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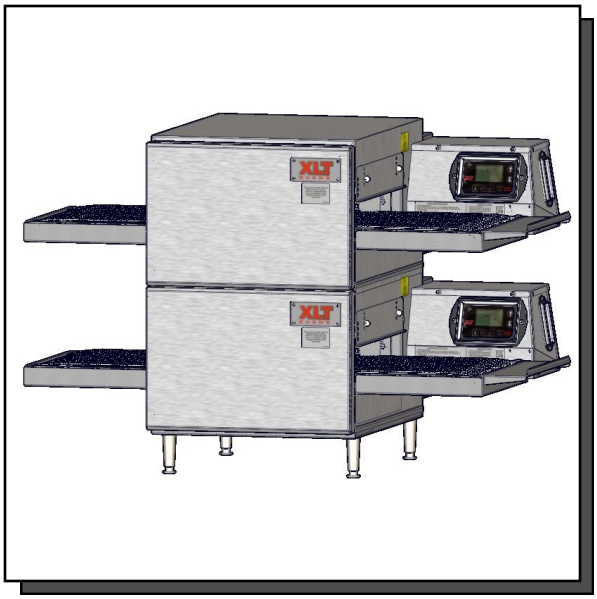
SmartSolutions™



XLT Electric 1620 Counter Top Oven
Parts & Service Manual

CAUTION Read This Manual Before Using This Appliance.

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

For use with the following XLT Electric Counter Top Oven Models:

Standard (S)	A	208V 1 Phase 60Hz
Standard (S)	A	220/240V 1 Phase 60Hz
World (W)	A	240V 1 Phase 50Hz
World (W)	A	380V 3 Phase 50Hz

Intertek 2000887

QC DS™ QUALITY.COST.DELIVERY.SERVICE.

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

2 WARNING & SAFETY INFORMATION

FOR YOUR SAFETY

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

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

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

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.

Revision History Table

Revision	Comments	Date
A	New Release	09/01/2020
B	Added Discrete Controls	02/17/2025

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	Indicates a hazardous situation that, if not avoided, will result in death or serious injury.
HIGH VOLTAGE	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	Indicates a hazardous situation that, if not avoided, could result in death or serious injury or serious damage to the product. Important safety measures are described in a WARNING, so be sure to observe them.
CAUTION	Indicates a potentially hazardous situation, that if not avoided, could result in minor or moderate injury. Important safety measures are described in a CAUTION, so be sure to observe them.
NOTE	Notes indicates 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.

READ MANUAL	Read the instructions before using this machine.	**CLASS II EQUIPMENT**	A class II or double insulated electrical appliance.
PROTECTIVE EARTH	Terminal which is intended for connection to an external conductor.	**EQUIPOTENTIALITY**	Having the same electric potential or uniform electric potential.
FUSE-LINK	Terminal which is intended for connection to an external conductor.		

WARNING & SAFETY INFORMATION

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 twelve (12) months or sooner if heavy use is expected.

DANGER

Repairs of all appliances 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.

- 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, in this manual, and online at www.xltovens.com. 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 data plate 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, & 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 75 dBA.

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

Warranty – US and Canada

Rev A Approval Date: 09/01/2020

XLT warrants Version A 1620 ovens manufactured after 09/01/2020 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, and further warrants conveyor shafts, and conveyor bearings for five (5) years. XLT further warrants all ovens 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 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. Warranty is not valid if the Warranty Registration Card has not been submitted to XLT Ovens. This form can be submitted by Fax, Mail, or completed on our website.

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 "Warranty Registration Card" 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 electrical utilities must be connected 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, or improper utility connections)
- Any part that becomes defective because of moisture and/or other contaminants
- Conveyor belts
- 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 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: 09/01/2020

XLT warrants Version A 1620 ovens manufactured after 09/01/2020 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, and further warrants conveyor shafts, and conveyor bearings for five (5) years. XLT further warrants all ovens 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 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. Warranty is not valid if the Warranty Registration Card has not been submitted to XLT Ovens. This form can be submitted by Fax, E-Mail, or completed on our website.

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 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 "Warranty Registration Card" 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 electrical utilities must be connected 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, or improper utility connections)
- Any part that becomes defective because of moisture and/or other contaminants
- Conveyor belts
- 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 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, the 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.

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 contains information about service error codes including the display read outs, MC LEDs, error determinations and troubleshooting actions. 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. Customer Service is available 24/7/365 at 888-443-2751 or visit www.xltovens.com.

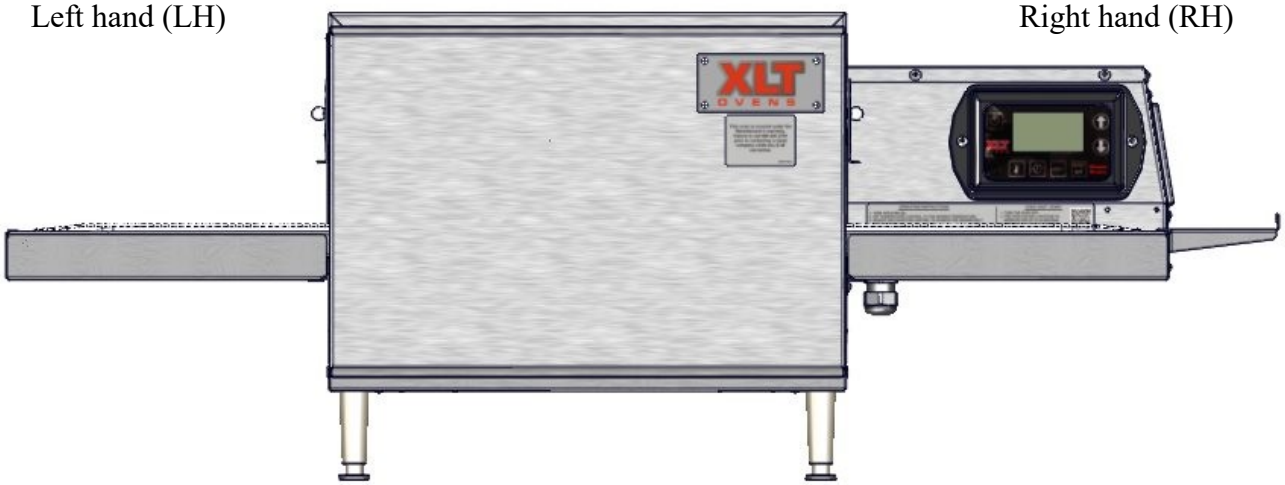
Save this Manual

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 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 seen below.

Left hand (LH) Right hand (RH)



Front of Oven

To Be Completed Before Installation & Operation
Ensure proper electrical supply as per Data Plate
Breakers: 50A Standard, 30A World
Unit is properly grounded
Wiring
Receptacle (NEMA 6-50P)
Assembly of new ovens per XLT Installation & Operation Manual
Oven base and legs assembled and set in place on a suitable surface
Ovens moved and stacked with proper lifting technique
Ensure Fingers and Air Diverters are properly installed
Connecting Electrical to XLT 1620
Install electrical power cord if not supplied from XLT
Connect electrical plug to wall receptacle
Verify proper clearances and adequate ventilation as per local codes and product
Start-up per XLT Installation & Operation Manual:
Oven turns on and operates as required, adjust as necessary
Warranty Registration Card must be submitted to XLT to validate Warranty

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Integrated Control Package

CAP	Capacitor	M1	Motor, Oven Fan	SSR1	Solid State Relay 90 Amp
CB1	Circuit Breaker, Main	M2	Motor, Conveyor	TB1	Terminal Block
CB2	Circuit Breaker, Conveyor	OMC	Oven Machine Control	TC	Thermocouple
FLT	Power Filter, EMI	PS	Power Supply	TS1	Terminal Strip
H1-3	Heating Elements	PU	Pick-Up (Internal)		
LUI	Large User Interface	R1	Oven Fan Motor Relay		

Once the oven is plugged into the wall the Oven Machine Control (OMC) Power Light will illuminate.
When the main power on the Large User Interface (LUI) is turned on:

1. The LUI will illuminate and display actual temperature until set point is reached as well as display belt time.
2. The Oven Fan Motor (M1) located in the Back Wall will run, illuminating the Main Fan Light on the OMC.
3. The heating elements will receive power, illuminating the Heat Light on the OMC.
4. The conveyor belt will move, illuminating the Conveyor Light on the OMC.

The first part of the Theory of Operation explains how electrical power is delivered to the oven and initial sequences when the main power button on the LUI is turned on. The second part 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 or 220/240 VAC, 1Φ, 60 Hz.
- Line voltage for World Ovens is assumed to be 380 VAC, 3Φ, 50 Hz.

Part 1A:

Power originates at the electrical connection on the wall. Line voltage is carried into the oven through the power cord to the Terminal Block (TB). Power coming off the terminal block lead to the Terminal Strip (TS), which then continues on to the Power Supply (PS), the Solid State Relay (SSR), Oven Fan Motor Relay (R1), Oven Fan Motor (M1) and Heating Elements (H1-H2). The PS then converts the line voltage into 24 VDC. From PS +24 VDC is distributed through TS1 to the Oven Machine Control (OMC) P4-1, OMC P4-2 and -24 VDC is distributed to R1 and OMC P10-3. TS1 then distributes +24 VDC to OMC P10-4, via CB2. These wires are live as long as the oven is connected to power on the wall.

When the oven is turned on, a relay inside the OMC closes between P4-2 and P4-3, sending +24 VDC out of P4-3 to the SSR1. A relay inside the OMC closes sending +24 VDC out of P11-1 to R1. Once R1 has received the low voltage the relay will close, allowing line voltage from R1 to M1, via CB1. OMC P11-2 carries -24 VDC to SSR1, which then closes SSR1 allowing line voltage to the heating elements allowing the oven to start heating.

Discrete Control Package

CAP	Capacitor	M1	Motor, Oven Fan	SSR5	Solid State Relay 10 Amp
CB1	Circuit Breaker, Main	M2	Motor, Conveyor	TB1	Terminal Block
CB2	Circuit Breaker Conveyor	PS	Power Supply	TC1	Temperature Control
CC	Conveyor Control	PU	Pick-Up (Internal)	TC	Thermocouple
CD	Conveyor Display	RC	Oven Cool Down Relay	TS1	Terminal Strip
FLT	Power Filter, EMI	S1	Switch, Rotary		
H1-3	Heating Elements	SSR	Solid State, Relay 90 Amp		

When the main power rotary switch is turned to the "on" position;

1. The Temperature Control (TC1) and Conveyor Control (CC) will illuminate and display temperature and display belt time.
2. The Oven Fan Motor (M1) located in the Back Wall will run.
3. The Heating Elements (H) will receive power.
4. The conveyor belt will move.

The first part (1B) of the Theory of Operation explains how electrical power is delivered to the oven and initial sequences when the main power is turned on. The second part 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 or 220/240 VAC, 1Φ, 60 Hz.
- Line voltage for World Ovens is assumed to be 380 VAC, 3Φ, 50 Hz.

Part 1B:

Power originates at the electrical connection on the wall. Line voltage is carried into the oven through the power cord to the Terminal Block (TB1). Power coming off the terminal block leads to the Terminal Strip (TS1), one leg of power from TS1 goes to the Solid State Relay (SSR), Oven Fan Motor (M1), Power Supply (PS) and Oven Cool Down Relay (RC). The other leg of power from TS1 continues on to the Heating Elements (H1-H2) and RC. The Rotary Swtich (S1) receives power from the RC. Once S1 is activated, power is sent to the Power Supply (PS) and RC is energized to provide power to M1.

The PS then converts the line voltage into +24 VDC. From PS, +24 VDC is sent to Temperature Control (TC1) and Conveyor Control (CC1). CC1 will send the belt time to be shown on Conveyor Display (CD1). TC1 uses input from the Thermocouple (TC) to monitor the oven temperature. TC1 sends +24VDC to Solid State Relay (SSR5). When oven temperature is below the set point, TC1 sends a signal to energize SSR5. When SSR5 is energized +24VDC is sent to energize SSR1 to turn H1-H2 on.

TC1 terminals 4 &5 act as a high limit safety shut off in case of over temp conditions.

Part 2:

CAP - The Capacitor is physically mounted inside the Control Box but wired to the externally mounted M1. The M1 is a Permanent Split Capacitor (PSC) motor. PSC means a capacitor motor in which the starting capacitor and the auxiliary winding remain in the circuit for both starting and running. The CAP is a 7.5 uF +/- 6% 370VAC/B 50/60 Hz.

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.

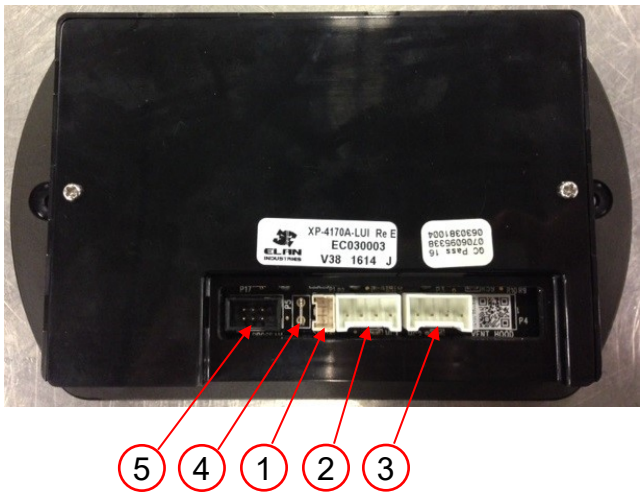
CC- Conveyor Control, for discrete control package, provides rotation and speed of the conveyor.

CD - Conveyor Display, for discrete control package, displays the time of the conveyor.

FLT 1 - This is an inline filter used in world ovens. The filter is placed in series with the line voltage being supplied to the oven. The filter is used to reduce Electromagnetic Interference created by our equipment and back-feeding it into other appliances. The Electromagnetic Compatibility (EMC) filter in the gas oven uses capacitors to inhibit direct current while permitting alternating current. The filters also use inductors which redirect high voltages and high frequencies by dissipating them to ground. Filters should always be grounded to the oven.

H1-H3 - 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 three (3) different part numbers used are:

- 96-5201x2800-208 2800 Watt 15.45 Ohms
- 96-5201x3000-240 3000 Watt 19.20 Ohms



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

- 96-5201x2000-380 2000 Watt 72.20 Ohms

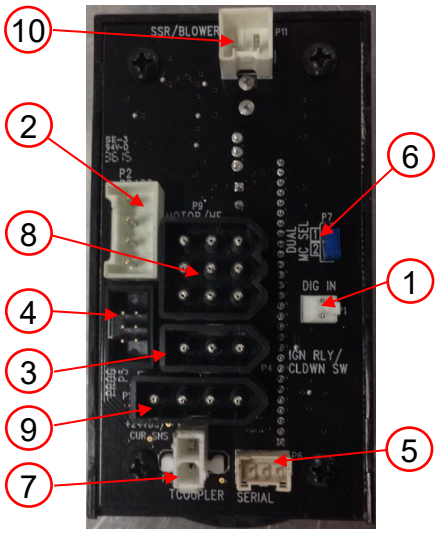
Please refer to the Parts section for the proper application.

LUI - The Large User Interface is powered by +5 VDC from the OMC via the RS-485 cable. The main power button is located on the front face of the LUI. The conveyor(s) and temperature of the

oven is controlled through the LUI. The LUI and OMC communicate via the 485± on the RS-485 cable. The LUI will display error messages and maintenance alarms. There are twelve (12) menu presets for predetermined time and temperature settings. The screen can be locked to prevent unwanted changes.

M1 - The Oven Fan Motor for standard ovens is a PSC, single phase, capacitor run motor. The motor is dual voltage. The voltage to power the motor comes from R1. The main motor will continue to operate for approximately thirty (30) minutes or until the oven temperature is less than 175°F/79°C after the oven is turned off. There are no user serviceable parts in the motor, and the bearings are permanently lubricated.

