Speed Sort Conveyor

Special Note:

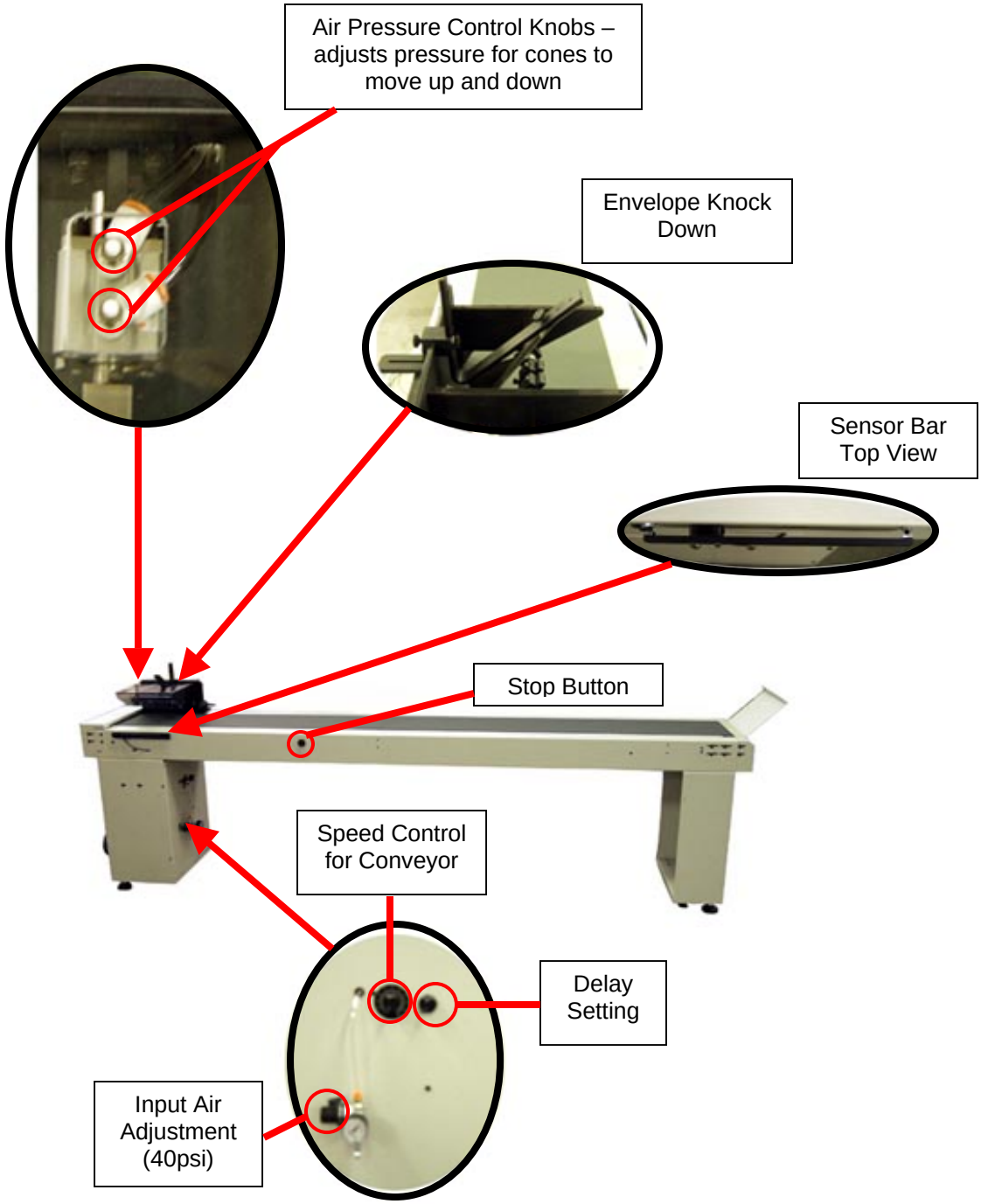
Some pictures and illustrations may have color, hue and contrast graphically altered for clarity when printing in black and white and may not necessarily reflect the actual color of the product when viewed on compact disk.

Further revisions may still be in progress. As these changes are made, the version number of the manual will also change.

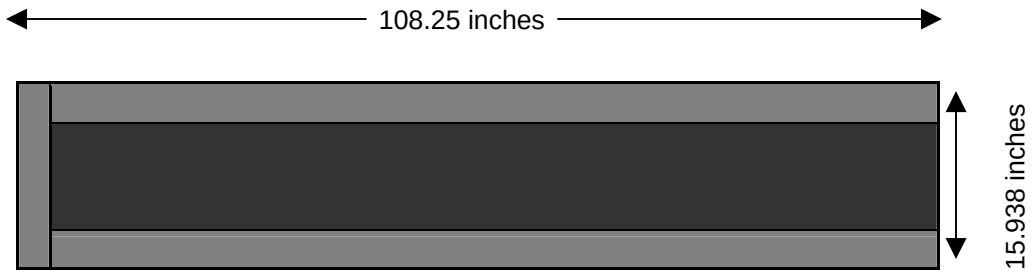
Table of Contents

Section I

Installation


Air Pressure Control Knobs – adjusts pressure for cones to move up and down
Envelope Knock Down
Sensor Bar Top View
Stop Button
Speed Control for Conveyor
Delay Setting
Input Air Adjustment (40psi)

Speed Sort Conveyor Layout



Requirements

Floor Space – 109” x 16”

Electrical – 110VAC @ 3 amp

Air Compressor– 120psi

Vacuum – None

Trigger Interface – Dry Contact

Note: If no in-house air is available, an optional compressor (recommended by the manufacturer) must be purchased.

General Specifications

Item	Description
Operating Temperature	0 to 55 degrees Celsius (32 to 131 degrees Fahrenheit)
Operating Humidity	35 to 85% Relative Humidity/no condensation
Vibration Resistance - DIN Rail Mounting	Conforms to IEC 68-2-6; 10-57 Hz; 0.035mm Half Amptitude 57-150 Hz: 4.9 m/s^2 Acceleration Sweep Count for X, Y, Z: 10 times (80 min in each direction)
Shock Resistance	Conforms to IEC 68-2-7: 147 m/s^2 Acceleration, Action Time: 11 ms 3 times in each direction X, Y, and Z
Noise Immunity	1000 Vp-p 1 microsecond, 30-100Hz, tested by noise simulator
Dielectric Withstand Voltage	AC Power Supply Unit: 1500VAC>1 min. tested between all points, terminals, and ground. DC Power Supply Unit: 500VAC>1 min. tested between all points, terminals, and ground.
Insulation Resistance	5M ohm > at 500VDC tested between power terminals and ground
Ground	Class D (100 ohm or less)
Radiation	Should not exceed tolerance levels other than associated with UV dryer lamps

Installation:

Once the Speed Sort Conveyor has been removed from the shipping container, perform the following:

1. Inspect the location where the machine is to be set up.
   Note: The manufacturer recommends that the area be a relatively flat and smooth concrete or hard wood surface, similar substrates are acceptable. The area should be free of holes, divots, loose floorboards, etc. and not subject to retaining moisture from water seepage.
   Warning: In the event the floor does not meet the recommended requirements, seek an alternate location or reschedule the installation after repairs to the floor have been completed.

2. Inspect the line current at the point where the power cable of the machine is to be plugged in.
   Note: Conventional wall sockets, ceiling line drops and D-Boxes should be free of cracks, rust, visible signs of heat stress and flash marks.
   Special Note: For installations in Europe check the condition of the voltage converter box or other voltage reducing device that may be in use. In the event of a line voltage inspection failure, report your findings to the person or persons in charge of the building and postpone the installation until corrections are made.

3. Check the line voltage to ensure that the minimum and maximum requirements are present.
   - ✓ 110VAC @ 3 amp
   - ✓ 50 / 60 Hertz
   - ✓ 15 AMP Service

   Note: Check voltage potential at ground to ensure the line was wired properly.

4. Position the ink jet / dryer base in the designated location then lower the leveler pads to raise the base to a comfortable operating height, see figure 1.

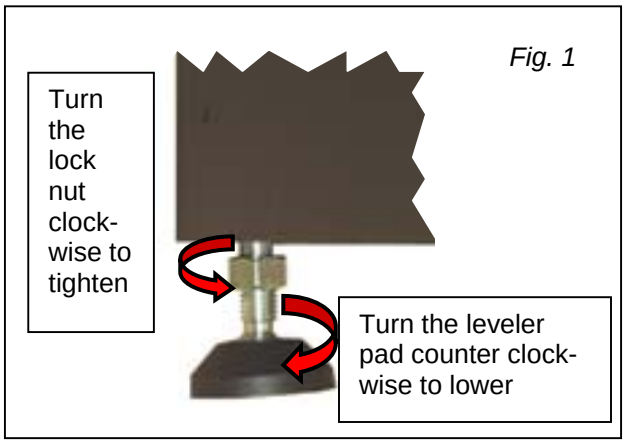


Fig. 1

5. Place a level in the center of the Speed Sort Conveyor and adjust the leveler pads as needed to level the machine at the desired height. Once the machine has been leveled, tighten the leveler pad lock nuts.

Section II

Safety Features and Warnings

Safety Features:

The Speed Sort Conveyor has warning labels or stickers to safeguard persons operating and/or working on or around this equipment. These are as follows:

The main power or electrical box door is equipped with a safety lock that requires a specific key or tool to open.

General Warning

Symbol indicating possible safety hazards. This label is located on the outside of the electrical box that is inside the front leg of the machine.

Fig. 1

Label shown at actual size

Shock Hazard

Symbol indicating possible shock hazard. This label is located on the outside of the electrical box that is inside the front leg of the machine.

Fig. 2

Label shown at actual size

Mechanical Warning

Symbol indicating pinch hazard. This label is located by the Lexan that covers the knock downs for the air controls.

Fig. 3

Label shown at actual size

Note: This symbol ⚠ appears as a visual alert in the text of this manual next to written warnings regarding possible safety issues and or possible machine damage that may occur as a direct result of failure to follow specific instructions as written.

Note: The warning labels and stickers are installed by the manufacturer to safeguard all persons operating and/or working on or around the machine. Removing or altering any of these labels or stickers will void any and all warranties, either real or implied, purchased or offered with the Speed Sort Conveyor. All companies connected with the manufacturing, promotion and sale of the Speed Sort Conveyor shall be held harmless for any and all injuries and damage in the event the warning labels and stickers are removed, altered or disabled.

In addition to the warnings installed on the Speed Sort Conveyor by the manufacturer, the following recommendations for safe operation and maintenance of the Speed Sort Conveyor are as follows:

- Any persons designated to operate, work on or near the Speed Sort Conveyor must be fully trained by a factory-authorized representative.
- Do not operate or perform any type of maintenance on the Speed Sort Conveyor while under the influence of drugs or alcohol.
- Do not operate or perform any type of maintenance on the Speed Sort Conveyor in or around freestanding water.
- Do not wear loose or baggy fitting shirts, shirts with bellowing sleeves, bracelets, rings, necklaces, neckties or other loose apparel that may come into close proximity with moving parts of the machine.
- Do not place any items near or over the “Emergency Stop Switches” that might inhibit or obstruct line of sight or access to the Emergency Stop Switches. The “Emergency Stop Switches” must be clearly visible and accessible at all times.
- Wear protective safety eyeglasses or goggles and use a particle mask or similar device when cleaning off the Speed Sort Conveyor with compressed air. Alert all other persons in the area to stand a minimum of thirty (30) feet from the area where compressed air is put to such use.
- Hearing protection is not required for safe operation of the Speed Sort Conveyor. Typically, decimal levels have been found to be less than 85 decimals in machines properly maintained and in good operating condition.
- All persons having hair greater than shoulder length who operate, work on or near the Speed Sort Conveyor should keep their hair pulled back in ponytail fashion then pinned up or otherwise contained to the top of their head or confined under the back of their shirt.

- Turn off the main power to the Speed Sort Conveyor before opening any of the service doors for general cleaning and or general maintenance. Follow the “Lock Out Procedures” as stated on page 16 for extensive repairs involving disassembly of the machine either in whole or in part or replacing any of the electrical components.

- Any persons working near any of the electrical motors or pump motors of the Speed Sort Conveyor should use caution. Electrical motors give off heat; contact with or exposure to bare skin may result in burns.

- The Speed Sort Conveyor was designed to sort and transport paper only. Do not attempt to sort and/or transport materials made of or containing glass, metal, wood, plastics, liquids, foods, powders, gasses, explosives or toxic and hazardous chemicals on the Speed Sort Conveyor.

Note: The manufacturer recognizes and acknowledges that the Speed Sort Conveyor is capable of successfully running and/or transporting envelopes containing compact discs or audio cassettes, however the manufacturer and other companies connected with the promotion and sale of the Speed Sort Conveyor do not assume any responsibility for any damage to the Speed Sort Conveyor or product and shall be held harmless for any damages and or injuries resulting in this practice.

Special Advisement:

The manufacturer and other companies connected with the promotion and sale of the Speed Sort Conveyor shall be held harmless for any and all injuries sustained to any person or persons as a result of failure to comply with the recommendations for safe operation and maintenance of the Speed Sort Conveyor as shown and/or described herein.

Lock Out / Tag Out Procedure

Before beginning extensive repairs involving disassembly of the machine either in whole or in part, performing general maintenance or replacing any of the electrical components, the machine must be locked out of service to ensure that power will not be restored to the machine while the work is being performed. To lock a machine out of service, perform the following:

1. Turn the main power switch to the off position.

2. Disconnect and lock out power to the machine and attach lock out tags.

   For Plug-In type connection,

   a. Follow the main power line from the machine back to the receptacle or source of supplied power and disconnect it.
   b. Unplug the power cable from the receptacle.
   c. Place the plug end into an “Entry Plug Lockout Box”, see figure 4.
   d. Close the hinged lid and secure it using a “Key” operated Pad-Lock.
   e. Fill out and attach a Lock Out tag to the Lockout Box, see figure 6.

Note: Appearance of Lock-Out devices may vary depending on vendor

Fig. 4

For Direct Hard Wired type connection,

a. Follow the main power line from the machine back to the origin of supplied power and switch the circuit breaker to the “Off” position.
b. Place a Circuit Breaker Lockout device over the disabled circuit breaker. Follow the manufacturer’s instructions for use.
c. Using a Key-operated padlock, secure the circuit breaker lockout (see figure 5).
d. Fill out and attach a “Lock Out” tag to the circuit breaker lockout device (see figure 6).

Note: Appearance of Lock Out devices may vary depending on vendor

Fig. 5

Front View of Lock Out Tag

Back View of Lock Out Tag

Fig. 6

Section III

General Setup

Speed Sort Conveyor

The Speed Sort Conveyor speed may be or optionally controlled by two factors, the speed control on the Ink Jet base or the speed control located on the Speed Sort Conveyor. The sort control can be operated by 1 of 2 methods:

1. If the Sort Conveyor is in line with the Ink Jet data, then a signal can be sent from the address data to sort.

2. If the Sort Conveyor is in line with the FlowMaster inserter, a Pattern Reader must be installed to send sort signal.

The software running the database signals the Ink Jet base when a sort break occurs, activating the sort feature which accelerates the Speed Sort Conveyor for a duration determined by the software. To set up the Speed Sort Conveyor and features, perform the following:

1. Position the edge of the Speed Sort conveyor approximately three (*3) inches from exit end of the ink jet base/dryer base also aligning the center of the envelope knock down assembly with the center material transport belt of the ink jet base/dryer base.
   Note: (*3) inches stated in this step is a starting reference point for the approximate distance when running a 1-ounce, #10 envelope. The size and weight of the material as well as the selected running speed of the ink jet has a direct bearing on the distance between the Speed Sort conveyor and the exit end of the ink jet base/dryer base. Increasing or decreasing this distance may be required to accommodate the material your running.

