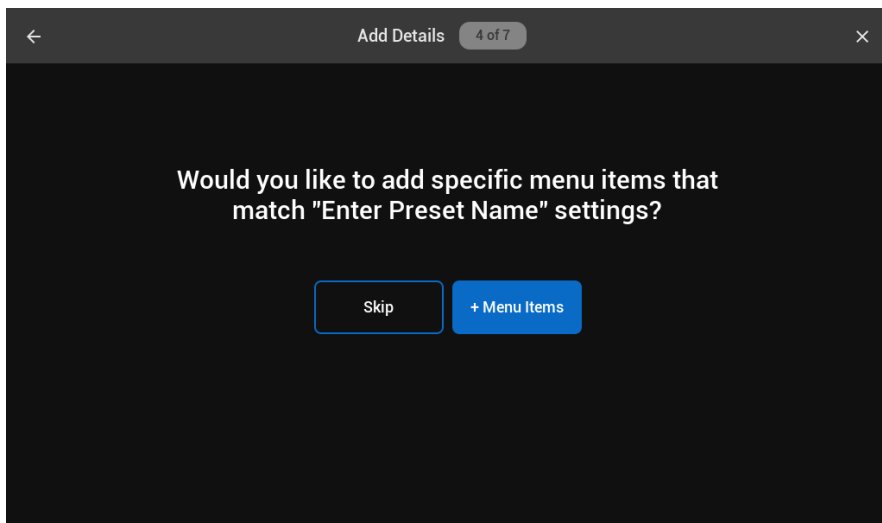
SECTION 3  
OPERATION



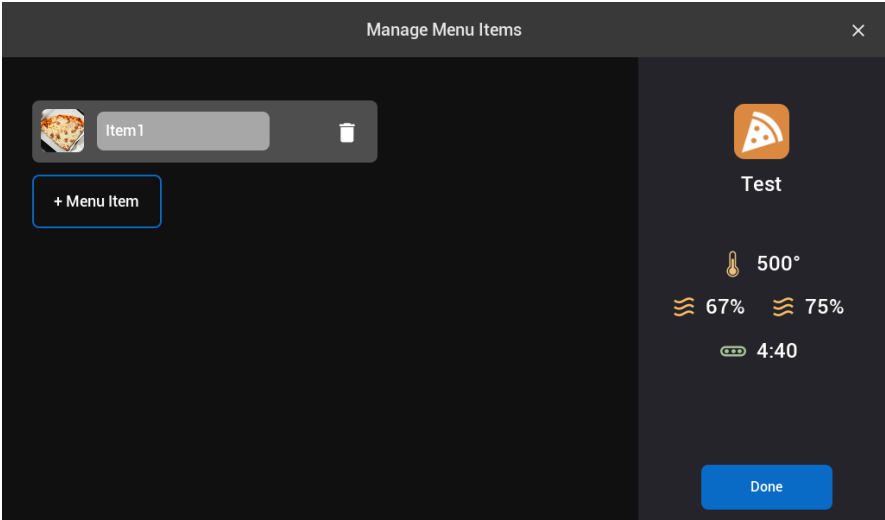
If you add a graphic to the preset, you can select from built-in images or icons, or images from a USB stick.



Icons can have different colors for the backgrounds.

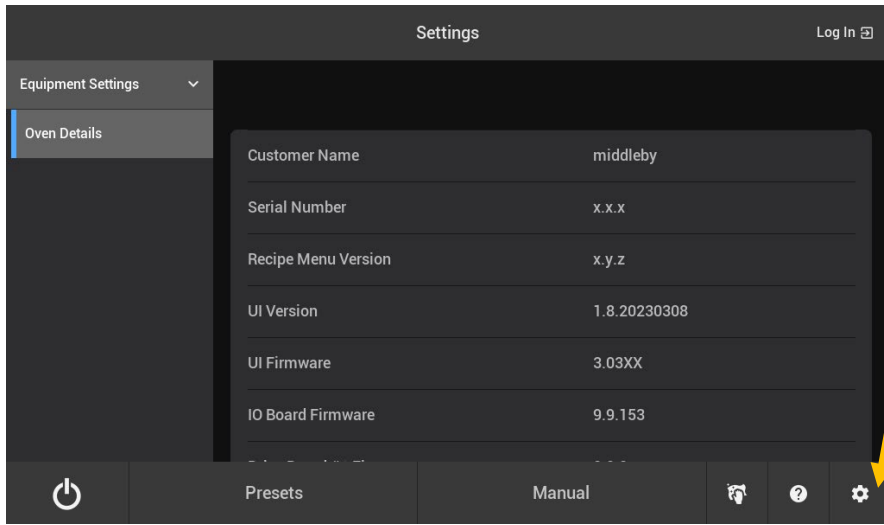


After selecting a graphic for the preset, menu items can be added.

	<p>Entering menu items allows you to select a name and picture for each menu item. These menu items are for reference only.</p>
--	---

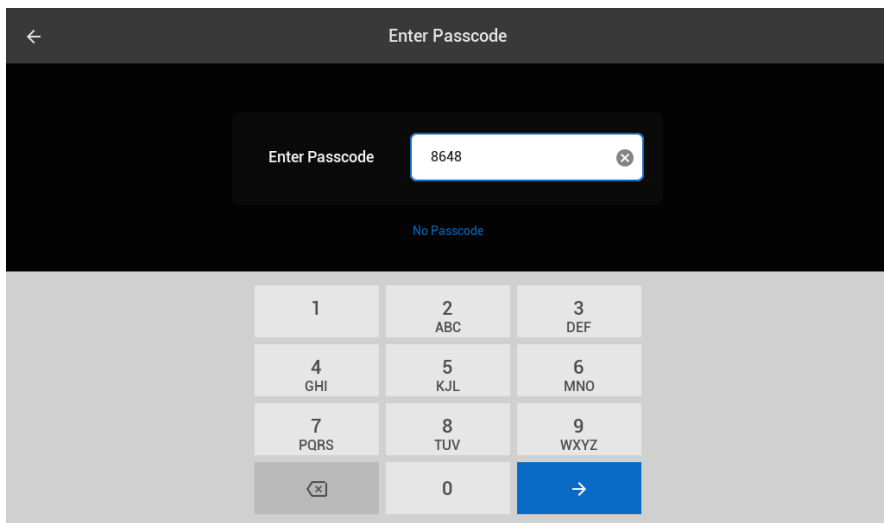
SECTION 3  
OPERATION

**K. SETTINGS PAGE**



Press the “Gear” icon to enter the Settings login screen. This allows access to settings once logged in.