M2 - The Conveyor Motor is a brushless 24 VDC gear motor. The motor receives current from the OMC through three (3) wires; 1) A green or "W" phase, 2) a blue or "V" phase, and 3) a yellow or "U" phase. They carry between 18 to 24 VDC, depending on the time set on LUI. Each wire is energized by the OMC in sequence to provide power to the individual stator coils which, in turn, provide motor rotation. Three (3) Hall Effect switches are used to determine and communicate the rotor position. 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) a blue "U" phase pole signal output, 2) a green "V" phase pole signal output, and 3) a yellow "W" phase pole signal output. These are located in a plug that inserts into the OMC. There are two (2) additional wires in this plug; 1) a red wire which is supply voltage for the pole sensor, and 2) a black wire that is ground. The motor drives an integral gear box that reduces the motor output speed to give the correct travel time to the conveyor belt. 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 Belt Jam



1) P1- Not Used– Digital Input
2) P2- RS-485 Cable To LUI
    1) +5V
    2) 485-
    3) 485+
    4) Ground
3) P4
    1) +24 Remote Switch
    2) +24 Power (In) Switch
    3) +24 To SSR1
4) P5- Elan Programming
5) P6- Elan Serial Port
6) P7- Jumper For OMC 1 or 2
7) P8- Thermocouples
    1) Red (-)
    2) Yellow (+)
8) P9- Conveyor Motor
    1) Motor SA
    2) Motor SB
    3) Motor SC
    4) Hall +5V
    5) Hall HC+
    6) Hall HB+
    7) Hall HA+
    8) Ground
    9) Not Used
9) P10
    1) Not Used
    2) Not Used
    3) 24 VDC(-) Main Power
    4) 24 VDC(+) Main Power
10) P11
    1) +24 VDC To Main Fan Motor
    2) -24 VDC Ground To SSR

error on the LUI.

OMC - The Oven Machine Control reads selections or parameters from the LUI via the RS-485 cable. It holds the logic for the conveyor control and the temperature control. The OMC will turn on or off the SSR, start and stop M1, send the call for heat signal, and reads the thermocouple.

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

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.

R1 - The Oven Fan Motor Relay is used as a remote switch to control the high voltage power to M1.

RC - The Oven Cool Down Timer Relay is used as a remote switch to control the high voltage power to M1, but allows M1 to continue to run for an additional 30 minutes after S1 has been turned off.

S1 - The Rotary Switch is a toggle switch for distributing power from the supply to the oven for operation.

SSR - A Solid State Relay is an electronic switching device in which a small control signal from the OMC controls a larger load current and voltage. A solid-state switching device, which switches power to the Heating Elements (H1-H2) either on or off, and does this without mechanical parts.

SSR 5 - A Solid State Relay is an electronic switching device in which a small control signal from TC1 controls a larger load current and voltage. SSR 5 is specifically used with the discrete control package and it provides switching power to SSR.

TB1 - The terminal block is used to secure and terminate wires from the power cord going into the oven.

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

TS1 - A terminal strip that serve as a connection point for wires. Refer to your schematic for connections.

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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 are configured to cook a wide variety of food items. 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 1 1/4" / 31.75mm), 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, the fingers operate with more air 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. **All of the fingers must be properly installed. Incorrect or incomplete finger placement can alter final bake.**

Mechanical Function

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

1. Verify that the power cord to the oven is connected and plugged in.
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 back of the oven control box to ensure they have not been tripped.

HIGH VOLTAGE

Proceed with caution and read the following instructions carefully before preforming a hard rest on the unit.

Hard Reset

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

LUI Service Error Codes

Display Alarm	MC LED	Error Determination	Troubleshooting
Oven Probe	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Temp Sensor Error, Open or Short. Temp <40F (4C) or >700F (371C)	Perform A Hard Reset. If Error Still Exists, Contact XLT.
Ignition Error	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	From Ignition enable (run) signal, if oven doesn't see 25F (-4C) temp rise in three (3) minuites. If restart (actual temp within 50F (10C) of set point) error timing ten (10) minutes.	Perform A Hard Reset. If Error Still Exists, Contact XLT.
Over Temp	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Temp is 50F (10C) over set point for period > one (1) minute. If user adjusts set point lower, inhibit alarm until new set point is reached.	Perform A Hard Reset. If Error Still Exists, Contact XLT.
Under Temp	Alarm LED on. Flash HEAT LED. All other LED's operate as normal.	Once set point is reached, the Actual is 15F (-9C) under set point for more than thirty (30) minutes. If user adjusts set point, reset timer.	Perform A Hard Reset. If Error Still Exists, Contact XLT.
Over Speed	Alarm LED on. Flash CONVEYOR LED. All other LED's operate as normal.	Speed > thirty (30) seconds fast Duration vs. Set Point	Perform A Hard Reset. If Error Still Exists, Check LUI Settings. If Settings Are Correct, Perform A Pan Test To Confirm Settings. If Error Still Exists, Contact XLT.
Under Speed	Alarm LED on. Flash CONVEYOR LED. All other LED's operate as normal.	Speed > thirty (30) seconds slow Duration vs. Set Point	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 To Confirm Settings. If Error Still Exists, Contact XLT.
Software Error	Alarm LED flash. All other LEDs off.	Internal Software Error	Check for pinched wires. 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 > one (1) minute.	Clean LUI Screen. Verify LUI software is version 50 (v50) or later in Tech Mode. 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.
Main Fan Low Amps	Alarm LED on. Flash FAN LED. All other LED's operate as normal.	Amps below min level per Main Fan Amp level table for ten (10) seconds.	Perform A Hard Reset. If Error Still Exists, Contact XLT.
Main Fan High Amps	Alarm LED on. Flash FAN LED. All other LED's operate as normal.	Amps above max level per Main Fan Amp level table for ten (10) seconds.	Check CB1 To See If It Has Tripped. If Yes, Reset CB1. If No, Perform A Hard Reset. If Error Still Exists, Contact XLT.

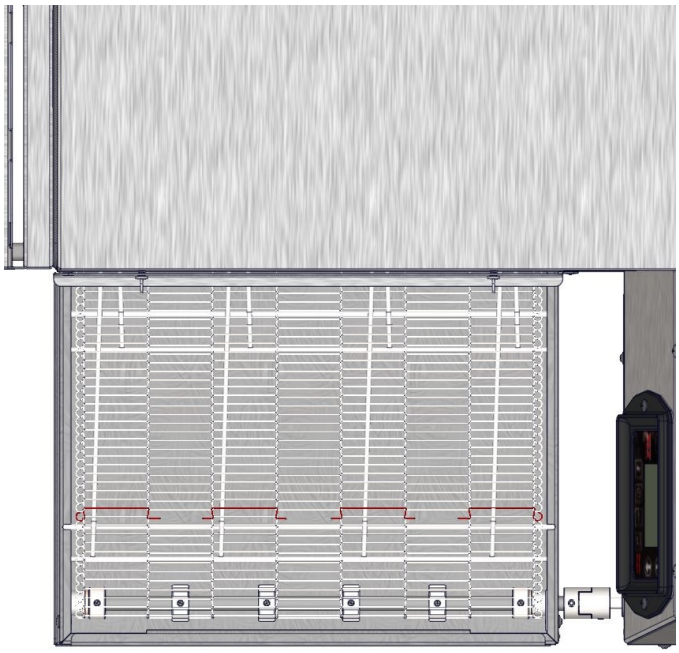
If your oven still does not function properly, XLT has qualified customer service personnel that can provide assistance on any type of XLT equipment problem you may experience. Customer Service is available 24/7/365 at 888-443-2751, or visit www.xltovens.com.

WIRE BELT ADJUSTMENT

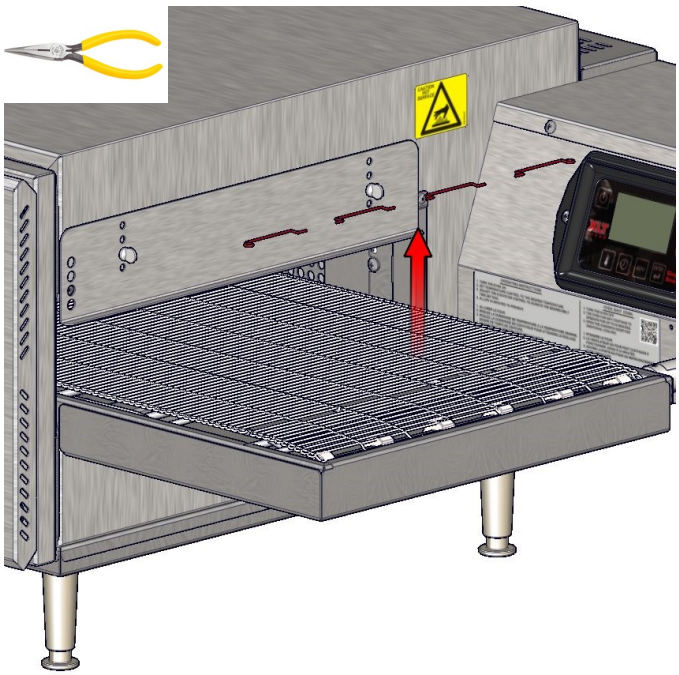
TIP

Read and understand the next four (4) steps first. They illustrate how to remove links from a stretched wire belt.

1. Locate the row of Master Links by allowing the conveyor to run until they are positioned as below.



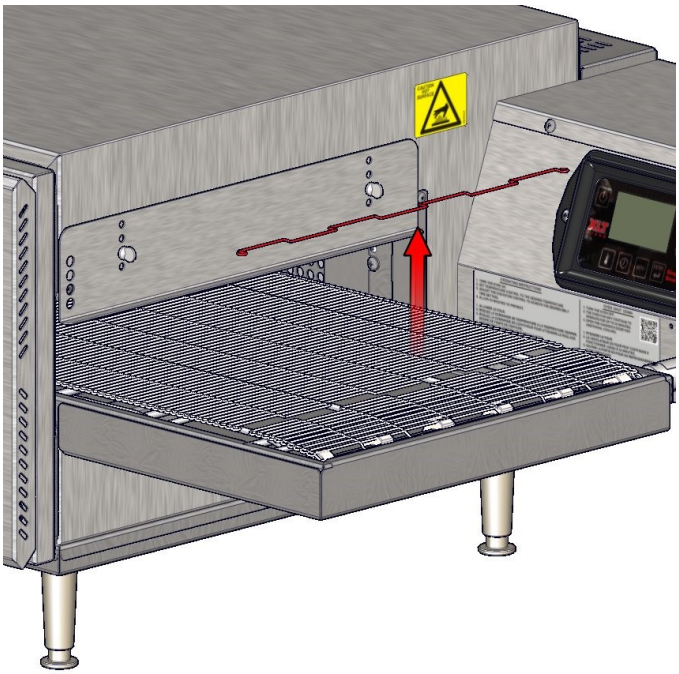
2. Using Needle Nose Pliers, remove the Master Links.



NOTE

Place Master Links on the top of the oven or a surface in the orientation and order they were removed to ease reinstallation

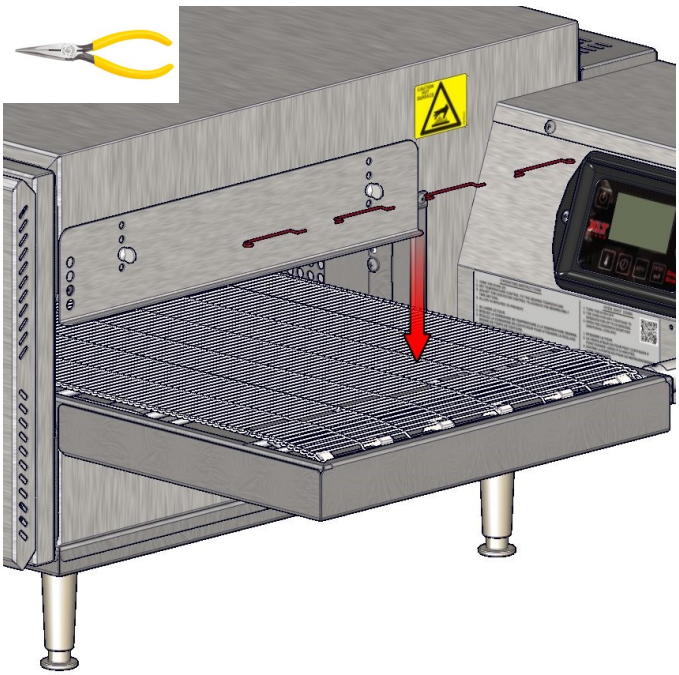
3 Remove the necessary number of links.



NOTE

Start with removing one (1) link and if the wire belt overlaps when the ends are brought together, continue to remove links until they no longer do.

4 Using Needle Nose Pliers, reinstall the Master Links in their original orientation.



How To Order Parts

Have all information ready when calling XLT. Below is a list of information that is required for all orders. At the bottom of the Bill of Materials (BOM) on some of the following parts overview pages are additional requirements needed depending on your parts order.

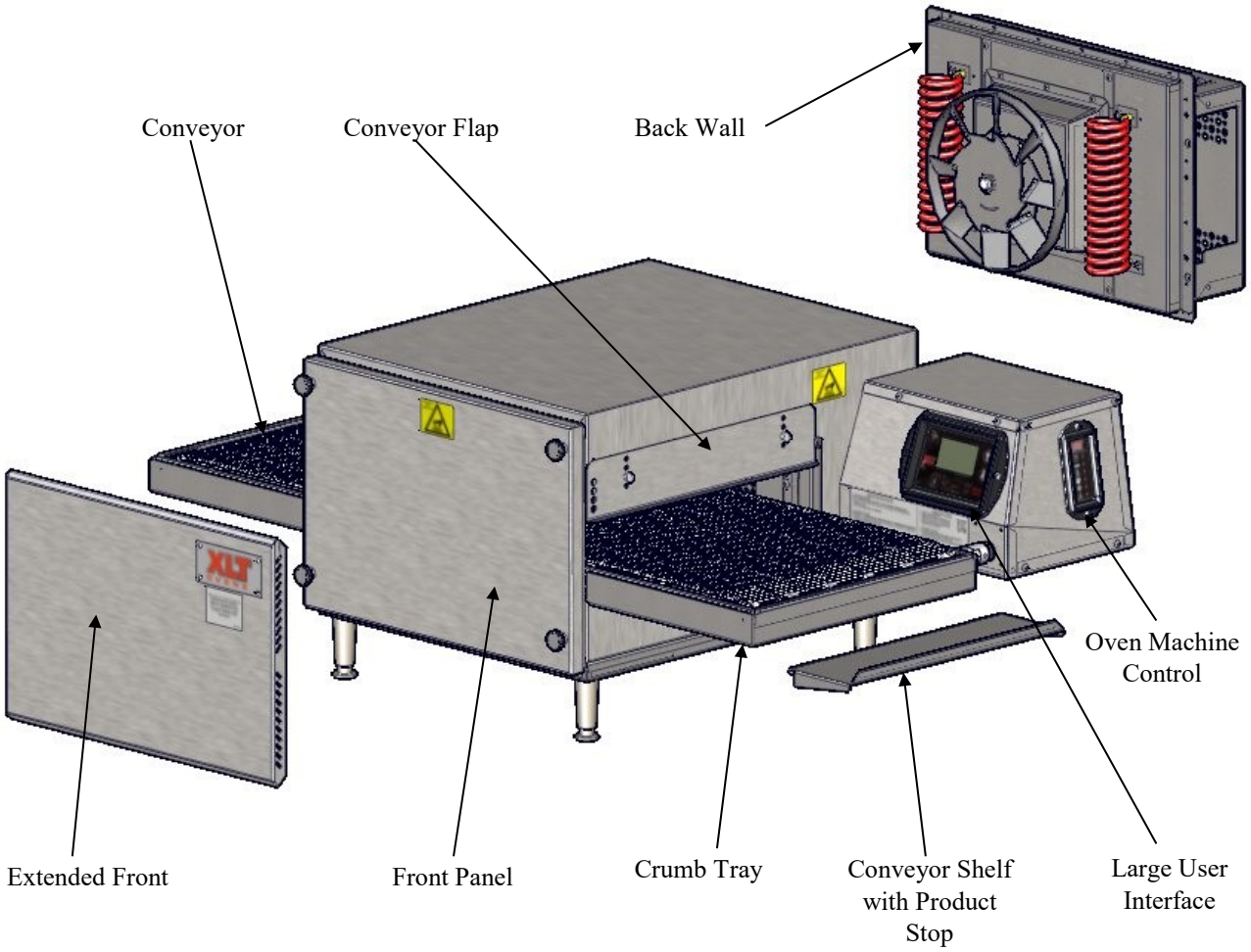
Oven information required:

