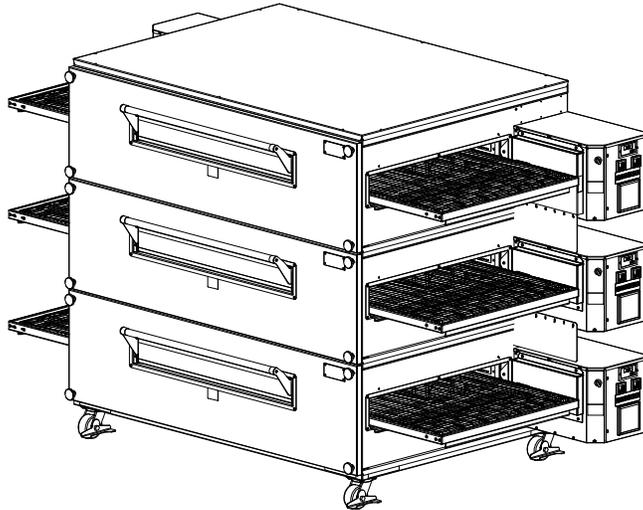




**Simple. Smart.**



## Service Manual

### XLT –S&W Standard & World Series Conveyor Oven



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 combustion and 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.

XD-9011-S&W  
Rev A 12/2009  
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[www.xltovens.com](http://www.xltovens.com)

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## WARNING & SAFETY INFORMATION

- Post in a prominent location instructions to be followed in the event you smell gas. This information can be obtained by consulting your local gas supplier.

### **FOR YOUR SAFETY**

**Do not store or use gasoline or other flammable liquids or vapors 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, using, or servicing this equipment.**

- In the event a gas odor is detected, shut off the gas at the main shutoff valve immediately. Contact your local Gas Company or supplier.
- Do not restrict the flow of combustion and/or ventilation air to the unit. Provide adequate clearance for operating, cleaning, and maintaining the unit and adequate clearance for operating the gas shutoff valve when the unit is 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.
- An electrical schematic is located inside the control box of the oven and are also located on pages 48-71 of this manual. Disconnect input power to the unit before performing any maintenance.
- This unit may be operated with either natural gas or LP fuel as designated on the nameplate label located on the side of the unit.
- This unit must be operated by the same voltage, phase, and frequency of electrical power as designated on the nameplate label located on the side of the unit.
- Appliance is not to be cleaned with a high pressure water jet.
- PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE.

Before trouble-shooting the oven,

1. Make sure that the oven is plugged in to a 120VAC electrical outlet for Standard Ovens and 220/230/240VAC electrical power outlet for World Ovens.
2. Check to see that the breaker hasn't been tripped. The circuit should be at least a 20 amp circuit for Standard (120V 60hz) Ovens or a 10 amp circuit for World (220/230/240 VAC 50/60hz) Ovens. Sometimes it is helpful to measure the voltage at the outlet or plug a light into the outlet to verify the power.
3. All circuit breakers on the oven should be checked to insure they have not been tripped. Circuit breakers are used to protect both the inputs and outputs of each particular device.
4. Also check to see if the gas supply is adequate.
5. The gas hose should be connected to the oven and the shutoff valve fully opened.
6. Make sure that the quick-disconnect is properly connected. A full flow style shutoff valve (with pressure tap) should be used and the gas pressure should be measured. For proper operation, the gas inlet pressure to the oven must stay between 6"-8" WC for natural gas and 11.5"-14" WC for propane gas on Standard Ovens. For World Ovens, the gas inlet pressure to the ovens must stay between 15-20 mbar (for natural gas and 27.5-35 mbar for propane. Measure the gas pressure with all gas appliances, such as furnace, hot water heater, oven(s), etc., a) **off and** b) with all gas appliances **on**. Also remember that anytime the gas hose has been disconnected it will take time to purge the air from the gas train.
7. Finally, check to see that the oven is fully assembled. All of the fingers must be properly installed. Incorrect or incomplete finger placement can cause a "windy" condition that can cause the burner not to light, similar to a cigarette lighter outside on a windy day.

Wolfe Electric, Inc. has qualified customer service personnel that can provide assistance on any type of XLT oven problem you may experience on the Standard Ovens. Customer Service can be contacted at 1-888-443-2751, 24 hrs a day, and 7 days a week. For World Ovens, contact Wolfe Electric's designated representative for the area of your country.

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## 1. Description

XLT Ovens consist of 3 basic subsystems: the Fan, Burner and Conveyor subsystems. All of the ovens have a single Oven Main Switch that turn each of these on. Figure 13 on page 13 shows an exploded view of a typical Control box with the component part's relative locations.

The Oven Main switch supplies power to the oven fan motor, the control box cooling fan(s), the cool-down timer relay, the temperature control, the oven fan motor centrifugal switch, and also applies power to the conveyor control. The cool-down relay timer is connected to power when the oven is plugged in and provides 30 minutes of power to the oven fan after the Oven Main switch is turned off. The oven fan has an internal centrifugal switch that completes the circuit to the burner blower motor on Direct Ignition Burner and to the ignition on the Quiet Fire Burner. The burner blower motor on the Direct Ignition Burner in turn has an internal centrifugal switch that completes the circuit to the burner ignition control and on the Quiet Fire Burner there is an oven temperature safety switch in the main circuit. See the electrical schematics on pages 48 - 71.

There are a few differences between the natural gas model ovens and the propane gas models ovens. Electrically they are the same, but the burner orifice is different for the two models. The propane gas models have smaller burner orifices and higher gas pressure ranges. See Figure 5 and Figure 6.

## 2. Operation

When the Oven Main Switch is turned on:

- a. The main fan motor should run.
- b. The cooling fan on the side of the control box should run.
- c. The temperature control should display the actual temperature.
- d. After the temperature controller set point is set you should hear the burner ignite, (for the Quiet Fire Burner). For the Direct Ignition Burner only, the combustion air motor should spin and there should be an audible combustion sound when the burner ignites and the actual temperature starts rising steadily.
- e. The conveyor control should come on and display the desired conveyor time.
- f. The conveyor belt should move slowly.

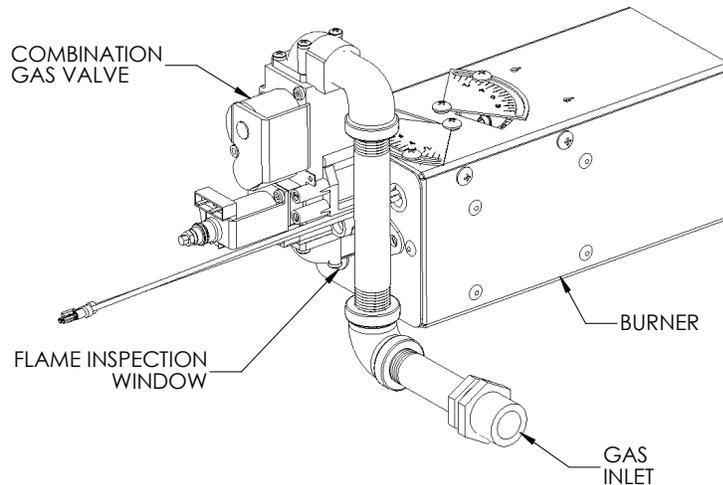
## 3. Fan Subsystem

The Fan subsystem consists of a fan motor (M1) and capacitor (C), a fan blade assembly, control box cooling fan (M2), and a cool-down timer relay (R). The oven fan motor is a single phase 115/240VAC 1425//1725 RPM motor. It requires a capacitor to run and has an automatic internal thermal overload. It is electrically reversible to accommodate either the CW or CCW fan blades. When replacing this motor be sure to verify proper fan rotation. See decals on the oven back wall assembly for the rotation. The capacitor is remotely located in the control box. The fan motor also has an auxiliary internal centrifugal switch which completes the circuit for the burner blower motor, on the Direct Ignition Burner, and to the burner control circuit on the Quiet Fire Burner. This is a burner safety feature that must NOT be defeated. The fan motor is protected by circuit breaker CB2. The control box flow path pressure generating fan also helps to keep the electrical components in the control box cool and therefore it must have its filter cleaned frequently. Reference Section 9.1 Main Fan Function on XLT 1832, 2440, 3240, 3255, 3270S, 3855, 3270 and 3870 Gas Ovens on page 39 for fan subsystem trouble-shooting.

## 4. Burner Subsystem

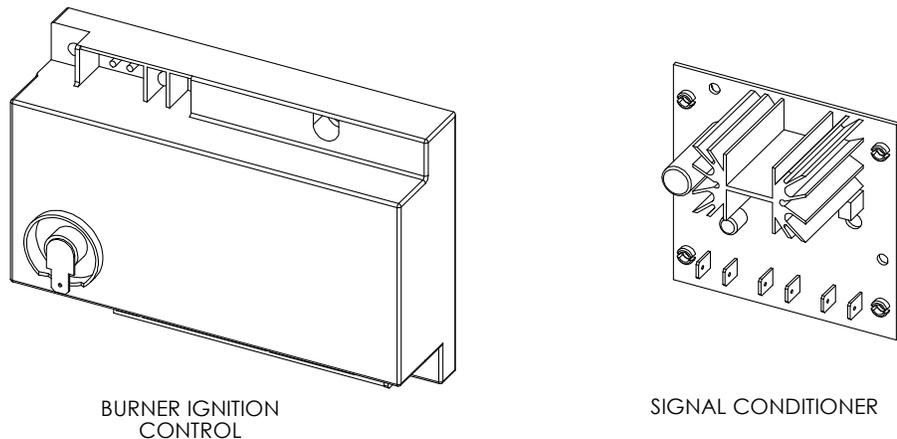
### 4.1. Quiet Fire (Square Burner)

The Quiet Fire Burner subsystem consists of a pressurized burner and gas train, a main gas valve (V1) combination with a modulating valve (V2), signal conditioner (SC), a high temp switch (S2), a 24V transformer and a temperature control (TC1). When the oven switch (S3) is turned on, power is applied from the switch to the common terminal of the output relay of the temperature control. The output 2 relay is closed by the temperature controller (high alarm, auto reset programmed) and provides power to the primary of the 24V transformer and to the temperature switch on the Quiet Fire Burner. The high temp switch (S2) must be closed for the burner subsystem to ignite.



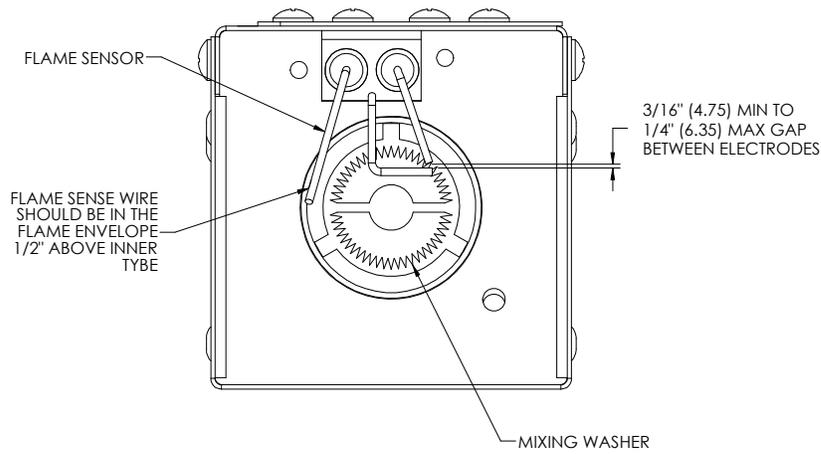
QUIET FIRE BURNER

**Figure 1: Gas Train & Burner (Quiet Fire Burner)**



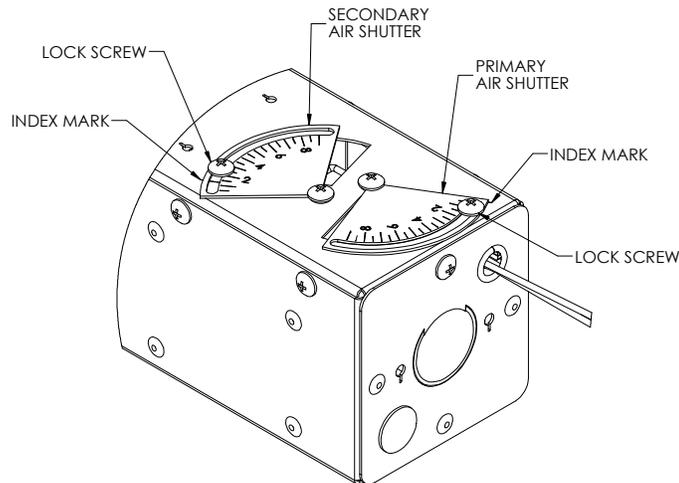
**Figure 2: Burner Control & Signal Conditioner**

XLT ovens with the Quiet Fire (square burner), employ an burner ignition control to initiate and monitor the operation of the oven's burner. Monitoring is accomplished by a flame sense feedback circuit. The flame sense current loop is completed when the flame 'paints' the spark electrode. Electrons are then conducted by the flame from the spark wire to ground. When the flame no longer touches the electrode or the electrode becomes encrusted with soot (LP gas operation), the current loop is broken or weakened and then the ignition control shuts off the valves.



**Figure 3: Spark Gap & Flame Sensor (Quiet Fire Burner)**

The flame still needs to paint the sense wire, but the flame base must also be attached to the end of the burner. It may be necessary to adjust the air shutter (usually closed) to make the flame attach to the burner end. The flame is also much more stable, especially in 'windy' conditions, when it is attached to the burner end, (see Figure 3).



**Figure 4: Air Shutter Adjustment (Quiet Fire Burner)**

QUIET FIRE BURNER - NATURAL GAS INITIAL SETTINGS										
LEFT SIDE BURNER						RIGHT SIDE BURNER				
SIZE	ORFICE PART NO.	ORFICE DIA (in./mm)	PRIMARY	SECONDARY	LOW SIDE PRESSURE	ORFICE PART NO.	ORFICE DIA (in./mm)	PRIMARY	SECONDARY	LOW SIDE PRESSURE
1832	NA	NA	NA	NA	NA	XM-4309-128	0.1285/3.26	0	1.5	0.10
2440	NA	NA	NA	NA	NA	XM-4309-144	0.1440/3.66	0	1.5	0.10
3240	NA	NA	NA	NA	NA	XM-4309-169	0.1695/4.30	0	1.5	0.05
3255	NA	NA	NA	NA	NA	XM-4309-209	0.2090/5.31	0	1.5	0.05
3270S	NA	NA	NA	NA	NA	XM-4309-209	0.2090/5.31	0	1.5	0.05
3270	XM-4309-147	0.147/3.73	0	1.5	0.05	XM-4309-147	0.1470/3.73	0	1.5	0.05
3855	NA	NA	NA	NA	NA	XM-4309-209	0.209/5.31	0	1.5	0.05
3870	XM-4309-147	0.147/3.73	0	1.5	0.05	XM-4309-147	0.1470/3.73	0	1.5	0.05

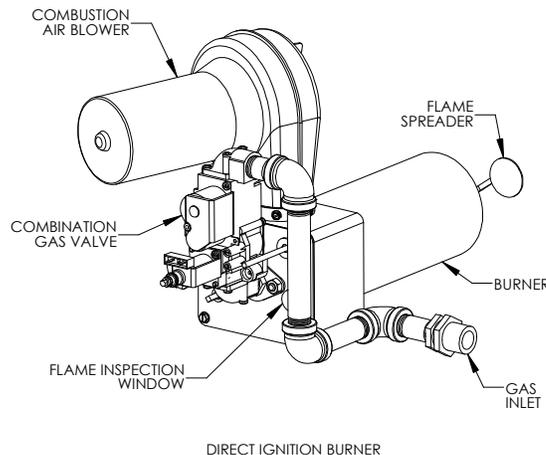
**Figure 5: Quiet Fire Burner - Natural Gas Initial Settings**

QUIET FIRE BURNER - PROPANE GAS INITIAL SETTINGS										
LEFT SIDE BURNER						RIGHT SIDE BURNER				
SIZE	ORFICE PART NO.	ORFICE DIA (in./mm)	PRIMARY	SECONDARY	LOW SIDE PRESSURE	ORFICE PART NO.	ORFICE DIA (in./mm)	PRIMARY	SECONDARY	LOW SIDE PRESSURE
1832	NA	NA	NA	NA	NA	XM-4309-082	0.0820/2.08	0	1.5	0.10
2440	NA	NA	NA	NA	NA	XM-4309-089	0.0890/2.26	0	1.5	0.10
3240	NA	NA	NA	NA	NA	XM-4309-104	0.1040/2.64	0	1.5	0.10
3255	NA	NA	NA	NA	NA	XM-4309-128	0.1285/3.26	0	1.5	0.10
3270S	NA	NA	NA	NA	NA	XM-4309-128	0.1285/3.26	0	1.5	0.10
3270	XM-4309-098	0.0980/2.49	0	1.5	0.10	XM-4309-098	0.0980/2.49	0	1.5	0.10
3855	NA	NA	NA	NA	NA	XM-4309-128	0.1285/3.26	0	1.5	0.10
3870	XM-4309-098	0.0980/2.49	0	1.5	0.10	XM-4309-098	0.0980/2.49	0	1.5	0.10

**Figure 6: Quiet Fire Burner - Propane Gas Initial Settings**

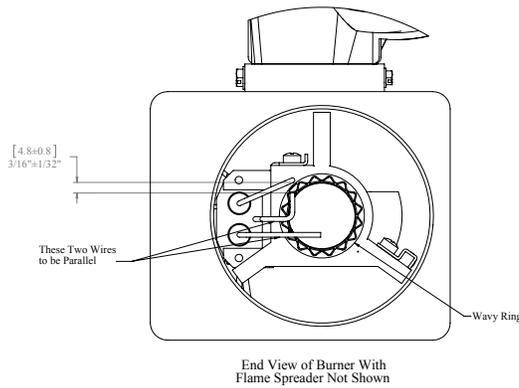
## 4.2. Direct Ignition (Round Burner)

The Direct Ignition Burner subsystem consists of a forced air burner and gas train, a main gas valve (V1) combination with a modulating valve (V2), a burner control (BC), a temperature control (TC1), a thermocouple (T/C), a signal conditioner (SC), and a 24V transformer (XFMR). When the oven switch S3 is turned on, power is applied from the switch to the common terminal of the output relay of the temperature control. The output 2 relay is closed by the temperature controller (high alarm, auto reset programmed) and provides power to the primary of the 24V transformer and also to the burner combustion air motor (M4) on Direct Ignition Burners. The transformer provides the necessary voltage for both the signal conditioner and the burner control. The combustion air motor (M4) must be spinning for the internal centrifugal switch (S4) to complete the circuit to the burner control, (see Figure 7).



**Figure 7: Gas Train & Burner (Direct Ignition Burner)**

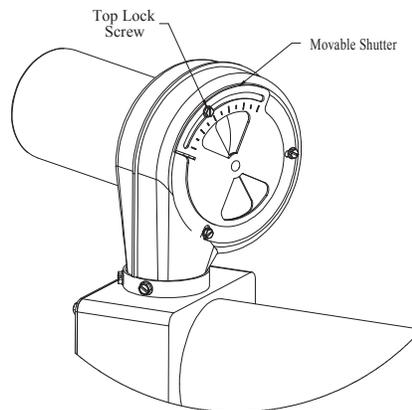
XLT ovens with the Direct Ignition (round burner), employ an ignition control to initiate and monitor the operation of the oven's burner. Monitoring is accomplished by a flame sense feedback circuit. The flame sense current loop is completed when the flame 'paints' the spark electrode. Electrons are then conducted by the flame from the spark wire to ground. When the flame no longer touches the electrode or the electrode becomes encrusted with soot (LP gas operation), the current loop is broken or weakened and then the ignition control shuts off the valves.



**Figure 8: Spark Gap & Flame Sensor (Direct Ignition Burner)**

The flame still needs to paint the sense wire, but the flame base must also be attached to the end of the burner casting. It may be necessary to adjust the air shutter (usually closed) to make the flame attach to the burner casting end. The flame is also much more stable, especially in 'windy' conditions, when it is attached to the casting end, (see Figure 8).

There is a Wavy Ring inside the burner casting at the end of the burner for DI burners only. This is also known as a 'bluff body' and its purpose is to change the gas-air velocity and allow the flame to attach to the end of the burner, thereby helping to complete the flame sense circuit.



**Figure 9: Air Shutter Adjustment (Direct Ignition Burner)**

DIRECT IGNITION BURNER - NATURAL GAS INITIAL SETTINGS										
LEFT SIDE BURNER					RIGHT SIDE BURNER					
SIZE	ORFICE PART NO.	ORFICE DIA (in./mm)	SHUTTER SETTING		LOW SIDE PRESSURE	ORFICE PART NO.	ORFICE DIA (in./mm)	*SHUTTER SETTING		LOW SIDE PRESSURE
1832	NA	NA	NA		NA	XM-4309-128	0.1285/3.26	2		0.40
2440	NA	NA	NA		NA	XM-4309-144	0.1440/3.66	2		0.40
3240	NA	NA	NA		NA	XM-4309-169	0.1695/4.30	2		0.40
3255	NA	NA	NA		NA	XM-4309-209	0.2090/5.31	2		0.40
3270S	NA	NA	NA		NA	XM-4309-209	0.2090/5.31	2		0.40
3270	XM-4309-147	0.1470/3.73	1-3/4		0.40	XM-4309-147	0.1470/3.73	1-3/4		0.40
3855	NA	NA	NA		NA	XM-4309-209	0.209/5.31	2		0.40
3870	XM-4309-147	0.1470/3.73	1-3/4		0.40	XM-4309-147	0.1470/3.73	1-3/4		0.40

\*Higher altitudes may require different shutter settings.

**Figure 10: Direct Ignition Burner - Natural Gas Initial Settings**

DIRECT IGNITION BURNER - PROPANE GAS INITIAL SETTINGS										
LEFT SIDE BURNER					RIGHT SIDE BURNER					
SIZE	ORFICE PART NO.	ORFICE DIA (in./mm)	SHUTTER SETTING		LOW SIDE PRESSURE	ORFICE PART NO.	ORFICE DIA (in./mm)	*SHUTTER SETTING		LOW SIDE PRESSURE
1832	NA	NA	NA		NA	XM-4309-082	0.082/2.08	2		1.20
2440	NA	NA	NA		NA	XM-4309-089	0.089/2.26	2		1.20
3240	NA	NA	NA		NA	XM-4309-104	0.104/2.64	2		0.75
3255	NA	NA	NA		NA	XM-4309-128	0.1285/3.26	2		0.75
3270S	NA	NA	NA		NA	XM-4309-128	0.1285/3.26	2		0.75
3270	XM-4309-098	0.099/2.52	1-3/4		1.00	XM-4309-098	0.0980/2.49	1-3/4		1.00
3855	NA	NA	NA		NA	XM-4309-128	0.1285/3.26	2		1.00
3870	XM-4309-098	0.099/2.52	1-3/4		1.00	XM-4309-098	0.099/2.52	1-3/4		1.00

\*Higher altitudes may require different shutter settings.

### Figure 11: Direct Ignition Burner - Propane Gas Initial Settings

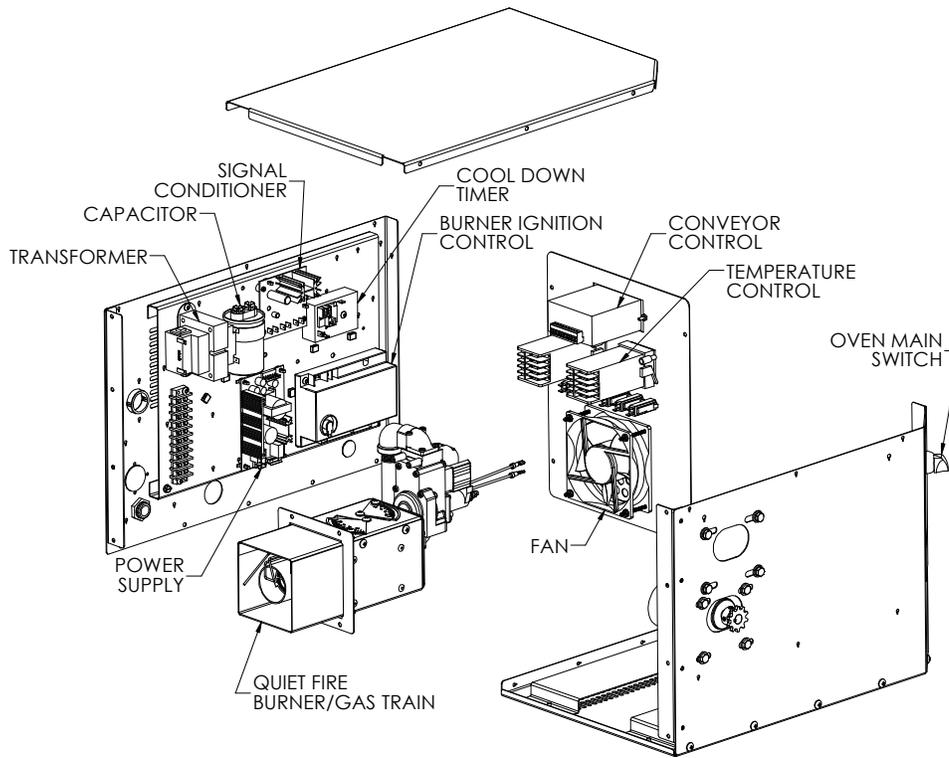
A thermocouple provides a temperature feedback to the temperature control. The temperature control provides a 4-20 MA output to the signal conditioner. The signal conditioner in turn proportionately provides a 25-250 MA power output to the modulating valve. If the thermocouple either breaks or becomes out of range the temperature controller will sense and force the output off.

The input of the temperature controller is protected by CB3 circuit breaker. CB5 protects the main valve (V1) and CB4 protects the modulating valve (V2). The gas valve has the main valve, safety valve, and the pressure regulator contained within it, (see Figure 14).

