



WORKHORSE PRODUCTS

3730 East Southern Avenue

Phoenix, AZ 85040

Phone 800-778-8779

Fax 602-437-2270

www.workhorseproducts.com

support@workhorseproducts.com

POWERHOUSE QUARTZ ELECTRIC DRYER



2608

3011

4013

5217

Contents

SAFETY PRECAUTIONS	3
POWERHOUSE DRYER.....	4
PARTS LAYOUT	4
PARTS BAG	5
STEP 1. LEVELING DRYER	6
STEP 2. RAISING THE DRYER.....	6
STEP 3. TAKING TOP OFF DRYER	7
STEP 4. INSTALL ARM ASSEMBLIES.....	8
STEP 5. INSTALLING THE DRYER BELT	10
STEP 6. ELEMENTS	12
STEP 7. REFLECTORS.....	13
STEP 8. HOOKING UP POWER.....	13
STEP 9. ROUTINE CLEANING	13
CONTROLLER DESCRIPTION AND DRYER OPERATION.....	14
TEMPERATURE CONTROLLER.....	15
PARAMETER SETTING MODE	16
SPECIFICATIONS.....	17
PARTS LIST	23
EXHAUSTING THE UNIT.....	24
LIMITED WARRANTY AND WARRANTY REGISTRATION	25

SAFETY PRECAUTIONS

To ensure safe and reliable operation of your dryer, all operators of this system and personnel around this system should be thoroughly trained on the following procedures.



1. For your safety, do not store or use gasoline or other flammable vapors and liquids in the vicinity (at least 3' (1 Meter)) of this or any other appliance.



2. Vent lines to the outdoors must be installed by a qualified HVAC engineer on all air exhaust and gas line components equipped with a vent fitting.



3. Proper grounding (a ground rod at the equipment footing), according to NEC requirements, must be provided for during electrical connection by a **QUALIFIED ELECTRICIAN**.



4. Never alter the internal wiring of this machine.
5. Never place any item other than the stock to be cured or dried on this dryer's conveyor belt. Do not overload the belt.
6. Do not let the conveyor belt track off the conveyor drive rollers.
7. Keep all loose articles (including clothing, hair, jewelry, etc.) away from the conveyor belt.
8. Never leave the machine unattended when it is operating.



9. Do not perform maintenance on this machine until all power has been shut off at the dryer **AND** at the incoming power circuit breaker.

THIS ELECTRIC DRYER IS INTENDED SOLELY FOR THE PURPOSE OF CURING INK ON TO TEXTILE AND CUT GOODS. THIS DRYER IS NOT INTENDED FOR USE IN HEATING, CURING OR BAKING OF ANY OTHER MATERIALS WHATSOEVER. THIS DRYER IS INTENDED FOR IN-DOOR USE ONLY



THE EXCLAMATION WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER OF IMPORTANT SAFETY PRECAUTIONS SHOP PERSONNEL SHOULD BE AWARE OF DURING OPERATION.



The POWERHOUSE Dryers (2608, 3011, 4013, 5217) ship in one wooden Crate (Photo 1). Uncrate using a power screwdriver (Photo 2).



Remove the shrink wrap (Photo 3). Then remove the Belt Extensions. DO NOT REMOVE THE SHRINK WRAP on the Belt Extensions these hold the Belt Rollers in place (Photo 4).

Layout all the Parts

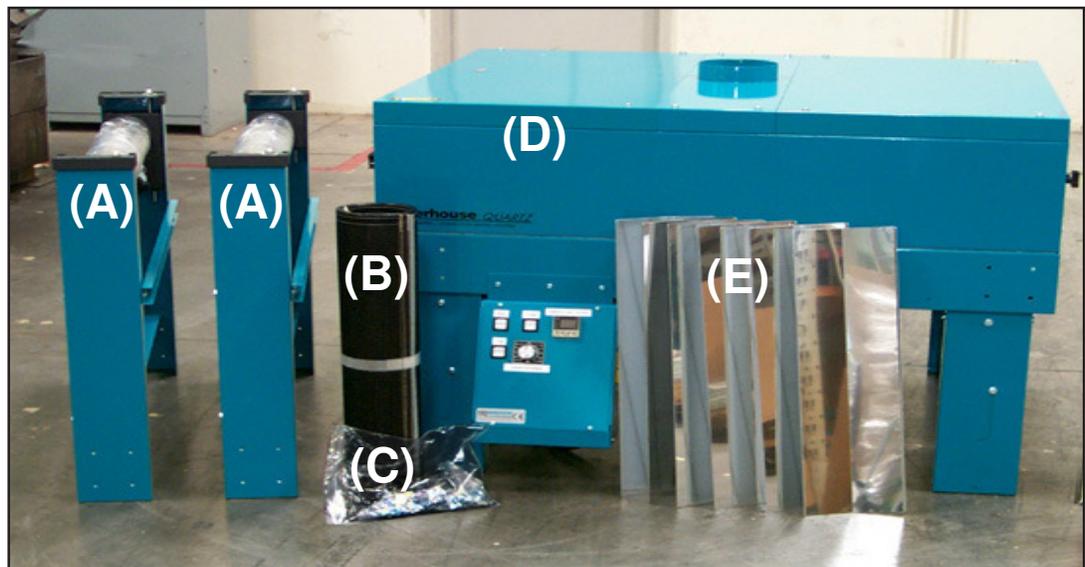
(A) 2-Belt Extensions

(B) 1-Dryer Belt

(C) 1-Parts Bag

(D) 1-Dryer Body

(E) 6-Reflectors



Parts Bag

Stabilizing Bolts (4)

Various Bolts and Nuts used to attach various parts of the Dryer.

Motor Wire tie down holders (4)



Step 1. Leveling Dryer

Measure 1/2 " down from the tip of the **Stabilizing** Bolts and put a mark. Then lift one side of the Dryer Body (before you attach the Belt Extensions) and insert into one of the legs.

Hand tighten the **Stabilizing** Bolt to the 1/2" mark. After installing all four Leveling Bolts if the Dryer rocks Use a 9/16 open end wrench to lightly screw down the bolt in the leg corner that is rocking till the bolt touches the ground and the dryer stops rocking.



DO NOT try to raise the level of the Dryer with the Stabilizing Bolts and **DO NOT** use casters on the Dryer legs as this will cause damage to the metal structure. If the Dryer is not level lift the Dryer leg that will make it level before you attempt to adjust the Stabilizing Bolt.

Step 2. Raising the Dryer (Photo 1)

The POWERHOUSE Dryers are shipped with the Telescoping Legs collapsed. Follow the rest of Step 2 to raise the Dryer to working height.

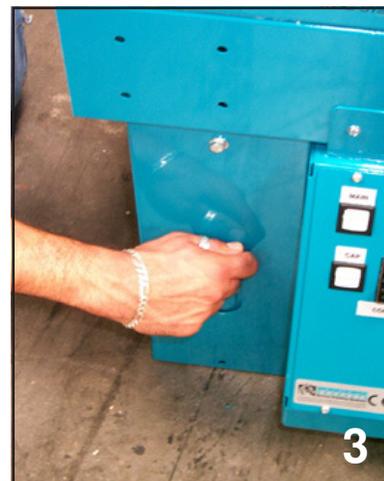


Step 2. Raising the Dryer (Photos 2 and 3)

Notice on each of the Telescoping Legs is a "J" Slot. (Photo 1).

Take 8 of the 5/16 x 3/4" Bolts 8- washers and 8 locking 5/16 flange nuts. You will use 2 Bolt and Nut sets for each leg.

Put one of the 5/16 x 3/4" Bolts in the hole at the top of the "J" Slot. (Photo 2) and loosely tighten the Locking Flange Nut from the rear. Do this for each leg.



Step 2. Raising the Dryer (Photo 4)

Once you have the Bolts and Nuts with the washers in each of the "J" Slots, lift one end of the Dryer. (two people is best)

The Telescoping leg will slide down the "J" Slot and secure itself at the end of the "J" Slot.



Step 2. Raising the Dryer (Photos 5 and 6)

Once you have one end of the POWERHOUSE Dryer raised, lift the other end. (Photo 5).

When the Dryer is at the working height tighten the Bolts at the end of the "J" Slot. for each leg.

Then put another Bolt in the hole just under the "J" Slot, washer and Flanged Locking Nut and tighten. (see insert photo on Photo 6)



Step 3. Taking Top off Dryer (Photo 1)

Using a 7/16" wrench remove the Bolts on all the panels, be careful not to scratch the painted surface.



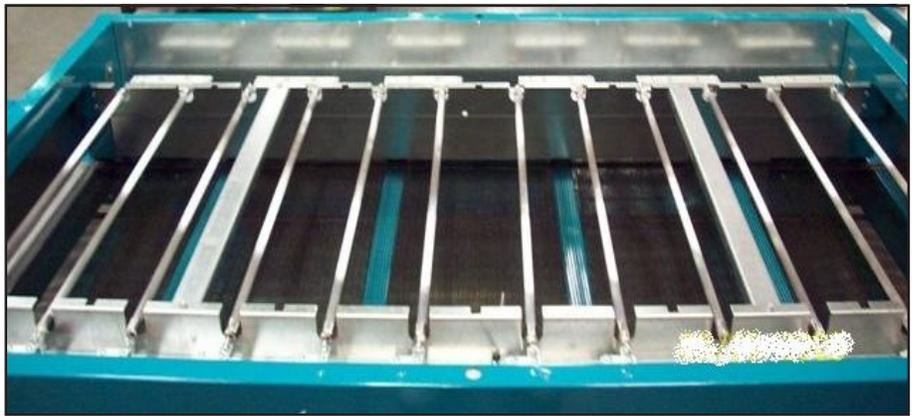
Step 3. Taking Top off Dryer (Photo 2)

Once you have unbolted the top panels remove them one by one. Place them carefully on a table or the floor.



Step 3. Taking Top off Dryer (Photo 3)

POWERHOUSE QUARTZ Dryer with the top panels off.



Step 4. Install Arm Assemblies (Photos 1 and 2)

There are two Arm Assemblies: 1 Infeed Arm Assembly (the one without the motor) and 1 Outfeed Arm Assembly (the one with the motor). Standing in front of the control box the Outfeed Arm Assembly (the one with the motor) is to be installed into the left outfeed end of the Dryer.

Loosen the bolts on top of the support rail on the arm that you are installing. This helps with the alignment (Photo 1).



Insert the Arm Assemblies into the body of the Dryer making sure that the support arms have the smooth side facing up (Photo 2).

Step 4. Install Arm Assemblies (Photo 3)

Once you have lined up the four bolt holes put the four 5/16 x 3/4" bolts with washers in. Tighten all eight bolts just enough so you can still move the Belt Extension with mild force.

Push up on each side of the Belt Extension until it is level with the main body. Then tighten all eight bolts securely.



Step 4. Install Arm Assemblies (Photo 4)

Install the Outfeed Arm Assembly (the one with the Drive motor assembly). Don't forget to loosen the bolts on top of the support arm on the open end of the Belt Extension.

Make sure that the Arm Assembly Cross Support Struts have the smooth side facing up. The Motor should be on the same side as the Control Panel.

Attach the Infeed Arm Assembly (Photo 3) by using and tightening the eight bolts.



Step 4. Install Arm Assemblies (Photo 5)

POWERHOUSE QUARTZ Dryer with the legs at working height and both Infeed and Outfeed Arm Assemblies installed.