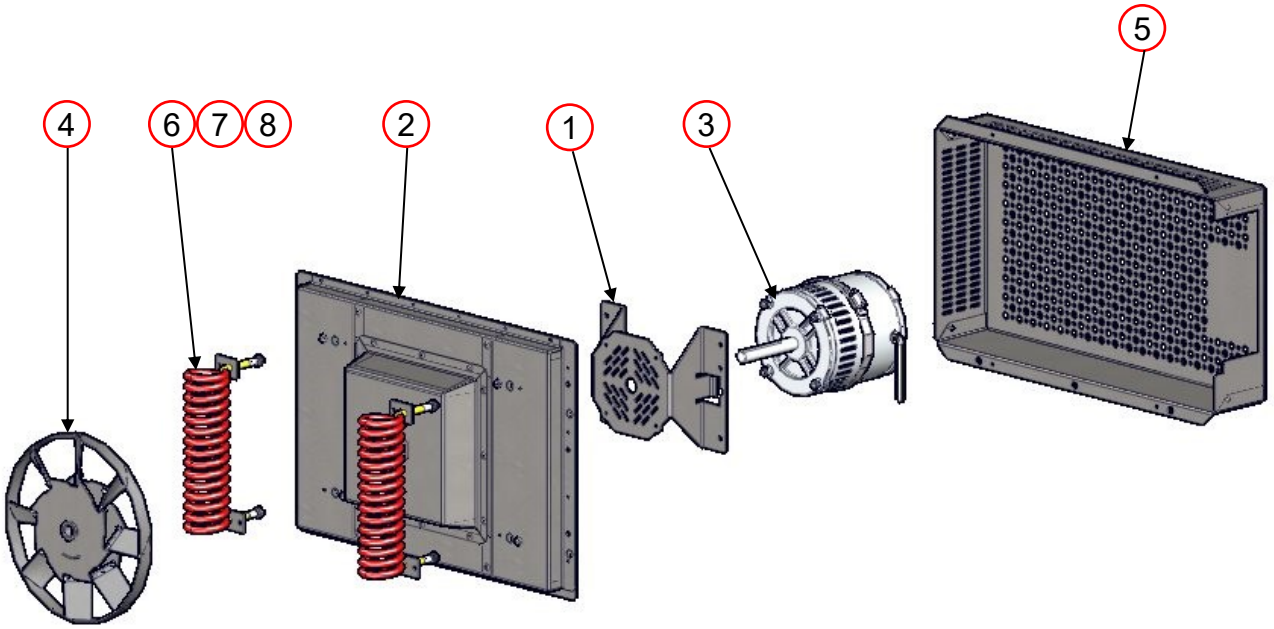
- Model #
- Serial #
- Manufacture Date
- Phone #
- Contact name
- Bill to
- Ship to
- Credit card information

Prices On Request

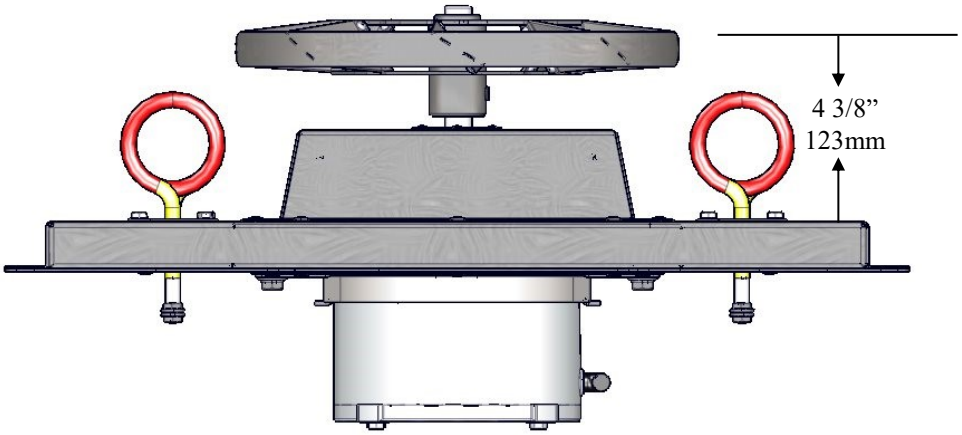
All prices are available upon request. Please contact XLT at 888-443-2751 or your local distributor for current pricing.

NOTE All part images are for reference only. Some design characteristics differ by model.


Conveyor
Conveyor Flap
Back Wall
Oven Machine Control
Extended Front
Front Panel
Crumb Tray
Conveyor Shelf with Product Stop
Large User Interface



Installed Fan Height

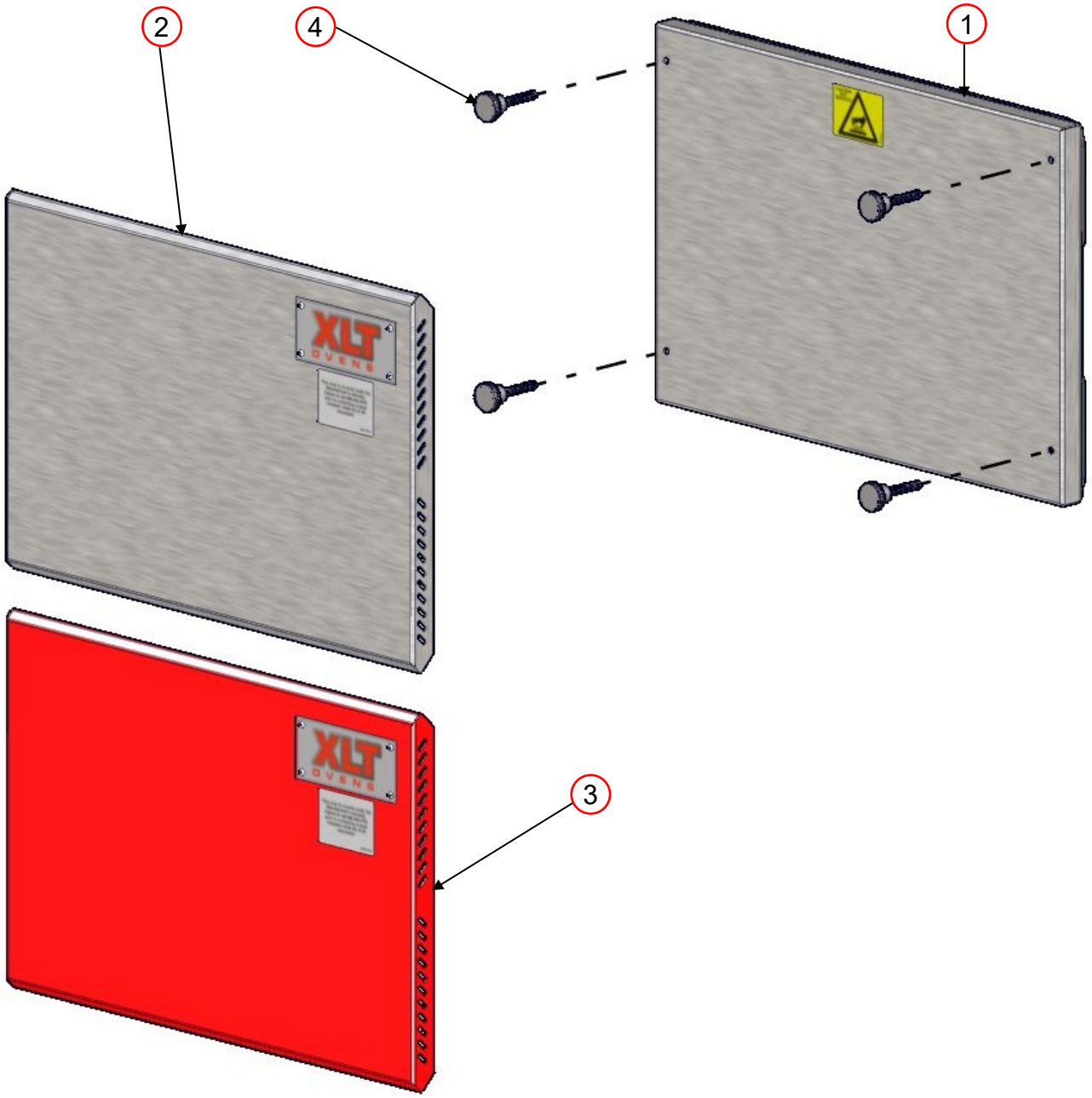


BACK WALL		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	05-1-5009A	Fan Motor Mount
2	05-2-5001AR1P-xx20	Backwall Assembly
3	05-2-5016A34501.2-2	Main Fan Motor (M1)
4	05-2-5300A10-08-2	Turbine Fan Assembly
5	05-2-5900AR-xx20	Fan Motor Cover Assembly
6	96-5201A2800-208	Heater 208V 2800W
7	96-5201A3000-240	Heater 240V 3000W
8	96-5201A2000-380	Heater 380V 2000W

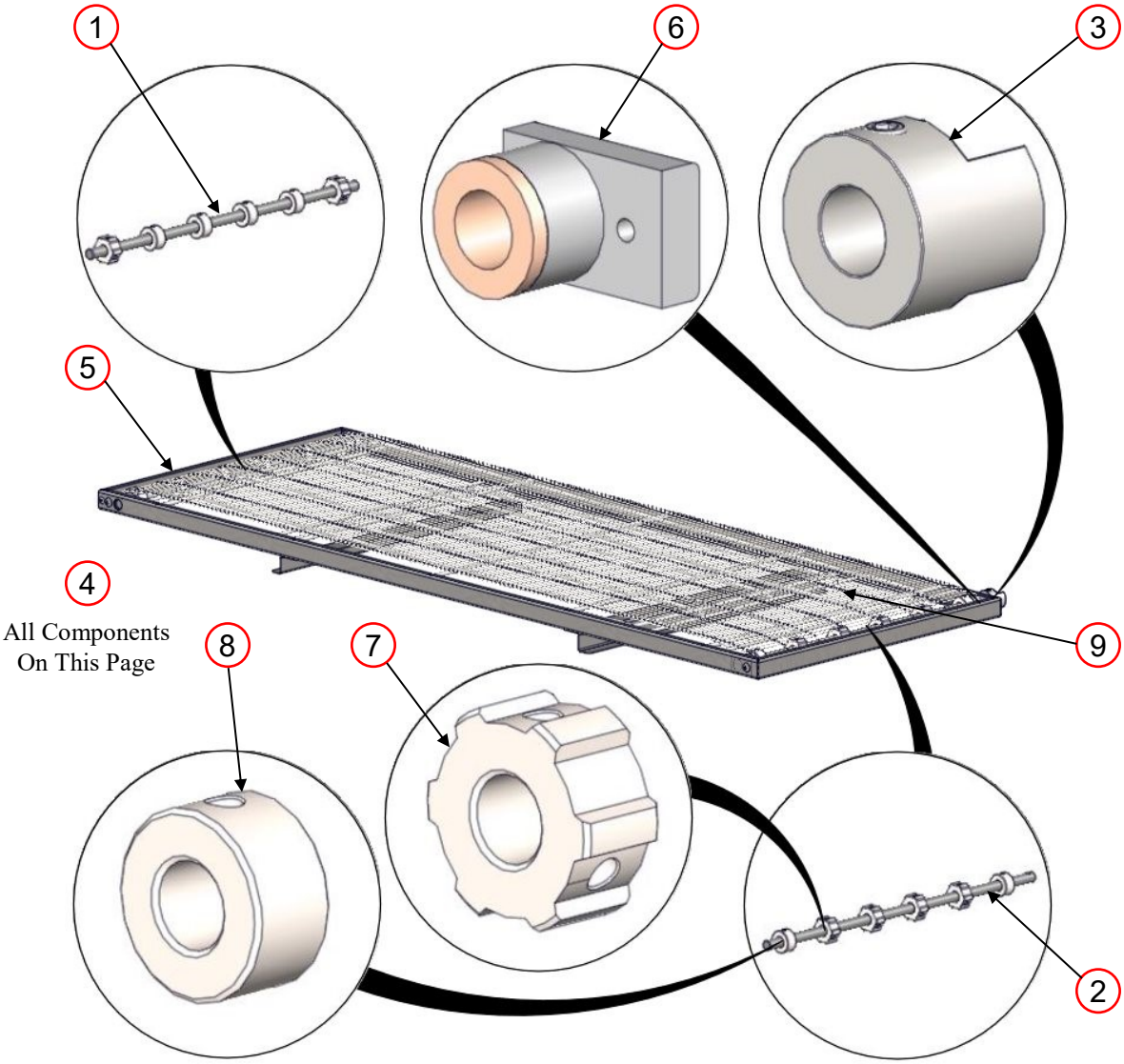
Electric Oven Elements						
Oven Size	208V-2800W	Qty	240V-3000W	Qty	380V-2000W	Qty
1620-208 V	x	2				
1620-220/240 V			x	2		
1620-380 V					x	3

Back Wall information required:

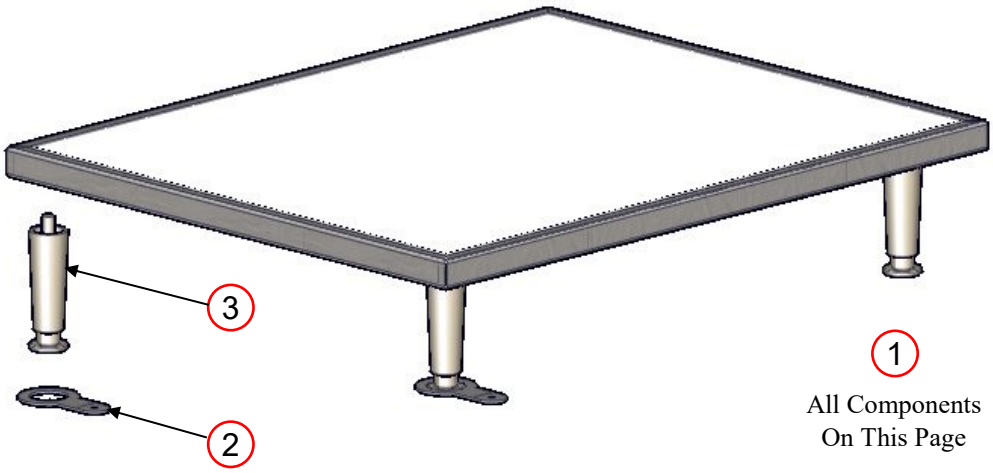
- Voltage



FRONT PANEL		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	05-2-6000-xx20	Front Panel Assembly
2	05-2-6700A-xx20	Extended Front Panel Assembly
3	05-2-6700AP-xx20	Extended Front Panel Assembly Painted
4	96-6505.25-20X1.75	Front Panel Knob