2. Remove the envelope knock down by turning the retaining lock knob, located on the envelope knock down mounting clamp, in a counter clock-wise direction, then lift each mounting clamp free from the stop plate.

3. Cycle the inkjet base at regular running speed and depress the feeder start button located on the left side of the inkjet base control panel.
   Note: Depress the feeder start button a second time to stop the feeder after 5 to 6 pieces have traveled (un-printed) to the Speed Sort conveyor.

4. Observe the material as it lands on the Speed Sort conveyor; the material should lightly strike the stop plate of the envelope knock down assembly near the surface of the conveyor bed.
   Note: If the material is landing on the conveyor bed or striking the stop plate too high above the conveyor bed, you may need to adjust the position of the stop plate or the position of the conveyor as described in step #1 or position and adjust the envelope knock down previously removed in step #2.

5. Return the envelope knock down (removed in step #2), to the stop plate. Position the envelope knock down approximately ¼" from the top and bottom edge of the material, and tighten the Retaining Lock Knob by turning it in a clockwise direction.

6. Adjust the knock down strap. Once the job has been started and running speed has been established, watch the finished product as it lands on the Speed Sort conveyor and look for these occurrences:

   a. The material strikes the stop plate so hard that it bounces back before landing on the conveyor. Adjust the knock down strap to apply greater resistance to the material, (slowing it down) before it strikes the stop plate. Do this by turning the adjustment knobs, on the envelope knock down, in a clock-wise direction.
   b. The material lands on the conveyor before reaching the stop plate. Adjust the knock down strap to apply less resistance to the material, (allowing it to maintain speed) to reach the strikes the stop plate. Do this by turning the adjustment knobs, on the envelope knock down, in a counter clock-wise direction.

Section IV

General Service

Conveyor belt replacement:

1. Turn off the power to the Speed Sort Conveyor.

2. Unplug the power cable, the communication cable, and the airline from the Speed Sort Conveyor. (Move the single conveyor away from the ink jet base/dryer base or the inserter in order to provide room to work.)

3. Remove the Envelope Knock Down / Stop Plate assembly:
    a. Remove both of the retaining lock knobs by turning them in a counter clock-wise direction (see fig. 1).
    b. Lift the envelope knock down / stop plate assembly off of the conveyor bed and set it aside.

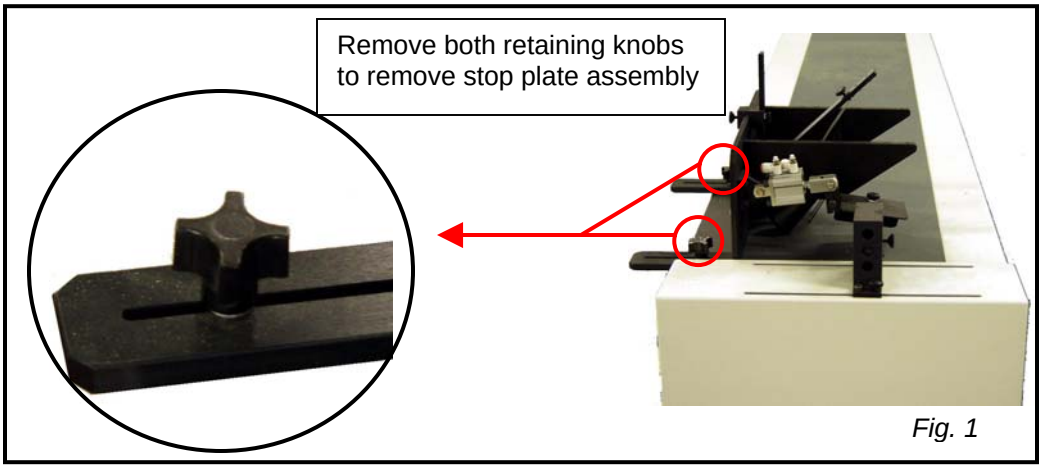


Fig. 1

4. Remove the front leg cover:
    a. Using a 1/8” Allen wrench, remove the two button head Allen screws located on the side of the front leg assembly (see fig. 2).
    b. Pull the left side (same side as the button head Allen screws removed in step a) of the leg cover back to clear the leg assembly, then shift the cover to the left to get the inside screws free of the right side of the leg assembly and continue pulling the cover free of the leg assembly (see fig. 2).
    Note: the top part of this cover is slotted and fits over the conveyor belt. Use caution when removing this belt to avoid damaging the belt.

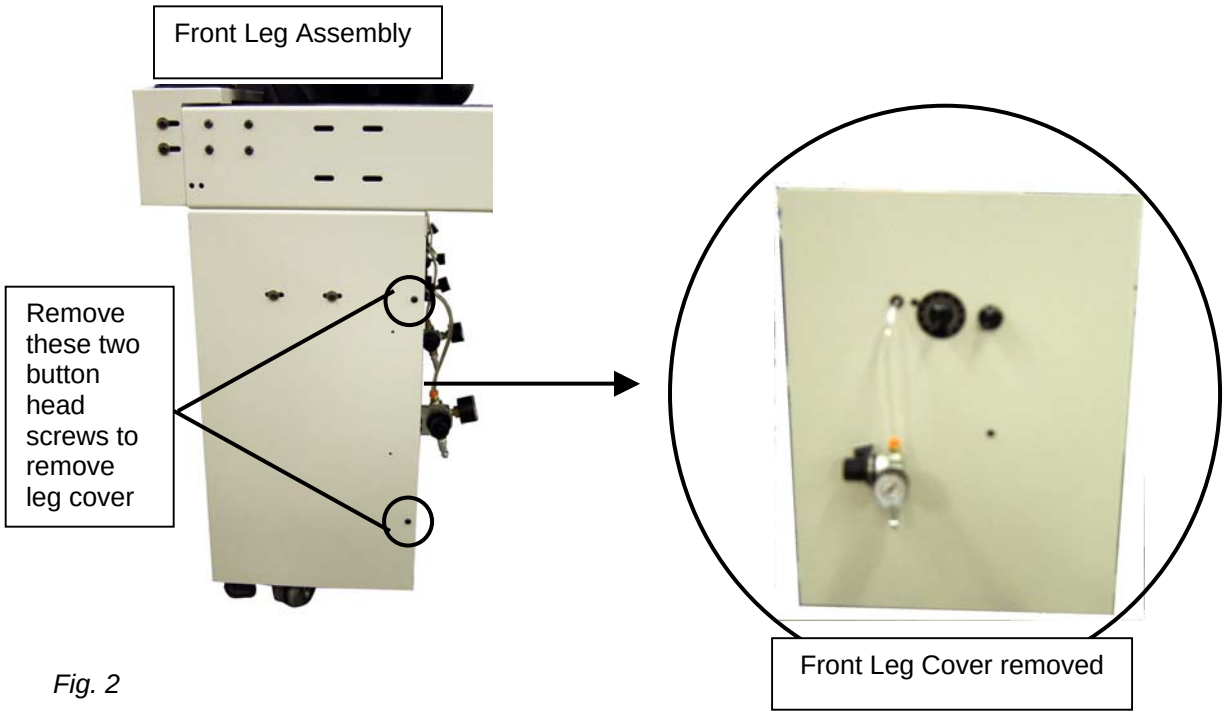


Fig. 2

5. Remove both end cap covers from the conveyor:
   a. Using a 5/32” Allen wrench, remove the two (2) button head Allen screws located at each side of the end cap cover (see fig. 2).
   b. Pull each end cap straight out from the conveyor.

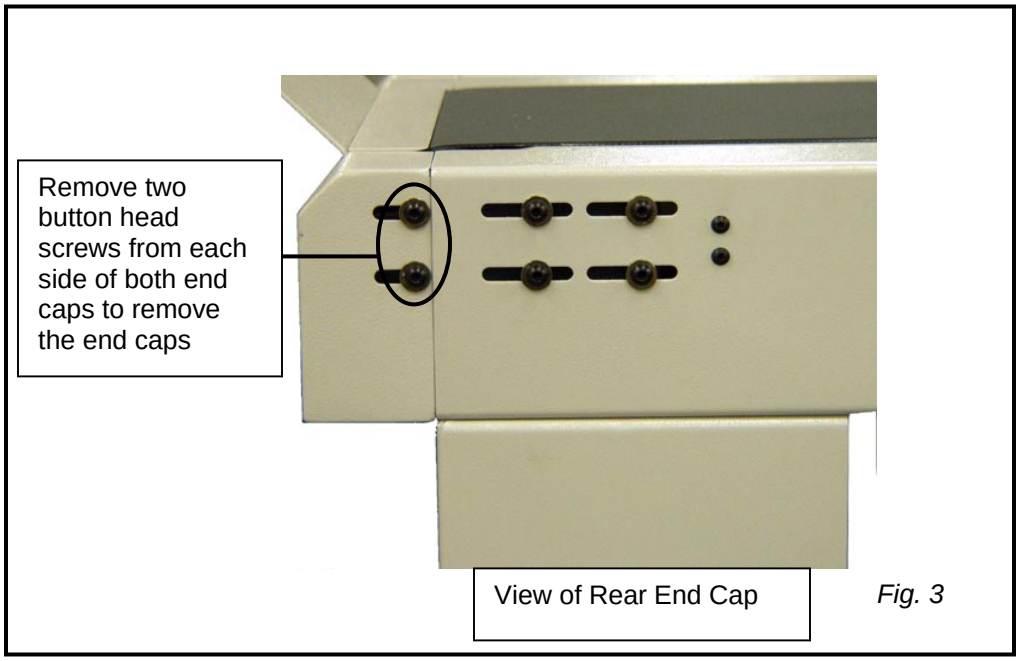


Fig. 3

6. Loosen the conveyor belt:
   a. Using a 5/32” Allen wrench loosen the four (4) button head Allen screws located on each side of the conveyor bed near the material stop post at the rear end of the conveyor (see fig. 4).

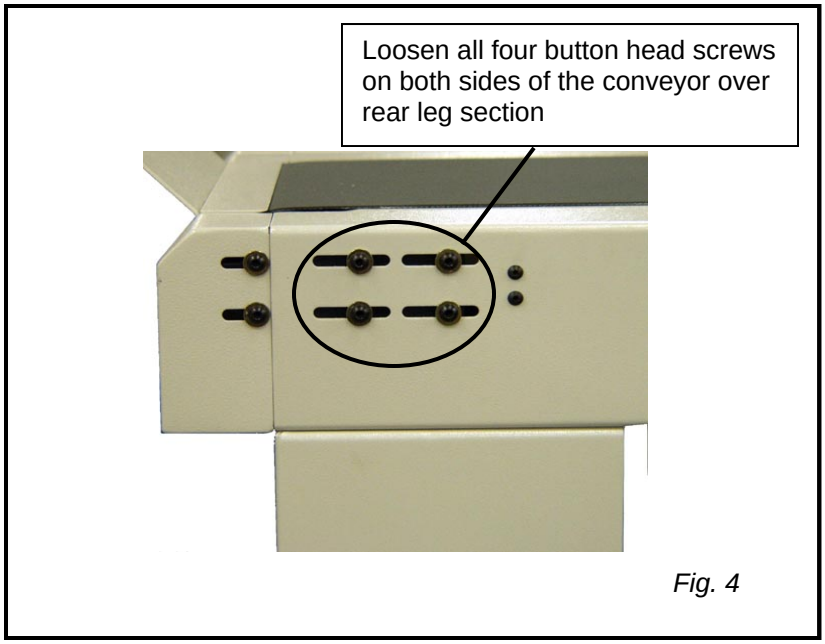


Fig. 4

7. Using a 7/16” open end wrench, loosen the retaining nut located on each of the conveyor belt tensioner found inside the conveyor bed above the rear leg assembly (see fig. 5).

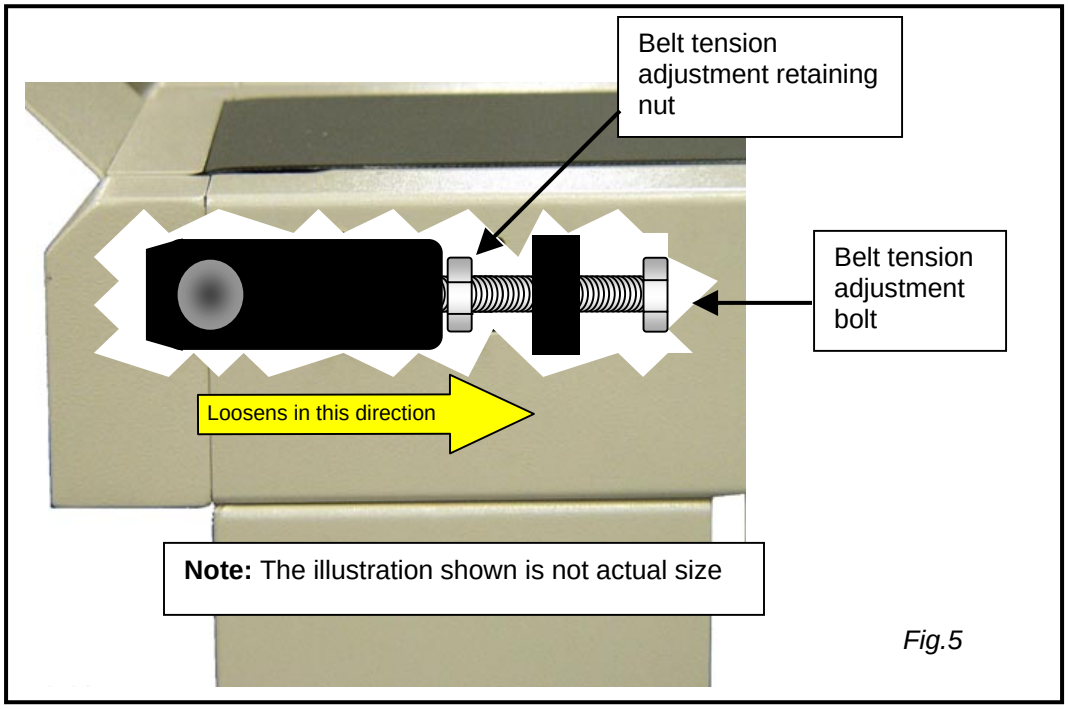


Fig.5

View
Back End of Conveyor with End Cap removed

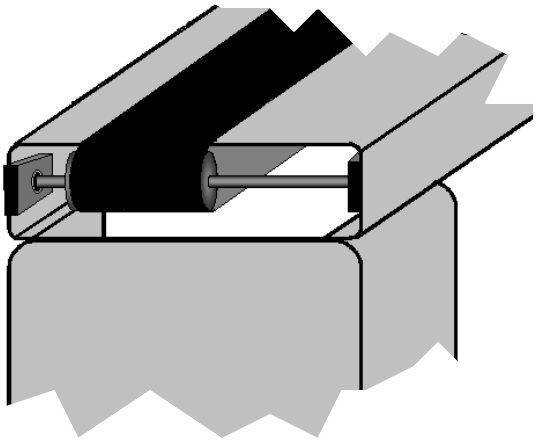


Fig. 6

8. Using a 7/16” open-end wrench, loosen the conveyor belt tension adjustment bolt by turning it in a counter clock-wise direction (see fig. 5).