Step 5. Installing the Dryer Belt

After the Belt Extensions are in place and locked down feed the Belt OVER the Lower Belt Extension Brace and through the lower slot (Photo 1).

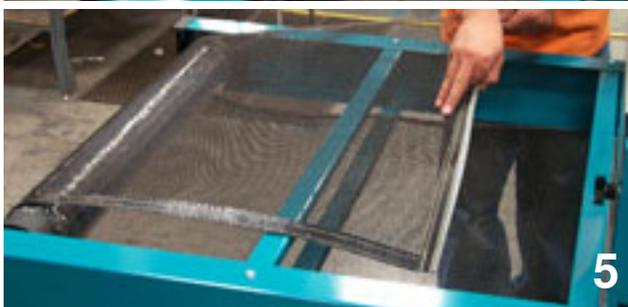
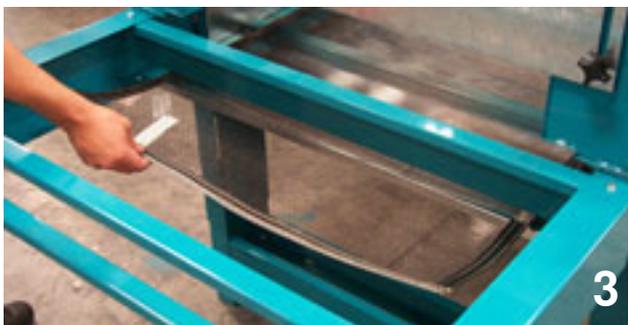
Keep feeding the Belt through the Heat Chamber to the other side (Photo 2).

At the other end feed through the lower slot and OVER the LOWER Belt Extension Brace (Photo 3).

Pull the Belt over the Roller and OVER the TOP Belt Extension Brace (Photo 4).

Feed the Belt back through the Heat Chamber (Photo 5).

Keep feeding Belt back through the Heat Chamber staying on TOP of the Heat Chamber Braces (Photo 6).



Pull the Belt out of the Heat Chamber OVER the TOP Belt Extension Braces (Photo 7).



Pick up the other end of the Belt and lay on top of the ROLLER and pull the two ends of the Belt as close as you can get them (Photo 8).



If the Belt does not fit together loosen the Tracking Bolts at the two ends of the Belt Extensions and then push the ROLLER in till you can join the two ends of the Belt (Photos 9 and 10).



Pull out the Joining Pin that is stored in one of the Belt ends.

Join the two ends of the Belt by interlocking the ends and then feeding the Joining Pin all the way through (Photo 11).



After the Belt is centered on the rubber portion, evenly adjust the Tension Bolts on all four corners so that the Belt is just snug and can still be deflected one to two inches (Photo 12).



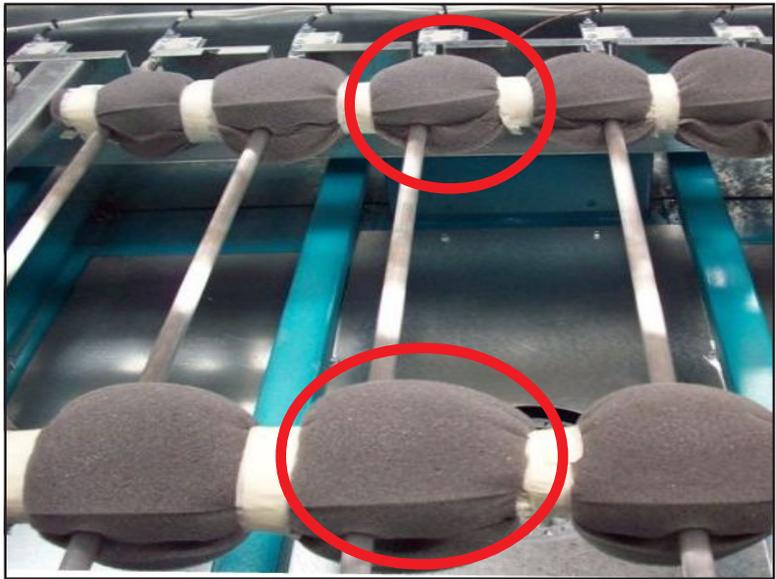
Start the Dryer with the Belt running about 35% and as the Belt heats up make very SMALL adjustments to keep the Belt tracking in one position by turning the adjustment screw Clock wise to bring the roller end OUT or Counter Clock wise to push the Roller end in.

NOTE: the Belt tends to move in the direction of the end of the Roller, which it reaches first, so loosen that screw slightly Counter Clock wise. The Belt may have to be heated up and cooled off several times over a period of days before it will "settle" into a track.

The belt may not track on the exact middle of the Roller and it is quite possible to track on opposite ends of each Roller, but still stay tracked in a fixed position. Once the Belt has found it's fixed position leave it alone. **DO NOT OVER TENSION THE BELT**

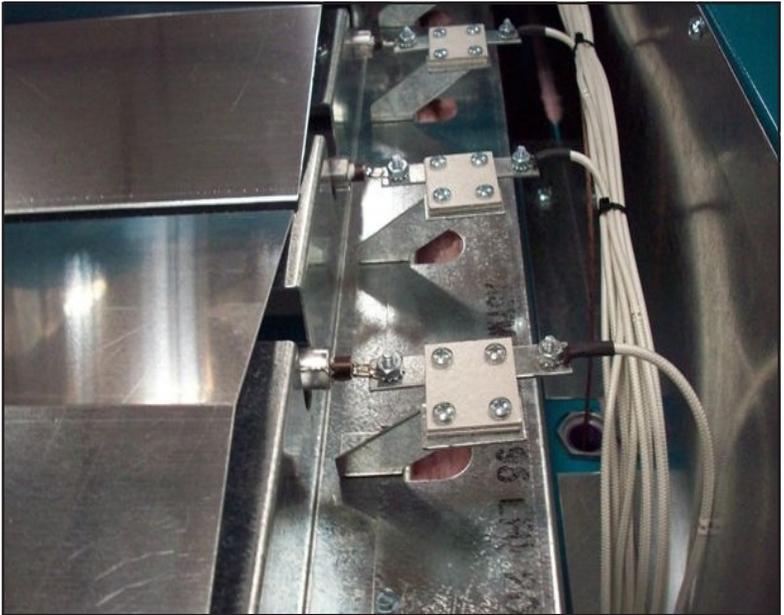
Step 6. Elements (Photo 1)

This Dryer has been shipped with the Quartz Elements installed and there is foam wrapped around them for added support. This must be removed prior to operating the Dryer.



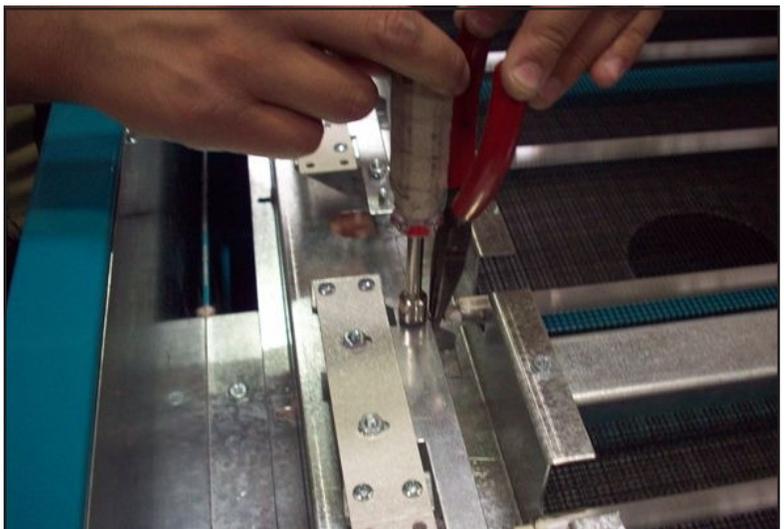
Step 6. Elements (Photo 2)

Although the elements have been securely fastened into the Dryer you will need to check them all to make sure that they have not become loose during the shipping process. Please see Photo 3 below for the proper procedure to install or check new elements.



Step 6. Elements (Photo 3)

You will need a pair of needle nose pliers and an 11/32 nut driver to properly secure the elements. Grasp the barrel (see Photo 2 above) of the ring terminal with pliers, then use the nut driver to tighten the nut (See Photo 2 above). This will prevent the ring terminal from rotating and damaging the element when tightening.



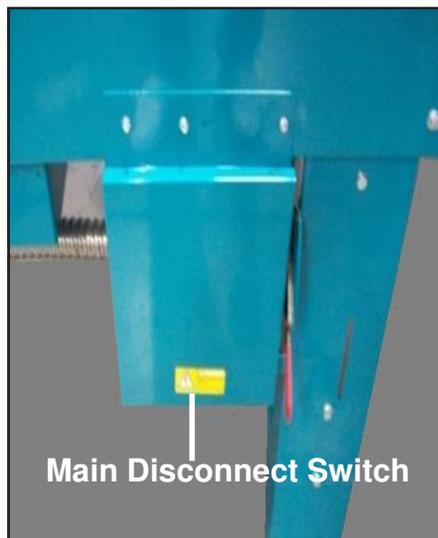
Step 7. Reflectors (Photo 1)

After verifying that all the Elements are secure you will now need to install the Reflectors. Refer to Step 6 (Photo 2). This will show you the notches that the Reflectors are placed into.



Step 8. Hooking up Power (Photo 1)

The main disconnect is located under the infeed side of the dryer. Remove the cover. You will notice a large hole in the bottom left corner of the housing. This is where the power will enter the Disconnect Switch from your building. The wires will then be connected to the top three lugs of the Switch and the ground lug.



Step 9. Routine Cleaning (Photo 1)

Located on the bottom of the Dryer is a large gray motor. This is the air recirculation blower motor. You will notice that this motor is mounted to a bracket that has a hinge on the outfeed side. This is done so that when you remove the two bolts on the infeed side of the bracket the motor will swing down (see Photo above) so that you can clean the lint out of it. This should be done every 60 to 90 days. Also on the bottom and the back of the control panel there are vents that need to be cleaned at the same time.



CONTROLLER DESCRIPTION AND DRYER OPERATION



Before turning the Dryer on make sure that all objects are off the belts and all of the switches on the front panel are off or in the down position.

When the main disconnect for the Dryer is turned on (red handle up), the belt should start to run, the recirculation motor, cooling motor and temperature control (C) (see temperature control section for operating instructions above) should all be running.

All of the PHQ Dryers that we manufacture have a Main Switch (A) and a Flash Switch (B). The Main Switch is used to turn on the heating elements. These elements will come on and stay on until the set temperature is reached, at which time they will cycle on and off to maintain a consistent temperature. If the Flash Switch is turned on the Dryer will function as described above except the first four elements (2 on a 2608) will stay on 100% regardless if the temperature controller is cycling the remaining lamps on and off. This function is very seldomly used so this switch should be left in the off (down) position.

On a 2608 Dryer there is also a Cap Switch. This is only used if the customer has purchased an optional cap element used to cure caps.

On all Dryers there is a Speed Control known for adjusting the belt speed.