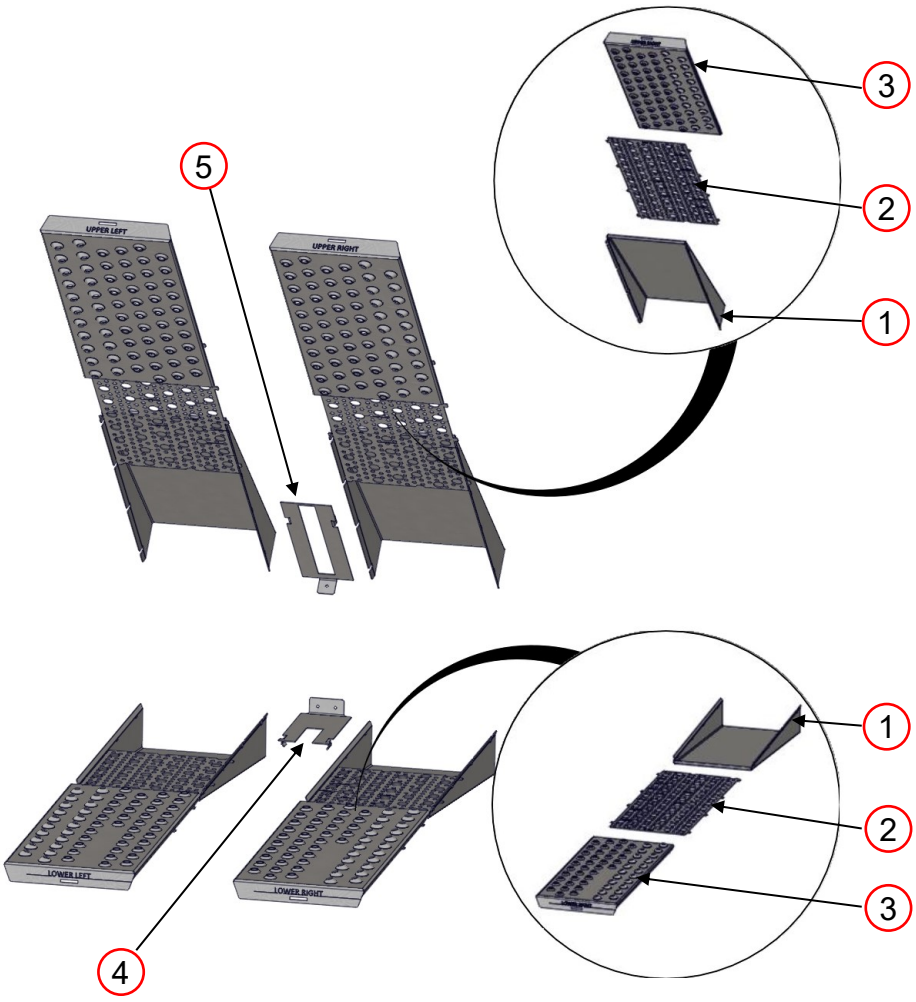


CONVEYOR		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	05-1-7301A.5-16xx	Conveyor Shaft Idle
2	05-1-7302A.5-16xx	Conveyor Shaft Drive
3	05-1-7503A.5	Shaft Coupling 1/2" Driven
4	05-2-7000AR-1620	Conveyor Assembly Complete
5	05-2-7100AR-1620	Conveyor Frame Assembly
6	05-2-7200A	Conveyor Bearing Assembly
7	96-7403A.5X1.08T	Conveyor Roll Notched
8	96-7404A.5X1.08S	Conveyor Roll Plain
9	96-7501A100-1620	Conveyor Belt 1620



All Components
On This Page

BASE		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	05-1-1000A-1620	Base 1620
2	05-1-9600A	Anti-Slide Washer
3	96-1000A4	Appliance Leg 4"

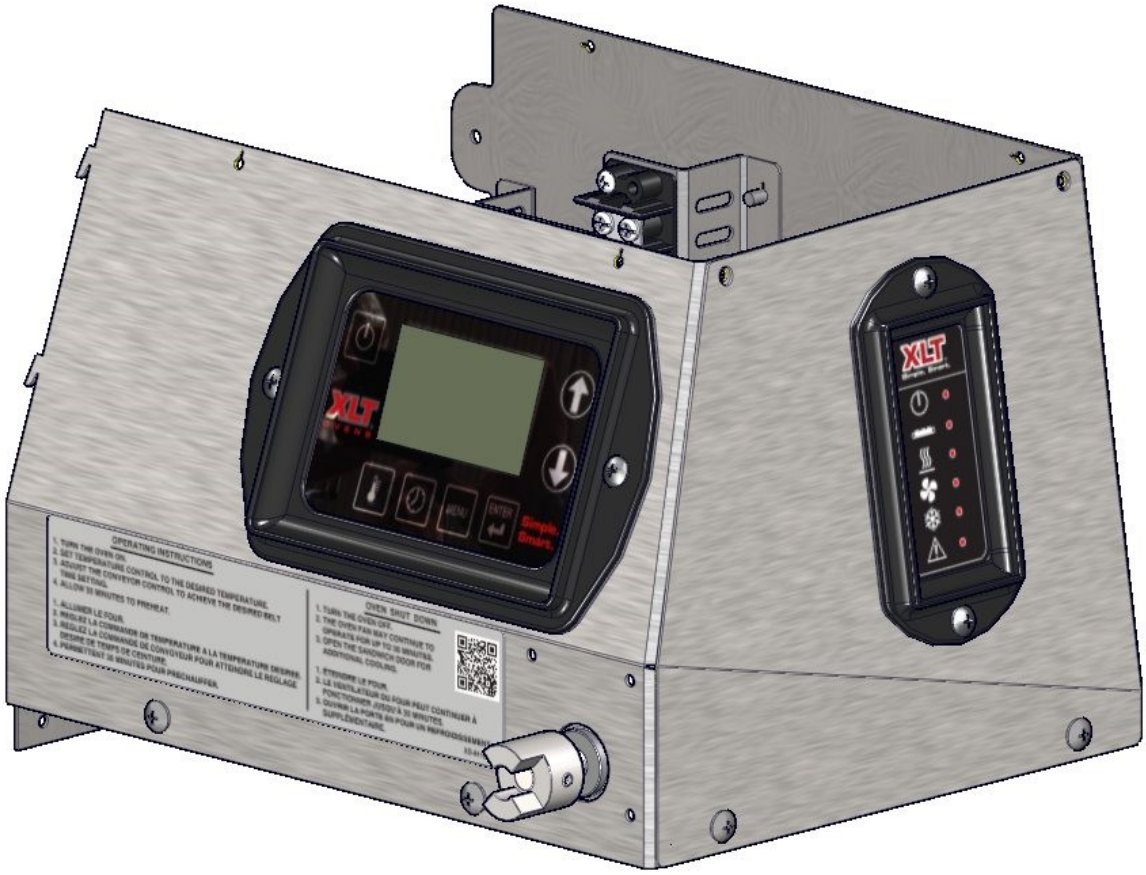


FINGERS		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	05-1-8001-16xx	Finger Body
2	05-1-8003	Finger Inner Plate
3	05-1-80xx	Finger Outer
4	05-1-8009xLO-1620	Return Air Diverter Lower
5	05-1-8009xUP-1620	Return Air Diverter Upper
6	05-2-8000	Finger Group Assembly

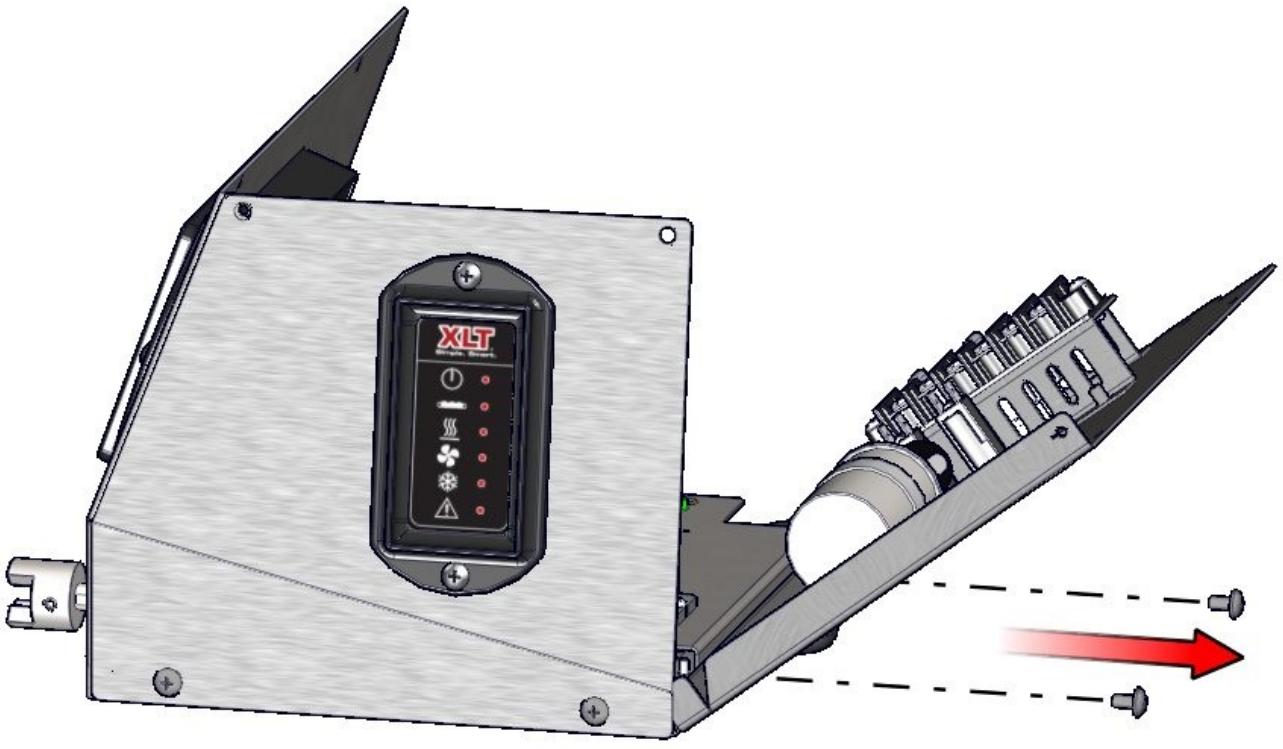
Finger information required:

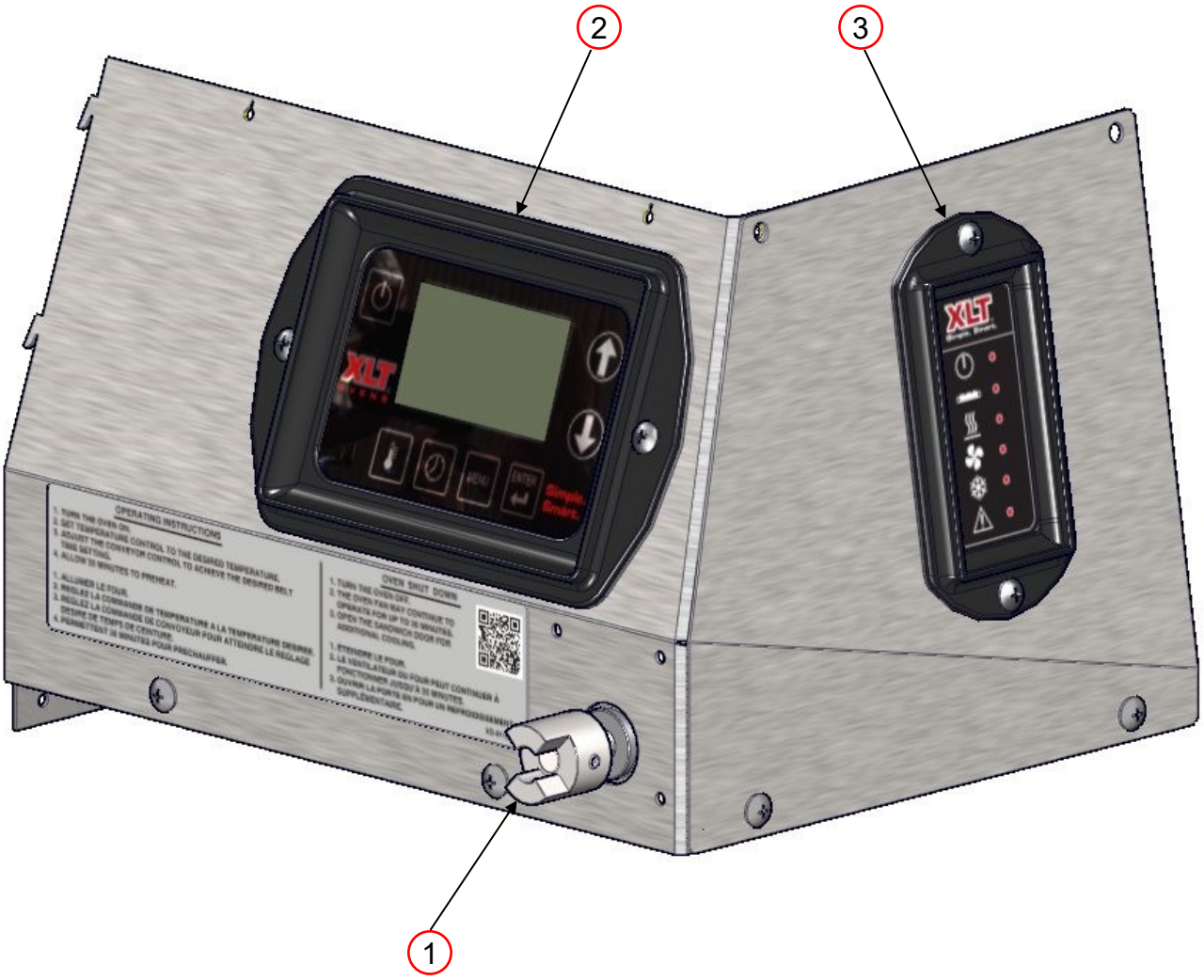
- Customer Name
- Part number on front of finger outer

Operating Position (shown with lid removed)