9. Using a 7/16” open end wrench, **loosen** the three (3) hex head bolts located under the conveyor bed, found on the left side (motor side) of the front leg section (see fig. 7). **Note:** There is a 7/16” retaining nut under each hex head bolt that will need to be held in place in order to loosen the bolts. **Do not** remove these bolts, just loosen them.

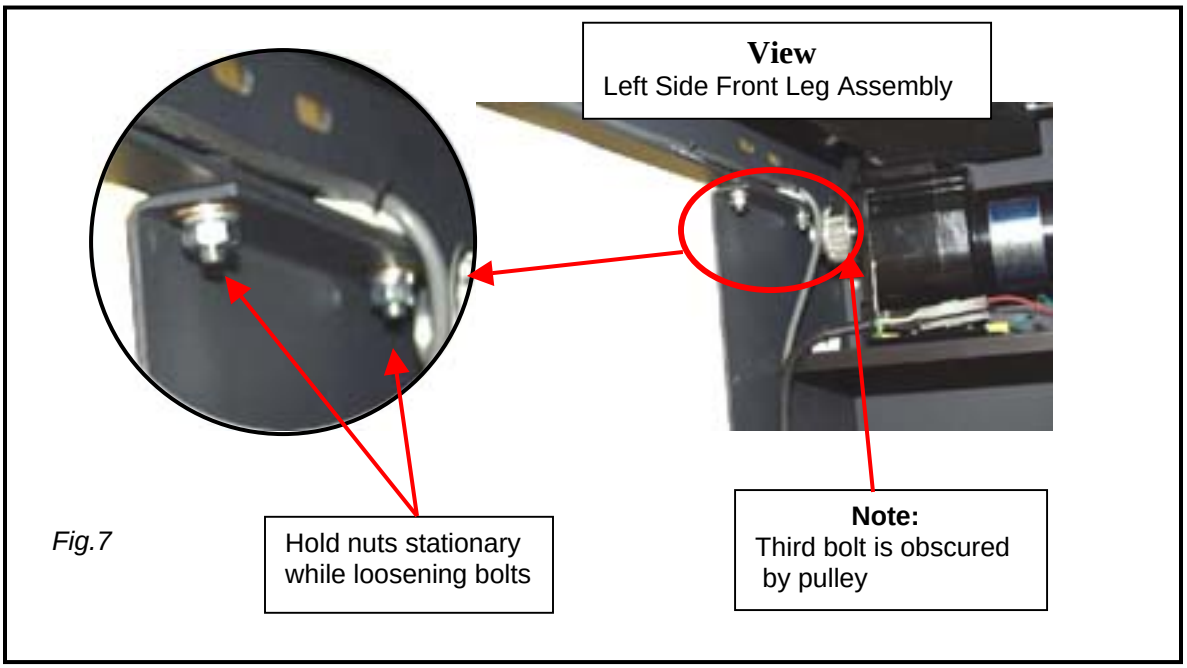


Fig.7

10. Using a 7/16” open end wrench, **remove** the three (3) hex head bolts located under the conveyor bed, found on the right side of the front leg section (see fig. 8).
Note: There is a 7/16” retaining nut under each hex head bolt that will need to be held in place in order to loosen the bolts.

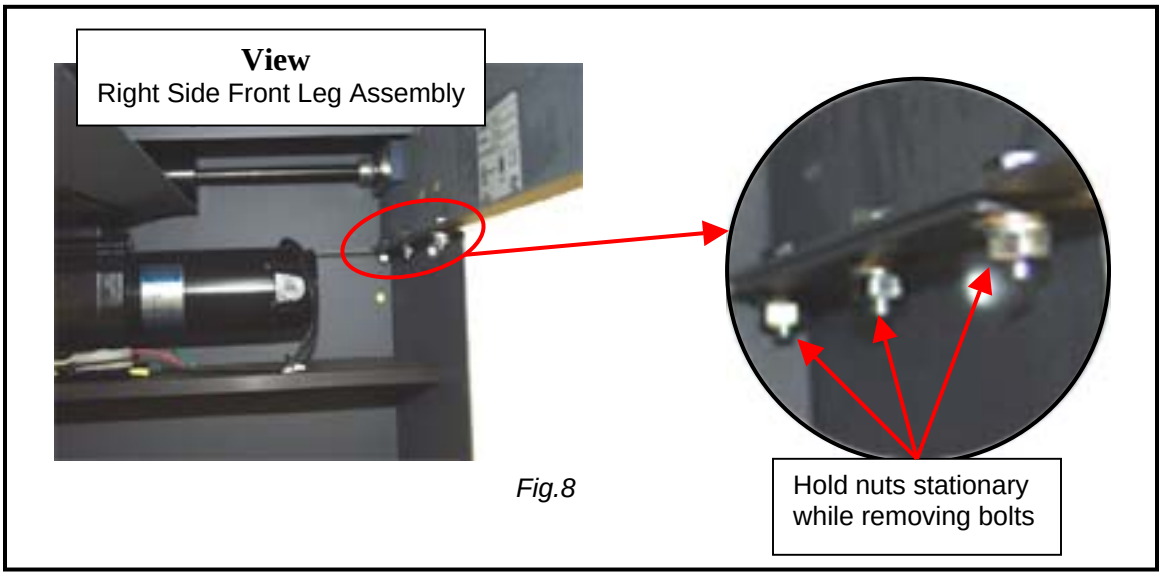


Fig.8

11. Using a 7/16” open end wrench, **loosen** the two (2) hex head bolts located under the conveyor bed, found on the right side of the rear leg section (see fig. 9).
Note: There is a 7/16” retaining nut under each hex head bolt that will need to be held in place in order to loosen the bolts. **Do not** remove these bolts, just loosen them.

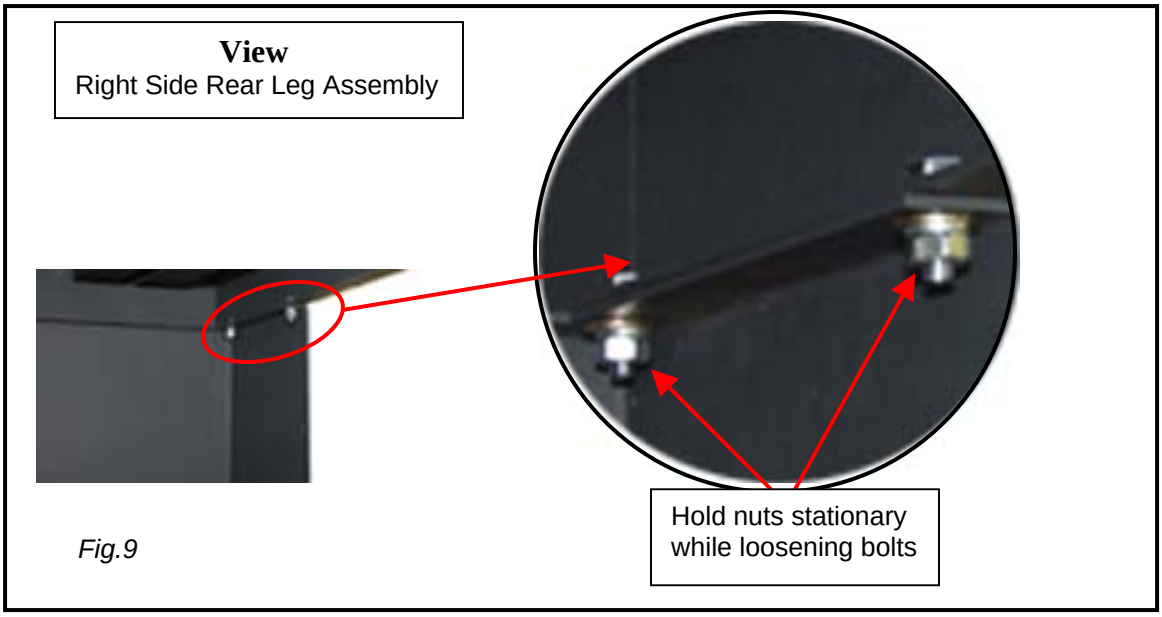


Fig.9

12. Using a 7/16” open end wrench, **remove** the two (2) hex head bolts located under the conveyor bed, found on the left side of the rear leg section (see fig. 10).
Note: There is a 7/16” retaining nut under each hex head bolt that will need to be held in place in order to loosen the bolts.

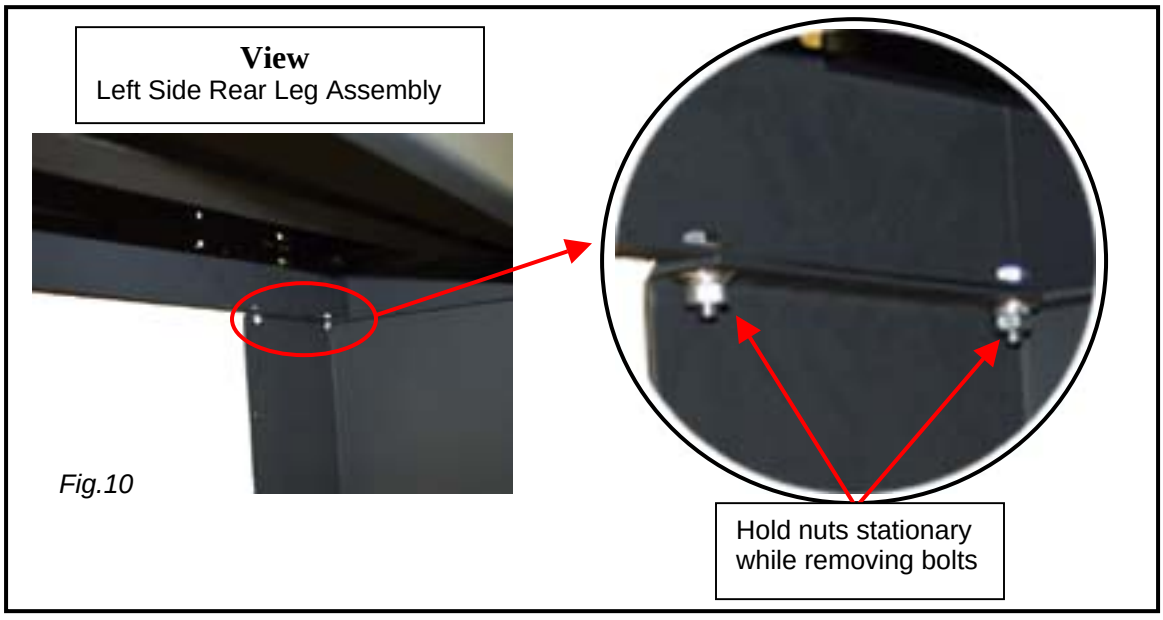


Fig.10

13. Slide the old conveyor belt off of the rollers towards the side of the conveyor that the bolts were removed from in steps 10 and 12.

14. Lift the front end of the conveyor bed at the side where the bolts were removed in step 10 and slide the belt through the space between the conveyor bed and the leg section.
Warning: This step may be awkward or cumbersome, acquire assistance for lifting to avoid possible injury.

15. Lift the rear end of the conveyor bed at the side the bolts were removed in step 12 and slide the belt through the space between the conveyor bed and the leg section (see fig. 11).
Warning: This step may be awkward or cumbersome, acquire assistance for lifting to avoid possible injury.

16. Place the new belt on the conveyor in the same manner in which the old belt was removed in steps 13 - 15.

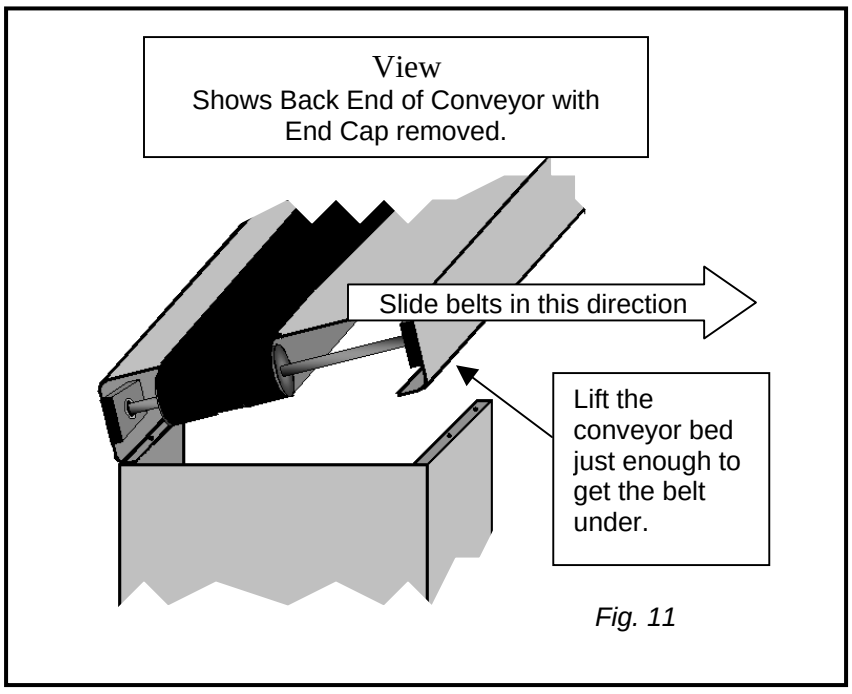


Fig. 11

17. Tension the new conveyor belt:

a. Using the a 7/16” open-end wrench turn the adjustment bolts, (refer to fig. 5) in a clock-wise direction until the center of the button head retaining screws, (loosened in step 6, fig. 4) are approximately 3/4” to 1” from the back edge of the adjustment slot.
Warning: Do not over tighten the conveyor belt. Over tightening the conveyor belt may result in damage to the conveyor drive motor and shafts.

b. When the adjustment is completed on both sides of the conveyor, tighten the hex head retaining screws using a 5/32” Allen wrench (see fig. 5).

c. Using a 7/16” open-end wrench tighten the belt tension adjustment-retaining nut (see fig. 5).