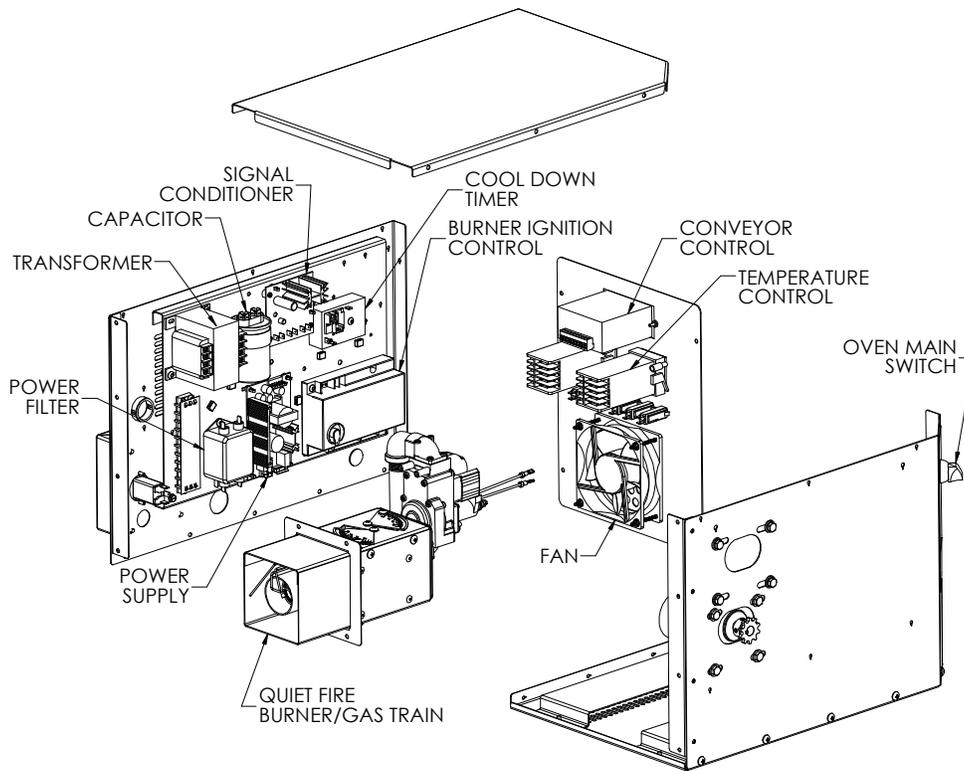
When the temperature control sends a signal, the control will reset, perform a self check routine, flash the diagnostic LED for up to four (4) seconds and the 30 second pre-purge delay begins. Following the pre-purge delay, the gas valve is energized and the ignition spark commences the trial ignition period. At flame detect, the spark generator is shut down and the main gas valve is opened. As long as the flame sense signal (0.7 microampere minimum) is received, the burner will remain in the operational mode.

In the event of failure to light during the trial ignition period, the control will go into a lockout mode, cutting power to the main valve. To reset after lockout, turn the oven control switch to the 0 (OFF) position and wait for five (5) seconds before attempting re-ignition.

If flame sense fails during normal operation, the ignition trial sequence will begin within 0.8 seconds. If the flame is not re-established, the unit will go into lockout mode.

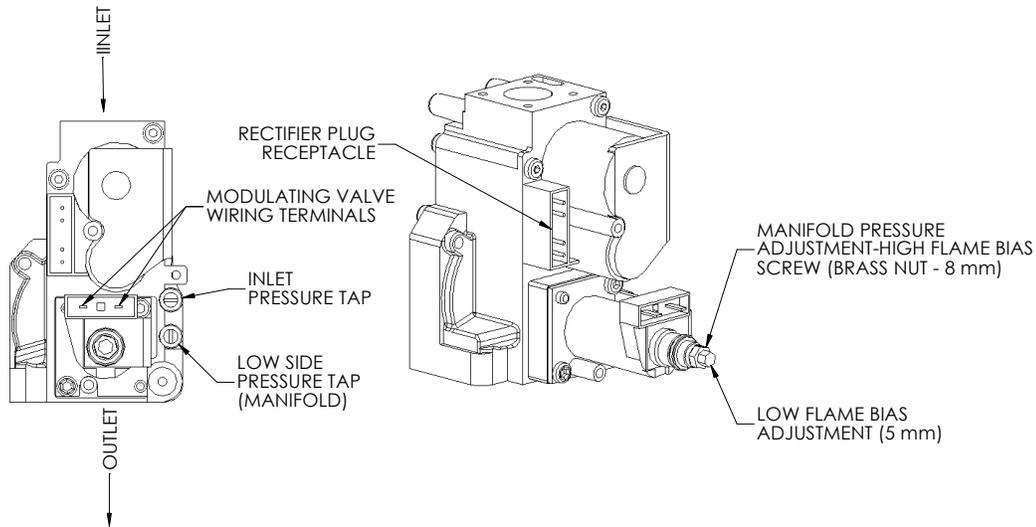


**Figure 12: Standard Oven Control Box Exploded View**



**Figure 13: World Oven Control Box Exploded View**

### 4.3. Combination Valve

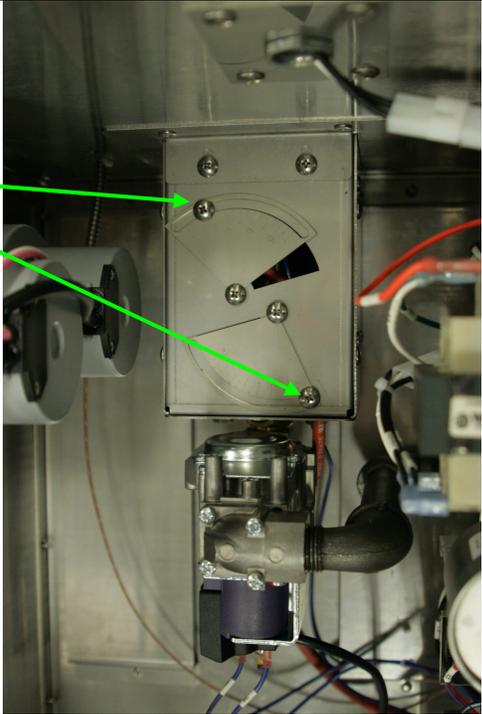
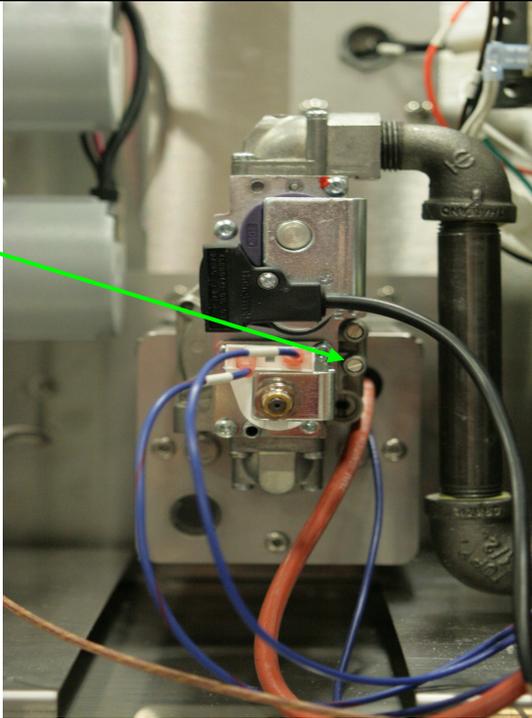


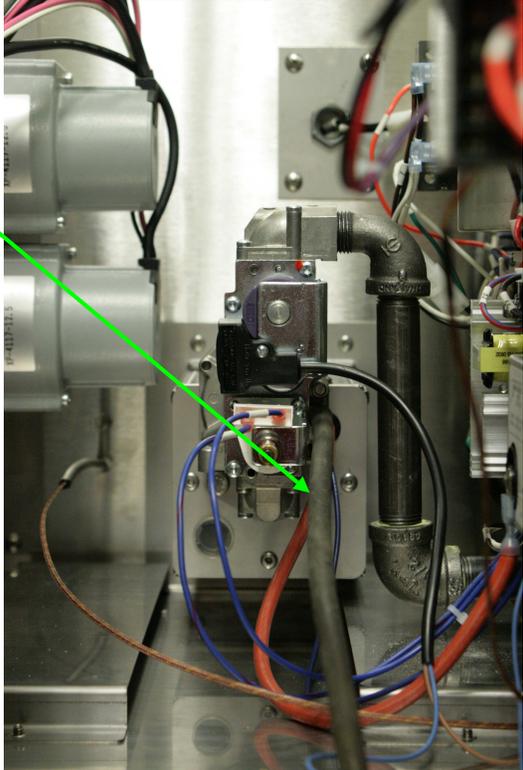
**Figure 14: Combination Valve**

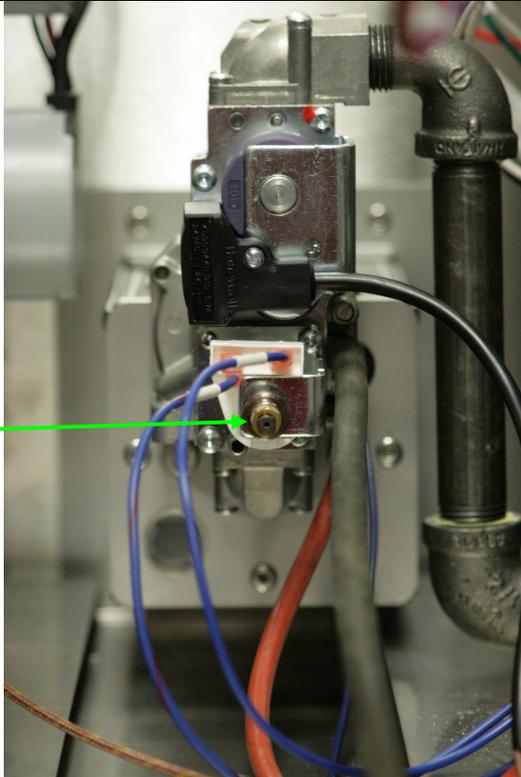
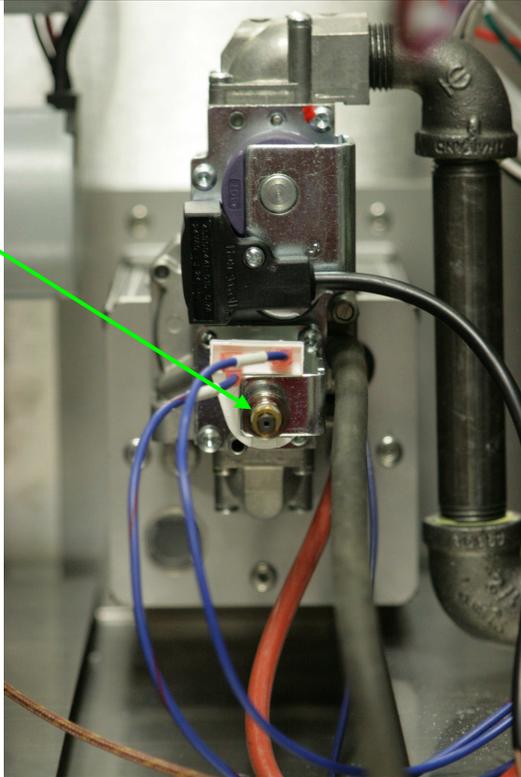
The main gas valve and modulating gas valve are one unit, (see Figure 14). During normal operation the main gas valve remains open, while the modulating valve is controlled by the temperature control. If there is a large difference between the actual temperature measured by the thermocouple and the set point temperature, the temperature controller has a high output value to the signal conditioner. The signal conditioner in turn produces a corresponding high voltage output to the modulating valve section, which opens up to the maximum and causes the burner to operate at maximum. As the temperature difference narrows, the outputs similarly decrease, causing the burner to fire at a reduced rate. There is enough heat loss even in an idle oven for the modulating valve to always be open somewhat. Therefore the main valve section is also always open, and the burner control only needs to operate the ignition cycle once. Note that the gas valve must be installed in an upright orientation.

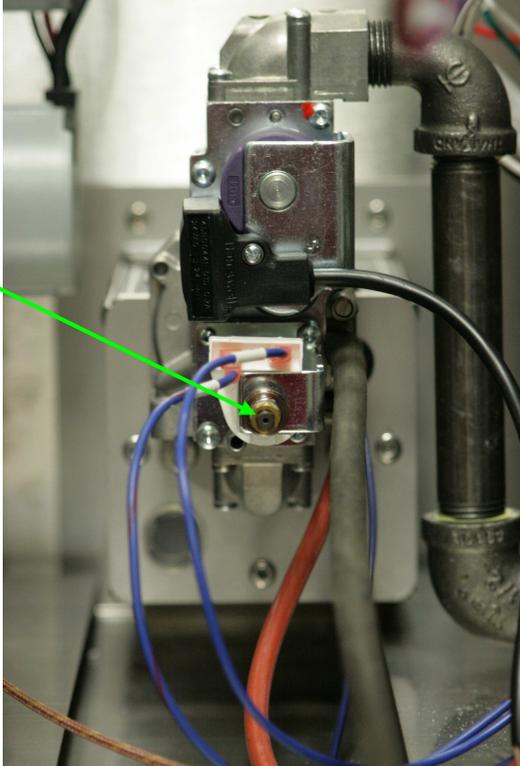
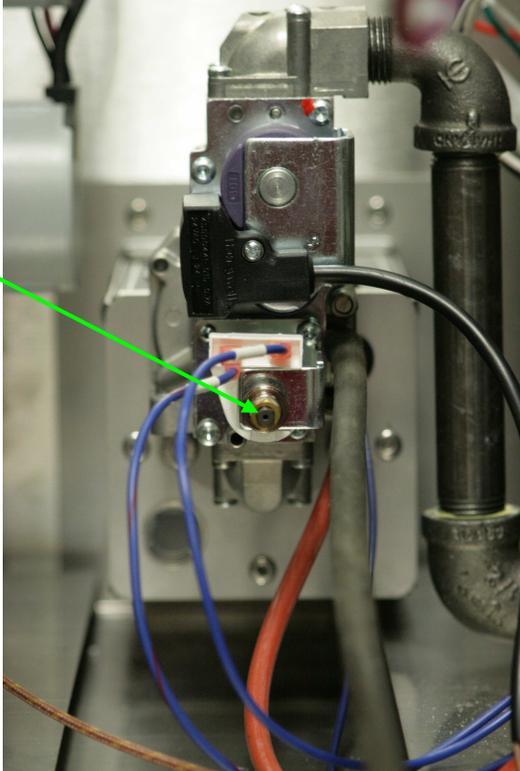
The gas valve usually requires no adjustment. However, if adjustment is needed refer to Burner Valve adjustment procedure shown below. The best time to do this is when the oven is cold. *Note: Live gas will be emitted from the valve. These measurements should be completed as quickly as possible in a well-ventilated area.* It is recommended that you leak check the gas train after servicing any gas train and/or burner components.

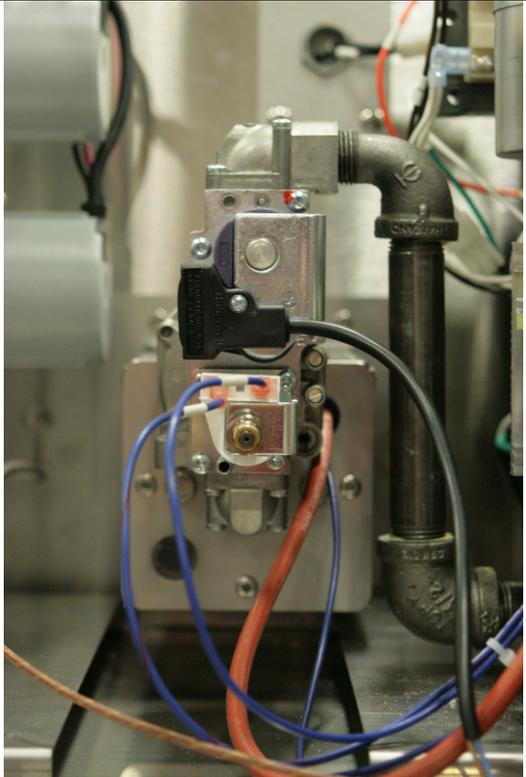
#### 4.4. Burner Valve Adjustment Procedure

Special Instructions / Warnings	Major Steps	Instructions	Locations
	1. Verify Shutter Settings	1.1 Verify that primary & secondary shutters are located at the correct position, (see charts in Figure 5, Figure 6, or Figure 10), Figure 11.	
	2. Open Manifold Tap	2.1 Using a small flathead screwdriver open the Low Side Pressure Tap (bottom tap) by turning it CCW 1 complete turn	

Special Instructions / Warnings	Major Steps	Instructions	Locations
	4. Attach Manometer	4.1 Attach manometer tube over the Low Side Pressure Tap, (see Figure 14).	
<p><b>STOP</b> Read Step 6 before turning oven on.</p>	5. Turn Oven "On"	5.1 Turn oven to "On" position <b>STOP</b>	

Special Instructions / Warnings	Major Steps	Instructions	Locations
	6. Initial High Flame Reading	<p>6.1 As burner begins to spark, read the manometer and immediately turn oven off (about 1 second).</p> <p>6.2 Then if initial reading is over *3.5" (natural gas ovens) or **10" (propane ovens) of water column then turn High Flame Bias Set Screw CCW as necessary to lower gas pressure</p> <p>6.3 Repeat steps 6.1 and 6.2 until manometer reading is within 3"-5" (natural gas ovens) or 9.5"-10.5" (propane ovens).</p> <p>*(8.75 mbar) (.875 kPa)  ** (25 mbar) (2.50 kPa)</p>	
<p><b>i</b> 7.2 All settings should be within +/- .05 of stated set point.</p>	7. Set High Flame Bias	<p>7.1 While oven is climbing up to set temperature, adjust the High Flame Bias screw (outer screw) with a 8mm nut drive</p> <p>7.2 Adjust the screw as needed until the manometer reaches the following readings: <b>i</b></p> <p>Natural Gas All Models:  Quiet Fire Burner - *3.5" WC</p> <p>Natural Gas All Models:  Direct Ignition Burner (except 3270/3870) **3.5" WC</p> <p>Propane Gas All Models:  ***10" WC</p> <p>*(8.75 mbar) (.875 kPa) ** For 3270 &amp; 3870 Models: 4.5" WC (11.5 mbar) (1.15 kPa) *** (25 mbar) (2.50 kPa)</p>	

Special Instructions / Warnings	Major Steps	Instructions	Locations
<p>⚠ 8.1 Do not continue to turn if screw begins to tighten. Stop turning if screw begins to feel tight to avoid damage to the valve.</p>	<p>8. Prepare Low Flame Bias</p>	<p>8.1 After the oven reaches set point of 500°F / 260°C turn low flame screw (5mm) nut drive CW until pressure rises slightly. ⚠</p>	
<p>* 9.3 If the burner flames out, turn set screw ½ turn CW and wait 30 seconds for burner to relight before attempting to adjust the low flame bias again.</p>	<p>9. Set Low Flame Bias</p>	<p>9.1 Set temperature to 400°F / 204°C *</p> <p>9.2 While oven temperature is dropping to new set point adjust the Low Flame Bias screw with a 5mm nut drive.</p> <p>9.3 Adjust the screw CCW as needed until the manometer reaches the following readings: ** (See Figure 5, Figure 6, or Figure 10, Figure 11).</p>	

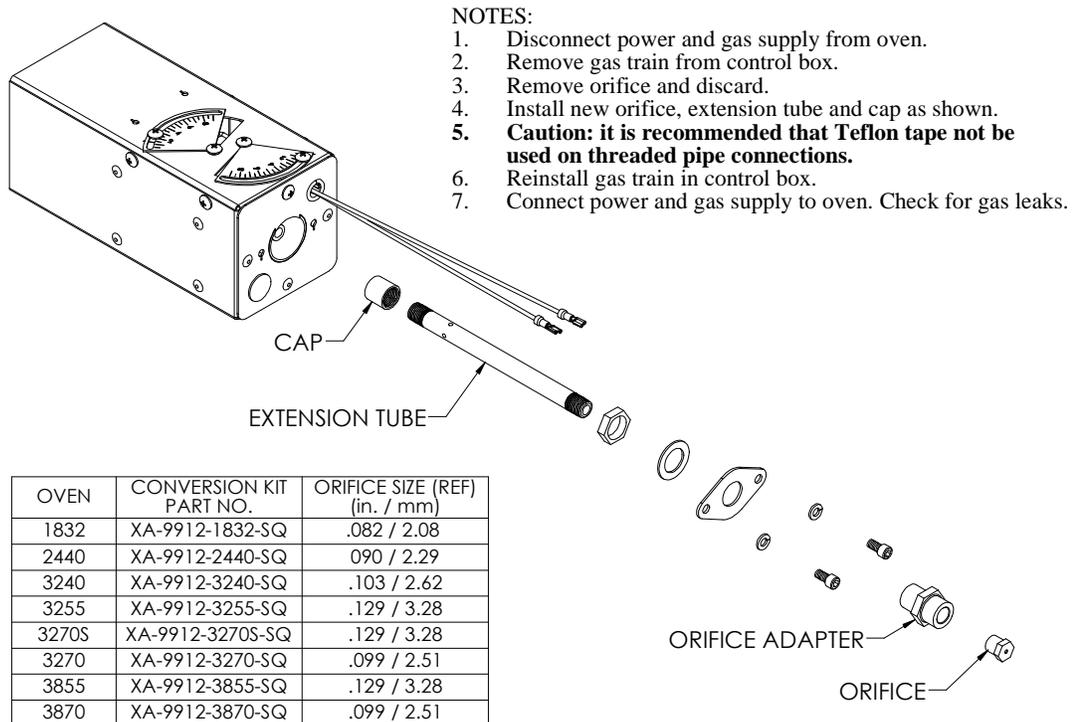
Special Instructions / Warnings	Major Steps	Instructions	Locations
	10. Verify Adjustments	10.1 If adjustments are made to the Low Flame Bias then return to step 4 and repeat each step until no adjustments are needed.	
	11. Remove Manometer	11.1 Remove manometer tube from Low Side Pressure Tap.	
	12. Check for gas leaks.	12.1 Tighten Low Side Pressure Tap Screw.  12.2 Check for gas leaks.	

Reference Section 9.2 Burner will not light XLT 1832, 2440, 3240, 3255, 3270S & 3855 Direct Ignition Burner Ovens on page 40, Section 9.3 Burner will not light XLT 3270 & 3870 Direct Ignition Burner Ovens on page 41, Section 9.5 Burner will not light, will not stay lit or cycles on and off XLT 1832, 2440, 3240, 3255, 3270S & 3855 Quiet Fire Burner Ovens. on page 43 or Section 9.6 Burner will not light, will not stay lit or cycles on and off XLT 3270 and 3870 Dual Quiet Fire Burner Ovens on page 44 for burner subsystem trouble-shooting.

## 5. Gas Conversion

### 5.1. Quiet Fire Burner - Natural Gas to Propane Gas Conversion

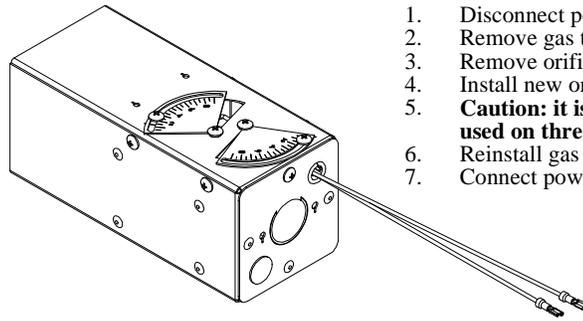
To convert from Natural Gas to Propane on a Quiet Fire (Square) burner, order the appropriate conversion kit and install it according to the drawing in Figure 15. Note that the existing orifice needs to be removed and the new orifice, (that comes in the kit), will be moved to the opposite side of the orifice adapter. For single burner ovens, this kit consists of one orifice, an extension tube and a cap. For double burner ovens, this kit consists of two orifices, two extension tubes and two caps, therefore if an oven has two burners only one kit is required. When firing up the burner, start with the initial settings as noted in Figure 6 on page 10, then follow the Burner Valve Adjustment Procedure found in Section 4.4 on page 15.



**Figure 15: Quiet Fire Burner – Natural Gas to Propane Gas Conversion**

### 5.2. Quiet Fire Burner – Propane Gas to Natural Gas Conversion

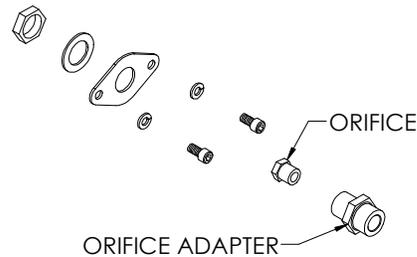
To convert from Propane Gas to Natural Gas on a Quiet Fire (Square) burner, order the appropriate orifice and install it according to the drawing in Figure 16. Note that the existing orifice will need to be removed and discarded, while the new orifice will be installed on the opposite end of the orifice adapter. For single burner ovens you need to only order one orifice and for double burner ovens, you will need to order two. When firing up the burner, start with the initial settings as noted in Figure 5 on page 9, then follow the Burner Valve Adjustment Procedure found in Section 4.4 on page 15.



NOTES:

1. Disconnect power and gas supply from oven.
2. Remove gas train from control box.
3. Remove orifice, extension tube and cap and discard.
4. Install new orifice on opposite end of orifice adapter.
5. **Caution: it is recommended that Teflon tape not be used on threaded pipe connections.**
6. Reinstall gas train in control box.
7. Connect power and gas supply to oven. Check for gas leaks.

OVEN	ORIFICE PART NO.	ORIFICE SIZE (REF) (in. / mm)
1832	XM-4309-131	.131 / 3.33
2440	XM-4309-146	.146 / 3.71
3240	XM-4309-170	.170 / 4.32
3255	XM-4309-219	.219 / 5.56
3270S	XM-4309-219	.219 / 5.56
3270	XM-4309-161	.161 / 4.09
3855	XM-4309-219	.219 / 5.56
3870	XM-4309-161	.161 / 4.09

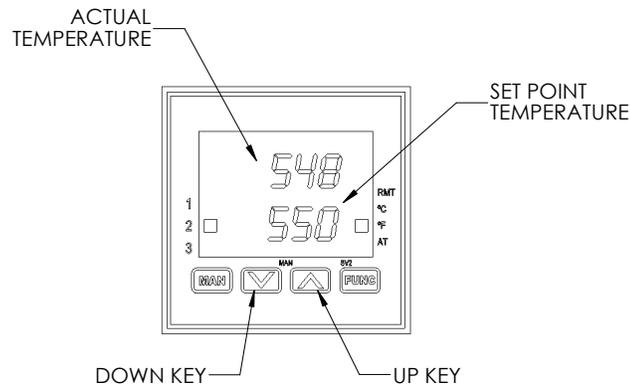


**Figure 16: Propane Gas to Natural Gas Conversion**

### 5.3. Direct Ignition Burner - Gas Conversion

All that needs to be done to convert from natural gas to propane gas or vice-versa, is to change the burner orifice. Reference Figure 10 or Figure 11 for the correct orifice needed for your specific oven and Direct Ignition burner gas conversion.

