XD 9005H SWDHD 10/12/2015



# XLT Electric Oven & AVI Hood Installation & Operation Manual



# Read This Manual Before Using This Appliance.

Current versions of this manual, Rough-In Specifications, Parts & Service Manual, Architectural Drawings, & a list of International Authorized Distributors are available at: <u>www.xltovens.com</u>

For use with the following XLT Electric Oven Versions: Standard (S) D World (W) D

For use with the following AVI Electric Hood Versions: Standard (S) D World (W) D





XLT Ovens PO Box 9090 Wichita, Kansas 67277 US: 888-443-2751 FAX: 316-943-2769 INTL: 316-943-2751 WEB: <u>www.xltovens.com</u>

### WARNING & SAFETY INFORMATION



### SAFETY DEPENDS ON YOU



This appliance is for professional use by qualified personnel. This appliance must be installed by qualified persons in accordance with the regulations in force. This appliance must be installed with sufficient ventilation to prevent the occurrence of unacceptable concentrations of substances harmful to health in the room in which it is installed. This appliance needs an unobstructed flow of fresh air for satisfactory operation & must be installed in a suitably ventilated room in accordance with current regulations. This appliance should be serviced by qualified personnel at least every 12 months or sooner if heavy use is expected.



**CAUTION** 

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury, or death. Read the installation, operating and maintenance instructions thoroughly before installing, using, or servicing this equipment.



#### FOR YOUR SAFETY

Do not store or use gasoline or other flammable liquids or vapors in the vicinity of this or any other appliance.

- Do not restrict the flow of ventilation air to the unit. Provide adequate clearance for operating, cleaning, maintaining the unit is in the installed position.
- Keep the area free & clear of combustible material. <u>DO NOT SPRAY AEROSOLS IN THE</u> <u>VICINITY OF THIS APPLIANCE WHILE IT IS IN OPERATION.</u>
- Ovens are certified for installation on combustible floors.
- Electrical schematics are located inside the control box of the oven & and in this manual. Disconnect input power to the unit before performing any maintenance.
- This unit requires a ventilation hood. The installation must conform to local codes.
- This unit must be operated by the same voltage, phase, & frequency of electrical power as designated on the nameplate label located on the side of the unit.
- Minimum clearances must be maintained from combustible & non-combustible construction materials.
- Follow all local codes when installing this unit.
- Follow all local codes to electrically ground the unit.
- Appliance is not to be cleaned with high pressure water.
- XLT ovens are certified for use in stacks of up to three (3) units of XLT products. Integration of other manufacturer's products into an oven stack is not recommended, & voids any warranties. XLT Ovens assumes no liability for mixed product applications.
- Failure to call XLT Customer Service at 1-888-443-2751 prior to contacting a repair company voids any & all warranties.
- PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE.
- This appliance operates below 70 dBA.



## WARNING & SAFETY INFORMATION

XLT Ovens has spent millions of dollars designing and testing our products as well as developing Installation & Operation Manuals. These manuals are the most complete and easiest to understand in the industry. However, they are worthless if they are not followed.

We have witnessed store operators and building owners lose many thousands of dollars in lost revenue due to incorrect installations. We highly recommend you follow all instructions given in this manual as well as follow best practices in plumbing, electrical, and HVAC building codes.

### **Definitions & Symbols**

A safety instruction (message) includes a "Safety Alert Symbol" & a signal word or phrase such as **DANGER**, **WARNING** or **CAUTION**. Each signal word has the following meaning:

DANGER	ISO 7000-0434: Indicates a potentially hazardous situation that, if not avoided, can result in serious injury or death.						
HIGH VOLTAGE	IEC 60417-5036: This symbol indicates high voltage. It calls your attention to items or operations that could be dangerous to you & other persons operating this equipment. Read the message & follow the instructions carefully.						
WARNING	ISO 7000-0434: Indicates a potentially hazardous situation, that if not avoided, can result in minor to moderate injury or serious damage to the product. The situation described in the CAUTION may, if not avoided, lead to serious results. Important safety measures are described in CAUTION (as well as WARNING), so be sure to observe them.						
CAUTION	result in minor to moderate injury described in the CAUTION may, i	ISO 7000-0434: Indicates a potentially hazardous situation, that if not avoided, can result in minor to moderate injury or serious damage to the product. The situation described in the CAUTION may, if not avoided, lead to serious results. Important safety measures are described in CAUTION (as well as WARNING), so be sure to					
READ MANUAL	ISO 7000-0790: Read the instructions before using this machine.	CLASS II EQUIPMENT	IEC 60417-5172: A class II or double insulated electrical appliance.				
PROTECTIVE EARTH	IEC 60417-5019: Terminal which is intended for connection to an external conductor.	EQUIPOTENTIALITY	IEC 60417-5021: Having the same electric potential or uniform electric potential.				
FUSE-LINK	IEC 60417-5016: Terminal which is intended for connection to an external conductor.						





#### Warranty - US and Canada

#### Rev D

#### Approval Date: 10/28/2013

XLT warrants gas ovens manufactured after April 1, 2009 and all electric ovens manufactured after April 1, 2011 to be free from any defect in material and workmanship under normal use for five (5) years from the date of original purchase by the end user, and further warrants main fan blades, conveyor shafts, and conveyor bearings for ten (10) years. XLT further warrants all ovens to be free from rust for ten (10) years from the date the equipment is originally purchased. XLT warrants AVI hoods to be free from any defect in material and workmanship under normal use for two (2) years from the date of original purchase by the end user purchaser. In the event of a part failure, XLT will furnish a replacement part and pay for all labor associated with the replacement of the part. If upon inspection XLT determines that the part is not defective, all incurred cost will be the responsibility of the end user purchaser. This warranty is extended to the original end user purchaser and is not transferable without prior written consent of XLT. Damages are limited to the original purchase price.

#### DUTIES OF THE OWNER:

- The owner must inspect the equipment and crates at time of receipt. Damage during shipment is to be immediately reported to the carrier and also to XLT
- The equipment must be installed and operated in accordance with the written instructions furnished with the unit
- This warranty shall not excuse the owner from properly maintaining the equipment in accordance with the written instructions furnished with the unit
- A copy of the "Initial Start-Up Checklist" must be filled out and returned to XLT when the unit is initially installed, and/or when the unit is removed and installed in another location
- The gas, electric, and HVAC utilities must be connected to the oven and installed by locally licensed contractors
- Failure to contact XLT Ovens prior to contacting a repair company for warranty work voids any and all warranties

#### WHAT IS NOT COVERED:

- Freight damage
- Overtime charges
- Any part that becomes defective because of utility services (power surges, high or low voltages, high or low gas pressure or volume, contaminated fuel, or improper utility connections)
- Any part that becomes defective because of moisture and/or other contaminants
- Conveyor belts
- Filters
- Exhaust Fans
- Light Bulbs
- Normal maintenance or adjustments
- This warranty shall not apply if the equipment or any part is damaged as a result of accident, casualty, alteration, misuse, abuse, improper cleaning, improper installation, improper operation, natural disasters, or man-made disasters

#### CLAIMS HANDLED AS FOLLOWS:

Should any such defect be discovered, XLT must be notified. Upon notification, XLT will arrange for necessary repairs to be made by an authorized service agent. Denial of services upon the arrival of an authorized service agent will release XLT of any and all warranty obligations.





#### Warranty - International

#### Rev F

#### Approval Date: 07/01/2014

When purchased through an Authorized International Distributor, XLT warrants its products manufactured after July 1, 2014 to be free from any defect in material and workmanship under normal use. The Authorized International Distributor will repair XLT products during the warranty period. This warranty is extended to the original end user purchaser and is not transferable without prior written consent of the Authorized International Distributor. Damages are limited to the original purchase price. Products purchased by any other means other than an Authorized International Distributor will have no warranty. This warranty applies to areas outside the 50 United States of America.

#### DUTIES OF THE OWNER:

- The owner must inspect the equipment and crates at time of receipt. Damage during shipment is to be immediately reported to the carrier and also to the Authorized International Distributor.
- The equipment must be operated in accordance with the written instructions furnished with the unit.
- This warranty is not valid unless equipment is installed, started, and demonstrated under the supervision of the Authorized International Distributor.
- This warranty shall not excuse the owner from properly maintaining the equipment in accordance with the written instructions furnished with the unit.
- A copy of the "Initial Start-Up Checklist" must be filled out and returned to the Authorized International Distributor when the unit is initially installed, and/or when the unit is removed and installed in another location.
- The gas, electric, and HVAC utilities must be connected to the equipment and installed by locally licensed contractors.
- The Authorized International Distributor must be contacted for service. Failure to contact the Authorized International Distributor prior to contacting a repair company for warranty work voids any and all warranties.

#### WHAT IS COVERED (Subject to local market conditions):

- 2 year labor Extensions may be available and charges may apply
- 5 year parts Extensions may be available and charges may apply
- 5 years parts and labor on: oven fan blade, structural welds, conveyor shafts, conveyor bearings, rusted materials in ovens

#### WHAT IS NOT COVERED (Subject to local market conditions):

- Freight damage
- Any part that becomes defective because of utility services (power surges, high or low voltages, high or low gas pressure or volume, contaminated fuel, or improper utility connections)
- Any part that becomes defective because of moisture and/or other contaminants
- Conveyor belts
- Filters
- Exhaust fans
- Light bulbs
- Rusted materials in hoods
- Normal maintenance or adjustments
- This warranty shall not apply if the equipment or any part is damaged as a result of accident, casualty, alteration, misuse, abuse, improper cleaning, use of caustic/acidic chemicals, improper installation, improper operation, natural disasters, or man-made disasters

#### CLAIMS HANDLED AS FOLLOWS:

Should any such defect be discovered, the Authorized International Distributor must be notified. Upon notification, the Authorized International Distributor will arrange for necessary repairs.



### **RECEIVING & INSPECTION**

### NOTIFY CARRIER OF DAMAGE AT ONCE

Upon receiving of all goods shipped by a Common Carrier, check for any exterior damage that may indicate interior damage. If conditions permit, open all crates & do a full inspection for any damage while the delivery driver is still there. If there is damage, please note on the delivery receipt & call the carrier to make a freight damage claim within 24 hours of receipt. Failure to make a damage claim within the first 24 hours may void the opportunity to have the claim resolved.

XLT Ovens wants you to be totally satisfied with every aspect of owning & using your oven & hood. Your feedback, both positive & negative, is very important to us as it helps us understand how to improve our products & our company. Our goal is to provide you with equipment that we are proud to build & you will be proud to own.

To receive technical support for the oven or hood you purchased, XLT has qualified customer service personnel that can provide assistance on any type of XLT oven problem you may experience. Customer Service is available 24/7/365 or visit <u>www.xltovens.com.</u>



Installation of all electric appliances & ventilation exhaust hoods should only be performed by a qualified professional who has read & understands these instructions & is familiar with proper safety precautions. Read this manual thoroughly before installing or servicing this equipment.



Notes indicates an area or subject of special merit, emphasizing either the product's capability or common errors in operation or maintenance.



Tips give a special instruction that can save time or provide other benefits while installing or using the product. The tip calls attention to an idea that may not be obvious to first-time users of the product.

### Save this Manual

This document is the property of the owner of this equipment.

XLT Ovens reserves the right to make changes in design & specifications, and/or make additions to or improvements to its product without imposing any obligations upon itself to install them in products previously manufactured.

All Right Hand & Left Hand designations in this manual are from the point of view as if standing directly in front of the glass sandwich door.

	Revision History Table							
Revision	Comments	Date						
G	Changed Oven Description Table on Page 8 and Updated Schematics From Page 82-89	04/22/2015						
Н	Updated Oven and Hood Weights On Pages 11 and 37	10/12/2015						



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# TABLE OF CONTENTS

Warning & Safety Information	2
Warranty	4
Oven Description	8
Oven Dimensions & Weights	10
Oven Electrical Requirements	12
Oven Only Rough-In Specifications	13
Oven Assembly	14
Oven Installation	20
Oven Fire Suppression	21
Oven Ventilation Requirements & Guidelines	23
Oven Initial Start-Up	24
Oven Operation	25
Oven Operator Controls	26
Oven Cleaning	27
Oven Maintenance	31
Oven Troubleshooting	32
Hood Description	35
Hood Dimensions & Weights	36
Hood Exhaust Flow Rates	38
Hood Electrical Requirements	40
Hood Rough-In Specifications	41
Hood Electrical Connections	42
Hood Installation	54
Hood Initial Start-Up	73
Hood Operator Controls	74
Hood Valance Kit	75
Hood Duct Wrap Kit	78
Hood Cleaning	79
Hood Troubleshooting	80
Electrical Schematics	82
Certifications	95
Oven Start-Up Checklist	97
Hood Start-Up Checklist	99



### **OVEN DESCRIPTION**

Ovens	Hoods
X3D-1832-xxxx	H3D-1832-xxxx
X3D-2440-xxxxx	H3D-2440-xxxxx
X3D-3240-xxxxx	H3D-3240-xxxxx
X3D-3255-xxxx	H3D-3255-xxxxx
X3D-3855-xxxx	H3D-3855-xxxx

This manual covers the following XLT Oven & AVI Hood models:

The first 2 digits of the model number after the dash represent the conveyor width and the last two digits indicate the bake chamber length. The five x's after those numbers represents the oven and hood configuration number. The "EL" designates electrically heated ovens. The ovens may be used in a single, double, or triple stack configuration. All models have a single control box, which can be mounted on either the right-hand or left-hand side, and are heated by electric elements. All models can be configured for a split belt conveyor.

#### **OVEN DESCRIPTION**

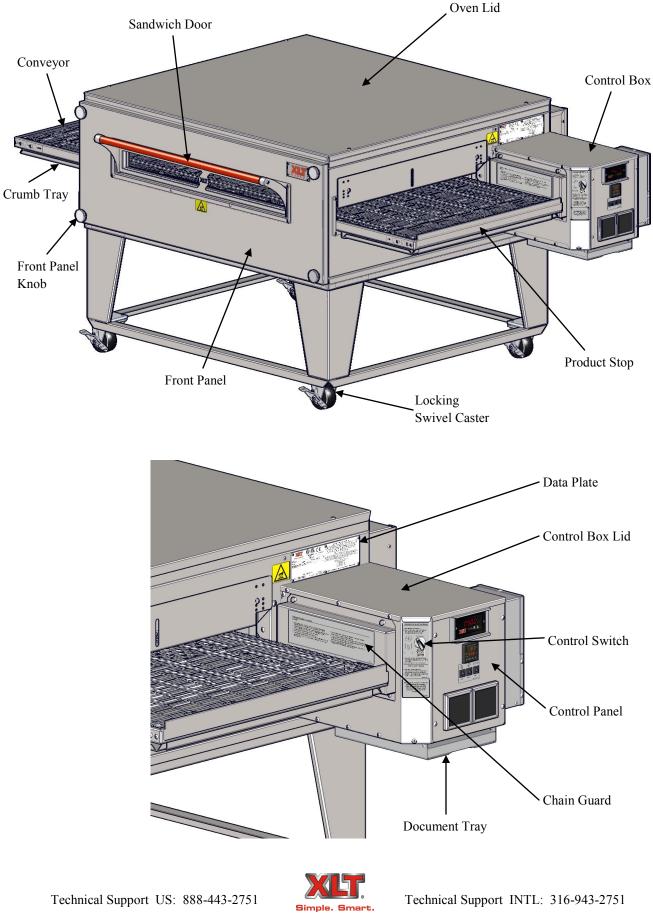
Food product is placed on the stainless steel wire conveyor belt on one side of the oven. The conveyor then transports the food through the bake chamber at a user-controlled speed. This provides repeatable and uniform food cooking. The conveyors can be easily configured to move either left-to-right or right-to-left. A large center sandwich door allows the introduction or removal of food items for cooking at shorter times. Precise temperatures are user adjustable and maintained by a digital control.

An easily removable front panel allows the full cleaning of the oven interior. All exposed oven surfaces both exterior and interior are stainless steel. The conveyor is a one piece design and is removed from the side which has the control box. No tools are required for disassembly and cleaning of the conveyor or oven interior. The oven itself is mounted on lockable swivel casters for easy moving and maintenance.

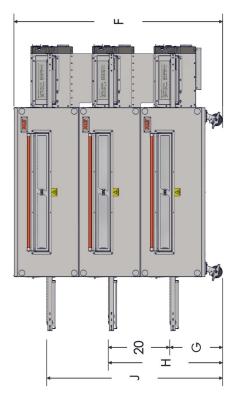
Accessories such as extended conveyor shelves, base shelves, extended fronts, fire suppression components, and perforated crumb trays are available from XLT. In addition, moving equipment such as carts and lifting jacks are available to help install and move ovens. Please contact XLT Ovens or your Authorized Distributor for more information.

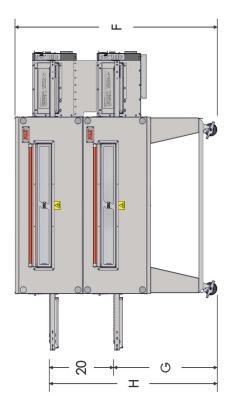


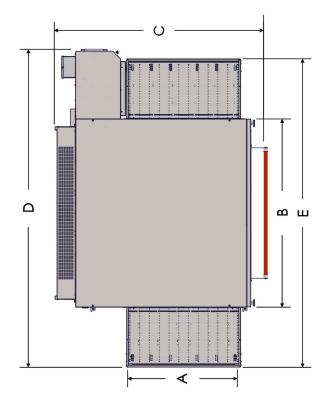
# **OVEN DESCRIPTION**

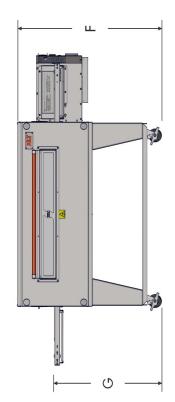


# **OVEN DIMENSIONS & WEIGHT**











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# **OVEN DIMENSIONS & WEIGHTS**

SINGLE OVEN	А	В	С	D	Е	F	G	Н	J	OVEN WEIGHT	CRATED WEIGHT
1832	18 [457]	32 [813]	48 3/8 [1229]	70 1/4 [1784]	67 1/4 [1708]	42 3/4 [1086]	32 [813]	N/A	N/A	609 [276]	746 [338]
2440	24 [610]	40 [1016]	54 3/8 [1381]	78 1/4 [1988]	75 1/4 [1911]	42 3/4 [1086]	32 [813]	N/A	N/A	726 [329]	880 [399]
3240	32 [813]	40 [1016]	62 3/8 [1584]	78 1/4 [1988]	75 1/4 [1911]	42 3/4 [1086]	32 [813]	N/A	N/A	755 [342]	915 [415]
3255	32 [813]	55 [1397]	62 3/8 [1584]	93 1/4 [2369]	90 1/4 [2292]	42 3/4 [1086]	32 [813]	N/A	N/A	884 [401]	1064 [483]
3855	38 [965]	55 [1397]	68 3/8 [1737]	93 1/4 [2369]	90 1/4 [2292]	42 3/4 [1086]	32 [813]	N/A	N/A	981 [445]	1166 [529]

DOUBLE STACK	А	В	С	D	E	F	G	Н	J	OVEN WEIGHT	CRATED WEIGHT
1832	18 [457]	32 [813]	48 3/8 [1229]	70 1/4 [1784]	67 1/4 [1708]	62 3/4 [1594]	32 [813]	52 [1321]	N/A	1123 [509]	1397 [634]
2440	24 [610]	40 [1016]	54 3/8 [1381]	78 1/4 [1988]	75 1/4 [1911]	62 3/4 [1594]	32 [813]	52 [1321]	N/A	1342 [609]	1650 [748]
3240	32 [813]	40 [1016]	62 3/8 [1584]	78 1/4 [1988]	75 1/4 [1911]	62 3/4 [1594]	32 [813]	52 [1321]	N/A	1389 [630]	1709 [775]
3255	32 [813]	55 [1397]	62 3/8 [1584]	93 1/4 [2369]	90 1/4 [2292]	62 3/4 [1594]	32 [813]	52 [1321]	N/A	1629 [739]	1989 [902]
3855	38 [965]	55 [1397]	68 3/8 [1737]	93 1/4 [2369]	90 1/4 [2292]	62 3/4 [1594]	32 [813]	52 [1321]	N/A	1812 [822]	2182 [990]

TRIPLE STACK	А	В	С	D	Е	F	G	Н	J	OVEN WEIGHT	CRATED WEIGHT
1832	18	32	48 3/8	70 1/4	67 1/4	67 3/4	17	37	57	1603	2014
1052	[457]	[813]	[1229]	[1784]	[1708]	[1721]	[432]	[940]	[1448]	[727]	[914]
2440	24	40	54 3/8	78 1/4	75 1/4	67 3/4	17	37	57	1927	2389
2440	[610]	[1016]	[1381]	[1988]	[1911]	[1721]	[432]	[940]	[1448]	[874]	[1084]
3240	32	40	62 3/8	78 1/4	75 1/4	67 3/4	17	37	57	1985	2465
3240	[813]	[1016]	[1584]	[1988]	[1911]	[1721]	[432]	[940]	[1448]	[900]	[1118]
3255	32	55	62 3/8	93 1/4	90 1/4	67 3/4	17	37	57	2335	2875
5255	[813]	[1397]	[1584]	[2369]	[2292]	[1721]	[433]	[941]	[1448]	[1059]	[1304]
3855	38	55	62 3/8	93 1/4	90 1/4	67 3/4	17	37	57	2602	3157
3833	[965]	[1397]	[1584]	[2369]	[2292]	[1721]	[433]	[941]	[1448]	[1180]	[1432]

NOTE: All dimensions in inches [millimeters],  $\pm 1/4$  [6], unless otherwise noted. All weights in pounds [kilograms] unless otherwise noted.