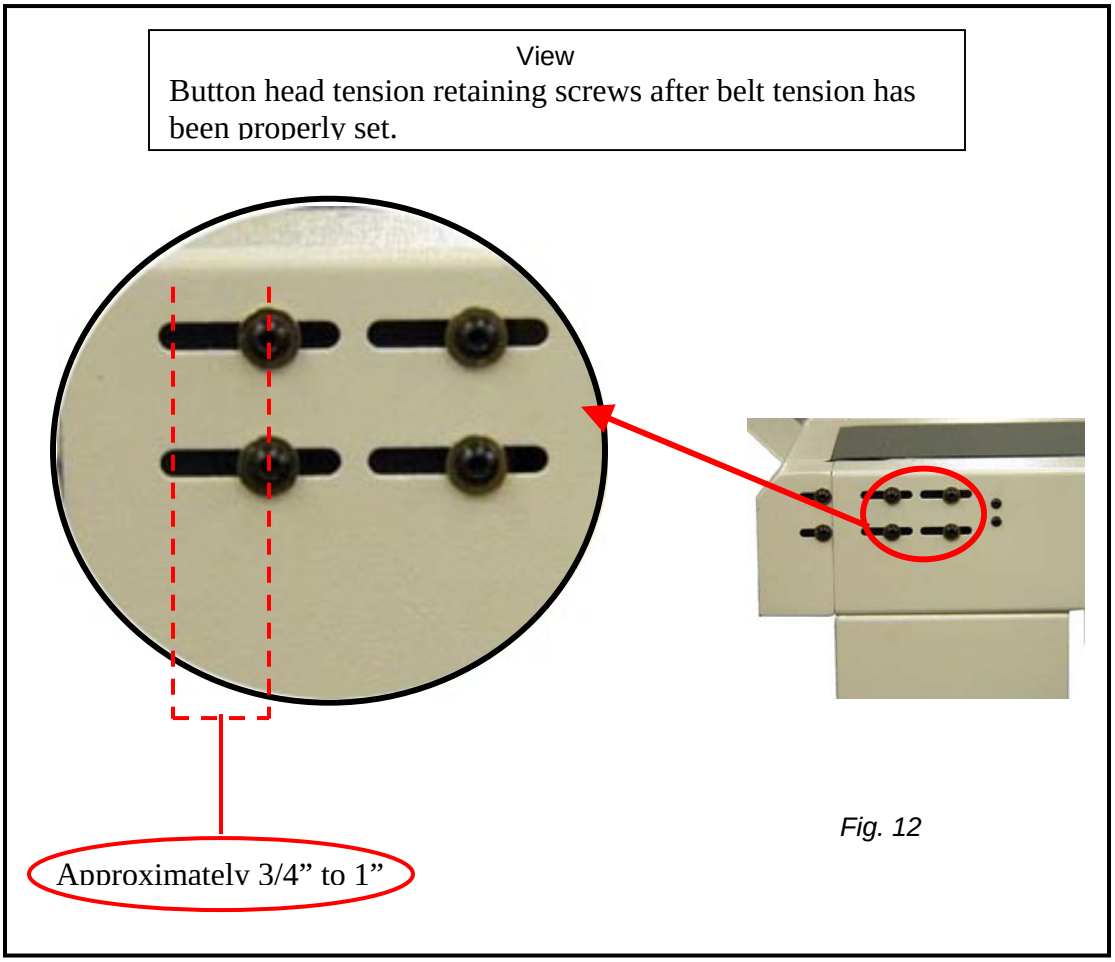


Fig. 12

18. Re-attach the conveyor bed to the leg sections, following steps 10 through 13 in reverse order.

19. Return the Stop Pins removed in step 8 to their original position and secure them using the hex head Allen screws and flat washer also removed in this step.

20. Plug the conveyor back into the ink jet / dryer base, refer to step 2.

21. Turn the power “On” to the ink jet / dryer base and run the machine, observe the conveyor belt and the manner they track on the conveyor belt rollers.
Note: If the belts track off of the conveyor rollers, further tension adjustments may be needed, refer to step 17.

22. Once the conveyor belt have proven to track straight, finish reassembling the conveyor following steps 3 through 5 in reverse order.

General Preventative Maintenance

Belts: Keep all solvents or inks off of the belts, as this will damage them.

Base: Keep all paper and dust out of the inside of the base.

Cleaning Conveyor Belts

Turn off the machine and disconnect the power line

Apply a liberal amount of “Simple Green” general-purpose cleaner (comes in concentrated form – must be diluted with 4 parts water to 1 part Simple Green) or “Isopropyl Alcohol”, 70% by volume (see warning below) to a soft cloth and wipe down the belt you wish to clean. Advance the belt being cleaned by hand until the entire belt surface has been cleaned.

Warning: Do not spray or pour Simple Green general-purpose cleaner or Isopropyl Alcohol directly onto the belts, free flowing liquids may seep into some electronic components and cause damage.

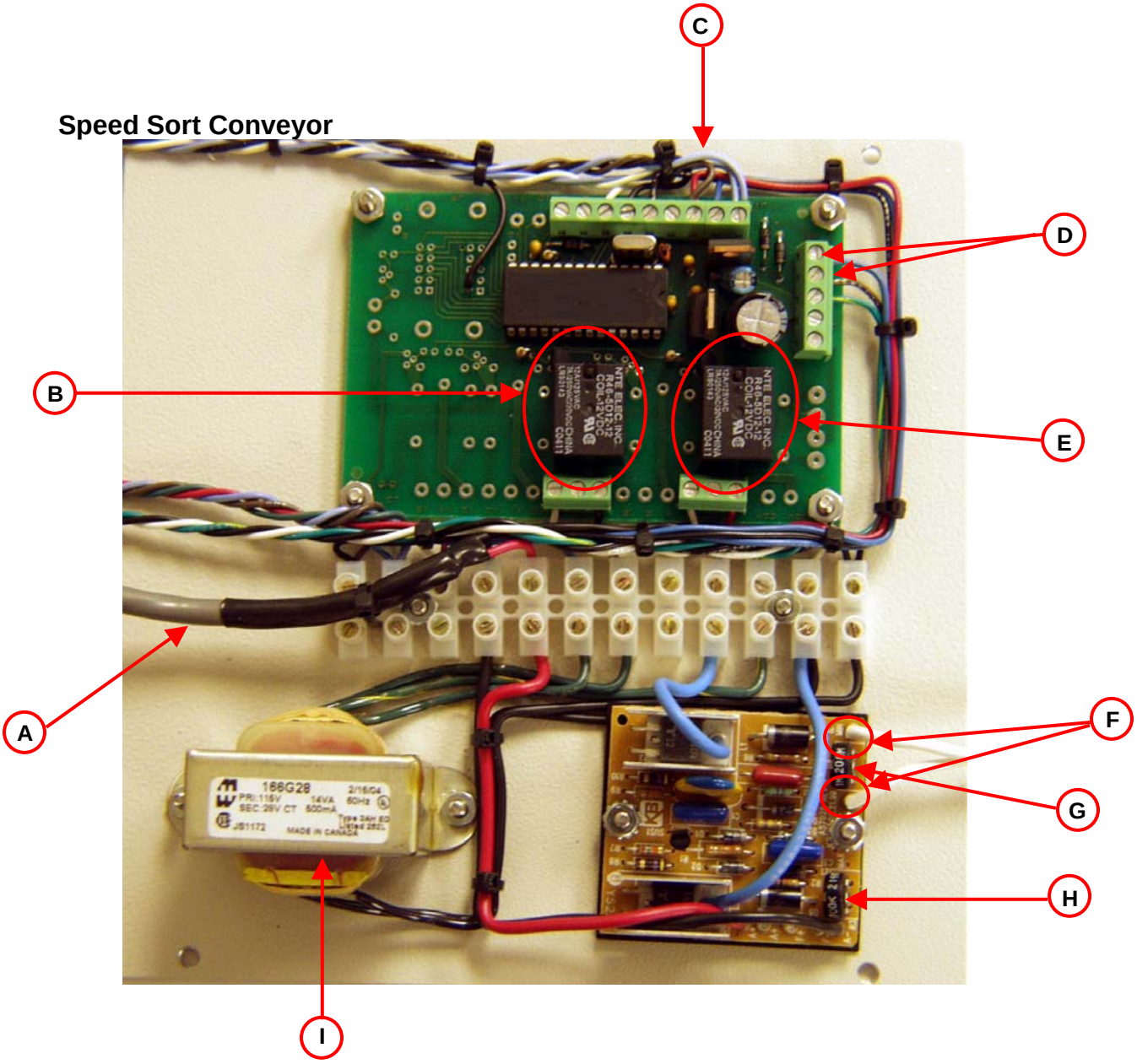
Note: “Simple Green” general-purpose cleaner and / or “Isopropyl Alcohol” can be purchased at most local grocery stores and drug stores.

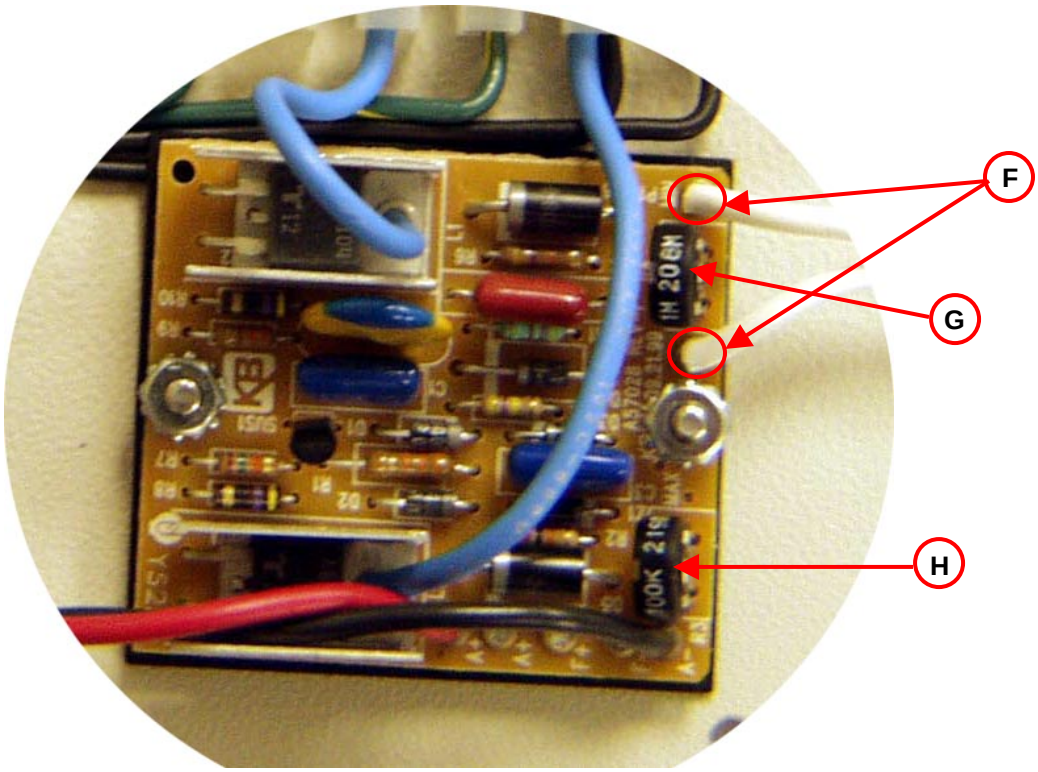
Warning: Isopropyl Alcohol is FLAMMABLE, do NOT use near an open flame or any other source or device that gives off heat.

Section V

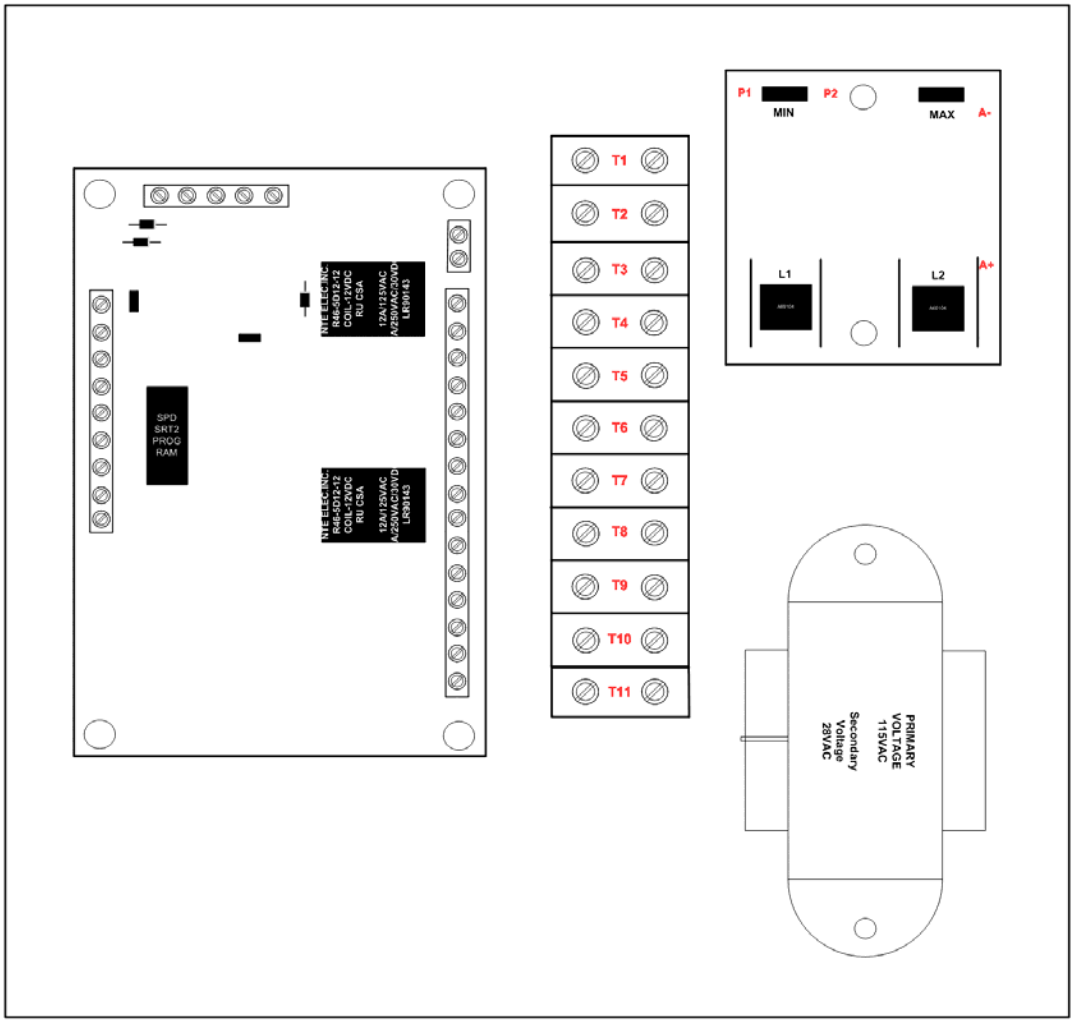
Electrical and Wiring

Speed Sort Conveyor





Item	Component	Function
A	90 Volt DC Motor Cable	Supply voltage output
B	Relay/Switch	To start and stop conveyor
C	Input side of IO PCB	Synchronized/Delay Pot
D	16 VAC Input/ IO PCB Input	Voltage
E	Relay/Switch	For solenoid operation
F	Speed Pot Controls	Controls speed of conveyor
G	Factory Set Min Speed Control	Fine tunes min speed
H	Factory Set Max Speed Control	Sets max speed of conveyor
I	Transformer	Input voltage for IO PCB



ITEM	QTY.	PART NO.	DESCRIPTION
	1	98023-001	Control Board
	1	98005-001	KB DC Board
	1	98008-001	Hammond Transformer