When first using a Dryer you should set the temperature at 310F with a belt speed of approximately 40. This is a good starting point. You must always remember that the temperature displayed on the controller is not the actual temperature of the garment that is curing. If all of the elements are working the garment temperature will be much higher. The temperature displayed is a reference number only so that you know where to set the temperature for different colors and types of garments. Available from Workhorse Infrared are temperature guns for touchless accurate reading directly off the garments.

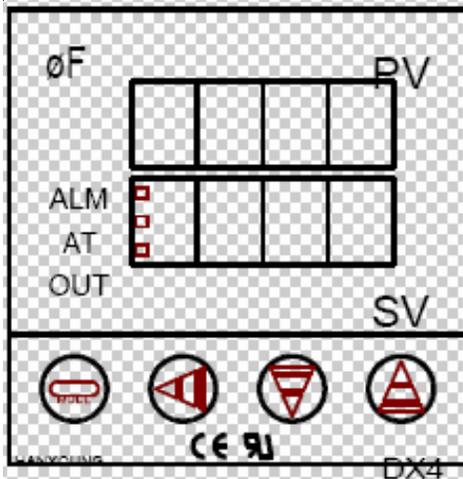
TEMPERATURE CONTROLLER

Model: DX4 – JMSNR

Input: IC (J)

Output: M

Power: 100-240VAC



MODE

ALM will light up until the **ALL** setting is passed.

AT will light up if the Auto Tune procedure is started – not recommended leave factory settings!

OUT will light up indicating signal to the relay(s).

To set a desired curing temperature push the **MODE** button at the bottom left for a second and the far right **SET VALUE** didget will start flashing rapidly. To change the **SV** use the sideways arrow button next to the **MODE** button to make the didget flash that you want to change. As the digit is flashing press the **UP** arrow button to increase the value or the **DOWN** arrow button to decrease the value of the flashing digit. Once the **SV** is at the desired cure temperature press the **MODE** button for a second and the digits will stop flashing. Maximum setting is 450 °F and the unit will cut power to the elements if this temperature is exceeded.

OVEN OPENINGS

Set the front and back adjustable oven doors to a height that allows the substrate to enter and exit without any possibility of interference. This makes the oven more efficient as the temperature inside the oven chamber is less likely to be affected by outside influences. Do this prior to turning on the **Main Switch** when the oven doors are cool. If the oven doors need to be adjusted during operation wear oven mitts.

MAIN SWITCH

Next push the small rocker switch marked **MAIN** on. This will start and control all of the elements together. All of the elements will come on solid and stay on until the **PV** is within 20 °F of the **SV** and at that point all of the elements will start to cycle on and off (getting dim then bright again) for three second intervals. In a short time the **PV** will match the **SV** (+/- 5 °F) and maintain this temperature.

BELT SPEED

Depending on the substrate being passed through the chamber the belt speed will have to be adjusted so that the substrate comes out at the operator set **PV**.

FLASH FAZE

This is to increase substrate throughput for an increase in the printing production rate. By pressing the toggle switch marked **FLASH FAZE** the first bank of elements (2 in 2608, 4 in 3011 & 4013, 6 in 5217) is locked on like a large flash dryer while the remaining elements are still cycled by the temperature controller. If turned on during a run already set up as previously described, check the substrate cure temperature and you will have to increase the belt speed for a proper cure.

Note: The dryers come with the specified 230vac element coils for use with main supply power of 220-250vac or 208vac for use with main supply power of 208vac. If the unit is having trouble getting to and maintaining the **PV** temperature then check main supply voltage to insure the correct coils are installed. Another reason for not obtaining and maintaining **PV** temperature is inadequate wiring or wall breaker size. If 208vac coils are used with a main supply power of 220-250vac the coils will burn out prematurely.

SHUT DOWN

Turn off **MAIN** and **FLASH FAZE** switches. Let dryer fans run for 5 minutes then turn off **Main Disconnect Switch**.

PARAMETER SETTING MODE

This has been Pre-Set by the Factory!

If the **MODE** button is pushed for programming then the process value **PV** will display as indicated on the chart below in the **PROCESS VALUE** column and the set value **SV** will display a value which you want to make match the **TARGET VALUE** column.

TO VIEW AND SET PARAMETERS

Press and hold the **MODE** button continuously (approximately 5 seconds) until you see **ALH** in the **PV** section. Verify that the **Target Value** in the **SV** section is as indicated in the following chart for the corresponding **PROCESS VALUE**. If the value is different change it to match the factory settings. Each time you push the **MODE** button the **PROCESS VALUE** will change to the next position on the following chart. When you are finished, press and hold the **MODE** button continuously until the temperature values appear. See ***Note** at end of chart before starting!

Process Value	Name	Target Value
ALH	High Alarm	0450
ALL	Low Alarm	0080
P	Proportional Band	0020
A	Antireset Windup	0025
I	Integral Time	0200
D	Derivative Time	0010
LbA	Control Loop Break	0400
C	Proportional Cycle	0006
HYS	Hysteresis	0001
LoC*	Set Data Lock	0001

Note: You must scroll by repeatedly pressing and releasing the **MODE** button to the last setting indicated by **LoC** and set this to 0000 to unlock the unit for setting the parameters. If this is already set at 0000 and the settings are changed from the factory settings, then what probably happened was someone pushed and triggered the **AutoTune** button altering the factory settings. After resetting the parameters to the factory settings make sure the **LoC** is set to 0001 so that the **AutoTune** cannot override them.

FARENHEIT TO CELCIUS SETTING

To convert the temperature controller to operate in Celcius you must change the **SL2** setting from 1101 to 1111. See following **SL Settings** to adjust.

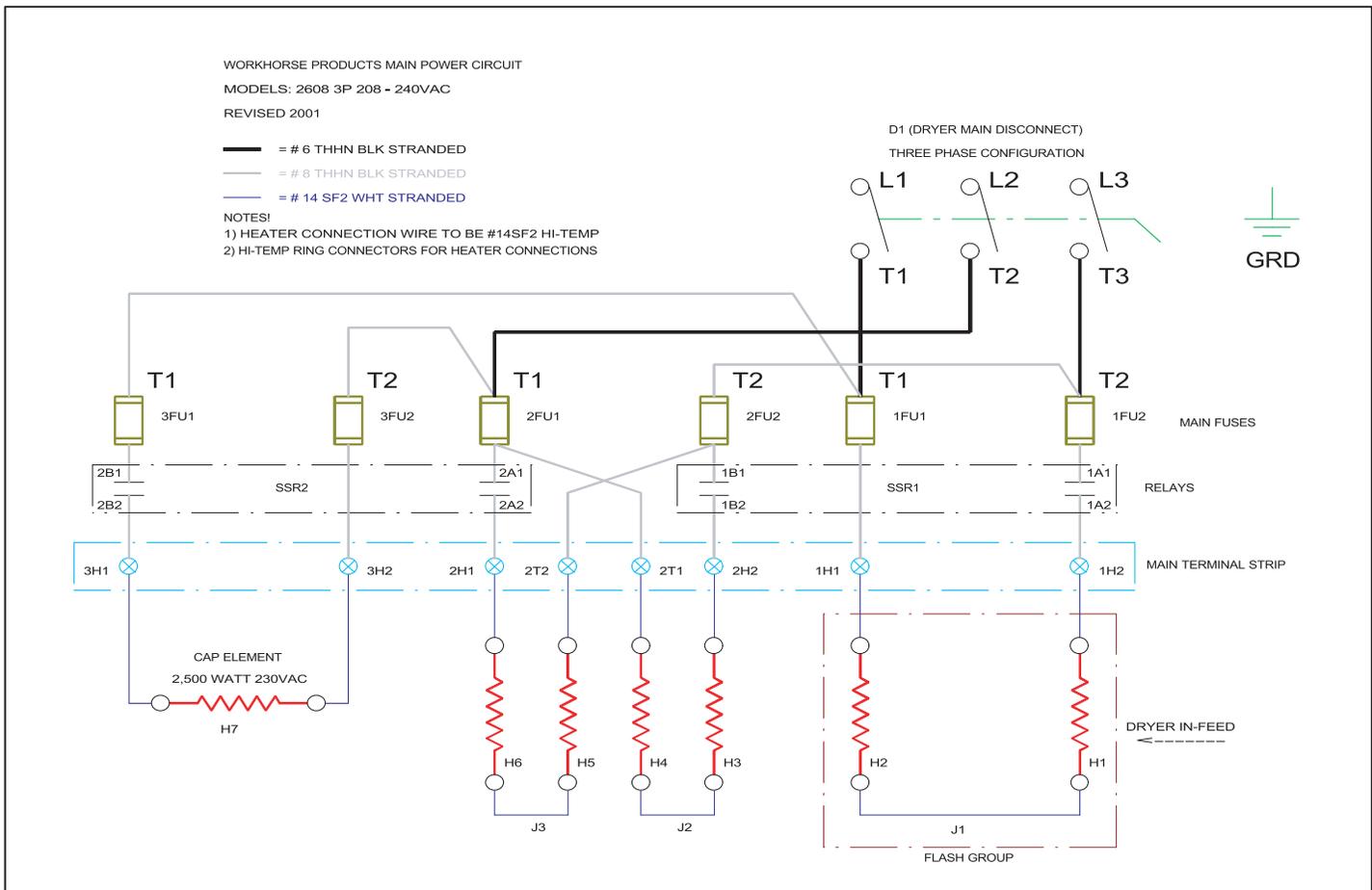
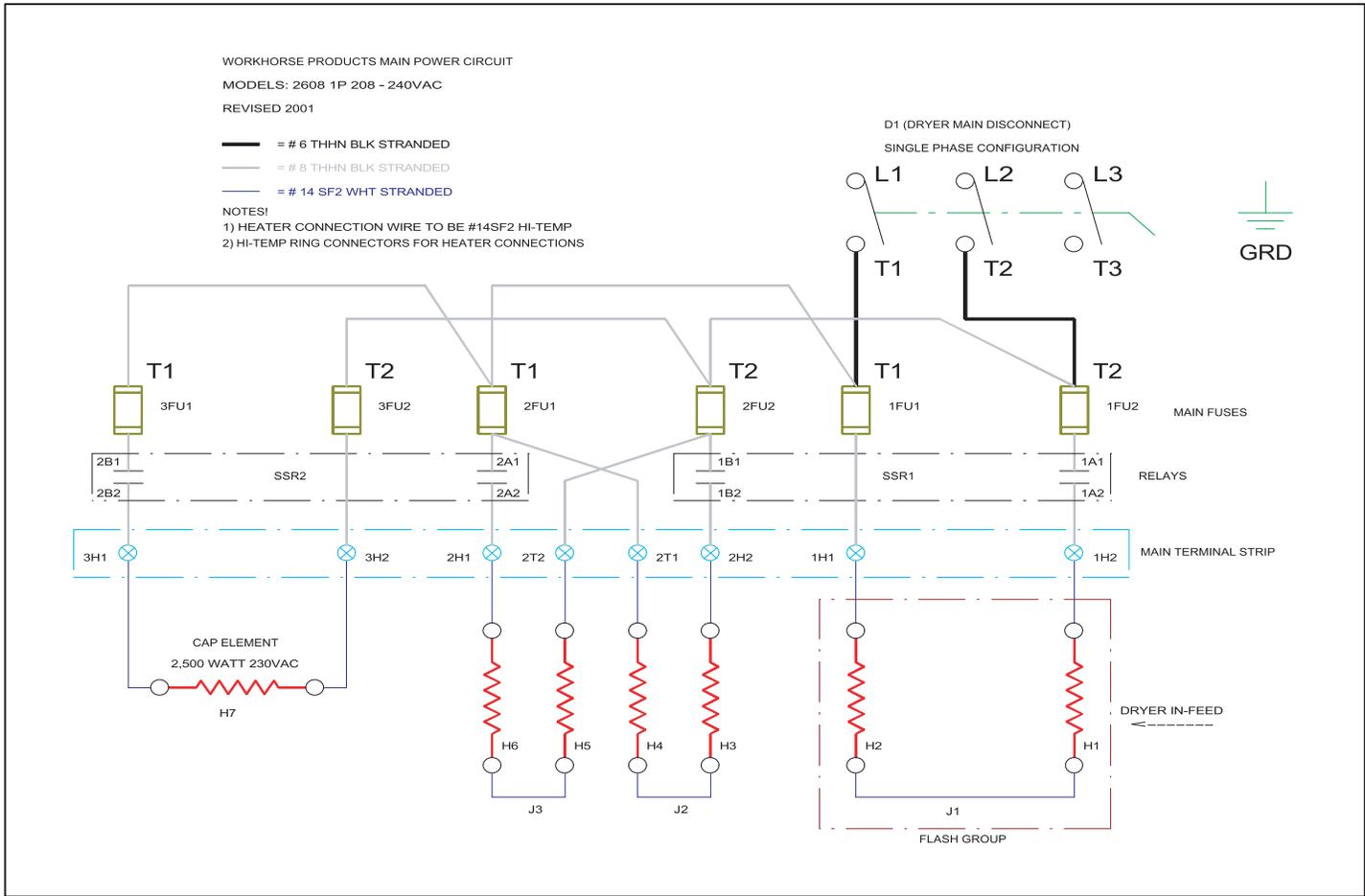
SL SETTINGS