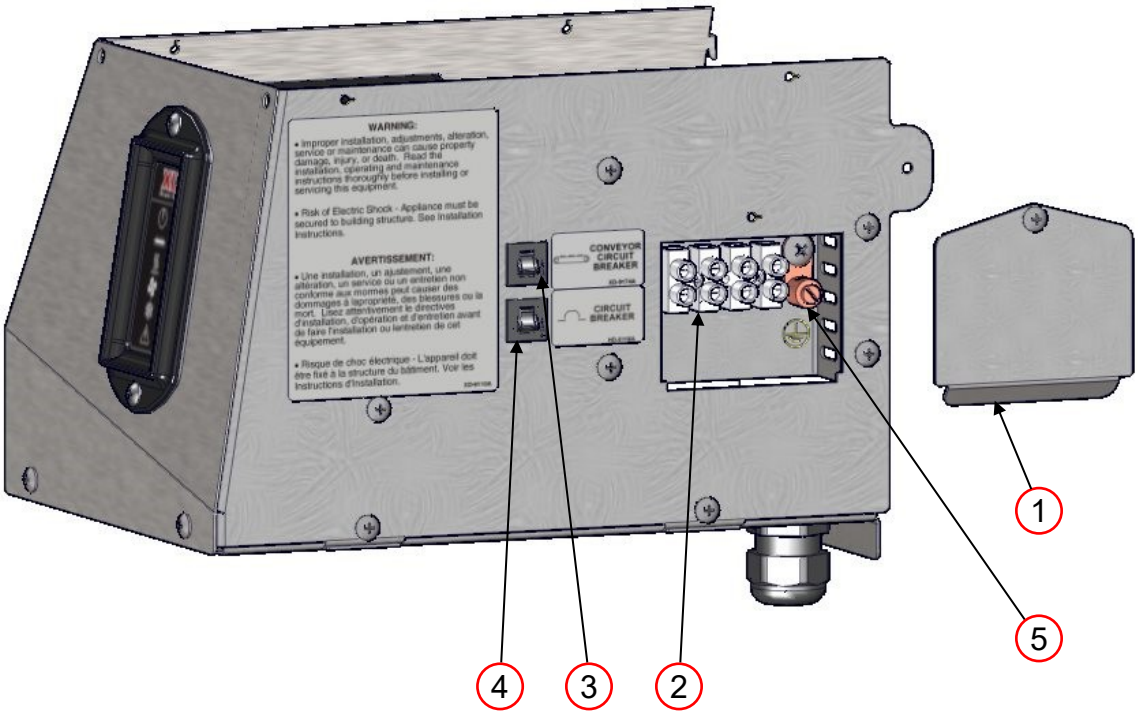


Service Position

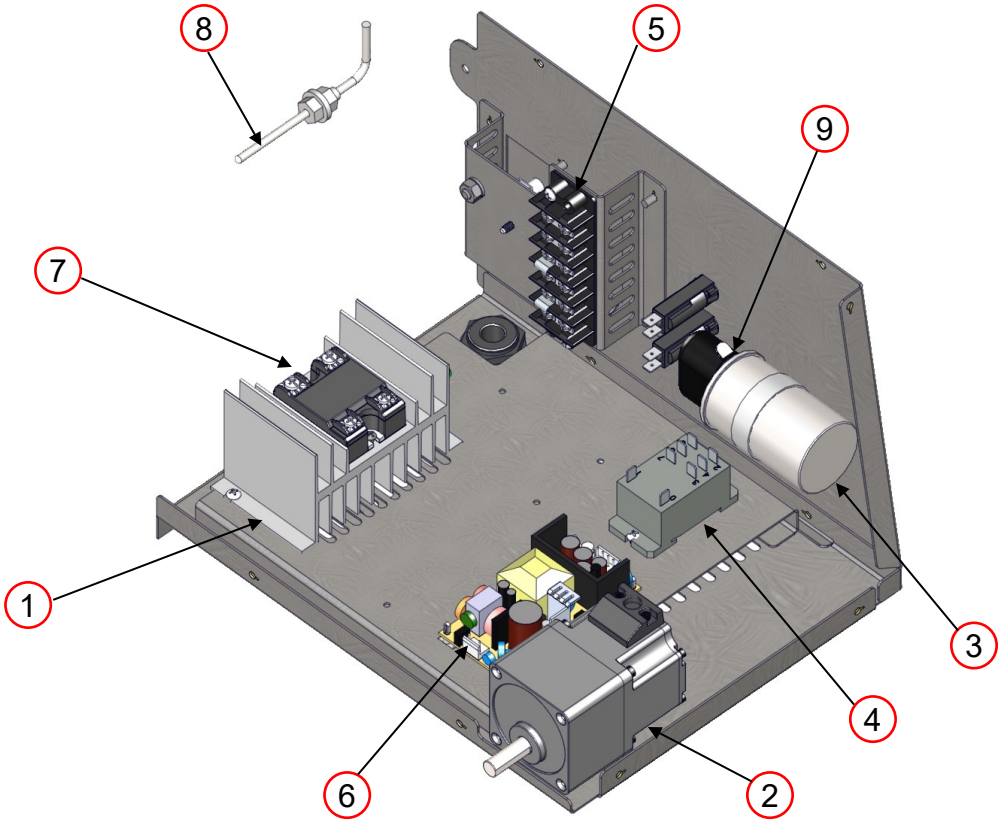




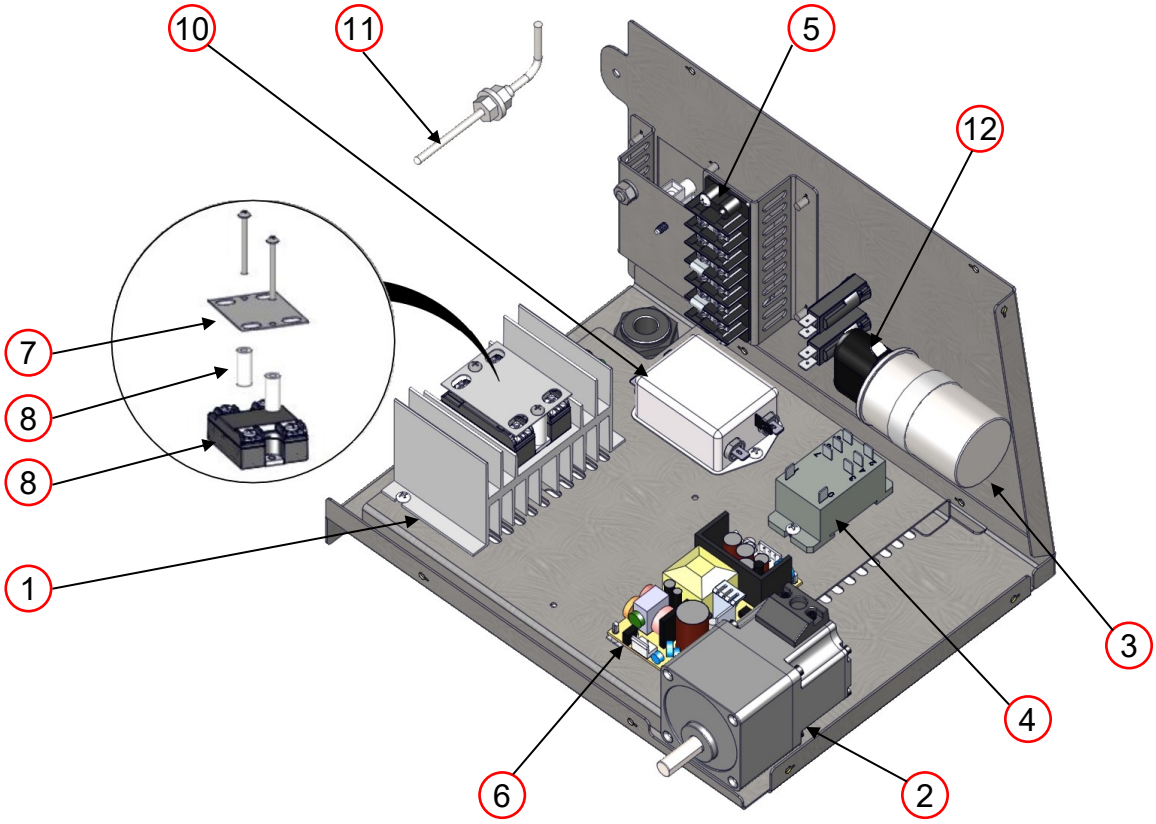
CONTROL PANEL		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	05-1-4155A10MM	Shaft Coupling 10mm Drive
2	XP-4170A-LUI	Large User Inferface (LUI)
3	XP-4175A-MC	Oven Machine Control (OMC)



CONTROL BOX REAR		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	05-1-4019A	Terminal Block Cover
2	96-4201A-6	Terminal Block 14-6 Gauge Wire (TB1)
3	XP 4515-CB-0.5A	1/2 Amp Circuit Breaker (CB)
4	XP 4515-CB-2A	2 Amp Circuit Breaker (CB)
5	XP 4707	Ground Lug Copper



CONTROL BOX INTERIOR		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	05-1-4305A90	Relay 90A Heat Sink Half
2	05-2-4117A25W	Conveyor Motor Assembly (M2)
3	96-4014A7.5	Motor Run Capacitor 7.5 uF (CAP)
4	HP-2067A-24VDC	Relay 8 Pin 30A 24VDC (R1)
5	RP-4701-06	Terminal Strip 6 Place (TS1)
6	RP-4717A	Power Supply (PS)
7	XP-4305A-90	Relay 90A Solid State (SSR)
8	XP-4509A-90	Thermocouple Type K 90 (TC)
9	XP-5012	Capacitor Boot



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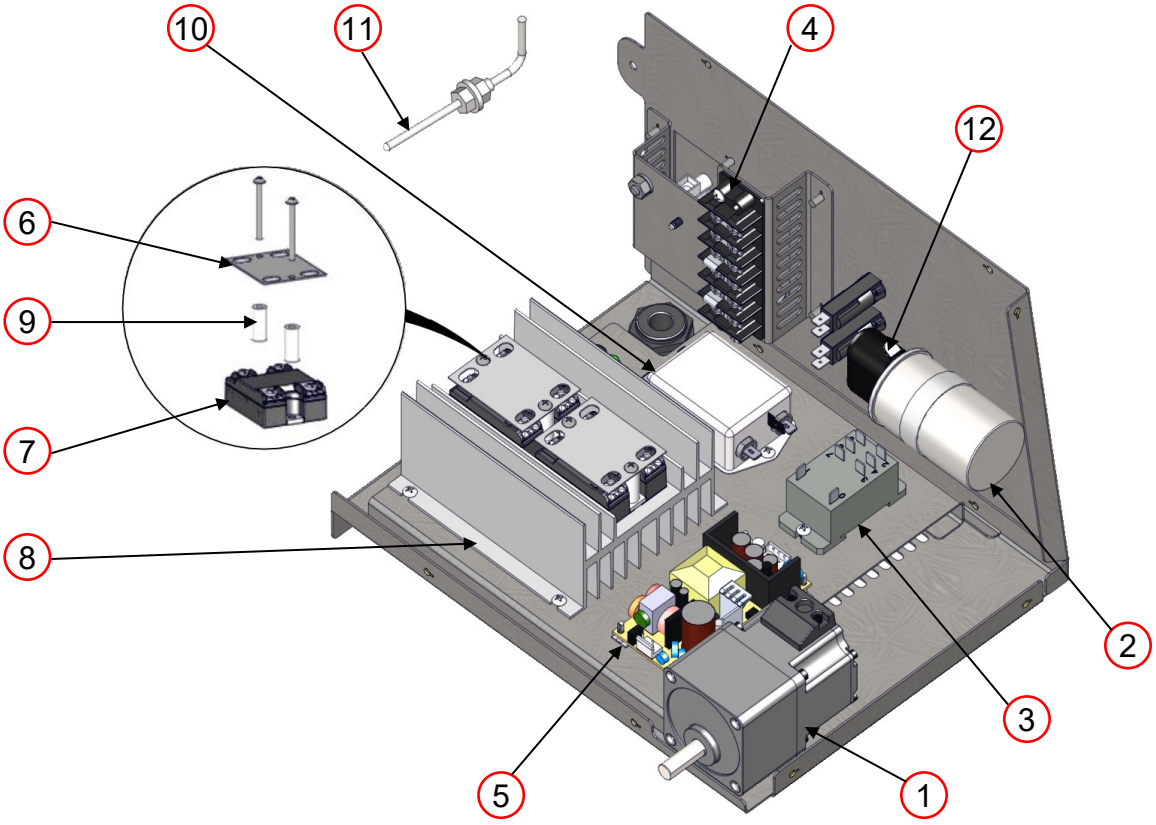
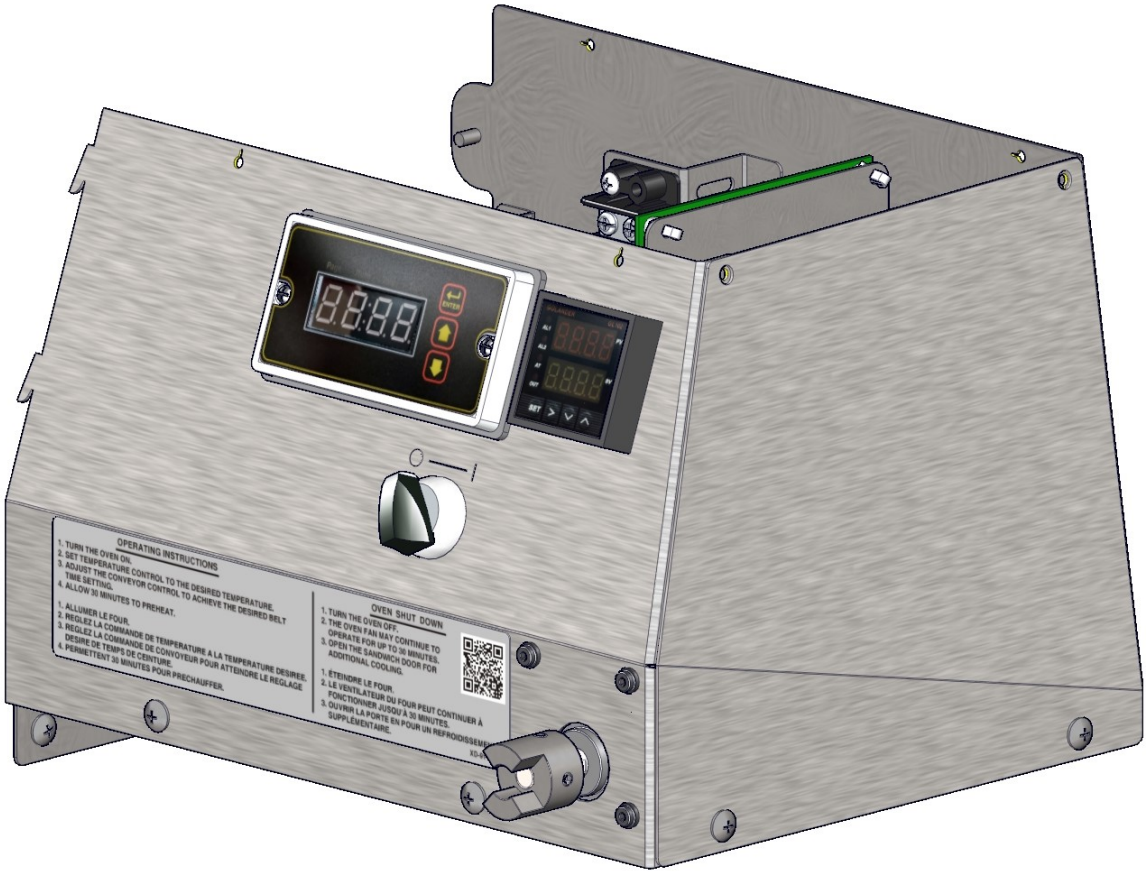
4	HP-2067A-24VDC	Relay 8 Pin 30A 24VDC (R1)
5	RP-4701-06	Terminal Strip 6 Place (TS1)
6	RP-4717A	Power Supply (PS)
7	XM-4305A-COV	SSR Cover
8	XP-4305A-75	Relay 75A Solid State (SSR)
9	XP-4305A-Stand	SSR Standoff
10	XP-4320	EMC/RFI Filter (FLT1)
11	XP-4509A-90	Thermocouple Type K 90 (TC)
12	XP-5012	Capacitor Boot