## 6. Temperature Control Programming Procedure



TEMPERATURE CONTROL SHOWN IS FOR STANDARD OVENS  
(WORLD OVENS TEMPERATURE CONTROLS ARE SET TO CELSIUS)

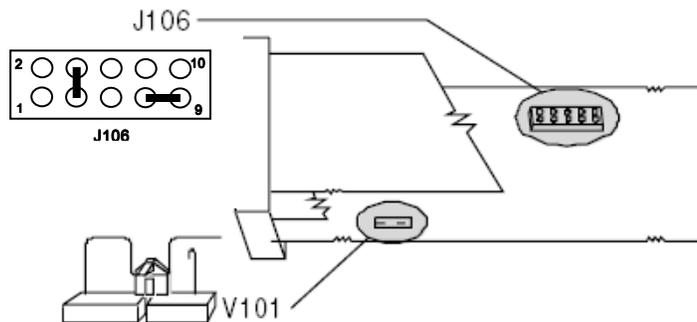
**Figure 17: Temperature Control**

To switch display from C° to F°, see instructions at the end of this section.

- 1) Remove the instrument from its case and put the V101 switch (blue plastic and wire, top edge of right most board toward the front) in the open position. Verify that jumper J106 (bottom edge of right most board toward the back) is configured as shown:

1-2	3-4	5-6	7-8	9-10
Open	Closed	Open	Open	Open

The J106 may contain a jumper between pin 7 and 9. This is a spare jumper if one is needed. After verifying all switches & jumpers, reinstall the instrument.



- 2) Turn on the power to the unit by switching the fan on. The display should show CONf; press the FUNC key to step through the configuration parameters.
- 3) The following configuration parameters should be entered/verified (Use the Up/Down keys to change the values if necessary).

Ser1	OFF
P1	5
P3	0
P4	300
P5	rev
P6	420

P9	AL1.P
P10	H.A.
P11	None
P16	0
P17	SFtA*

\* Access code 3111 is entered here if required.

- 4) The Display should now show:         . Press the Up/Down keys to display 262 and then press the FUNC key to access the advanced configuration.
- 5) The following advanced configuration parameters should be entered/verified (Use the Up/Down keys to change the values if necessary):

P18	nOrL
P19	nOrL
P24	rEv
P25	OFF
P28	0
P29	On
P30	0
P31	30.0
P32	1.0
P33	0.20

P34	OFF
P36	En.30
P37	0
P39	n0FL
P41	P.I.D.
P42	10.0
P43	Fn.SP
P44	
And FUNC one more time to read COnF	

- 6) Remove the instrument from its case and put the V101 switch in the closed position. Insert the instrument back into the case.
- 7) When powered on, the display will show ERROR 400; simultaneously press and hold the Up and Down arrow keys to clear this.
- 8) Press the FUNC key to cycle through the following operating parameters. The only one that can be changed now is the SP (set point).

SP	260
AL1	288
Snrt	OFF
SP2	0
nnn	0N
AL1	288
HSA1	0.1
PB	5.0
Ei	5.00

Ed	0.00
1P	30.0
rL	0
rH	300
Grd1	InF
Grd2	InF
OLH	100.0
EoL	InF
rnP	InF

- 9) To change any of the above operating parameters, set nnn to 3111 (Safety Lock parameter). Be sure to set nnn back to '5' after changing any parameters; this turns the Safety Lock back On. The next time through the operating parameters, the nnn value will be On.

Note: Units received directly from the factory are pre-configured for use. Units from other sources, or units which have lost programming will require the listed programming.

A detailed explanation of these configuration and operating parameters is given in the Barber Colman instrument manual, which can be supplied on request or downloaded via the internet at [www.barber-colman.com](http://www.barber-colman.com).

Reference Section 9.4 Over temperature and under temperature XLT 1832, 2440, 3240, 3255, 3270S, 3855, 3270 & 3870 Direct Ignition Burner Ovens on page 42 or Section 9.7 Over temperature and under temperature XLT-1832, 2440, 3240, 3255, 3270S, 3855, 3270 & 3870 Quite Fire Burner Ovens on page 45 for temperature control trouble-shooting.

## **6.1. Instructions to Switch from Celsius to Fahrenheit Readout**

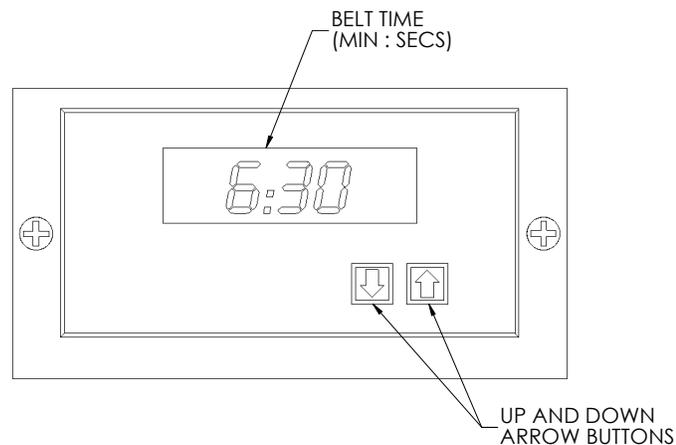
- 1) If you are replacing a control, you will need to verify the parameters listed in the previous programming procedure before you continue.
- 2) Follow the programming procedure for steps 1 & 2.
- 3) At step 3, change the value of P1 to 22 and P4 to 600.
- 4) Scroll through the remaining values until CONF is displayed.
- 5) Remove the instrument from its case and return the V101 switch to the closed position. Insert the instrument back into the case.
- 6) If the display shows ERROR 400; simultaneously press the Up and Down arrow keys to clear this.

Your display should now be in Fahrenheit. To convert Fahrenheit to Celsius, follow the above directions but set P1 to 5 and P4 to 300.

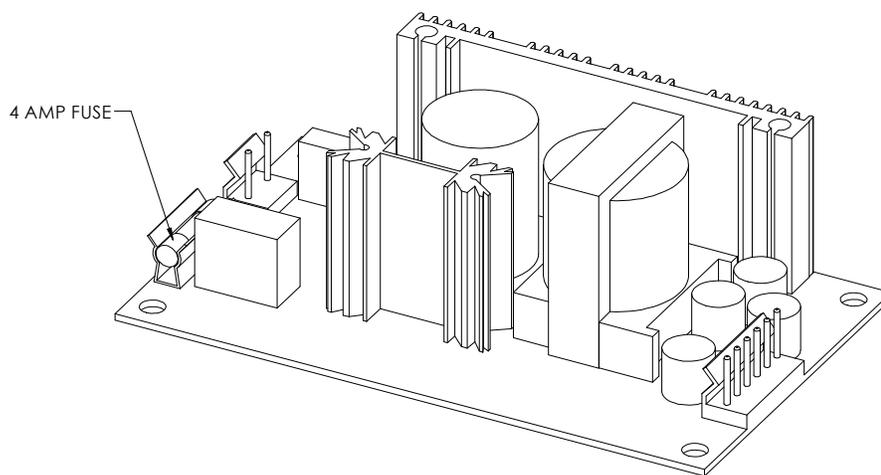
## 7. Conveyor Subsystem

### 7.1. Conveyor Control

The Conveyor subsystem consists of a conveyor control (CC), a conveyor gear-motor (M3), and a power supply (PS). When the oven switch is turned on power is applied to the conveyor control. The conveyor gear-motor is a brushless type 24 VDC variable speed unit that has a pulse generator connected to the gear-motor high. The pulse generator is powered by a 24 VDC power supply to the conveyor controller. This scheme provides a constant conveyor speed through the oven regardless of the loading on the conveyor. To start the conveyor, if it is not already running, simultaneously press the “Up” and Down” arrow buttons twice. To shut the conveyor off, simultaneously press the “Up” and Down” arrow buttons twice, again.



**Figure 18: Conveyor Control**



**Figure 19: Power Supply**

The power supply shown above is to be used with the Anaheim Conveyor Control and the Brother, brush-less Conveyor Motors. There is a 4 amp fuse located on the power supply, (see Figure 19 above).

## 7.2. Anaheim Controller Programming Procedure

Instructions	Locations
<p><b>Step 1. Enter programming mode.</b></p> <ul style="list-style-type: none"> <li>➤ Behind the X in XLT on the control face is a hidden button. Press this button and both of the arrow keys simultaneously to enter the programming mode.</li> <li>➤ All (3) buttons must be pressed at the same time.</li> </ul>	
<p><b>Step 2. Program the bake length.</b></p> <ul style="list-style-type: none"> <li>➤ Press the up arrow until you reach the desired belt length.</li> </ul> <p>1832 = 32  2440 = 40  3240 = 40  3255 = 55  3855 = 55  3270 = 70  3870 = 70</p> <ul style="list-style-type: none"> <li>➤ Press the hidden button to advance to the next program menu.</li> </ul>	
<p><b>Step 3. Set the total reduction value.</b></p> <ul style="list-style-type: none"> <li>➤ Press the up arrow until you reach desired setting.</li> </ul> <p>70" = 280  55" &amp; below = 300</p> <ul style="list-style-type: none"> <li>➤ Press the hidden button to advance to the next program menu.</li> </ul>	

**Step 4. Set the speed trimming.**

- Press the up arrow until the display shows **0**.
- Press the hidden button to advance to the next program menu.



**Step 5. Set the fast bake limit.**

- Press the up arrow until the display shows **1:30**.
- Press the hidden button to advance to the next program menu.



**Step 6. Set the slow bake limit.**

- Press the up arrow until the display shows **17:00**.
- Press the hidden button to advance to the next program menu.



**Step 7. Set the conveyor motor rotation.**

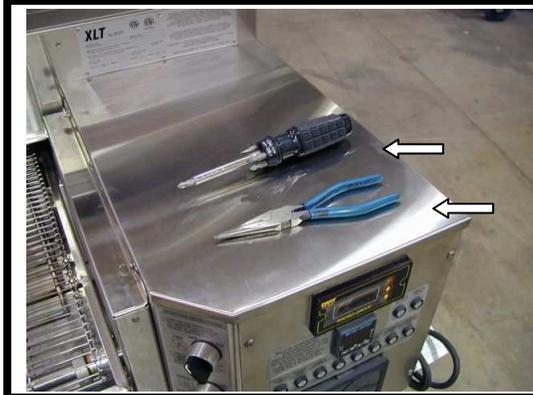
- Press the up arrow to reach the desired setting.
- Select the value of **1** for a Right to Left belt direction.
- Select the value of **2** for a Left to Right belt direction.
- Press the hidden button once to save and exit programming.



## 8. Conveyor Belt Direction Reversal

To properly change your conveyor movement from left to right or vice versa, two changes must be made. 1) Change the conveyor motor rotation, (as described in Step 7 of Section 7.2 Anaheim Controller Programming Procedure on page 26). 2) Reverse the direction of the fabric of the conveyor belt itself.

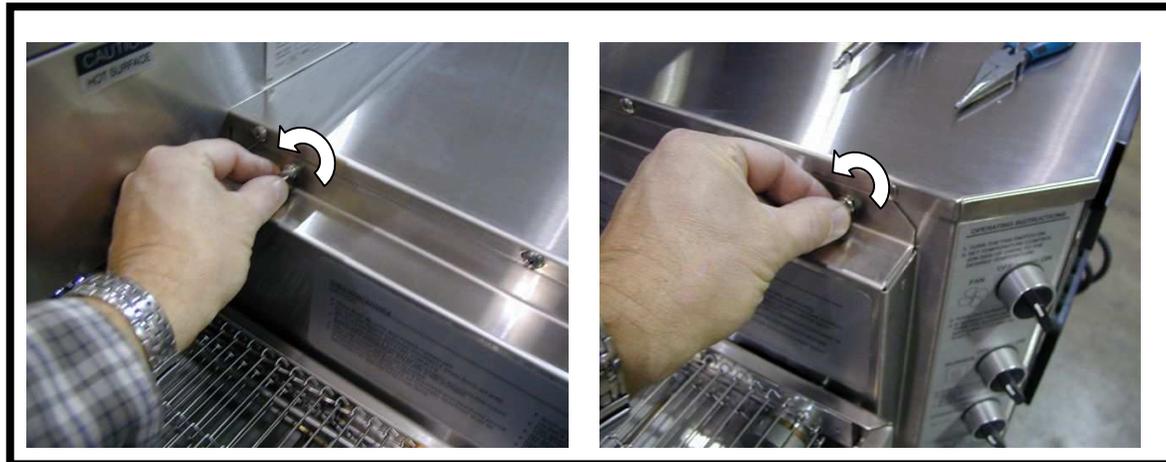
First things first; safety. **Shut off gas to oven and then disconnect power and gas lines from oven.** For your own safety, do not attempt this with gas line or electrical line connected.



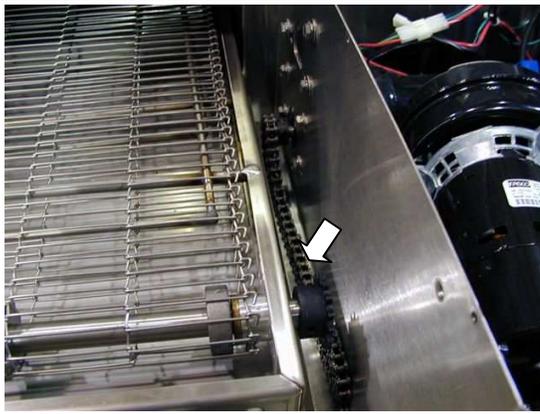
Required tools:

- #2 Phillips Screwdriver
- Needle-nose Pliers

Approximate time required: 45 min – 1 hr



Grasp the conveyor firmly and lift up until the crumb tray bracket clears the conveyor opening. Slide the conveyor 1" – 2" into the oven to release the tension on the chain.

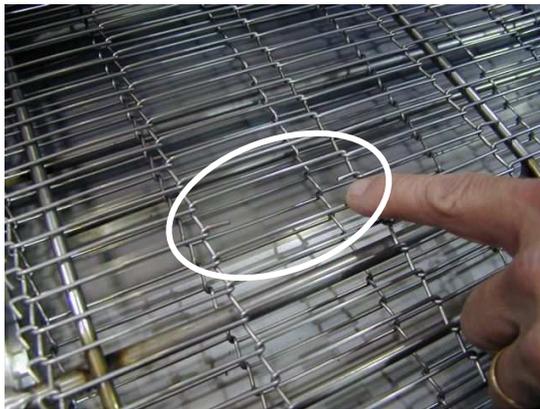


Remove the drive chain from the conveyor sprocket and lay it in the tray.

The conveyor belt fabric needs to be reversed. A reasonable amount of care needs to be taken during this process to ensure all goes smoothly.



Release belt tension by removing two (2) screws each at the idler/tension shaft blocks.



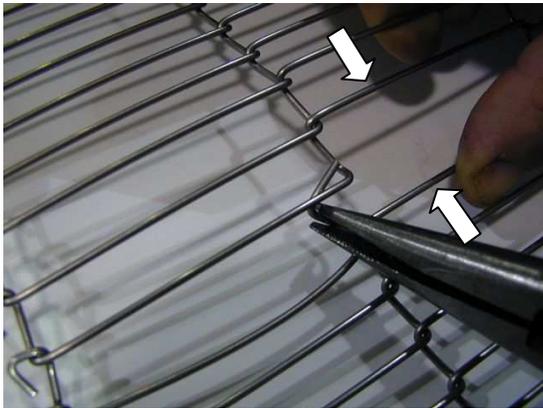


Find the belt splice by manually advancing the fabric.

Once found, disassemble the splice as shown in the following pictures. Care must be taken not to over-bend the wires while unhooking the links.



Using a pair of needle-nose pliers, grip the free end of the first splice link.



Pinch the adjacent rows together to relieve tension on the fabric at the splice. Twist the end (as shown) to clear the link.



The first end of the link has been released.



To release the edge link, rotate the link up as shown ...



Continue to rotate until clear of the lower end hook.



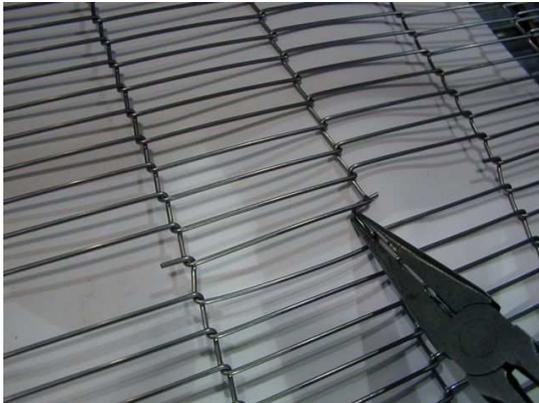
Pass the hook back around the wire until disengaged.



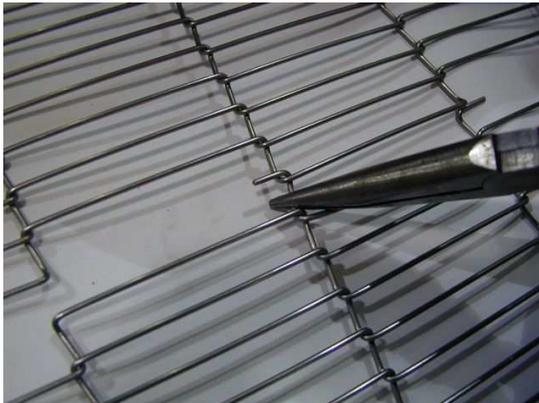
Remove and set aside for reinstallation.



Proceed to the next splice link. Grip the end as shown ...



Twist the end (as shown) to clear the link.



Repeat for all links in the splice row.



Care should be taken to keep from distorting the splice links during removal. Set aside all links for reuse.



Roll the fabric carefully as shown. Do not crimp, fold, or roll tightly.



Once rolled, turn the fabric end-for-end in preparation of reinstallation.

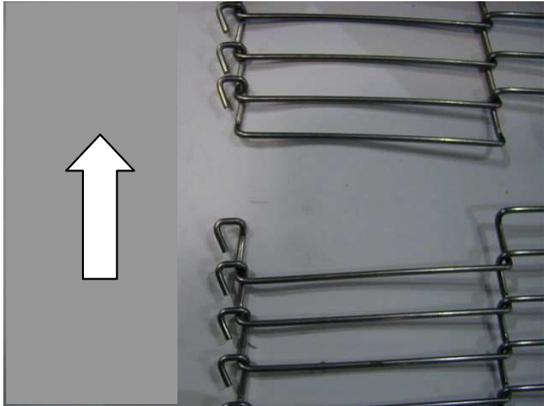


Fabric orientation is critical for the service life of the belt. Check to see that the correct side is up by curling the end as shown.



Correct side up.

Incorrect side up.

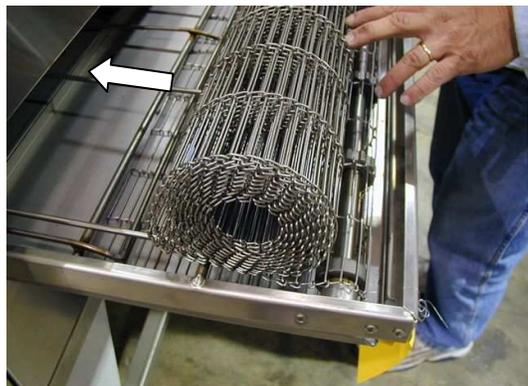
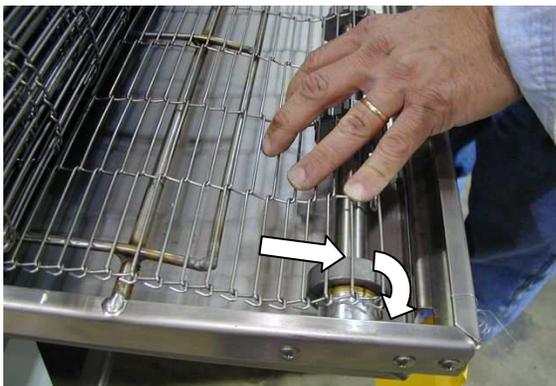


Belt travel should be toward the head of the link.



## CAUTION

Belt travel with the hook of the link constitutes a safety hazard from snagging loose material and dragging it into the conveyor or oven.



The belt is fed over the drive sprocket following the sprocket until feeding over the conveyor lower guide.



Continue feeding the belt through the conveyor as shown.



As you reach the idler sprockets, feed the belt from underneath, over the sprockets across the upper conveyor surface and back through the remaining conveyor belt circuit.





The belt is ready to be re-connected at the splice joint. The process for this connection is simply the reverse of the process described earlier during disassembly. Once the belt has been spliced, check the alignment of the power and idler sprockets for proper engagement as shown.



Tension the belt and replace the four (4) screws removed earlier from the idler/tension shaft blocks.



Check the conveyor belt for free movement.



Reinstall the drive chain.



Set the conveyor back in place.

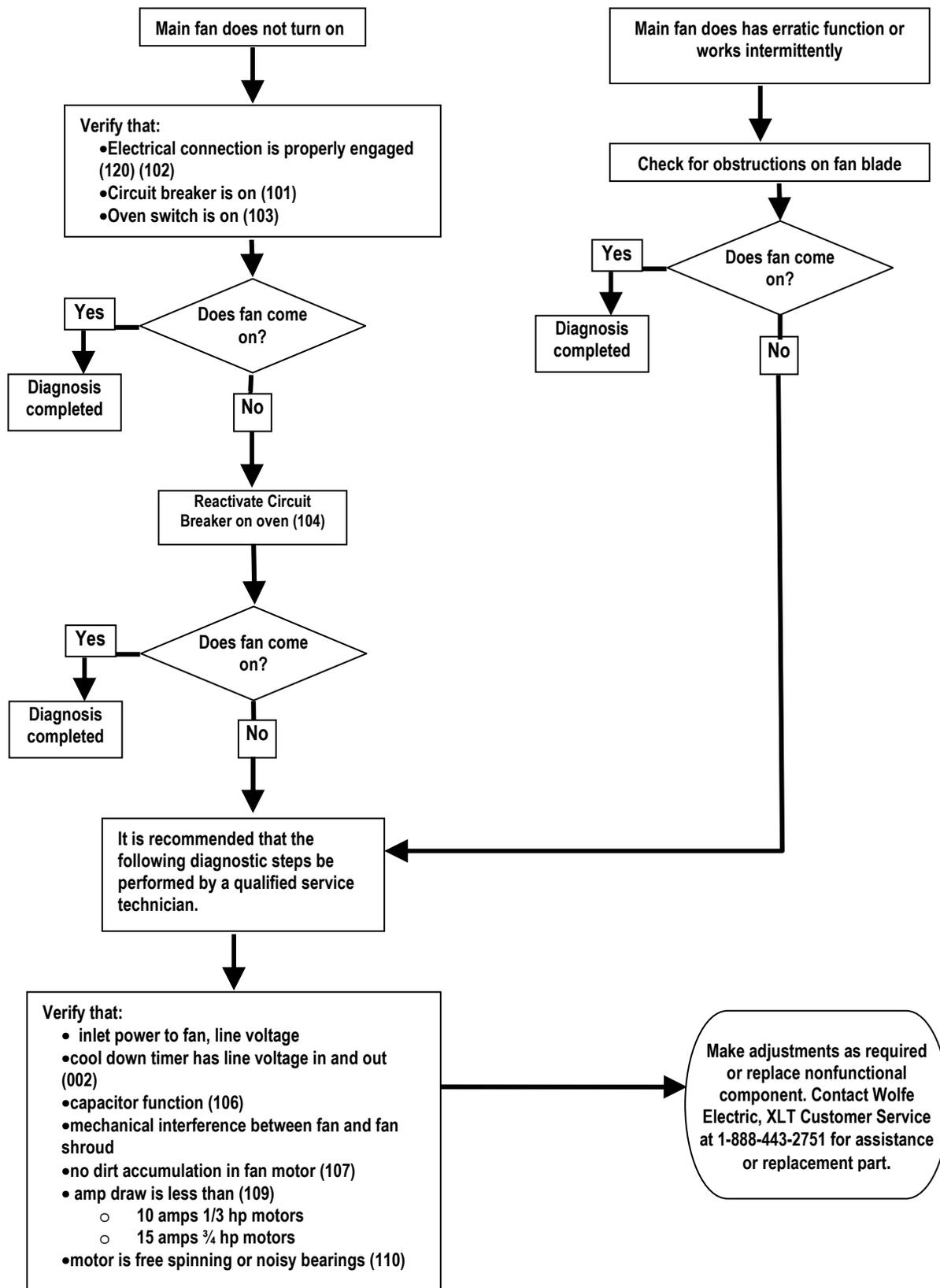


Reinstall the chain guard.