Pressing “No Passcode” allows access to oven details only, such as customer name, serial number, and software versions.

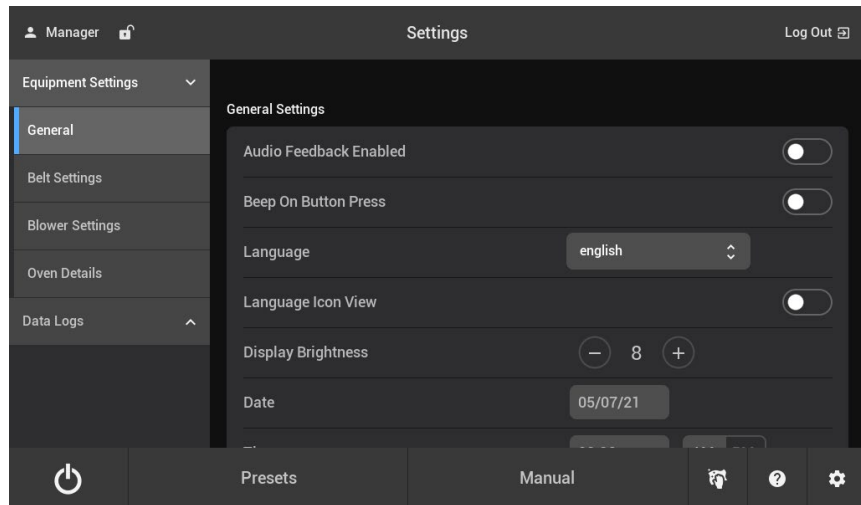


Enter the passcode and press “Enter” to continue to the settings pages or press the left arrow to return to the main splash screen.

Manager passcode default is **8648**.

## V. MANAGER SETTINGS

### A. General Settings

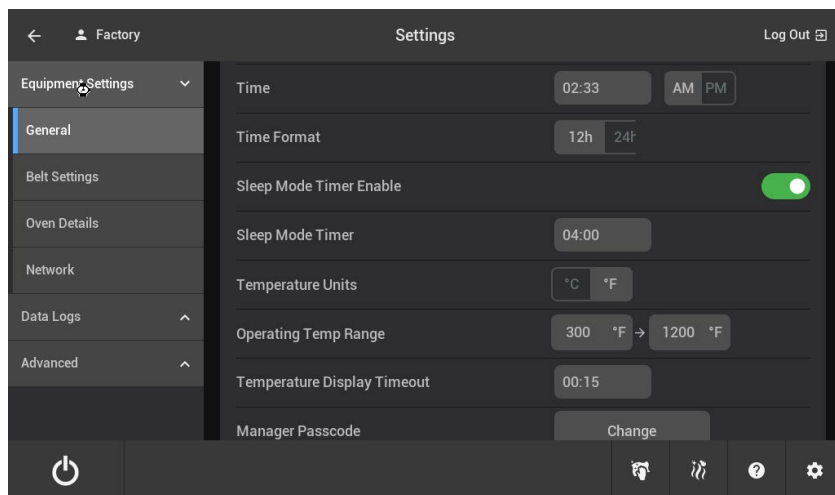


**Audio Feedback Enabled:** Enables audio feedback for alerts.

**Beep on Button Press:** Enables an audible beep when a button is pressed.

**Language Icon View:** Enables or disables the language icon which can be used to change the control language at any time.

**Date:** Enter date and time for better error tracking.

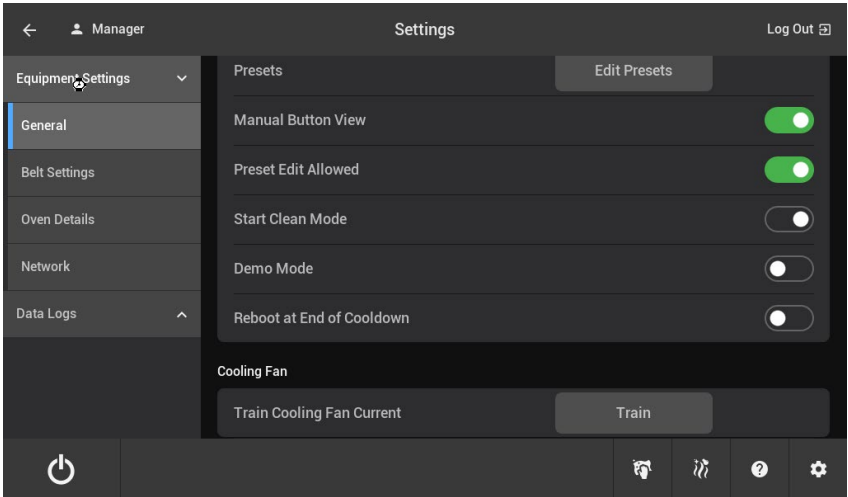


**Sleep Mode Timer Enable:** Enables “sleep mode” which occurs after the control has been on the standby splash screen for longer than the Sleep Mode Timer. Sleep mode dims the screen.

**Operating Temp Range:** Allows the manager to limit the range of temperatures that can be set.

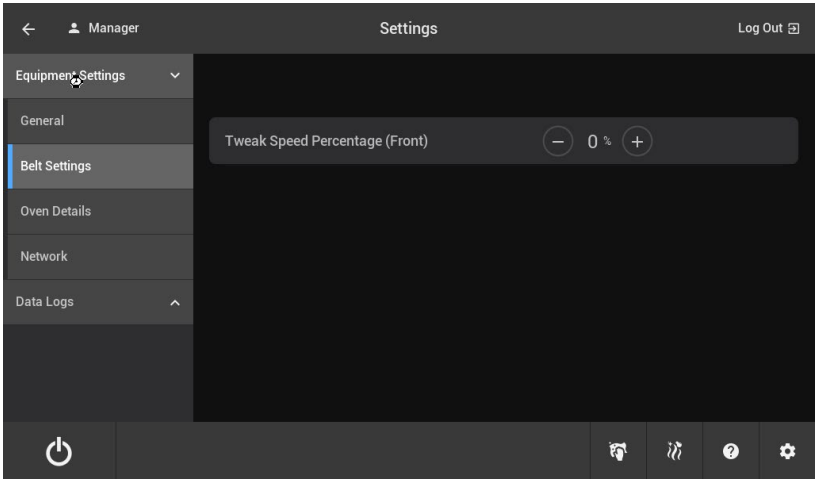
**Temperature Display Timeout:** Determines how long “actuals” will be displayed when the info button is pressed. Setting “0” will disable the info button.