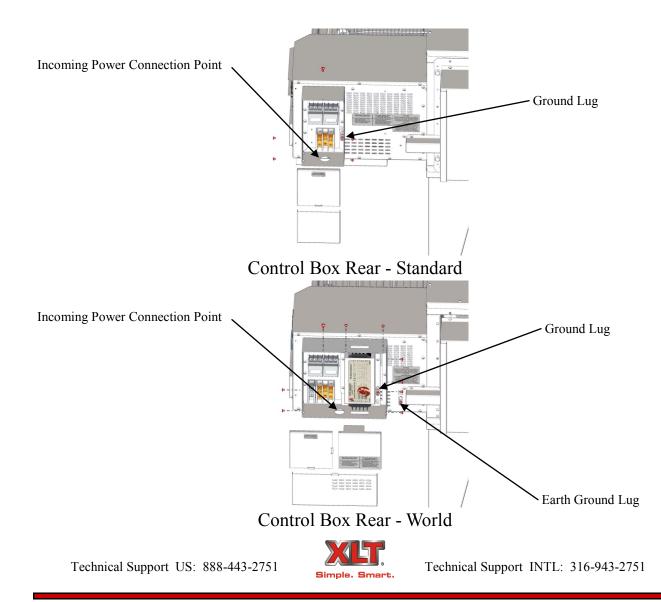


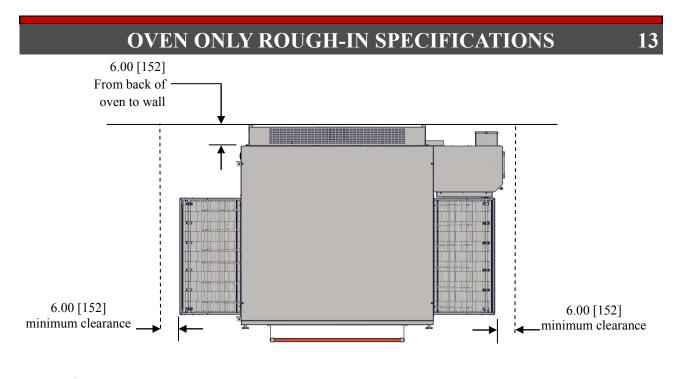
# **OVEN ELECTRICAL REQUIREMENTS**

	Electric Oven Electrical Requirements								
	Per EACH Oven								
Oven	STANDARD				WORLD	A	L		
Model	Volts AC	Amps	Hertz	Volts AC	Amps	Hertz	Phase	KW	
1832	208/240	44/38			24			16	
2440	208/240/480	75/65/33			41			27	
3240	208/240/480	75/65/33	60	380	41	50	3	27	
3255	208/240/480	88/77/38			48			32	
3855	208/240/480	88/77/38			48	1		32	
_	4 Wire Service - L1, L2, L3			5 Wire Se	ervice - L1	_			
	+1 Gro	und (per ov	ren)	N +2 Gr	ounds (pe	er oven)		_	

#### FOR EACH OVEN:

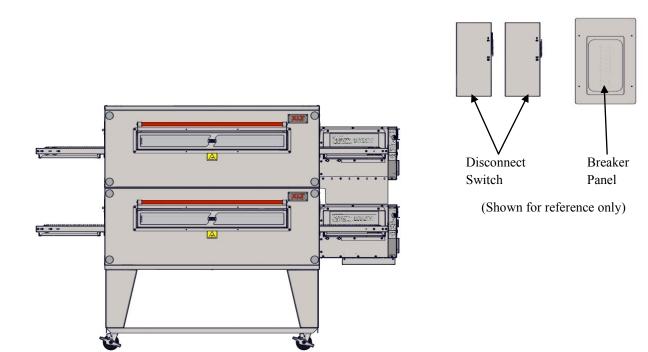
- A separate circuit breaker must be provided for each oven deck.
- Electrical connections must be accessible when the ovens are in the installed position.
- Electrical connections must meet all local code requirements.
- Ensure ovens are grounded per local codes.





NOTE

Utilities must be easily accessible when the ovens are in the installed position. Do not install utilities behind the ovens.



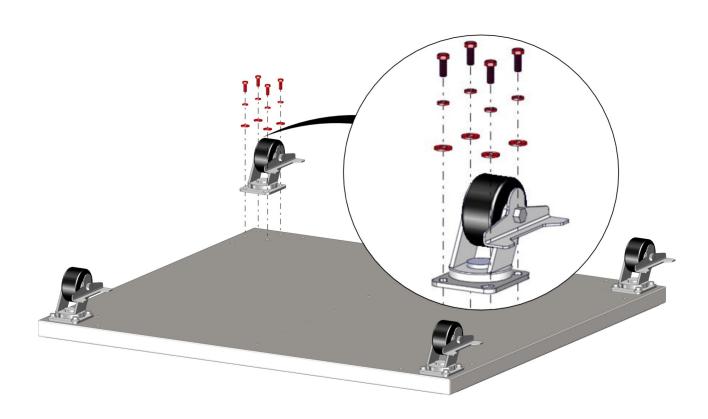


All installations must conform to local building and mechanical codes. It is required that the ovens be placed under a ventilation hood to provide exhaust ventilation and adequate air supply.



# **OVEN ASSEMBLY**

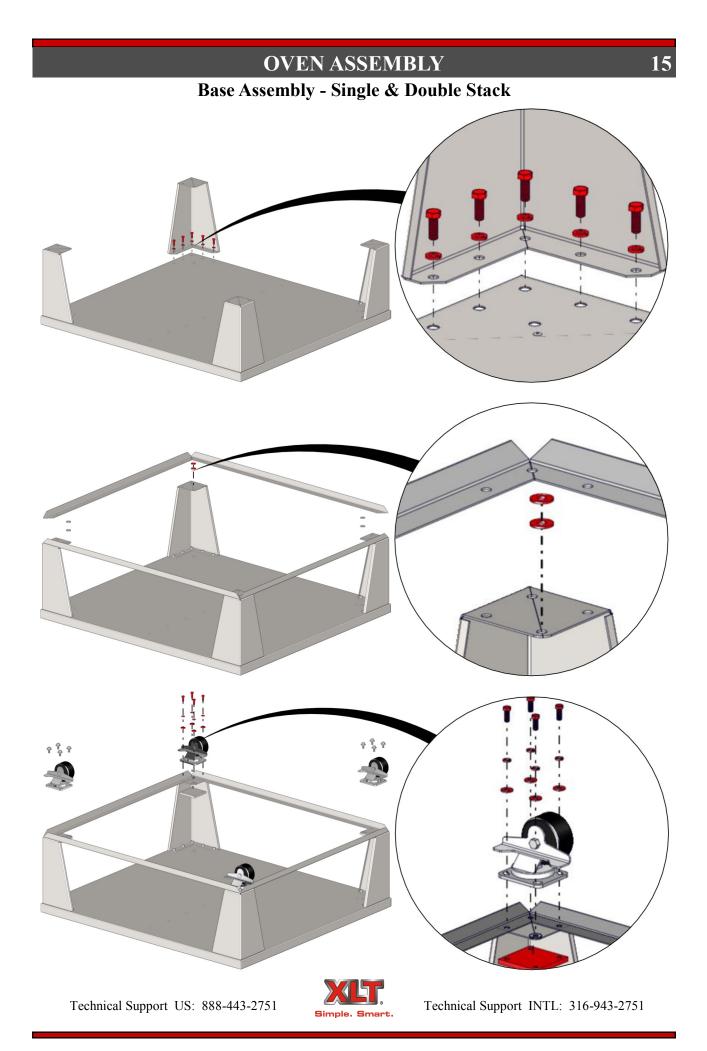
## **Base Assembly - Triple Stack**





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## **OVEN ASSEMBLY**

WARNING & SAFETY INFORMATION

XLT ovens can easily be moved and stacked with the proper lifting equipment. The use of XLT approved lifting equipment is highly recommended. Contact XLT for more information.

These ovens are heavy & can tip or fall causing bodily injury. NEVER place any part of your body beneath any oven that is suspended by the lifting jacks. A crush hazard exists if the oven falls or slips. DO NOT place your hands on the lifting jack vertical pole beneath the jack's DANGER winch. As the jack's winch descends when you turn the jack handle, a pinch point is created between the winch & the pole.

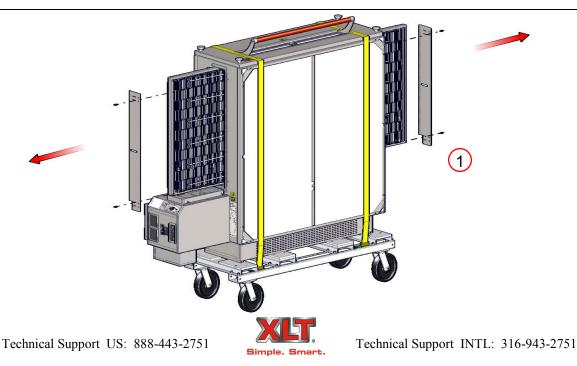


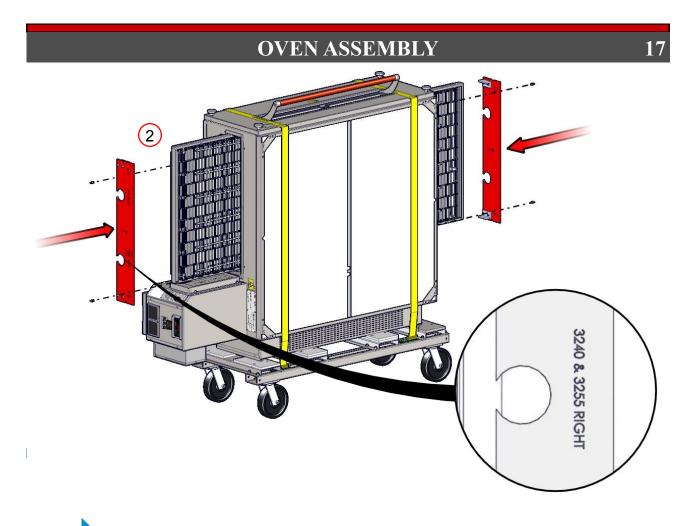
BE CAREFUL when rolling the oven on the cart, especially when going up or down ramps & over bumps. Leave the straps/banding on until the oven is near the assembly area.

- Make sure that the notch on tube of the winch assembly is aligned with the pin in the tripod base as shown. These alignments are important and keep the jack aligned properly.
  - Check for smooth operation. The cable should not be pinched and should pass smoothly over the pulley on top of the pole assembly.

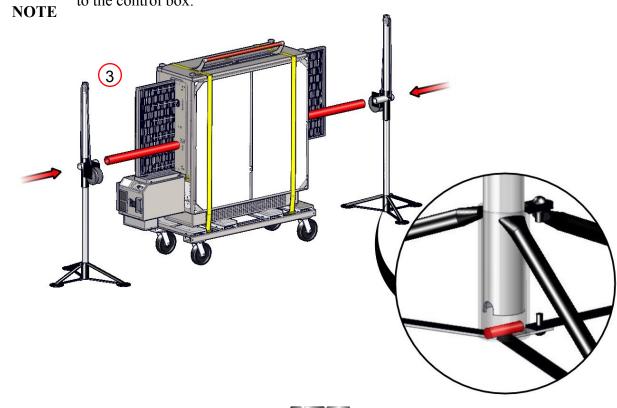


- Inspect cable prior to each use. If cable is frayed or shows signs of excessive wear and tear, DO NOT USE until DANGER cable is replaced.
  - At a minimum replace the cable annually with wire rope that meets or exceeds the jack manufacturer's specifications.
  - Do not exceed the stated capacity of the jack.





The Lifting Pipe hole, marked for the appropriate oven size, must be installed closest to the control box.





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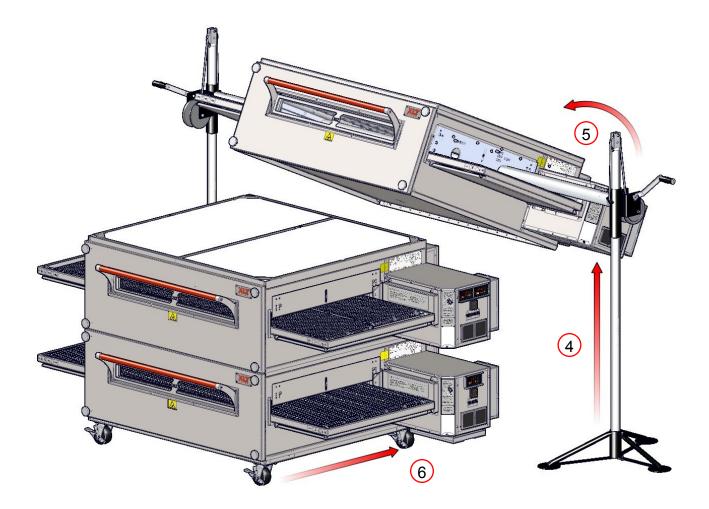
## **OVEN ASSEMBLY**

### **Stacking the Ovens**



Failure to engage the Lifting Jacks into the Lifting Pipe properly and completely will result in damage, injury, or death from a falling oven.

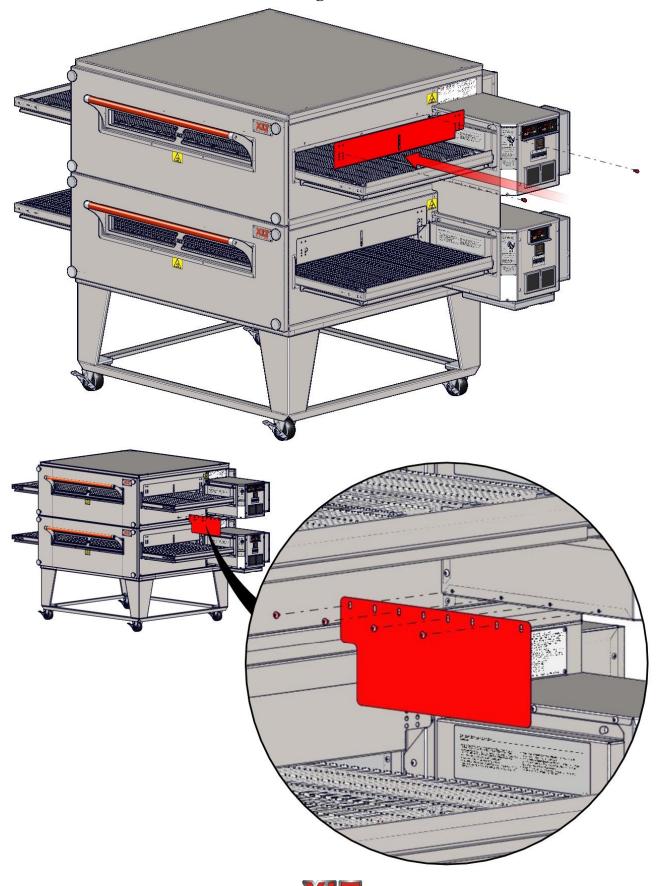
- Both jacks should be raised in unison, otherwise they may bind and a dangerous • situation will develop.
- Do not put any part of yourself under the oven at any time.
- DANGER The Oven is top heavy. Be careful. •





## **OVEN ASSEMBLY**

Stacking the Ovens





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### **OVEN INSTALLATION**

### **Physical Location & Spacing Requirements**

These ovens are suitable for installation on either combustible or non-combustible floors, and adjacent to either combustible or non-combustible walls. The motor cover is designed to provide the proper clearance to the back of the oven. The minimum side clearances are 6in. / 150mm, measured from the end of the conveyor.

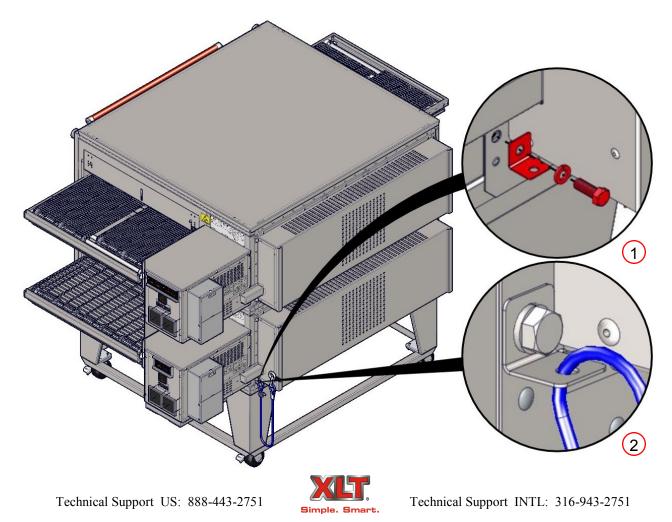
#### All installations must conform to local building and mechanical codes.

#### NOTE

#### Restraint

Because all ovens are equipped with casters, all installations must be configured with a restraint to limit the movement of the oven without depending on the electric power supply cord to limit the oven movement. One (1) restraint kit, which includes one (1) eye bolt, (1) stainless steel clip & a cable, is required for each oven stack, regardless if used on a single, double, or triple configuration. The clip should be installed in the lowest hole of the back wall on the control end of the lowest oven in the stack. The lag eye bolt must be installed into a structural member of a wall or the floor. It is the owner's responsibility to ensure the restraint is installed correctly.

Upon completion of performing any service or cleaning functions that require removal of the restraint, insure that it is correctly re-attached to the oven.



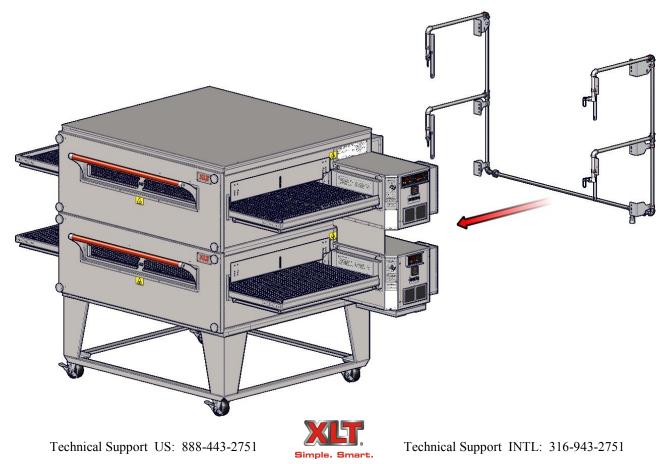
### **OVEN FIRE SUPPRESSION**

The requirement for fire suppression systems vary by location and the authority having jurisdiction. If you are required to install fire suppression on your oven, a pre-assembled piping kit is available that utilizes pre-existing holes that simplify installation and future service.

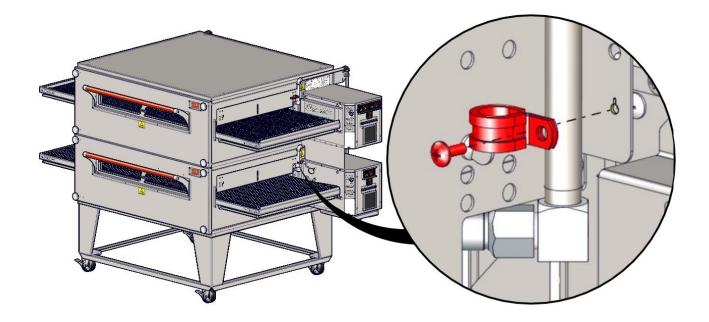


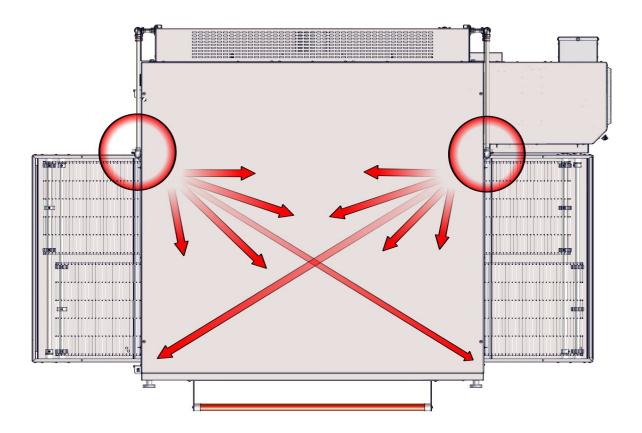
This design has been tested and approved to successfully comply with fire suppression codes. It uses only two (2) nozzles per bake chamber, and allows crumb trays, chain guards, and all other accessories to be easily removed. The kit does not interfere with any operations or maintenance.

For fire suppression detailed information see manual XD-9011 Fire Suppression Installation for AVI Hoods and XLT Ovens.