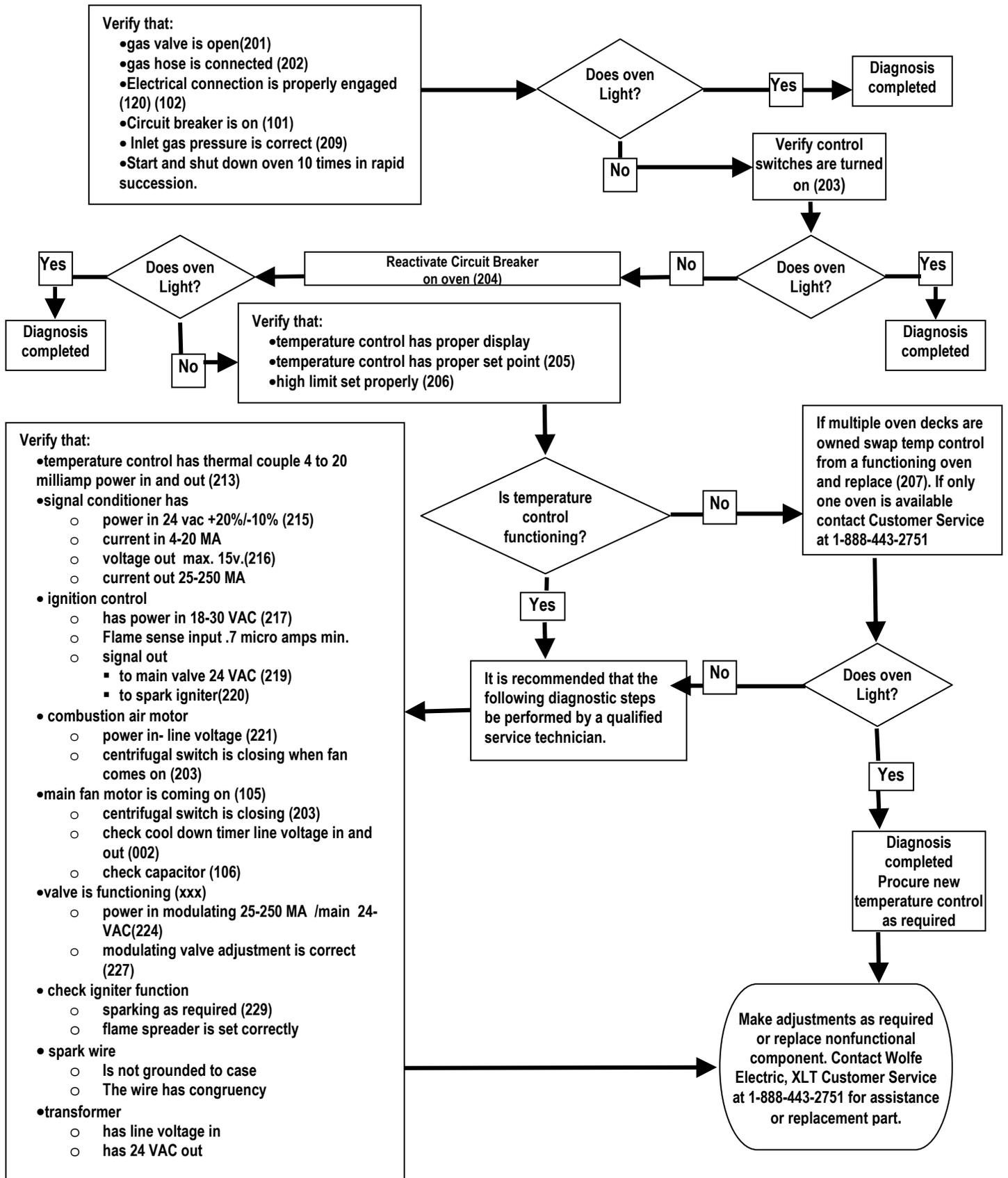
The conveyor belt direction reversal is complete. Reconnect the oven and test for proper function.

## 9. Oven Diagnostics

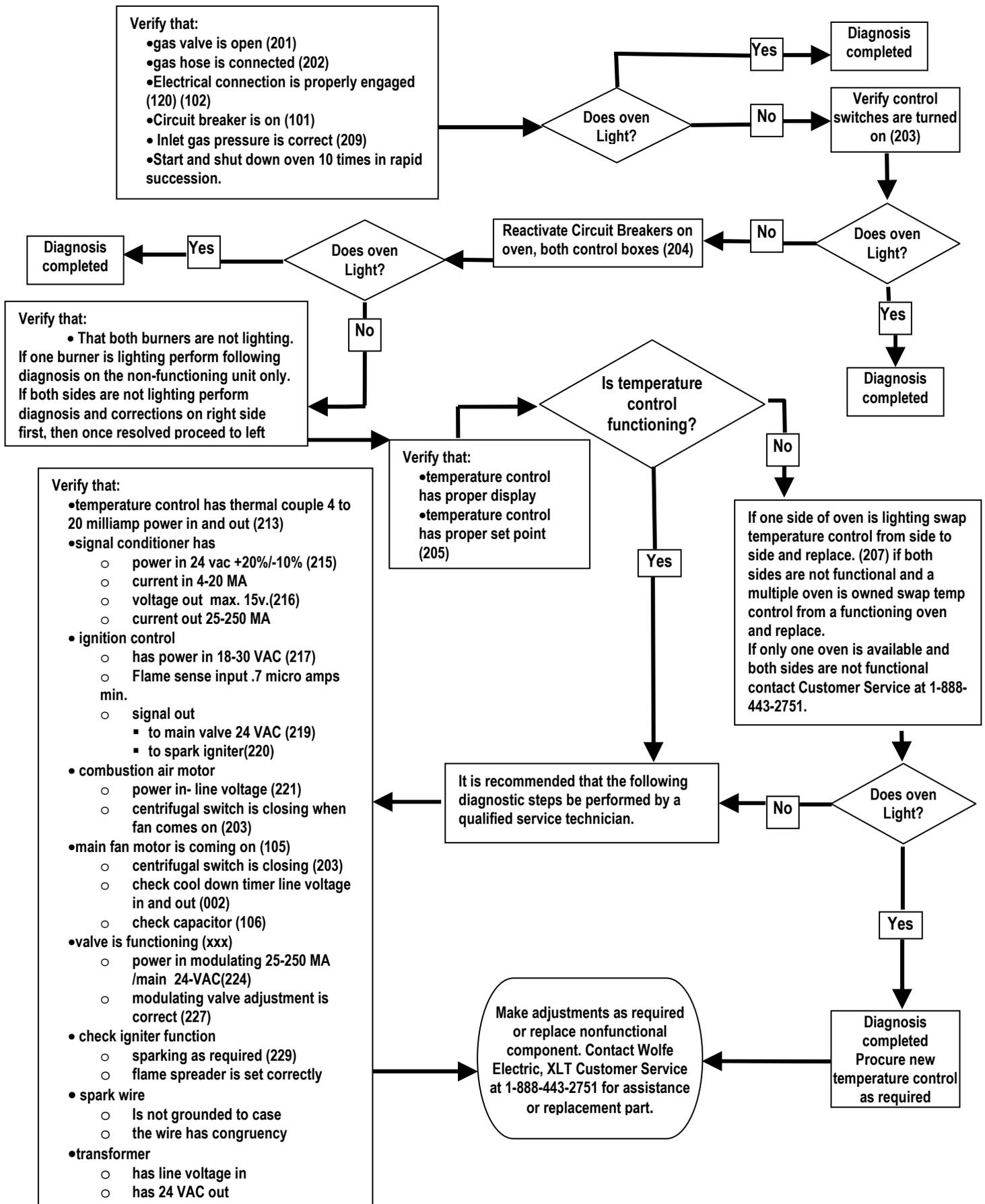
### 9.1. Main Fan Function on XLT 1832, 2440, 3240, 3255, 3270S, 3855, 3270 and 3870 Gas Ovens



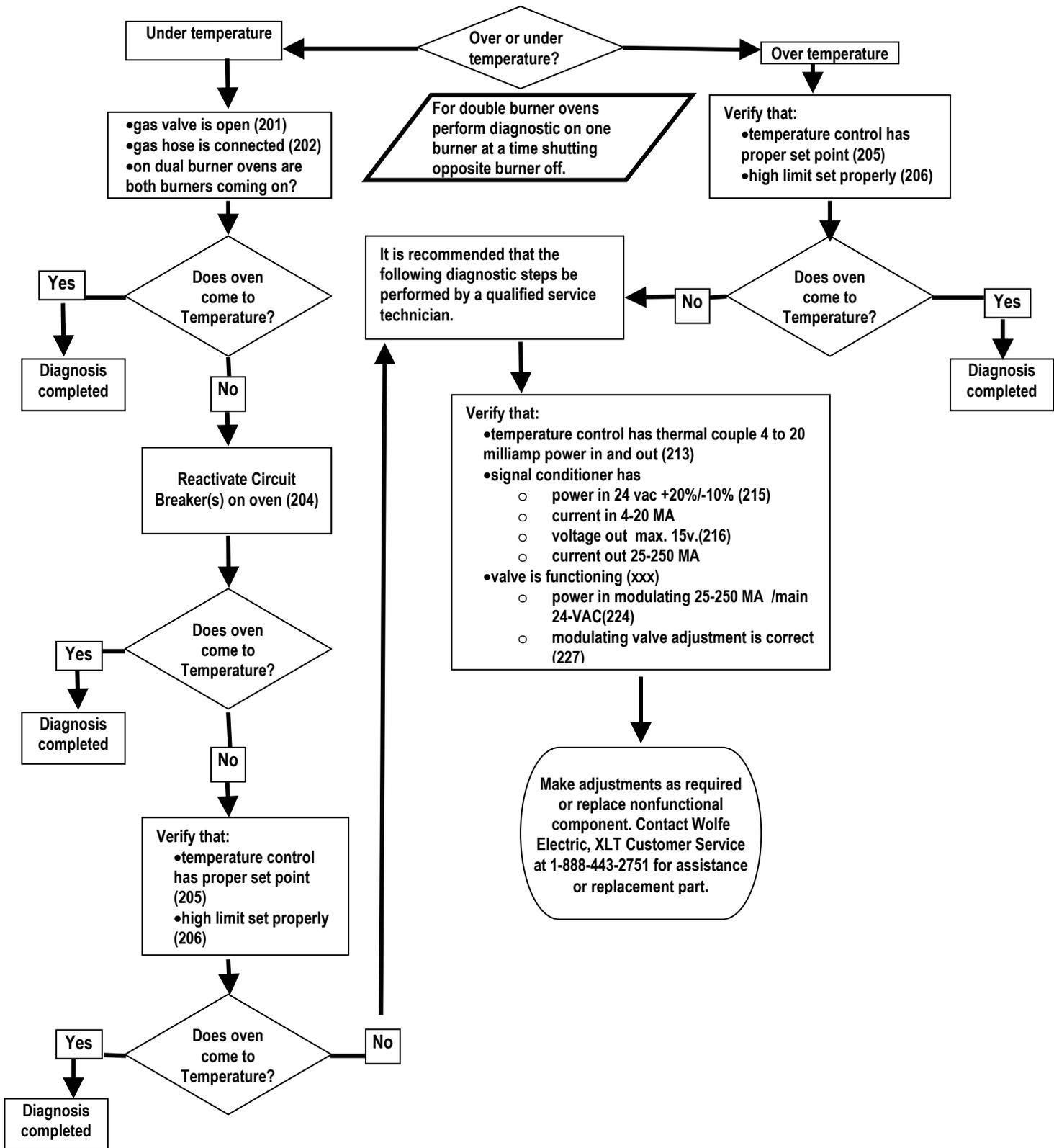
## 9.2. Burner will not light XLT 1832, 2440, 3240, 3255, 3270S & 3855 Direct Ignition Burner Ovens



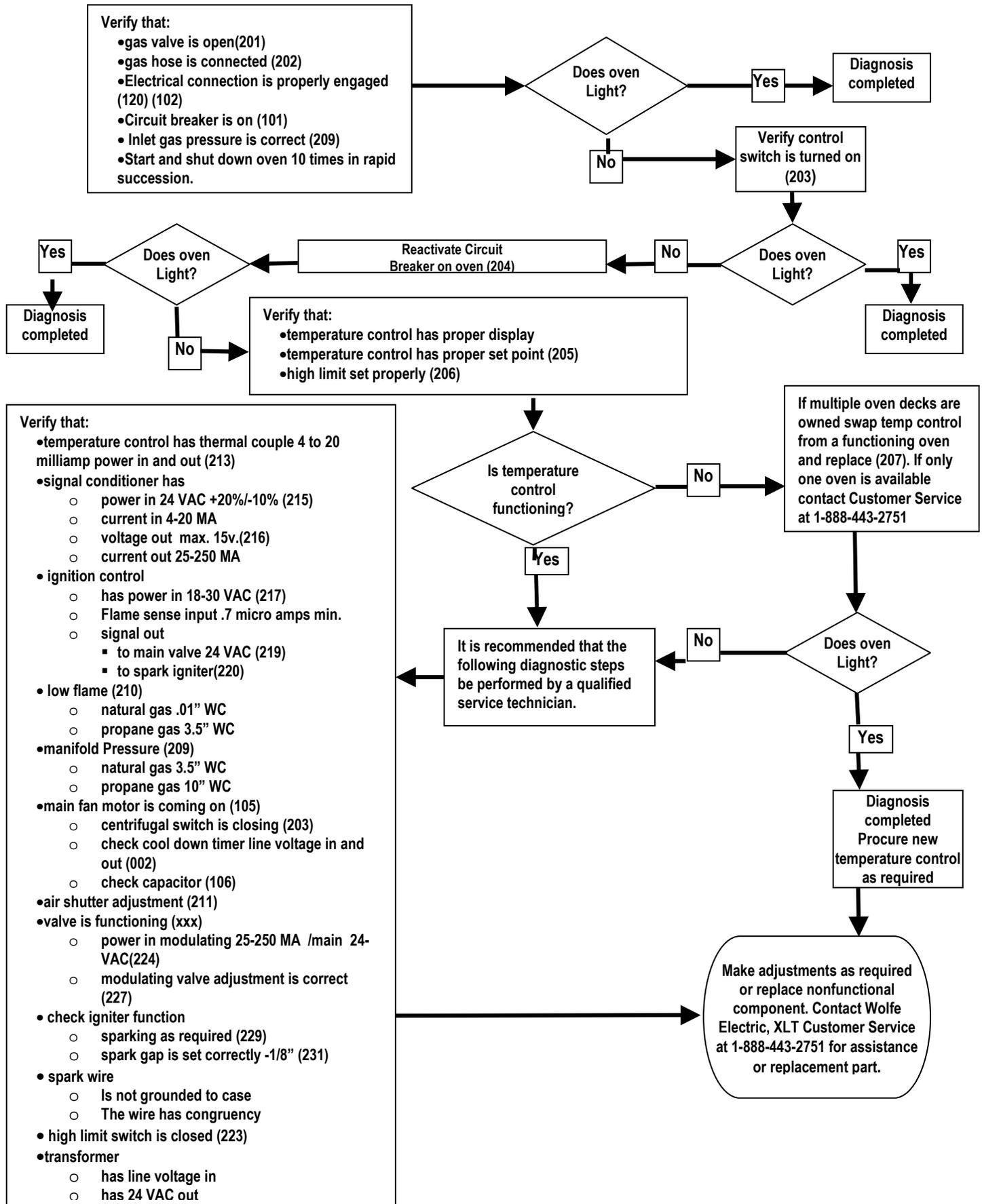
### 9.3. Burner will not light XLT 3270 & 3870 Direct Ignition Burner Ovens



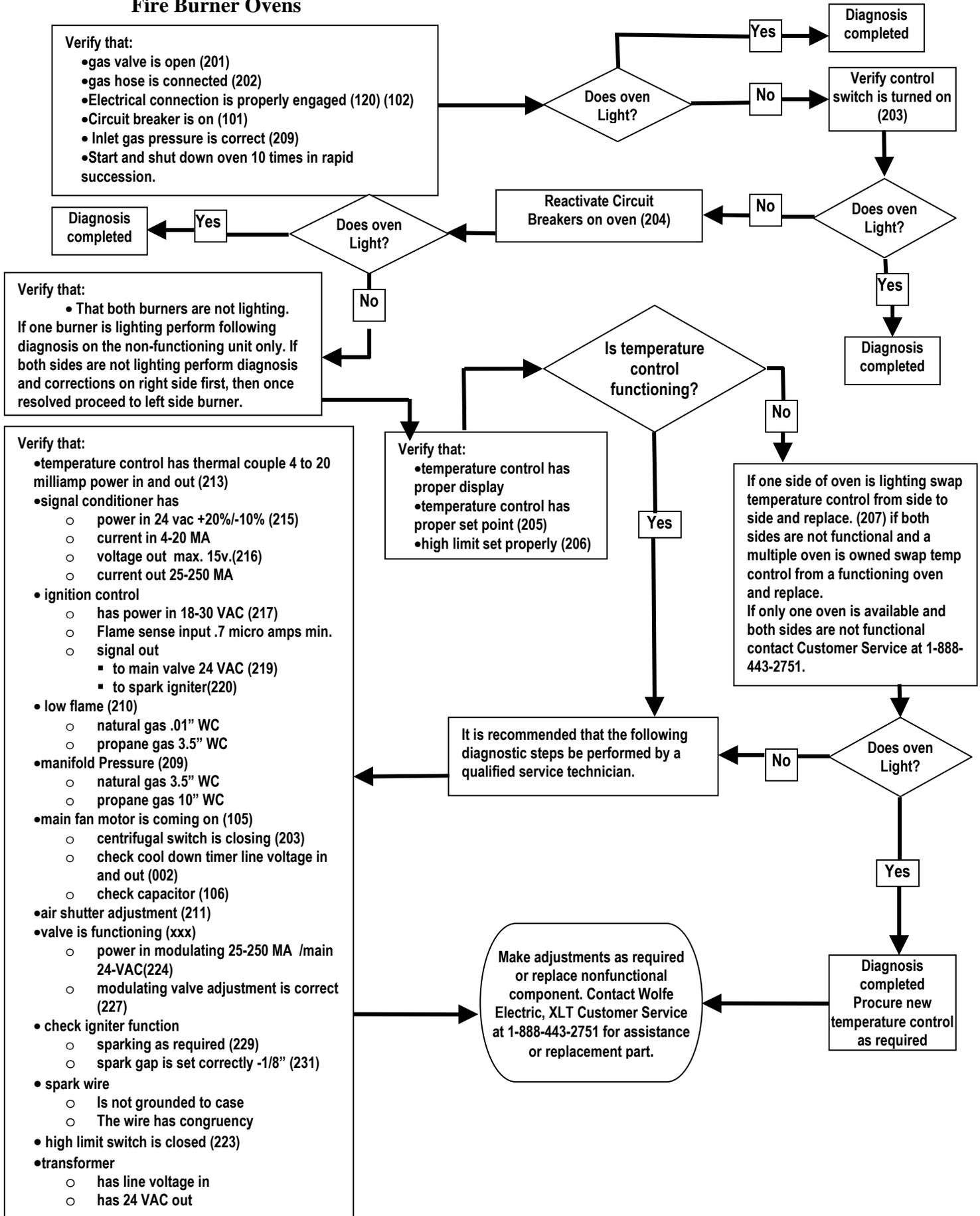
**9.4. Over temperature and under temperature XLT 1832, 2440, 3240, 3255, 3270S, 3855, 3270 & 3870 Direct Ignition Burner Ovens**



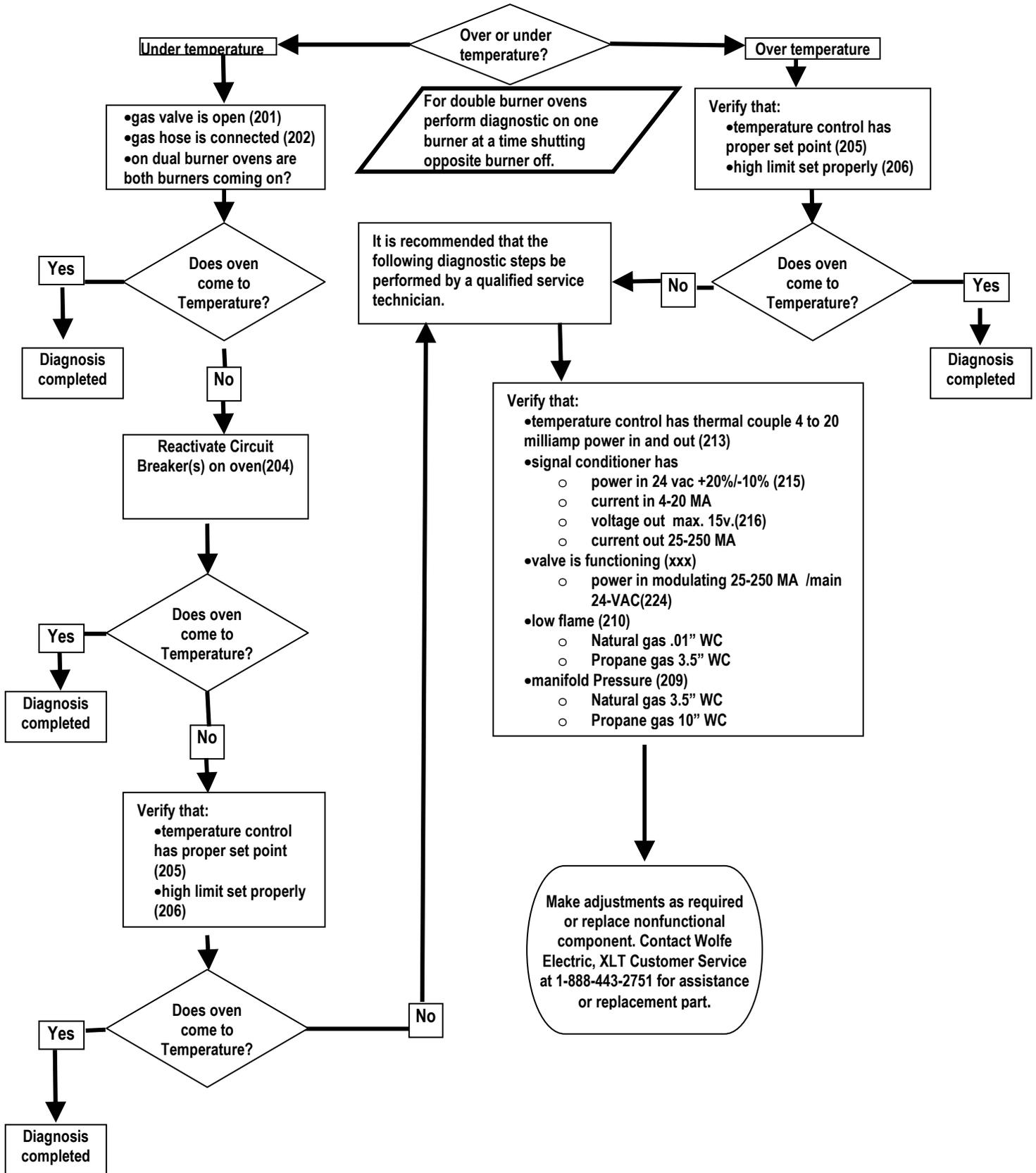
**9.5. Burner will not light, will not stay lit or cycles on and off XLT 1832, 2440, 3240, 3255, 3270S & 3855 Quite Fire Burner Ovens.**



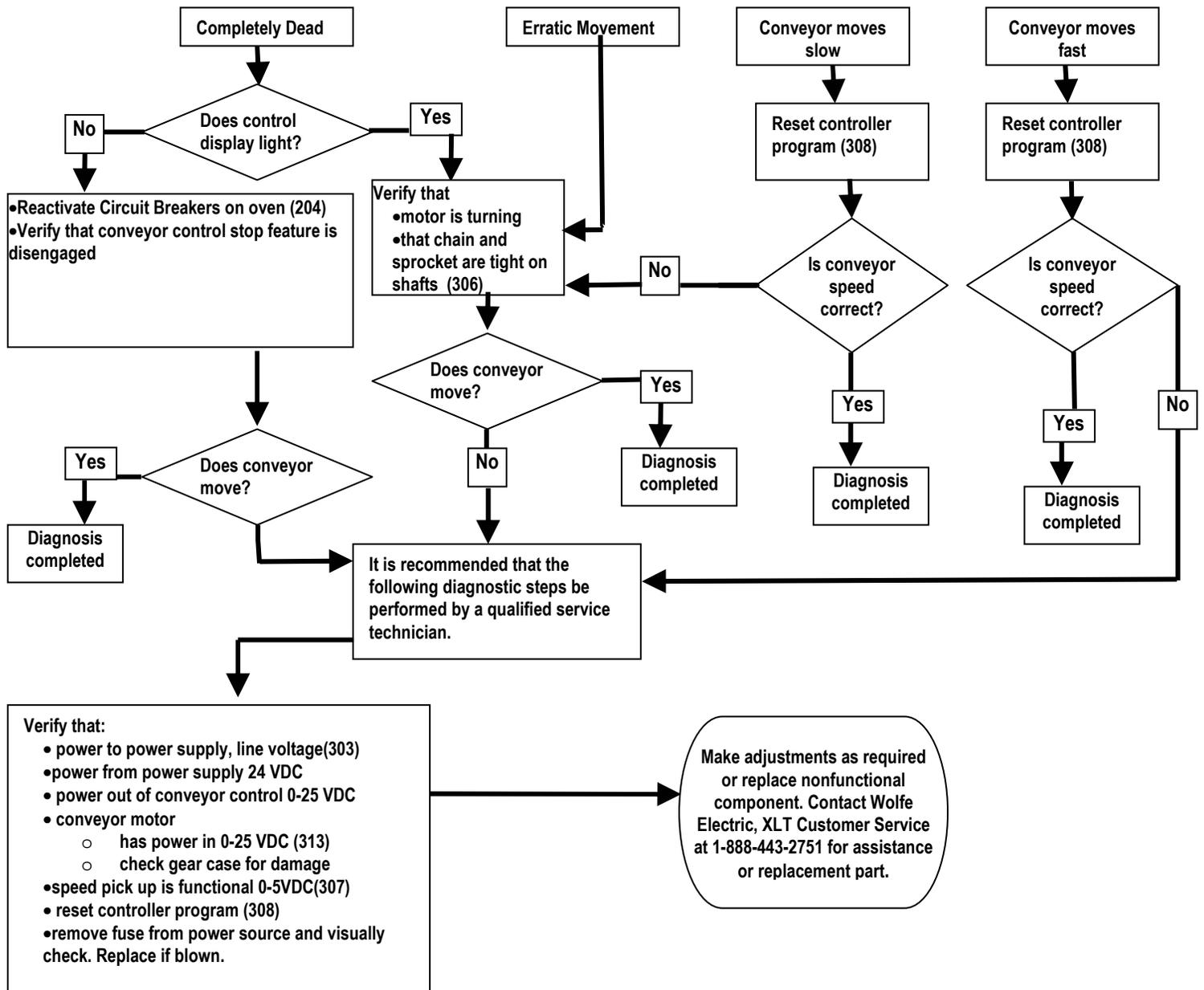
## 9.6. Burner will not light, will not stay lit or cycles on and off XLT 3270 and 3870 Dual Quite Fire Burner Ovens



**9.7. Over temperature and under temperature XLT-1832, 2440, 3240, 3255, 3270S, 3855, 3270 & 3870 Quite Fire Burner Ovens**



**9.8. Conveyor miss function on XLT 1832, 2440, 3240, 3255, 3855, 3270 and 3870 gas and electric ovens equipped with brushless type conveyor motor and Anaheim control**