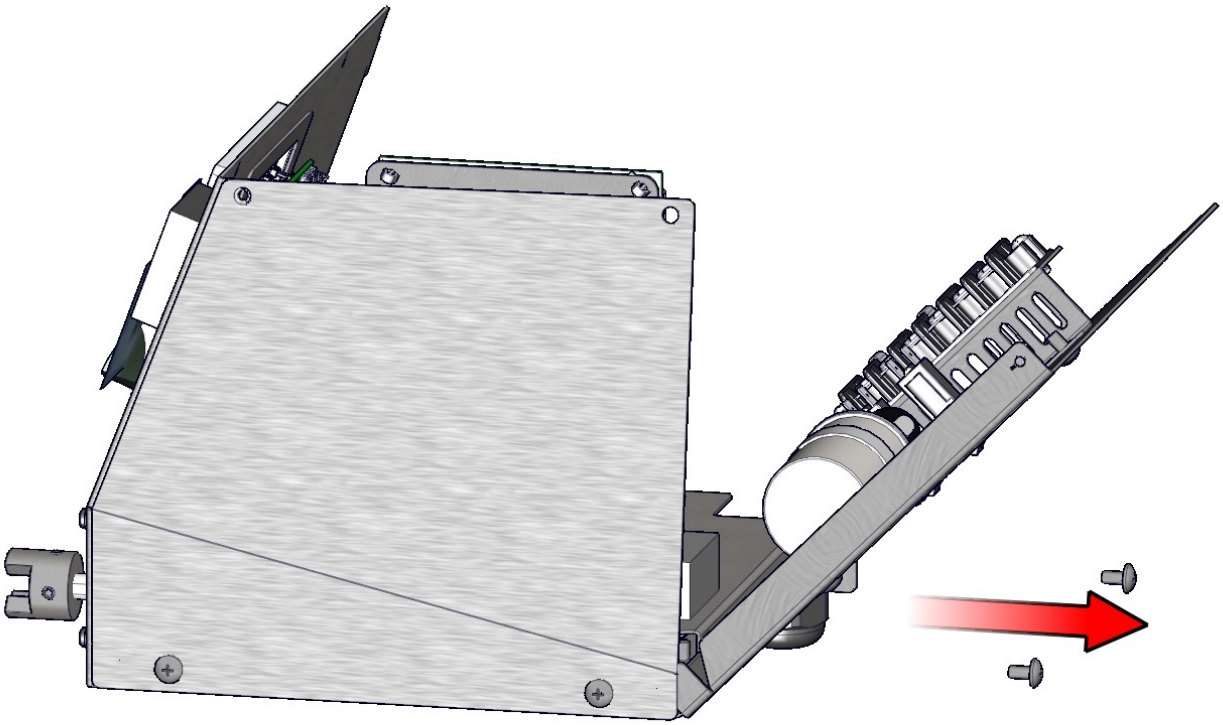


CONTROL BOX INTERIOR		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	05-2-4117A25W	Conveyor Motor Assembly (M2)
2	96-4014A7.5	Motor Run Capacitor 7.5 uF (CAP)
3	HP-2067A-24VDC	Relay 8 Pin 30A 24VDC (R1)
4	RP-4701-06	Terminal Strip 6 Place (TS1)
5	RP-4717A	Power Supply (PS)
6	XM-4305A-COV	SSR Cover
7	XP-4305A-75	Relay 75A Solid State (SSR)
8	XP-4305A-90-HS	Relay 90A Heat Sink
9	XP-4305A-Stand	SSR Standoff
10	XP-4320	EMC/RFI Filter (FLT1)
11	XP-4509A-90	Thermocouple Type K 90 (TC)
12	XP-5012	Capacitor Boot

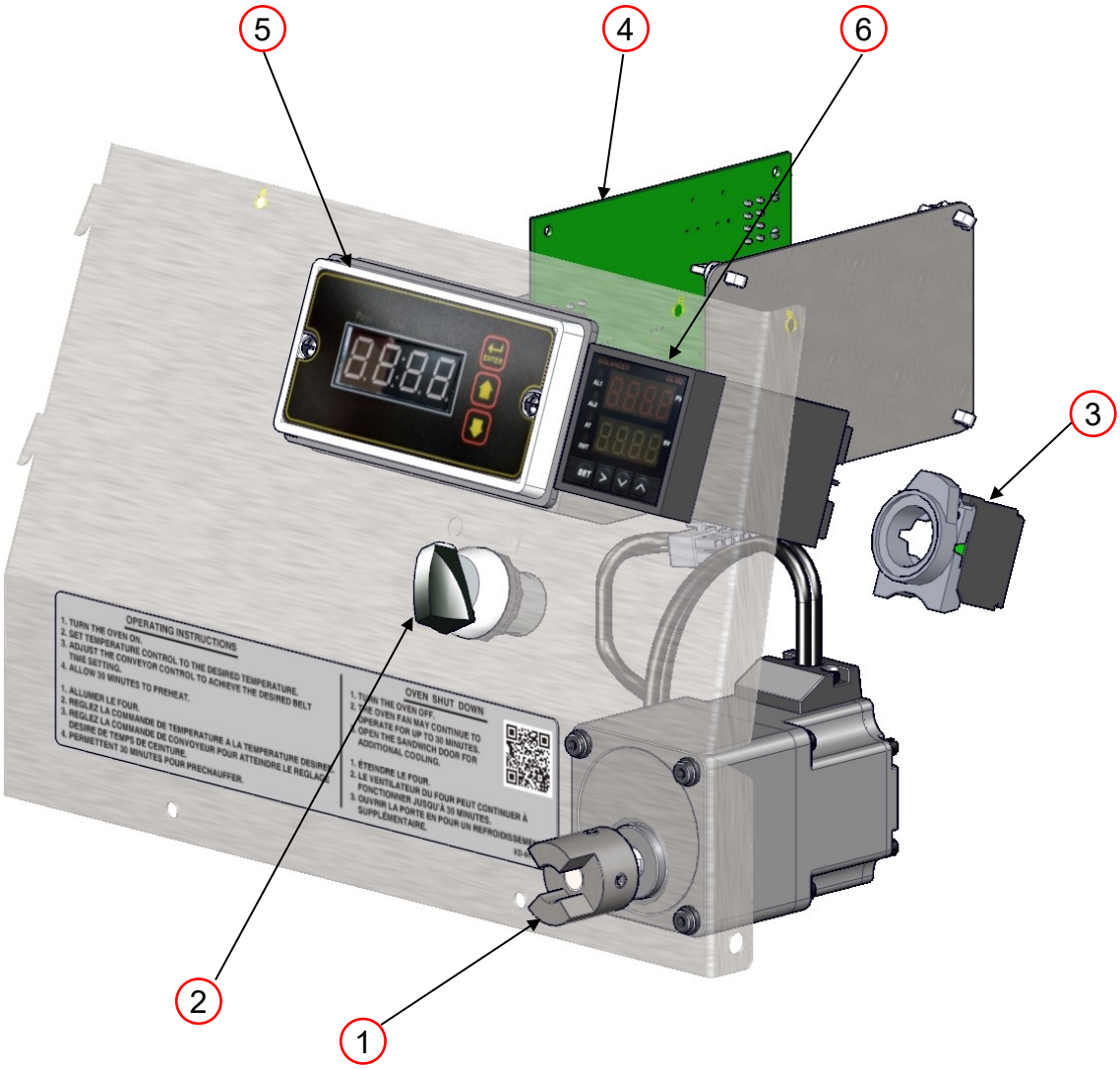
Discrete Control - Operating Position (shown with lid removed)



Service Position

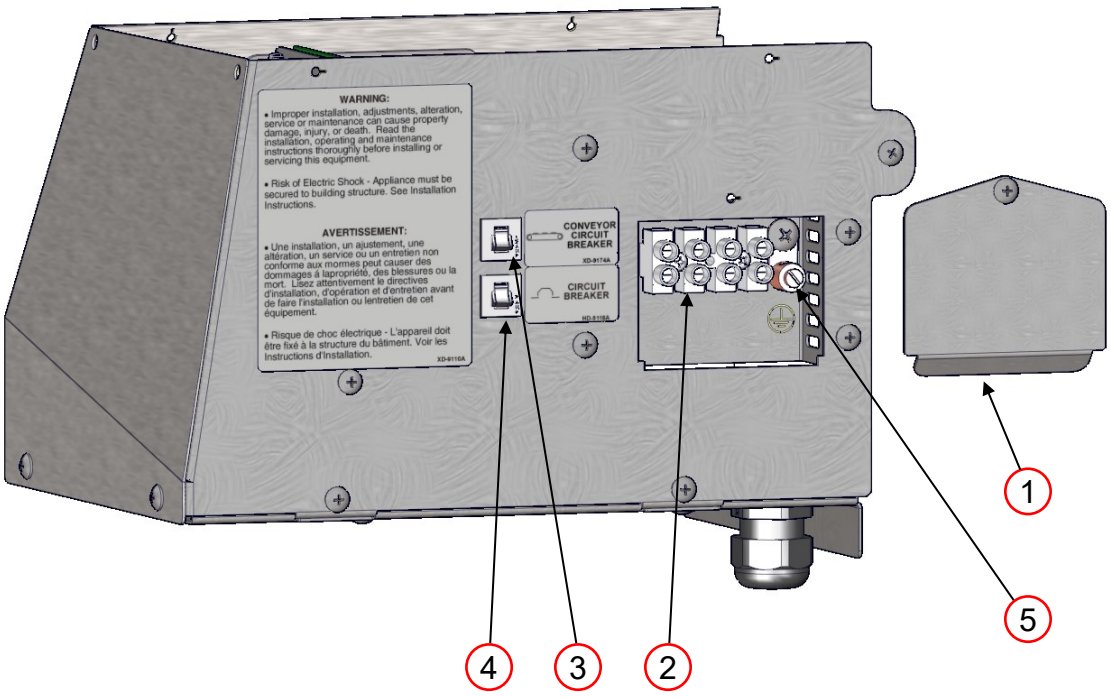


Discrete Control Package



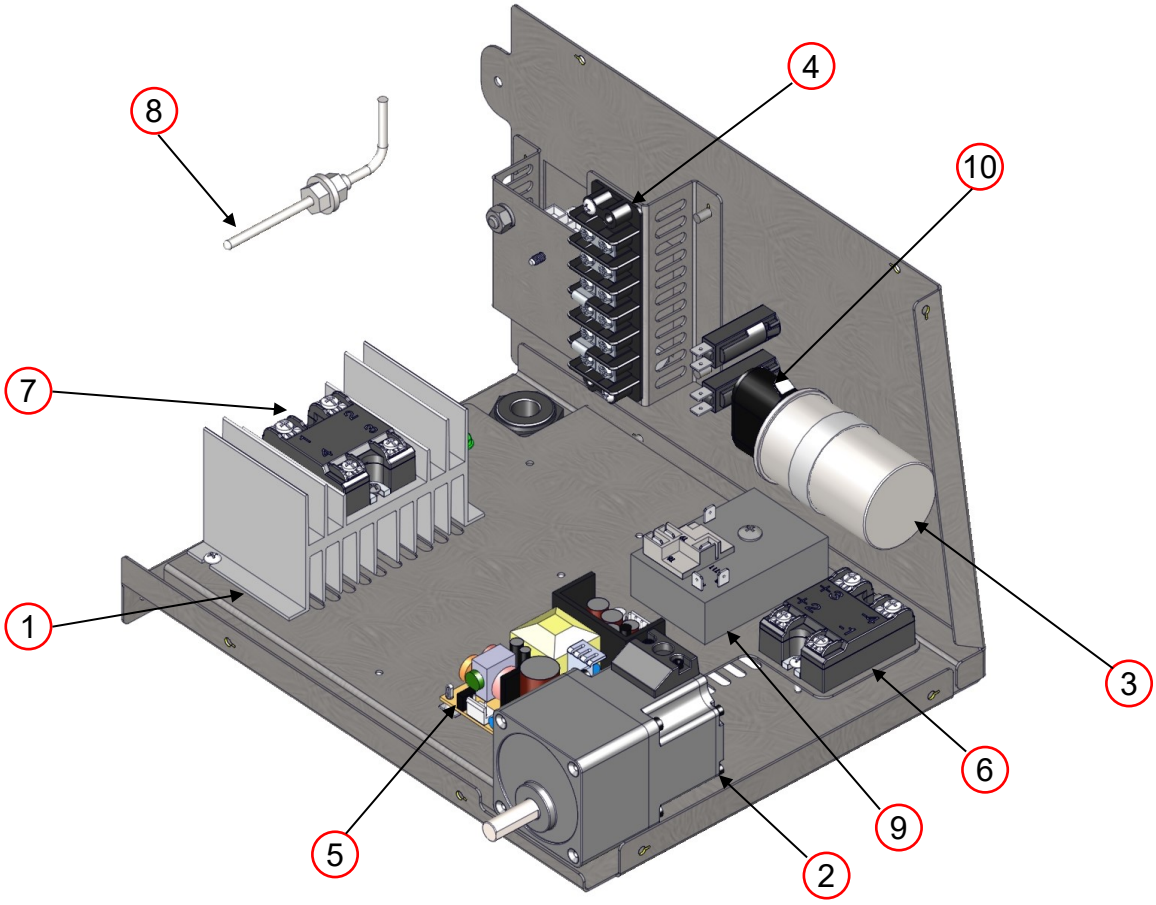
CONTROL PANEL		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	05-1-4155A10MM	Shaft Coupling 10mm Drive
2	XP-4101	Switch Operator
3	XP-4102	Contact Block 1Pole w/Mount
4	XP-4507B-24-DC	DART Control Board
5	XP-4507B-24-DD	DART Display
6	XP-4508A-GL	Temperature Control

Discrete Control Package



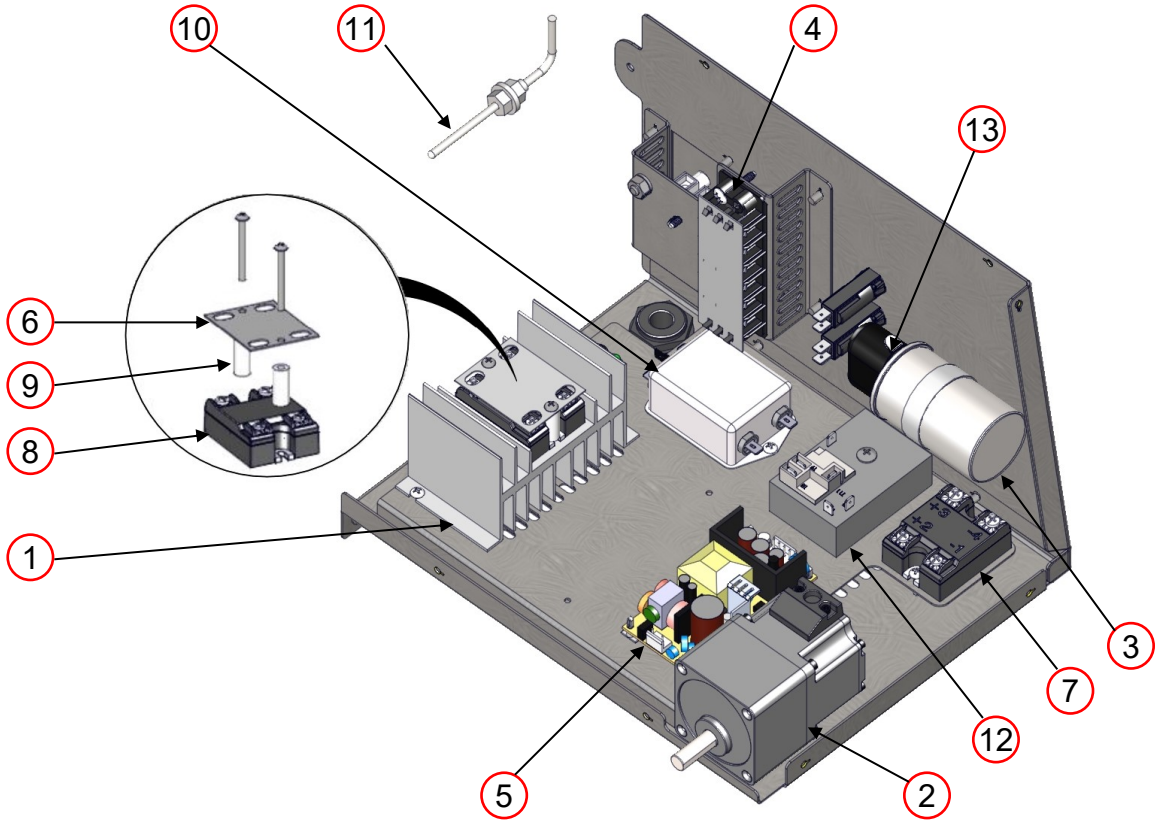
CONTROL BOX REAR		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	05-1-4019A	Terminal Block Cover
2	96-4201A-6	Terminal Block 14-6 Gauge Wire (TB1)
3	XP 4515-CB-0.5A	1/2 Amp Circuit Breaker (CB)
4	XP 4515-CB-2A	2 Amp Circuit Breaker (CB)
5	XP 4707	Ground Lug Copper