**OVEN FIRE SUPPRESSION** 







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### **OVEN VENTILATION REQUIREMENTS & GUIDELINES 23**

### **Ventilation Requirements**

A powered ventilation hood is required to remove heat and vapors. Some provision must be made to replenish the amount of air that is extracted from the building. The hood and HVAC installation must meet local building and mechanical codes. Requirements vary throughout the country depending upon location. Proper ventilation is the oven owner's responsibility. The AVI Hood system is designed to meet all requirements for XLT ovens and it is our recommendation that this system be used.

### **Ventilation Guidelines**

Obtain information from the authority having jurisdiction to determine the requirements for your installation. Your ventilation hood supplier and HVAC contractor should be contacted to provide guidance. An air balance test is highly recommended, performed by a licensed contractor. A properly engineered and installed ventilation hood and HVAC system will expedite approval, reduce all maintenance costs, and provide a more comfortable working environment. XLT also recommends that the operator switches for the ovens and the operator switch for the exhaust fan be interlocked so that the exhaust fan gets energized whenever the ovens are turned on. For more information, see the following links at <u>xltovens.com</u>:

Kitchen Ventilation Design Guide 1 Kitchen Ventilation Design Guide 2 Kitchen Ventilation Design Guide 3 Kitchen Ventilation Design Guide 4

### **Ventilation Performance Test**

After the oven and ventilation hood have been installed and are operating, a smoke candle can be used to "see" if the heat and vapors are being completely extracted. The test procedure is outlined below:

- The oven must be operating at 450°-500°F / 232°-260°C.
- The conveyor must be turned off.
- The ventilation hood exhaust fan must be turned on.
- Put a smoke candle in a pan on the conveyor belt at the center of the oven.
- Observe the smoke pattern coming out of the oven.
- Repeat the smoke candle test for each oven, as well as when all ovens are operating.

The ventilation hood must capture all of the smoke from the oven.

After the exhaust fan has been adjusted to completely capture and contain the heat, there needs to be a corresponding amount of make up air (MUA) introduced into the building to offset the amount of air volume being removed. An air balance test can determine the proper amount of make-up air flow rates.



### **OVEN INITIAL START-UP**

All ovens are tested at the factory for functional operation. Operation is verified and adjustments are made to ensure proper function. However, field conditions are sometimes different than factory conditions. It is necessary to have an authorized service technician verify operation and make field adjustments if needed.

The Oven Initial Start-Up Checklist, found at the end of this manual, must be completed (both sides) at time of installation, signed by the Customer and returned to XLT Ovens and the Authorized Distributor to initiate Warranty Policy.

If the Start-Up Checklist is not filled out completely and returned to XLT Ovens, then the Warranty will not be honored.

Start-up Procedure:

Ensure that all ovens have been installed in accordance with the I&O Manual and that all utilities are connected to the ovens in compliance with local building codes. A copy of the Start-up check-list is located at the end of this manual.

- 1. Fill out Step 1 on the checklist with all information and print legibly.
- 2. Place all control boxes in service position, remove all blue tags from inside all control boxes and connect switch to wire harness. Start each oven and complete form.
- 3. Complete Start-up checklist with owner signature and return to XLT.

## **OVEN OPERATION**



This oven is not capable of being safely placed in operation in the event of a power failure. No attempt should be made to operate this oven during power failure.



To Adjust Temperature Press Either the Up or Down Arrow.





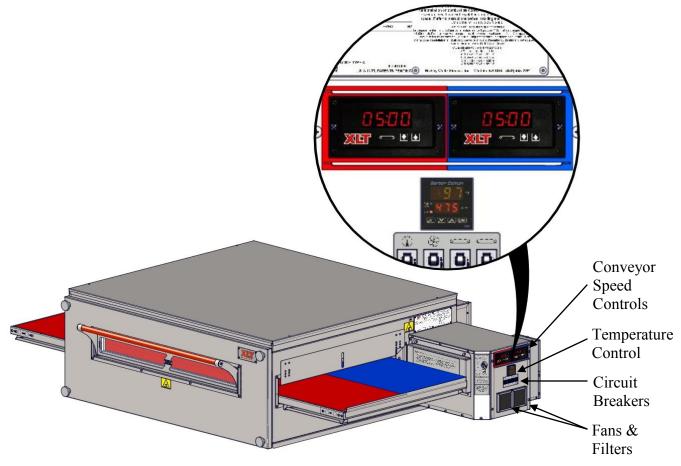
Use Up Arrow to Increase Time Use Down Arrow to Decrease Time

Conveyor Belt Times (Min:Sec)							
Oven Models	MINIMUM	MAXIMUM					
All	1:30	17:00					

<b>Oven Operating Temperature Range</b>							
Oven Models	MINIMUM	MAXIMUM					
A 11	400° F	590° F					
All	205° C	310° C					



## **Split Belt Conveyor Time Control**



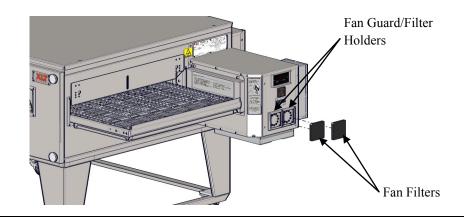


Your XLT oven is constructed of stainless steel. Most commercial cleaning agents may be used safely on all stainless steel surfaces. Check application restrictions on product label prior to usage. Observe recommended precautionary and safety measures as dictated by the product manufacturer. Do not use caustic cleaner on the conveyor bearings.

Do not use abrasive cleaners or abrasive pads as they can scratch stainless steel surfaces. Areas with heavy buildup should be sprayed and allowed to soak for up to 5 minutes prior to wiping clean. Always wipe with the "grain" of the surface to maintain appearance.

Do not use caustic cleaners on the control panel and/or electronic components. Only use cleaners compatible with Lexan® on the face of the conveyor control.

The most critical items to be cleaned are the filters on the cooling fans. The filters are held in place by the stainless steel fan guard/filter mounts and can be washed several times. Regular cleaning of the cooling filters is important to maintain air circulation within the control box. Depending upon store conditions, the filters should be cleaned weekly or as they get clogged with dust. Please contact XLT Ovens for replacement parts.





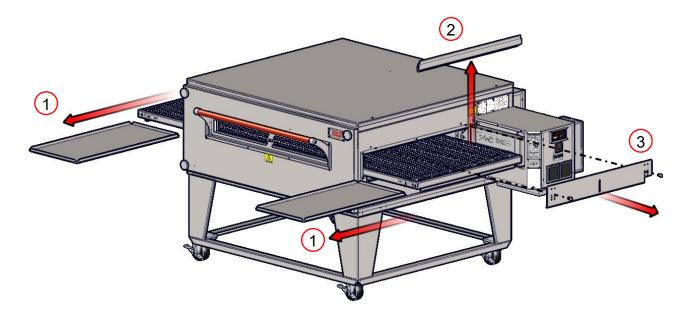
Oven must be cool and all power to the oven and hood turned off before any cleaning is done.



If the oven is to be removed from its installed location for cleaning or servicing, the following procedure is to be followed:

- 1. Shut off main electrical disconnect.
- 2. Unplug electric cord, if equipped.
- 3. Unlock casters.
- 4. Disconnect restraint.
- 5. When servicing or cleaning is complete, move oven to original location.
- 6. Connect restraint.
- 7. Lock casters.
- 8. Plug in electric cord, if equipped.
- 9. Turn on main electrical disconnect.
- 10. Follow normal starting instructions.

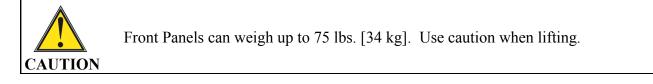


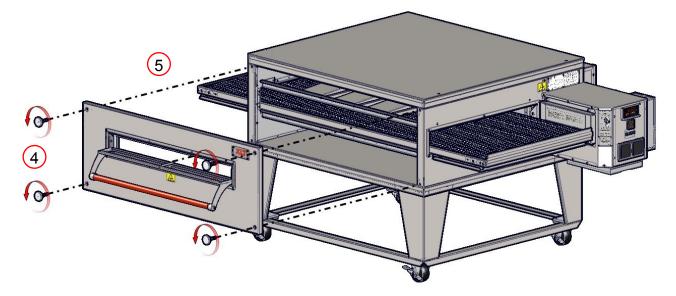




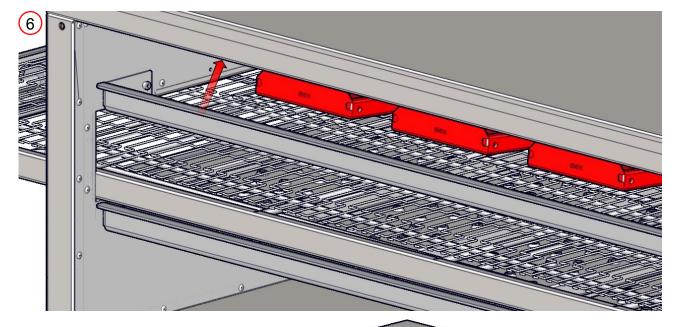
Opening the Sandwich Door will provide a grip location for removing the Front Panel.

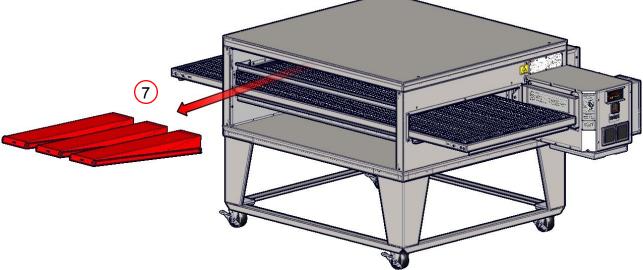
#### TIP

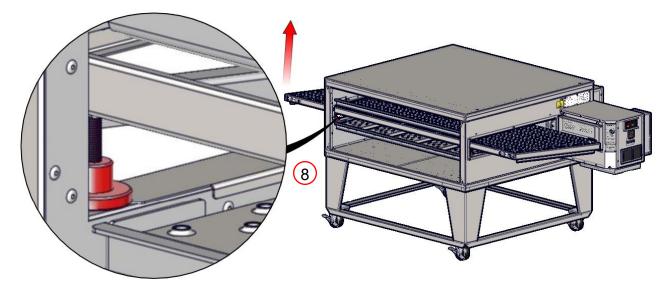








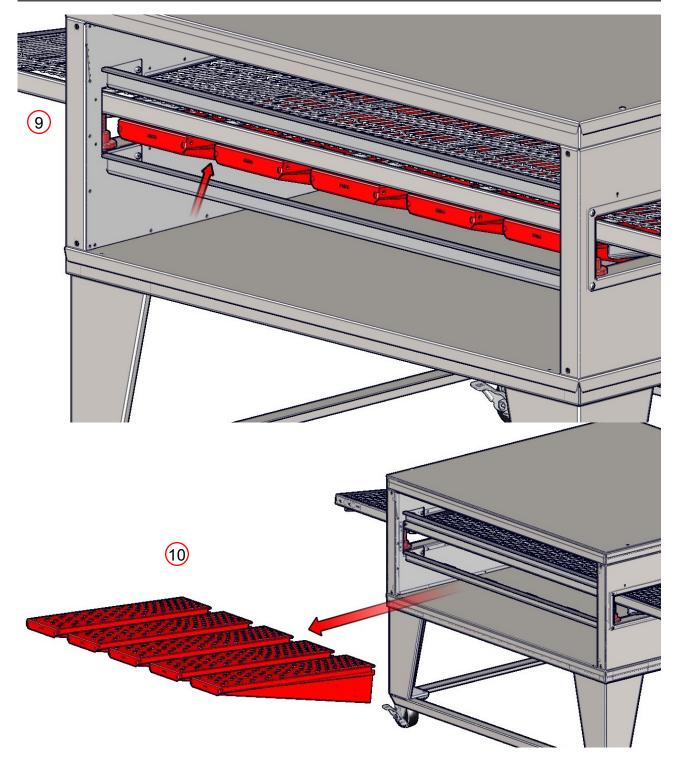






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DO NOT spray liquid cleaning agents in the slots and holes in the following locations:

- Rear of Control Box
- **CAUTION** Underneath Control Box
  - Main Fan Motor Cover



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As with any appliance, periodic maintenance is required. Many factors affect this schedule such as product mix and hours of usage. An example schedule is included.

	Oven Maintenance Schedule							
		Daily	Weekly	Monthly	Semi- Annual			
Cleaning								
	Empty Crumb Trays							
	Wipe down Front, Sides, & Top							
	Wipe down Control Box & Control Panel *							
	Clean or Replace Fan Filters							
	Remove large debris from Conveyor							
	Wipe down Motor Cover							
	Clean Sandwich Window							
	Remove debris from Finger Outers							
	Remove debris from inside Bake Chamber							
	Remove debris from Main Fan Motor							
	Clean Finger Outers							
	Clean inside Bake Chamber							
	Clean Conveyor Assembly							
Inspection								
	Check Fan Filters for dirt							
	Check Conveyor Wire Belt for Stretch							
	Check Conveyor Drive Roller Chain for Stretch							
Adjust								
	Conveyor Wire Belt							
Lubricate			_					
	Lubrication of Window Pins W/ Food Grade Grease							
	Conveyor Drive Roller Chain							
Replace								
	Fan Filters							

\* Do not use caustic cleaners on the control panel. Only use cleaners compatible with Lexan® on the face of the conveyor control.

\* Do not use water jet to clean ovens.

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Contact a factory representative or a local service company to perform all other maintenance and repairs.



Oven must be cool and all power to the oven and hood turned off before any cleaning is done.



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### **OVEN TROUBLESHOOTING**

### **Proper Cooking**

Experimentation is about the only way to determine proper time and temperature settings. While a pizza may look perfectly cooked on the outside, the inside may be undercooked. A thermometer is necessary to determine if food items are being properly cooked. Most health departments have rules and regulations that establish minimum temperatures for internal food temperatures. Most operators want to cook foods as fast as possible in order to serve more customers per hour. However, cooking foods slower is the only way to achieve a proper internal temperature. If your food products look acceptable on the outside, but have an internal temperature that is too low, then lowering the temperature and decreasing the belt speed (thereby increasing the cook time), will be necessary.

Several factors may affect the cooking performance and characteristics:

- Oven temperature (generally affects color)
- Conveyor speed (generally affects doneness)
- Finger arrangement
- Altitude
- Pans versus screens
- Dough thickness
- Cheese type
- Raw ingredient temperature (frozen?)
- Quantity of toppings

XLT ovens can be configured to cook a wide variety of food items. This is accomplished by arranging the fingers to control the baking characteristics. Generally speaking, most cooking is a "bottom up" process. The hot air from the bottom row of fingers has to go through the conveyor (a distance of about 2" / 50.8mm), heat the pan or screen, and then actually cook raw dough. The hot air from the top, on the other hand, basically only has to melt cheese and re-heat precooked toppings. Consequently, most operators will use the oven with the fingers arranged so that a lot more air is directed to the bottom of the pizza than to the top. There are places for an equal number of fingers above and below the conveyor. Available are finger cover plates that have six rows of holes, four rows of holes, two rows of holes, and no holes (or blank cover plates). A typical finger arrangement might have most or even all fingers on the bottom "full open", that is fingers with all six rows of holes, and only two or three fingers on top with four or six rows of holes. The top fingers can be arranged in a symmetrical pattern or can be shifted asymmetrically to either the entrance or exit end of the conveyor. We encourage you to experiment by trying different finger arrangements, temperatures and belt speeds. XLT Ovens can assist you with your oven/product configurations.



## **OVEN TROUBLESHOOTING**

### **Mechanical Function**

If your oven does not function properly, please verify the following conditions:

- Verify that the power cord to the oven is connected and the disconnect is in the "on" position.
- Check to see that the circuit breakers in the building electrical service panel have not been tripped or turned off.
- Check all circuit breakers on the oven control panel to ensure they have not been tripped.
- Ensure proper voltage, amperage, and wire size.

If your oven still does not function properly, XLT has qualified customer service personnel that can provide assistance on any type of XLT oven problem you may experience. Customer Service is available 24/7/365 at 888-443-2751, or visit <u>www.xltovens.com</u>.



# **HOOD INSTALLATION**



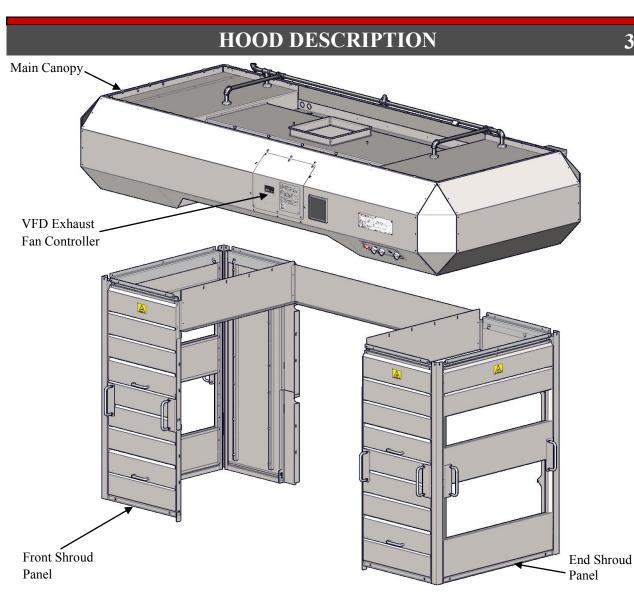
Check all local codes prior to installation. Special requirements may be necessary depending upon building material construction. It is the installing contractor's responsibly to ensure that the structure the hood is to be hung from meets all codes and can carry the hood weight.

### Purchaser's Responsibility

It is the responsibility of the purchaser:

- Thoroughly review the floor plans and specifications. The exact location of the oven must be determined before installing the hood.
- To unload, uncrate, assemble, and install the hood to it's intended location.
- To ensure that electric utilities are installed on site in accordance with local building codes and with the specifications in this manual.
- To see that electric utilities are connected properly by a qualified installer using the proper hardware.
- To ensure a qualified installer has performed an initial start-up procedure.
- Location should minimize long and twisted duct runs. Make efforts to have a straight clear path to the roof fan curb.
- All hood supporting structures must be strong enough to support the weight of the hood and shrouds. Refer to the Hood Dimensions & Weights page for weight.
- Maintain the proper clearances from combustible materials according to International Mechanical code (IMC), and National Fire Protection Agency (NFPA) 96, and local mechanical codes.
- To Ensure that the AVI Hood is suspended properly from the ceiling structure.





The AVI Hood System consists of three (3) major parts; the Main Canopy, the Shrouds, and the Variable Frequency Drive (VFD) exhaust fan controller.

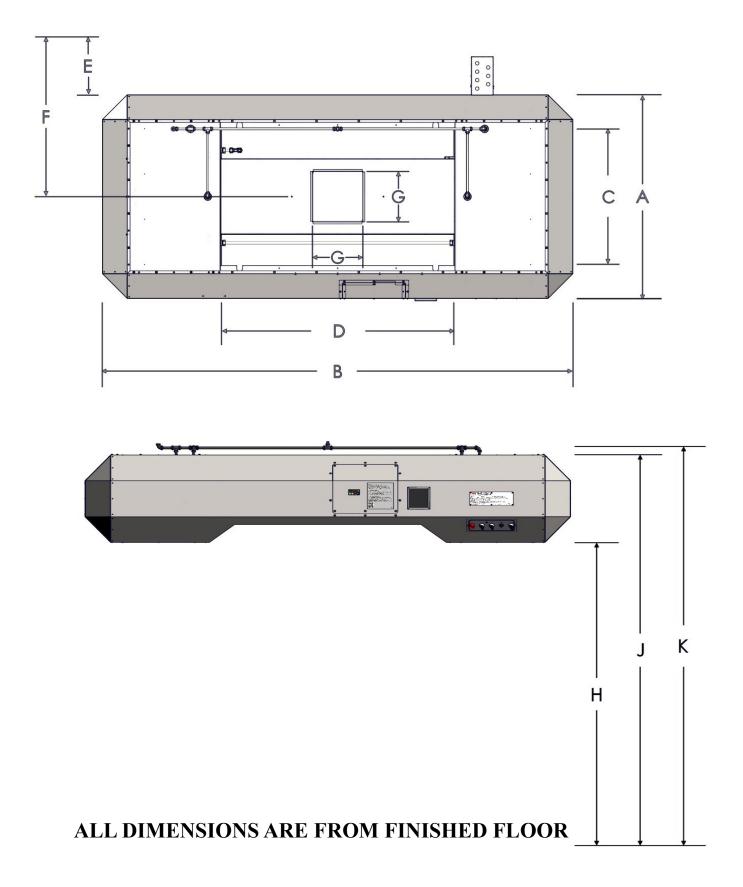
The Main Canopy serves to collect and transmit heat to the exhaust fan. It houses filters, lights, and switches. The switches control both the hood and ovens. The main canopy size is dependent upon oven size.

The Shrouds assist the efficiency of the main canopy by entrapping heat. They are configurable for either side or end loading or unloading, and are easily removable for cleaning and maintenance.