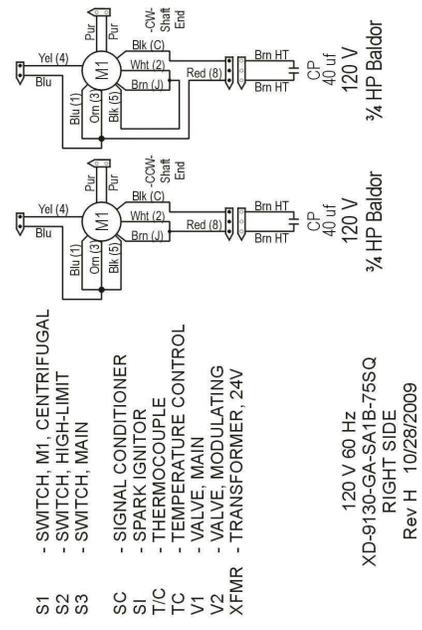
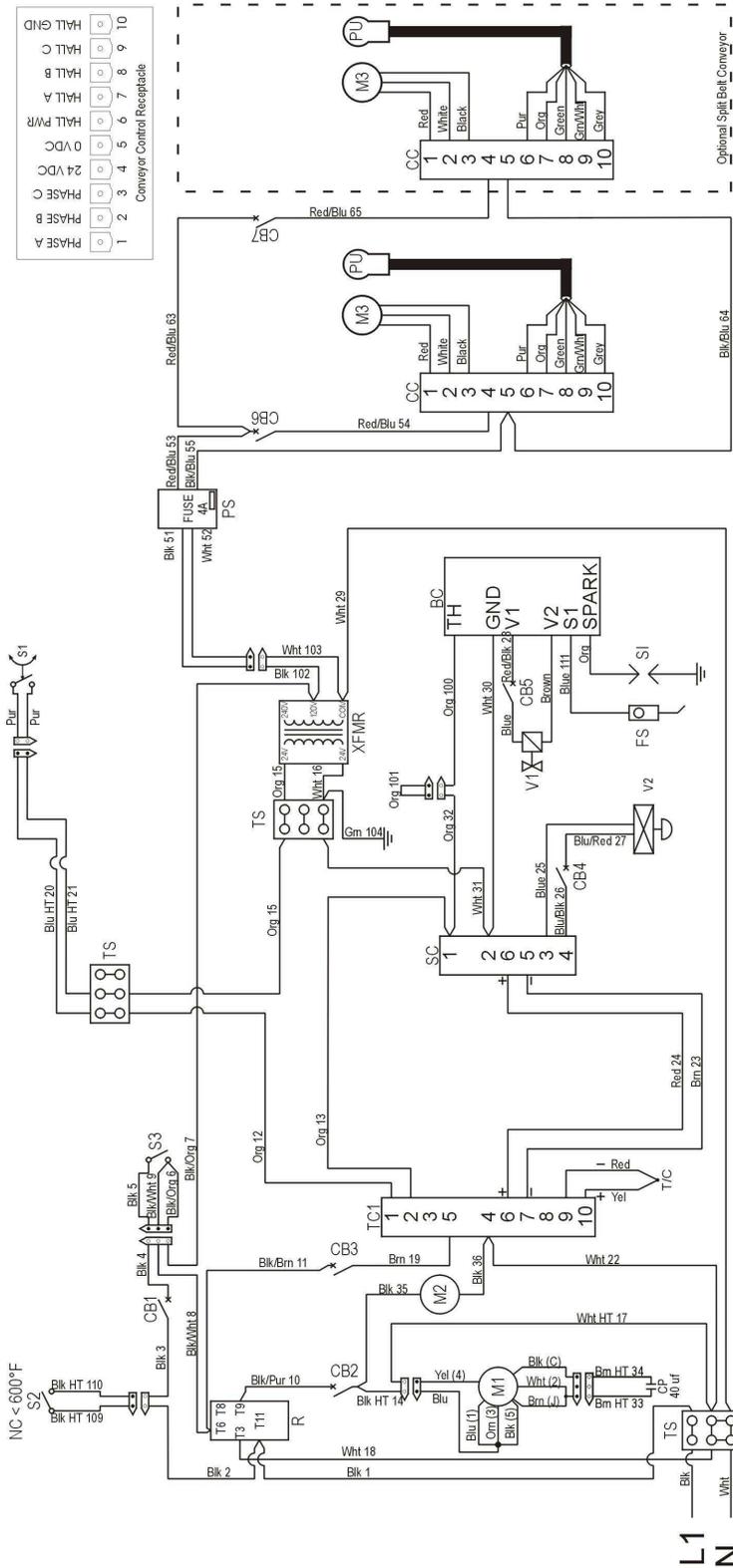


## 9.9. Service Code Actions

Code	Action	Code	Action
002	Replace cool down timer	308	Reprogram per service manual
101	Reactivate breakers on wall	311	Replace brushes
102	Check Receptacle	313	Check wire connections
103	Replace switch as required	318	Replace pick up
104	Reactivate breakers on oven		
105	Replace fan motor		
106	Replace fan motor capacitor		
107	Clean fan motor or replace		
109	Replace motor		
110	Replace motor		
120	Connect power correctly, check plug congruency.		
201	Open gas valve		
202	Reconnect gas hose or replace		
203	If switch is faulty, replace		
204	Reactivate Circuit Breaker, if it trips again trace circuit for source of short.		
205	Reset control see I& O manual for instructions		
206	See service manual reset as required.		
207	Replace Temperature control		
209	Adjust gas pressure per service manual		
210	Adjust gas pressure per service manual		
211	Adjust shutter per service manual		
213	Replace thermal couple		
215	Check for disconnected wire		
216	Replace signal conditioner		
217	Check for disconnected wire or blown fuse		
219	Check Circuit Breaker and wire connections. Replace ignition control		
220	Check Circuit Breaker and wire connections. Replace ignition control		
221	Check wire connections		
223	Replace high limit switch		
224	Check Circuit Breaker and wire connections		
227	Adjust valve per service manual		
229	Readjust ignition gap per service manual or replace.		
231	Adjust spark gap per service manual		
Xxx	Replace valve		
303	Check wiring connections		
306	Tighten sprockets and adjust chain		
307	Replace conveyor motor		

# 10. Electrical Diagrams:

## 10.1. 1832-S, 2440-S, 3240-S, 3255-S, 3270S-S & 3855-S with Square Burner & 3/4 HP Motor



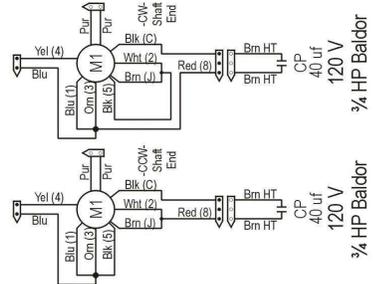
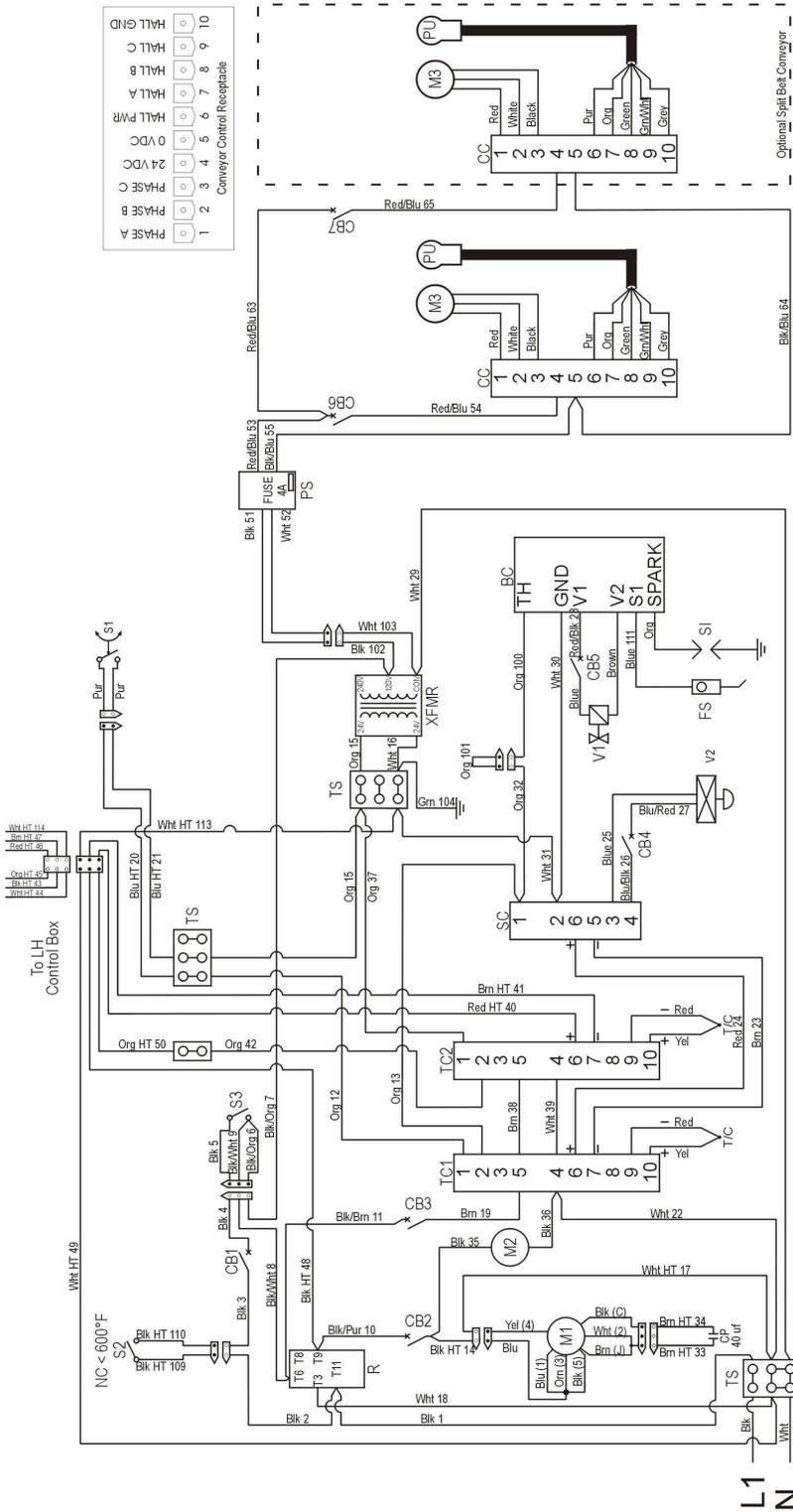
- BC - BURNER CONTROL
- C - CAPACITOR 40 uF
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 15 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG
- M3 - MOTOR, CONVEYOR
- PS - POWER SUPPLY, 24 VAC
- PU - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER
- S1 - SWITCH, M1, CENTRIFUGAL
- S2 - SWITCH, HIGH-LIMIT
- S3 - SWITCH, MAIN
- SC - SIGNAL CONDITIONER
- SI - SPARK IGNITOR
- T/C - THERMOCOUPLE
- V1 - VALVE, MAIN
- V2 - VALVE, MODULATING
- XFMR - TRANSFORMER, 24V

Blk = Black  
 Blu = Blue  
 Wht = White  
 Yel = Yellow  
 Gr = Green  
 Pur = Purple  
 Bm = Brown  
 Red = Red  
 Org = Orange  
 Wht = White  
 Gr = Gray  
 Pur = Purple  
 Example: Org/Blk is an Orange wire with Black tracer

**XLT-1832**  
**XLT-2440**  
**XLT-3240**  
**XLT-3255**  
**XLT-3855**

120 V 60 Hz  
 XD-9130-GA-SA1B-75SQ  
 RIGHT SIDE  
 Rev H 10/28/2009

# 10.2. 3270-S & 3870-S Right Hand Side with Square Burner & 3/4 HP Motor



- SWITCH, M1, CENTRIFUGAL
- SWITCH, HIGH-LIMIT
- SWITCH, MAIN
- SIGNAL CONDITIONER
- SPARK IGNITOR
- THERMOCOUPLE
- TEMPERATURE CONTROL
- VALVE, MAIN
- VALVE, MODULATING
- TRANSFORMER, 24V

- S1 - FLAME SENSOR
- M1 - MOTOR, FVEN FAN
- M2 - MOTOR, PFPG
- M3 - MOTOR, CONVEYOR
- PS - POWER SUPPLY, 24VAC
- P - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

- BC - BURNER CONTROL
- C - CAPACITOR 40 uf
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 15 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL



**XLT-3270**  
**XLT-3870**

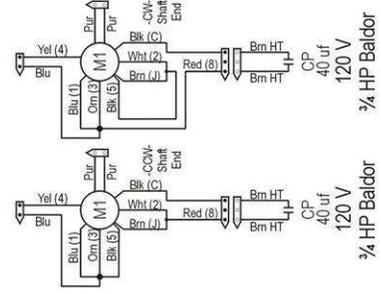
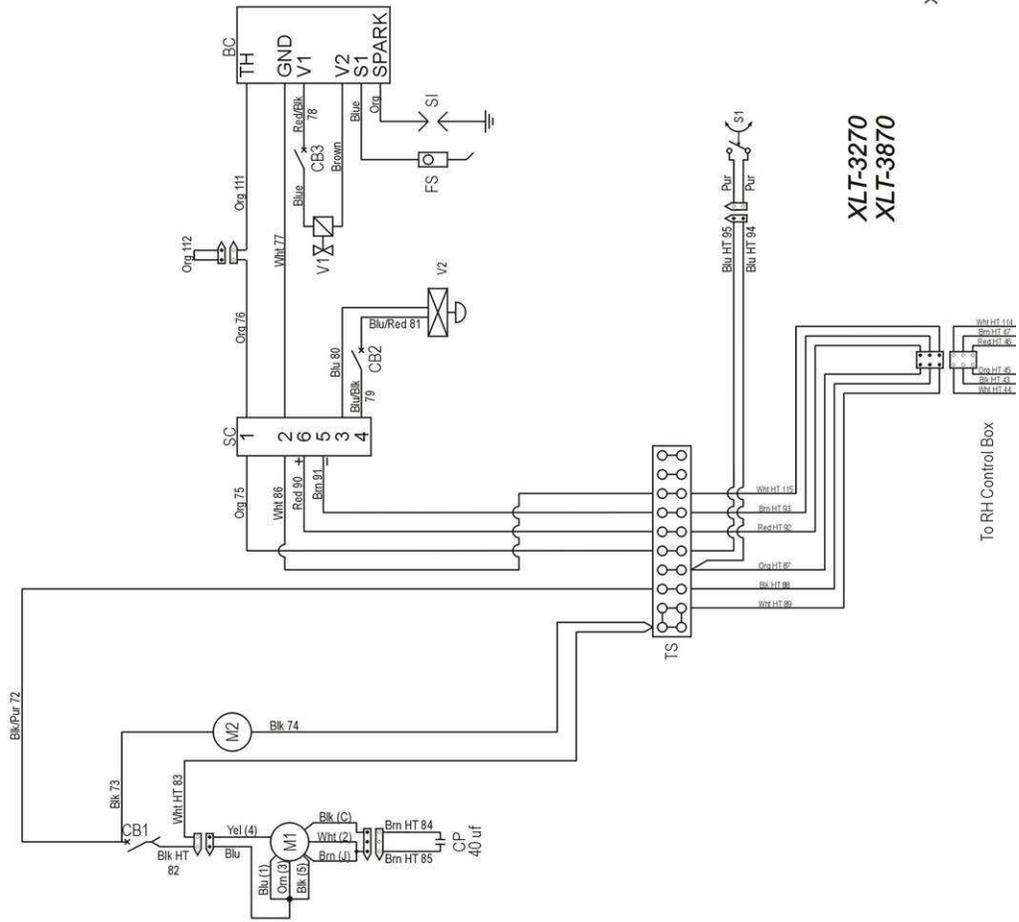
Blk = Black  
Blu = Blue  
Wht = White  
Grn = Green  
Pur = Purple  
Org/Blk = Orange wire with Black tracer

120 V 60 Hz  
XD-9130-GA-SA2B-75SQ  
RIGHT SIDE

Rev H 10/28/2009

### 10.3. 3270-S & 3870-S Left Hand Side with Square Burner & 3/4 HP Motor

- BC - BURNER CONTROL
- C - CAPACITOR 40 uf
- CB1 - CIRCUIT BREAKER, 15 AMP, OVEN FAN
- CB2 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB3 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPG
- S1 - SWITCH, M1, CENTRIFUGAL
- SC - SIGNAL CONDITIONER
- SI - SPARK IGNITOR
- V1 - VALVE, MAIN
- V2 - VALVE, MODULATING

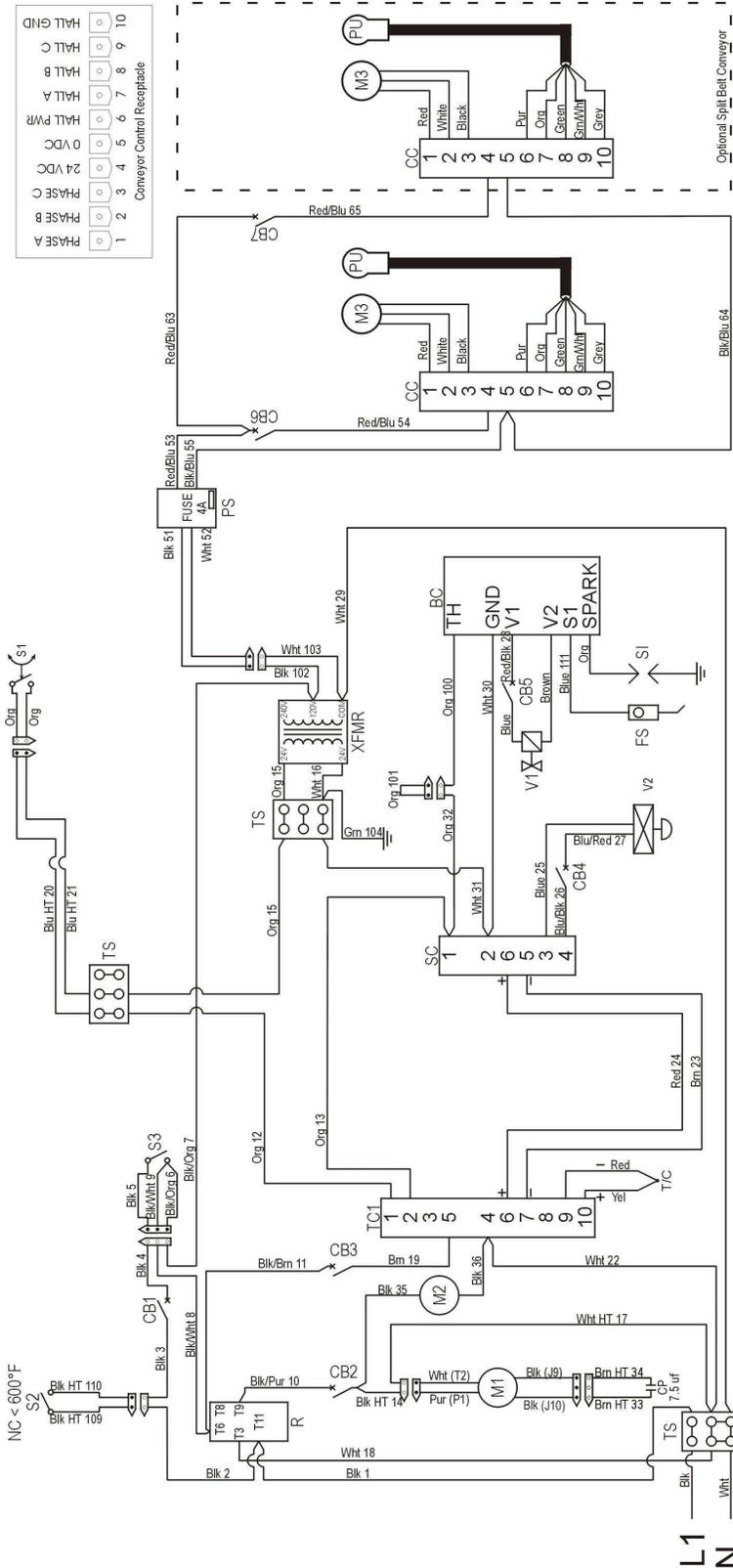


**XL T-3270**  
**XL T-3870**

120 V 60 Hz  
XD-91130-GA-SA2B-75SQ  
LEFT SIDE  
Rev H 10/28/2009

To RH Control Box

# 10.4. 1832-S, 2440-S, 3240-S, 3255-S, 3270S-S & 3855-S with Square Burner & 1/3 HP Motor



- S1 - SWITCH, M1, CENTRIFUGAL
- S2 - SWITCH, HIGH-LIMIT
- S3 - SWITCH, MAIN
- SC - SIGNAL CONDITIONER
- SI - SPARK IGNITOR
- T/C - THERMOCOUPLE
- TC - TEMPERATURE CONTROL
- V1 - VALVE, MAIN
- V2 - VALVE, MODULATING
- XFMR - TRANSFORMER, 24V

- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG
- M3 - MOTOR, CONVEYOR
- PS - POWER SUPPLY, 24 VAC
- PU - PICK UP CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

- BC - BURNER CONTROL
- C - CAPACITOR 7.5 uf
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

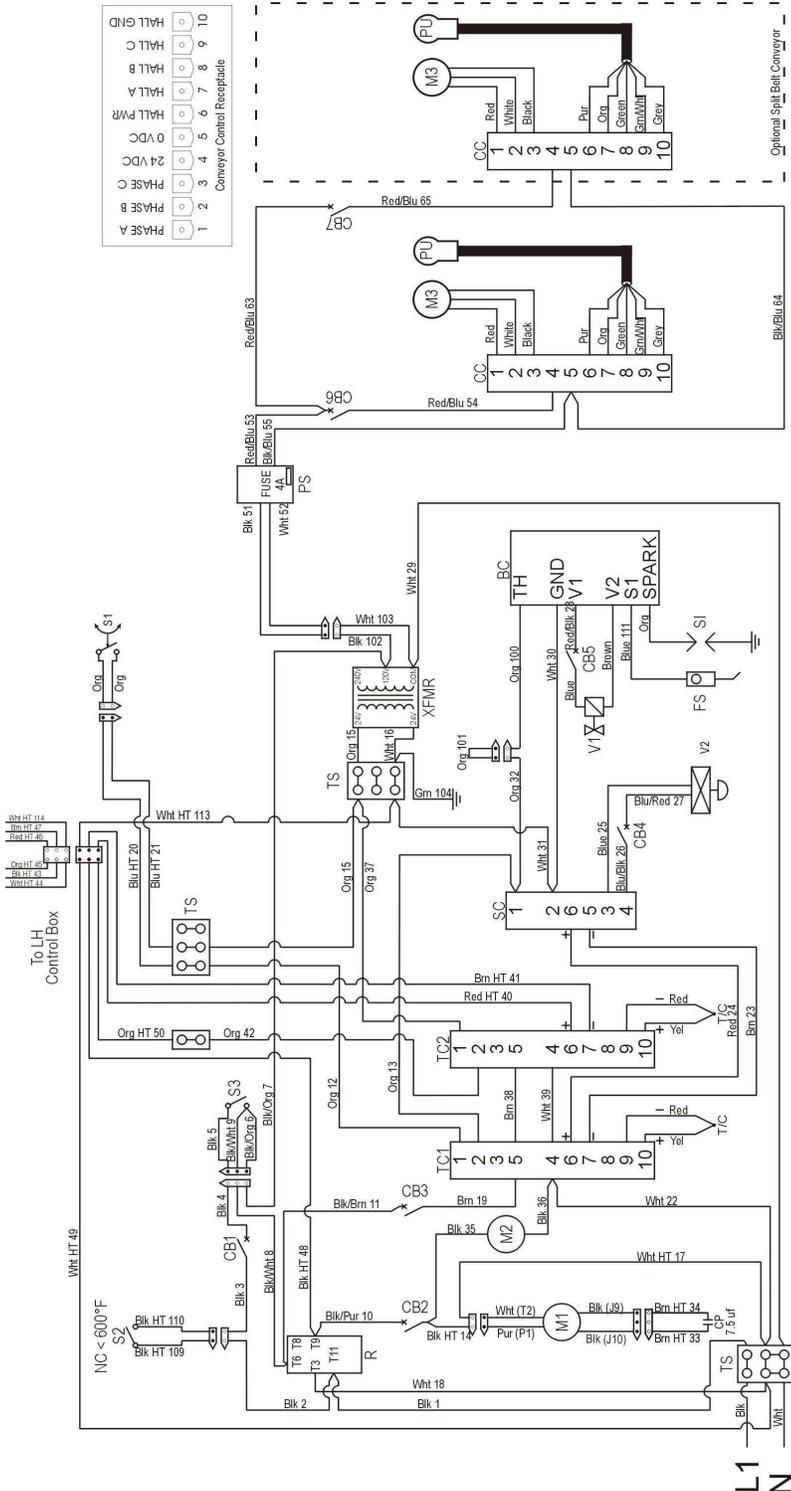
**XLT-1832**  
**XLT-2440**  
**XLT-3240**  
**XLT-3255**  
**XLT-3855**

120 V 60 Hz  
 XD-9130-GA-SA1B-33SQ  
 RIGHT SIDE  
 Rev H 10/28/2009

Blk = Black  
 Blu = Blue  
 Wht = White  
 Red = Red  
 Org = Orange  
 Pur = Purple  
 HT = Hi-Temp  
 Example: Org/Blk is an Orange wire with Black tracer



# 10.5. 3270-S & 3870-S Right Hand Side with Square Burner & 1/3 HP Motor



- SWITCH, M1, CENTRIFUGAL
- SWITCH, HIGH-LIMIT
- SWITCH, MAIN
- SIGNAL CONDITIONER
- SPARK IGNITOR
- THERMOCOUPLE
- TEMPERATURE CONTROL
- VALVE, MAIN
- VALVE, MODULATING
- TRANSFORMER, 24V

- S1 - FLAME SENSOR
- S2 - MOTOR, OVEN FAN
- S3 - MOTOR, PFPG
- SC - MOTOR, CONVEYOR
- SI - POWER SUPPLY, 24 VAC
- T/C - PICK UP, CONVEYOR MOTOR
- V1 - RELAY, COOL-DOWN TIMER
- V2 - RELAY, COOL-DOWN TIMER

- BC - BURNER CONTROL
- C - CAPACITOR 7.5 uf
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