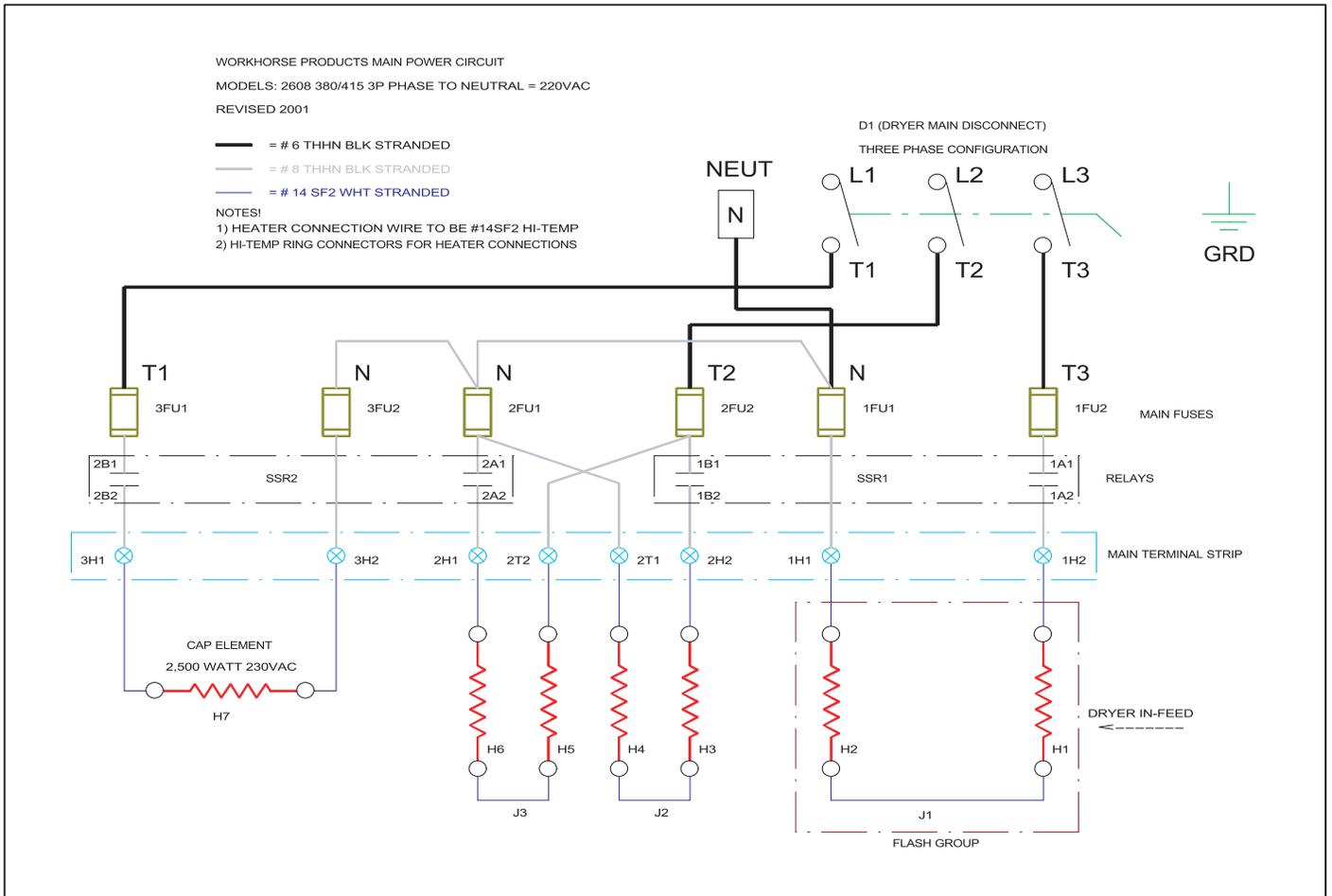
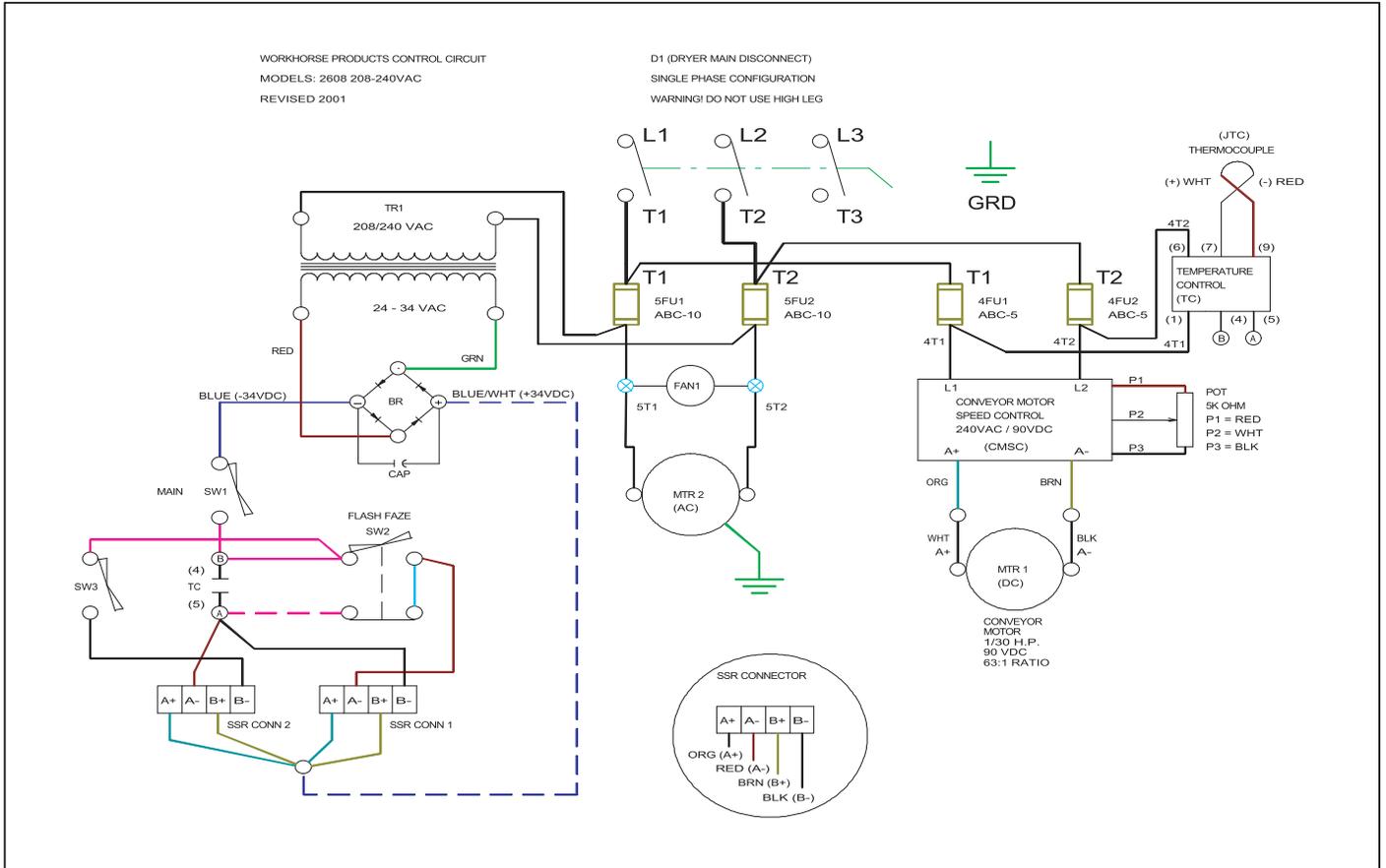
Turn off unit at **MAIN DISCONNECT SWITCH**. Depress the tab on the bottom of the front face of the temperature controller and pull out the controller face and boards halfway. Looking down from the top, about 1-1/2" back on the left hand side there is a small white dip switch set in it's front position or normal. Slide the dip switch back to the initial position, then push the face back in fully. Power up the **MAIN DISCONNECT SWITCH** and the process value **PV** will display as **SL1**. The settings must be as shown on the following chart for the unit to operate. Each time you press the **MODE** key you will advance to the next valve. When you are finished, turn off the unit at the **MAIN DISCONNECT SWITCH**, slide out the front face of the controller again and set the dip switch to the front position or normal. Push the face back in fully and power up the unit. Temperature values will appear if the switch was put in the correct position.