The VFD converts input power to variable frequency three-phase output power to control the speed of the exhaust fan. All electric utilities for the hood and exhaust fan connect through the electrical box located on the rear of main canopy. The operator switches are located on the control panel on the front of main canopy, and interlock the function of the hood and oven(s). There are optional relays that provide interlocks for equipment such as, fire suppression, HVAC dampers, and/or dedicated MUA units.

All AVI hoods are available pre-piped for fire suppression, allowing for simple, in-field installations. For fire suppression detailed information see manual XD-9011 Fire Suppression Installation for AVI Hoods and XLT Ovens.

The AVI hood was designed to conform to the requirements of IMC 2009, which is a Type I hood. It was also designed to have optional fire suppression added to meet requirements of NFPA 96 standard. This was done to allow XLT to better service the requirements of the customer and the associated jurisdictions.



Oven	Hood Dimensions							Hood Weights		Crated Weight (2 Crates)							
Model	Α	В	С	D	E*	F*	G	Η	J	K	Single	Double	Triple	Hood	Single	Double	Triple
1832	34 3/8 [873]	88 5/8 [2251]	18 [457]	32 [813]		30 5/8 [778]					506 [230]	495 [225]	495 [225]	523 [237]	310 [141]	264 [120]	304 [138]
2440	40 3/8 [1026]	96 5/8 [2454]	24 [610]	40 [1016]	13 1/2	33 5/8 [854]	12	69 5/8	89 7/8	91 3/4	590 [268]	565 [256]	560 [254]	610 [277]	339 [154]	281 [127]	322 [146]
3240	48 3/8 [1229]	96 5/8 [2454]	32 [813]	40 [1016]	[343]	37 5/8 [956]	[305]	[1768]	[2283]	[2330]	685 [311]	640 [290]	660 [299]	661 [300]	373 [169]	304 [138]	333 [151]
3255	48 3/8 [1229]	111 5/8 [2835]	32 [813]	55 [1397]		37 5/8 [956]					735 [333]	680 [308]	700 [318]	724 [328]	385 [175]	310 [141]	333 [151]
3855	54 3/8 [1381]	111 5/8 [2835]		55 [1397]		40 5/8 [1032]					795 [361]	730 [331]	745 [338]	764 [347]	408 [185]	310 [141]	339 [154]

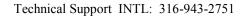
	aust Fai b Dimen		Crated Weight (Stacked)			
31	31	67	185			
[787]	[787]	[1702]	[84]			



All dimensions in inches [millimeters],  $\pm 1/4$  [6], unless otherwise noted.

All weights in pounds [kilograms] unless otherwise noted.

**OTE** \* E and F are the minimum distances from a non combustible wall structure.



	Exhaust Flow Rates VOLUME (min. recommended)									
		Switches		18xx	24xx	32xx	38xx			
	Top Middle Bottom		IUAA	- 144	UZAA	•••••				
Single	X			500	500	500	500			
	Λ			[14.16]	[14.16]	[14.16]	[14.16]			
	X			500	500	500	500			
	Λ			[14.16]	[14.16]	[14.16]	[14.16]			
Double			Х	506	644	828	966			
Double			Λ	[14.33]	[18.24]	[23.45]	[27.35]			
	X		х	506	644	828	966			
	Λ		Λ	[14.33]	[18.24]	[23.45]	[27.35]			
	X			500	500	500	500			
	Λ			[14.16]	[14.16]	[14.16]	[14.16]			
		Х		506	644	828	966			
				[14.33]	[18.24]	[23.45]	[27.35]			
			Х	766	975	1254	1463			
			Λ	[21.69]	[27.61]	[35.51]	[41.43]			
Triple	X	X		506	644	828	966			
пре	Λ	Λ		[14.33]	[18.24]	[23.45]	[27.35]			
	X		X	766	975	1254	1463			
	Λ			[21.69]	[27.61]	[35.51]	[41.43]			
		X	X	766	975	1254	1463			
		Λ		[21.69]	[27.61]	[35.51]	[41.43]			
	X	X	Х	766	975	1254	1463			
	Λ	Λ	А	[21.69]	[27.61]	[35.51]	[41.43]			



All values are CFM [M3/Min] unless otherwise noted. Figures represent TOTAL VOLUME measured at the duct.

In accordance with mechanical codes, make up air must be supplied. For commercial kitchen make up air, the amount is determined by the exhaust hood flow rate requirements & all other exhaust flow rate requirements in the kitchen.

At a minimum, smoke candles must be used for a Capture & Containment (C&C) test. Refer to the Ventilation Requirements disclosed in the Oven section in this manual.

A Test & Balance (TAB) report is recommended after installation has been completed. Below are the minimum items to be included is this report:

- Total airflow on all A/C, Make-Up Air (MUA), & exhaust systems.
- Airflow on each supply & exhaust grille. •
- Airflows on exhaust hoods compared to design specifications.

A final air balance report, with any corrections of issues found in the report, will help to insure that your building systems are functioning properly & efficiently.

Refer to "Oven Ventilation Requirements & Guidelines"



	Exhaust Flow Rates VELOCITY (min. recommended)									
		Switches		18xx	24xx	32xx	38xx			
	Top Middle Botto		Bottom							
Single	X			187.5	187.5	93.75	93.75			
	Λ			[57.15]	[57.15]	[28.58]	[28.58]			
	X			187.5	187.5	93.75	93.75			
	Λ			[57.15]	[57.15]	[28.58]	[28.58]			
Double			X	189.75	241.5	155.25	181.125			
Double			Λ	[57.84]	[73.61]	[47.32]	[55.21]			
	X		X	189.75	241.5	155.25	181.125			
	Λ		Λ	[57.84]	[73.61]	[47.32]	[55.21]			
	X			187.5	187.5	93.75	93.75			
				[57.15]	[57.15]	[28.58]	[28.58]			
		Х		189.75	241.5	155.25	181.125			
		Λ		[57.84]	[73.61]	[47.32]	[55.21]			
			X	287.25	365.625	235.125	274.3125			
			Λ	[87.55]	[111.44]	[71.67]	[83.61]			
Trinla	X	X		189.75	241.5	155.25	181.125			
Triple				[57.84]	[73.61]	[47.32]	[55.21]			
	X		v	287.25	365.625	235.125	274.3125			
	Λ		X	[87.55]	[111.44]	[71.67]	[83.61]			
		V	X	287.25	365.625	235.125	274.3125			
		Х		[87.55]	[111.44]	[71.67]	[83.61]			
	X	v	v	287.25	365.625	235.125	274.3125			
		Х	X	[87.55]	[111.44]	[71.67]	[83.61]			



All values are FPM [M/Min] unless otherwise noted. Figures represent VELOCITY measured at the Grease Filter.



Most building codes require 500 Feet per Minute velocity. Exhaust duct is 1  $ft^2$ . Check with your local building official for requirements.

The VELOCITY readings above are obtained by holding an anemometer 3" away from the Grease Filter. Take several readings in different locations across the filters and average the results.



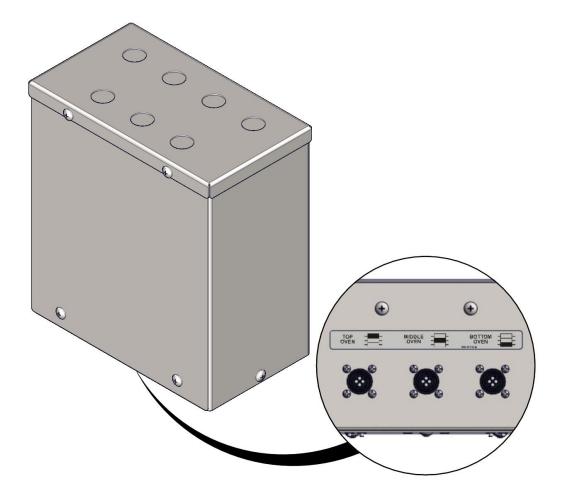
#### **Inputs into Junction Box**

	AVI Hood Electric Utility Specifications								
	# of Circuits	Rating	Purpose						
Standard	1	208/240 VAC, 1 Phase, 60 Hz, 3 Amp	VFD Controller						
Standard	1	120 VAC, 1 Phase, 60 Hz, 1 Amp	Lights						
World	1	230 VAC, 1 Phase, 50 Hz, 3 Amp	VFD Controller						
	1	230 VAC, 1 Phase, 50 Hz, 1 Amp	Lights						

#### **Outputs from Junction Box**

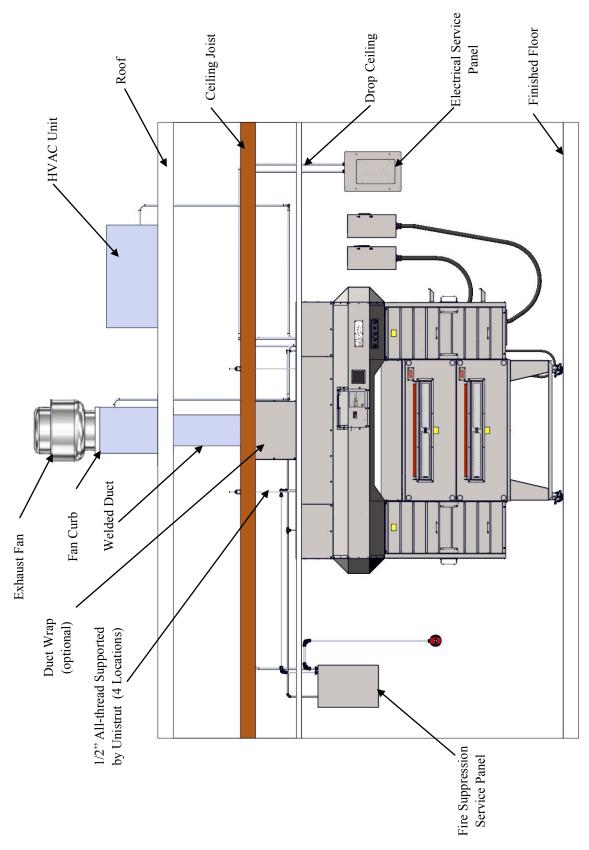
The AVI Hood system provides:

- One (1) switching outputs for HVAC damper and/or dedicated unit. (Optional 2-3 add-on)
- One (1) 230 VAC, 10 Amp, variable frequency, three phase power output for the ventilation exhaust fan.





# HOOD ROUGH-IN SPECIFICATIONS



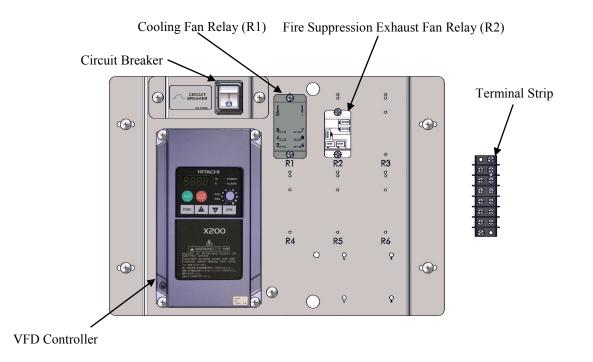
All structural members, electrical & fire suppression equipment shown for reference only.



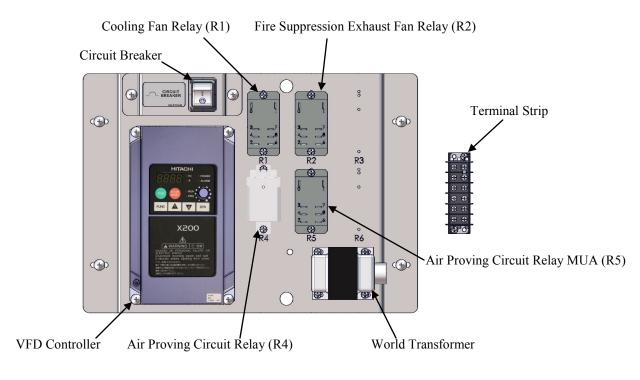
Technical Support INTL: 316-943-2751

Technical Support US: 888-443-2751

### HOOD ELECTRICAL CONNECTIONS VFD Control Box - Standard w/Fire Suppression

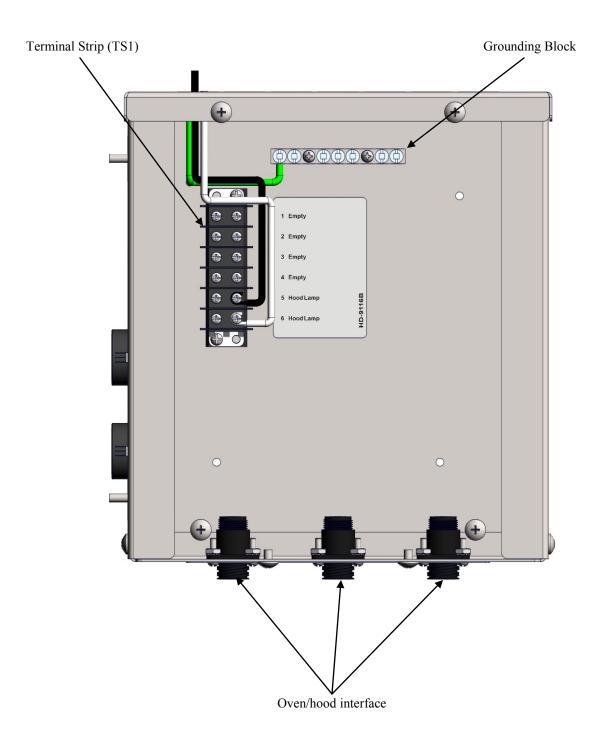


#### VFD Control Box - World w/Fire Suppression





Input Power to Lights - Without VFD Controller



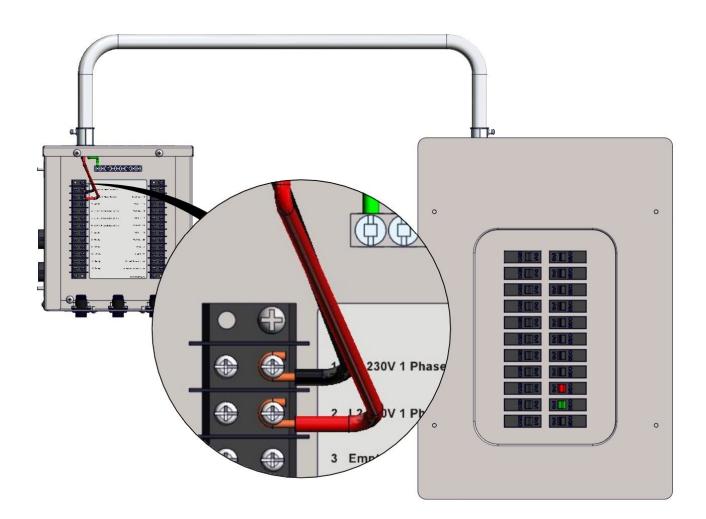
Non-VFD Control Box (Cover removed)



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### Input Power to VFD Controller - Standard Voltage & Frequency

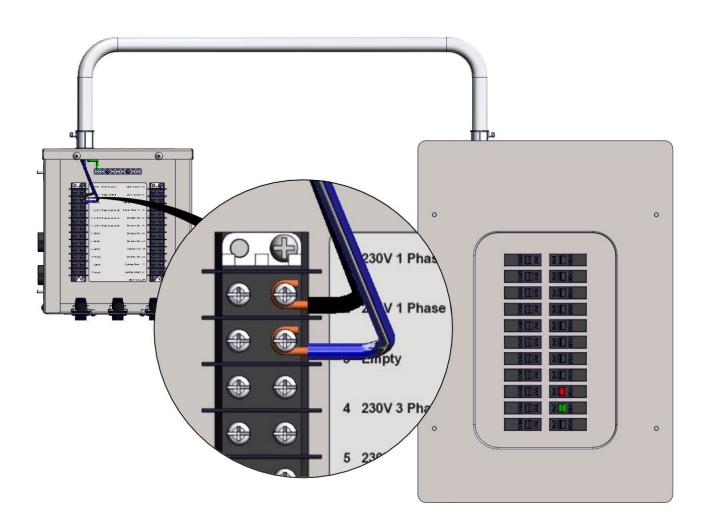




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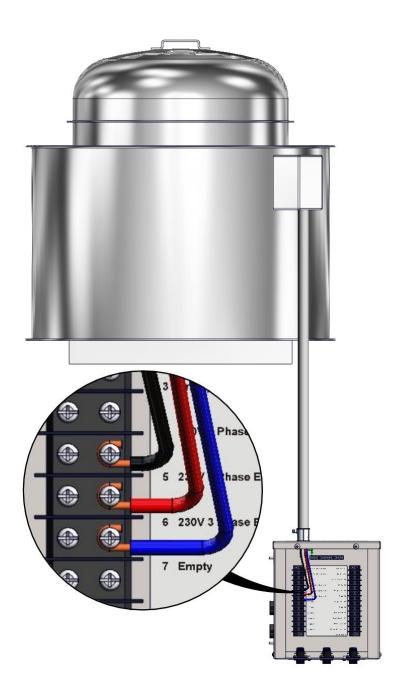
44

#### Input Power to VFD Controller - World Voltage & Frequency





#### Power from VFD to Exhaust Fan - Standard Voltage & Frequency

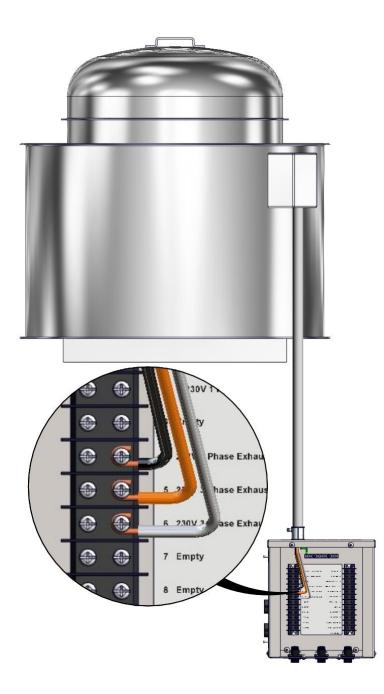




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46

#### Power from VFD to Exhaust Fan - World Voltage & Frequency

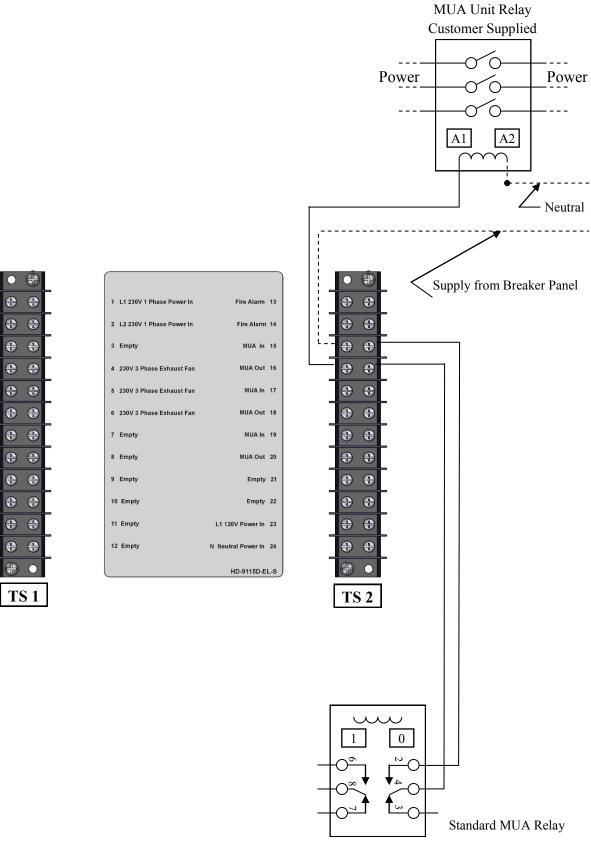




#### **48**

### HOOD ELECTRICAL CONNECTIONS

#### MUA Damper Relays - Single Output - Standard Voltage & Frequency

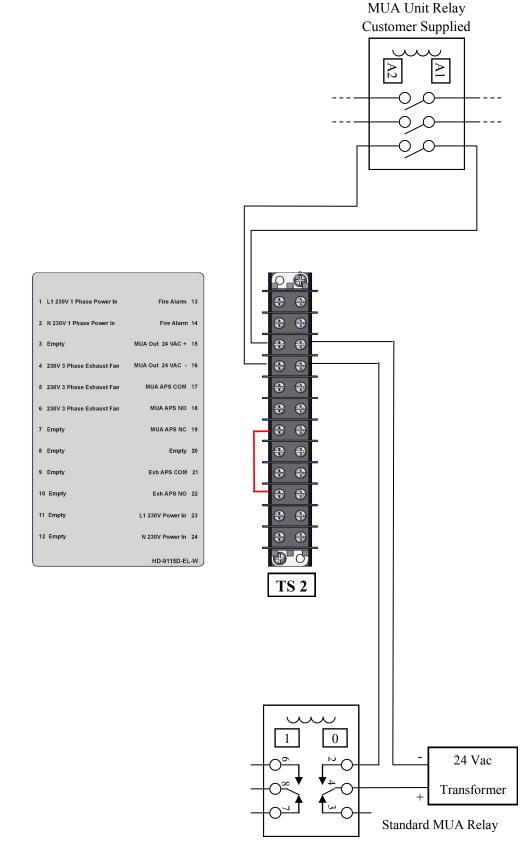


Some wiring removed for clarity. See schematic for details.