**XLT-3270**  
**XLT-3870**

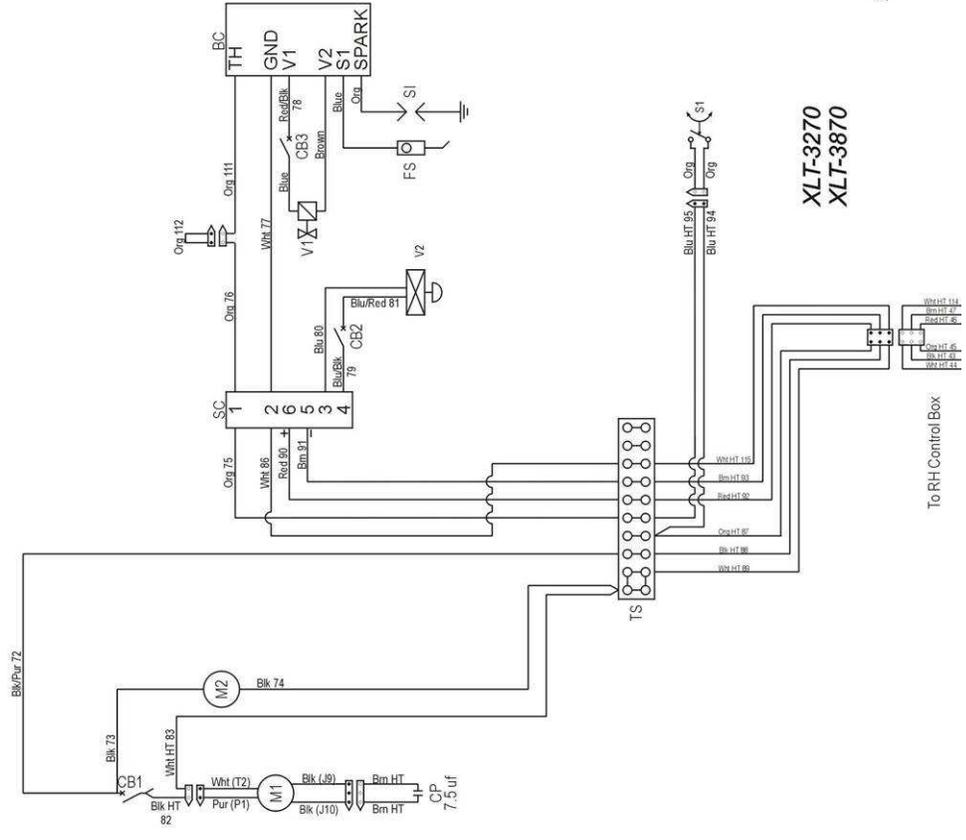
Blk = Black  
Red = Red  
Grn = Green  
Pur = Purple  
Org/Blk is an Orange wire with Black tracer

Brn = Brown  
Wht = White  
Yel = Yellow  
Gry = Gray  
Ora = Orange

120 V 60 Hz  
XD-9130-GA-SA2B-33SQ  
RIGHT SIDE  
Rev H 10/28/2009

# 10.6. 3270-S & 3870-S Left Hand Side with Square Burner & 1/3 HP Motor

- BC - BURNER CONTROL
- C - CAPACITOR 7.5 uf
- CB1 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB2 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB3 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG
- S1 - SWITCH, M1, CENTRIFUGAL
- SC - SIGNAL CONDITIONER
- SI - SPARK IGNITOR
- V1 - VALVE, MAIN
- V2 - VALVE, MODULATING

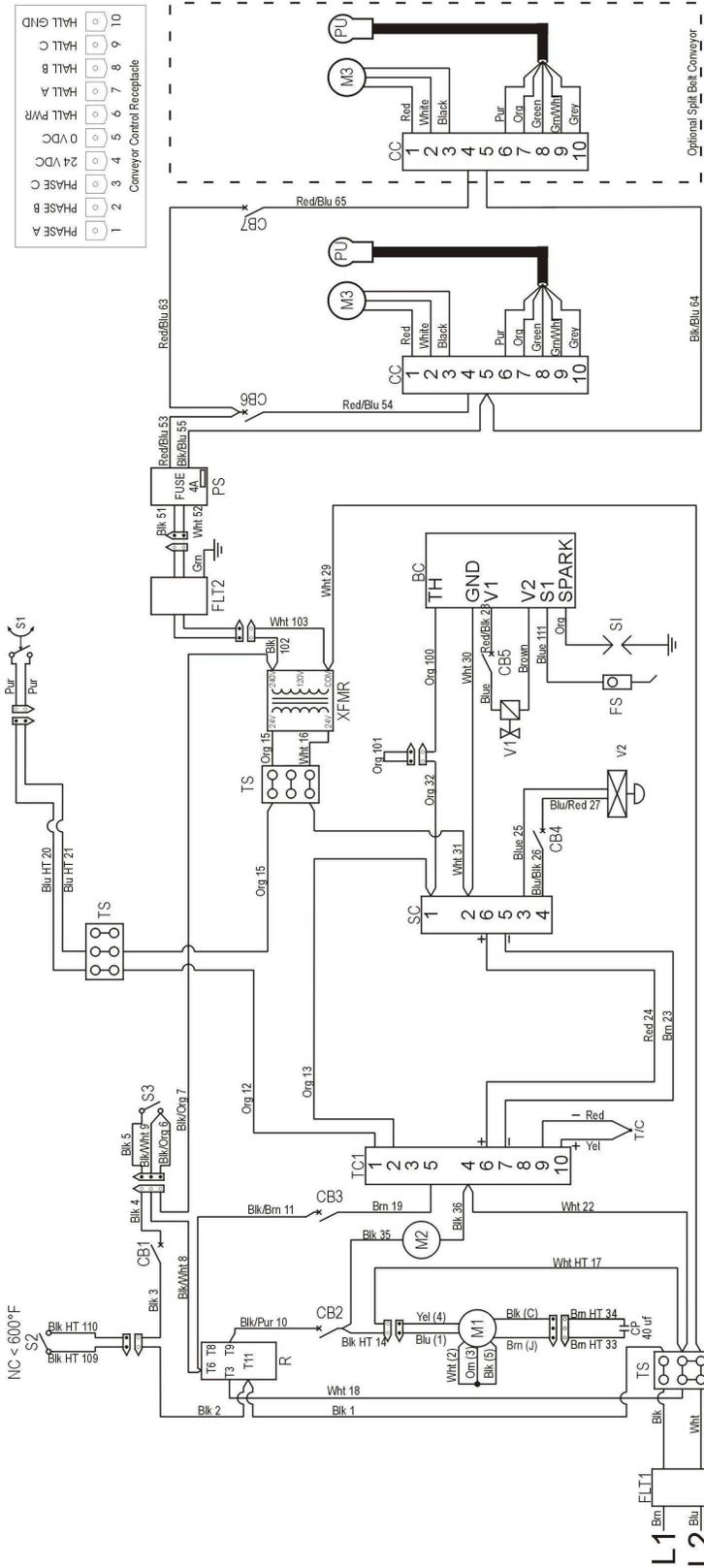


**XLT-3270**  
**XLT-3870**

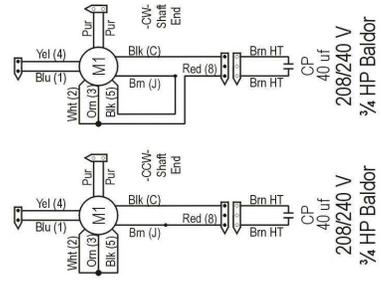
120 V 60 Hz  
XD-9130-GA-SA2B-33SQ  
LEFT SIDE  
Rev H - 10/28/2009

To RH Control Box

# 10.7. 1832-W, 2440-W, 3240-W, 3255-W, 3270S-W & 3855-W with Square Burner & 3/4 HP Motor



Conveyor Control Receptacle									
HALL C	10	9	8	7	6	5	4	3	2
HALL B	10	9	8	7	6	5	4	3	2
HALL A	10	9	8	7	6	5	4	3	2
HALL PMR	10	9	8	7	6	5	4	3	2
0 VDC	10	9	8	7	6	5	4	3	2
24 VDC	10	9	8	7	6	5	4	3	2
PHASE C	10	9	8	7	6	5	4	3	2
PHASE B	10	9	8	7	6	5	4	3	2
PHASE A	10	9	8	7	6	5	4	3	2



- SWITCH, M1, CENTRIFUGAL
- SWITCH, HIGH-LIMIT
- SWITCH, MAIN
- SIGNAL CONDITIONER
- SPARK IGNITOR
- THERMOCOUPLE
- TEMPERATURE CONTROL
- VALVE, MAIN
- VALVE, MODULATING
- TRANSFORMER, 24V

- S1 - FILTER, POWER INLET
- S2 - FILTER, CONVEYOR CONTROL
- S3 - FLAME SENSOR
- SC - MOTOR, OVEN FAN
- SI - MOTOR, FPPG
- PS - POWER SUPPLY, 24 VAC
- PU - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

- XLT-1832**
- XLT-2440**
- XLT-3240**
- XLT-3255**
- XLT-3855**

NC < 600°F  
 Blk = Black  
 Red = Red  
 Grn = Green  
 Pur = Purple  
 Ex: Org/Blk is an Orange wire with Black tracer

- BC - BURNER CONTROL
- C - CAPACITOR 40 uF
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

208/240 V  
 3/4 HP Baldor

208/240 V  
 3/4 HP Baldor

230 V 50/60 Hz  
 XD-9130-GA-WA1B-75SQ  
 RIGHT SIDE  
 Rev H 10/28/2009



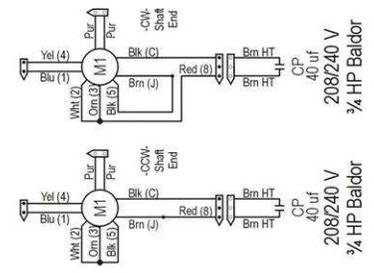
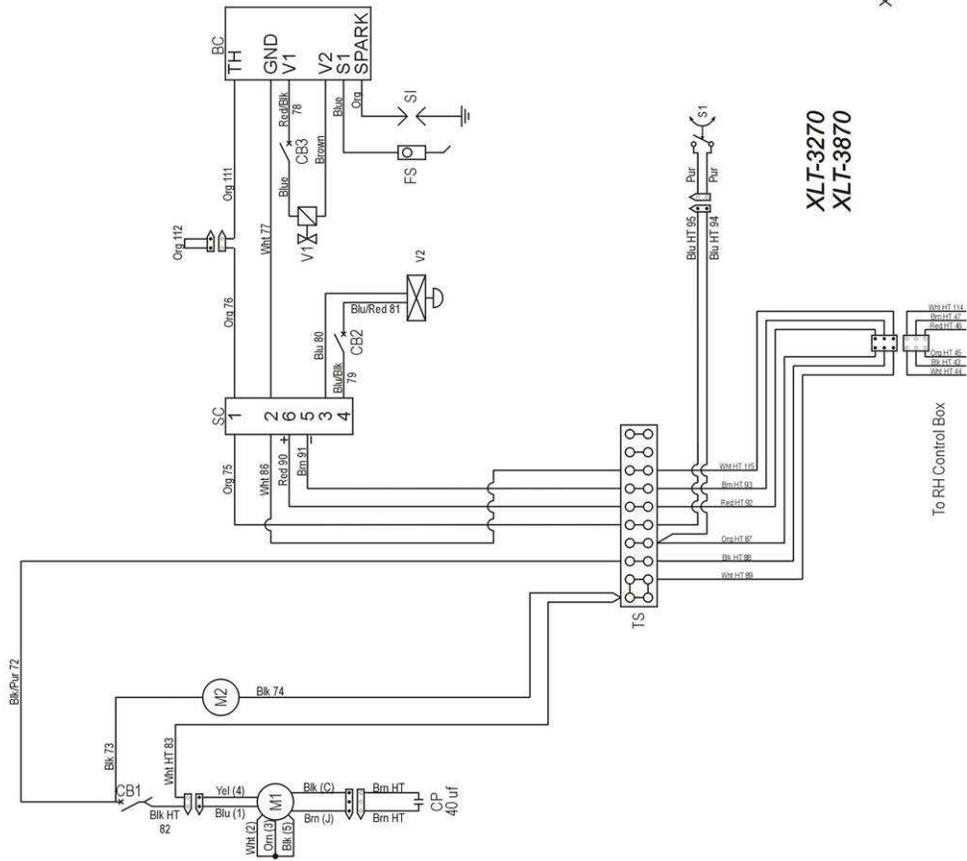
# 10.9. 3270-W & 3870-W Left Hand Side with Square Burner & 3/4 HP Motor

- SIGNAL CONDITIONNER
- SPARK IGNITOR
- VALVE, MAIN
- VALVE, MODULATING

- SC
- SI
- V1
- V2

- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG

- BC - BURNER CONTROL
- C - CAPACITOR 40 uf
- CB1 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB2 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB3 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE

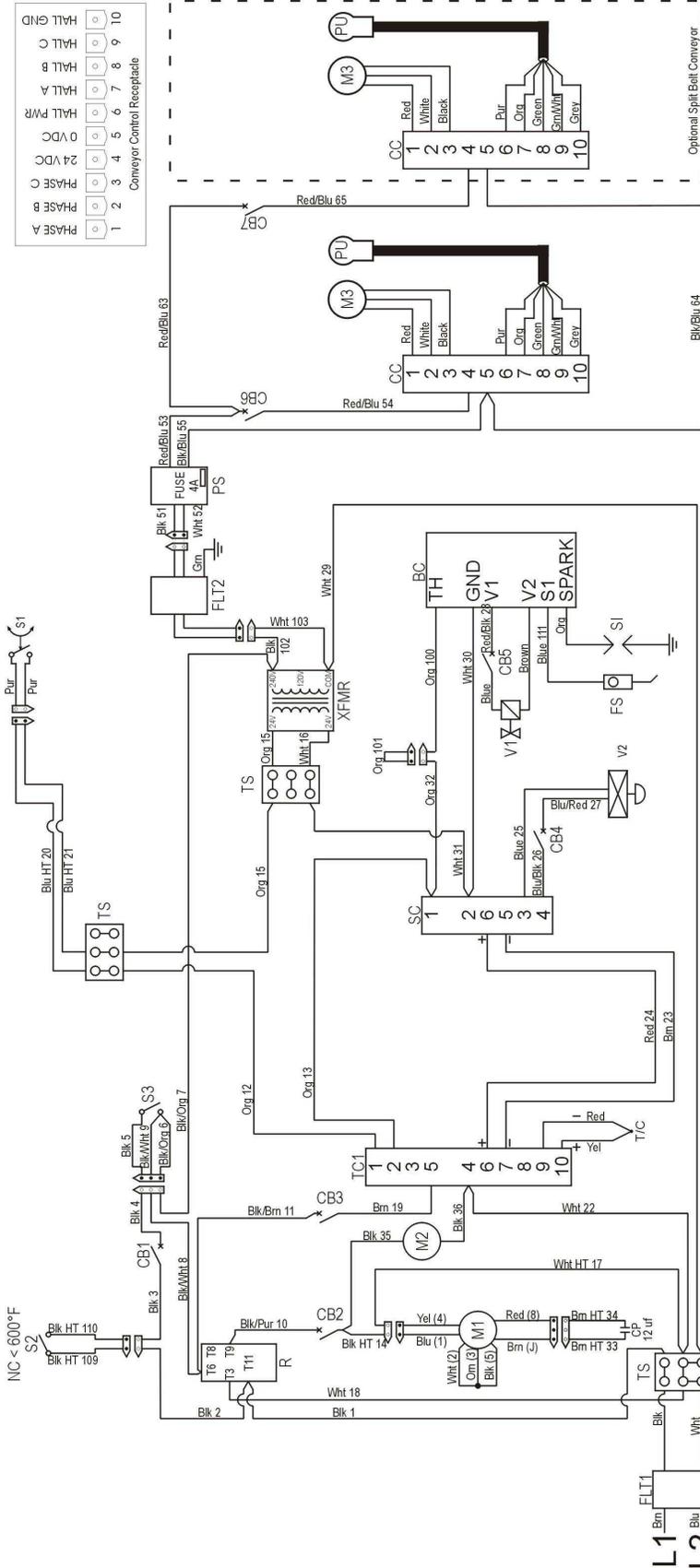


230 V 50/60 Hz  
 XD-9130-GA-WA2B-75SQ  
 LEFT SIDE  
 Rev H 10/28/2009

**XLT-3270**  
**XLT-3870**

To RH Control Box

# 10.10. 1832-W, 2440-W, 3240-W, 3255-W, 3270S-W & 3855-W with Square Burner & 1/3 HP Motor



- S1 - SWITCH, M1, CENTRIFUGAL
- S2 - SWITCH, HIGH-LIMIT
- S3 - SWITCH, MAIN
- SC - SIGNAL CONDITIONER
- SI - SPARK IGNITOR
- T/C - THERMOCOUPLE
- TC - TEMPERATURE CONTROL
- V1 - VALVE, MAIN
- V2 - VALVE, MODULATING
- XFMR - TRANSFORMER, 24V

- FLT 1 - FILTER, POWER INLET
- FLT 2 - FILTER, CONVEYOR CONTROL
- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG
- M3 - MOTOR, CONVEYOR
- PS - POWER SUPPLY, 24 VAC
- PU - PICKUP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

- BC - BURNER CONTROL
- C - CAPACITOR 12 uf
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

**XLT-1832**  
**XLT-2440**  
**XLT-3240**  
**XLT-3255**  
**XLT-3855**

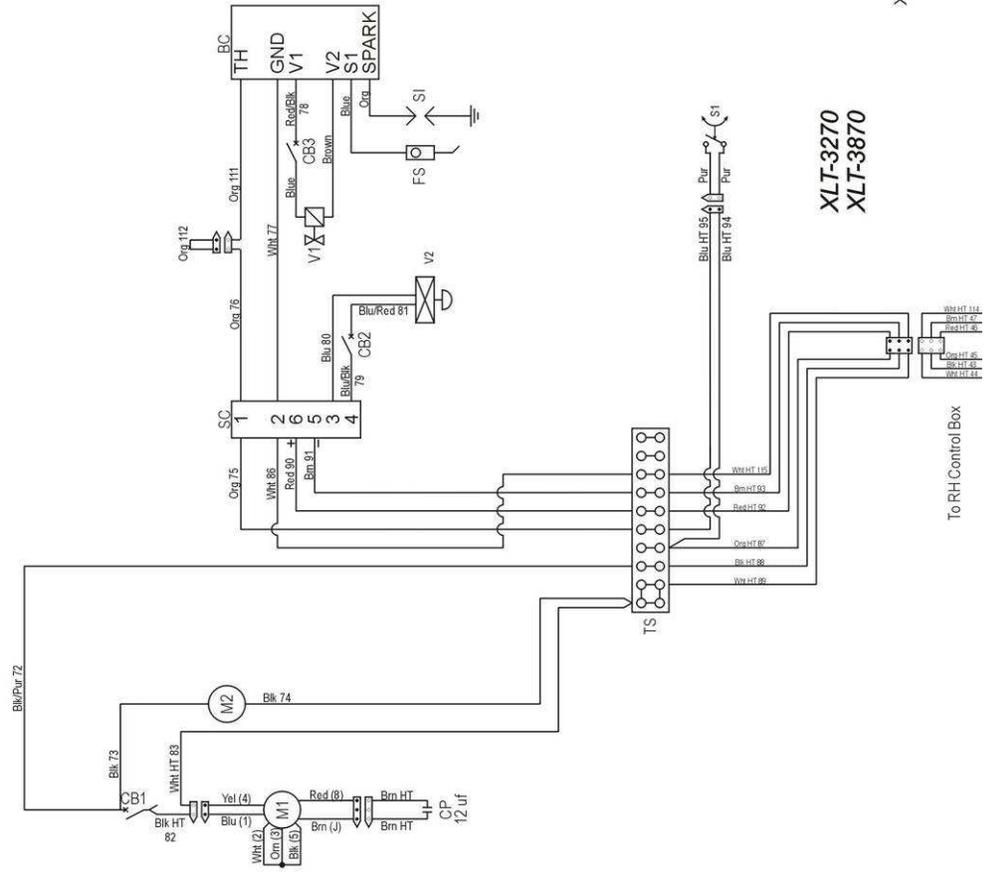
Blk = Black  
 Red = Red  
 Grn = Green  
 Pur = Purple  
 Org = Orange  
 Yel = Yellow  
 Wht = White  
 Grg = Gray  
 Blk/Wht = Black/White  
 Example: Org/Blk is an Orange wire with Black tracer

230 V 50/60 Hz  
 XD-9130-GA-WA1B-33SQ  
 RIGHT SIDE  
 Rev H 10/28/2009



# 10.12. 3270-W & 3870-W Left Hand Side with Square Burner & 1/3 HP Motor

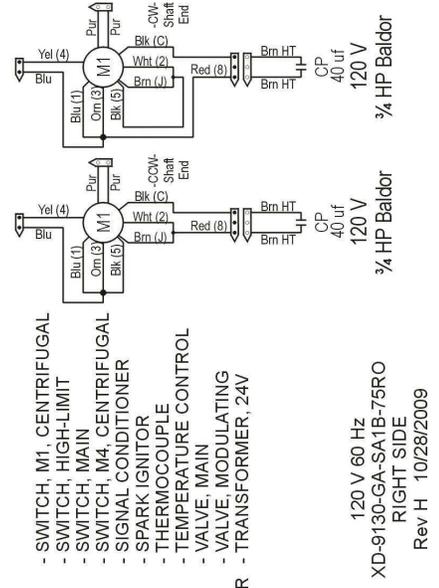
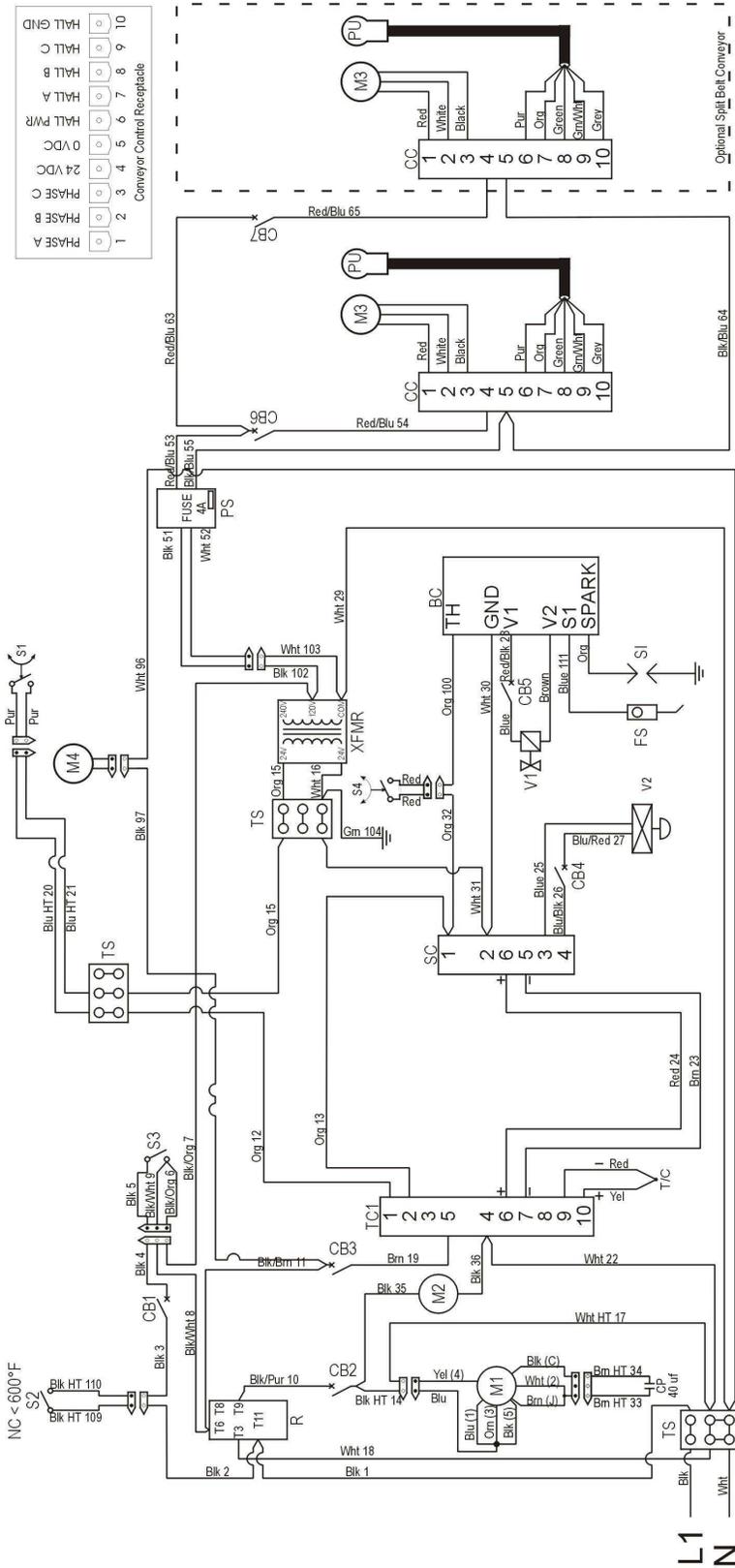
- BC - BURNER CONTROL
- C - CAPACITOR 12 uf
- CB1 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB2 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB3 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG
- S1 - SWITCH, M1, CENTRIFUGAL
- SC - SIGNAL CONDITIONER
- SI - SPARK IGNITOR
- V1 - VALVE, MAIN
- V2 - VALVE, MODULATING



**XLT-3270**  
**XLT-3870**

230 V 50/60 Hz  
XD-9130-GA-WA2B-33SQ  
LEFT SIDE  
Rev H 10/28/2009

# 10.13. 1832-S, 2440-S, 3240-S, 3255-S, 3270S-S & 3855-S with Round Burner & 3/4 HP Motor



- S1 - SWITCH, M1, CENTRIFUGAL
- S2 - SWITCH, HIGH-LIMIT
- S3 - SWITCH, MAIN
- S4 - SWITCH, M4, CENTRIFUGAL
- SC - SIGNAL CONDITIONER
- T/C - SPARK IGNITOR
- TC - THERMOCOUPLE
- V1 - VALVE, MAIN
- V2 - VALVE, MODULATING
- XFMR - TRANSFORMER, 24V