## SECTION 3 OPERATION

	<p><b>Edit Presets:</b> Allows manager to edit presets.</p> <p><b>Manual Button View:</b> Enables manual oven control.</p> <p><b>Preset Edit Allowed:</b> Enables preset editing on the preset screen. If disabled, presets may only be edited by the manager on this screen.</p> <p><b>Start Clean Mode:</b> Start the oven self.clean cycle.</p> <p><b>Train Cooling Fan Current:</b> Calibrate the cooling fan current sense circuit. If the fan is running and cooling fan errors are occurring, use this button to train the current limit.</p>
---	--

### B. Belt Settings:

Tweak belt speeds if measured times are not matching set times.

	<p>Tweak the speed percentage up or down to match the set time.</p> <p>For example: if the belt is set for 5 minutes but items are traversing the cavity in 4:45, setting a tweak percentage of -5% should result in the belt time matching the setpoint.</p> <p>Tweak speeds are independent for each belt and limited to <math>\pm 15\%</math>. For additional adjustments service must be called.</p>
---	--

### C. IoT/Open Kitchen Instructions

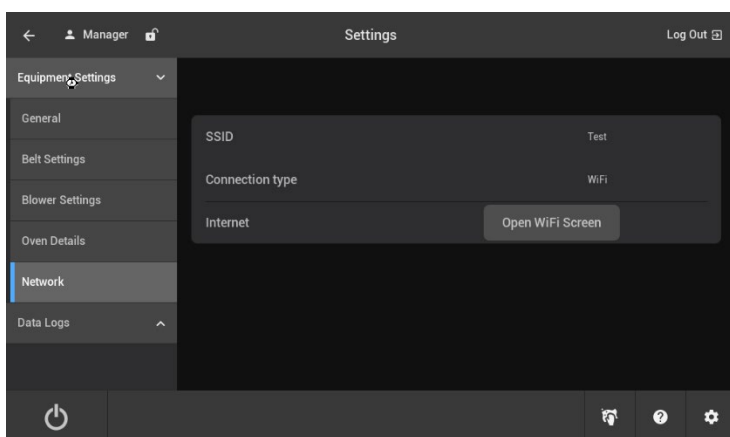
To connect the oven to Open Kitchen requires three items:

1. A Connectware WiFi Module, installed in the oven control compartment.
  - a. Confirm with your sales representative. An ASA is required to install a WiFi Module.
2. A Connectware Secure Access Point (SAP) or WiFi Router nearby connected to the internet via Ethernet.
3. Open Kitchen activation.

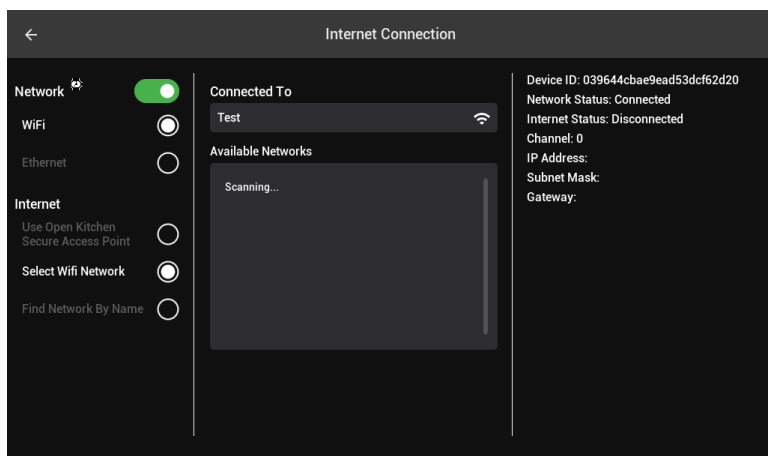
### D. Network Setup

If using a Connectware Secure Access Point (recommended), ensure the SAP is connected to Ethernet and able to access the internet. The oven will automatically connect to the SAP. Contact your IT Service Provider for assistance connecting the SAP to the internet.

You may also use an off-the-shelf WiFi Router, though compatibility is not guaranteed. The oven must be configured to connect to the WiFi Router.



Navigate to Oven Settings (see previous pages) using the Manager Passcode. Press the Network tab, and then press the “Open WiFi Screen” button.



The network details must be manually entered. Press “Select Wifi Network”, then enter the WiFi network SSID. On the subsequent screen enter the WiFi password. The WiFi network must have a password for the oven to connect.

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OPERATION

**E. Open Kitchen Setup**



Write down the Connectware Module MAC Address and the oven's Serial Number located on the data plate.

Navigate to this website:

<https://www.cognitoforms.com/PhD11/ConnectedEquipmentSetup>

Enter details to set up Connectware.

Contact Open Kitchen representative for further assistance.

## VI. COOKING IN A LONGWAVE OVEN

### A. Cooking Trials

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

Testing can be completed easier and faster and with less confusion if you keep accurate records of each test. Choose your first product for test and look it up in the tables in the Time and Temperature Guide. Program the oven with the temperatures and cook times shown.

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

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

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

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

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

**NOTE:** The temperatures in each heating zone may be set independently, without regard to the setpoints of other zones. However, the zones are not entirely independent of one another. If a zone is set to a lower temperature than another, it will absorb heat radiated from the hotter zones, thereby requiring less power to maintain its setpoint. In cases where the temperature differential between zones is excessive, the cooler zone may be unable to maintain its set temperature, potentially resulting in an equilibrium where the temperature of the cooler zone exceeds its setpoint without additional power input. The achievable and stable temperature differential between zones will depend on ambient conditions and the frequency and extent of cavity loading. As a general guideline, it is recommended to limit the temperature difference between zones to no more than 200°F (93°C).