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#### MUA Damper Relays - Single Output - World Voltage & Frequency



Some wiring removed for clarity. See schematic for details.



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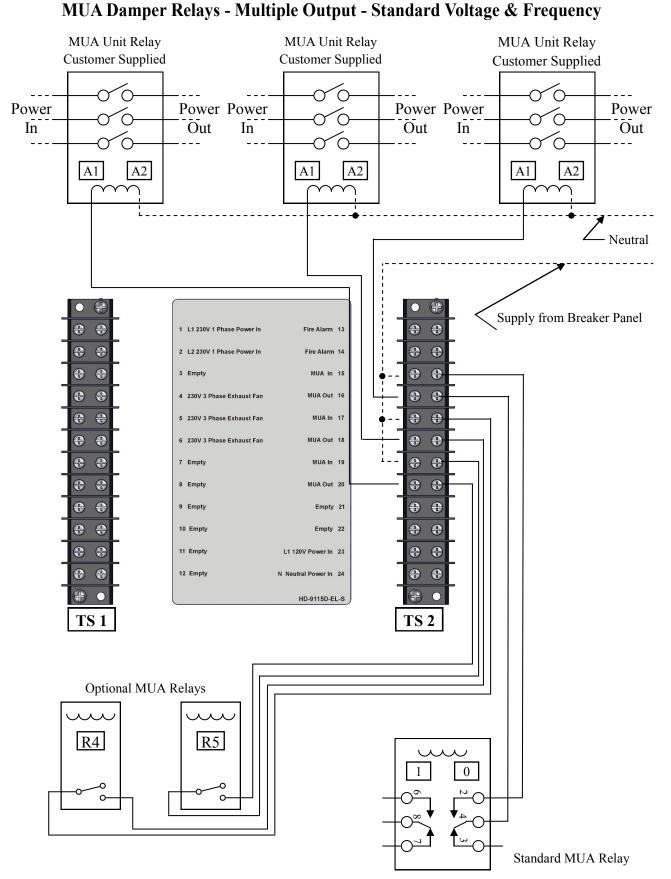
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Some wiring removed for clarity. See schematic for details.

Simple. Smart.

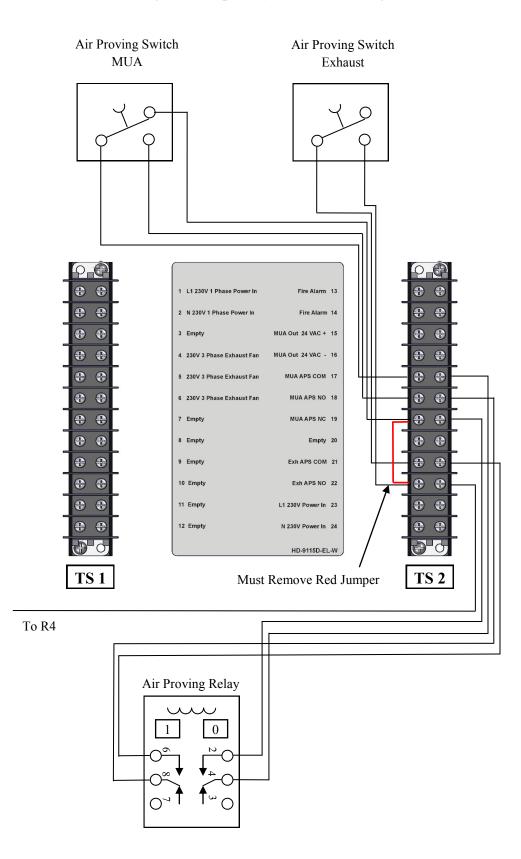
2751 Technical

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50

#### World Voltage & Frequency-W/Air Proving Switches



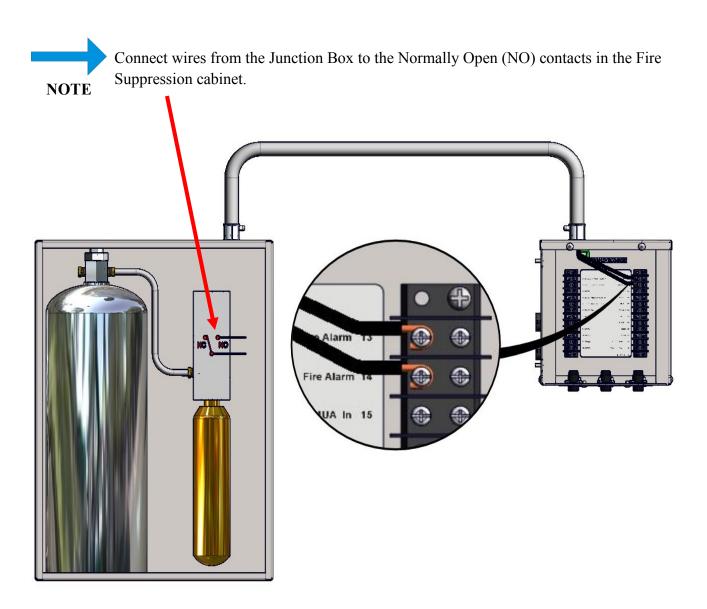
Some wiring removed for clarity. See schematic for details.



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#### Fire Alarm Relay - Standard Voltage & Frequency

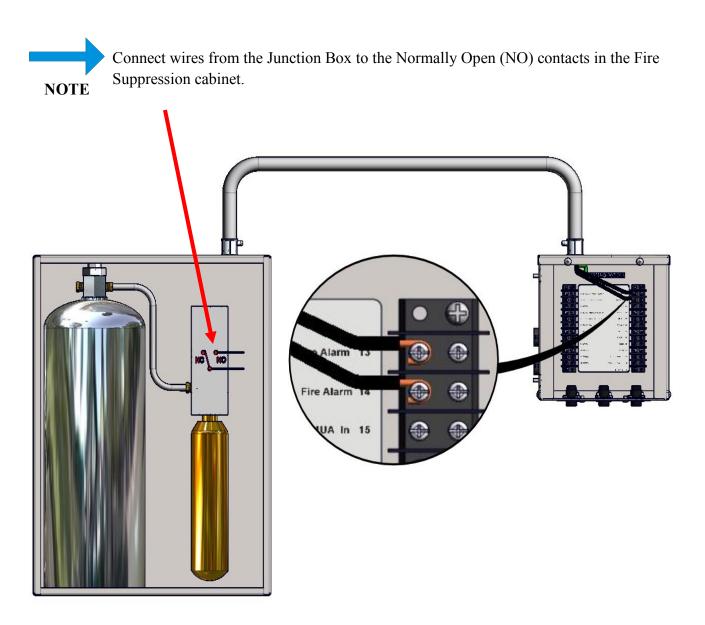




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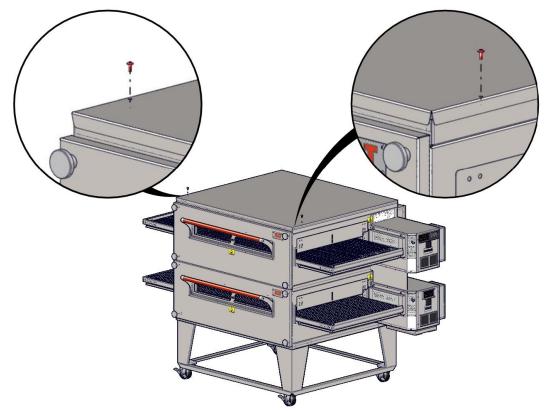
52

### Fire Alarm Relay - World Voltage & Frequency

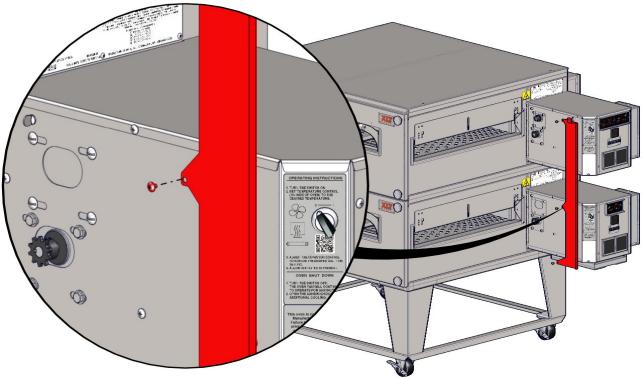




#### Prepare Ovens - Remove Lid Screws - Two (2) Only



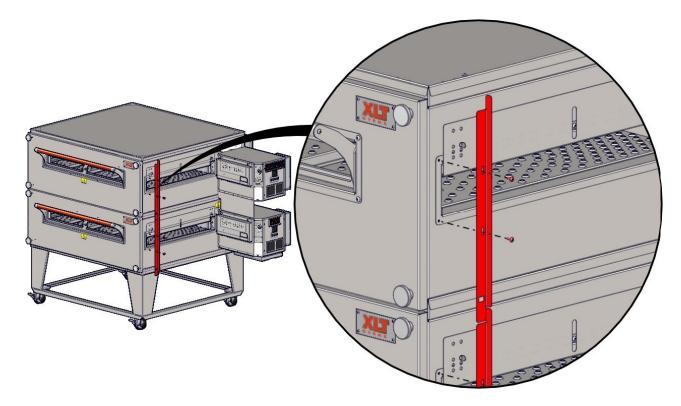
Prepare Ovens - Control Box Closeout Bracket

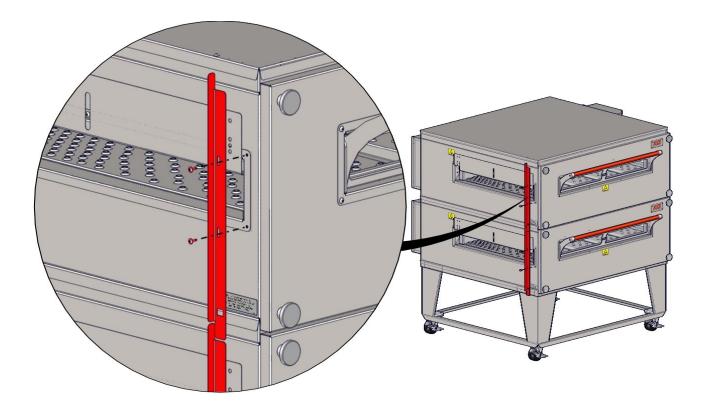


Conveyors have been removed for clarity



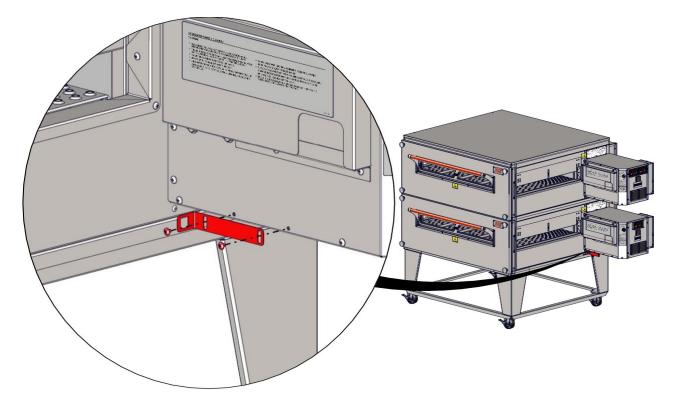
### **Prepare Ovens - Front Shroud Brackets**



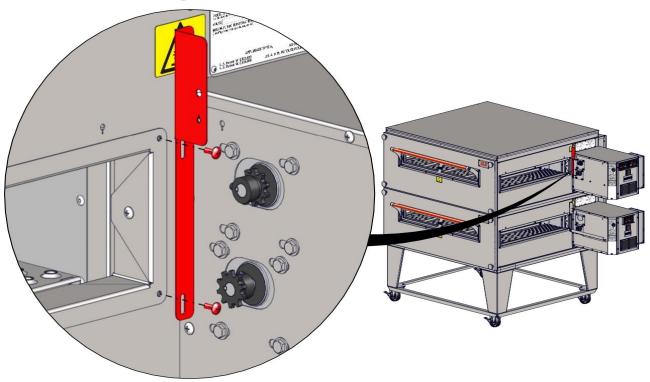




#### **Prepare Ovens - Bottom Rail Bracket**

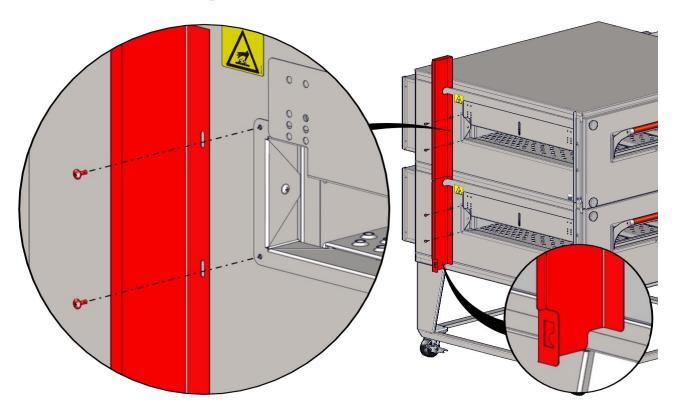


Prepare Ovens - Control Box Side Closeout



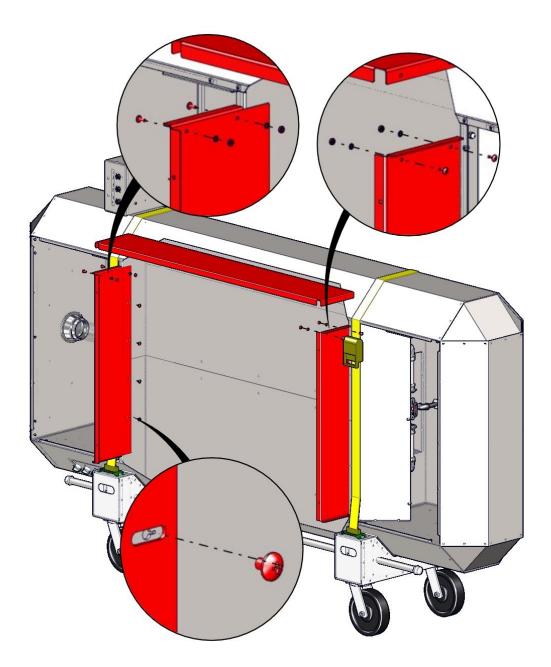


### **Prepare Ovens - Rear Shroud Brackets**





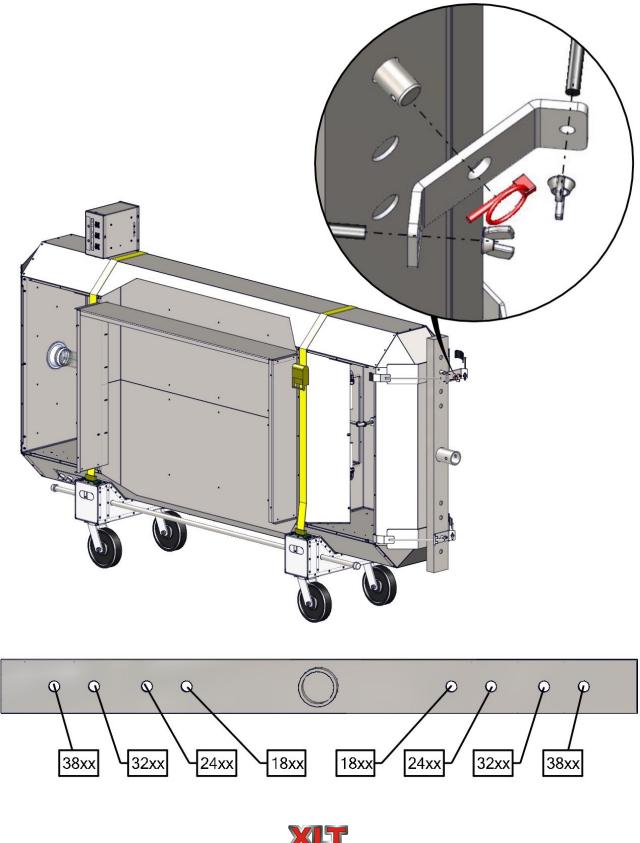
**Prepare Hood** 





### Lifting Gear Setup

AVI hoods can easily be moved and stacked with the proper lifting equipment. The use of XLT approved lifting equipment is highly recommended. Contact XLT for more information.

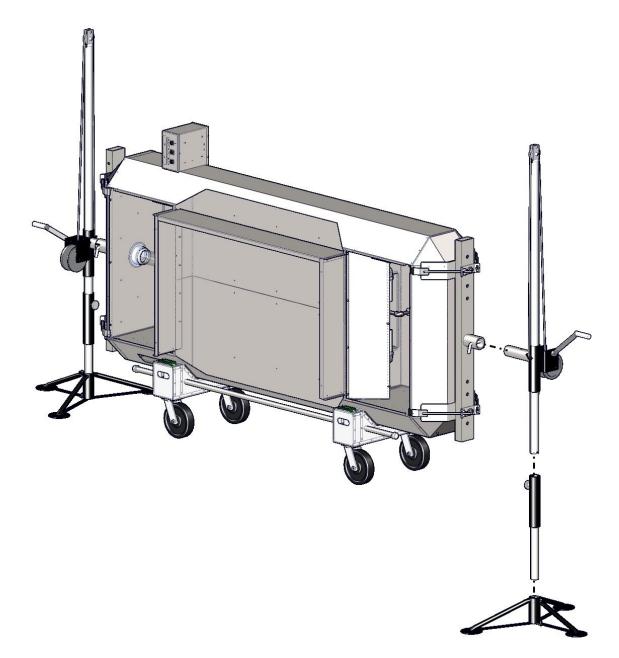


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#### Lifting Jack Setup

Check for smooth operation. The cable should not be pinched & should pass smoothly over the pulley on top of the pole assembly.
Inspect cable prior to each use.
If cable is frayed or shows signs of excessive wear & tear, DO NOT USE until cable is replaced.
At a minimum replace the cable annually with wire rope that meets or exceeds the jack manufacturer's specifications.
Do not exceed the stated capacity of the jack.



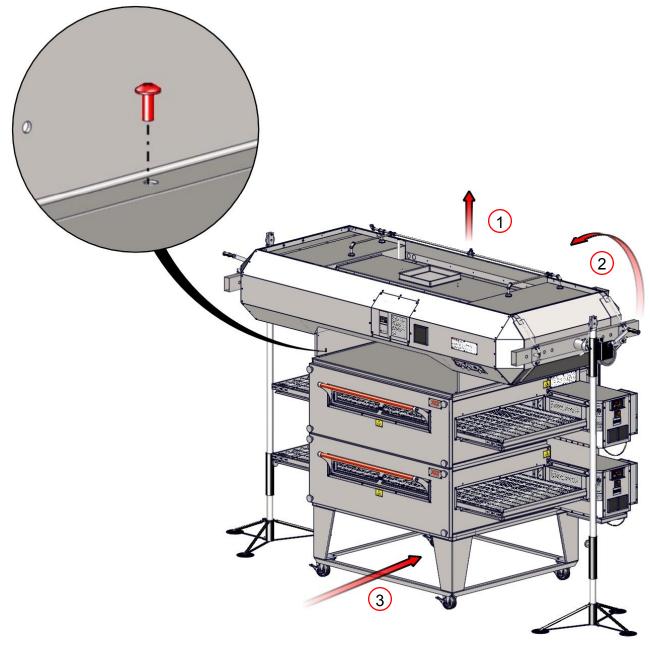


### **HOOD INSTALLATION Stacking Hood on the Ovens**



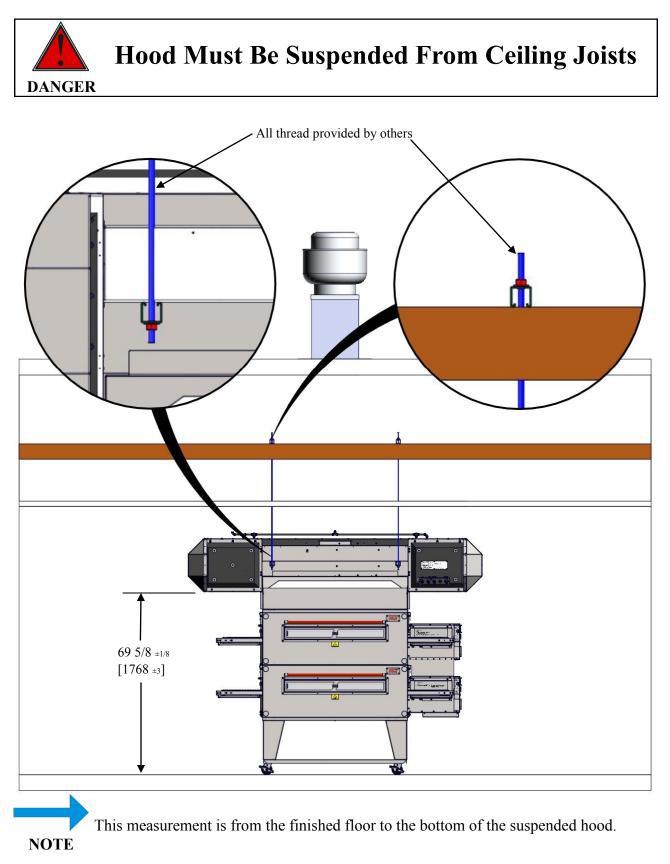
Failure to engage the Lifting Jacks into the Lifting Pipe properly and completely will result in damage, injury, or death from a falling hood.