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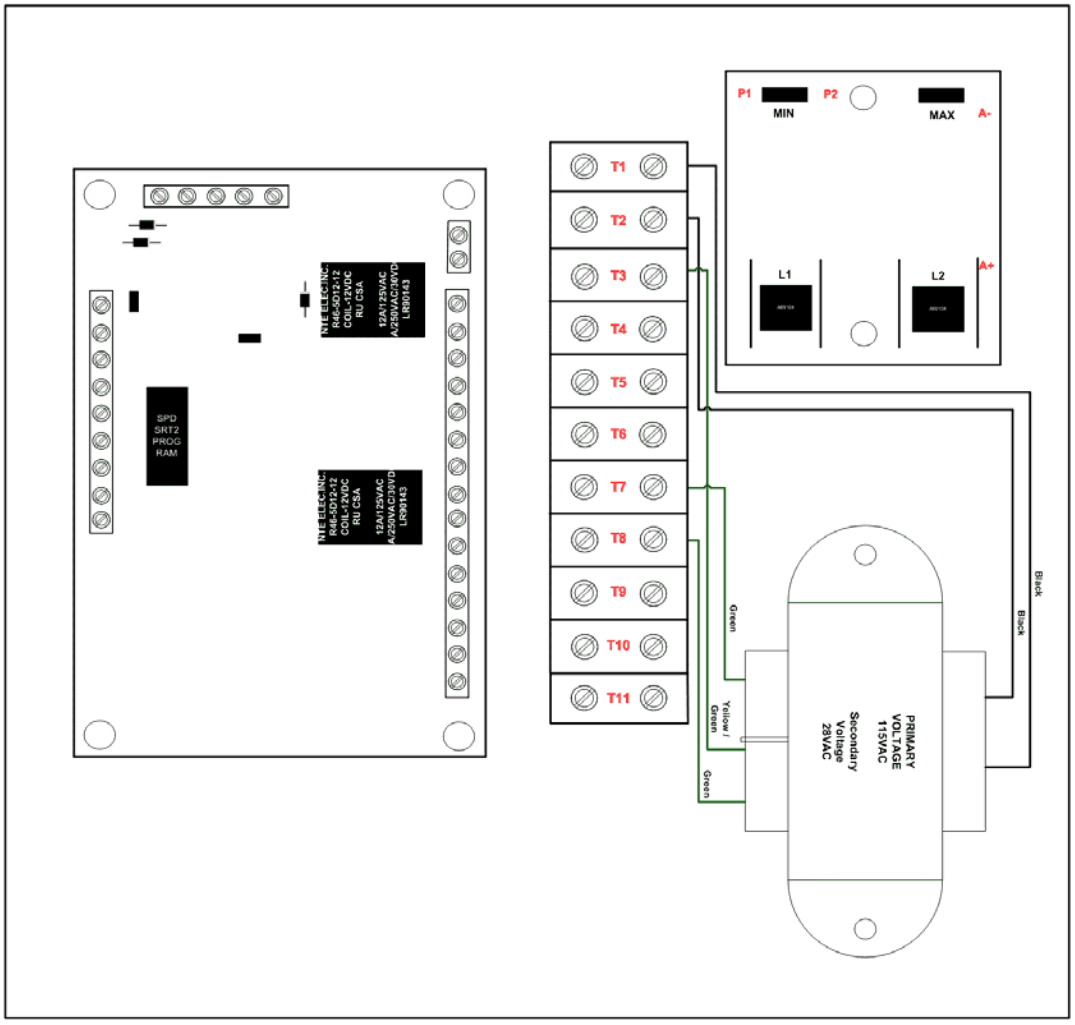
SURE-FEED ENGINEERING

Title: Back Panel Layout

SIZE | DWG NUMBER 97008-004 | REV

SCALE: - | SHEET 1 OF 1



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	1	98008-001	Hammond Transformer

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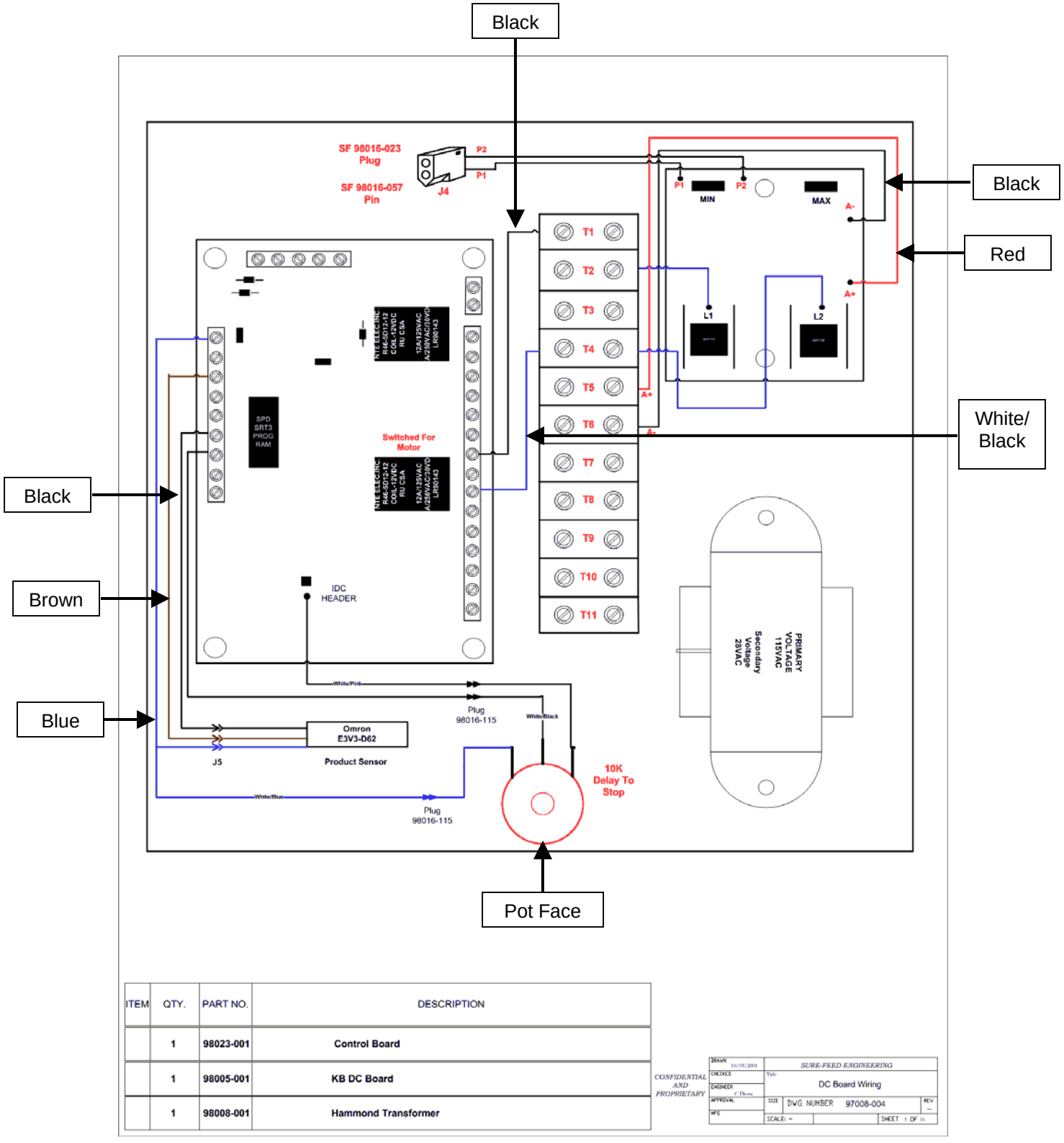
DRAWN 10/19/2004
CHECKED
ENGINEER C.Drew
APPROVAL
MFG

SURE-FEED ENGINEERING

Title: Transformer Wiring Layout

SIZE | DWG NUMBER 97008-004 | REV –

SCALE: – | SHEET 2 OF 16



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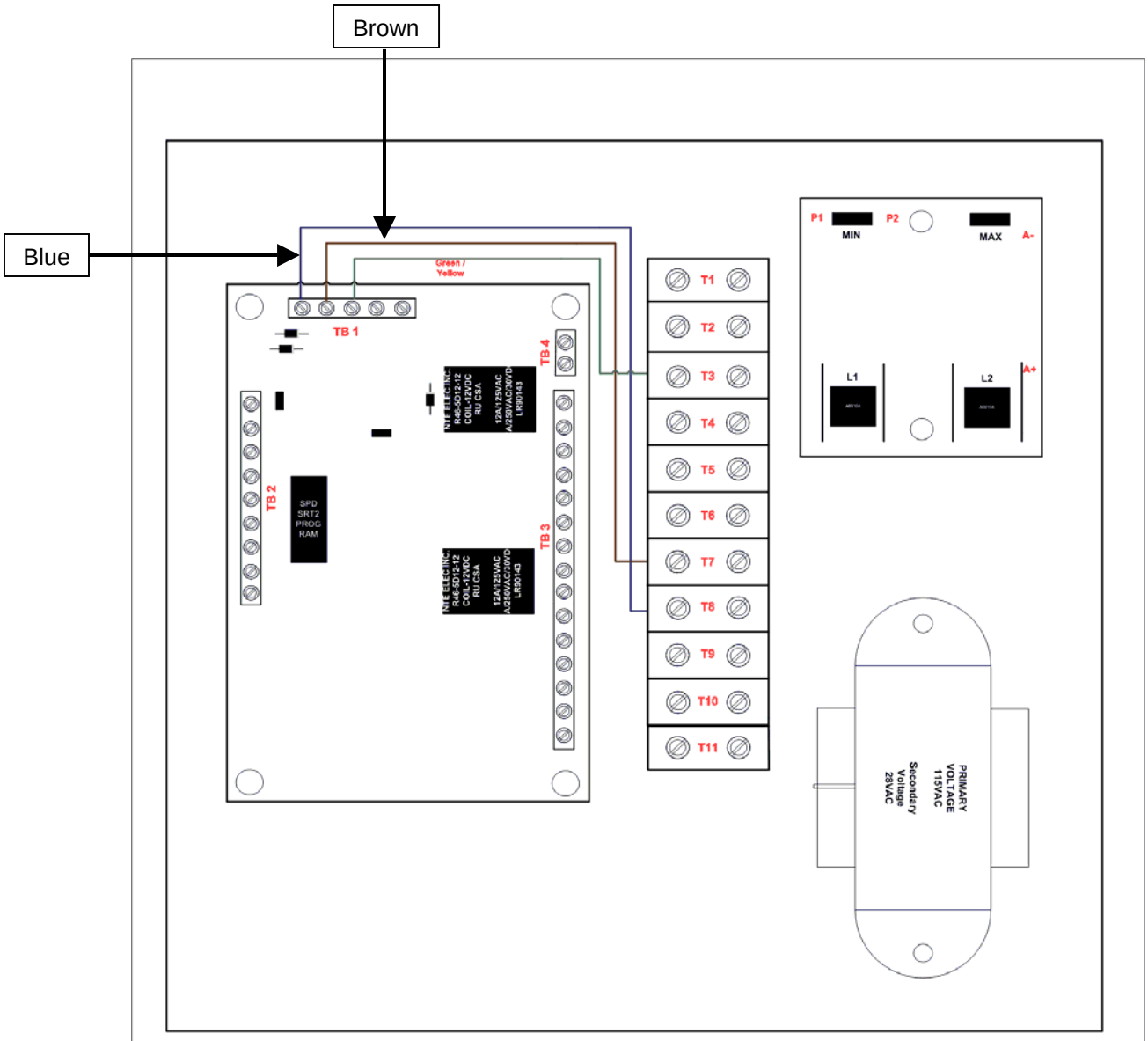
SURE-FEED ENGINEERING

DC Board Wiring

DWG NUMBER 97008-004



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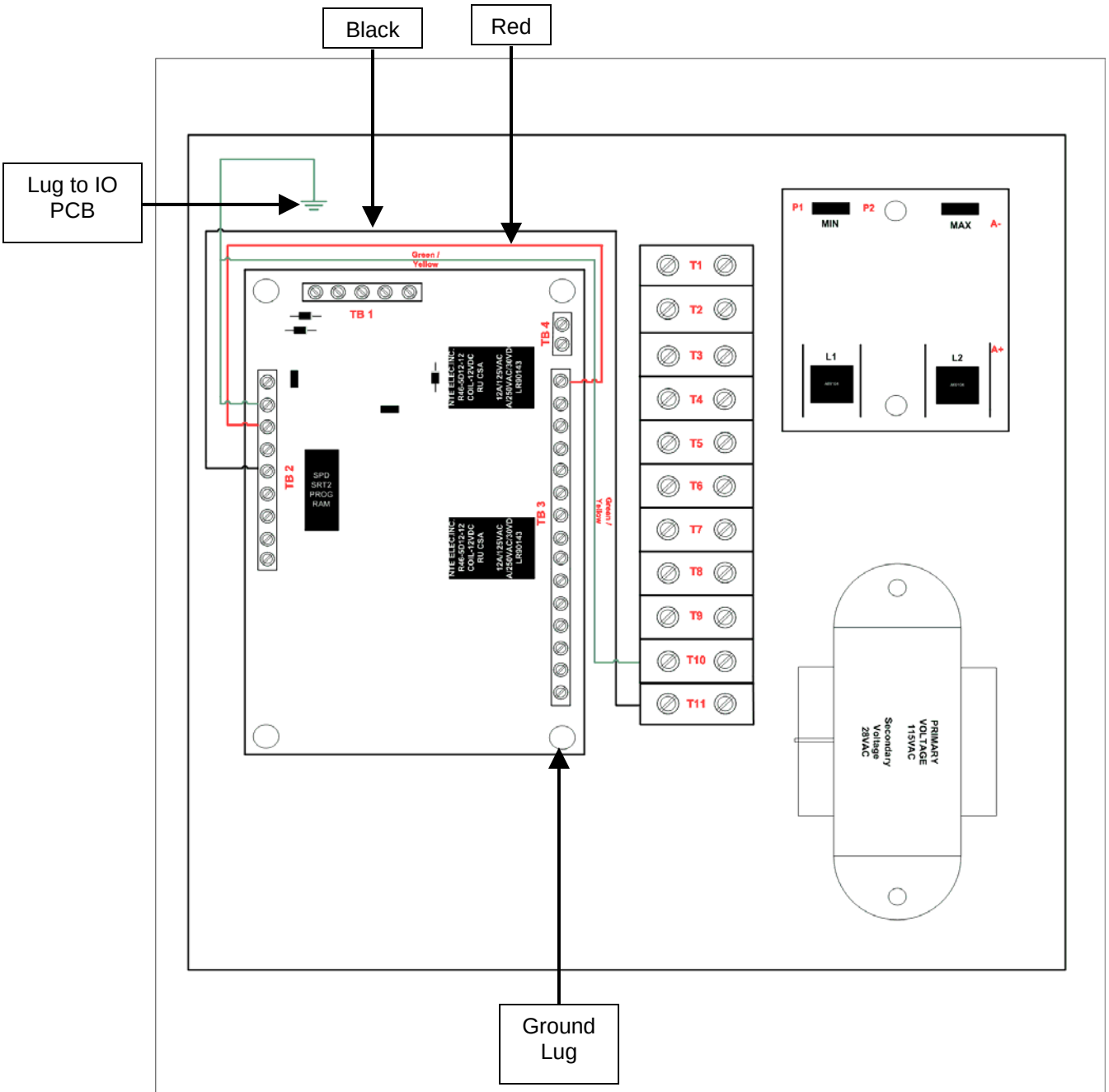
	1	98023-001	Control Board
	1	98005-001	KB DC Board
	1	98008-001	Hammond Transformer