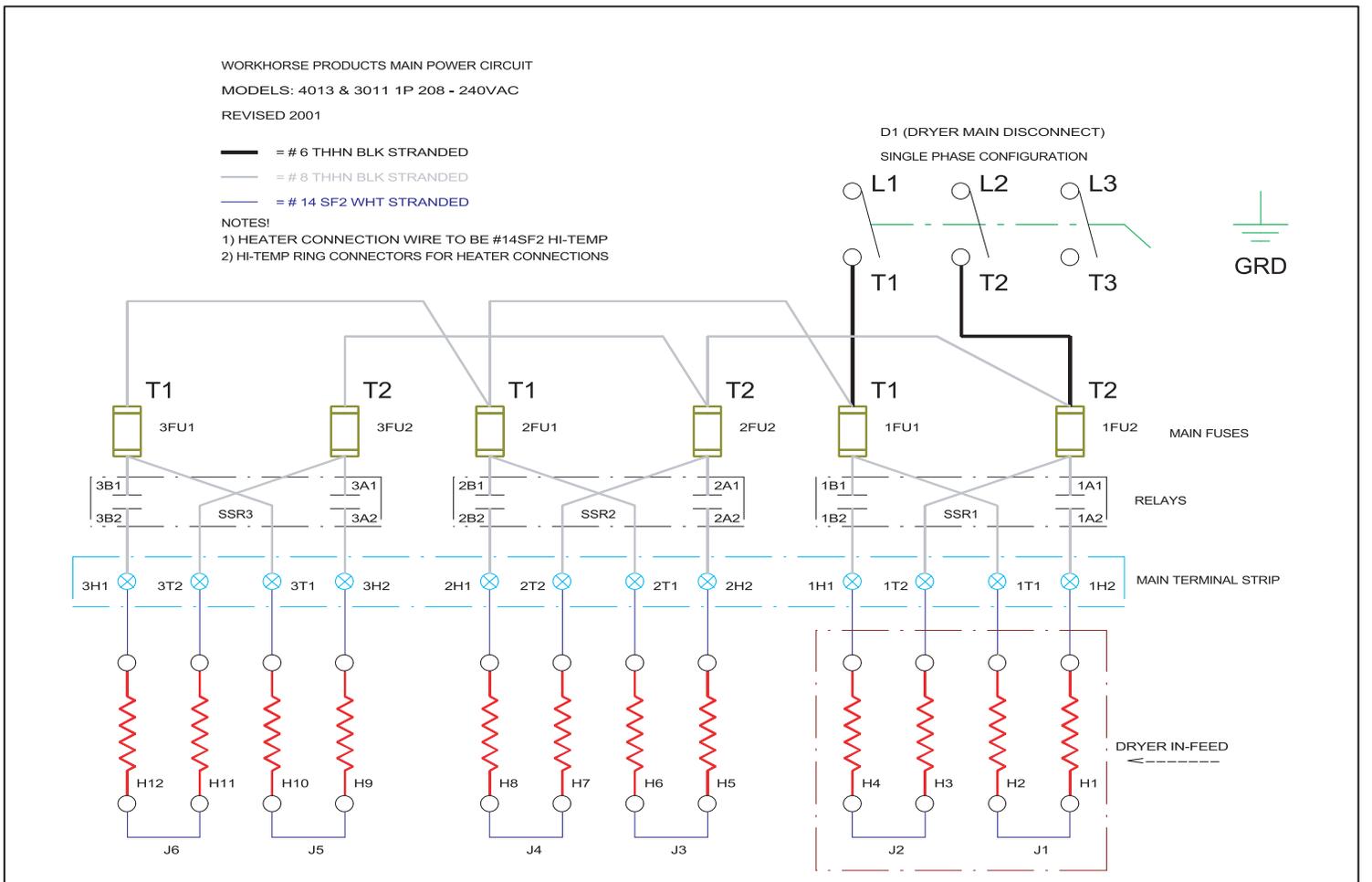
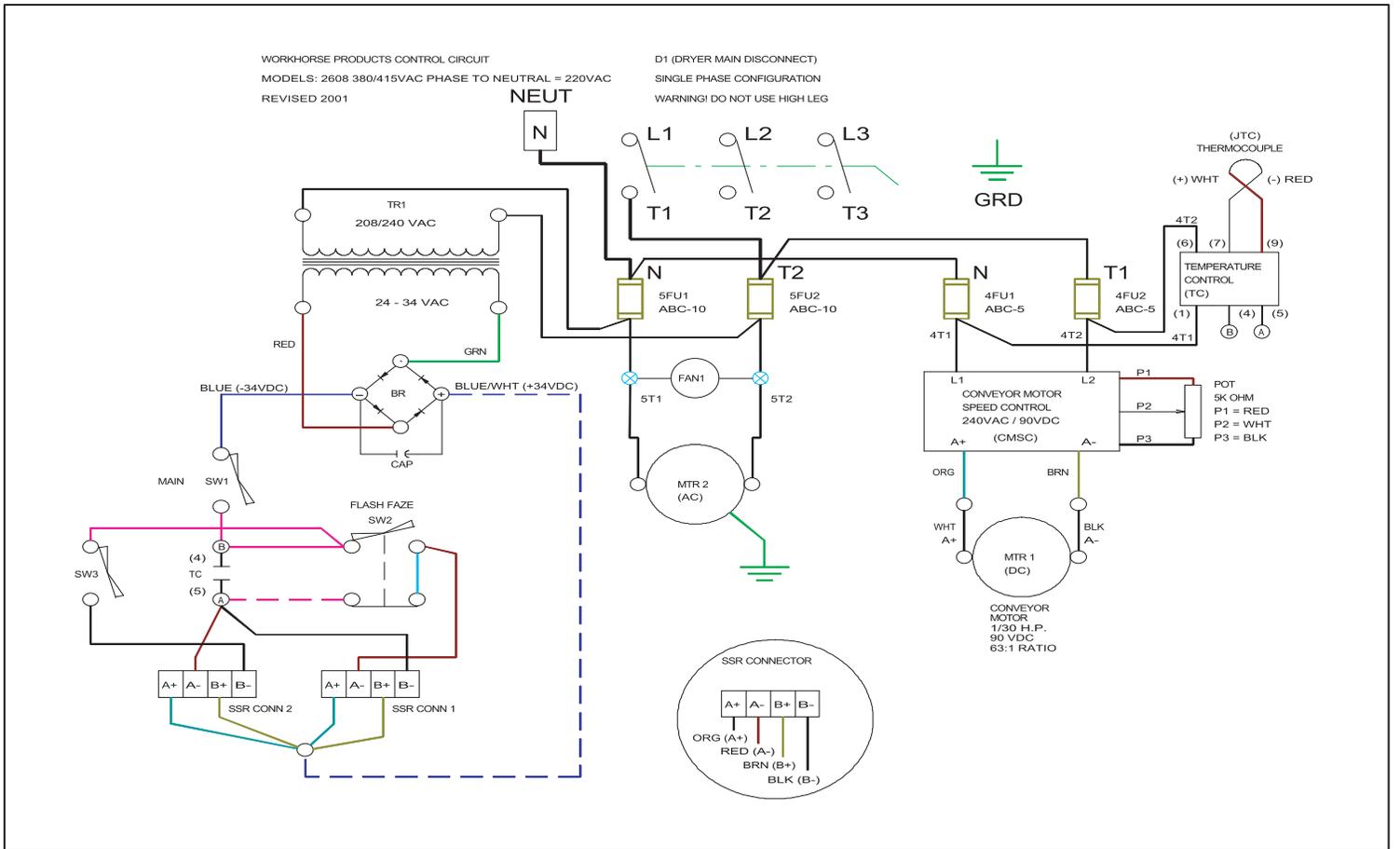
PV Display	SV Display
SL1	0101
SL2	1101 = Farenheit 1111 = Celcius
SL3	1110
SL4	0000
SL5	0000
SL6	0000
SL7	0450 = Upper Limit
SL8	-060

Note: You must press **MODE** one time after changing a value for it to take.