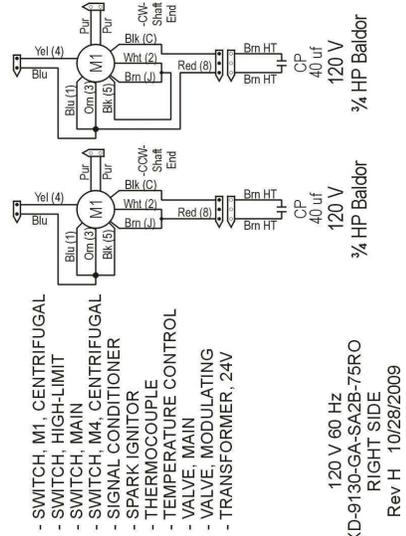
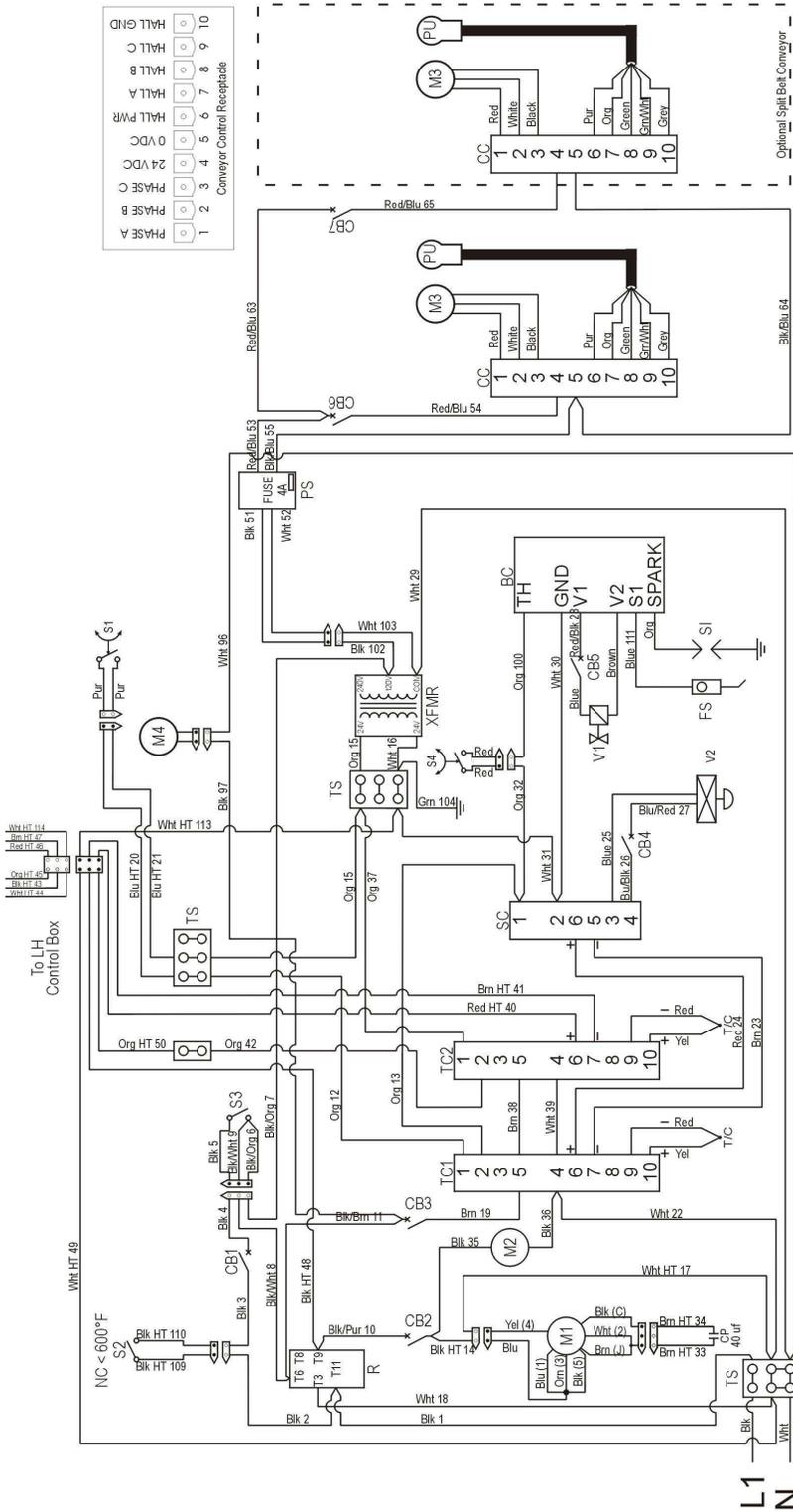
- BC - BURNER CONTROL
- C - CAPACITOR 40 uf
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 15 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG
- M3 - MOTOR, CONVEYOR
- M4 - MOTOR, BURNER BLOWER
- PS - POWER SUPPLY, 24 VAC
- PU - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

Blk = Black  
 Red = Red  
 Grn = Green  
 Pur = Purple  
 Bln = Blue  
 Wht = White  
 Gray = Gray  
 HT = Ht-temp  
 Ex: Org/Blk is an Orange wire with Black tracer

**XLT-1832**  
**XLT-2440**  
**XLT-3240**  
**XLT-3255**  
**XLT-3855**

120 V 60 Hz  
 XD-9130-GA-SA1B-75R0  
 RIGHT SIDE  
 Rev H 10/28/2009

# 10.14. 3270-S & 3870-S Right Hand Side with Round Burner & 3/4 HP Motor



- SWITCH, M1, CENTRIFUGAL
- SWITCH, HIGH-LIMIT
- SWITCH, MAIN
- SWITCH, M4, CENTRIFUGAL
- SIGNAL CONDITIONER
- SPARK IGNITOR
- THERMOCOUPLE
- TEMPERATURE CONTROL
- VALVE, MAIN
- VALVE, MODULATING
- TRANSFORMER, 24V

- S1 - FLAME SENSOR
- S2 - MOTOR, OPEN FAN
- S3 - MOTOR, PPG
- S4 - MOTOR, CONVEYOR
- SC - MOTOR, BURNER BLOWER
- T/C - POWER SUPPLY, 24VAC
- V1 - PICK UP, CONVEYOR MOTOR
- V2 - RELAY, COOL-DOWN TIMER

- BC - BURNER CONTROL
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 15 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

- FS - FLAME SENSOR
- M1 - MOTOR, OPEN FAN
- M2 - MOTOR, PPG
- M3 - MOTOR, CONVEYOR
- M4 - MOTOR, BURNER BLOWER
- PS - POWER SUPPLY, 24VAC
- PU - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

- BC - BURNER CONTROL
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 15 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

- FS - FLAME SENSOR
- M1 - MOTOR, OPEN FAN
- M2 - MOTOR, PPG
- M3 - MOTOR, CONVEYOR
- M4 - MOTOR, BURNER BLOWER
- PS - POWER SUPPLY, 24VAC
- PU - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

- BC - BURNER CONTROL
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 15 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

- FS - FLAME SENSOR
- M1 - MOTOR, OPEN FAN
- M2 - MOTOR, PPG
- M3 - MOTOR, CONVEYOR
- M4 - MOTOR, BURNER BLOWER
- PS - POWER SUPPLY, 24VAC
- PU - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

- BC - BURNER CONTROL
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 15 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

- FS - FLAME SENSOR
- M1 - MOTOR, OPEN FAN
- M2 - MOTOR, PPG
- M3 - MOTOR, CONVEYOR
- M4 - MOTOR, BURNER BLOWER
- PS - POWER SUPPLY, 24VAC
- PU - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

- BC - BURNER CONTROL
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 15 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

- FS - FLAME SENSOR
- M1 - MOTOR, OPEN FAN
- M2 - MOTOR, PPG
- M3 - MOTOR, CONVEYOR
- M4 - MOTOR, BURNER BLOWER
- PS - POWER SUPPLY, 24VAC
- PU - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

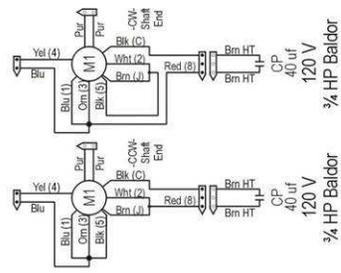
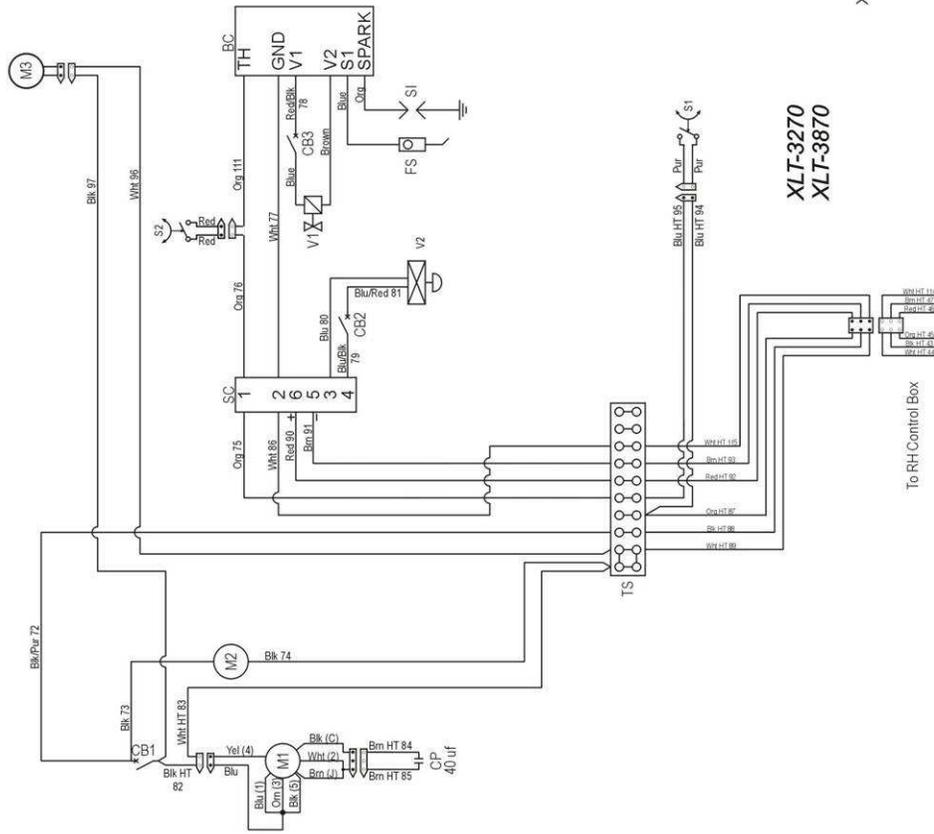
**XLT-3270**  
**XLT-3870**

120 V, 60 Hz  
XD-9130-GA-SA2B-75RO  
RIGHT SIDE  
Rev H 10/28/2009

Blk = Black  
Blu = Blue  
Wht = White  
Grn = Green  
Pur = Purple  
Bkn = Brown  
Org = Orange  
Gry = Gray  
HT = Hi-Temp  
Example: Org/Blk is an Orange wire with Black tracer

# 10.15. 3270-S & 3870-S Left Hand Side with Round Burner & 3/4 HP Motor

- BC - BURNER CONTROL
- C - CAPACITOR 40 uf
- CB1 - CIRCUIT BREAKER, 15 AMP, OVEN FAN
- CB2 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB3 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG
- M3 - MOTOR, BURNER BLOWER
- S1 - SWITCH, M1, CENTRIFUGAL
- S2 - SWITCH, M3, CENTRIFUGAL
- SC - SIGNAL CONDITIONER
- SI - SPARK IGNITOR
- V1 - VALVE, MAIN
- V2 - VALVE, MODULATING

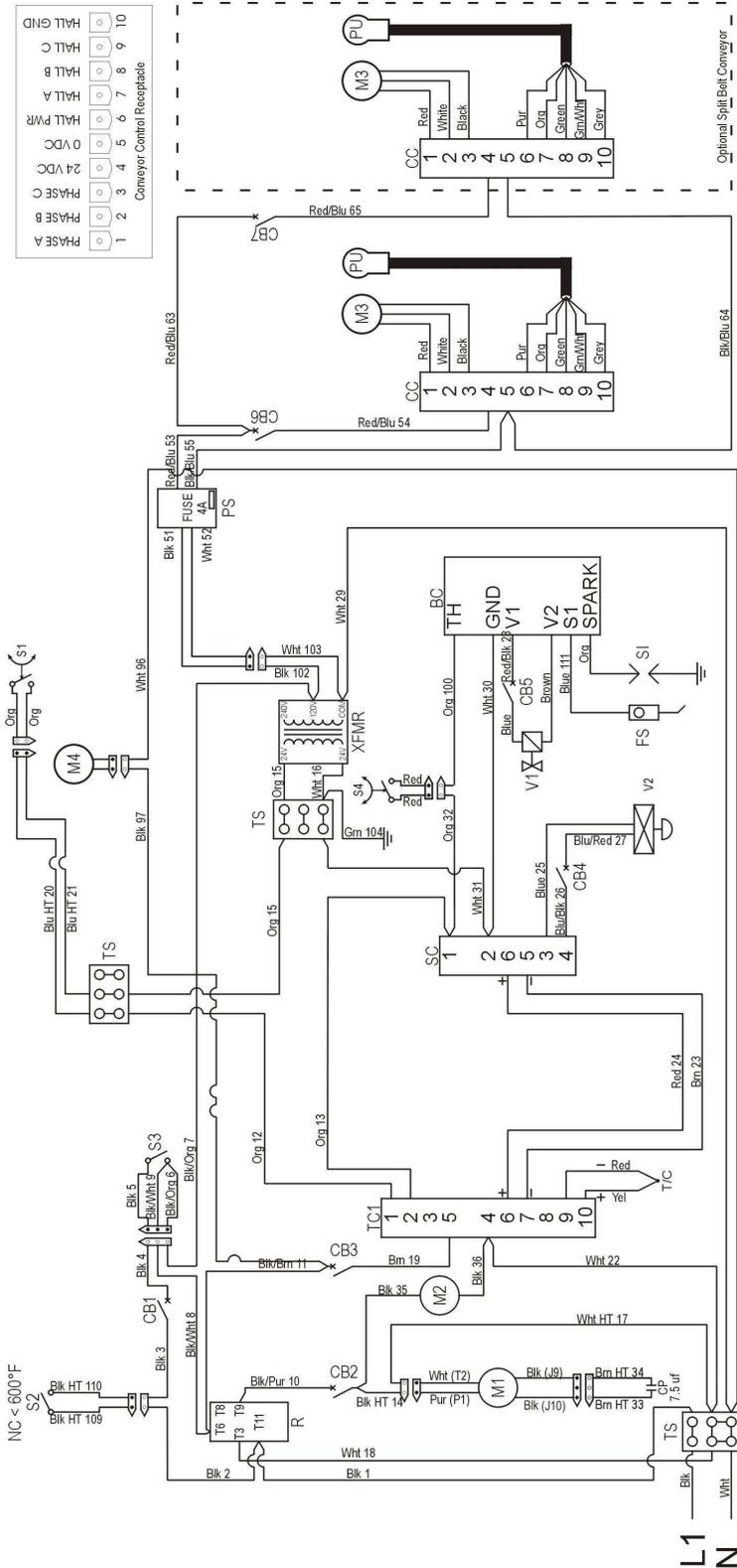


120 V 60 HZ  
 XD-9130-GA-SA2B-75RO  
 LEFT SIDE  
 Rev H 10/28/2009

**XLT-3270**  
**XLT-3870**

To RH Control Box

# 10.16. 1832-S, 2440-S, 3240-S, 3255-S, 3270S-S & 3855-S with Round Burner & 1/3 HP Motor



- SWITCH, M1, CENTRIFUGAL
- SWITCH, HIGH-LIMIT
- SWITCH, MAIN
- SWITCH, M4, CENTRIFUGAL
- SIGNAL CONDITIONER
- SPARK IGNITOR
- THERMOCOUPLE
- TEMPERATURE CONTROL
- VALVE, MAIN
- VALVE, MODULATING
- TRANSFORMER, 24V

- S1 - FLAME SENSOR
- S2 - MOTOR, OVEN FAN
- S3 - MOTOR, PFPG
- S4 - MOTOR, CONVEYOR
- SC - MOTOR, BLOWER
- T/C - POWER SUPPLY, 24 VAC
- V1 - PICK UP, CONVEYOR MOTOR
- V2 - RELAY, COOL-DOWN TIMER
- XFMR - TRANSFORMER, 24V

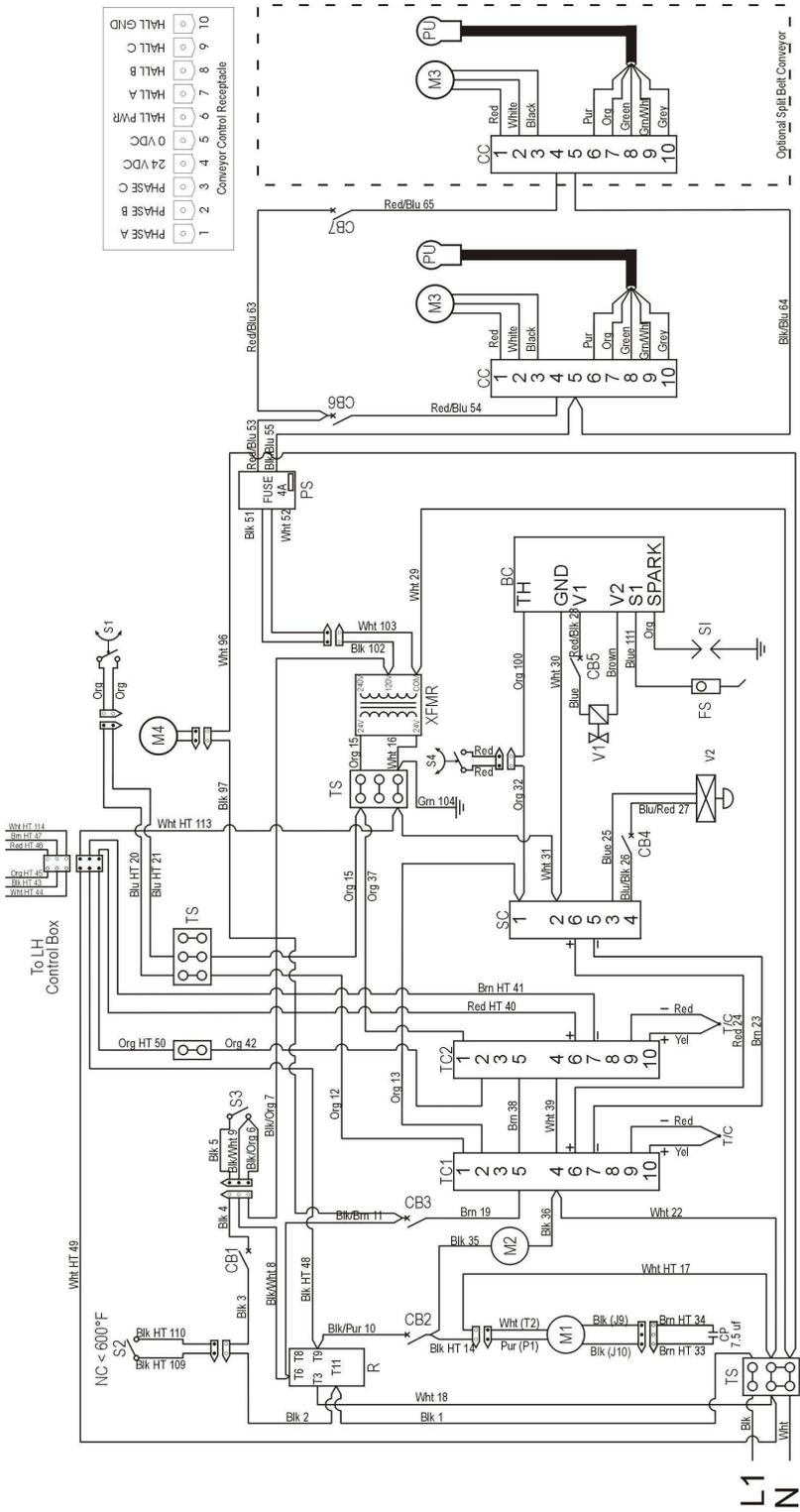
- BC - BURNER CONTROL
- C - CAPACITOR 7.5 uf
- CC - CONVEYOR CONTROL
- CB1- CIRCUIT BREAKER, 2 AMP, MAIN
- CB2- CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB3- CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4- CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5- CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6- CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7- CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

- XLT-1832**
- XLT-2440**
- XLT-3240**
- XLT-3255**
- XLT-3855**

Blk = Black  
 Blu = Blue  
 Brn = Brown  
 Grn = Green  
 Gnd = Ground  
 HT = Hi-Temp  
 Pur = Purple  
 Example: Org/Blk is an Orange wire with Black tracer

120 V 60 Hz  
 XD-9130-GA-SA1B-33RO  
 RIGHT SIDE  
 Rev H 10/28/2009

# 10.17. 3270-S & 3870-S Right Hand Side with Round Burner & 1/3 HP Motor



- SWITCH, M1, CENTRIFUGAL
- SWITCH, HIGH-LIMIT
- SWITCH, MAIN
- SWITCH, M4, CENTRIFUGAL
- SIGNAL CONDITIONER
- SPARK IGNITOR
- THERMOCOUPLE
- TEMPERATURE CONTROL
- VALVE, MAIN
- VALVE, MODULATING
- TRANSFORMER, 24V

- S1 - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG
- M3 - MOTOR, CONVEYOR
- M4 - MOTOR, BURNER BLOWER
- PS - POWER SUPPLY, 24 VAC
- PU - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

- BC - BURNER CONTROL
- C - CAPACITOR 7.5 uf
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

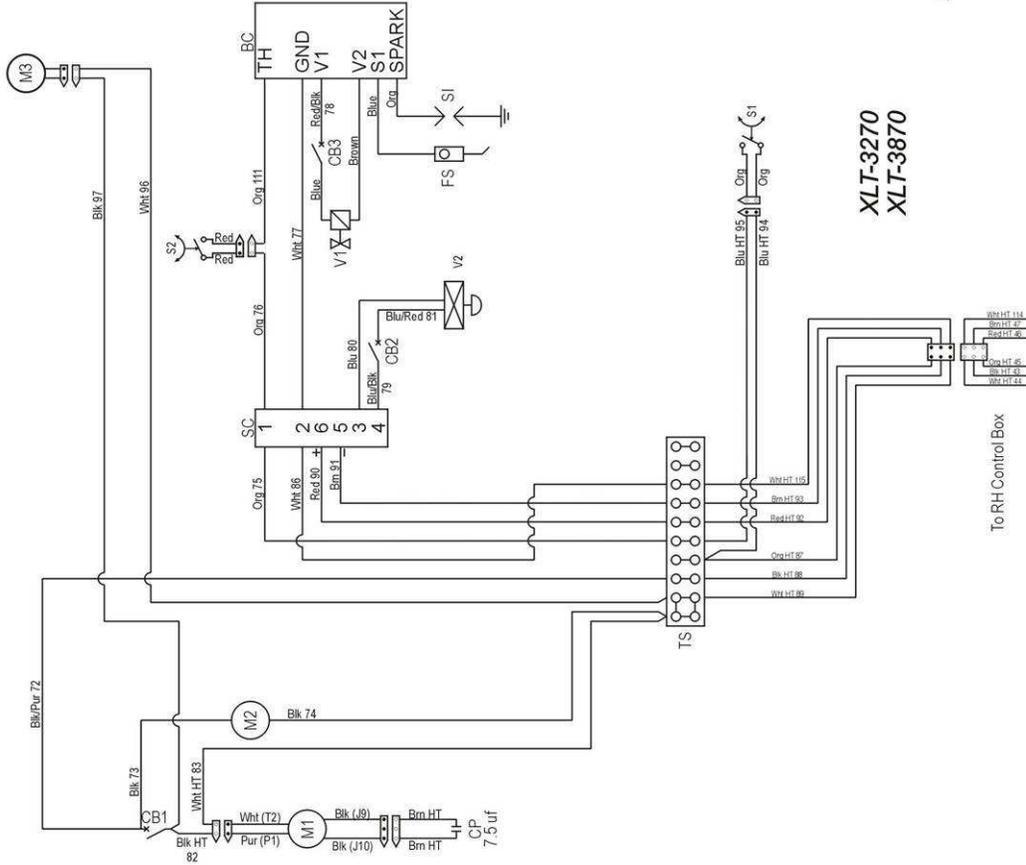
**XLT-3270**  
**XLT-3870**

Blk = Black  
Blu = Blue  
Brn = Brown  
Cst = Cast  
Gnd = Green  
Gry = Gray  
HT = Hi-Temp.  
Pur = Purple  
Example: Org/Blk is an Orange wire with Black tracer

120 V 60 Hz  
XD-9130-GA-SA2B-33RO  
RIGHT SIDE  
Rev H 10/28/2009

# 10.18. 3270-S & 3870-S Left Hand Side with Round Burner & 1/3 HP Motor

- BC - BURNER CONTROL
- C - CAPACITOR 7.5 uf
- CB1 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB2 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB3 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG
- M3 - MOTOR, BURNER BLOWER
- S1 - SWITCH, M1, CENTRIFUGAL
- S2 - SWITCH, M3, CENTRIFUGAL
- SC - SIGNAL CONDITIONER
- SI - SPARK IGNITOR
- V1 - VALVE, MAIN
- V2 - VALVE, MODULATING