CONFIDENTIAL AND PROPRIETARY

SURE-FEED ENGINEERING

Control Board TB1 Wiring Layout

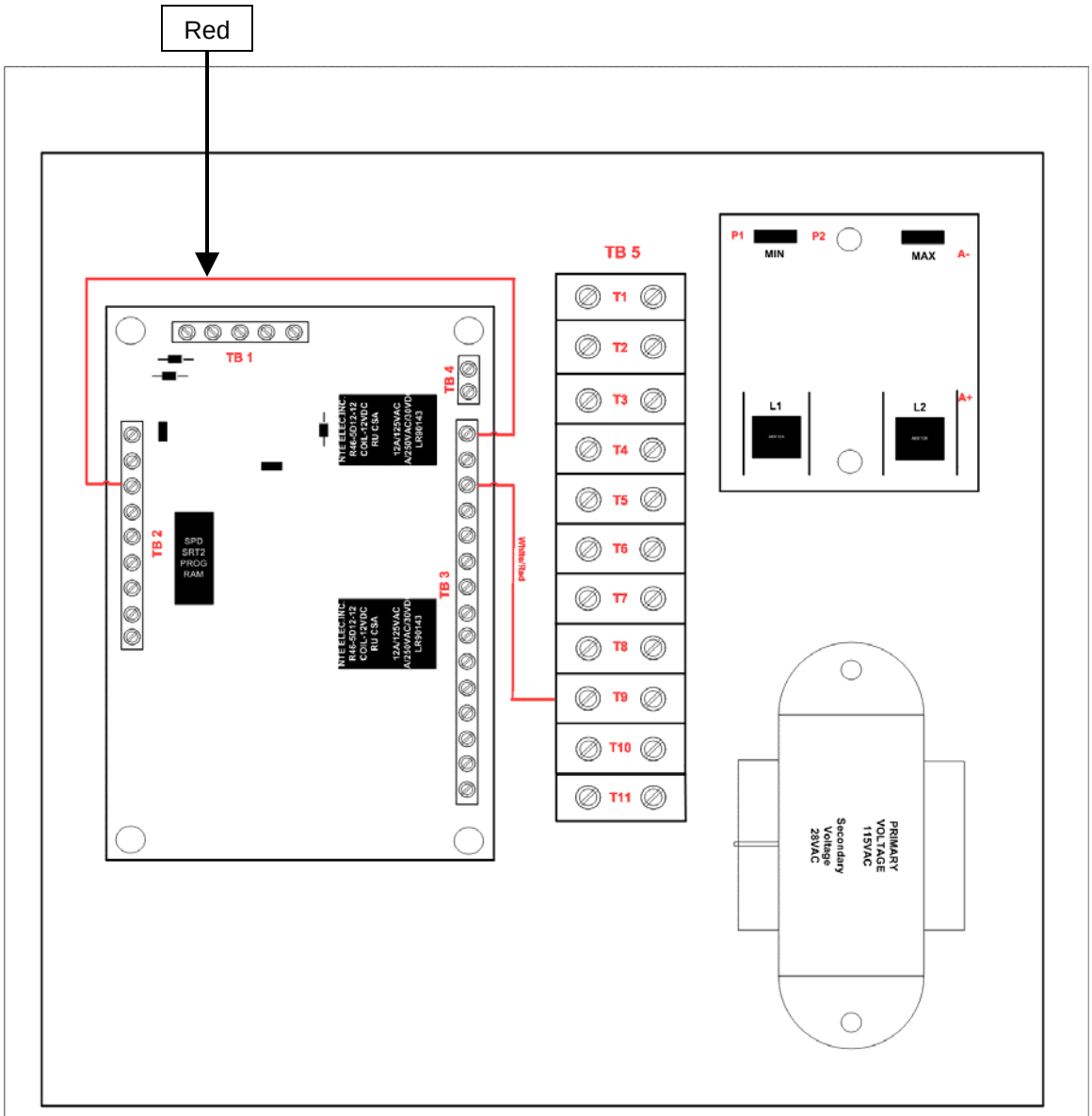
DWG NUMBER 97008-004



ITEM	QTY.	PART NO.	DESCRIPTION
	1	98023-001	Control Board
	1	98005-001	KB DC Board
	1	98008-001	Hammond Transformer

CONFIDENTIAL AND PROPRIETARY

SURE-FEED ENGINEERING
Control Board TB2
Wiring Layout
DWG NUMBER 97008-004



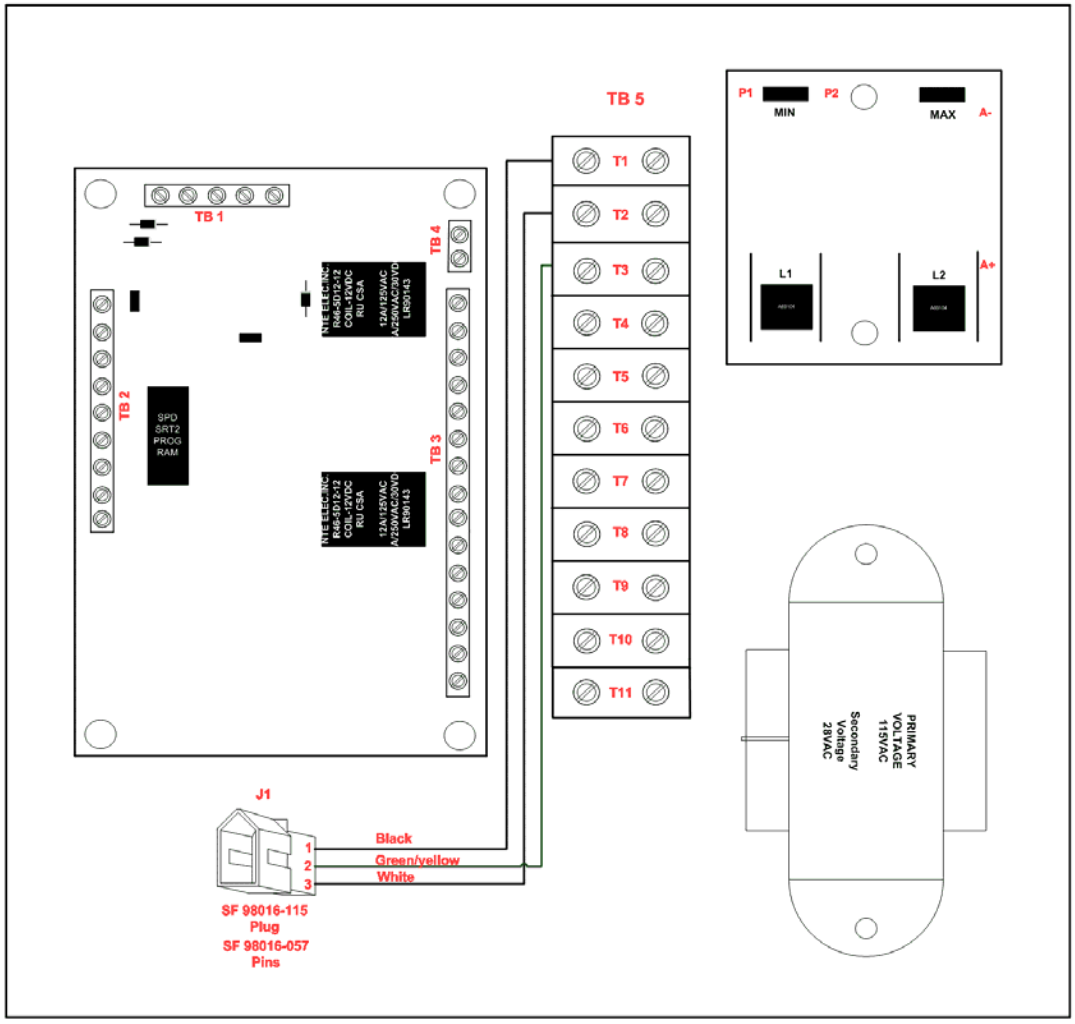
ITEM	QTY.	PART NO.	DESCRIPTION
	1	98023-001	Control Board
	1	98005-001	KB DC Board
	1	98008-001	Hammond Transformer

CONFIDENTIAL AND PROPRIETARY

SURE-FEED ENGINEERING

Control Board TB3 Wiring Layout

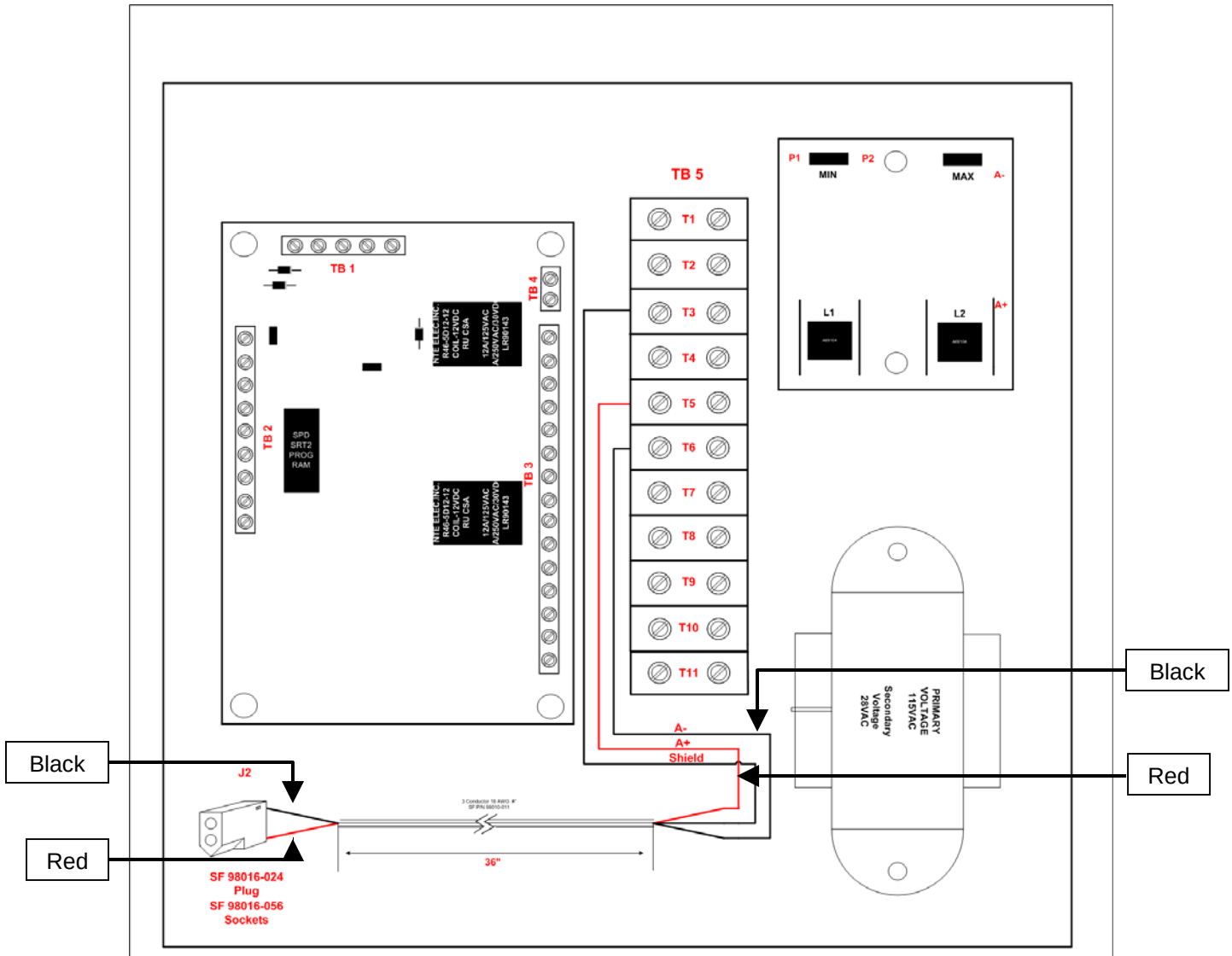
DWG NUMBER 97008-004



ITEM	QTY.	PART NO.	DESCRIPTION
	1	98023-001	Control Board
	1	98005-001	KB DC Board
	1	98008-001	Hammond Transformer

CONFIDENTIAL AND PROPRIETARY

DRAWN 10/19/2004	SURE-FEED ENGINEERING	
CHECKED	Title: TB5 Wiring Layout	
ENGINEER C Deese		
APPROVAL	SIZE	DWG NUMBER 97008-004 REV –
MFG	SCALE: ~	SHEET 1 OF 16



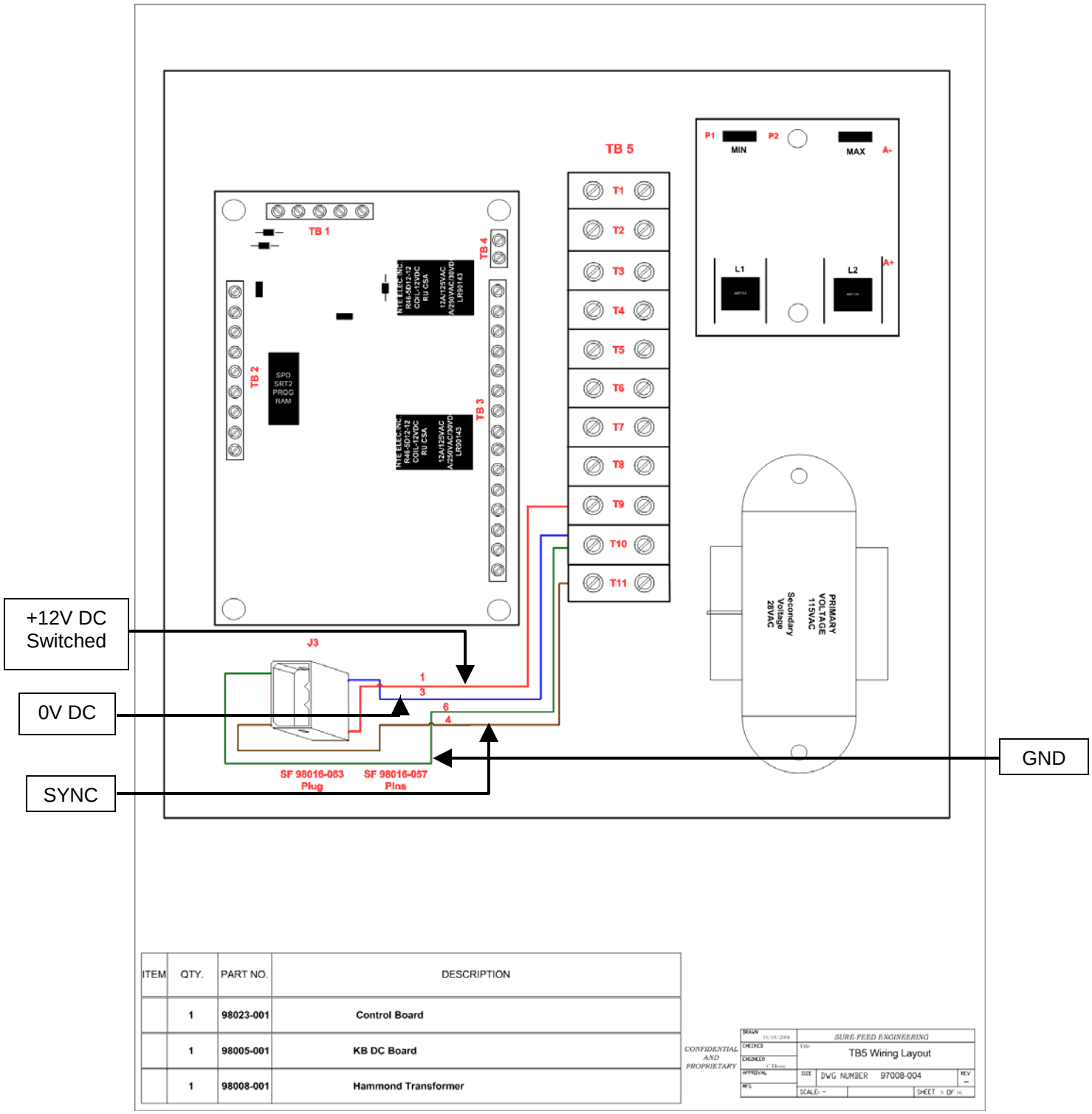
ITEM	QTY.	PART NO.	DESCRIPTION
	1	98023-001	Control Board
	1	98005-001	KB DC Board
	1	98008-001	Hammond Transformer