SPECIFICATIONS





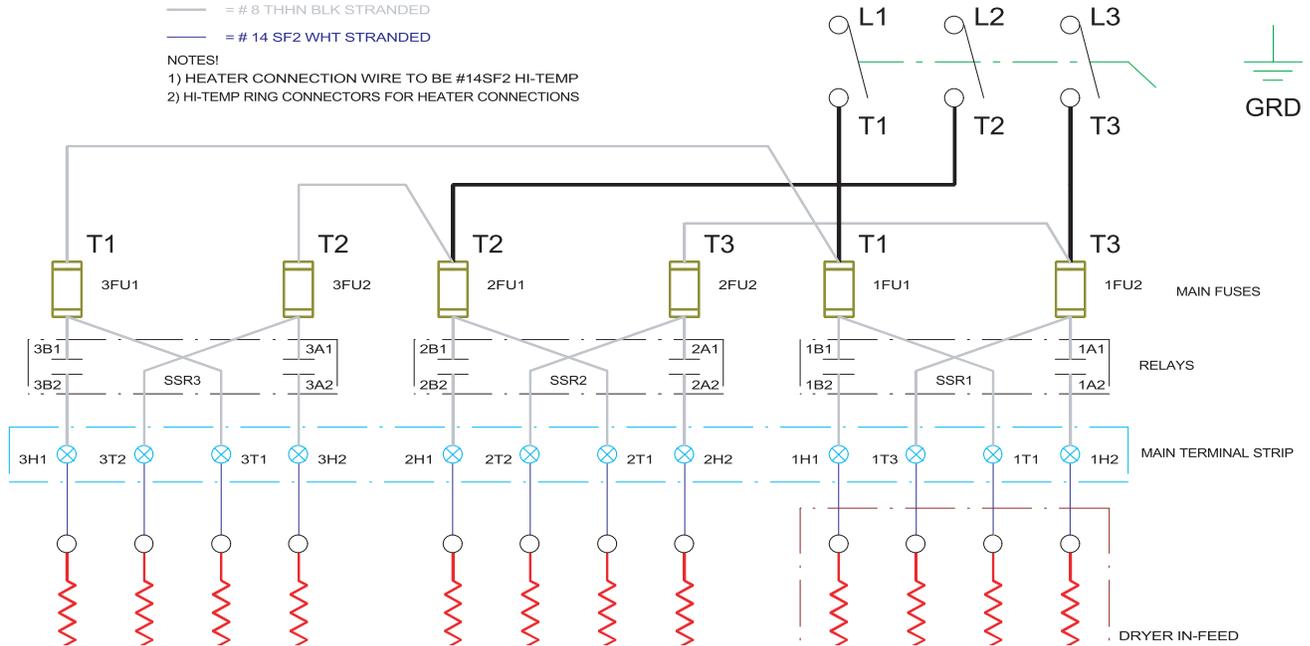


WORKHORSE PRODUCTS MAIN POWER CIRCUIT
 MODELS: 4013 & 3011 3P 208 - 240VAC
 REVISED 2001

— = # 6 THHN BLK STRANDED
 — = # 8 THHN BLK STRANDED
 — = # 14 SF2 WHT STRANDED

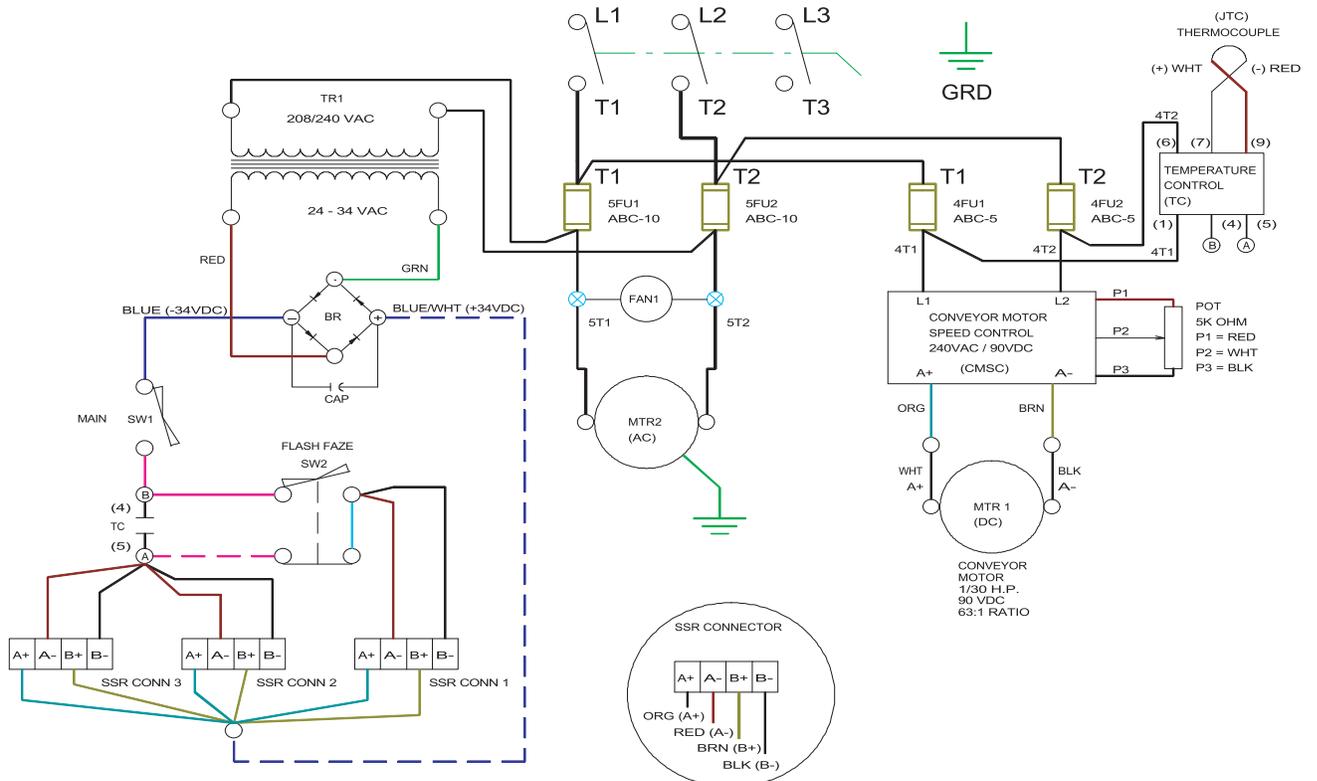
NOTES!
 1) HEATER CONNECTION WIRE TO BE #14SF2 HI-TEMP
 2) HI-TEMP RING CONNECTORS FOR HEATER CONNECTIONS

D1 (DRYER MAIN DISCONNECT)
 THREE PHASE CONFIGURATION



WORKHORSE PRODUCTS CONTROL CIRCUIT
 MODELS: 4013 & 3011 208-240VAC
 REVISED 2001

D1 (DRYER MAIN DISCONNECT)
 SINGLE PHASE CONFIGURATION
 WARNING! DO NOT USE HIGH LEG

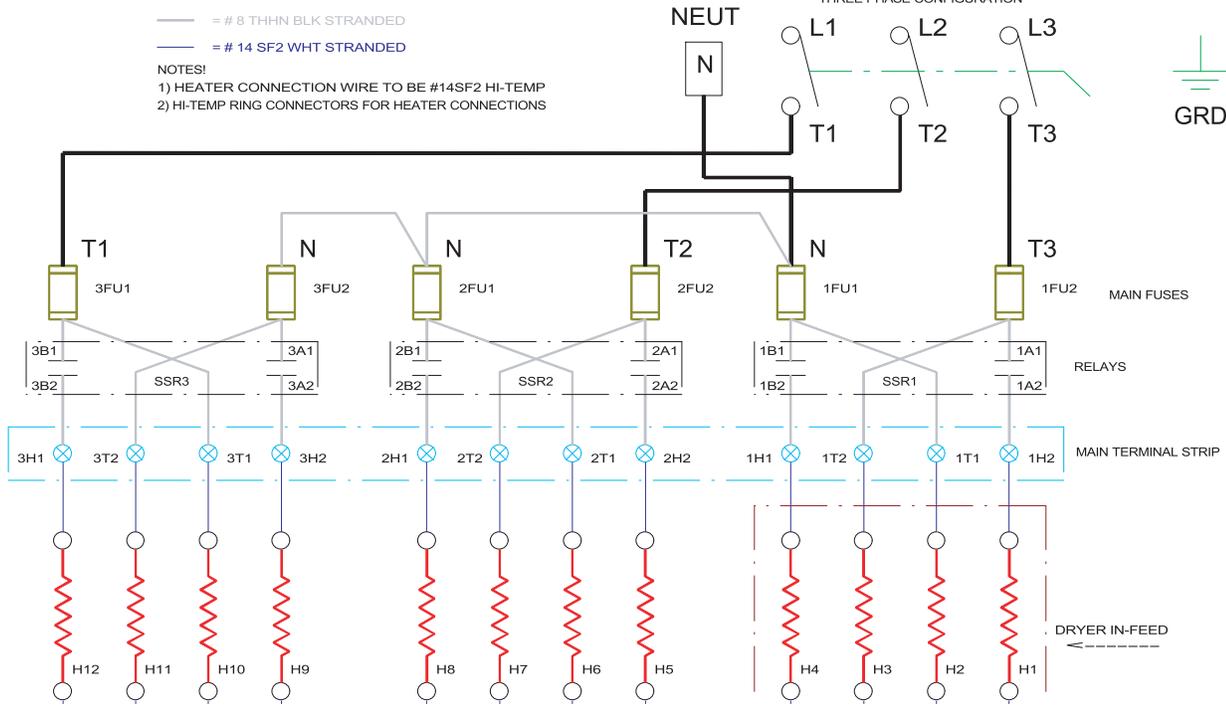


WORKHORSE PRODUCTS MAIN POWER CIRCUIT
 MODELS: 4013 & 3011 380/415 3P PHASE TO NEUTRAL = 220VAC
 REVISED 2001

— = # 6 THHN BLK STRANDED
 — = # 8 THHN BLK STRANDED
 — = # 14 SF2 WHT STRANDED

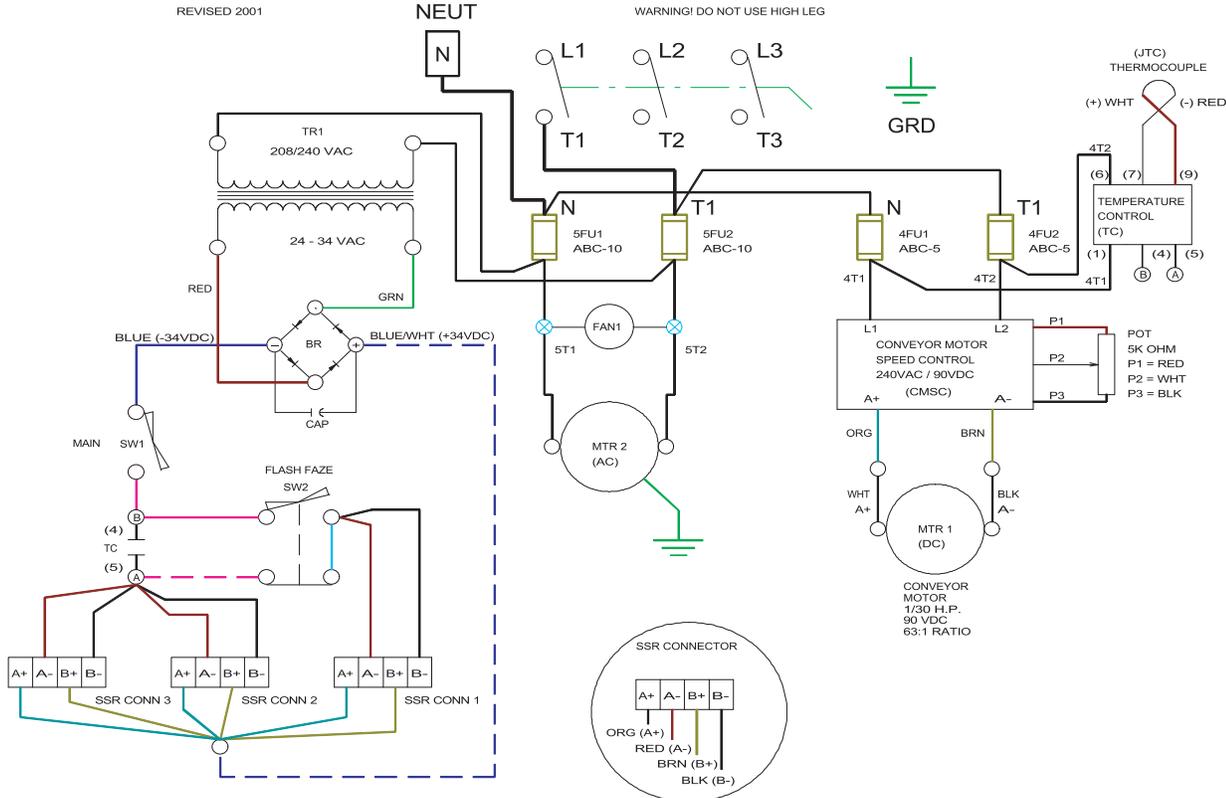
NOTES:
 1) HEATER CONNECTION WIRE TO BE #14SF2 HI-TEMP
 2) HI-TEMP RING CONNECTORS FOR HEATER CONNECTIONS