- Both jacks should be raised in unison, otherwise they may bind and a dangerous • situation will develop. Do not put any part of yourself under the hood at any time. DANGER
  - The hood is top heavy. Be careful. •

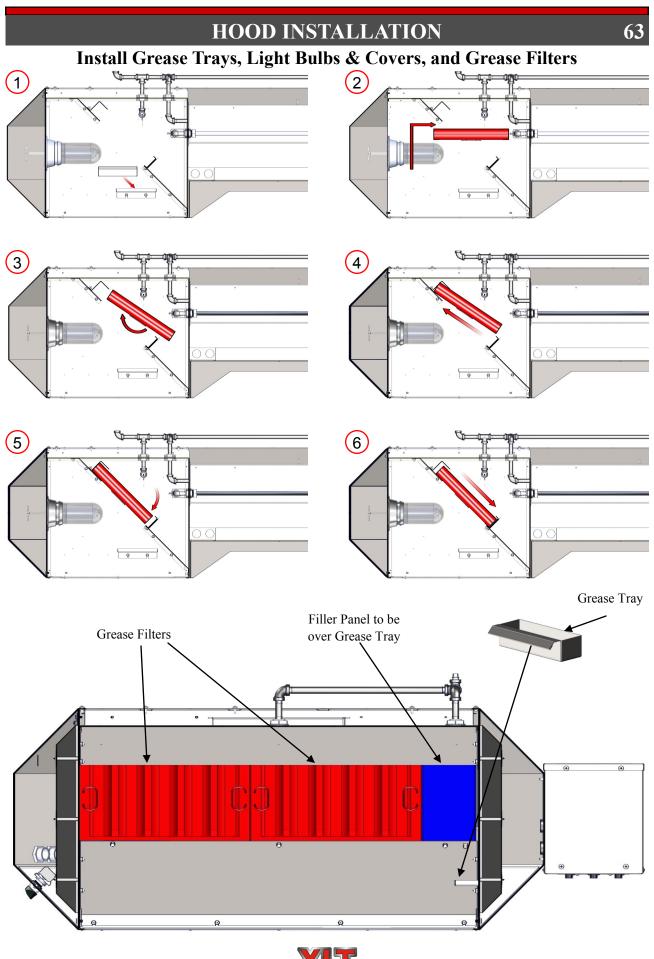




Hang Hood From Ceiling Joists

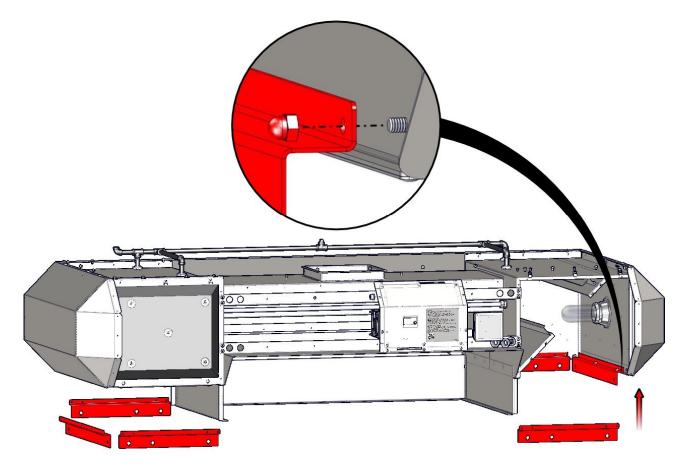






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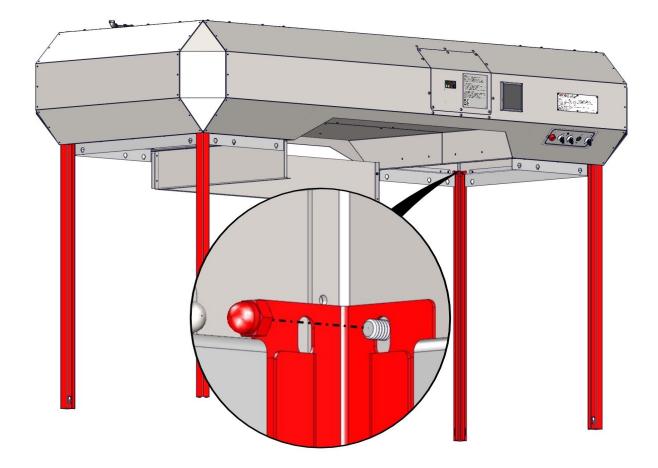
**Install Shroud Hanging Brackets** 



Parts Removed For Clarity



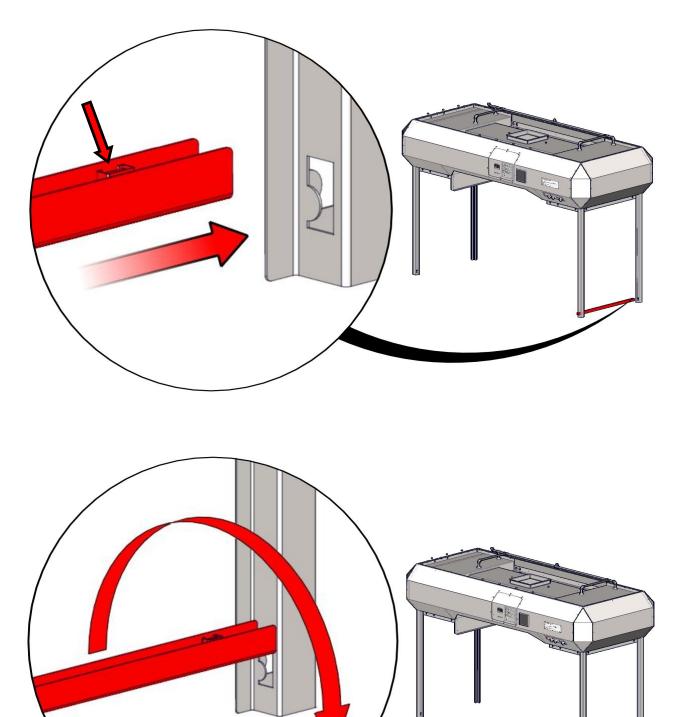
**Install Corner Posts** 







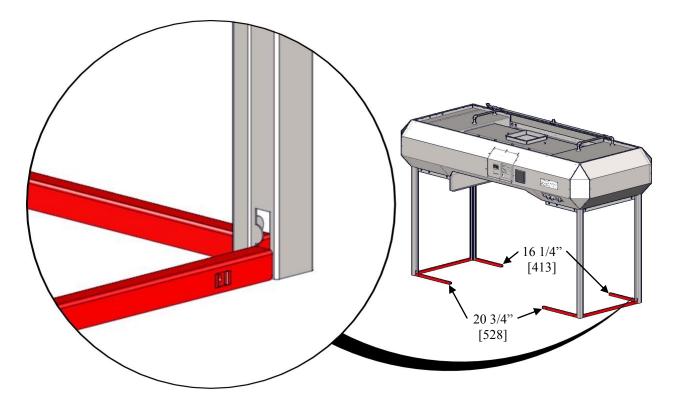
**Install Bottom Rails** 





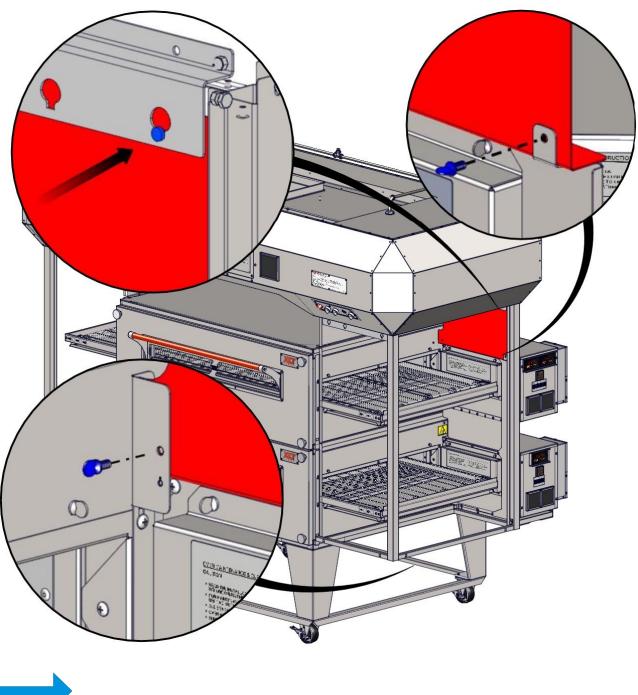
HOOD INSTALLATION

**Install Bottom Rails** 





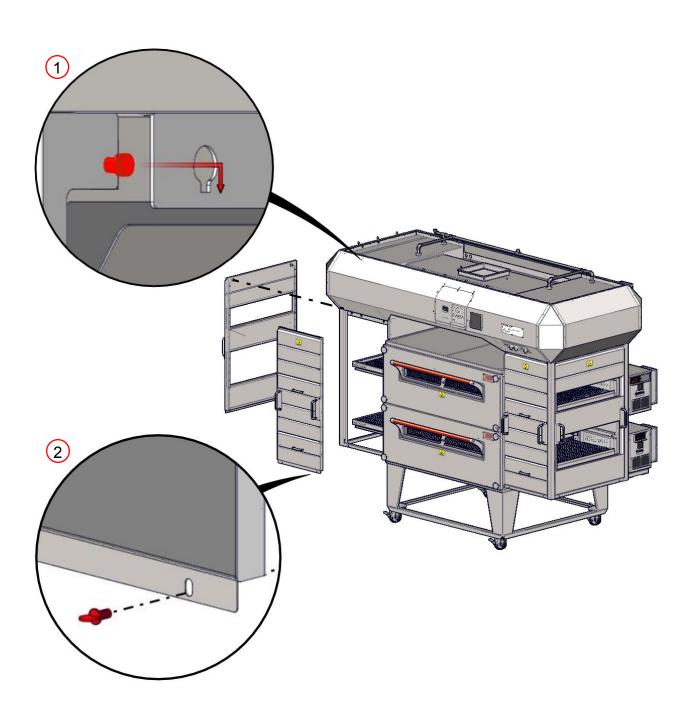
#### **Install Control Box Upper Closeout**



If installing a 70" model, the same will apply for the LH side of ovens. **NOTE** 



#### **Install Shroud Panels - Front and Ends**

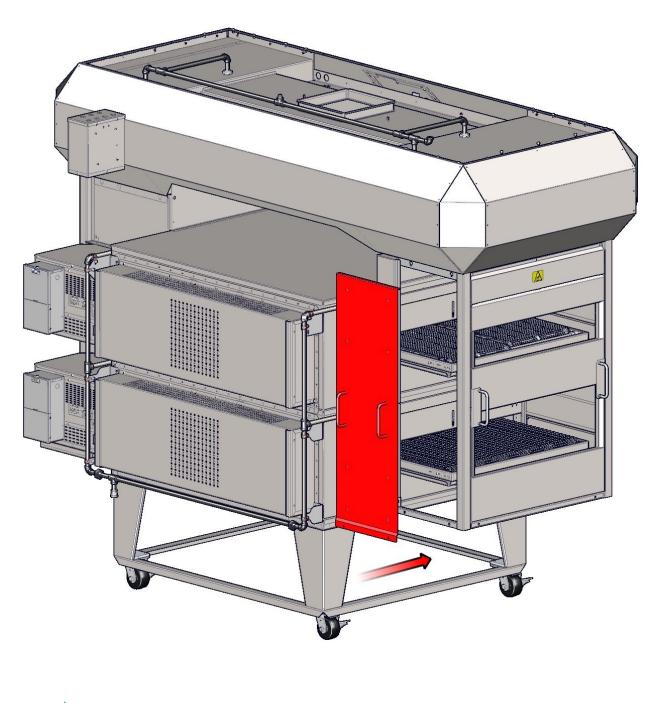


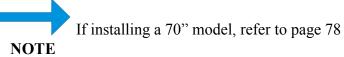


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69

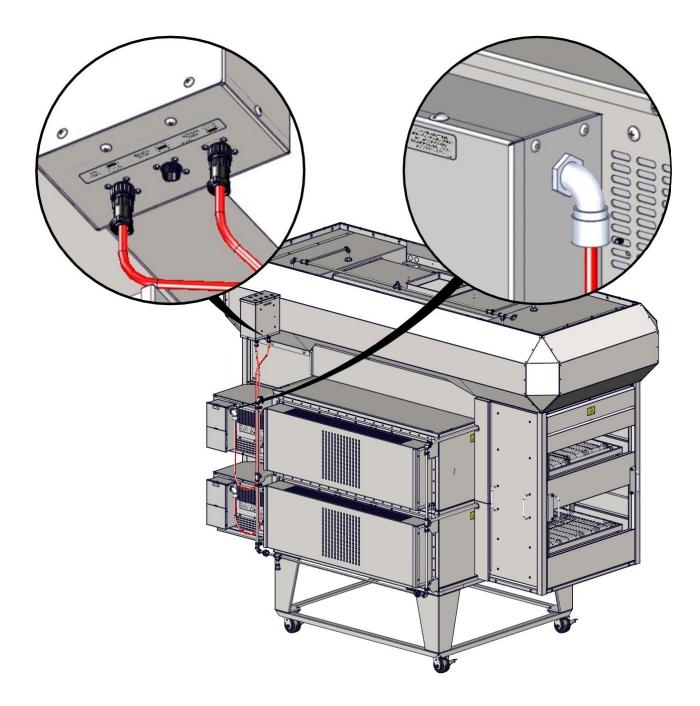
### **Install Back Shroud Panel**







**Install Hood Control Cord Assembly** 



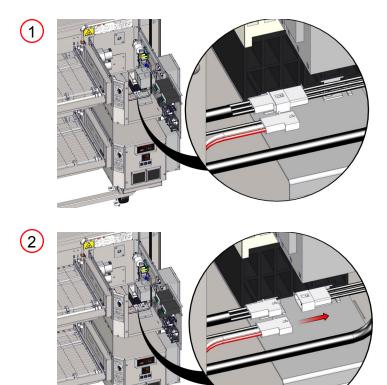
All hoods are outfitted with three (3) control cord outlets, regardless of how many XLT Ovens are installed. For a single oven use "Top" location. For a double stack use "Top" location for upper oven and "Bottom" location for lower oven, leaving "Middle" location open.

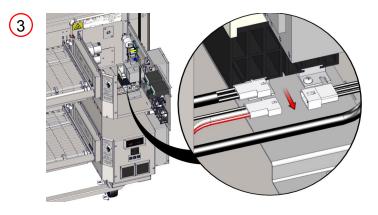
Insert and lock each oven control cord into the designated location on the bottom of the hood control box.

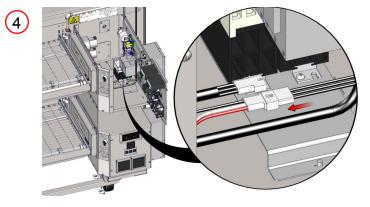


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# **Connect Hood Control Cord Assembly**









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#### **HOOD INITIAL START-UP**

#### Variable Frequency Drive Adjustments

All AVI Hoods are functionally tested at the factory. Operation is verified, and adjustments are made to ensure proper operation. However, field conditions are sometimes different than factory conditions. These variables make it necessary to have an authorized service technician verify operation and make field adjustments if needed. The following items must be checked and verified to meet the specifications and requirements stated in this manual prior to the hood being commissioned:

- Correct fan rotation.
- Balanced make-up air.

The Initial Start-Up Checklist must be completed at time of installation, signed by the Customer and returned to XLT Ovens to initiate Warranty Policy.

	VFD Controller Settings							
	Switches On			1832 & 2440	3240 & 3255	3855		
	Top Middle Bottom		1052 & 2440	5240 <b>&amp;</b> 5255	3033			
Single	Χ			20 Hz	25 Hz	30Hz		
Double	Χ			20 Hz	25 Hz	30Hz		
			Х	35 Hz	40 Hz	45 Hz		
	Χ		Х	35 Hz	40 Hz	45 Hz		
Triple	Х			20 Hz	25 Hz	30Hz		
		Х		30 Hz	35 Hz	40 Hz		
			Х	40 Hz	45 Hz	50 Hz		
	Χ	Х		30 Hz	35 Hz	40 Hz		
	Χ		Х	40 Hz	45 Hz	50 Hz		
		Х	Х	40 Hz	45 Hz	50 Hz		
	Х	Х	X	45 Hz	50 Hz	55 Hz		
	Fire Suppression			60 Hz	DO NOT CHANGE			

The VFD controller is adjusted at the factory to the values displayed in the chart below.

If you require either more or less air flow, follow these steps:

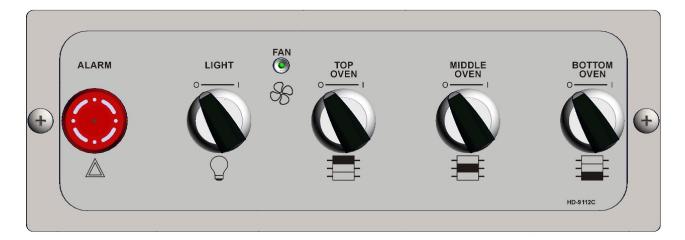
- 1. Remove Hood access panel and make sure the circuit breaker is in the ON position.
- 2. Turn at least one (1) oven switch ON. The VFD display should show the POWER and RUN LED lamps lit up, and a numeric value should appear in the window display.



### **HOOD OPERATOR CONTROLS**

- 3. Press & hold the function key until <**d001**> displays.
- 4. Use the up / down arrows to reach  $\langle$ F001 $\rangle$ .
- 5. Press the function key one (1) time. A frequency will display according to the switches that are ON per the chart below.
- 6. Turn all oven switches OFF. The display should read <0.0>.
- 7. Turn ON the oven switches to be set. For example, both Top and Bottom ovens, or Top oven only, or Bottom oven only, etc.
- 8. Press the Up/Down arrows until you reach the desired initial settings.
- 9. Press the store button once to store the new setting.
- 10. Repeat steps 6-8 for additional settings as needed.
- 11. When finished, turn all of the oven switches to the OFF position.
- 12. Press the <FUNC> key until <**d001**> appears in the display.
- 13. Press the <FUNC> Key one more time. The actual frequency will appear in the window display.
- 14. Press the <STR> button one time to store the values.

The control switches are located on the front of the hood.



When XLT Ovens are outfitted with AVI Hoods, the main switch on the oven is disabled and no longer operates. The switch on the AVI Hood overrides the oven switch.

#### **Hood Operation**

- 1. Turn the light switch on. (Bulbs not included with hood)
- 2. Turn the desired oven switch on. Refer to the Oven start-up section for instructions on how to adjust temperature and conveyor speed. The oven(s), exhaust fan, and make-up air unit will be activated by this switch if the AVI Hood is installed according to this manual.
- 3. When additional oven switches are turned on, the VFD will automatically increase the exhaust fan speed.
- 4. When shutting down the ovens, turn the desired oven switch off. The make-up air unit will shut off. The ovens and exhaust fan will shut off after about 30 minutes. Refer to the Oven shutdown section for instructions.
- 5. Do not press the <STOP/RESET> key on the Variable Frequency Drive itself. The RUN and POWER LED should stay lit all of the time.

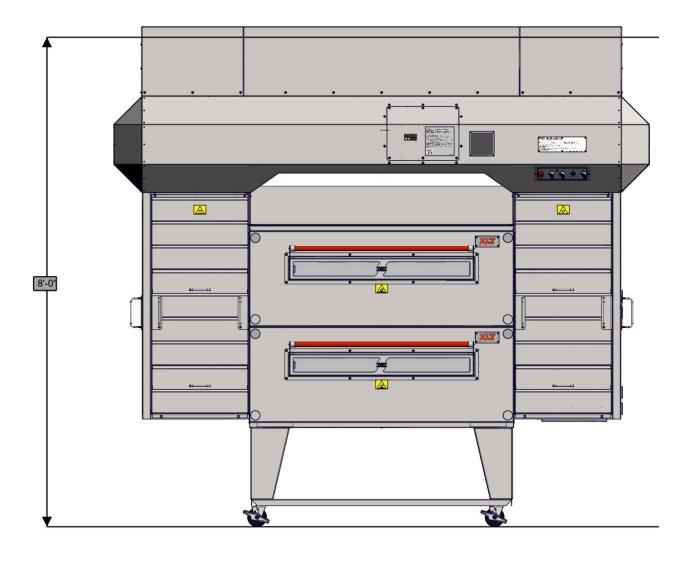


#### 74

NOTE

# **HOOD VALANCE KIT (OPTIONAL)**

The valance kit size is determined by AVI Hood size & distance from the finished floor to the installed drop ceiling height. The valance kit screws directly to the AVI Hood & does not require any structural support. All kits have provisions for hood fire suppression piping to pass through without modification. The plastic coating must be removed from all parts prior to installation.