CONFIDENTIAL AND PROPRIETARY

SURE-FEED ENGINEERING

TB5 Wiring Layout

DWG NUMBER 97008-004



ITEM	QTY.	PART NO.	DESCRIPTION
	1	98023-001	Control Board
	1	98005-001	KB DC Board
	1	98008-001	Hammond Transformer

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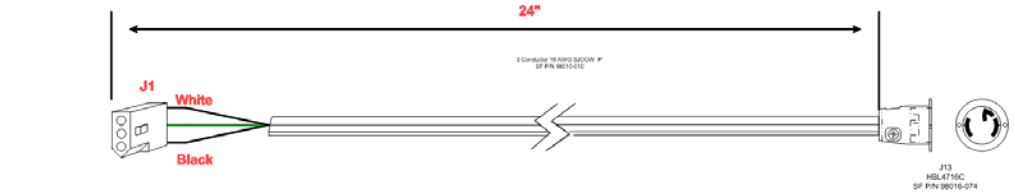
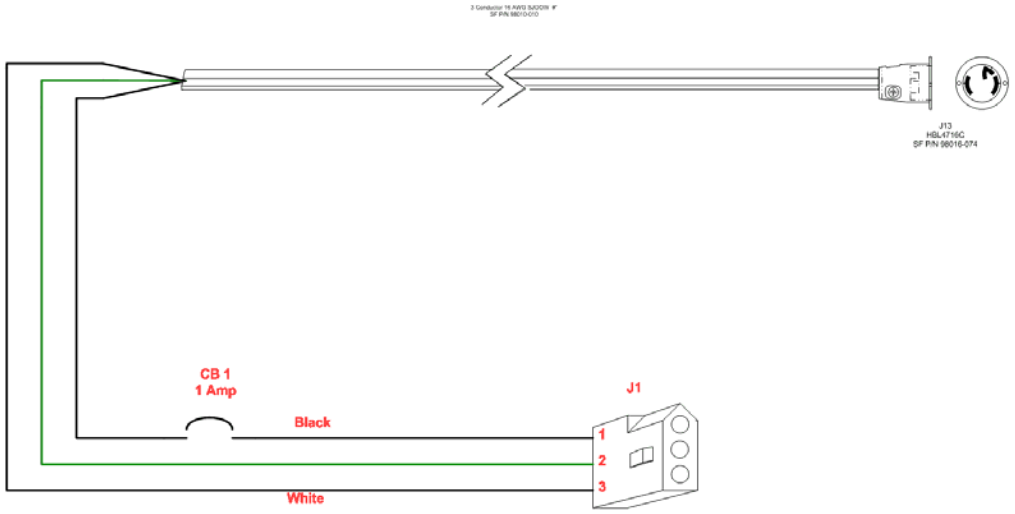
SURE FEED ENGINEERING

Title: TB5 Wiring Layout

SIZE | DWG NUMBER 97008-004 | REV

SCALE: – | SHEET 9 OF 16





Hubble Plug 4716C S.F 98016-074
16/3 SJO 24"
J1 Connector Male 98016-116
J1 Connector Sockets 98016-056
CB1 Circuit Breaker 1 AMP 98004-002

CONFIDENTIAL AND PROPRIETARY

DRAWN 10/19/2004	SURE-FEED ENGINEERING	
CHECKED	Title: J1 Connector	
ENGINEER C Dixon		
APPROVAL	SIZE	DWG NUMBER 97008-004 REV —
MFG	SCALE: =	SHEET 10 OF 16

6 Pin Male Connector
SF P/N 98016-062

1 Red
3 Blue
4 Black
6 Green

4 Pin Flanged Connector
SF P/N 98016-011

1 Blue
2 Red
3 Black
4 Green

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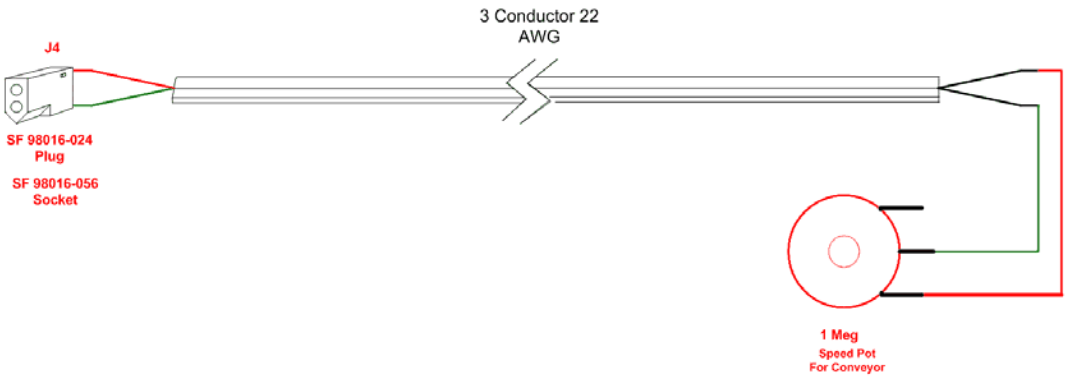
DRAWN 10/22/2004	SURE-FEED ENGINEERING	
CHECKED	Title: J3 Connector	
ENGINEER C Drew		
APPROVAL	SIZE	DWG NUMBER 97008-004 REV –
MFG	SCALE: –	SHEET 11 OF 16



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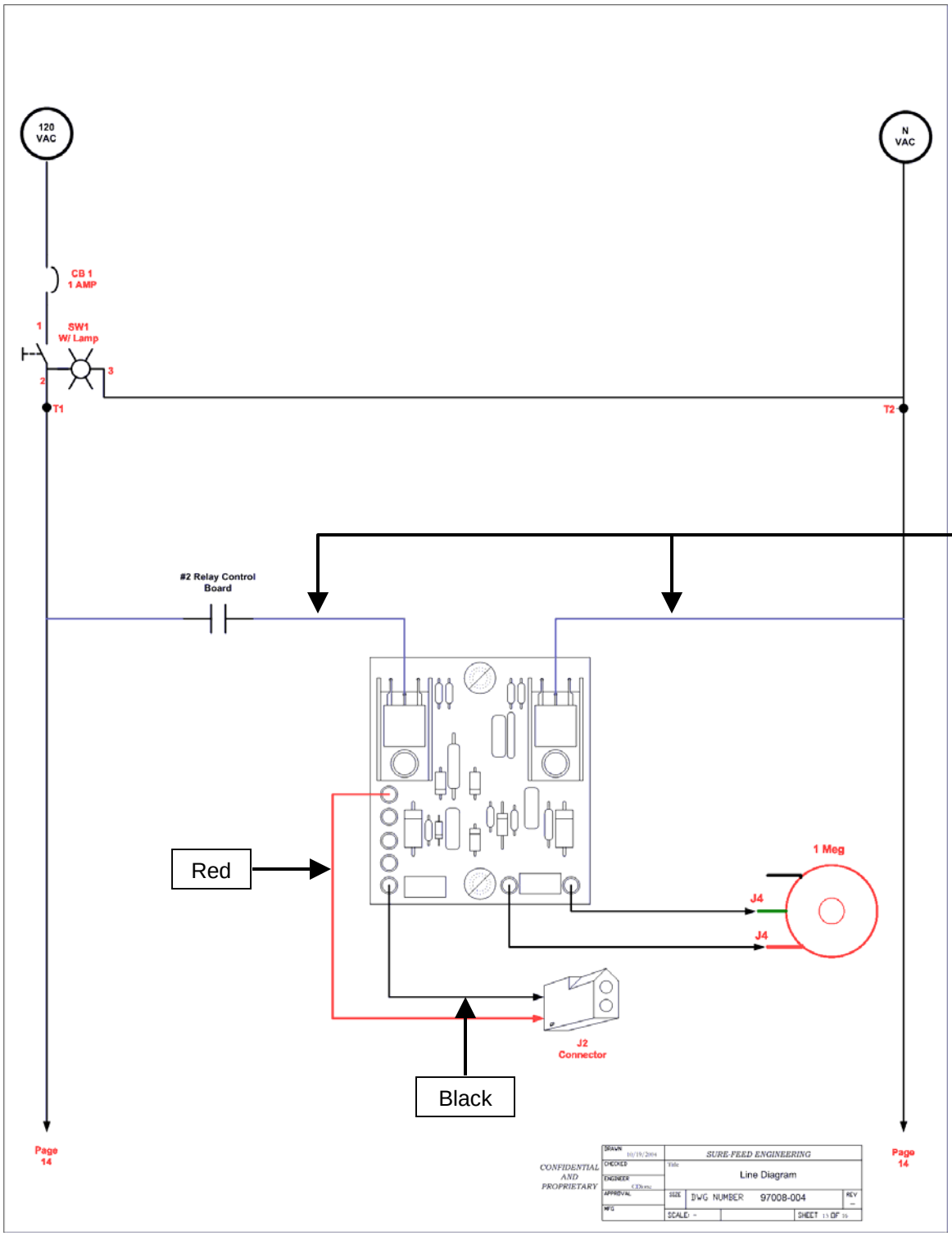
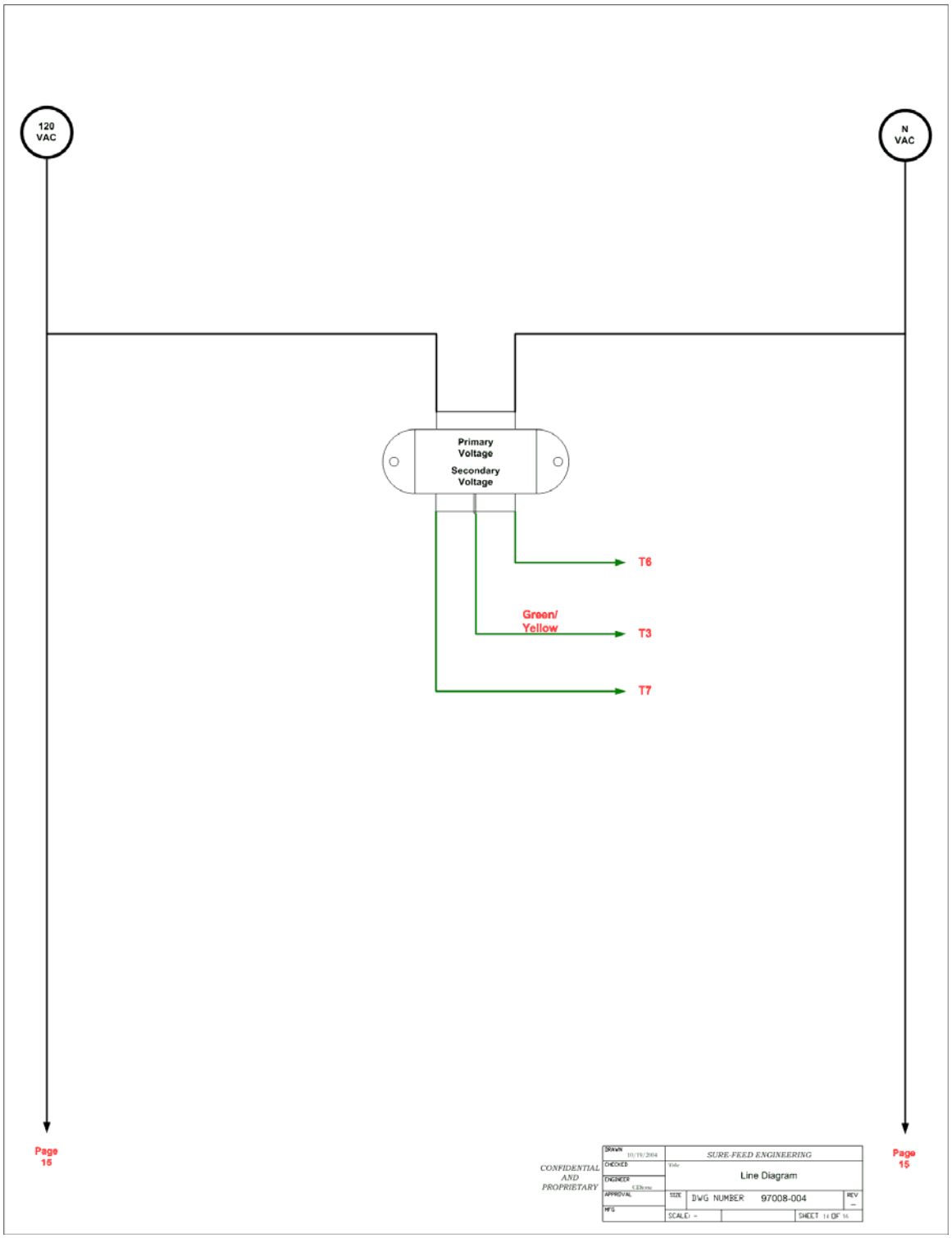
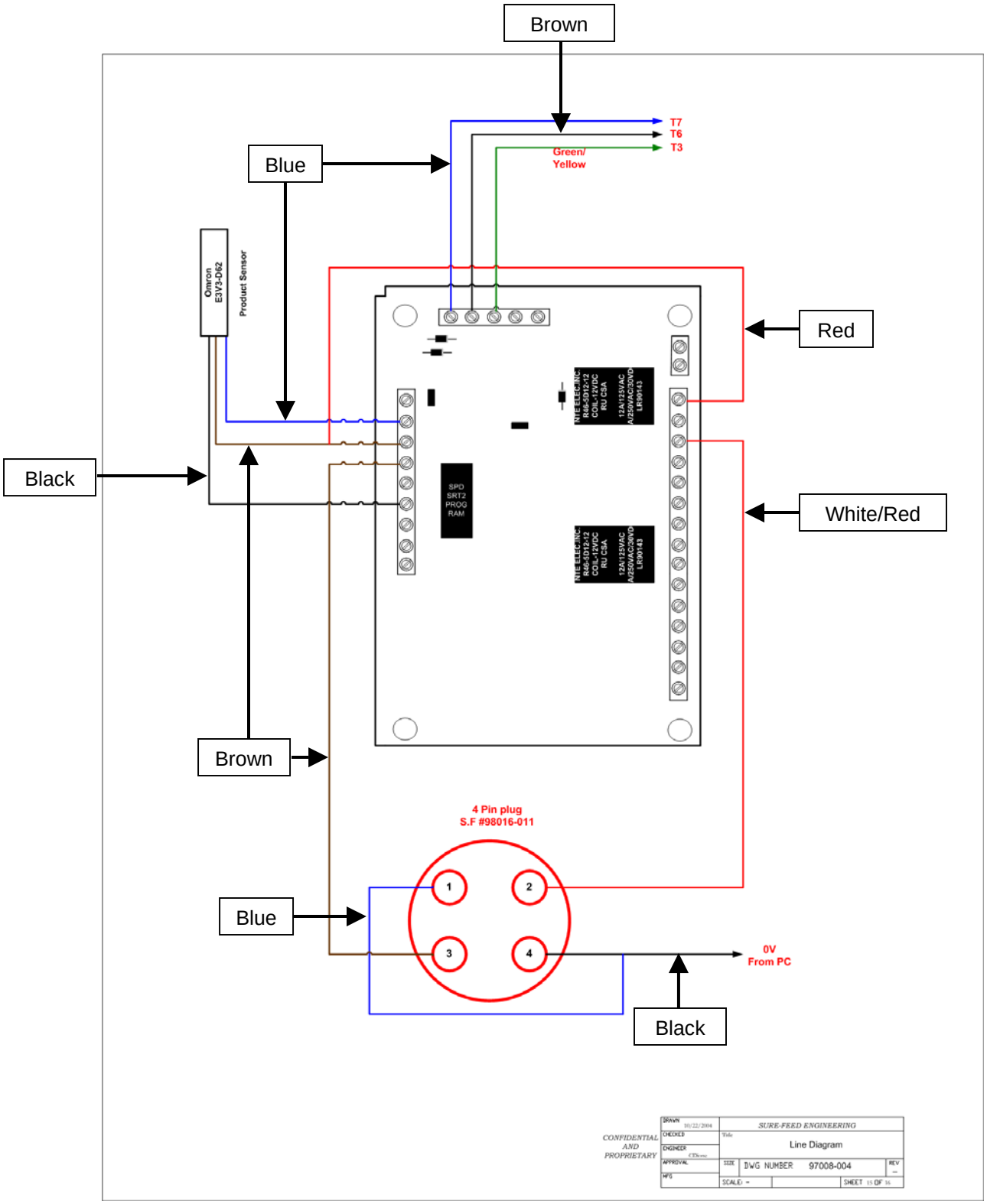
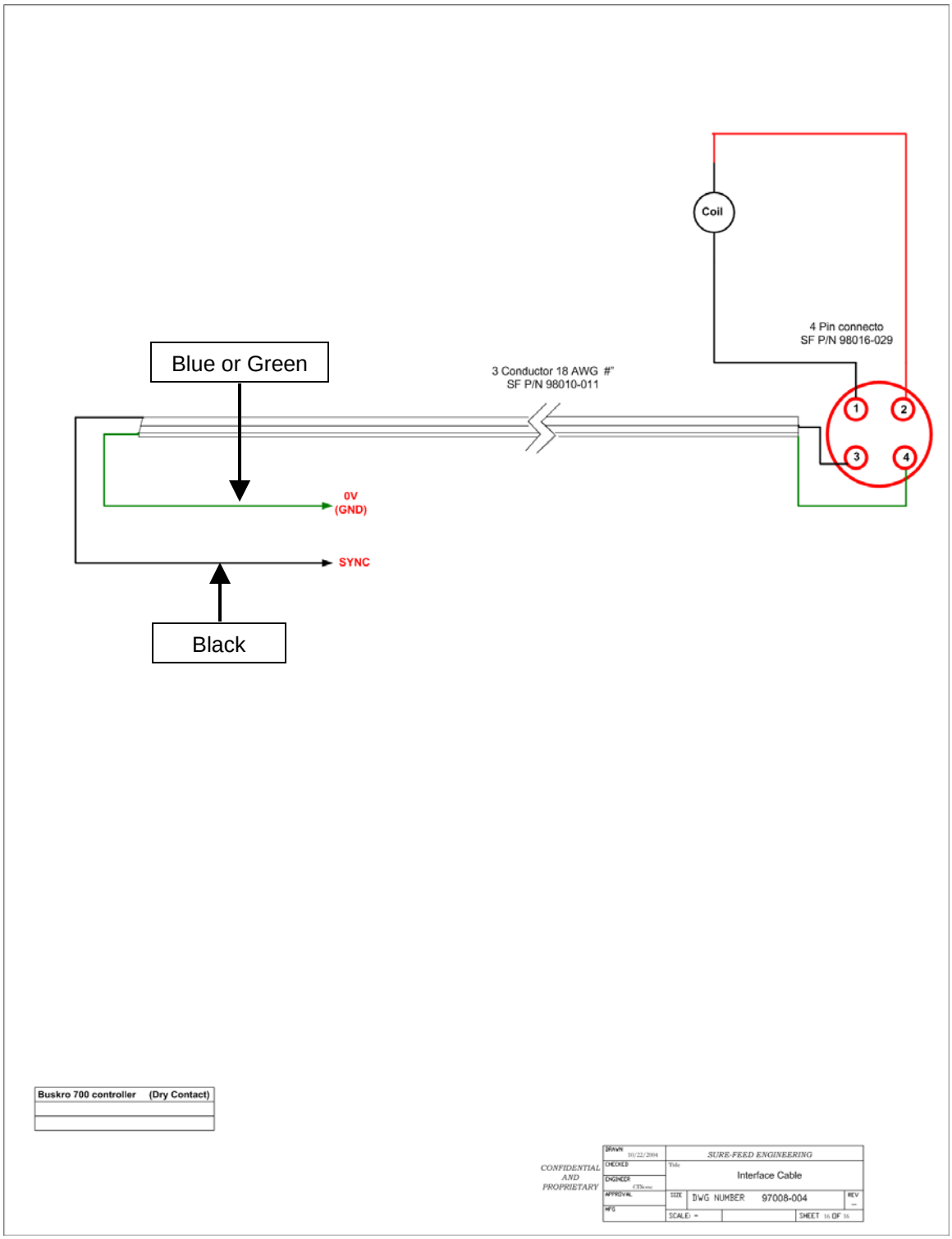
DRAWN 10/19/2004	SURE-FEED ENGINEERING	
CHECKED	Title: J4 Connector	
ENGINEER CDS rev		
APPROVAL	SIZE: DWG NUMBER 970088-004	REV: –
MFG	SCALE: =	SHEET 12 OF 16