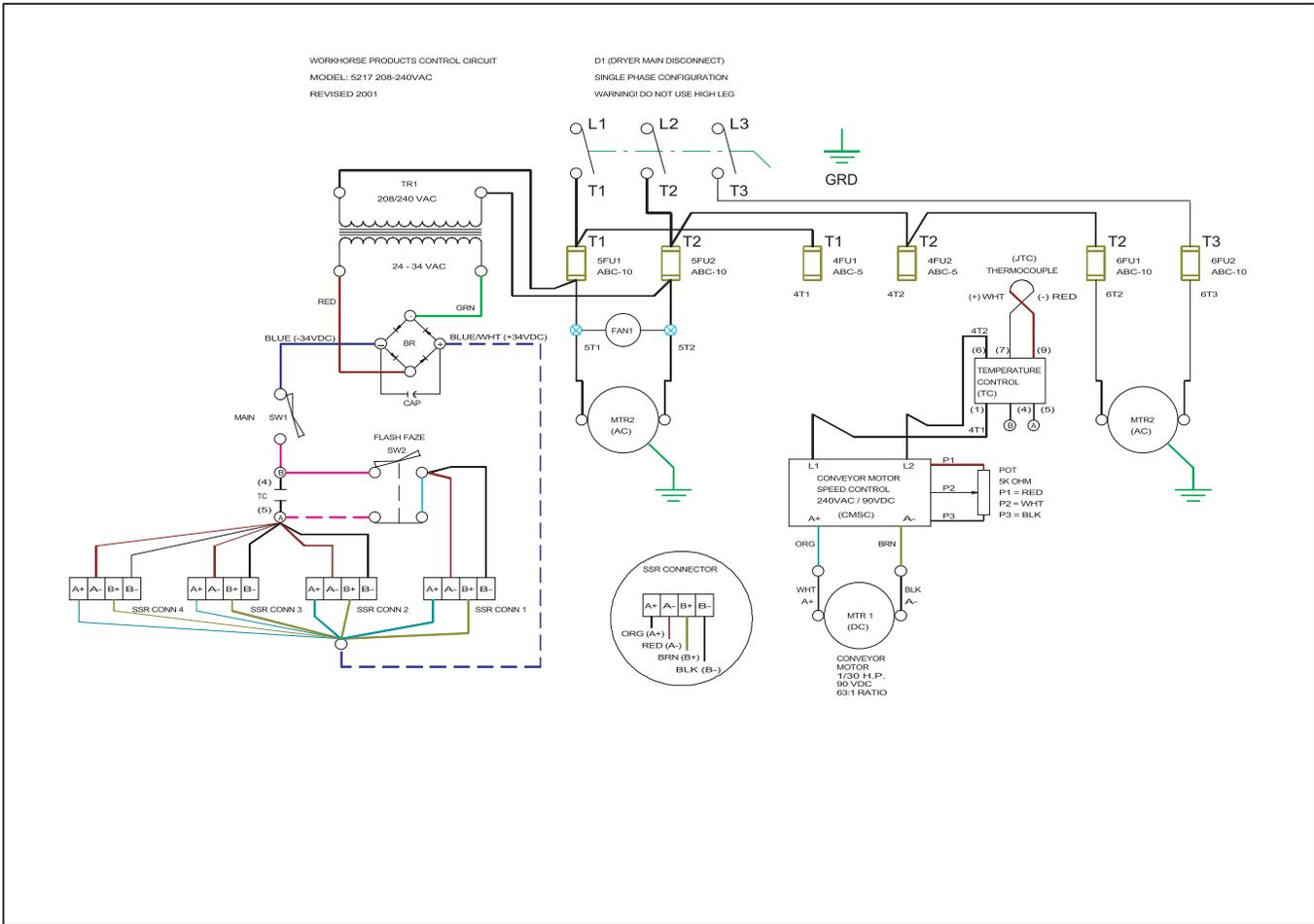
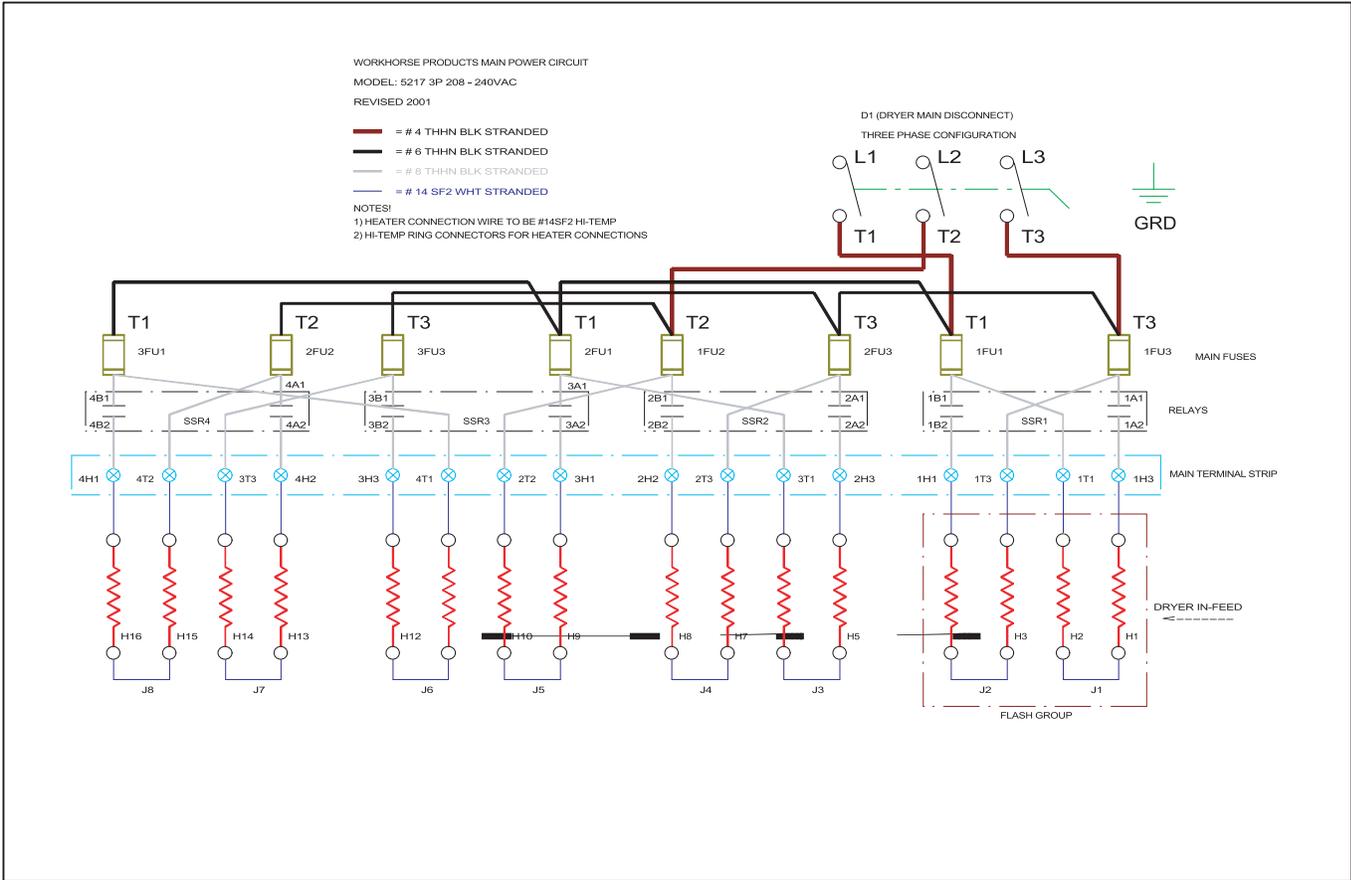
D1 (DRYER MAIN DISCONNECT)
 THREE PHASE CONFIGURATION

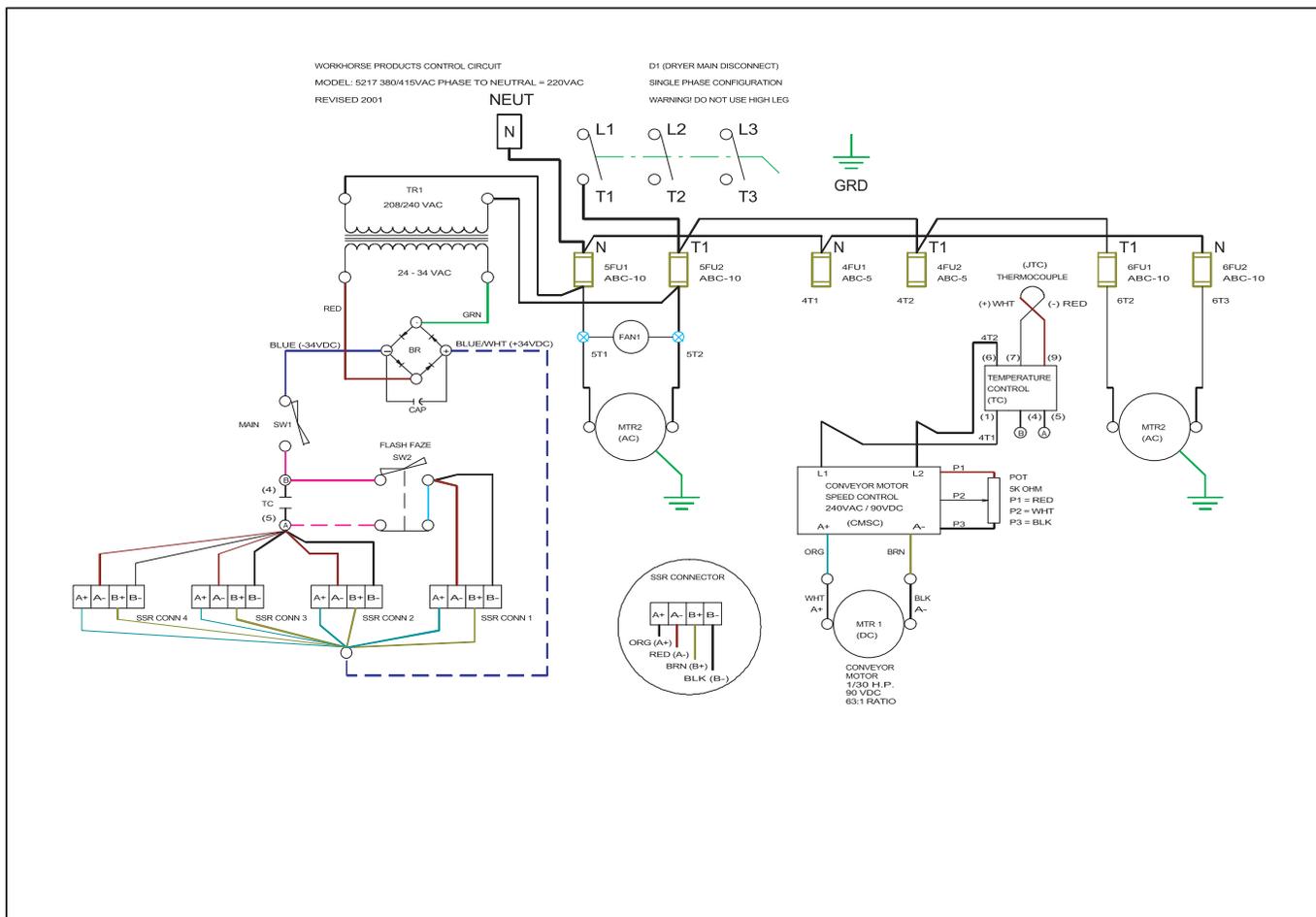
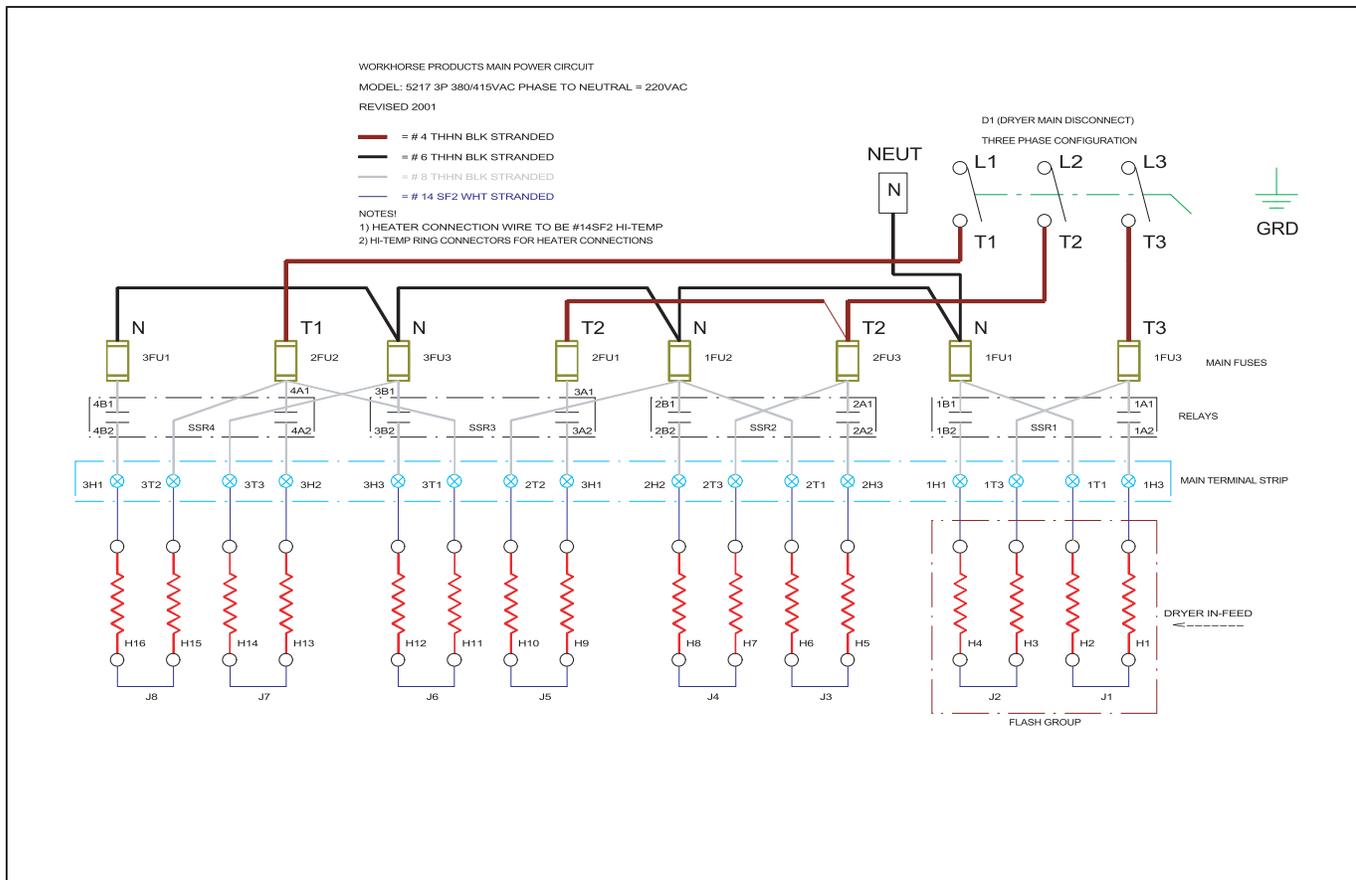


