



RD 9007A
SWA
08/01/2019

Simple. Smart.



XLT Radiant Oven Parts & Service Manual



Read This Manual Before Using This Appliance.

Current versions of this manual, Rough-In Specifications, Installation & Operation Manual, Architectural Drawings, & a list of International Authorized Distributors are available at: www.xltovens.com

For use with the following XLT Radiant Oven Versions:

Standard (S) A
World (W) A



Original Instructions

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

Warning & Safety Information.....	3
General	6
Warranty.....	8
Recommended Tool List	10
Installation Responsibilities	11
Oven Theory of Operation	12
Oven Troubleshooting.....	17
Oven Service Procedures.....	20
Oven Parts	22
Oven Schematics	36
Notes.....	40

For maintenance procedures, please refer to the XLT Installation & Operation Manual.

Save this Manual

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

XLT reserves the right to make changes in design & specifications, and/or make additions 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 oven.

Revision History Table		
Revision	Comments	Date
A	New Release	08/01/2019

XLT has spent millions of dollars designing and testing our products as well as developing Parts & Service 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	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.		
 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.		

**SAFETY DEPENDS ON YOU****CAUTION**

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**

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.

**CAUTION**

These appliances are intended to be used for commercial applications, for example in kitchens of restaurants, canteens, hospitals, and in commercial enterprises such as bakeries, butcheries, etc., but not for continuous mass production of food.

**DANGER**

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.

**DANGER****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, and maintaining the unit when in the installed position.
- Keep the area free and clear of combustible material. DO NOT SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILE IT IS IN OPERATION.
- 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 four (4) units of XLT products. Integration of other manufacturer's products into an oven stack is not recommended, & will void any warranties. XLT 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.

This manual, which contains an illustrated parts breakdown, has been prepared as an aid in understanding how the unit operates, how to diagnose problems, and order parts for the equipment. All of the parts, listed in the parts breakdown, are manufactured with the same precision as the original equipment.

XLT parts and service providers are available worldwide. There are authorized service providers located in the principle cities of the United States. There are also authorized distributors located throughout the world.

The Theory of Operation section describes how the unit operates. An understanding of normal operation will greatly aid diagnosis and troubleshooting. The Troubleshooting section lists all possible display alarms, LED's on, what went wrong, and how to fix it. This will lead to the solution of a problem in the most efficient way. The illustrated parts section identifies the various sub-assemblies and detailed parts which make up the equipment, as well as the part number. An explanation of how to order parts is included.

This manual is designed to supplement the Installation & Operation Manual provided with the unit when new. Please refer to it for descriptions, dimensions, weights, electrical requirements, maintenance schedules, and certifications.

XLT wants you to be totally satisfied with every aspect of owning & using your oven. 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 can be proud to build & you can be proud to own.

To receive technical support for the oven you purchased, XLT has qualified customer service personnel that can provide assistance on any type of XLT equipment problem you may experience. Technical support is available 24/7/365 at 888-443-2751 or visit www.xltovens.com.



DANGER

Repairs of all 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.



NOTE

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



TIP

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.

This page intentionally left blank.



Warranty - US and Canada

Rev A

Approval Date: 08/01/2019

XLT warrants Radiant Ovens manufactured after August 01, 2019 to be free from any defect in material and workmanship under normal use for seven (7) years from the date of original purchase by the end user, and further warrants conveyor shafts and conveyor bearings for ten (10) years. XLT further warrants all equipment to be free from rust for ten (10) years from the date the equipment is originally purchased. 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 costs 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 Installation & Operation Manual furnished with the unit
- This warranty shall not excuse the owner from properly maintaining the equipment in accordance with the Installation & Operation Manual 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 electric utilities must be connected to the equipment and installed by locally licensed contractors
- Failure to contact XLT 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, or improper utility connections)
- Any part that becomes defective because of moisture and/or other contaminants
- Conveyor belts
- Filters
- Painted or Powder Coated surfaces
- 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 ventilation, 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 A

Approval Date: 08/01/2019

XLT warrants Radiant Ovens manufactured after August 01, 2019 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 conveyor shafts, and conveyor bearings for ten (10) years. XLT further warrants all equipment to be free from rust for ten (10) years from the date the equipment is originally purchased. 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 costs 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 the Distributor/Service Provider
- The equipment must be installed and operated in accordance with the Installation & Operation Manual furnished with the unit
- This warranty shall not excuse the owner from properly maintaining the equipment in accordance with the Installation & Operation Manual furnished with the unit
- A copy of the "Initial Start-Up Checklist" must be filled out and returned to Distributor/Service Provider when the unit is initially installed, and/or when the unit is removed and installed in another location
- The electric utilities must be connected to the equipment and installed by locally licensed contractors
- Failure to contact the Distributor/Service Provider 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, or improper utility connections)
- Any part that becomes defective because of moisture and/or other contaminants
- Conveyor belts
- Filters
- Painted or Powder Coated surfaces
- 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 ventilation, improper installation, improper operation, natural disasters, or man-made disasters

CLAIMS HANDLED AS FOLLOWS:

Should any such defect be discovered, the Distributor/Service Provider must be notified. Upon notification, Distributor/Service Provider 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 and Distributor/Service Provider of any and all warranty obligations.



Sockets	QTY.
1/4" Drive	
3/16	1
7/32	1
1/4	1
9/32	1
5/16	1
3/8	1
7/16	1
1/2	1
3/8" Drive	
7/16	1
1/2	1
9/16	1
5/8	1
3/4	1
11/16	1
13/16	1
7/8	1
15/16	1
1"	1
3/8" Drive Allen	
1/8	1
3/16	1
7/32	1
1/4	1
5/16	1
3/8	1

T-Handle Allen	QTY.
3/32	1
7/64	1
1/8	1
3/16	1
1/4	1
7/32	1

Ratchets	QTY.
7" 1/4" Drive	1
12" 3/8" Drive	1

Extensions	QTY.
1/4" Drive	
3"	1
6"	1
10"	1
3/8" Drive	
1-1/2"	1
3"	1
6"	1
10"	1

Gearwrench	QTY.
5/16	1
3/8	1
7/16	1
1/2	1
9/16	1
5/8	1
11/16	1
3/4	1

Screw Drivers	QTY.
#2 Phillips	1
#1 Phillips	1
1/4" Flat Blade	1
1/8" Flat Blade	1

Nut Driver	QTY.
5 MM	1
8 MM	1

Pliers	QTY.
Diagonal SM	1
Diagonal Std	1
Slip Joint Std	1
Needle Nose	1
Wire Strippers	1
Wire Crimpers	1

Hammer	QTY.
8 oz. Ball Peen	1

Drills	QTY.
Cordless Micro	1
Cordless Std	1

Bits	QTY.
6" #2 Phillips	1
3/16" Drill Bit	1
5/32" Drill Bit	1
#10-24 Tap	1
#8-32 Tap	1

Miscellaneous	QTY.
Volt/Amp Meter	1
Heat Probe	1
Molex Extractor	1
Molex Crimper	1
Straight Pick 6"	1
90 Degree Pick 6"	1
7" Zip Ties	20
Flashlight	1
25' Tape Measure	1
Electrical Tape	1
White Lithium Grease	1
Stainless Steel Cleaner	1

Responsibility	Service Company	Owner/ Contractor
Site Survey: Verify electrical capabilities	X	
Assembly of new ovens per XLT Installation & Operation Manual		
Base assembled and set in place	X	
Ovens moved and stacked with proper lifting equipment	X	
Peel all PVC	X	
Connect cord anchorage to incoming electrical supply	X	
Connect electrical supply	X	
Connection may require Permit and Code Inspections		X
Relocate Make-Up-Air to enter the room at the ends of the ovens		X
Start-up per XLT Installation & Operation Manual	X	
Verify oven functions, adjust as necessary	X	
Start-Up Checklist must be submitted to XLT to validate Warranty		X

When the main power on the Large User Interface (LUI) is turned on:

1. The Fan (M3) located on the Control Panel will run.
2. The heating panels will begin to heat up.
3. The LUI will display actual temperature until set point is reached.
4. The LUI will display belt time.
5. The conveyor belt will move.

The first part of the Theory of Operation explains how electrical power is delivered to the oven and initial sequences when the main power on the LUI is turned on based on an oven with right hand controls. The remainder of the Theory of Operation section explains the function of components in alphabetical order. These components are also listed on the schematic.

- Line voltage for Standard Ovens is assumed to be 208/240 VAC, 3 Φ , 60 Hz.
- Line voltage for World Ovens is assumed to be 380 VAC, 3 Φ , 50 Hz.

Power originates at the electrical connection on the wall. Line voltage is then carried into the oven through the power cord to the Circuit Breaker (CB1). After the circuit breaker, one wire goes to the COM on the High Limit Switch (S3), tees off and goes through a Circuit Breaker (CB2) and then to L1 on S3. When S3 is energized the NO terminal delivers power to the Power Supply (PS). The other leg acts as a neutral for S3 and PS. After the PS, 24 VDC is delivered to the Terminal Strip (TS1). From the other side of TS1, power is then supplied to both Oven Controls (OMC1 & OMC2).

When the main power button is turned on, 24VDC will be carried through OMC1 to TS1 #3L. OMC1 sends power to the Conveyor Motor (M2) and after a 30 second delay, it sends power to Cooling Fans (M3) and the Contactor (C1).

The OMC sends power through TS1 to C1 and to both M3's. M3 starts to spin, providing cool air for the control box. C1 delivers power to the Terminal Strip (TS2) which travels through to the Solid State Relays (SSR1-SSR4) and turns on the Heating Elements (H1-H4).

C1 - The Contactor is an electrically controlled switch used for switching a power circuit. A contactor is controlled by a control circuit that has a much lower power level than the switched circuit. They consist of a small coil and a set of three SPST (Single Pole Single Throw) contacts. When the LUI is turned on, 24 VDC voltage is applied to the coil, which closes the contacts. Then power is allowed to flow to the Solid State Relays (SSR's).

CB - Circuit Breakers are used to protect electrical components. The current value is printed on the front of all breakers. If a CB is tripped, eliminate the cause and press the front to reset. CB1 is the circuit breaker for the main power coming into the oven. This operates in the same fashion but has a much higher amp rating.

H1-H4 - The Heating Elements convert electricity into heat through the process of joule heating. Electric current through the element encounters resistance, resulting in heating the element. The resistance values of the two (2) different part numbers used are:

- RP-5101-208-2.4 2400 Watt 17.50 Ohms
- RP-5101-240-2.4 2400 Watt 23.30 Ohms

Please refer to the Parts section for the proper application.



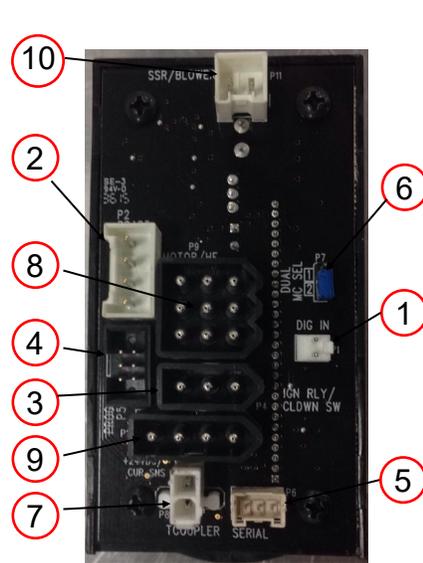
5 4 1 2 3

- 1) P1- Not Used
- 2) P2- RS-485 Cable To OMC1
 - 1) +5V
 - 2) 485-
 - 3) 485+
 - 4) Ground
- 3) P3- RS-485 Cable To OMC2
 - 1) +5V
 - 2) 485-
 - 3) 485+
 - 4) Ground
- 4) P5- Ground
- 5) P17- Not Used

LUI - The Large User Interface is powered by the OMC by the RS 485 cable. The main power button is located on the front face of the LUI. The conveyor and temperature of the oven is controlled through the LUI. You can change the factory settings for the oven size, temperature offset, belt direction, etc. The LUI will display error messages and maintenance alarms. There are 12 menu presets for predetermined time and temperature settings. The screen can be locked to prevent unwanted changes. There is also a self clean feature that raises the temperature of the oven to burn off any food particles that may be left behind on the heating elements.