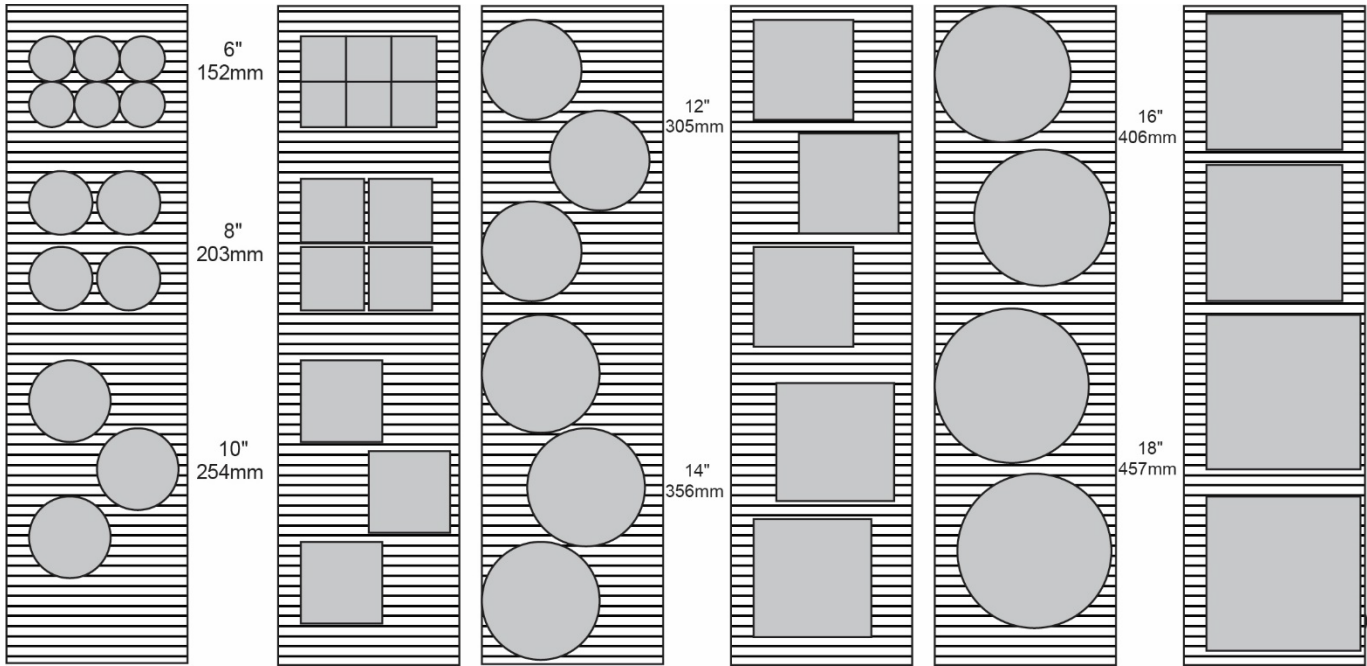
**NOTE:** During cooking trials, ensure that a full load test is conducted by completely filling the cavity according to the conveyor loading instructions provided. The oven has a maximum heat output, and exceeding this capacity with a heavy load may cause temperatures to drop below the setpoint. A temperature reduction of up to 50°F (10°C) is typical and generally does not affect baking performance. However, larger temperature drops or more temperature-sensitive products may require adjustments to the cooking settings, such as reducing time and temperature or decreasing the number of products per pan, to maintain consistent performance when the oven is fully loaded.

### B. 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 use the space available.

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

SECTION 3  
OPERATION



**VII. QUICK REFERENCE: FAULTS**

SYMPTOM	POSSIBLE CAUSE	REMEDY
PROBE # OPEN shown on display and audible alarm sounds	Temperature Probe is detected in an open condition.	Call the Service Hotline.
FRONT BELT JAMMED, REAR BELT JAMMED shown on display	Belt was overloaded and control shut down the belt, or the belt was not able to reach the target speed in a certain amount of time.	Check belt for cause of jamming. Call the Service Hotline for chronic messages.
FRONT BELT COMM LOST, BACK BELT COMM LOST shown on display	Circuit breaker to conveyor motor drive board is tripped, or the communication cable is broken. The oven may continue to operate at the most recent settings.	Power cycle oven. If unsuccessful, call the Service Hotline.
HEATING ERROR shown on display and audible alarm sounds	The oven has failed to preheat in the expected time period, or the oven temperature has fallen out of range for an extended period.	Power cycle oven. Check for drafts, cool air, or fans pointed at the cavity. Call the Service Hotline for chronic issues.
I/O COMM LOST shown on display	Communication between the display and the I/O board has failed.	Power cycle oven. Call the Service Hotline if unable to resolve or the issue is chronic.
HIGH TEMP CHECK FANS or OVERTEMP CHECK FANS shown on display	The control compartment temperature is too high due to a blocked or broken cooling fan.	Clean the cooling fan filter, check to make sure there are no obstructions for the cooling fan intake (underneath the control door) or exhaust (back of the oven). Call the Service Hotline if chronic or unable to resolve.
FAN FAULT shown on display, and red LED on the right side of the control compartment is lit	The cooling fan is broken, or the feedback is broken.	Oven will continue baking unless the control compartment temperature is too high. Calibrate the fan current under general settings. Call the Service Hotline if the issue is chronic or not able to be resolved.
HIGH LIMIT TRIPPED shown on display and audible alarm sounds	The high limit has tripped; the oven does not detect the high limit.	Power cycle oven. If unable to resolve or if chronic, call the Service Hotline.



## SECTION 4 CLEANING AND 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 startup 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 on/off switch turned 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. Do not use a green scrub pad on any parts of the LONGWAVE oven.

### **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. CLEANING - DAILY**

### **A. Daily Cleaning Tools**

- General Purpose Cleaner
- Clean Towel
- Wire Brush
- Vacuum

### **B. Daily Cleaning Procedures**

Prior to cleaning, turn the LONGWAVE oven off and allow to cool. Estimated daily cleaning time is 15 minutes.