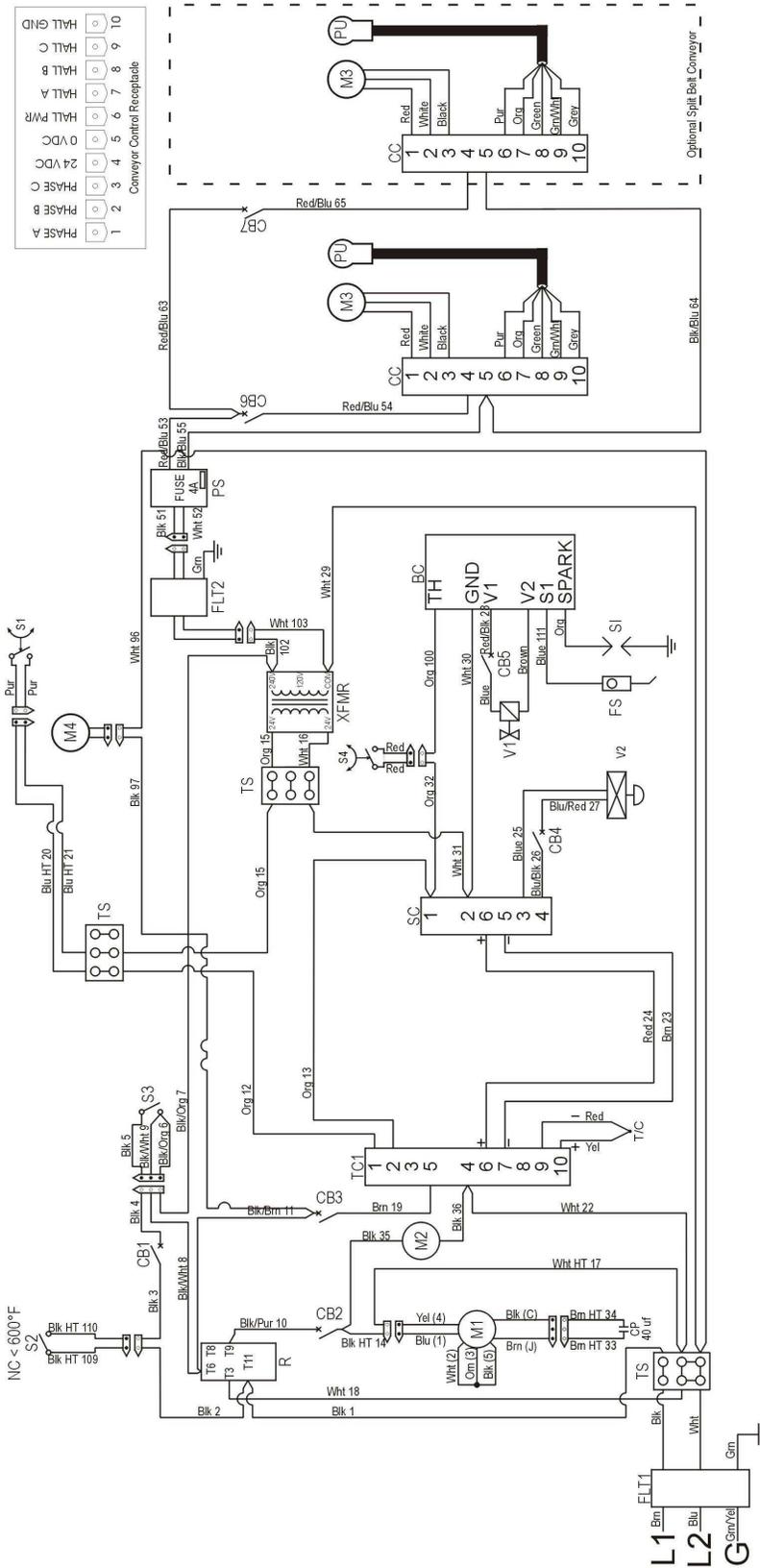


**XLT-3270  
XLT-3870**

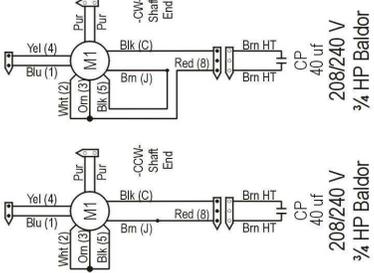
120 V 60 Hz  
XD-9130-GA-SA2B-33RO  
LEFT SIDE  
Rev H 10/28/2009

To RH Control Box

# 10.19. 1832-W, 2440-W, 3240-W, 3255-W, 3270S-W & 3855-W with Round Burner & 3/4 HP Motor



PHASE A	PHASE B	PHASE C	24 VDC	0 VDC	HALL PWR	HALL A	HALL B	HALL C	HALL GND
1	2	3	4	5	6	7	8	9	10



- SWITCH, M1, CENTRIFUGAL
- SWITCH, HIGH-LIMIT
- SWITCH, MAIN
- SWITCH, M4, CENTRIFUGAL
- SIGNAL CONDITIONER
- SPARK IGNITOR
- THERMOCOUPLE
- TEMPERATURE CONTROL
- VALVE, MAIN
- VALVE, MODULATING
- TRANSFORMER, 24V

- S1 - FILTER, POWER INLET
- S2 - FILTER, CONVEYOR CONTROL
- S3 - FLAME SENSOR
- FS - MOTOR, OVEN FAN
- M1 - MOTOR, FPPG
- M2 - MOTOR, CONVEYOR
- M3 - MOTOR, BURNER BLOWER
- M4 - MOTOR, BURNER BLOWER
- PS - POWER SUPPLY, 24 VAC
- PU - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

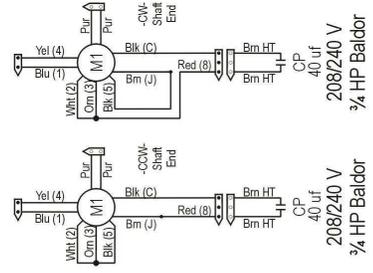
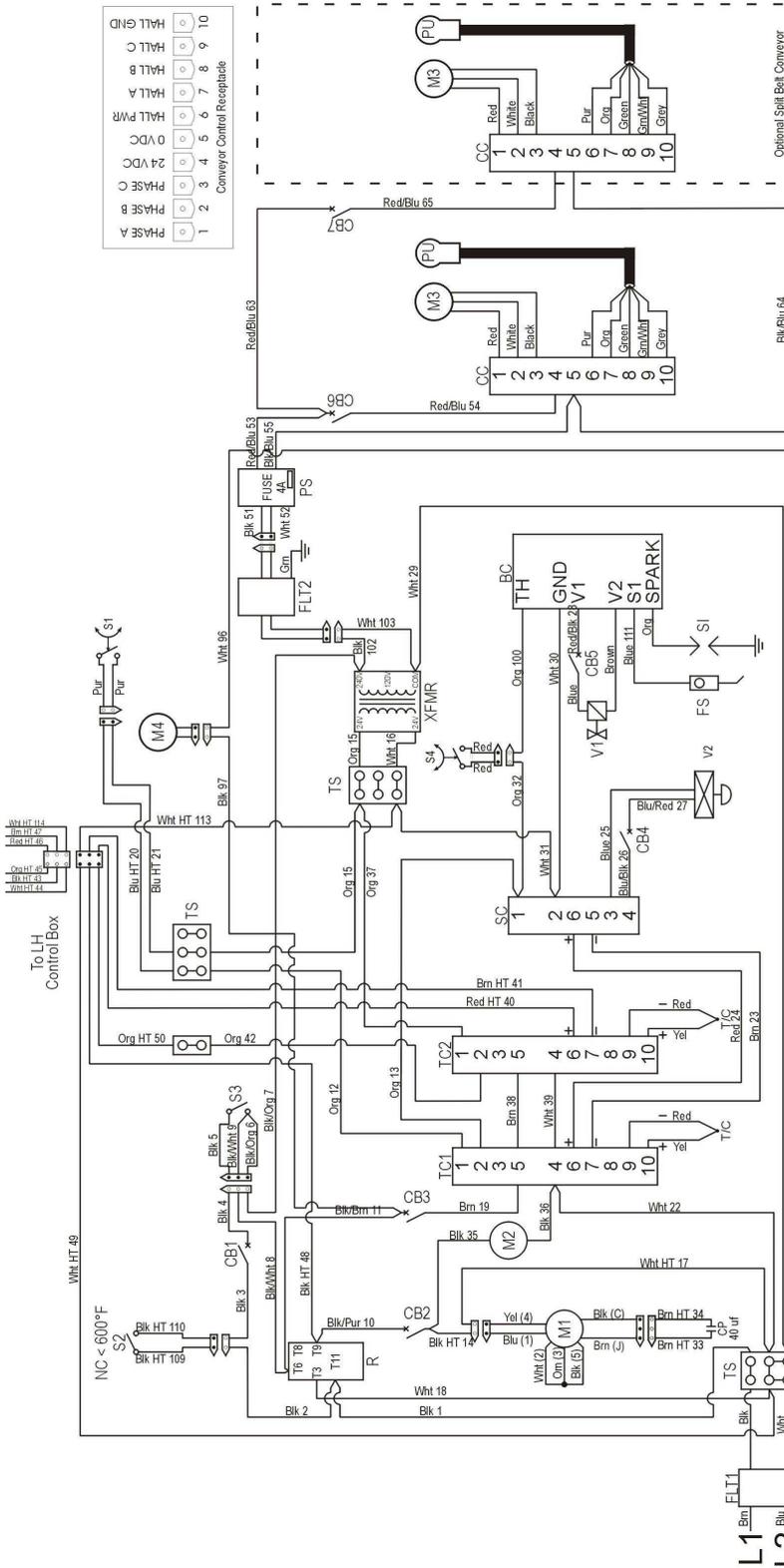
- BC - BURNER CONTROL
- C - CAPACITOR 40 uf
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

**XLT-1832**  
**XLT-2440**  
**XLT-3240**  
**XLT-3255**  
**XLT-3855**

Blk = Black  
 Red = Red  
 Wht = White  
 Blu = Blue  
 Brn = Brown  
 Yel = Yellow  
 Org = Orange  
 Pur = Purple  
 Gm = Temp  
 Example: Org/Blk is an Orange wire with Black tracer

230 V 50/60 Hz  
 XD-9130-GA-WA1B-75RO  
 RIGHT SIDE  
 Rev H 10/28/2009

# 10.20. 3270-W & 3870-W Right Hand Side with Round Burner & 3/4 HP Motor



- SWITCH, M1, CENTRIFUGAL
  - SWITCH, HIGH-LIMIT
  - SWITCH, MAIN
  - SWITCH, M4, CENTRIFUGAL
  - SIGNAL CONDITIONER
  - SPARK IGNITOR
  - THERMOCOUPLE
  - TEMPERATURE CONTROL
  - VALVE, MAIN
  - VALVE, MODULATING
  - TRANSFORMER, 24V
- S1 - SWITCH, FILTER, POWER INLET  
 S2 - FILTER, CONVEYOR CONTROL  
 S3 - FLAME SENSOR  
 S4 - MOTOR, OVEN FAN  
 M1 - MOTOR, FPPG  
 M2 - MOTOR, CONVEYOR  
 M3 - MOTOR, BURNER BLOWER  
 M4 - MOTOR, BURNER BLOWER  
 PS - POWER SUPPLY, 24 VAC  
 R - PICK UP, CONVEYOR MOTOR  
 V1 - RELAY, COOL-DOWN TIMER  
 V2 -

- BC - BURNER CONTROL
- C - CAPACITOR 40 uf
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

- FLT 1 - FILTER, POWER INLET
- FLT 2 - FILTER, CONVEYOR CONTROL
- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG
- M3 - MOTOR, CONVEYOR
- M4 - MOTOR, BURNER BLOWER
- PS - POWER SUPPLY, 24 VAC
- R - PICK UP, CONVEYOR MOTOR
- V1 - RELAY, COOL-DOWN TIMER
- V2 -

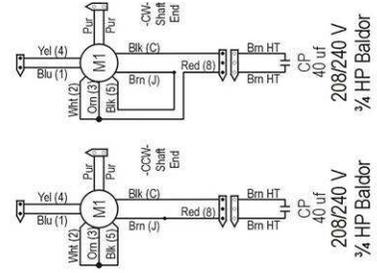
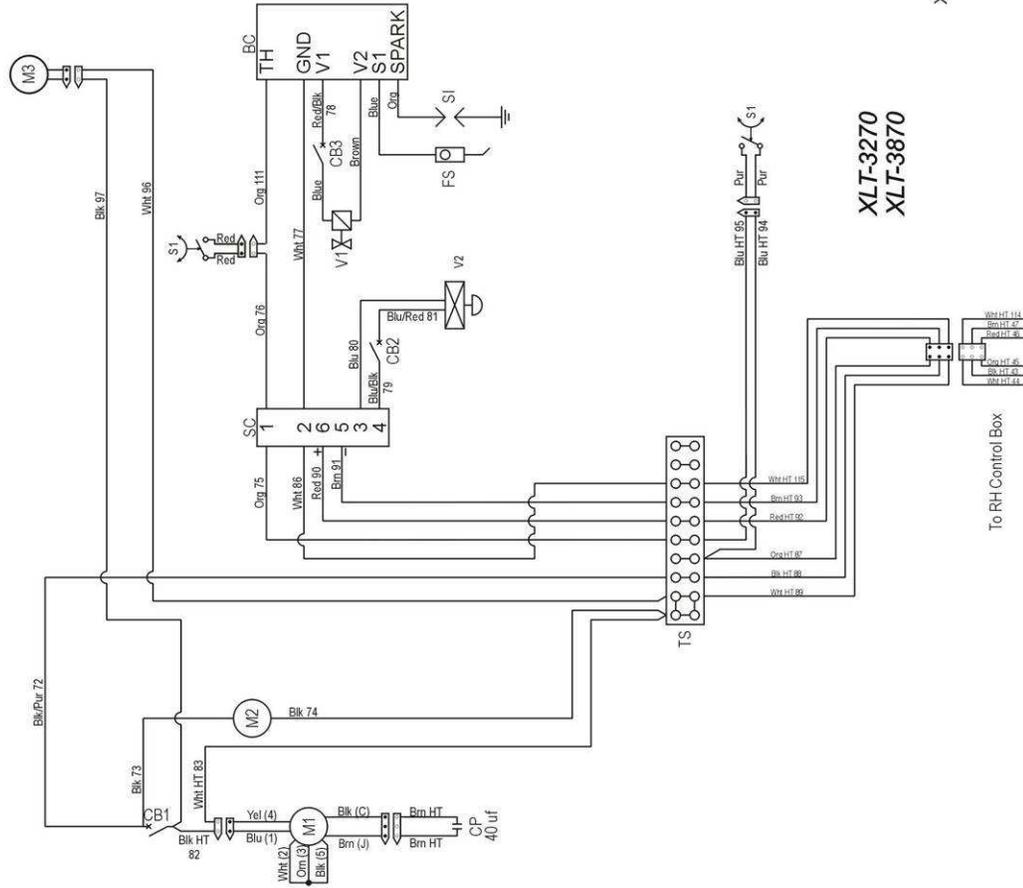
**XLT-3270**  
**XLT-3870**

Blk = Black  
 Red = Red  
 Wht = White  
 Blu = Blue  
 Pur = Purple  
 Org = Orange  
 Bm = Brown  
 Yel = Yellow  
 Gm = Green  
 HT = Hi Temp  
 PU = Pick Up  
 Example: Org/Blk is an Orange wire with Black tracer

230 V 50/60 Hz  
 XD-9130-GA-WA2B-75RO  
 RIGHT SIDE  
 Rev H 10/28/2009

# 10.21. 3270-W & 3870-W Left Hand Side with Round Burner & 3/4 HP Motor

- BC - BURNER CONTROL
- C - CAPACITOR 40 uf
- CB1 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB2 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB3 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG
- M3 - MOTOR, BURNER BLOWER
- S1 - SWITCH, M1, CENTRIFUGAL
- SC - SIGNAL CONDITIONER
- SI - SPARK IGNITOR
- V1 - VALVE, MAIN
- V2 - VALVE, MODULATING

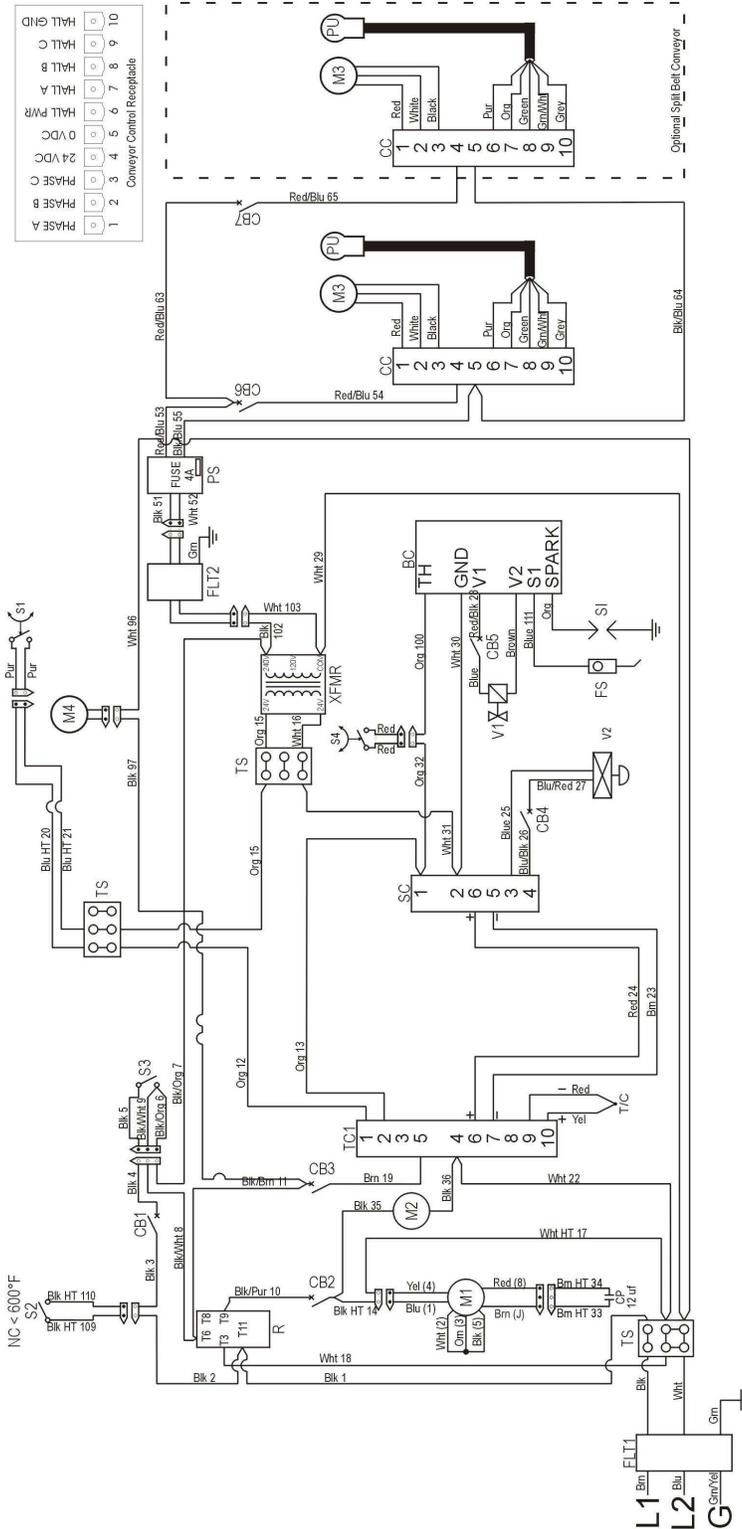


230 V 50/60 Hz  
 XD-9130-GA-WA2B-7/5RO  
 LEFT SIDE  
 Rev H 10/28/2009

**XLT-3270**  
**XLT-3870**

To RH Control Box

# 10.22. 1832-W, 2440-W, 3240-W, 3255-W, 3270S-W & 3855-W with Round Burner & 1/3 HP Motor



- BC - BURNER CONTROL
- C - CAPACITOR 12 uf
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- TC1 - TEMPERATURE CONTROL
- M1 - MOTOR, CONVEYOR
- M2 - MOTOR, BURNER BLOWER
- M3 - MOTOR, OVEN FAN
- M4 - MOTOR, CONVEYOR
- PS - POWER SUPPLY, 24 VAC
- PU - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER
- SC - SIGNAL CONDITIONER
- SI - SPARK IGNITOR
- T/C - THERMOCOUPLE
- V1 - VALVE, MAIN
- V2 - VALVE, MODULATING
- XFMR - TRANSFORMER, 24V

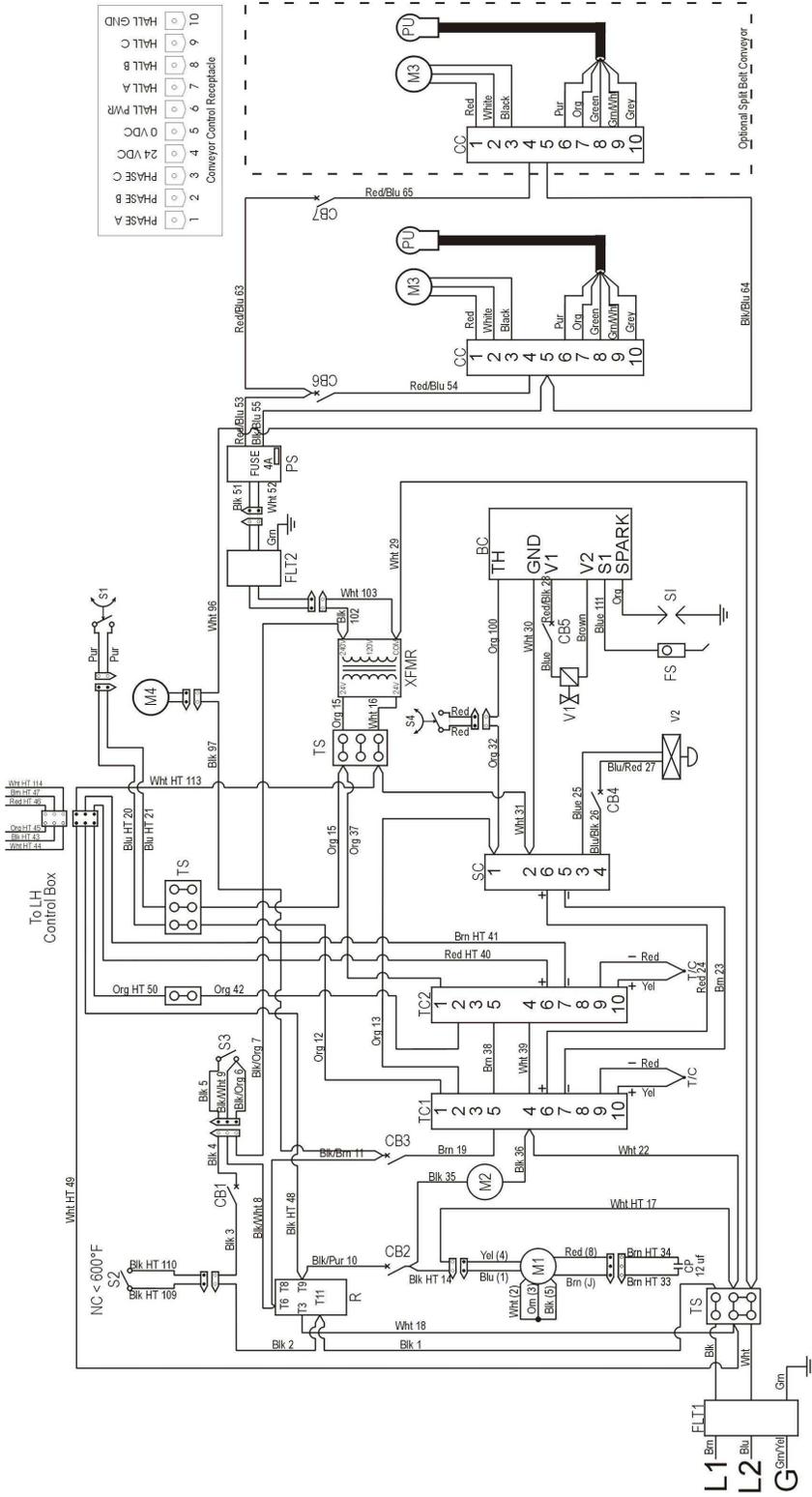
**XLT-1832**  
**XLT-2440**  
**XLT-3240**  
**XLT-3255**  
**XLT-3855**

Blk = Black  
 Blu = Blue  
 Brn = Brown  
 Grn = Green  
 Gya = Gray  
 Org = Orange  
 Pur = Purple  
 HT = Hi-Temp  
 \*Example: Org/Blk is an Orange wire with Black tracer

- S1 - SWITCH, M1, CENTRIFUGAL
- S2 - SWITCH, HIGH-LIMIT
- S3 - SWITCH, MAIN
- S4 - SWITCH, M4, CENTRIFUGAL
- SC - SIGNAL CONDITIONER
- SI - SPARK IGNITOR
- T/C - THERMOCOUPLE
- TC - TEMPERATURE CONTROL
- V1 - VALVE, MAIN
- V2 - VALVE, MODULATING
- XFMR - TRANSFORMER, 24V

230 V 50/60 Hz  
 XD-9130-GA-WA1B-33RO  
 RIGHT SIDE  
 Rev H 10/28/2009

# 10.23. 3270-W & 3870-W Right Hand Side with Round Burner & 1/3 HP Motor



Optional Split Burner Conveyor

- SWITCH, M1, CENTRIFUGAL
- SWITCH, HIGH-LIMIT
- SWITCH, MAIN
- SWITCH, M4, CENTRIFUGAL
- SIGNAL CONDITIONER
- SPARK IGNITOR
- THERMOCOUPLE
- TEMPERATURE CONTROL
- VALVE, MAIN
- VALVE, MODULATING
- TRANSFORMER, 24V

- FLT 1 - FILTER, POWER INLET
- FLT 2 - FILTER, CONVEYOR CONTROL
- FS - FLAME SENSOR
- M1 - MOTOR, OVEN FAN
- M2 - MOTOR, FPPG
- M3 - MOTOR, CONVEYOR
- M4 - MOTOR, BURNER BLOWER
- PS - POWER SUPPLY, 24 VAC
- PU - PICK UP, CONVEYOR MOTOR
- R - RELAY, COOL-DOWN TIMER

- BC - BURNER CONTROL
- C - CAPACITOR 12 uf
- CC - CONVEYOR CONTROL
- CB1 - CIRCUIT BREAKER, 2 AMP, MAIN
- CB2 - CIRCUIT BREAKER, 10 AMP, OVEN FAN
- CB3 - CIRCUIT BREAKER, 2 AMP, TEMP CONTROL
- CB4 - CIRCUIT BREAKER, 2 AMP, MODULATING VALVE
- CB5 - CIRCUIT BREAKER, 2 AMP, MAIN VALVE
- CB6 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL
- CB7 - CIRCUIT BREAKER, 1 AMP, CONVEYOR CONTROL

**XLT-3270**  
**XLT-3870**

Blk = Black  
Blu = Blue  
Brn = Brown  
Gnd = Ground  
Org = Orange  
Pur = Purple  
Wht = White  
Yel = Yellow  
Example: Org/Blk is an Orange wire with Black tracer

230 V 50/60 Hz  
XD-9130-GA-WA2B-33RO  
RIGHT SIDE  
Rev H 10/28/2009



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