M2 - The Conveyor Motor is a brushless 24 VDC gear motor. The motor receives current from the OMC through three (3) wires; 1) a black or “W” phase, 2) a white or “V” phase, and 3) a red or “U” phase. They carry between 18 to 24 VDC. Each wire is energized by the OMC in sequence to provide power to the individual stator coils which, in turn, provide motor rotation. To determine the rotor position and send this position to the controller, three (3) Hall Effect switches are utilized. They read the rotational information from a disc mounted on the rotor assembly. This information is transmitted to the OMC by three (3) wires; 1) an orange “U” phase pole signal output, 2) a green “V” phase pole signal output, and 3) a green/white “W” phase pole signal output. These are located in a plug that inserts into the OMC1 or OMC2. There are two (2) additional wires in this plug; 1) a purple wire which is supply voltage for the pole sensor, and 2) a gray wire that is ground. The OMC, using an internal logic circuit, energizes the stator coils to provide proper rotation and sets the energization (phase) timing to obtain the desired belt speed set on the controller. The motor drives an integral gear box that reduces the motor output speed to give the correct travel time to the conveyor belt. The integral gear box is sealed and permanently lubricated with grease. The ratio is 1/200. This motor contains no serviceable parts. The OMC will detect if the conveyor belt has a jam by monitoring the rotor signal. If the signal falls more than 25% below the expected rate a jam is detected. This action will stop the conveyor and display an alarm on the LUI. To reset the alarm press and hold the “Time” key for ten (10) seconds.

M3 - The Cooling fan provides cool air for the components inside the control box. It is controlled by turning on and off the main power button. A filter is provided to ensure clean air.



- | | |
|-----------------------------------|-------------------------------------|
| 1) P1- Not Used - Digital Input | 8) P9- Conveyor Motor |
| 2) P2- RS-485 Cable To LUI | 1) Motor SA |
| 1) +5V | 2) Motor SB |
| 2) 485- | 3) Motor SC |
| 3) 485+ | 4) Hall +5V |
| 4) Ground | 5) Hall HC+ |
| 3) P4-Molex Provided With Harness | 6) Hall HB+ |
| 1) +24 Remote Switch | 7) Hall HA+ |
| 2) +24 Power (In) Switch | 8) Ground |
| 3) Relay +24 Switched (Out) | 9) Not Used |
| 4) P5- Elan Programming | 9) P10- Molex Provided With Harness |
| 5) P6- Elan Serial Port | 1) Not Used |
| 6) P7- Jumper For OMC 1 or 2 | 2) Not Used |
| 7) P8- Not Used—Thermocouples | 3) 24 VDC(-) Main Power |
| | 4) 24 VDC(+) Main Power |
| | 10) P11- JST Provided With Harness |
| | 1) +24 VDC To SSR |
| | 2) -24 VDC Ground To SSR |

OMC - The Oven Machine Control reads selections or parameters from the LUI. It holds the logic for the conveyor controls and the temperature controls. The OMC will turn on or off SSR's, turn on M3 and contactor, and control M2.

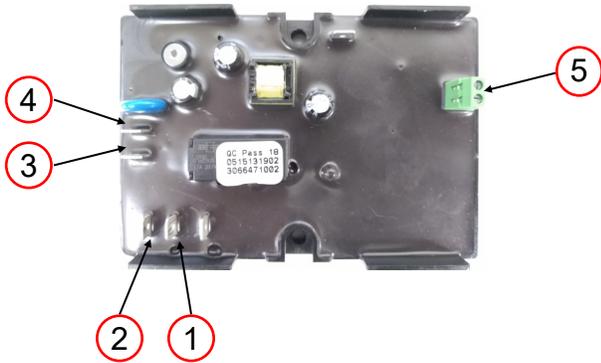


- | |
|------------------------------|
| 1) CN2- 24VDC |
| 1) +24 VDC Main Power To OMC |
| 2) +24 VDC |
| 3) -24 VDC |
| 4) -24 VDC Ground to TS2 |
| 2) CN1- Line Voltage |
| 1) Neutral |
| 2) Not Used |
| 3) Line Voltage |

PS - The Power Supply rectifies line voltage to 24 VDC, and supplies power to the OMC.

PU - The Pick-Up is physically mounted within M2 and utilizes hall effect technology integral to the M2 to monitor the rotation speed. The hall effect signal is transmitted to the OMC, which converts it into linear travel speed of the conveyor.

RTD - The Resistive Thermocouple Detector monitors the air temperature inside the bake chamber. The RTD wire is a pure material, typically platinum, nickel, or copper. The material has an accurate resistance/temperature relationship which is used to provide an indication of temperature.



- 1) COM- Line Voltage
- 2) N.O.- Switched Line Voltage
- 3) L2- High Limit Power
- 4) L1- High Limit Power
- 5) RTD

S3 - The High Limit Switch is an electronic, SPST (Single Pole Single Throw) switch. Its purpose is to provide fail safe operation. When the oven receives power, S3 closes. If the RTD temperature exceeds 650°F (343°C) the red LED will illuminate and S3 opens to interrupt line voltage to all components. In order to reset the S3, you must unplug the main power supply.

SSR 1-4 - A Solid State Relay is an electronic switching device in which a small control signal from the OMC energizes the relay to send a larger load current and voltage to the heating element. It is comprised of a voltage sensor which responds to the thermocouple (T/C) and a solid state switching device which switches power to the Heating Elements (H1-H4) either on or off, all of which is completed without mechanical parts.

T/C - The thermocouple is a type K. It consists of two different conductors that produce a voltage proportional to a temperature difference between either end of the pair of conductors. The T/C is connected to P8 Terminals 1 & 2 on the OMC. The millivolt signal is used to display the actual oven temperature.



- 1) TC1 (+ & -)
- 2) TC2 (+ & -)
- 3) TC3 (+ & -)
- 4) TC4 (+ & -)
- 5) RS485 Cable to LUI
- 6) RS485 Cable to OMC1

TCM - The Thermocouple Module continuously reads the input from the 4 thermocouples and relays that information via the RS485 cable to the OMC which then gets displayed on the LUI.

1



2) TS1- Terminal Strip

1L) Power to SRC	1R) +24 VDC Out
2L) +24 VDC In	2R) Power To OMC1 & OMC2
3L) Power To Relay COM	3R) Power To M3 & C1
4L) Remote Switch	4R) Remote Switch
5L) -24 VDC	5R) -24 VDC To M3
6L) Ground To Contactor	6R) Ground To OMC1 & OMC2

2



2) TS2- Terminal Strip

1L) Power To H1	1R) Not Used
2L) Power To H4	2R) Incoming Power
3L) Power To H2	3R) Power To SSR
4L) Not Used	4R) Incoming Power
5L) Power To H3	5R) Power To SSR
6L) Not Used	6R) Incoming Power

TS 1 & 2- The Terminal Strips, serve as a connection point for wires. TS2 is physically larger than TS1. (The above location configuration is based on a right hand oven.)

Mechanical Function

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

1. Check that the power cord to the oven is connected and/or plugged in if equipped with a plug and receptacle.
2. Check to see that the circuit breakers in the building electrical service panel have not been tripped or turned off.
3. Check all circuit breakers on the oven control box to ensure they have not been tripped.
4. Ensure proper voltage, amperage, and wire size.



**HIGH
VOLTAGE**

Proceed with caution and read the following instructions carefully when unplugging the units.

Hard Reset

If your oven still does not function properly, perform a hard reset. First, power down the units then unplug the units from all electrical power. Leave the units unplugged for One(1) minute. Once this is done, plug the units back in and turn on the power.

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

LUI Service Error Codes

Display Alarm	MC LED	Error Determination	Troubleshooting
TC1 FAILURE	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Temp Sensor Error, Open or Short. Temp <40F (4C) or >1200F (649C)	Perform a Hard Reset. If error still exists, contact XLT.
TC2 FAILURE	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Temp Sensor Error, Open or Short. Temp <40F (4C) or >1200F (649C)	Perform a Hard Reset. If error still exists, contact XLT.
TC3 FAILURE	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Temp Sensor Error, Open or Short. Temp <40F (4C) or >1200F (649C)	Perform a Hard Reset. If error still exists, contact XLT.
TC4 FAILURE	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Temp Sensor Error, Open or Short. Temp <40F (4C) or >1200F (649C)	Perform a Hard Reset. If error still exists, contact XLT.
PCB TEMP THERM	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Temp Sensor Error, Open or Short.	Perform a Hard Reset. If error still exists, contact XLT.
U.L.ELEMENT FAILURE	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	From (run) signal, if oven does not see 25F temp rise on Element 2 (Upper Left) in 4 minutes. If restart (actual temp within 50F of setpoint) error timing 10 minutes	Perform a Hard Reset. If error still exists, contact XLT.
U.R.ELEMENT FAILURE	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	From (run) signal, if oven does not see 25F temp rise on Element 1 (Upper Right) in 4 minutes. If restart (actual temp within 50F of setpoint) error timing 10 minutes	Perform a Hard Reset. If error still exists, contact XLT.
L.L.ELEMENT FAILURE	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	From (run) signal, if oven does not see 25F temp rise on Element 4 (Lower Left) in 4 minutes. If restart (actual temp within 50F of setpoint) error timing 10 minutes	Perform a Hard Reset. If error still exists, contact XLT.
L.R.ELEMENT FAILURE	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	From (run) signal, if oven does not see 25F temp rise on Element 3 (Lower Right) in 4 minutes. If restart (actual temp within 50F of setpoint) error timing 10 minutes	Perform a Hard Reset. If error still exists, contact XLT.
U.L. Under Temp (Shows actual temp)	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Once Setpoint has been reached, then if Actual is 15F under setpoint for 30 minutes. If user adjusts SETPOINT, reset timer	Perform a Hard Reset. If error still exists, contact XLT.
U.R. Under Temp (Shows actual temp)	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Once Setpoint has been reached, then if Actual is 15F under setpoint for 30 minutes. If user adjusts SETPOINT, reset timer	Perform a Hard Reset. If error still exists, contact XLT.
L.L. Under Temp (Shows actual temp)	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Once Setpoint has been reached, then if Actual is 15F under setpoint for 30 minutes. If user adjusts SETPOINT, reset timer	Perform a Hard Reset. If error still exists, contact XLT.
L.R. Under Temp (Shows actual temp)	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Once Setpoint has been reached, then if Actual is 15F under setpoint for 30 minutes. If user adjusts SETPOINT, reset timer	Perform a Hard Reset. If error still exists, contact XLT.

LUI Service Error Codes

Display Alarm	MC LED	Error Determination	Troubleshooting
U.L. Over Temp (Shows actual temp)	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Temp 50F over setpoint for period >1 minute. If user adjusts SETPOINT lower, inhibit alarm until new setpoint reached	Perform a Hard Reset. If error still exists, contact XLT.
U.R. Over Temp (Shows actual temp)	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Temp 50F over setpoint for period >1 minute. If user adjusts SETPOINT lower, inhibit alarm until new setpoint reached	Perform a Hard Reset. If error still exists, contact XLT.
L.L. Over Temp (Shows actual temp)	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Temp 50F over setpoint for period >1 minute. If user adjusts SETPOINT lower, inhibit alarm until new setpoint reached	Perform a Hard Reset. If error still exists, contact XLT.
L.R. Over Temp (Shows actual temp)	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Temp 50F over setpoint for period >1 minute. If user adjusts SETPOINT lower, inhibit alarm until new setpoint reached	Perform a Hard Reset. If error still exists, contact XLT.
Over Speed (For split belt note, MC1 or MC2 and note FRONT or BACK)	Alarm LED on. Flash CONVEYOR LED. All other LED's operate as normal.	Speed > 30s fast duration vs. setpoint	Perform A Hard Reset. If Error Still exists, Check LUI Settings. If Settings Are Correct, Perform A Pan Test Too Confirm Settings. If Error Still exists, Contact XLT.
Under Speed (For split belt note, MC1 or MC2 and note FRONT or BACK)	Alarm LED on. Flash CONVEYOR LED. All other LED's operate as normal.	Speed > 30s slow duration vs. setpoint	Check Drive Chain and Sprocket To Verify Proper Working Condition. Perform A Hard Reset. If Error Still exists, Check LUI Settings. If Settings Are Correct, Perform A Pan Test Too Confirm Settings. If Error Still exists, Contact XLT.
Software Error	Alarm LED Flash. All other LEDs off	Internal software error	Perform a Hard Reset. If error still exists, contact XLT.
EEPROM Error	Alarm LED Flash. All other LEDs off	Bad checksum	Perform a Hard Reset. If error still exists, contact XLT.
Key Short	Alarm LED Flash. All other LEDs off	Any key shorted > 1minute	Clean LUI screen. Perform a Hard Reset.If error still exists, contact XLT.
Comm Error	Alarm LED Flash. All other LEDs off	Internal software error	Perform a Hard Reset. If error still exists, contact XLT.
U.L. HI ALARM	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	HI ALARM setpoint exceeded. See Temp Control Cable	Perform a Hard Reset. If error still exists, contact XLT.
U.R. HI ALARM	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	HI ALARM setpoint exceeded. See Temp Control Cable	Perform a Hard Reset. If error still exists, contact XLT.
L.L. HI ALARM	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	HI ALARM setpoint exceeded. See Temp Control Cable	Perform a Hard Reset. If error still exists, contact XLT.
L.R. HI ALARM	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	HI ALARM setpoint exceeded. See Temp Control Cable	Perform a Hard Reset. If error still exists, contact XLT.
Belt Jam	Conveyor LED Flash, All other LED's operate as normal	If the current motor speed is less than 25% of the most recent minimum motor speed	Check for Obstructions. If No Obstructions are found, check drive chain and sprocket to verify proper working condition. Perform a hard reset. If error still exists, contact XLT.