1. Remove the heat curtain.



2. Wipe with a clean towel with general purpose cleaner and send through the dishwasher (optional).



## SECTION 4 MAINTENANCE

3. Dry and re-install the heat curtain.



4. Remove any crumbs from the belt with a wire brush.

**NOTE:** Belt does not need to be removed for cleaning.



5. Remove the crumb tray.



6. Wipe with a towel with general purpose cleaner and send through the dishwasher (optional). Dry and re-install.



7. Remove the exit tray, wipe with a clean towel with general purpose cleaner, send through the dishwasher (optional). Dry and re-install.



8. Vacuum/sweep out any crumbs inside of the oven.



9. Remove fan filter, rinse with cold water, and reinstall when dry.



10. Wipe the top, front, and sides with a clean towel with general purpose cleaner.



SECTION 4  
MAINTENANCE

**II. CLEANING - WEEKLY**

Clean the filter of the cooling fan.

1. Lift the filter off of the bottom of the front panel and wipe with a clean towel.
2. Inspect the filter.
  - If dusty, briskly shake it.
  - If greasy, wash in warm soapy water, rinse, and set aside to dry completely. Middleby Marshall recommends using dish soap to break up grease.
3. Re-install the filter.

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

Clean the oven interior.

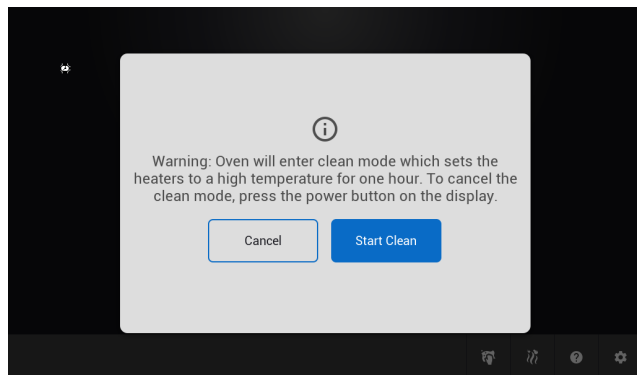
The LW26/LW33 Series ovens feature a self-cleaning cycle. The oven increases to the cleaning temperature when engaged, the controller counts down during the cleaning cycle, and the oven reverts to the previous mode of operation after the cycle.

**NOTE:** The Self Clean cycle may be required more frequently depending on the volume of baking. The Self Clean cycle can be used on a daily basis.

Middleby Marshall recommends running the Self Clean cycle at the beginning of the day to allow the oven to ramp up, clean, then revert to preset settings.

**To enter Clean mode:**

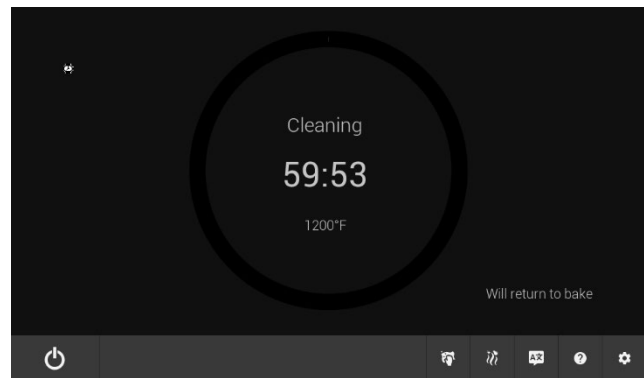
1. Clean mode can be initiated in two ways: Under the Manager General Settings, or using the Self-Clean button. Upon pressing the clean button, a confirmation dialogue will appear. See Figure 23.



**Figure 23.**

2. During self-clean, the oven will obtain a high temperature, the conveyors will crawl at a slow speed, and a timer will begin. After the timer has expired, the oven will return the previous oven state. If heat was on (the oven was in the Preheat or Bake states), the oven will return to the preheat state. If heat was off (the oven was in Cooldown or Off states), the oven will return to the cooldown state. See Figure 24.

**IMPORTANT**  
The oven will not turn off after the Clean cycle but will revert to the last setting prior to entering the cleaning operation.



**Figure 24.**

### III. MAINTENANCE - EVERY 6 MONTHS

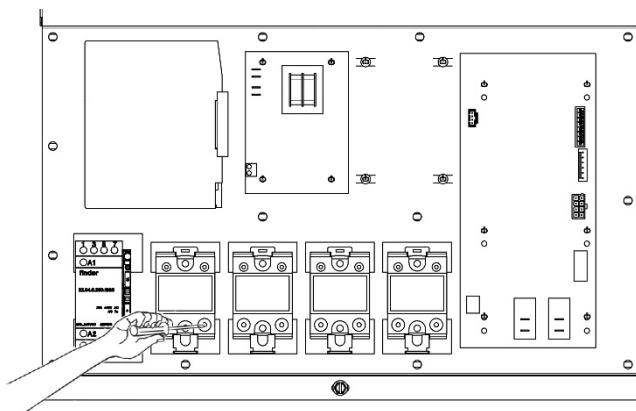
**WARNING**

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

**NOTE:** It is recommended that the 6-month maintenance be performed by an authorized Middleby Marshall Authorized Service Agent.

#### A. Electrical Terminals

Open the control cabinet door by removing the two screws from the control cabinet door. Tighten all electrical control terminal screws, including the electrical contactor terminal screws as shown in Figure 25.



**Figure 25.**

#### B. Ventilation

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

#### C. Vent Check

Check your venting system.

**NOTICE**

- Installation of replacement parts requiring access to the interior of the oven is permitted only by a Middleby Marshall Authorized Service Agent.
- If there are any problems with the operation of the oven, a Middleby Marshall Authorized Service Agent must be called.
- Obtain a service contract with a Middleby Marshall Authorized Service Agent.