120 VAC
N VAC
CB 1
1 AMP
1
SW1
W/ Lamp
2
3
T1
T2
Blue
#2 Relay Control Board
Red
1 Meg
J4
J4
J2
Connector
Black
Page 14
Page 14
CONFIDENTIAL AND PROPRIETARY
SURE-FEED ENGINEERING
Line Diagram
DWG NUMBER 97008-004


120 VAC
N VAC
Primary Voltage
Secondary Voltage
T6
Green/ Yellow
T3
T7
Page 15
Page 15
CONFIDENTIAL AND PROPRIETARY
SURE-FEED ENGINEERING
Line Diagram
DWG NUMBER 97008-004
SCALE: –
SHEET 14 OF 16


Brown
T7
T6
T3
Blue
Green/
Yellow
Omron
E3V3-D62
Product Sensor
Red
Black
White/Red
Brown
4 Pin plug
S.F #98016-011
Blue
1
2
3
4
0V
From PC
Black
CONFIDENTIAL
AND
PROPRIETARY
SURE-FEED ENGINEERING
Line Diagram
DWG NUMBER 97008-004


Coil
4 Pin connecto
SF P/N 98016-029
Blue or Green
3 Conductor 18 AWG #"
SF P/N 98010-011
1
2
3
4
0V
(GND)
SYNC
Black
Buskro 700 controller (Dry Contact)
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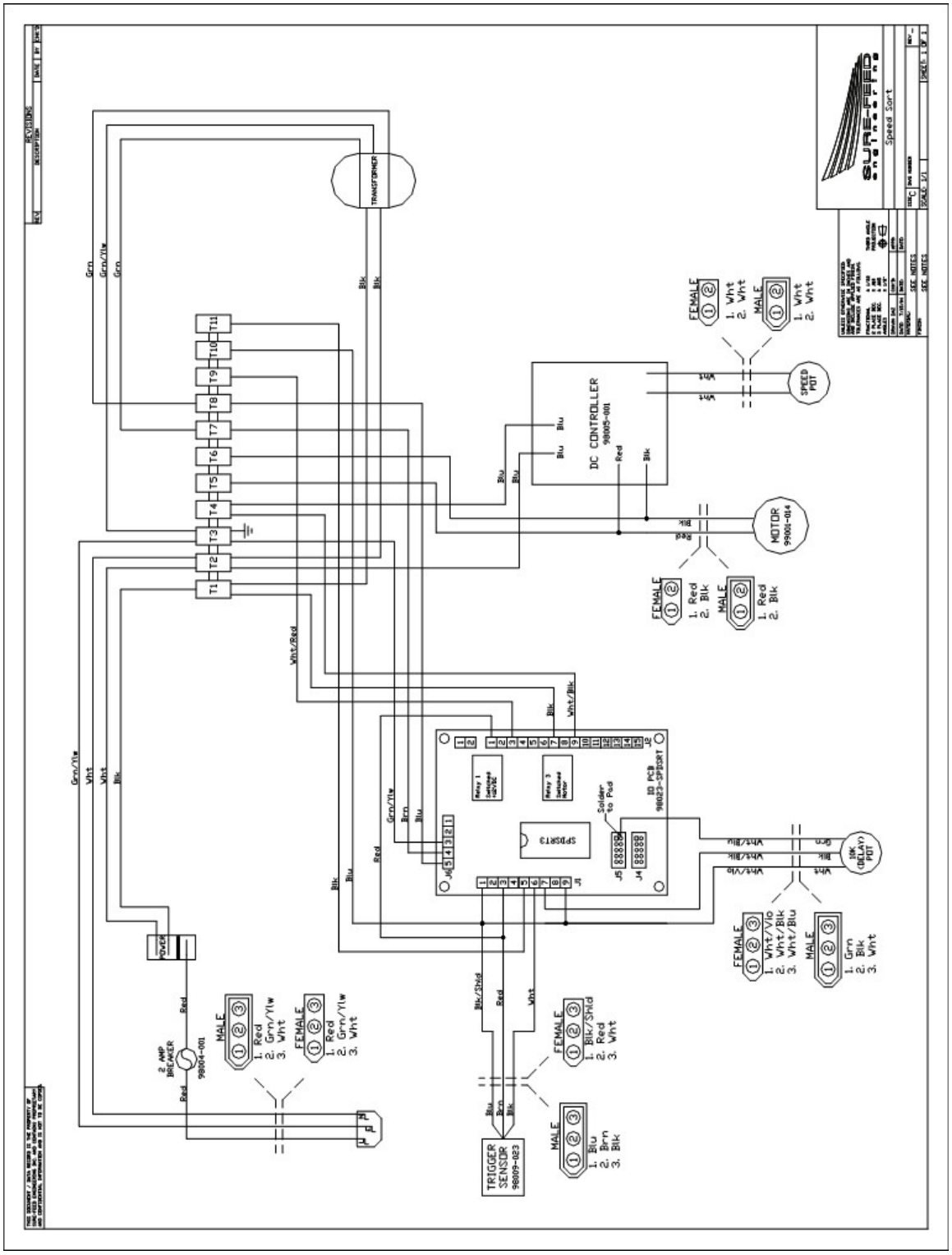
SURE-FEED ENGINEERING
Interface Cable
DWG NUMBER 97008-004


SURE-FEED
Speed Sort
TRANSFORMER
DC CONTROLLER
98005-001
SPEED POT
MOTOR
99001-014
10K DELAY POT
IO PCB
98023-SPEEDRT
SPDSRT3
2 AMP BREAKER
98004-001
TRIGGER SENSOR
98009-023
FEMALE
MALE
1. Red
2. Blk
1. Wht
2. Wht
1. Grn/Ylw
2. Wht
3. Red
1. Blk/Shld
2. Red
3. Wht
1. Blu
2. Brn
3. Blk
1. Wht/Vio
2. Wht/Blk
3. Wht/Blu
1. Grn
2. Blk
3. Wht

Section VI

Troubleshooting

Speed Sort Conveyor / Stand Alone	
Problem	**Solution**
Will not "Power Up" **Conveyor Motor is not moving** Table Belts not moving	Visually inspect the VAC power cord, making sure that the plugs are inserted firmly into wall socket. Make sure that "Twist Lock" VAC plug is twisted clockwise and locked into receptacle. Visually inspect sensor "Trigger" making sure only "GREEN" LED power indicator is lit. (GREEN indicates that the sensor is operational) **After initial inspection and unit still will not run, please contact your local dealer for Technical Assistance or Service.**
Conveyor Motor and belt continuously run	Visually Check Conveyor Sensor "Trigger" making sure **Only** "GREEN" LED is lit. (Both must be lit in order for machine to run. Unit needs to see material to function.) (GREEN LED indicates Power, while GREEN and ORANGE on simultaneously indicates Trigger is seeing material or obstruction) Make sure that the sensor is not seeing the conveyor or Material "Trigger Sensor" is factory set for "Depth" and "LIGHT ON" (For use with Light colored material) **If adjustments need to be made please contact local dealer for Technical Assistance or Service.**
Pneumatic Sorting Mechanism is not engaging	Unit is designed for Interface with other various equipment, using a "Dry Contact" type of connection. Make sure that the interface is connected (This depends upon what equipment you are interfacing to, please contact the machines manufacturer in order to find out this information.) Air pressure is required in order to operate "Sorting Function" Make sure an "Air Line" Has been attached to the Pneumatic regulator fitting, affixed to the conveyor leg.

Continued: **Pneumatic Sorting Mechanism is not engaging**	The Air control gauge has been factory set at 40psi, visually inspect gauge making sure setting is at 40psi. There are two air adjustment knobs on the "Sorting Adjustment Cylinder" These are factory set as well. (If adjustments need to be made, for pressure, please call your local dealer for instructions) For further instructions, please contact your local dealer for Technical Assistance or Service.
Conveyor Belt moves only at one speed	Locate Potentiometer with "Dial" and turn knob clockwise to increase speed. **If no audible or visual speed variance is evident as Potentiometer is rotated,** Please contact your local dealer for Technical Assistance or Service.
No Delay on Conveyor Motor when material is "Not" read by sensor "Trigger" (No "Delay Time Adjustment")	Please consult your manual for information on this function. Visually locate the "Delay Potentiometer" (without dial). Adjusting clockwise increases the delay on Conveyor Belt "Delay Time Adjustment." **Please contact your local dealer for Technical Assistance or Service.**