Discrete Control Package



CONTROL BOX INTERIOR		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	05-1-4305A90	Relay 90A Heat Sink Half
2	05-2-4117A25W	Conveyor Motor Assembly (M2)
3	96-4014A7.5	Motor Run Capacitor 7.5 uF (CAP)
4	RP-4701-06	Terminal Strip 6 Place (TS1)
5	RP-4717A	Power Supply (PS)
6	XP-4305A-10	Relay 10A Solid State (SSR)
7	XP-4305A-90	Relay 90A Solid State (SSR)
8	XP-4509A-90	Thermocouple Type K 90 (TC)
9	XP-4704-230 Volt	Cool Down Timer 230 Volt R1
10	XP-5012	Capacitor Boot

Discrete Control Package



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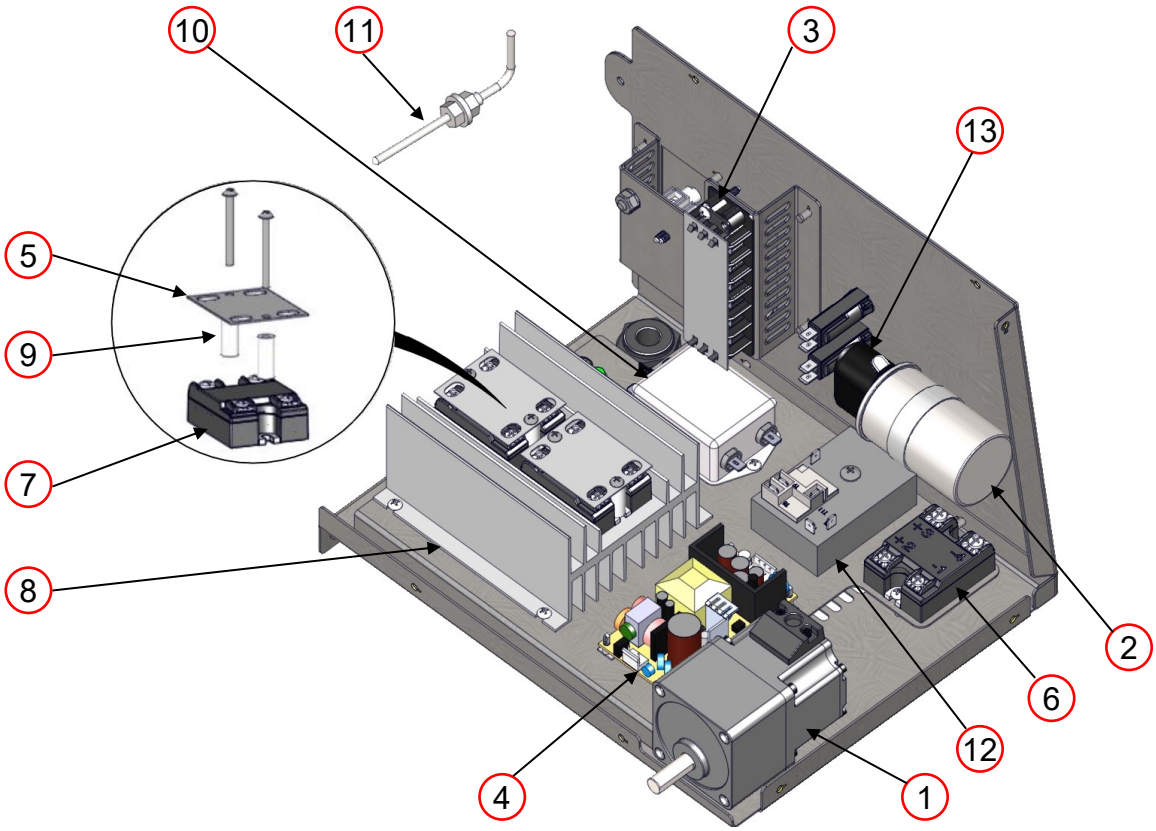
2	05-2-4117A25W	Conveyor Motor Assembly (M2)
3	96-4014A7.5	Motor Run Capacitor 7.5 uF (CAP)
4	RP-4701-06	Terminal Strip 6 Place (TS1)
5	RP-4717A	Power Supply (PS)
6	XM-4305A-COV	SSR Cover
7	XP-4305A-10	Relay 10A Solid State (SSR)
8	XP-4305A-75	Relay 75A Solid State (SSR)
9	XP-4305A-Stand	SSR Standoff
10	XP-4320	EMC/RFI Filter (FLT1)
11	XP-4509A-90	Thermocouple Type K 90 (TC)
12	XP-4704-230 Volt	Cool Down Timer 230 Volt R1
13	XP-5012	Capacitor Boot

Discrete Control Package



CONTROL BOX INTERIOR		
ITEM	**PART NUMBER**	**DESCRIPTION**
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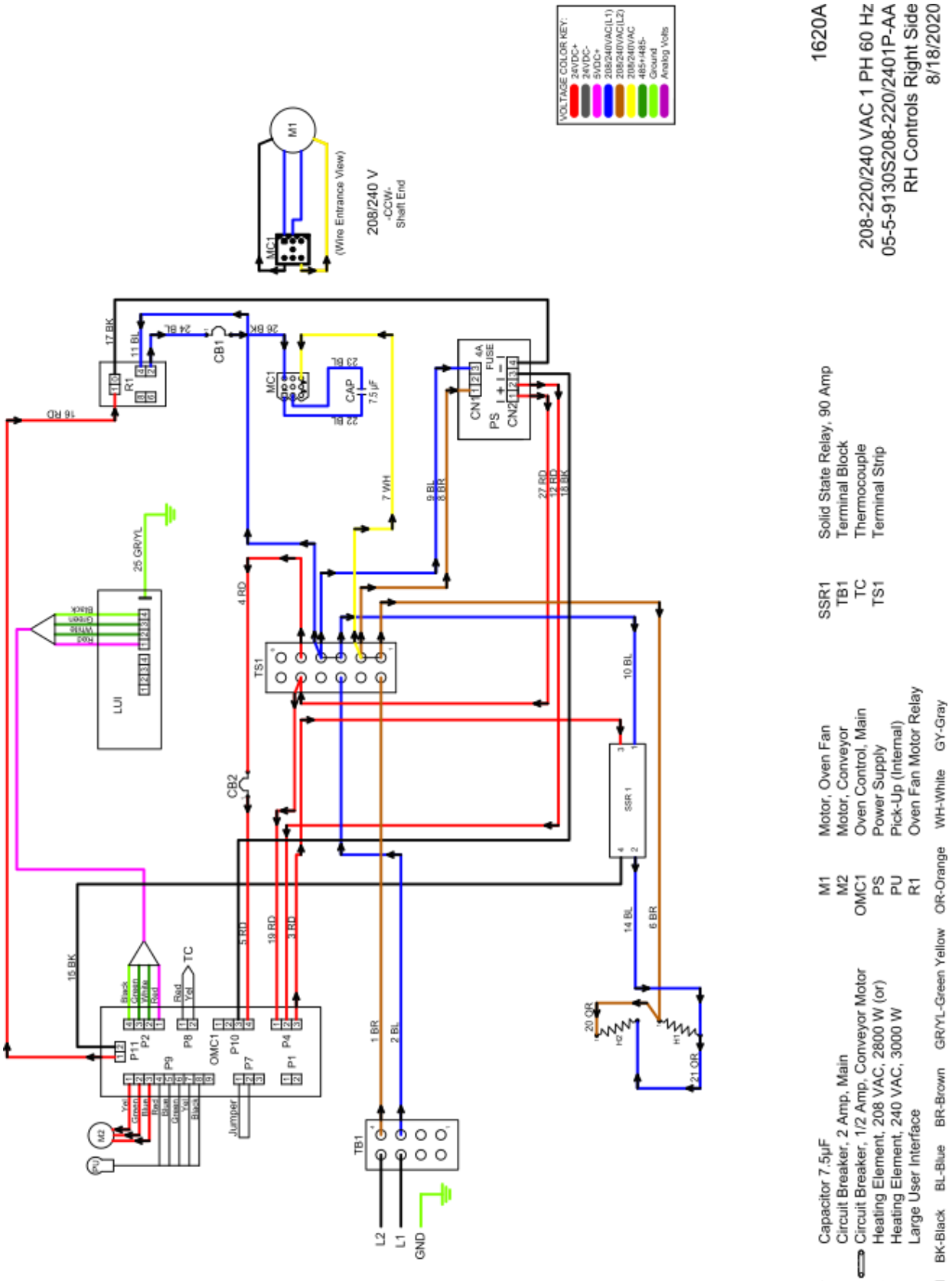
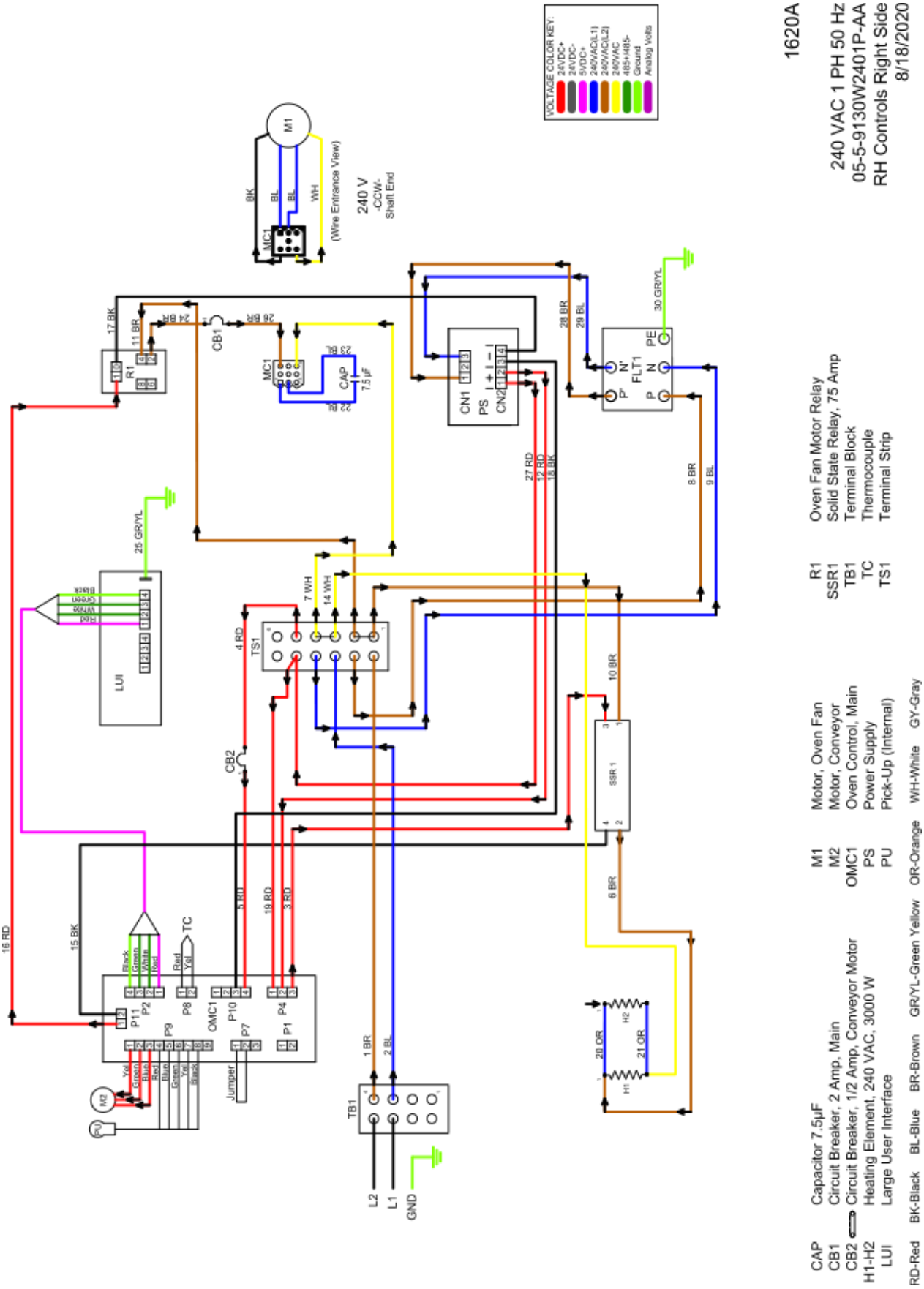
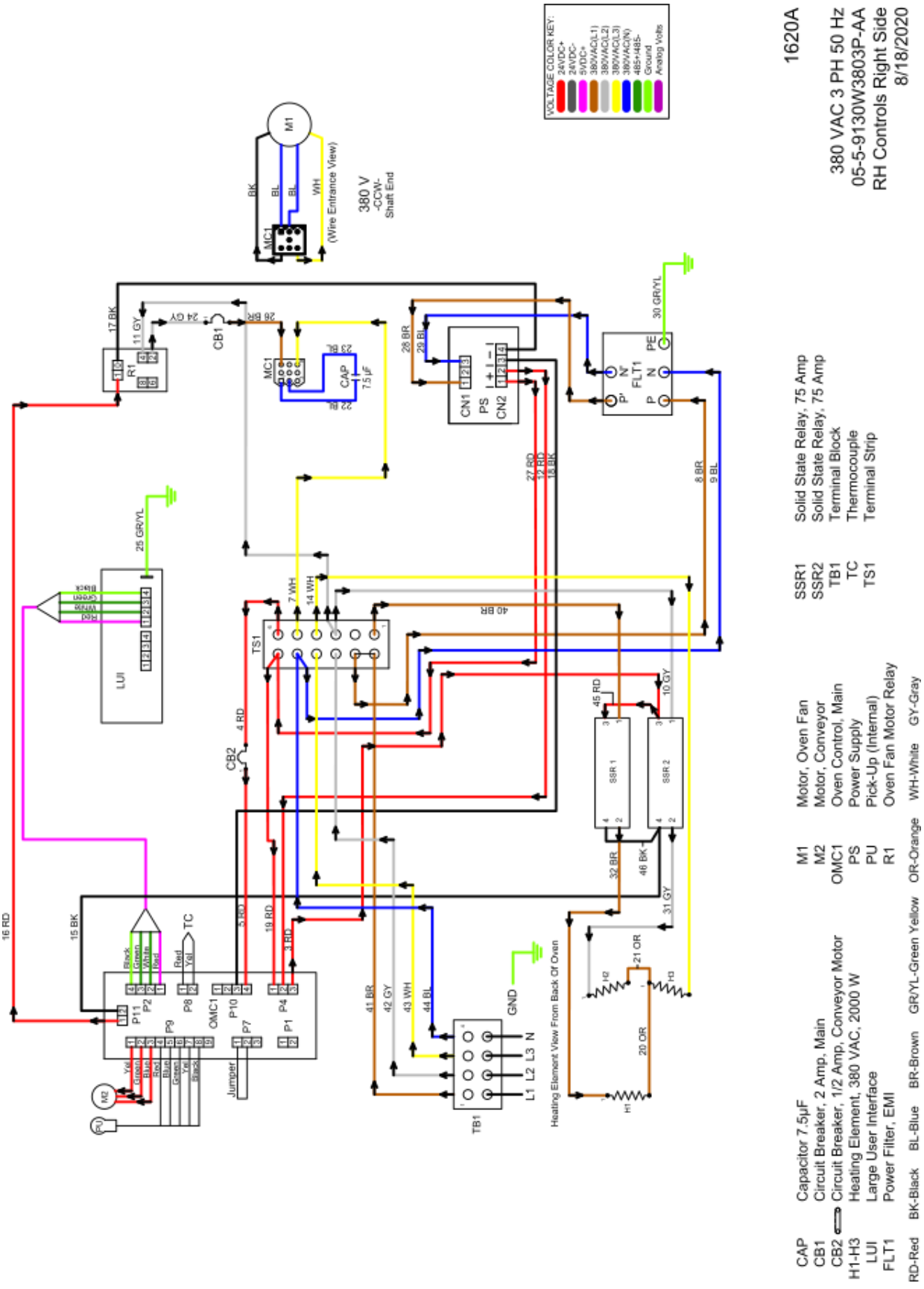
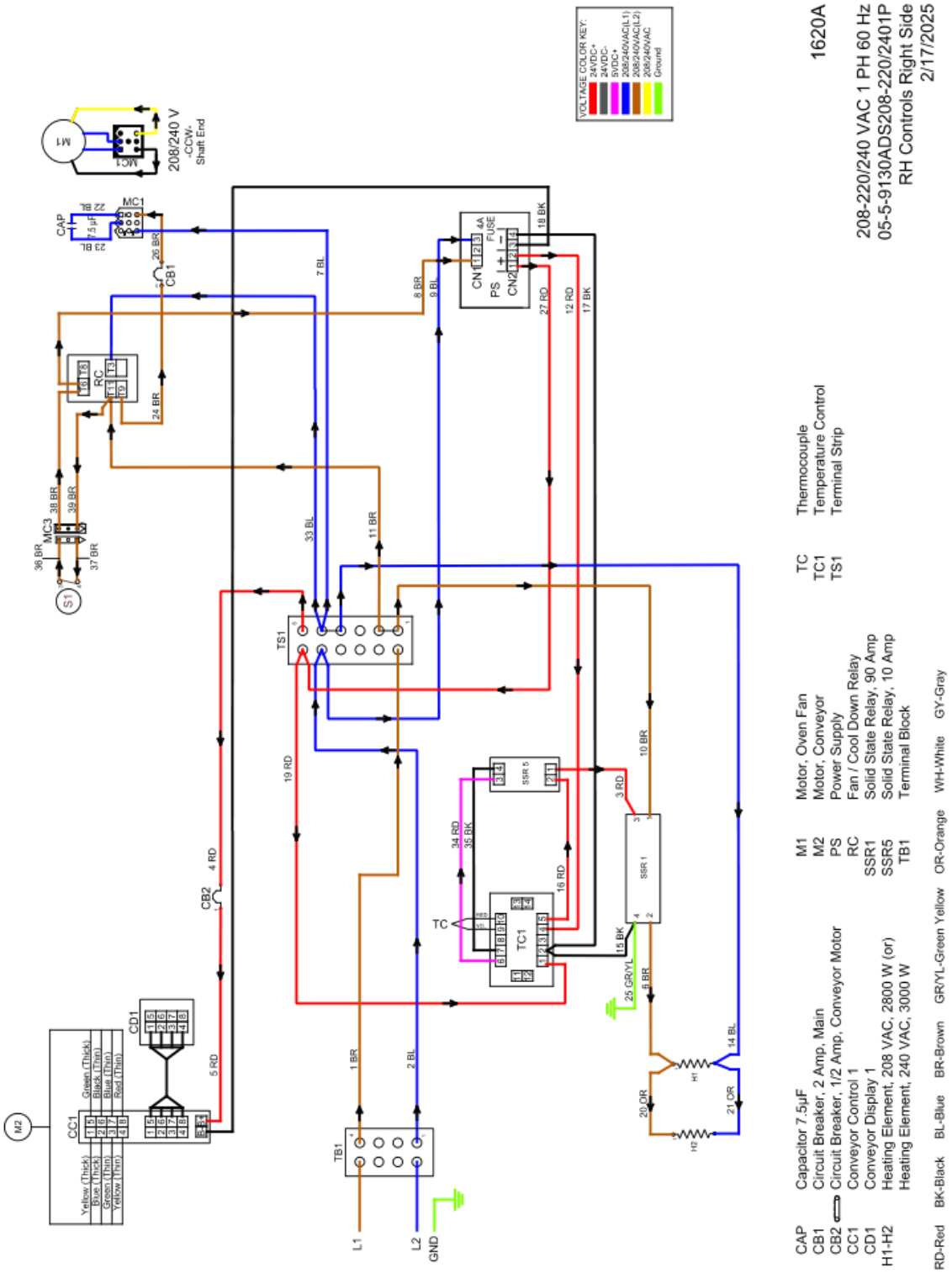
6	XP-4305A-10	Relay 10A Solid State (SSR)
7	XP-4305A-75	Relay 75A Solid State (SSR)
8	XP-4305A-90-HS	Relay 90A Heat Sink
9	XP-4305A-Stand	SSR Standoff
10	XP-4320	EMC/RFI Filter (FLT1)
11	XP-4509A-90	Thermocouple Type K 90 (TC)
12	XP-4704-230 Volt	Cool Down Timer 230 Volt R1
13	XP-5012	Capacitor Boot