### IV. KEY SPARE PARTS KIT

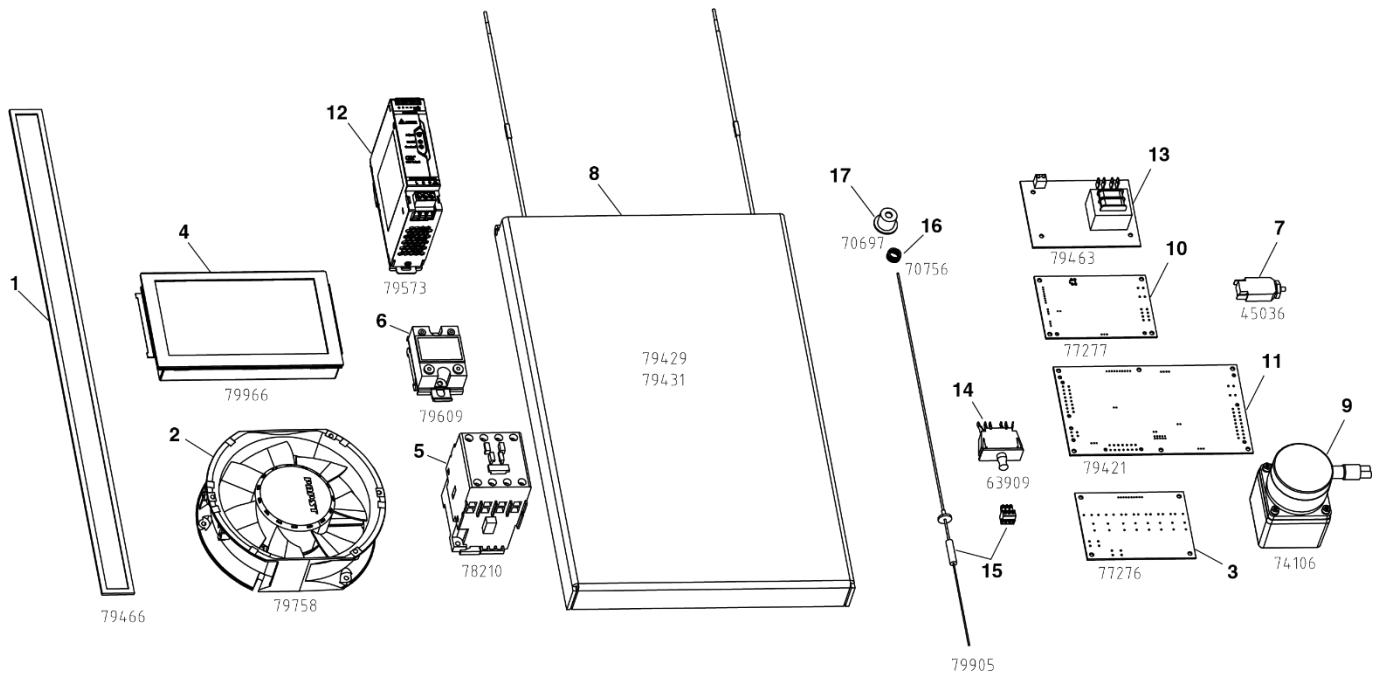
An oven can be purchased with a Key Spare Parts Kit (Figure 27). (The kit can be purchased when the oven is ordered, or later, from a Middleby Marshall Authorized Parts Distributor). The kit contains many of the crucial parts that can reduce serious downtime and loss of production if a failure occurs.

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

SECTION 4  
MAINTENANCE

**LW26-SERIES ELECTRIC OVEN KEY SPARE PARTS KIT (Figure 26)**

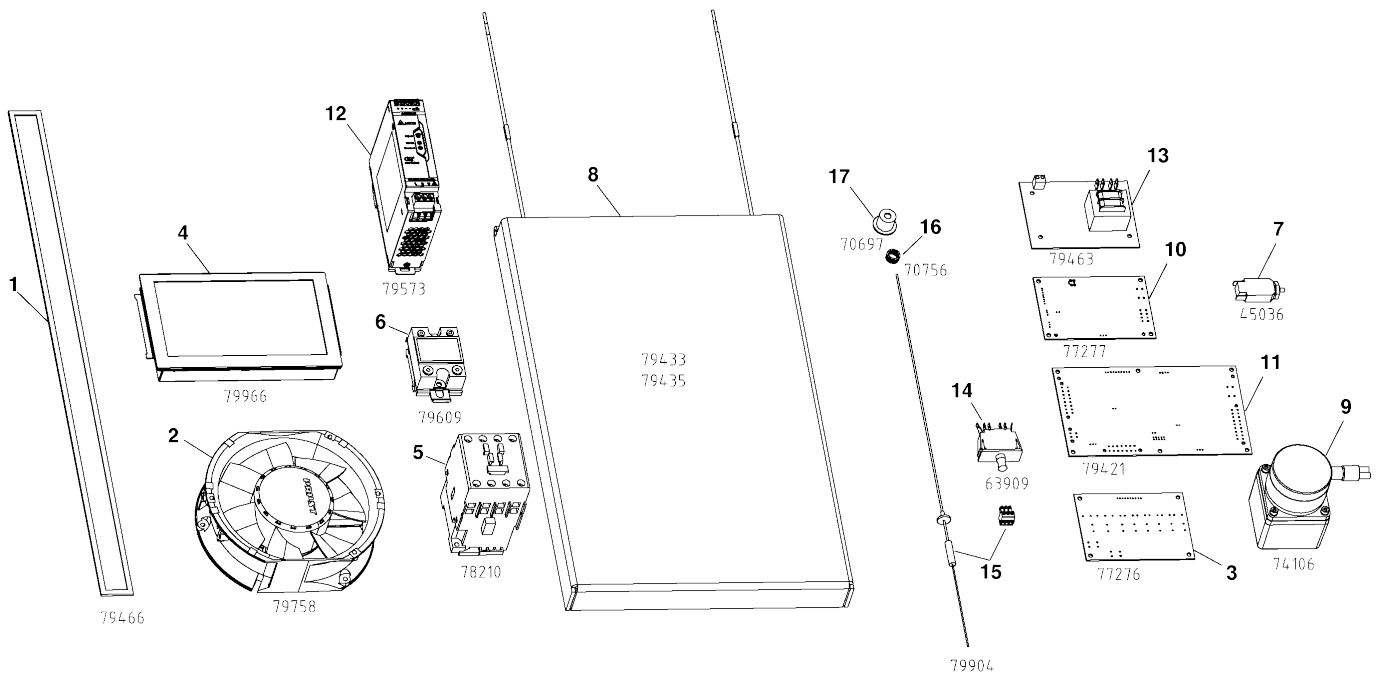
ITEM	PART NO.	DESCRIPTION	LW26, 208/240V	LW26, 380V
1	79466	Filter, Magnetic Fan	1	1
2	79758	Fan, Cooling 24 VDC	1	1
3	77276	Board, Relay	1	1
4	79966	Display, OneTouch	1	1
5	78210	Contactor 4 pole	1	1
6	79609	Relay, 240V 100A Solid State	2	2
7	45036	Breaker, Circuit 240V 3A	1	1
8	79429	Assy, Plate 2700 208V GRV HRTH	1	-
8	79431	Assy, Plate 2700 240V GRV HRTH	1	1
9	74106	Motor, Gear 1:200 25W	1	1
10	77277	Board, Motor Drive	1	1
11	79421	I/O Board Non-Mod	1	1
12	79573	Supply, Power 24 VDC / 80 W	1	1
13	79463	Control, High Temp Limit	1	1
14	63909	Switch, Inttck 12A NO2P	1	1
15	79905	Thermocouple, Type K 11.125 LG	2	2
16	70756	Spring, Smalley Steel C050-L9	2	2
17	70697	Housing, Thermocouple	2	2