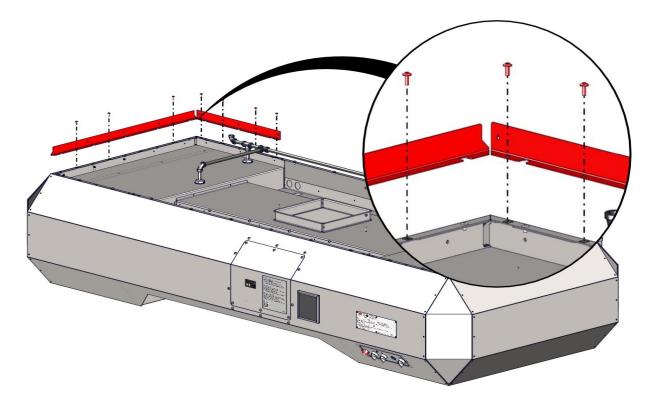


AVI Hood valance kits are available for different floor to ceiling heights. Contact XLT Ovens or your designated representative for more information.

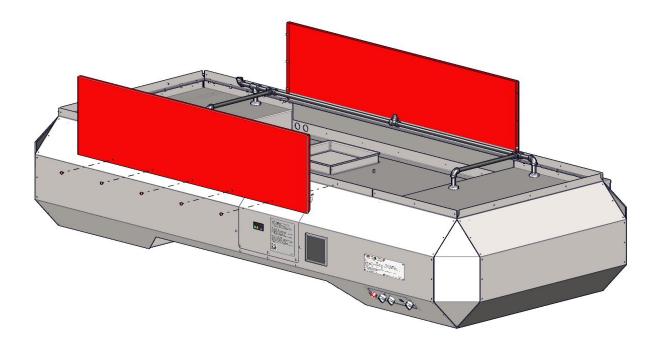


# HOOD VALANCE KIT (OPTIONAL)

**Install Valance Brackets** 



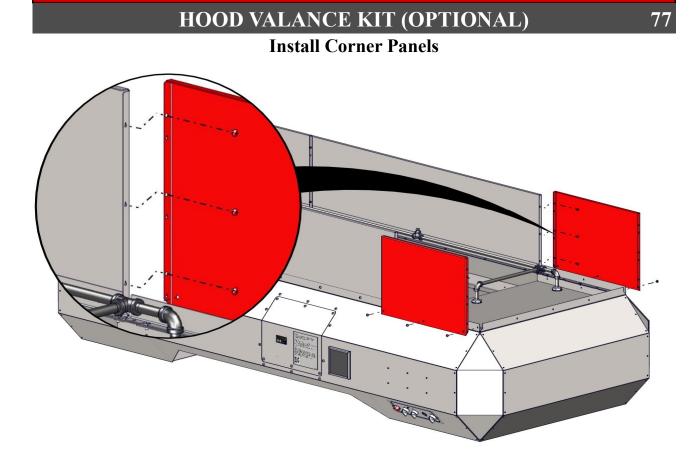
**Install Front & Back Panels** 



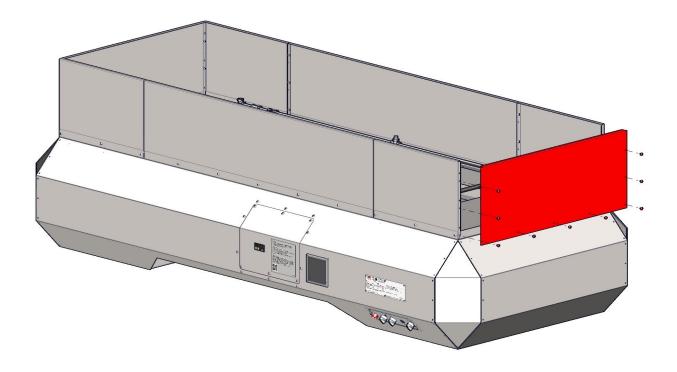


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76

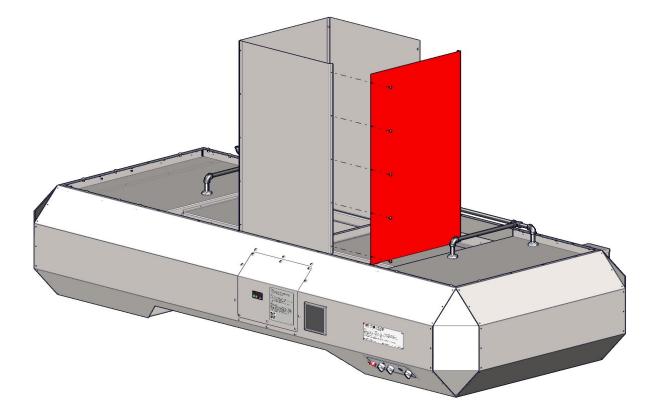


**Install End Panels** 





# DUCT WRAP KIT (OPTIONAL)





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78

# **HOOD CLEANING**

Your AVI hood is constructed of stainless and aluminized steel. Check application restrictions on product label prior to usage. Observe recommended precautionary and safety measures as dictated by the product manufacturer.

Do not use abrasive or caustic cleaners. Abrasive pads will scratch stainless steel surfaces. Areas with heavy buildup should be sprayed and allowed to soak for up to 5 minutes prior to wiping clean. Always wipe with the "grain" of the surface to maintain appearance.

Hood Cleaning & Maintenance Schedule							
_		Daily	Weekly	Monthly	Semi- Annual	As Required	
Cleaning							
	Wipe down Front, Sides, & Top						
	Clean Light Globes						
	Empty & Clean Grease Trays						
	Clean Grease Filters						
	Clean Duct and Exhaust Fan						
Inspection							
	Check Indicator Lamp						
	Check Grease Trays						
	Check Grease Filters						
Adjust							
	No Adjustments Necessary						
Lubricate							
	No Lubrication Required						
Replace						_	
	Light Bulbs						

Schedule provided as a guide only. Frequency of cleaning may vary as needed.



Oven must be cool and all power to the oven and hood turned off before any cleaning is done.



Shroud Panels can weigh up to 60 lbs [27 kg]. Use caution when lifting.



DO NOT spray liquid cleaning agents in the slots & holes of the following locations:

- Hood electrical box (located on back of upper portion)
- VFD Controller

Refer to the Hood Installation Section for disassembly and reassembly.



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## HOOD TROUBLESHOOTING

Before troubleshooting the hood:

- 1. Make sure that the RUN lamp and POWER lamp are lit.
- 2. Check to see that the breaker in the service panel is not tripped.
- 3. Check to see that the breaker on the hood is not tripped.
- 4. Make sure the Switch Relocation Cords (SRC) are properly installed to the oven(s).
- 5. Check to see that the grease filters are clean & installed properly.
- 6. Check to see if the exhaust fan is rotating in the correct rotation. (applies to new installations)

In the occurrence that the VFD controller has an ERROR Code displaying. Follow these steps to clear them.

#### Alarm/Error Codes:

- E01-E04 Inverter output was short circuited
- E05 motor overload is detected by electronic thermal function.
- E07 DC bus voltage exceeds a threshold
- E09 DC bus voltage is below a threshold
- E14 Ground fault detected between controller output and motor.

#### Alarm/Error Code Reset:

- 1. Check VFD display for error code and record it.
- 2. Clear alarm code by pressing and holding the red <stop/reset> button on the control panel for 5 seconds.
- 3. Normal operation resumes with no error codes.
- 4. If error codes return, contact XLT customer service.

If the corrective actions listed above do not correct the problem, then XLT has qualified customer service personnel that can provide assistance on any type of XLT Oven or AVI Hood problem you may experience. Customer Service is available at 888-443-2751 24/7/365, or visit <u>www.xltovens.com</u>.

For repairs or maintenance of the fire suppression system and components, contact the local Ansul dealer or XLT for assistance.

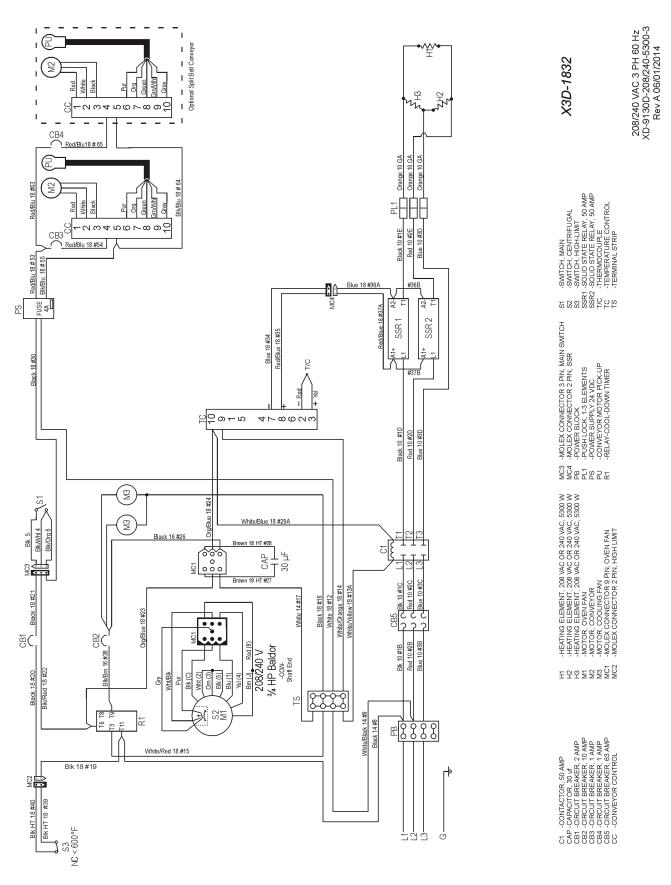


80

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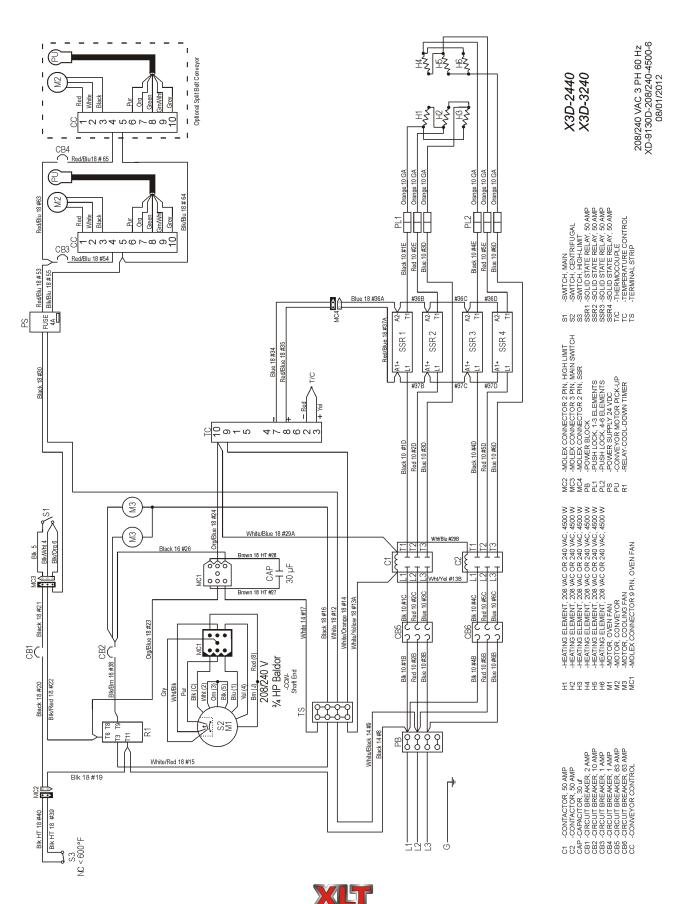






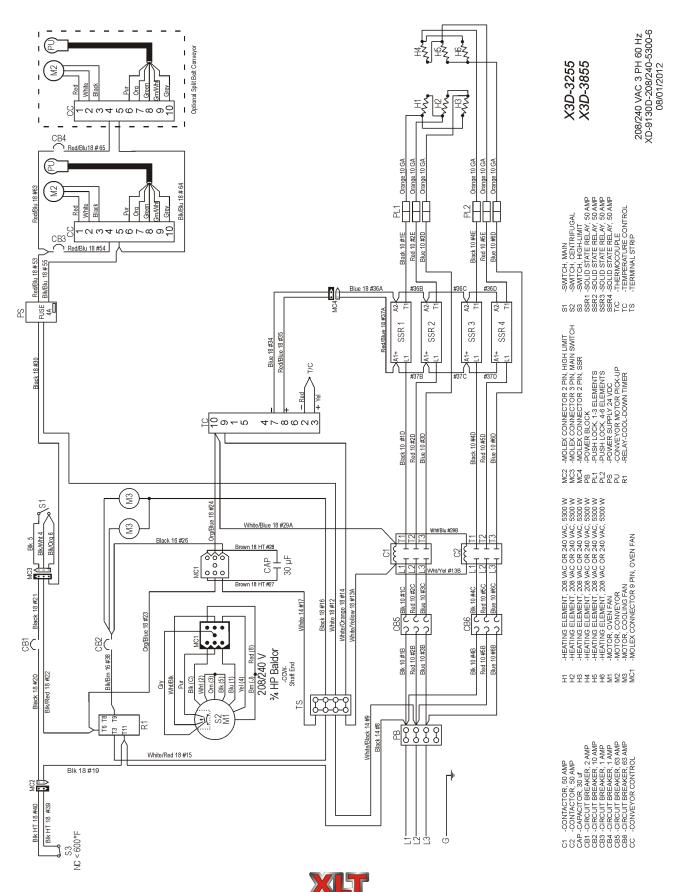


# **OVEN SCHEMATIC - STANDARD 208/240 VAC**



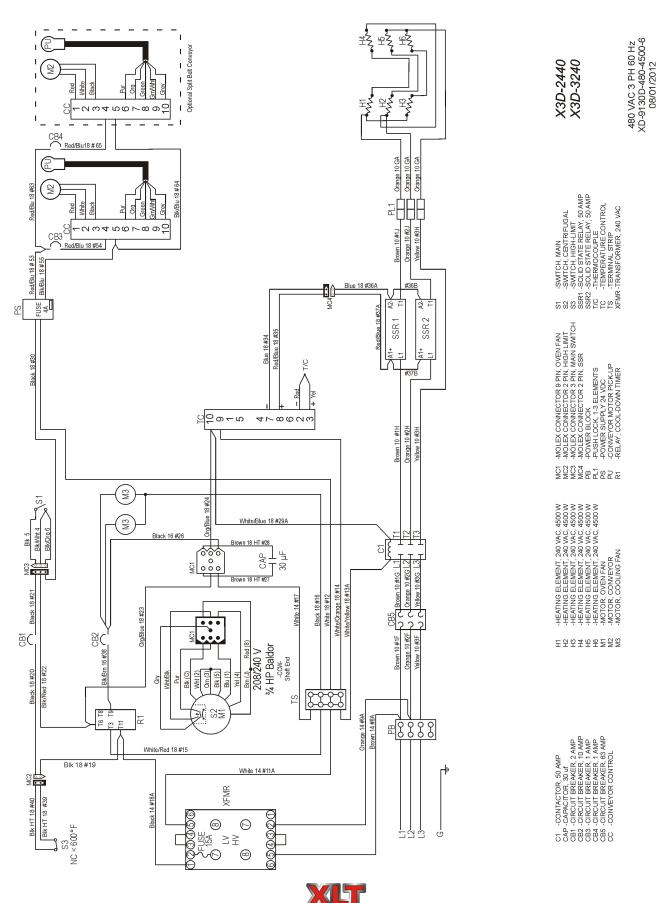
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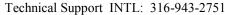


Simple. Smart.

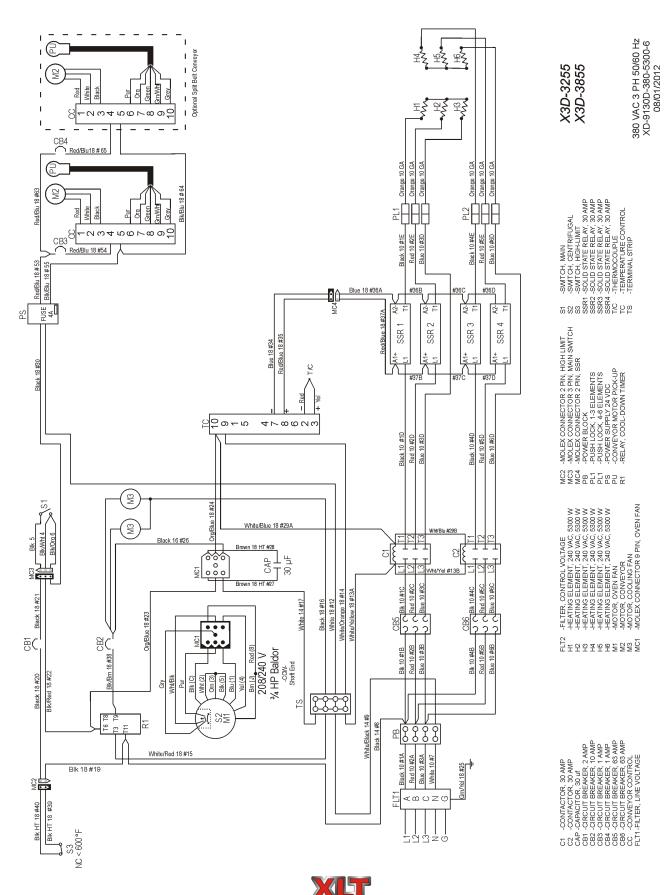
## **OVEN SCHEMATIC - STANDARD 480 VAC**



Simple. Smart.



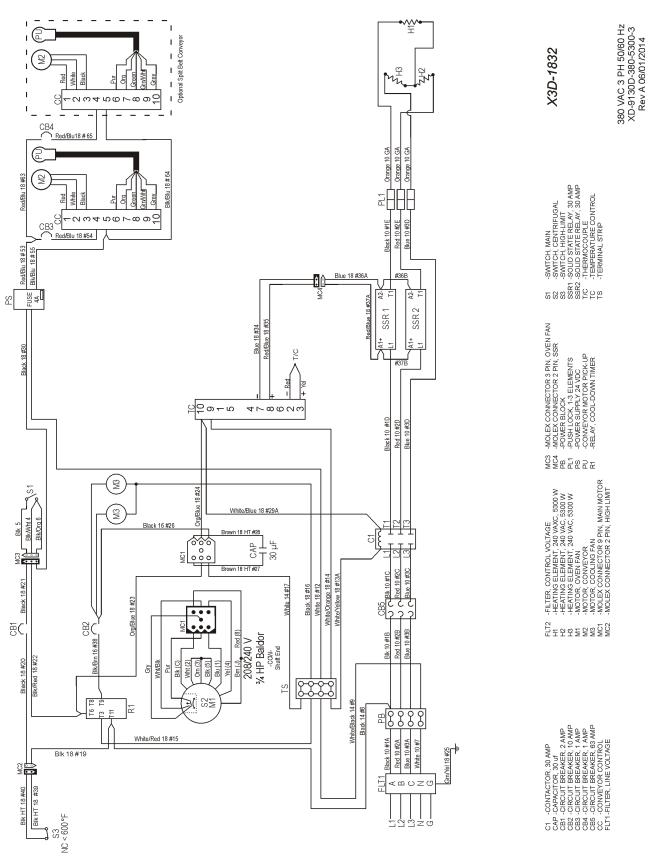
# **OVEN SCHEMATIC - STANDARD 480 VAC**



Simple. Smart.