1620A
208-220/240 VAC 1 PH 60 Hz
05-5-9130S208-220/2401P-AA
RH Controls Right Side
8/18/2020
VOLTAGE COLOR KEY:
24VDC+
24VDC-
5VDC+
208/240VAC(L1)
208/240VAC(L2)
208/240VAC
485+/485-
Ground
Analog Volts
208/240 V
-CCW-
Shaft End
(Wire Entrance View)
M1
MC1
CB1
CB2
R1
CAP
7.5 µF
PS
CN1
CN2
4A FUSE
LUI
TS1
SSR 1
TB1
TC
OMC1
P1
P2
P4
P7
P8
P9
P10
P11
Jumper
H1
H2
L2
L1
GND
CAP Capacitor 7.5µF
CB1 Circuit Breaker, 2 Amp, Main
CB2 Circuit Breaker, 1/2 Amp, Conveyor Motor
H1-H2 Heating Element, 208 VAC, 2800 W (or)
Heating Element, 240 VAC, 3000 W
LUI Large User Interface
M1 Motor, Oven Fan
M2 Motor, Conveyor
OMC1 Oven Control, Main
PS Power Supply
PU Pick-Up (Internal)
R1 Oven Fan Motor Relay
SSR1 Solid State Relay, 90 Amp
TB1 Terminal Block
TC Thermocouple
TS1 Terminal Strip
RD-Red BK-Black BL-Blue BR-Brown GR/YL-Green Yellow OR-Orange WH-White GY-Gray

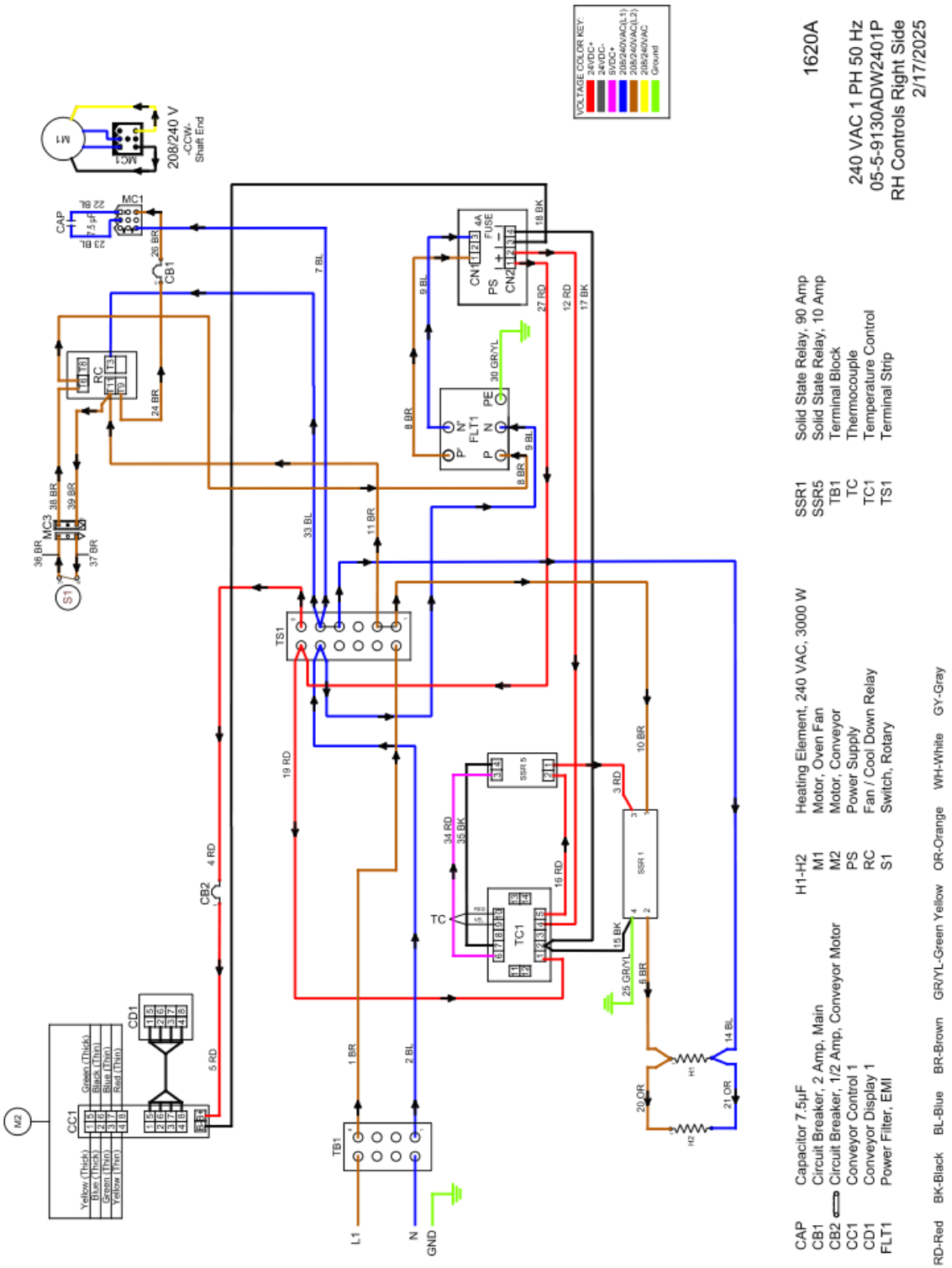

1620A
240 VAC 1 PH 50 Hz
05-5-9130W2401P-AA
RH Controls Right Side
8/18/2020
VOLTAGE COLOR KEY:
24VDC+
24VDC-
5VDC+
240VAC(L1)
240VAC(L2)
24VAC
485+485-
Ground
Analog Volts
240 V
-CCW-
Shaft End
(Wire Entrance View)
M1
MC1
BK
BL
BL
WH
CB1
CB2
CAP
7.5 µF
R1
CN1
CN2
PS
FLT1
PE
LUI
TS1
TB1
SSR 1
TC
OMC1
P1
P2
P4
P7
P8
P9
P10
P11
H1
H2
Jumper
L2
L1
GND
Oven Fan Motor Relay
Solid State Relay, 75 Amp
Terminal Block
Thermocouple
Terminal Strip
Motor, Oven Fan
Motor, Conveyor
Oven Control, Main
Power Supply
Pick-Up (Internal)
Capacitor 7.5µF
Circuit Breaker, 2 Amp, Main
Circuit Breaker, 1/2 Amp, Conveyor Motor
Heating Element, 240 VAC, 3000 W
Large User Interface
BK-Black
BL-Blue
BR-Brown
GR/YL-Green Yellow
OR-Orange
WH-White
GY-Gray
RD-Red


1620A
380 VAC 3 PH 50 Hz
05-5-9130W3803P-AA
RH Controls Right Side
8/18/2020
VOLTAGE COLOR KEY:
24VDC+
24VDC-
5VDC+
380VAC(L1)
380VAC(L2)
380VAC(L3)
380VAC(N)
485+485-
Ground
Analog Volts
380 V
-CCW-
Shaft End
(Wire Entrance View)
SSR1 Solid State Relay, 75 Amp
SSR2 Solid State Relay, 75 Amp
TB1 Terminal Block
TC Thermocouple
TS1 Terminal Strip
M1 Motor, Oven Fan
M2 Motor, Conveyor
OMC1 Oven Control, Main
PS Power Supply
PU Pick-Up (Internal)
R1 Oven Fan Motor Relay
CAP Capacitor 7.5µF
CB1 Circuit Breaker, 2 Amp, Main
CB2 Circuit Breaker, 1/2 Amp, Conveyor Motor
H1-H3 Heating Element, 380 VAC, 2000 W
LUI Large User Interface
FLT1 Power Filter, EMI
RD-Red BK-Black BL-Blue BR-Brown GR/YL-Green Yellow OR-Orange WH-White GY-Gray

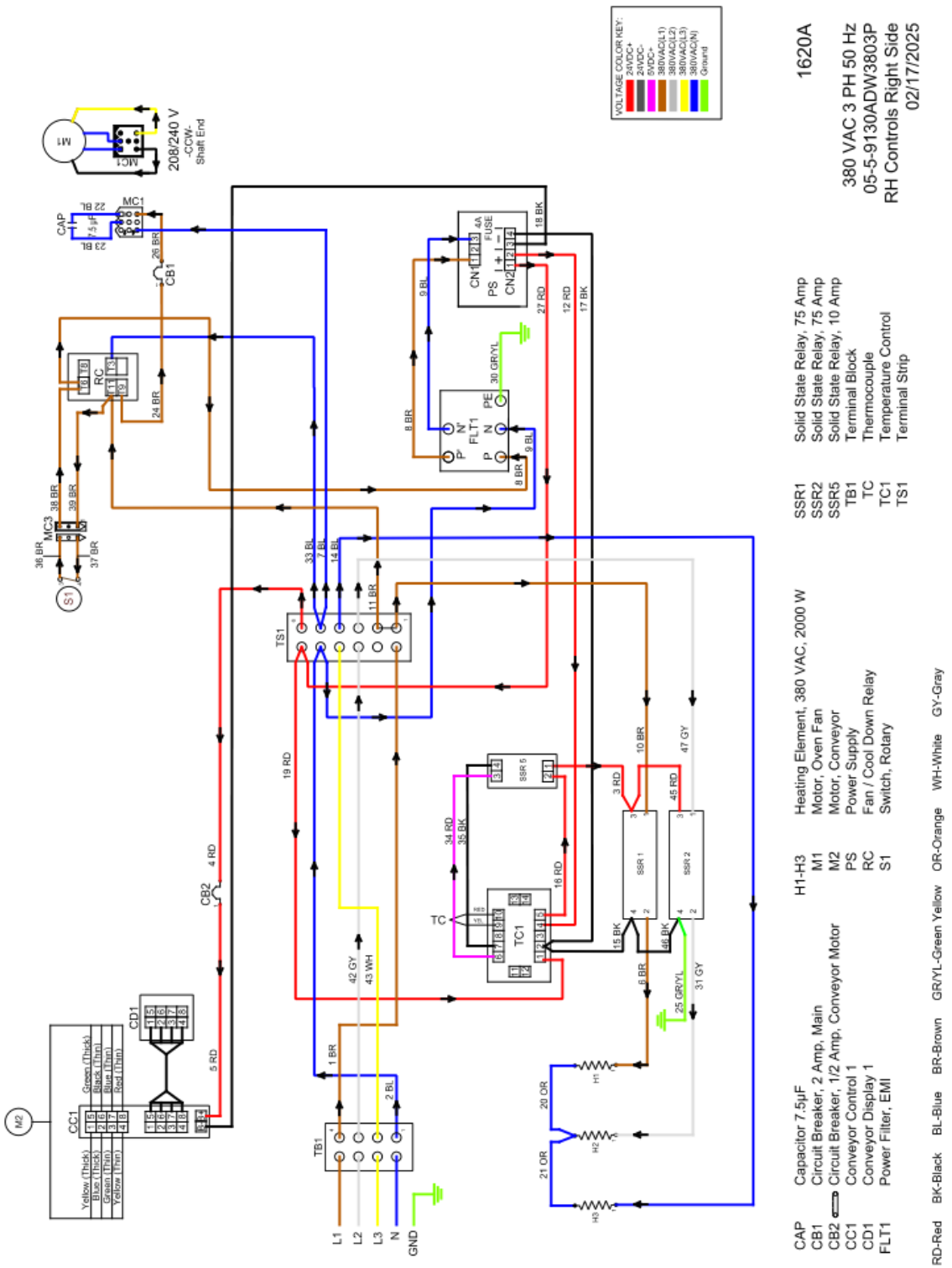
Discrete Control Package



Discrete Control Package



Discrete Control Package



NOTES

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