Large User Interface Programming Procedure



Read the entire instruction before programming.

TIP

Configuration Key Functions

- ENTER = Used to select and save parameters.
- UP = Increases the setting of the selected parameter.
- DOWN = Decrease the setting of the selected parameter.

To enter factory tech mode press both UP and DOWN buttons simultaneously for ten (10) seconds and the following parameters will be displayed:

1. Software Version
2. Serial Number Entry
3. Elapsed Time:
 - Total Hours.
 - Hours Since Filter has been Cleaned.
4. Belt Length: 36 = 2336
5. Belt Width: 23 = 2336
6. Split Belt:
 - Defaults to No.
7. Remote Hood Switch Installed:
 - Defaults to No.
8. Temperature Offset Adjustments:
 - Offset shown in degrees Fahrenheit
9. High Temperature range from 1000°F (538°C) to Low Temperature.
10. Low Temperature range from 250°F (121°C) to High Temperature.
11. Belt Direction:
 - Defaults to right to left.
 - Can be switched from left to right without physically changing the wire belt direction.
12. Beeper Button Test
13. Done
 - Will return user to operation screen

Conveyor Speed Settings



Read the entire instruction before programming.

TIP

Configuration Key Functions

ENTER = Used to select and save parameters.

HIDDEN = Behind the XLT is a hidden button. This is used along with the up and down button to access the programming mode.

UP = Increases the setting of the selected parameter.

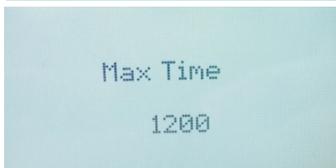
DOWN = Decrease the setting of the selected parameter.

- 1.
2. To enter conveyor settings press and hold three (3) buttons (HIDDEN, UP, and DOWN) for ten (10) seconds to enter.
3. Displays will auto-exit programming screens after five (5) seconds of no activity.



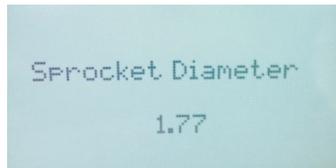
Min Time

Factory default is 90. To change, press ENTER. Use Up/Down arrows to change time which is shown in seconds. Press ENTER to accept and advance.



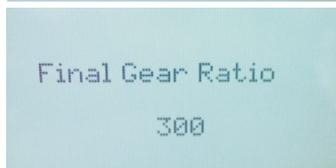
Max Time

Factory default is 1200. To change, press ENTER. Use Up/Down arrows to change time which is shown in seconds. Press ENTER to accept and advance.



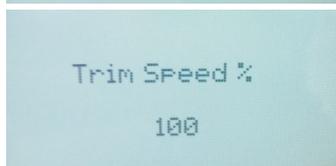
Sprocket Diameter

Factory default is 1.77. To change, press ENTER. Use Up/Down arrows to change diameter. Press ENTER to accept and advance.



Final Gear Ratio

Factory default is 300. To change, press ENTER. Use Up/Down arrows to change gear ratio. Press ENTER to accept and advance.



Trim Speed

Factory default is 100. To change, press ENTER. Use Up/Down arrows to change trim speed. Press ENTER to accept and advance.

Directional Change of the Conveyor Belt

The conveyor belt is non-directional. This means there is NO physical change of the belt when wanting to change direction; it is now as easy as a programming change. To change the direction:

1. Enter Factory Tech Mode by pressing and holding the Up & Down buttons for ten (10) seconds.
2. Press Down arrow to cycle through screens.
3. On Belt Direction, press ENTER and use Up/Down arrows to change.
4. Press ENTER to accept and advance.

How To Order Parts

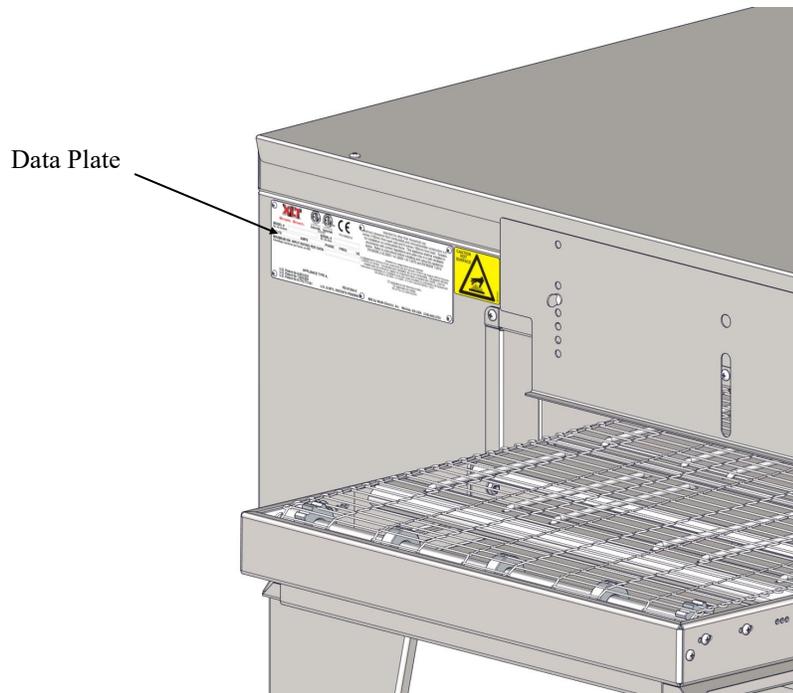
Below is a list of the information required for all purchase orders. Below the Bill of Materials (BOM) on the following parts summary pages are any additional information needed to order those parts.

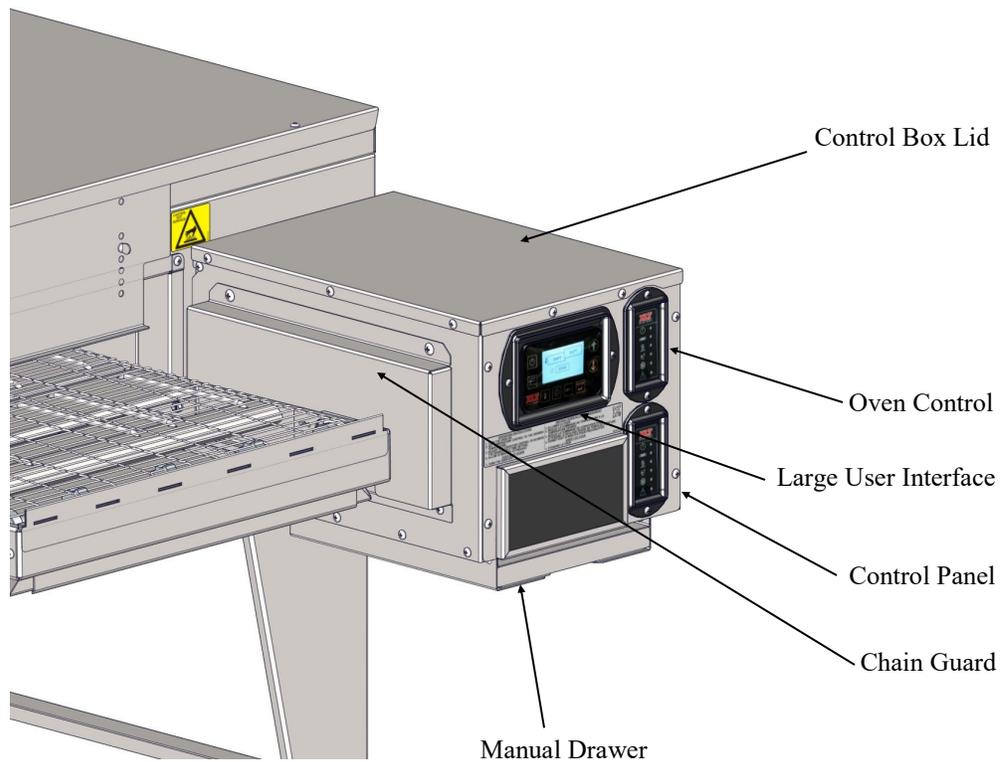
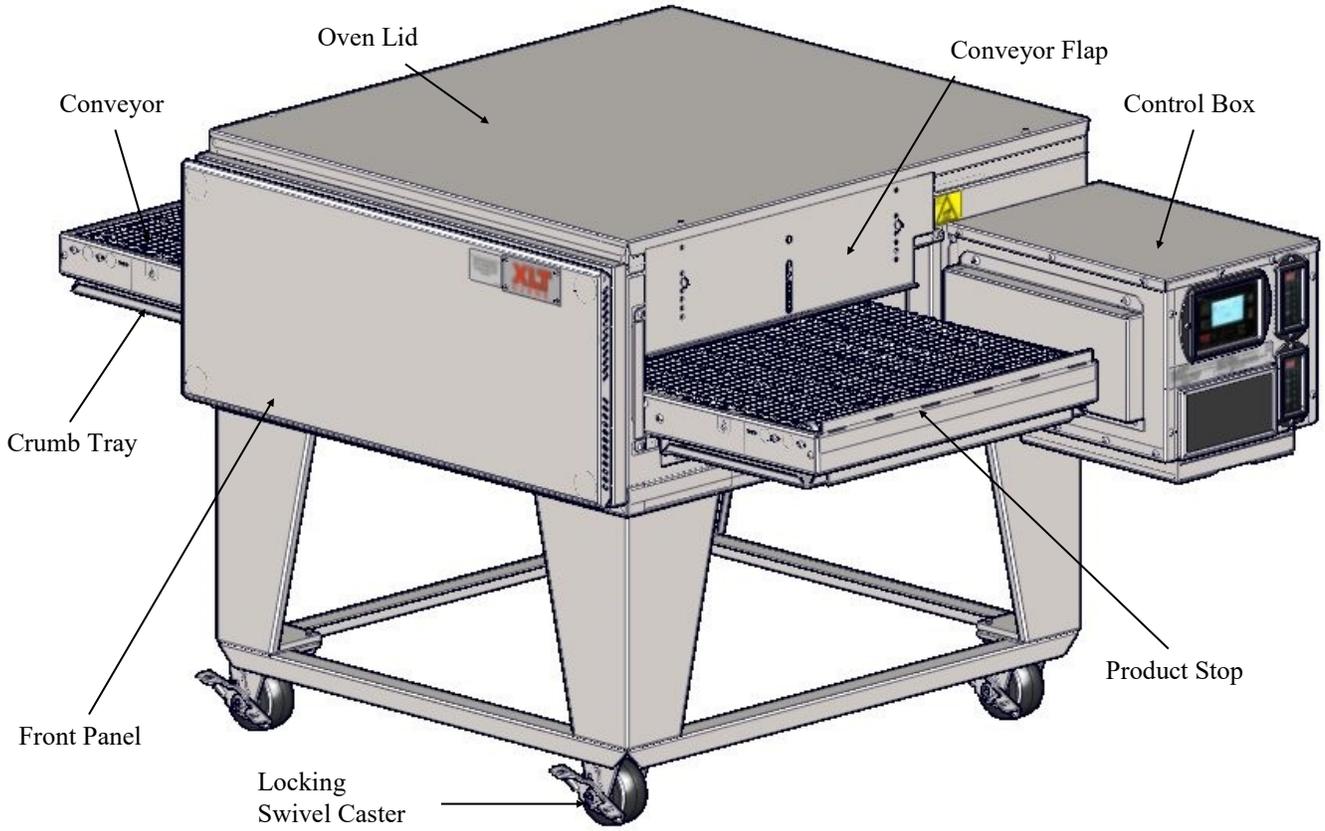
Oven information required:

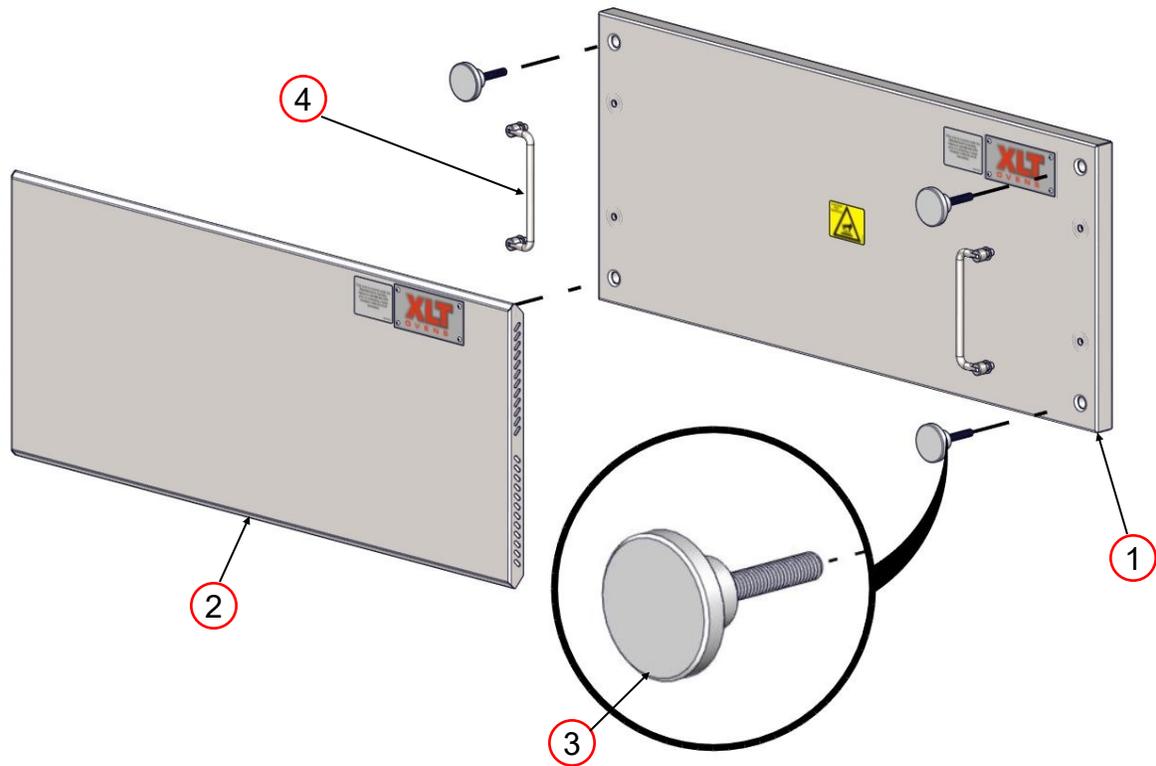
- Model #
- Serial #
- Manufacture Date
- Phone #
- Contact name
- Bill to
- Ship to
- Credit card information

P.O.R = Price On Request

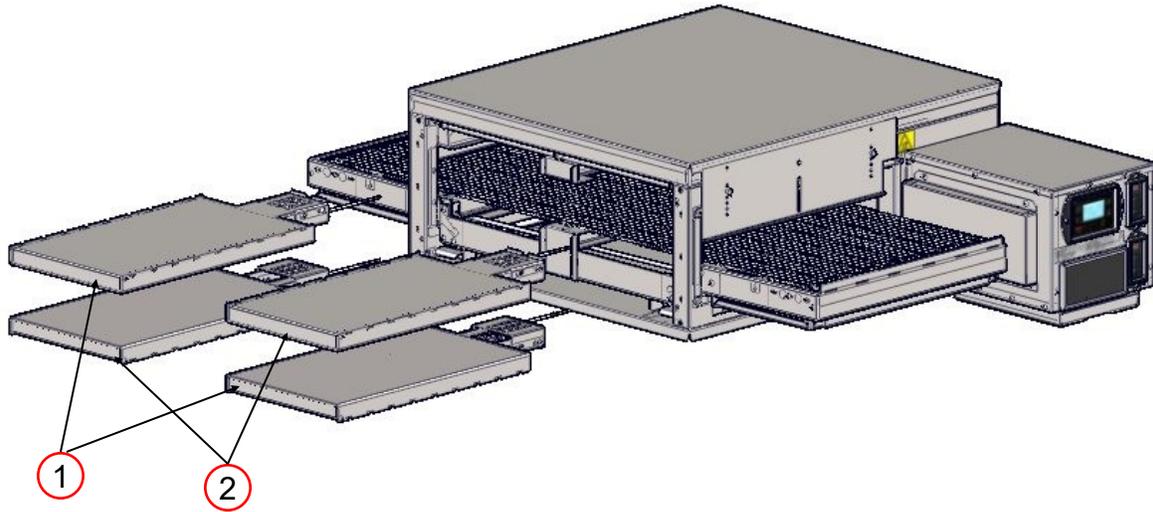
All prices are subject to change, contact XLT for current prices.







FRONT PANEL			
ITEM	PART NUMBER	DESCRIPTION	YOUR PRICE
1	RA 6500A	Front Panel Assembly	P.O.R
2	RA 6700A	Extended Front Panel	P.O.R
3	XA-6505	Front Panel Knob	\$15.90
4	XP 6506	Lifting Handle	\$45.90

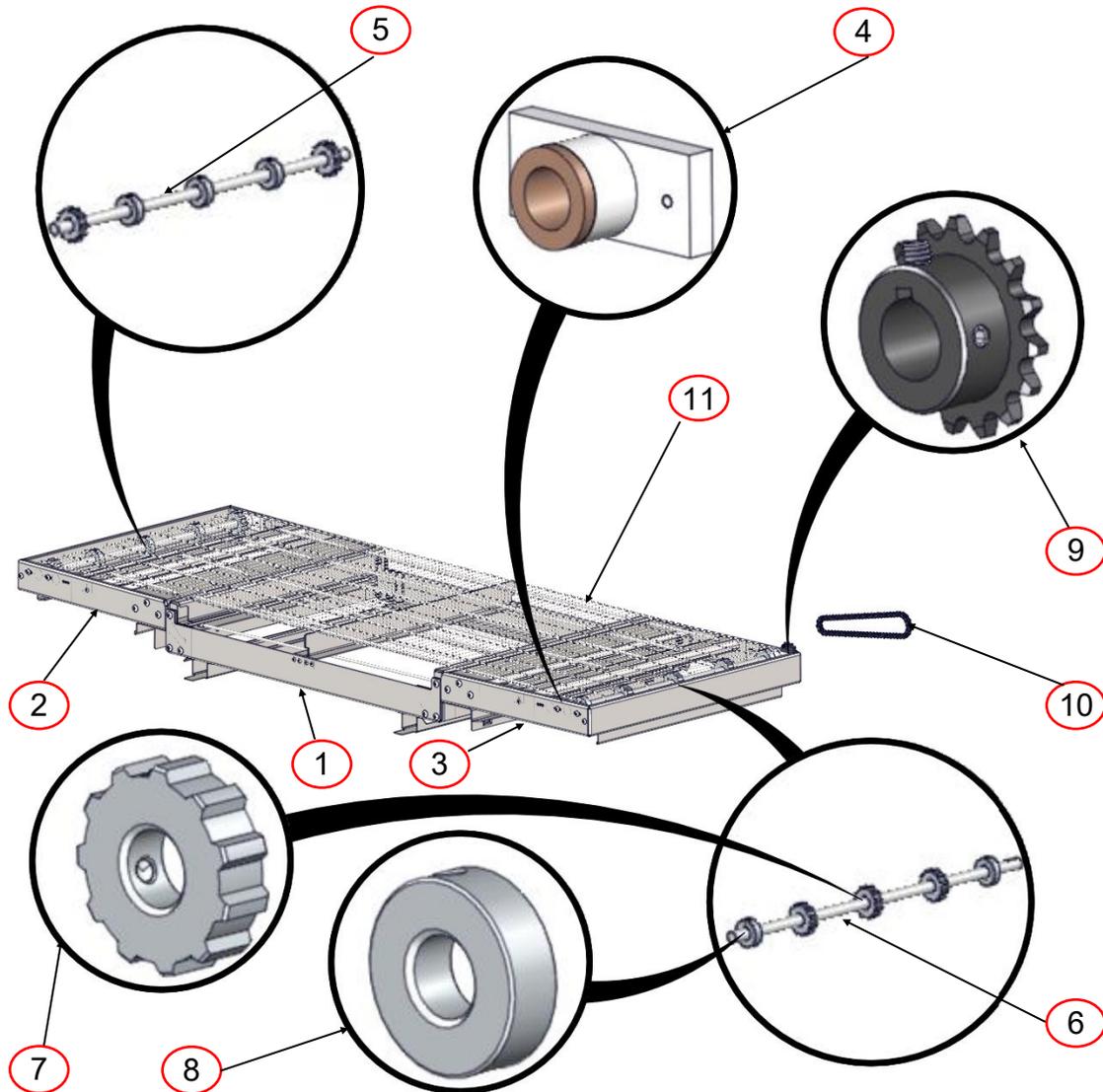


HEATING PANEL			
ITEM	PART NUMBER	DESCRIPTION	YOUR PRICE
1	RA 5100-TLBR	Heater Assembly (Top Left - Bottom Right)	P.O.R
2	RA 5100-TRBL	Heater Assembly (Top Right - Bottom Left)	P.O.R

Heating Panel information required:

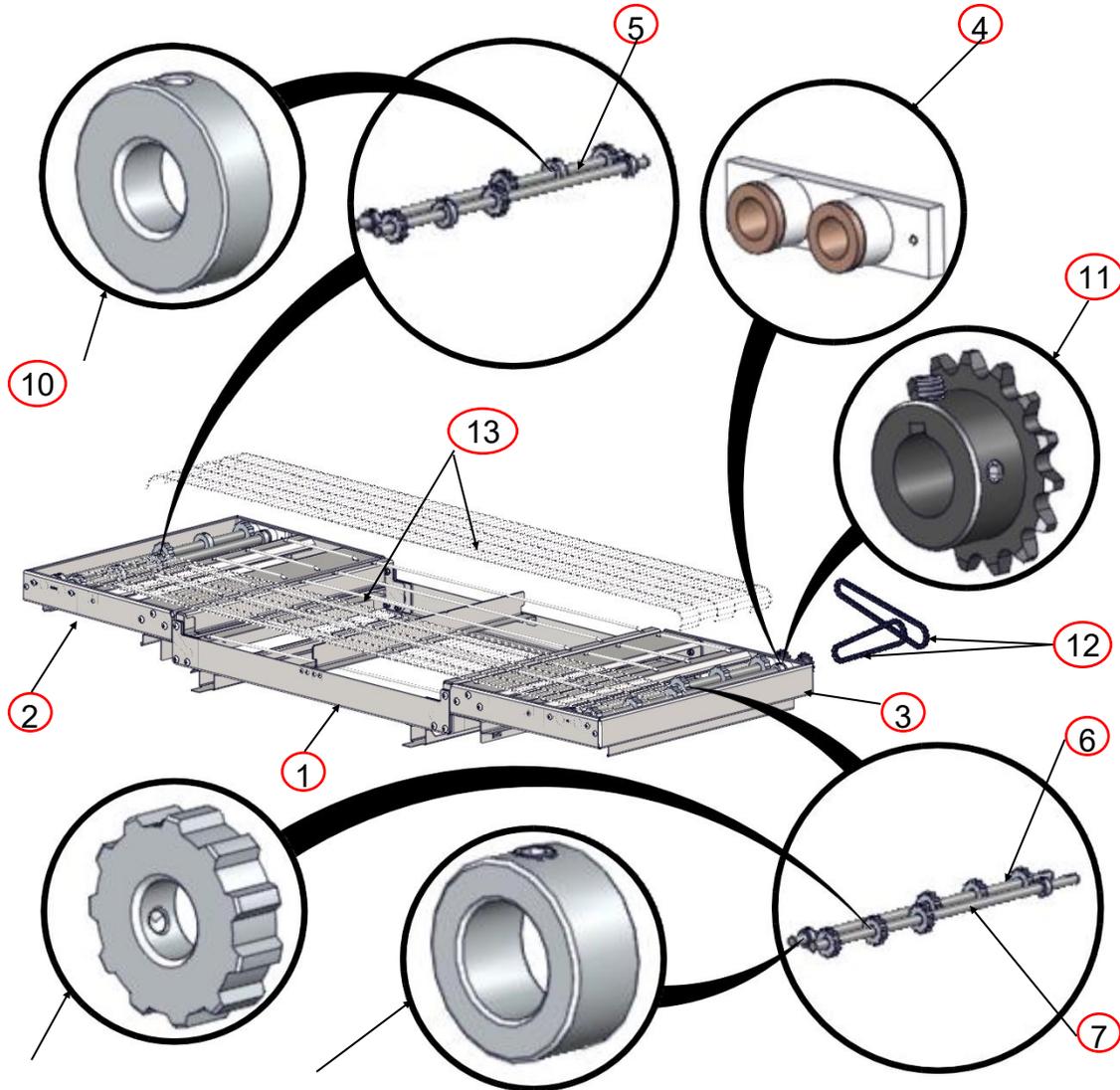
- Voltage

Standard Belt

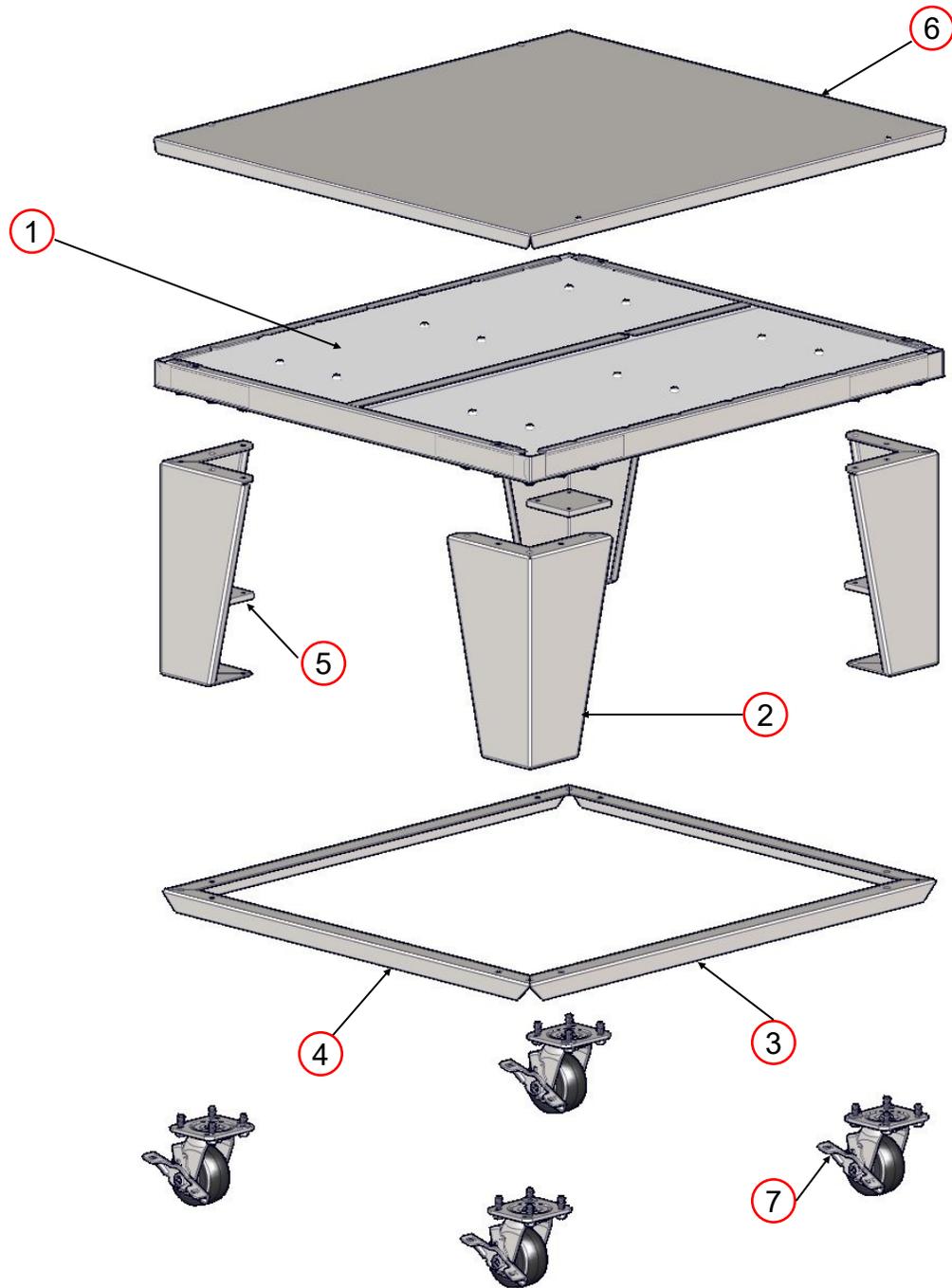


CONVEYOR			
ITEM	PART NUMBER	DESCRIPTION	YOUR PRICE
1	RA 7000A	Conveyor Assembly Center	P.O.R
2	RA 7101	Conveyor Assembly Left	P.O.R
3	RA 7102	Conveyor Assembly Right	P.O.R
4	XA 7200	Conveyor Bearing Assembly	\$9.30
5	XM 7301	Conveyor Shaft Idle	P.O.R
6	XM 7302	Conveyor Shaft Drive	P.O.R
7	XP 7403	Conveyor Roll Notched	\$12.20
8	XP 7404	Conveyor Roll Plain	\$11.00
9	XP 9503	Conveyor Sprocket Driven 15	\$15.50
10	XP 9504	Conveyor Drive Chain	\$23.60
11	XP 9506A	Conveyor Belt	P.O.R

Split Belt



CONVEYOR			
ITEM	PART NUMBER	DESCRIPTION	YOUR PRICE
1	RA 7000A	Conveyor Assembly Center	P.O.R.
2	RA 7101	Conveyor Assembly Left	P.O.R.
3	RA 7102	Conveyor Assembly Right	P.O.R.
4	XA 7200-SB	Conveyor Bearing Assembly	\$17.80
5	XM 7303	Conveyor Shaft Idle	P.O.R.
6	XM 7304	Conveyor Shaft Drive INSIDE	P.O.R.
7	XM 7305	Conveyor Shaft Drive OUTSIDE	P.O.R.
8	XP 7206	Shaft Collar	\$10.00
9	XP 7403	Conveyor Roll Notched	\$12.20
10	XP 7404	Conveyor Roll Plain	\$11.00
11	XP 9503	Conveyor Sprocket Driven 15	\$15.50
12	XP 9504	Conveyor Drive Chain	\$23.60
13	XP 9506A	Conveyor Belt	P.O.R.

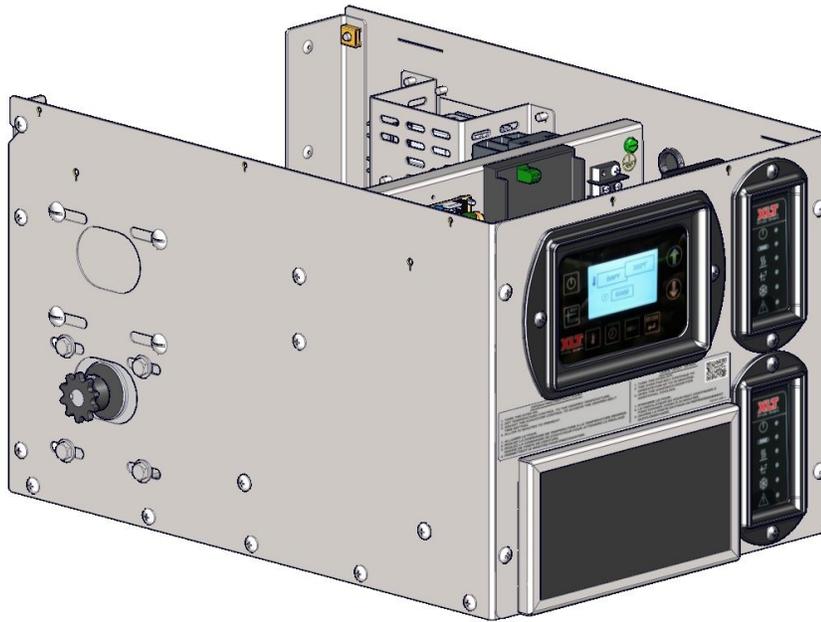


BASE			
ITEM	PART NUMBER	DESCRIPTION	YOUR PRICE
1	XA 1001A	Base Assembly	P.O.R
2	XM 1003	Base Leg	P.O.R
3	XM 1006	Side Leg Angle	P.O.R
4	XM 1007	Front/Back Leg Angle	P.O.R
5	XM 1008	Bolster Plate	\$11.50
6	XM 1010A	Oven Lid	P.O.R
7	XP 1004	Caster	\$21.60

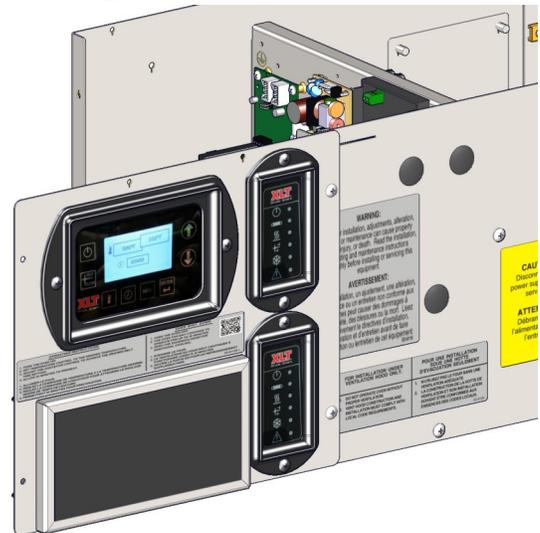
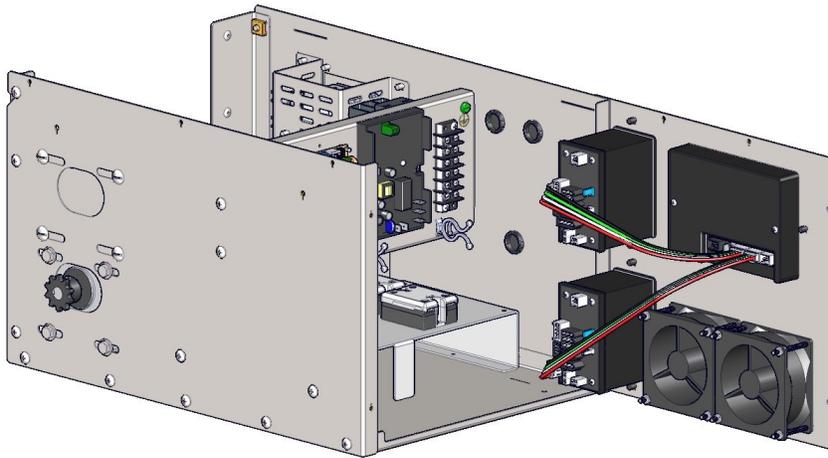
Base information required:

- Single, Double, Triple or Quad Stack

Operating Position (shown with lid removed)