WORKHORSE PRODUCTS CONTROL CIRCUIT
 MODELS: 4013 & 3011 380/415VAC PHASE TO NEUTRAL = 220VAC
 REVISED 2001

D1 (DRYER MAIN DISCONNECT)
 SINGLE PHASE CONFIGURATION
 WARNING! DO NOT USE HIGH LEG







CONTROL CIRCUIT PARTS LIST

Ref Symbol	PN	Description	2608 Use	3011 Per	4013 Unit	5217
4FUI-2	39-76177	Fuse ABC5 250vac	2	2	2	2
25FUI-2	76205	Fuse ABC10 250vac	2	2	2	2
CMSC	38-7001	Variable Speed Control Board	1	1	1	1
FANI- 2	390934	Axial Fan 230vac 105cfm	1	1	1	1
JTC	20428	Thermocouple J Type	1	1	1	1
MTR 1	390657	BELT DRIVE MOTOR ASSY PHQ DRYERS	1	1	1	1
MTR 2	76153	Motor 60HZ 1/4HP Recalculating for PHQ	1	1	1	1
MTR 2 50HZ	76161	Motor 50HZ 1/4HP Recalculating for PHQ For 380/415VAC and countries without 50HZ	1	1	1	1
POT	390940-1	Potentiometer Assembly for PHQ Series	1	1	1	1
SW1-3	20450	On/Off Rocker Switch	3	2	2	2
TC	76002	Temperature Control	1	1	1	1

MAIN POWER CIRCUIT PARTS LIST

	76175	Fuse Buss NON 35	6	6	6	6
--	-------	------------------	---	---	---	---

ELEMENT CIRCUIT PARTS LIST

Quartz Element	20951	Quartz Element 3pack Assembly 115V PHQ-2608 1400W Screw Ends (for 220-240vac)	2			
Quartz Element	20934	Quartz Element 2608-CAP 2500W Push In Ends 230VAC	1			
Quartz Element	20953	Quartz Element 3 Pack Assembly 115V PHQ-30 1000W Screw Ends (for 220-240vac)		4		
Quartz Element	20955	Quartz Element 3 pack Assembly 115V PHQ-40 1500W Screw Ends (for 220-240vac)			4	
Quartz Element	20957	Quartz Element 2 Pack Assembly 115V PHQ-52 1700W Screw Ends (for 220-240vac)				8
	42-Hex-8-10	Nut Hex Machine Screw # 8-32 SS	24	48	48	64
	41-PHMS-8-35	Screw Machine SS 8-32 x 3/8	24	48	48	64

Exhausting the Unit

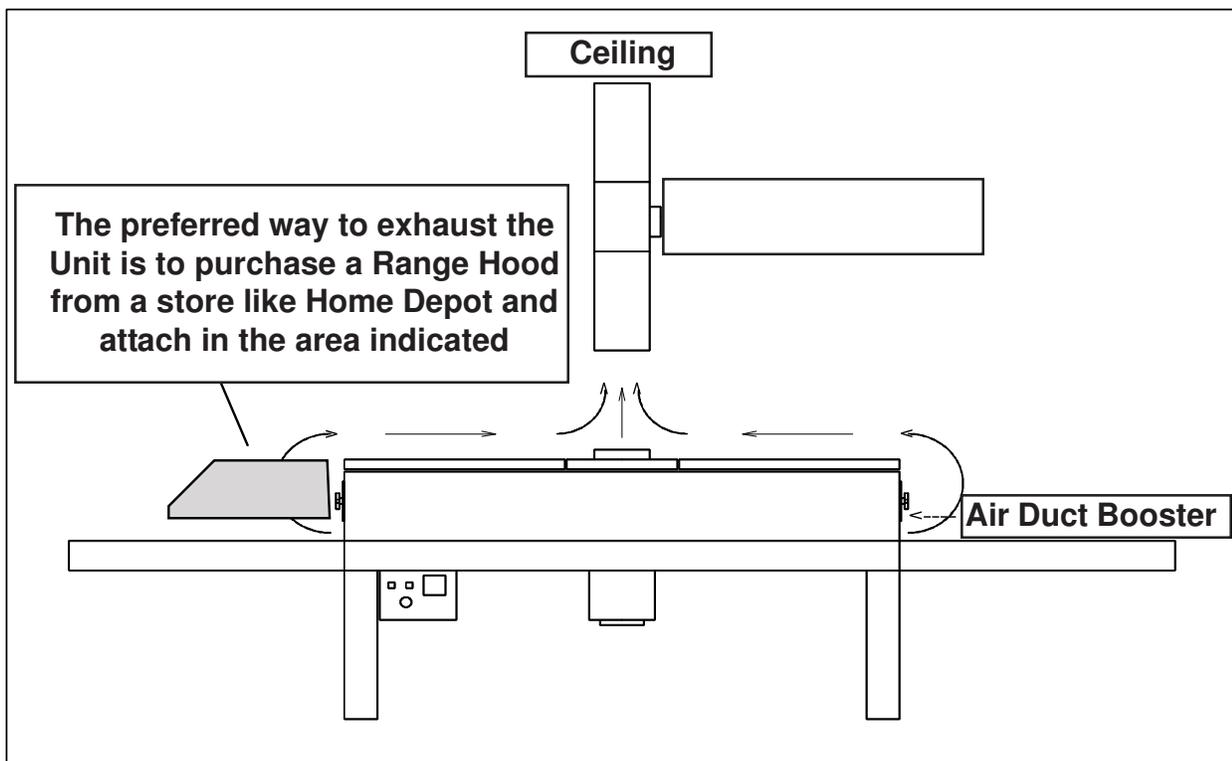
Use a qualified HAVAC installer to duct out the room where the unit is located. The suggested method, as shown below, is to install duct the same size as the units top ring with an in line Air Duct Booster* located 3-4 feet away from the dryer vent opening. This can be straight up through the ceiling with a mushroom cap or angled 90 degree out through a wall or the window.

A qualified HAVAC installer can determine the best method. As a substrate enters, passes through, and then exits the open air dryer chamber, fumes and smoke are generated by the heating of the ink and the substrate. In the case of tee shirts, chemicals (sizing) are used in the creation process that will smoke when heated.

The smoke is carried by the belt from entry to exit and boils out of both ends. By not venting directly from the oven you accomplish several things. You do not remove excess heated air (recirculating) out of the oven chamber causing the unit to work harder, and you capture and remove the smoke and fumes being carried out of the chamber on the belt. An Air Duct Booster the size of your units top ring will create enough of a draft to sufficiently exhaust the smoke and fumes.

*Air Duct Booster can be obtained by the HAVAC installer – or one source for the 120V 60HZ booster is Grainger:

Duct Dia. (In.)	0.0" SP CFM	CFM @ Duct	Straight Lengths(Ft.)	Dims. (In.)		Tjernlund Model	Stock No.	2608	3011	4013	5217
				L	Dia						
8	325	300 250 200	25 50 75	9	8	EF-8	5C964		1	1	1



LIMITED WARRANTY AND WARRANTY REGISTRATION

Although every effort has been made to provide accurate specifications, Workhorse Products/Odyssey does not assume any liability for damages, whether consequential or incidental, that may result from the use or misuse of the indicated specifications. Workhorse Products/Odyssey requires the use of a licensed industrial electrician for the installation of electrical service to equipment requiring electrical power.

Workhorse Products/Odyssey reserves the right to alter specifications in the manufacture of its products.

It is understood and agreed that Seller's liability for any equipment whether liability in contract, in tort, under any warranty, in negligence, in strict liability or otherwise shall not exceed the return of the amount of the purchase price paid by Buyer. Notwithstanding the foregoing provision, under no circumstances shall Seller be liable for special, indirect or consequential damages. The price stated for the equipment is a consideration in limiting Seller's liability. No action regardless of form, arising out of the transactions under this Agreement may be brought by Buyer more than one (1) year after the cause of action has occurred. Our warranty is specified is exclusive and no other warranty, whether written or oral, is expressed or implied. Workhorse Products specifically disclaims the implied warranties of merchantability and fitness for a particular purpose.

Equipment manufactured or sold by Workhorse Products/Odyssey is warranted against defects in workmanship and materials for a period of one year from receipt by customer. All warranties initiate from date of shipment to original customer.

Replacement parts are covered for the term of the equipment warranty period. Parts not under warranty are covered for thirty (30) days from receipt by customer. Any part found by Workhorse/Odyssey to be defective in material or workmanship within the stated warranty period will be replaced or repaired at Workhorse's option without charge. **AFTER OBTAINING AN RMA# SEND RETURNED FREIGHT PREPAID TO 3730 E. Southern Avenue, PHOENIX, AZ 85040 USA.** Written authorization must be obtained from Workhorse/Odyssey before any part will be accepted. Replacement parts are sent out freight collect. **Parts sent out prior to receiving defective part will be sent C.O.D., cost plus freight. Upon return of defective part, if it is deemed that the part was not damaged by customer but failed, the cost of the replacement part will be refunded.**

This warranty does not extend to expendable parts such as filters, fuses, elements and brushes. Workhorse does not warrant failure of parts or components resulting from misuse or lack of proper maintenance. Installation, inspection, and maintenance costs are the sole responsibility of the purchaser.

Registration Form

Company Name: _____	Contact Name: _____
Address: _____ _____	Phone Number: _____
City: _____	Fax Number: _____
State: _____	Email : _____
Country: _____	Cell Number: _____
Zip Code: _____	Serial Number: _____
Model Number: _____	Date Received: _____
Date Purchased _____	

Please Fax Registration Form for Warranty to take place