**Figure 26.**

**LW33-SERIES ELECTRIC OVEN KEY SPARE PARTS KIT (Figure 27)**

ITEM	PART NO.	DESCRIPTION	LW33, 208/240V	LW33, 380V
1	79466	Filter, Magnetic Fan	1	1
2	79758	Fan, Cooling 24 VDC	1	1
3	77276	Board, Relay	1	1
4	79966	Display, OneTouch	1	1
5	78210	Contactor 4 pole	1	1
6	79609	Relay, 240V 100A Solid State	2	2
7	45036	Breaker, Circuit 240V 3A	1	1
8	79433	Assy, Plate 3300 208V GRV HRTH	1	-
8	79435	Assy, Plate 3300 240V GRV HRTH	1	1
9	74106	Motor, Gear 1:200 25W	1	1
10	77277	Board, Motor Drive	1	1
11	79421	I/O Board Non-Mod	1	1
12	79573	Supply, Power 24 VDC / 80 W	1	1
13	79463	Control, High Temp Limit	1	1
14	63909	Switch, Intick 12A NO2P	1	1
15	79904	Thermocouple, Type K 14.25 LG	2	2
16	70756	Spring, Smalley Steel C050-L9	2	2
17	70697	Housing, Thermocouple	2	2



**Figure 27.**

SECTION 4  
MAINTENANCE

**NOTES**

## SECTION 5 TROUBLESHOOTING

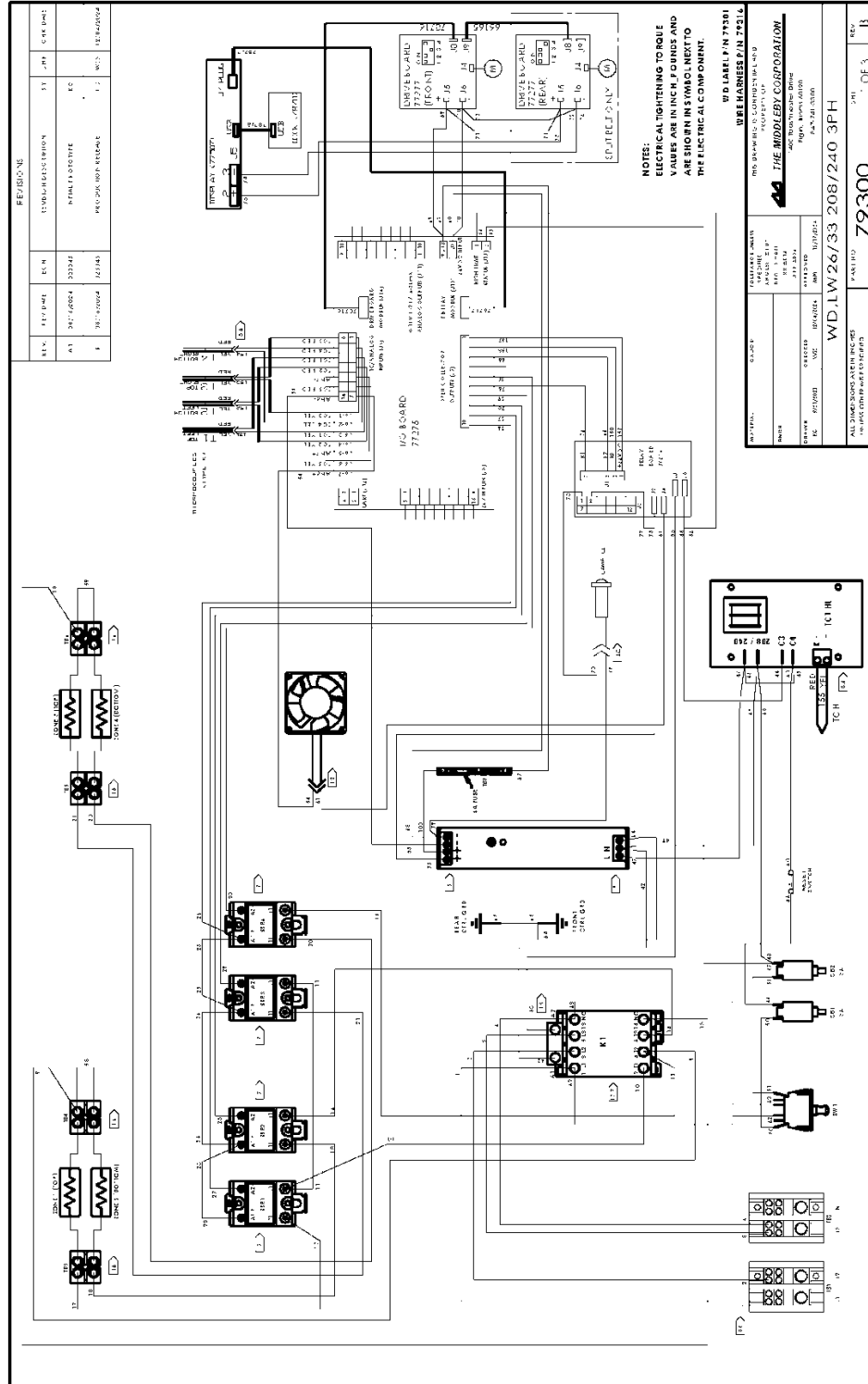
SYMPTOM	PROBLEM	SOLUTION
Conveyor belt stops completely or intermittently.	Check to see if drive roller is turning.	<ol style="list-style-type: none"> <li>1. Check for objects jammed in conveyor and remove.</li> <li>2. Turn oven off, reset the circuit breaker, and turn oven on.</li> <li>3. If motor still does not run, call for service.</li> </ol>
Display does not show <b>BAKING</b> after oven has been on for 45 min.	Oven has not reached set temp, may be caused by a contact not closing or a failed temp probe or element.	<ol style="list-style-type: none"> <li>1. Check the circuit breaker.</li> <li>2. Using Info Mode, check settings and actual temperatures for all zones. If actual temps are not within <math>\pm 6^{\circ}\text{F}</math> (<math>3^{\circ}\text{C}</math>) within 45 minutes, call for service.</li> </ol>
Product is not cooking.	<ul style="list-style-type: none"> <li>• Check cook time and temperature for proper settings, conveyor could be running too fast or temperature could be set wrong.</li> <li>• Check for possible air flow in the room.</li> </ul>	<ol style="list-style-type: none"> <li>1. Adjust cook time and temperature to correct settings.</li> <li>2. Depress reset switch for 5 seconds, or flip main circuit breakers off and on 2 or 3 times.</li> <li>3. Redirect air flow.</li> </ol>
The screen displays a fault code.	The controller has gone into a fault state.	<ol style="list-style-type: none"> <li>1. See Section 3 V. QUICK REFERENCE: FAULTS for details.</li> <li>2. Acknowledge the fault. If the fault message returns, call for service.</li> </ol>