Service Position

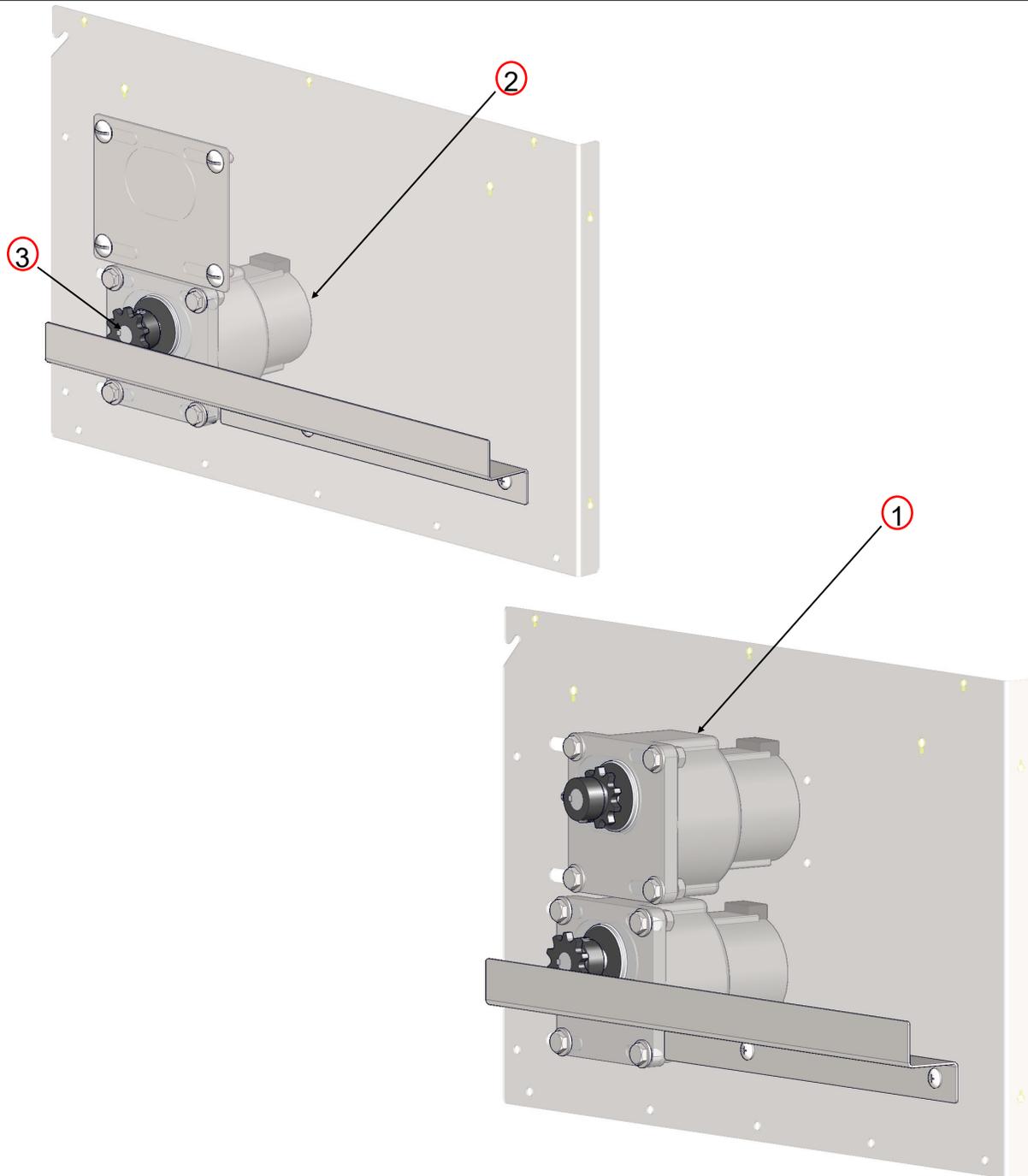




CONTROL PANEL			
ITEM	PART NUMBER	DESCRIPTION	YOUR PRICE
1	SP 4520-EL	Fan Guard / Filter Holder	\$9.30
2	RP 4170A-LUI	Large User Interface	\$156.90
3	RP 4175A-MC	Oven Control	\$215.90
4	XP 4501C-EL	FPPG Fan EL M3	\$31.00
5	XP 4520B-EL	Fan Filter	\$1.95

Control Panel information required:

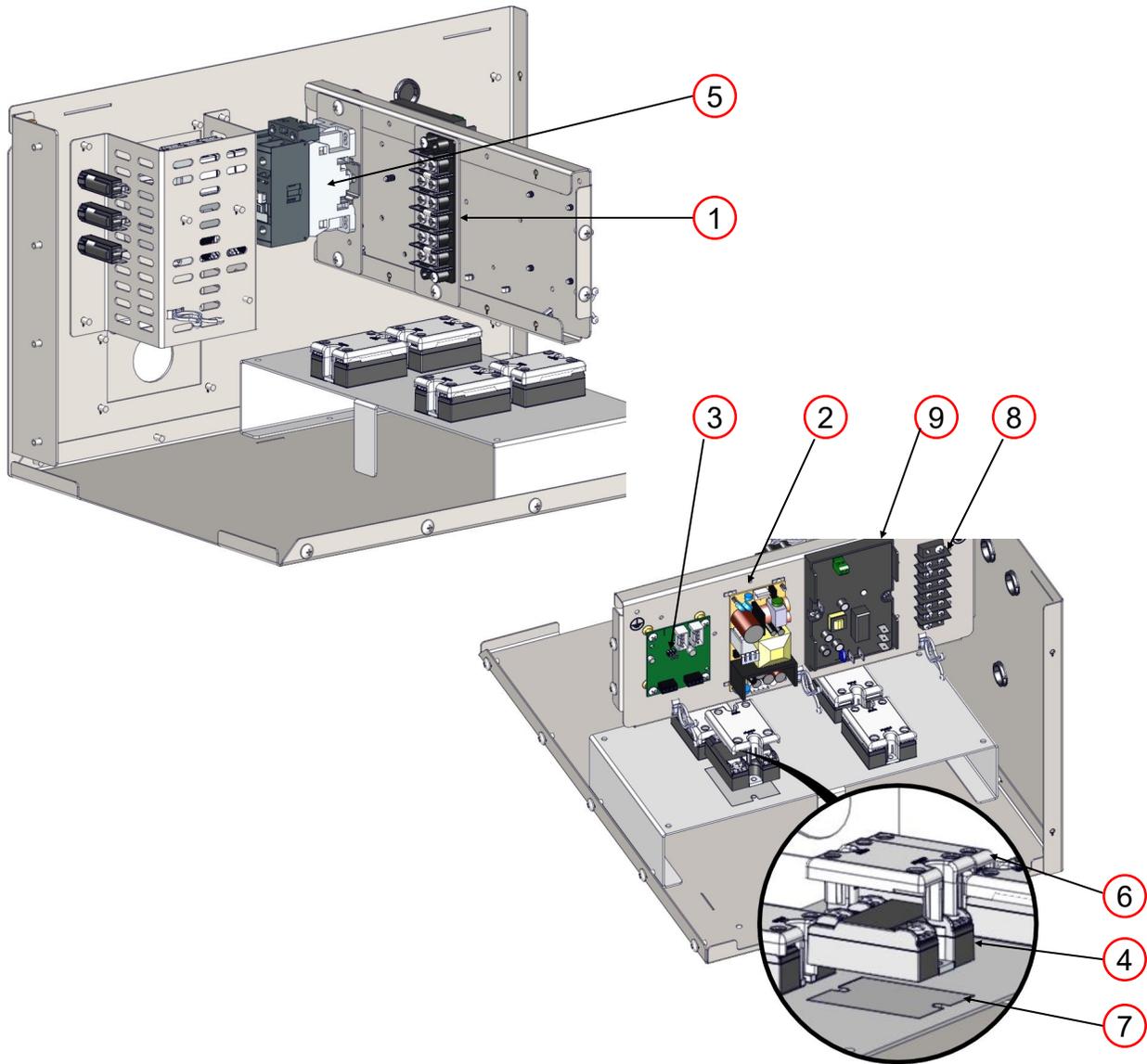
- Voltage
- Circuit Breaker amp rating
- Conveyor Belt direction



CONTROL BOX FRONT			
ITEM	PART NUMBER	DESCRIPTION	YOUR PRICE
1	XA 4117A-12.5 RPM SB	Conv Motor Assy 12.5 RPM SB	\$305.30
2	XA 4117A-12.5 RPM ST	Conv Motor Assy 12.5 RPM STD	\$305.30
3	XP 4155	Sprocket Conveyor Drive 10T	\$15.70

Control Box Front information required:

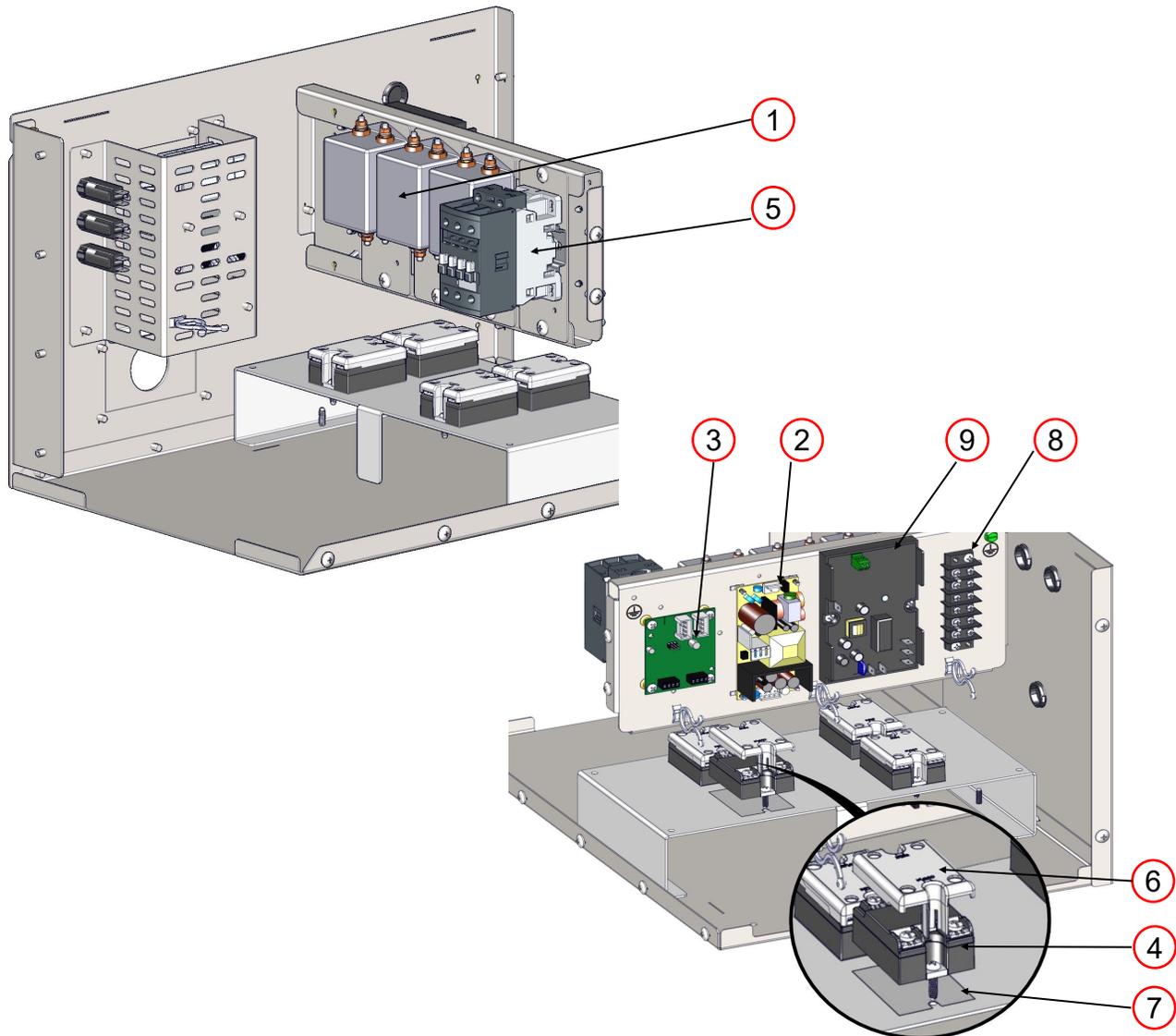
- Split Belt or Standard Belt



CONTROL BOX INTERIOR			
ITEM	PART NUMBER	DESCRIPTION	YOUR PRICE
1	RP 4701A-06	Terminal Strip 6 Place	\$9.00
2	RP 4717A	Power Supply PS	\$21.60
3	RP 4724A	Radiant Thermocouple Module	\$96.80
4	RP 4305A-25	Relay 25A Solid State	\$72.60
5	RP 4306A-50	50 Amp 3 Phase Contactor	\$91.20
6	XP 4305A-90-COV	Relay 90A Cover	\$5.07
7	XP 4305A-90-PAD	Relay 90A Thermal Pad	\$3.00
8	XP 4701A-06	Terminal Strip 6 Place	\$4.40
9	XP 4723A	Elan High Temp Cont	\$110.30

Control Box Back information required:

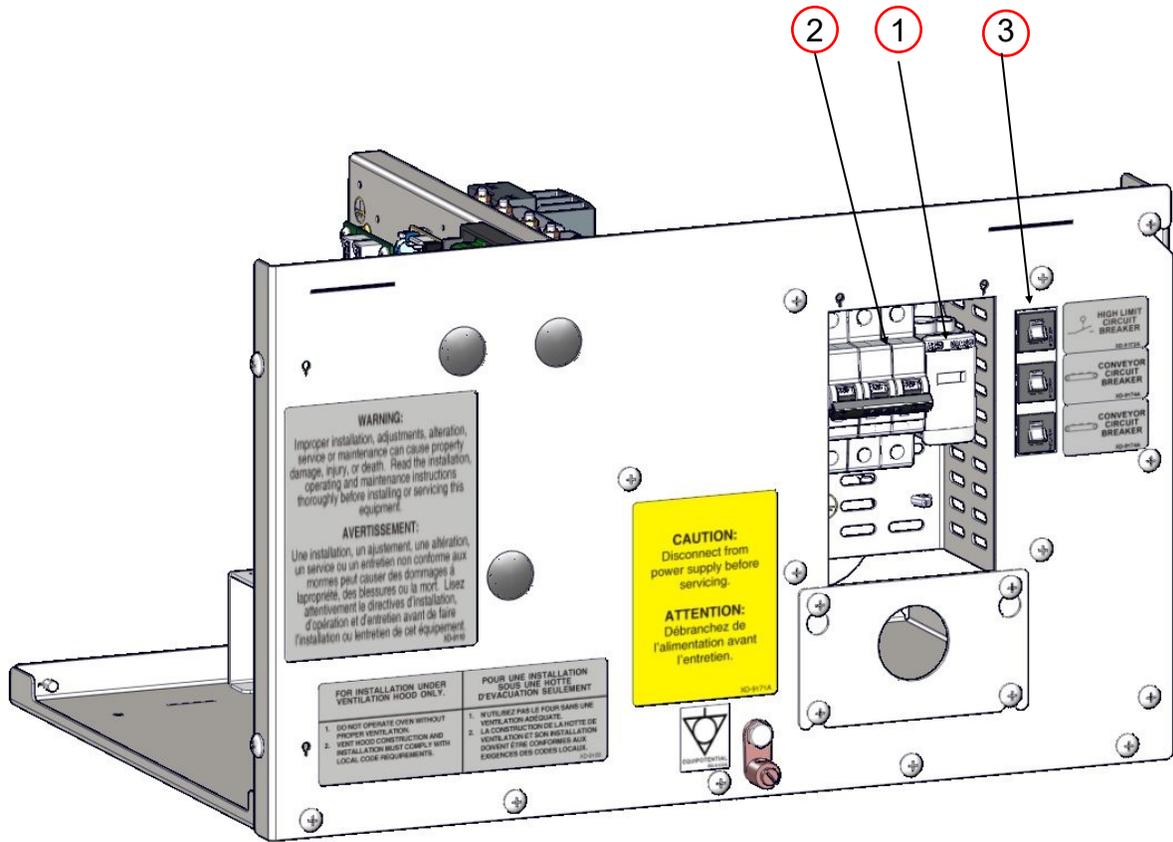
- Voltage



CONTROL BOX INTERIOR			
ITEM	PART NUMBER	DESCRIPTION	YOUR PRICE
1	RP 4712A	EMI Filter	\$89.60
2	RP 4717A	Power Supply PS	\$21.60
3	RP 4724A	Radiant Thermocouple Module	\$96.80
4	RP 4305A-25	Relay 25A Solid State	\$72.60
5	RP 4306A-50	50 Amp 3 Phase Contactor	\$91.20
6	XP 4305A-90-COV	Relay 90A Cover	\$5.07
7	XP 4305A-90-PAD	Relay 90A Thermal Pad	\$3.00
8	XP 4701A-06	Terminal Strip 6 Place	\$4.40
9	XP 4723A	Elan High Temp Cont	\$110.30

Control Box Back information required:

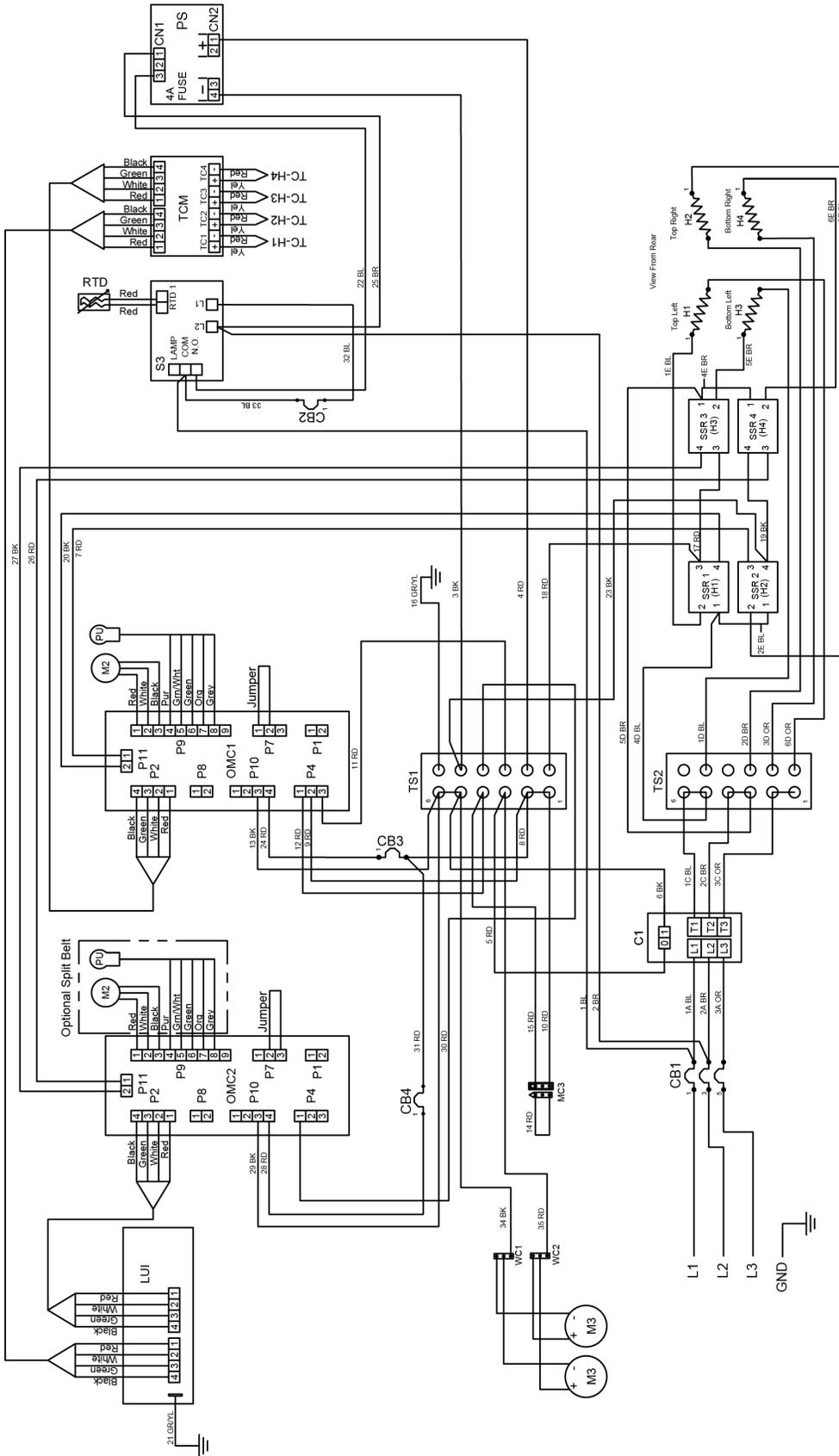
- Voltage



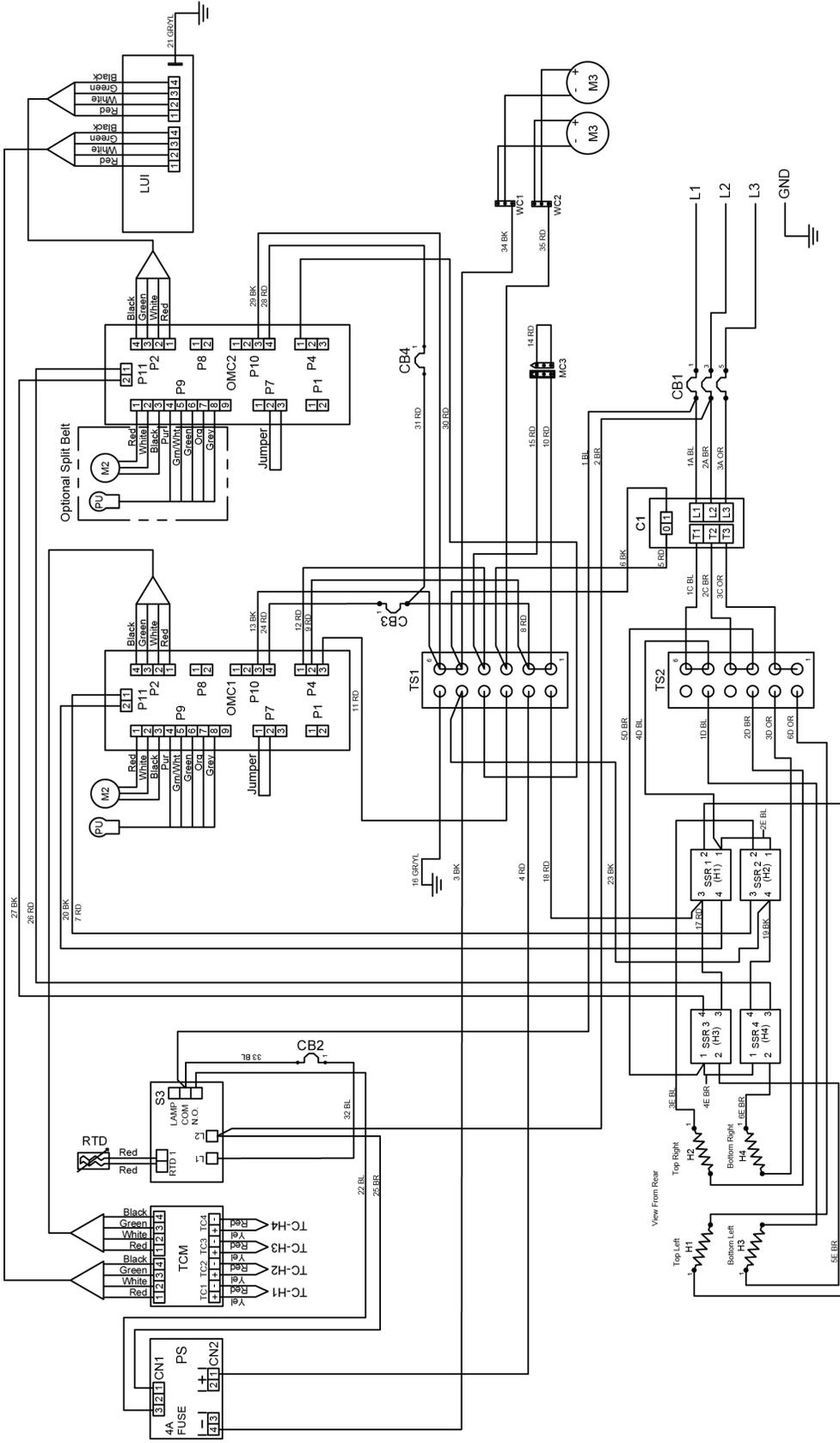
CONTROL BOX REAR			
ITEM	PART NUMBER	DESCRIPTION	YOUR PRICE
1	RP 4302A	Power Block	\$69.40
2	RP 4303A	3 Pole Circuit Breaker EL	\$98.90
3	XP 4515-CB-0.5A	1/2 Amp Circuit Breaker	\$7.30

Control Box Rear information required:

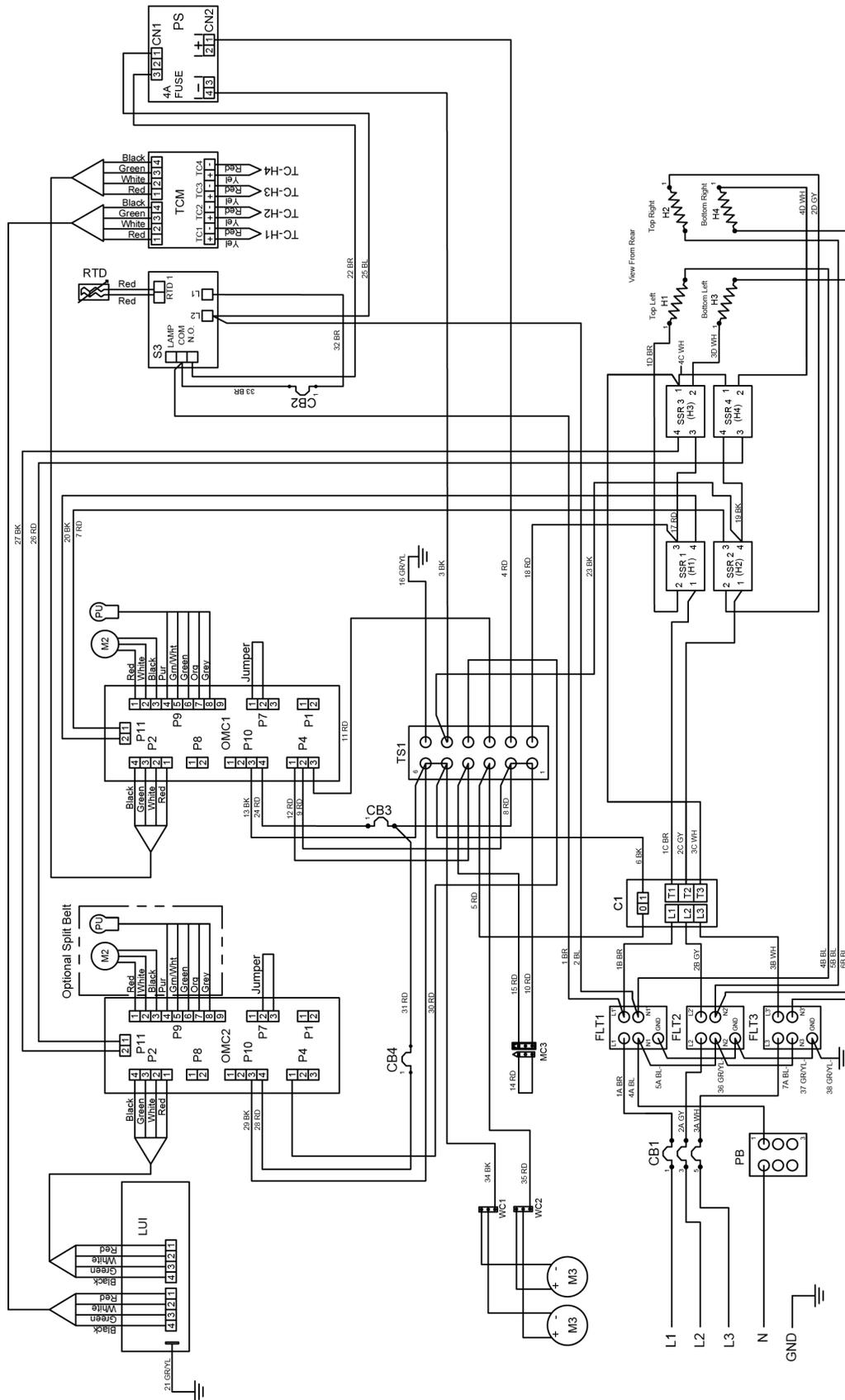
- Voltage



- | | | | |
|-------|---|---------|---------------------------|
| C1 | Contactor, 50 Amp | SSR3 | Solid State Relay, 25 Amp |
| CB1 | Circuit Breaker, 40 Amp, Heating Elements | SSR4 | Solid State Relay, 25 Amp |
| CB2 | Circuit Breaker, 1/2 Amp, High Limit | TC1-TC4 | Thermocouple |
| CB3 | Circuit Breaker, 1/2 Amp, Conveyor Motor | TCM | Thermocouple Module |
| CB4 | Circuit Breaker, 1/2 Amp, Conveyor Motor | TS1 | Terminal Strip |
| H1-H4 | Heating Element, 208 or 240VAC, 2400 W | TS2 | Terminal Strip |
| LUI | Large User Interface | WC1 | Wago Connector |
| M2 | Motor, Conveyor | WC2 | Wago Connector |
| M3 | Motor, Cooling Fan | | |
- R3A-2336
- 208 VAC 3 PH 60 HZ
- RD-9130A-208_240-2400-4 LH
- LH Controls Left Side
- 08/01/19



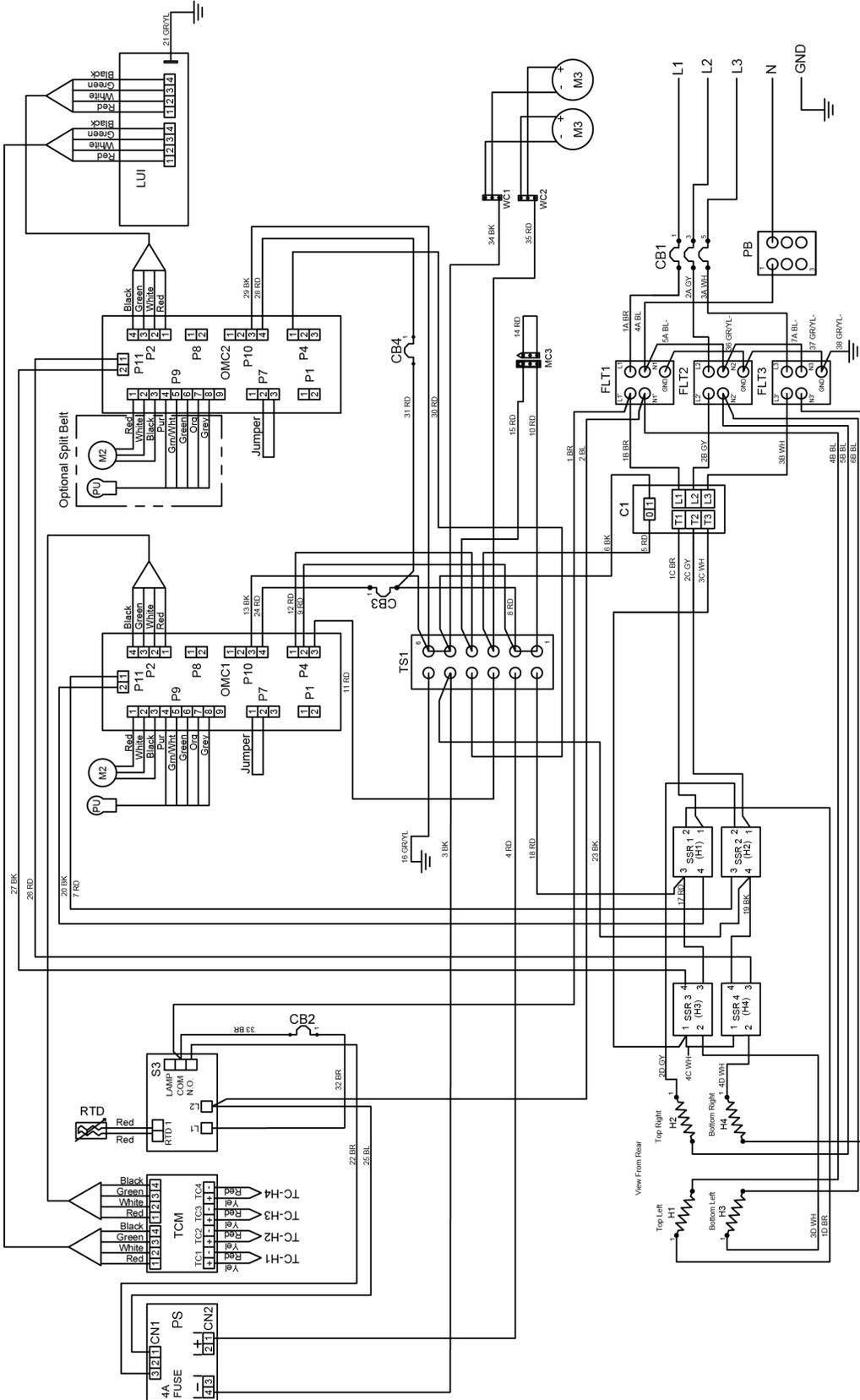
- | | | | | | | |
|-------|---|------|-------------------------------|---------|---------------------------|----------------------------|
| C1 | Contactor, 50 Amp | OMC1 | Oven Control, Main | SSR3 | Solid State Relay, 25 Amp | R3A-2336 |
| CB1 | Circuit Breaker, 40 Amp, Heating Elements | OMC2 | Oven Control, Aux, Split Belt | SSR4 | Solid State Relay, 25 Amp | 208 VAC 3 PH 60 Hz |
| CB2 | Circuit Breaker, 1/2 Amp, High Limit | PS | Power Supply | TC1-TC4 | Thermocouple | RD-9130A-208_240-2400-4 RH |
| CB3 | Circuit Breaker, 1/2 Amp, Conveyor Motor | PU | Pick-Up | TCM | Thermocouple Module | RH Controls Right Side |
| CB4 | Circuit Breaker, 1/2 Amp, Conveyor Motor | RTD | RTD, High Limit | TS1 | Terminal Strip | 08/01/19 |
| H1-H4 | Heating Element, 208 or 240VAC, 2400 W | S3 | Switch, High Limit | TS2 | Terminal Strip | |
| LUI | Large User Interface | SSR1 | Solid State Relay, 25 Amp | WC1 | Wago Connector | |
| M2 | Motor, Conveyor | SSR2 | Solid State Relay, 25 Amp | WC2 | Wago Connector | |
| M3 | Motor, Cooling Fan | | | | | |



- C1 Contactor, 50 Amp
- CB1 Circuit Breaker, 40 Amp, Heating Elements
- CB2 Circuit Breaker, 1/2 Amp, High Limit
- CB3 Circuit Breaker, 1/2 Amp, Conveyor Motor
- CB4 Circuit Breaker, 1/2 Amp, Conveyor Motor
- H1-H4 Heating Element, 208 VAC, 2400 W
- FLT1 Power Filter, EMI, L1
- FLT2 Power Filter, EMI, L2
- FLT3 Power Filter, EMI, L3
- LUI Large User Interface
- RD-Red BK-Black BL-Blue BR-Brown GR/YL-Green Yellow OR-Orange WH-White GY-Gray
- M2 Motor, Conveyor
- M3 Motor, Cooling Fan
- OMC1 Oven Control, Main
- OMC2 Oven Control, Aux, Split Belt
- PB Power Block
- PS Power Supply
- PU Pick-Up
- RTD RTD, High Limit
- S3 Switch, High Limit
- SSR1 Solid State Relay, 25 Amp
- SSR2 Solid State Relay, 25 Amp
- SSR3 Solid State Relay, 25 Amp
- SSR4 Solid State Relay, 25 Amp
- TC1-TC4 Thermocouple Module
- TCM Thermocouple Module
- TS1 Terminal Strip
- WC1 Wago Connector
- WC2 Wago Connector

R3A-2336

380 VAC 3 PH 50 Hz
RD-9130A-380-2400-4 LH
LH Controls Left Side
08/01/19



- | | | | | | | |
|-------|---|---------|-------------------------------|---------|---------------------------|------------------------|
| C1 | Contactor, 50 Amp | M2 | Motor, Conveyor | SSR1 | Solid State Relay, 25 Amp | 380 VAC 3 PH 50 HZ |
| CB1 | Circuit Breaker, 40 Amp, Heating Elements | M3 | Motor, Cooling Fan | SSR2 | Solid State Relay, 25 Amp | RD-9130A-380-2400-4 RH |
| CB2 | Circuit Breaker, 1/2 Amp, High Limit | OMC1 | Oven Control, Main | SSR3 | Solid State Relay, 25 Amp | RH Controls Right Side |
| CB3 | Circuit Breaker, 1/2 Amp, Conveyor Motor | OMC2 | Oven Control, Aux, Split Belt | SSR4 | Solid State Relay, 25 Amp | 08/01/19 |
| CB4 | Circuit Breaker, 1/2 Amp, Conveyor Motor | PB | Power Block | TC1-TC4 | Thermocouple | |
| H1-H4 | Heating Element, 208 VAC, 2400 W | PS | Power Supply | TCM | Thermocouple Module | |
| FLT1 | Power Filter, EMI, L1 | Pick-Up | Pick-Up | TS1 | Terminal Strip | |
| FLT2 | Power Filter, EMI, L2 | RTD | RTD, High Limit | WC1 | Wago Connector | |
| FLT3 | Power Filter, EMI, L3 | S3 | Switch, High Limit | WC2 | Wago Connector | |
| LUI | Large User Interface | | | | | |

This page intentionally left blank.

XLT Ovens
PO Box 9090
Wichita, Kansas 67277

US: 888-443-2751 FAX: 316-943-2769 INTL: 316-943-2751 WEB: www.xltovens.com