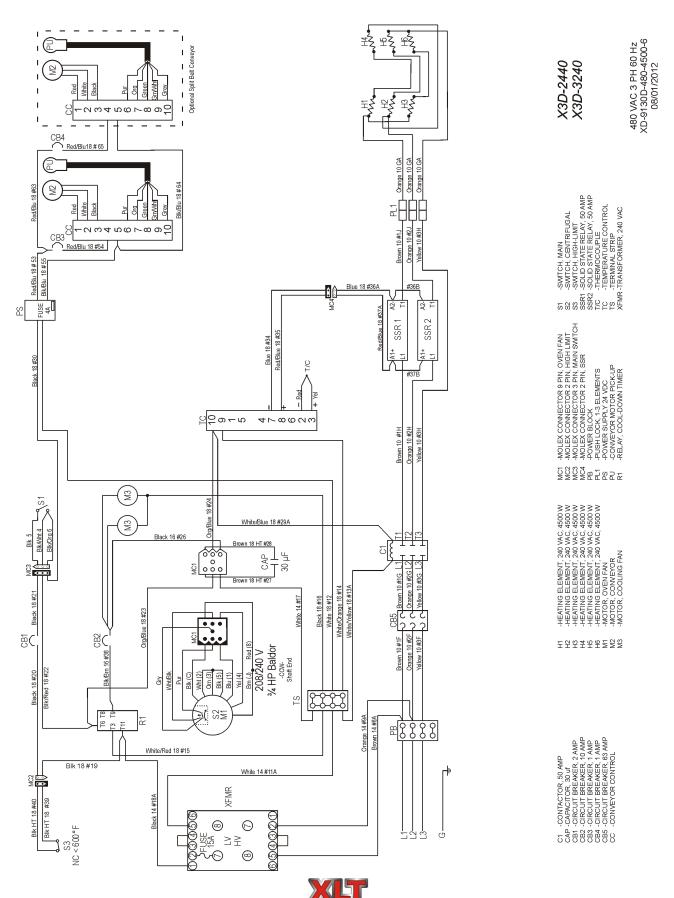
Technical Support US: 888-443-2751

# **OVEN SCHEMATIC - WORLD 380 VAC**



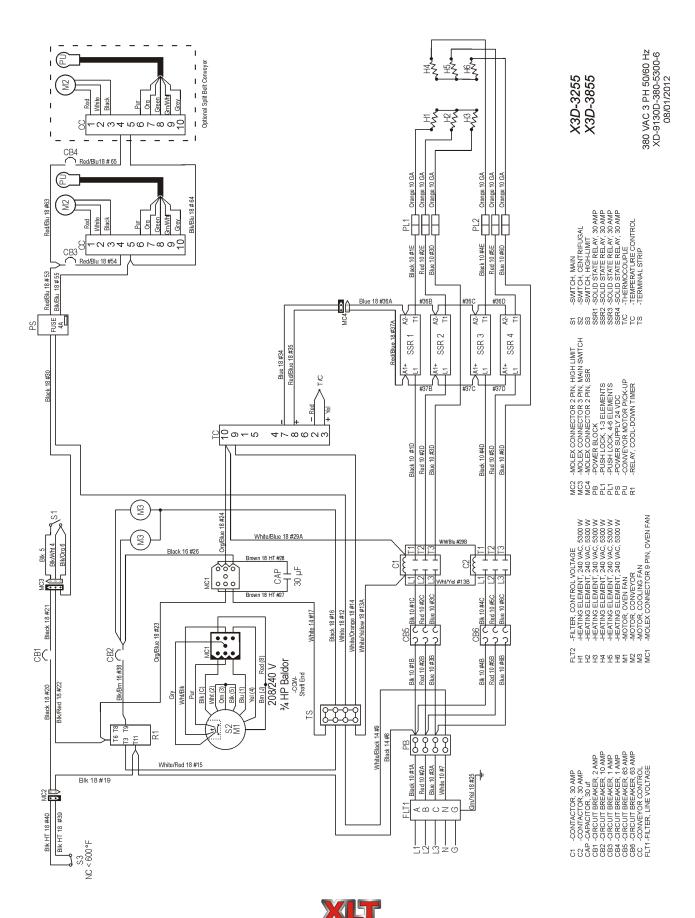


## **OVEN SCHEMATIC - WORLD 380 VAC**



Simple. Smart.

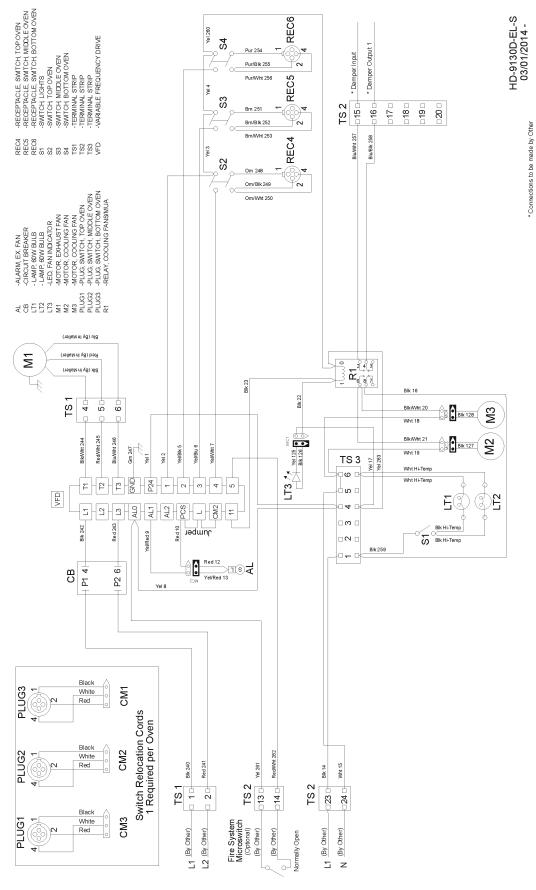
## **OVEN SCHEMATIC - WORLD 380 VAC**



Simple. Smart.

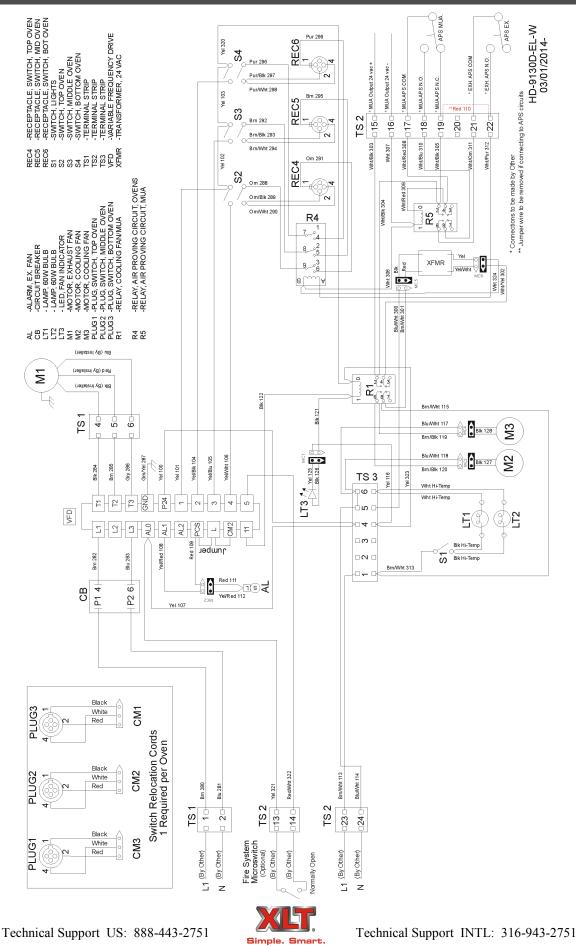


# HOOD SCHEMATIC - STANDARD w/oFS-w/VFD



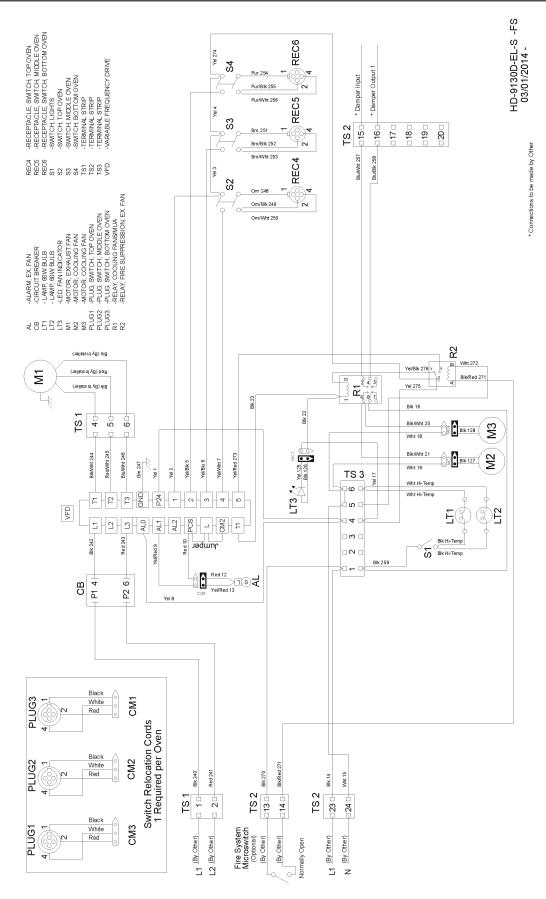


### HOOD SCHEMATIC - WORLD w/o FS-w/VFD



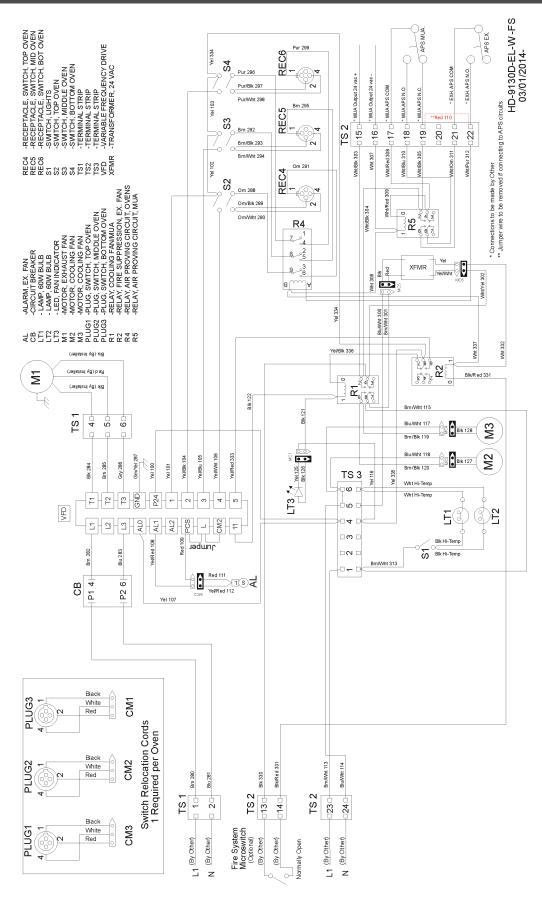
91

# HOOD SCHEMATIC - STANDARD w/FS-w/VFD



Simple. Smart.

### HOOD SCHEMATIC - WORLD w/FS-w/ VFD





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 L1
 - LAMP, 60W BULB
 REC5-RECEPTACLE, SWITCH, MIDDLE OVEN

 L2
 - LAMP, 60W BULB
 REC6-RECEPTACLE, SWITCH, BOTTOM OVEN

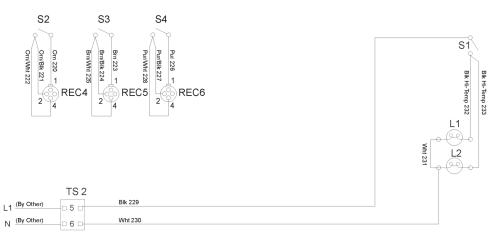
 PLUG1-PLUG, SWITCH, TOP OVEN
 S1
 -SWITCH, LIGHTS

 PLUG2-PLUG, SWITCH, BOTTOM OVEN
 S2
 -SWITCH, MIDDLE OVEN

 PLUG3-PLUG3, SWITCH, BOTTOM OVEN
 S2
 -SWITCH, MIDDLE OVEN

 REC4
 -RECEPTACLE, SWITCH, TOP OVEN
 S4

 -SWITCH, MIDDLE OVEN
 S4
 -SWITCH, MIDDLE OVEN



GND (By Other) All Incoming Circuits 

HD-9130D-NV 03/01/2014



### **APPENDIX** A

#### Product Certifications and Applicable Codes

#### Standard XLT Oven Certifications 1:

#### XLT Gas Ovens:

- 1. ANSI Z8311-2006/CSA 1.8-2006 Standard for Gas Food Service Equipment
- ANSI /NSF 4-2014 Sanitation for Commercial Cooking Rethermalization & Powered Hot Food Holding & Transportation Equipment

#### **XLT Electric Ovens:**

- 1. UL197 Commercial Electric Appliances
- 2. ANSI /NSF 4-2014 Sanitation for Commercial Cooking Rethermalization &

Powered Hot Food Holding & Transportation Equipment

#### World XLT Oven Certifications<sup>1</sup>:

#### **XLT Gas Ovens:**

- 1. EN 60335-2-42:2003 + A11: 2012, used in conjunction with EN 60335-1:2002, Safety of Household Appliances and Similar Electrical Appliances
- BS EN 50335-2-102:2006 EN 60335-1:2002+A11, A1:04+A12, A2:06+A1/C1:07+A13:2008 Low Voltage Directive (LVD)
- EN 55014-1:2006, EN 61000-3-2:2006, EN 61000-3-3:2013 Electromagnetic Compatibility. (EMC)
- 4. EN 55014-2:1997, Conducted Emissions, Surge Immunity
- 5. BS EN 203-1:2014, Standard for Safety of Gas Heated Catering Equipment
- 6. BS EN 203-2-1: 2014, Standard for Gas Heated Catering Equipment
- 7. 90/396/EEC. Gas Appliance Directive (GAD)

#### **XLT Electric Ovens:**

- 1. EN 60335-2-42:2003 Safety of Household Appliances and Similar Electrical Appliances
- 2. EN 60335-2-42:2003, BS EN 60335-1:2012 +A11:2014, Low Voltage Directive (LVD)
- 3. EN 61000-6 Electromagnetic Compatibility (EMC)
- 4. EN 55014-2:1997 +A2:2008, Conducted Emissions, Surge Immunity
- 5. EN 61000-6-1 EMC Immunity for residential, commercial & light industrial
- 6. BS EN 55014-1 EMC house hold appliance electric tools & similar appliances



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#### **APPENDIX A**

Product Certifications and Applicable Codes - Continued

7. BS EN 61000-3 Electromagnetic Compatibility (EMC) Voltage fluctuation

#### Standard & World AVI Hood Certifications 1:

- 1. UL 710 Standard for Safety Exhaust Hoods for Commercial Cooking
- 2. ANSI/NSF 2-2014 Sanitation Food Equipment
- 3. CAN/ULC S646, Standard for Exhaust Hoods and Related Controls for Commercial and Institutional Kitchens

<sup>1</sup> The noted certifications for XLT ovens and AVI Hood are performed and documented by Intertek Testing Services NA Inc. 165 Main Street, Cortland, NY 13045. Intertek is a nationally and internationally certified testing and accreditation agency.

<sup>3</sup> 402 Hannuri-daero, Sejong-si, 339-012, Republic of Korea

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<sup>&</sup>lt;sup>2</sup> The certifications for Australia are administered and verified by SAI Global Level 37, 680 George St. Sydney NSW 2000

# **Oven Initial Start-up Checklist - Remove & Return to XLT Ovens**

### **<u>1st step:</u>** Fill out all information and print legibly

Start-Up Information         Date of Start-Up:         Start-Up by:         XLT:         Phone #:	XLT Ovens PO Box 9090 Wichita, KS 67277 FAX: 316-943-2769
Installer Information Date of installation:	<b>Oven Size:</b> 1832 2440 3240
Installed by: XLT:Other:	
Company: Phone #: Installer:	
	Heat Source:
Contact Information	
Store Name:Address:	
City: State: Zip: Phone #:	
E-mail:Contact Perso	n:
HVAC/Contractor Contact:       Address:         City:      State:       Zip:Phone #:         E-mail:	Cell:
Facility Information□ Freestanding□ Strip Mall□ New cOven Location:□ Against wall□ In corner□ Island	onstruction $\Box$ Existing location $\Box$ Remodel
Utilities present at installation:       Electric       Restraint Cable is         Customer or store operator shown how to disassemble and clean ovens       Hood manufacturer       AVI       Other (specify)       All Oven/Hoodf         Interlock system for non-AVI hood:       Yes       No       Air bala         Smoke test preformed:       Yes       No	and hood:   Image: Yes     eatures explained:   Image: Yes
Electrical         Electrical utilities accessible:         The second se	e electrical circuit per oven: $\Box$ Yes $\Box$ No
I&O Manual presented to store operator: Yes No Ovens r Air-born contaminates: Flour Cornmeal Grease Other	ran for 30 min: $\Box$ Yes $\Box$ No
On-Site dough prep:       Yes       No       Test code         Thin Crust       Thick Crust       Pan       Screen         Other Product:	ok performed:

### **Oven Initial Start-up Checklist - Remove & Return to XLT Ovens**

2nd step: Place all control boxes in service position and document settings, remove blue tag from inside control box and connect switch to wire harness. Start each oven and complete form below.

Top Oven			□ <sub>N/A</sub>	Proper Belt Tension:	$\Box_{\text{Yes}} \Box_{\text{No}}$			
				·				
Model #:				Conveyor Belt Direction:				
Serial #:				Set Point Temp: Left				
Front Belt Speed:			_	Fingers in proper location:				
Back Belt Speed:		_min	sec \[]N/A	Fire Suppression Installed:	$\Box$ Yes $\Box$ No			
Electrical Supply	Electrical Supply (per oven):							
	Volts		Amps	Hz	Phase			
Middle Oven			□ <sub>N/A</sub>	Proper Belt Tension:	$\Box_{\text{Yes}} \Box_{\text{No}}$			
Model #:				Conveyor Belt Direction:	L to R R to L			
				Set Point Temp: Left				
Front Belt Speed:				Fingers in proper location:	$\Box_{\text{Yes}} \Box_{\text{No}}$			
Back Belt Speed:		_min	sec \_N/A	Fire Suppression Installed:	$\Box_{\text{Yes}} \Box_{\text{No}}$			
Electrical Supply	(per ove	en):						
	Volts		Amps	Hz	Phase			
<b>Bottom Oven</b>	_		□ <sub>N/A</sub>	Proper Belt Tension:	$\Box_{\text{Yes}} \Box_{\text{No}}$			
Model #:				Conveyor Belt Direction:	L to R R to L			
				Set Point Temp: Left	_Right			
Front Belt Speed:				Fingers in proper location:	$\Box_{\text{Yes}} \Box_{\text{No}}$			
Back Belt Speed:		_min	sec □N/A	Fire Suppression Installed:	$\Box_{\text{Yes}} \Box_{\text{No}}$			
Electrical Supply (per oven):								
	Volts		Amps	Hz	Phase			
Customer Signatu	ire:			Date:				

### Hood Initial Start-up Checklist - Remove & Return to XLT Ovens

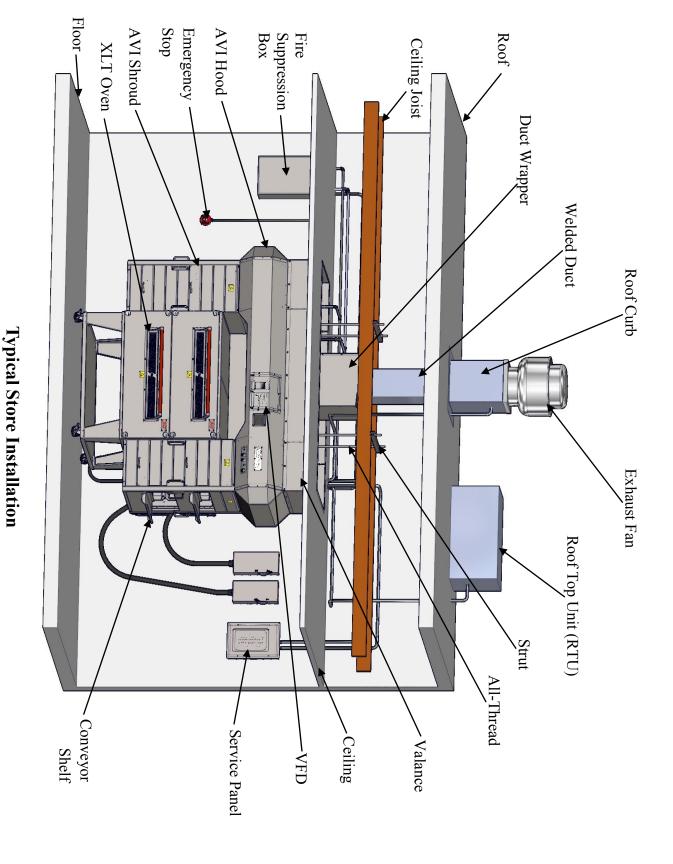
<b>1st step:</b> Fill out a	ll informatio	XLT Ovens PO Box 9090			
Installer Information Date of installation:				· · · · · · · · · · · · · · · · · · ·	KS 67277 6-943-2769
Installed by: XLT:				Hood Size:	
Company:					
Phone #:	Installer:				3870
<b>Contact Information</b>					
Store Name:			Address:		
City:	State:	_ Zip:	Phone #:		
E-mail:			Contact Perso	on:	
HVAC/Contractor Contac	et:		Address:		
City: E-mail:	State:	Zip:	Phone #:	(	Cell:
Facility Information	Freestanding	g Strip 1	Mall New of	construction	Existing location Remodel
Oven Location:	Against wall	$\Box$ In cor	ner 🗌 Island		

#### 2nd step: Verify all information is correct before turning hood on

Model #:		Serial #:	
VFD power supplied: Volts Hz Number of bends in duct run:45°	_ Amps _ Phase 90°	Height from bottom of hood to finished floo FeetInches Length of duct run (from top of hood to fan) FeetInches Exhaust fan serial #: Rating of exhaust fan:	
Hood hung prior to oven installation: Hood hung to local codes: Switches face front of ovens: VFD box cover replaced after installation: All shroud panels properly installed: Grease filters properly installed: Grease trays properly installed: Crumb trays easily removable: Oven power cords connected to VFD box: Electric Oven Air balance test performed:	Yes       No         Yes       No	Oven switch cords connected to VFD box: Lights operate with switch: Light globes installed over bulbs: Exhaust fan purchased from XLT: Exhaust fan operates with hood switches: Correct fan rotation: Fire suppression relay in VFD box utilized: VFD properly programmed: Valance Kit: Duct Valance Kit: Smoke test preformed:	Yes       No         Yes       No
Notes:			

Customer Signature: \_\_\_\_\_ Date: \_\_\_\_\_







# NOTES



Technical Support INTL: 316-943-2751

101