SECTION 5  
TROUBLESHOOTING

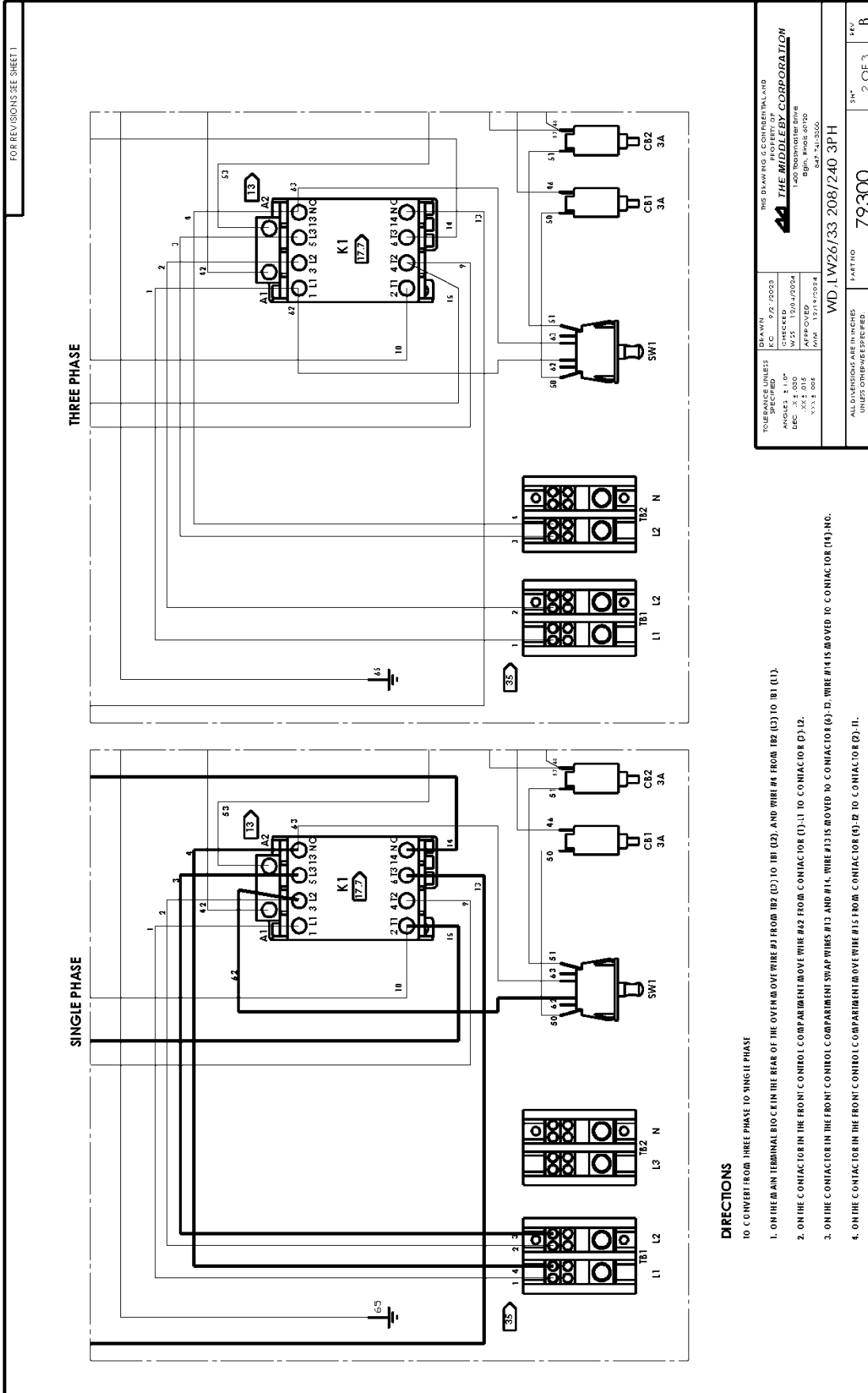
**NOTES**

# SECTION 6 ELECTRICAL SCHEMATICS

Wiring Diagram, LW26/LW33, 208/240 3PH • 79300 REV B



SECTION 6  
ELECTRICAL SCHEMATICS









**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.



**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.