

# FORM 1732 HR130 NETWORKS INSTALLATION

## Part No. HR130SET-CI

This optional Networks kit can be installed to the HR130. The kit includes the following parts:

Item	Description	Part No.	Qty.
1	<b>NETWORKS, CUSTOMER INSTALL HR130</b>	HR130SET-CI	1
2	Control Assembly, HR130 Networks	069841	1
3	Plate, HR Front Panel	013964	1
4	Decal, HR130 Operator w/Networks	069710	1
5	Relay, SPST-NO 2A 24VDC Solid-State	053552	1
6	PLC Assembly, PLC Networks	069849	1
7	HMI Display, PLC Networks	069850	1
8	Cable, XBT N/R Communication	069847	1
9	Encoder Assembly, HR130 Networks	069840	1
10	Cable Assembly, HR130 Encoder	069839	1
11	Screw, #6-32X3/8 Round Head Phillips	F05004-142	2
12	Nut, #6-32 Keps	F05010-59	2
13	Tie Wrap, 3/16x10 UV Blk	F05089-8	10

## Installation Instructions

Shut off the motor and allow all moving parts to come to a complete stop.



**DANGER!** Always shut off the motor and allow all moving parts to come to a complete stop before removing any guards or covers. Failure to do so will result in serious injury.

Disconnect and lock out power supply before installing any equipment to the resaw.

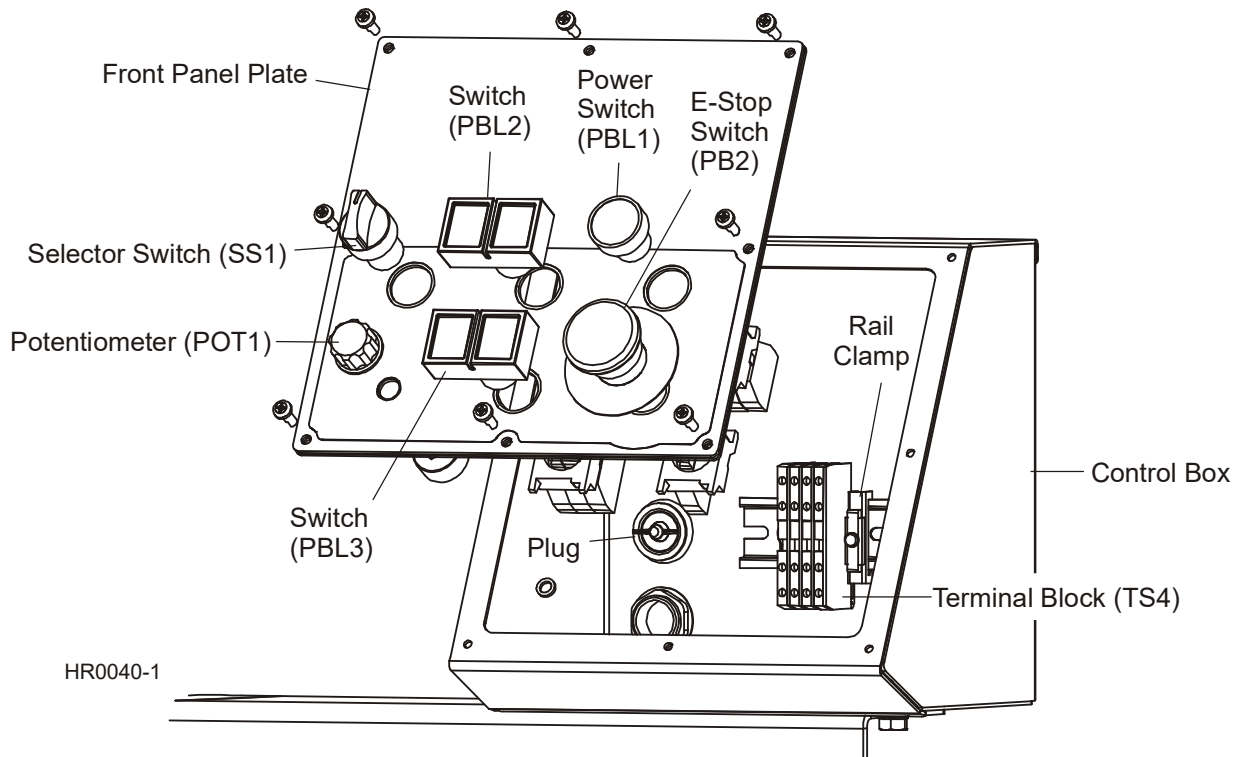


**DANGER!** Hazardous voltage inside the electric disconnect box, starter box, and at the motor can cause shock, burns, or death. Disconnect and lock out power supply before servicing! Keep all electrical component covers closed and securely fastened during resaw operation.

## Networks Display Installation

1. Remove the eight screws securing the control front plate to the operator control box and open the control box.
2. Remove all the switches from the existing control front panel plate.

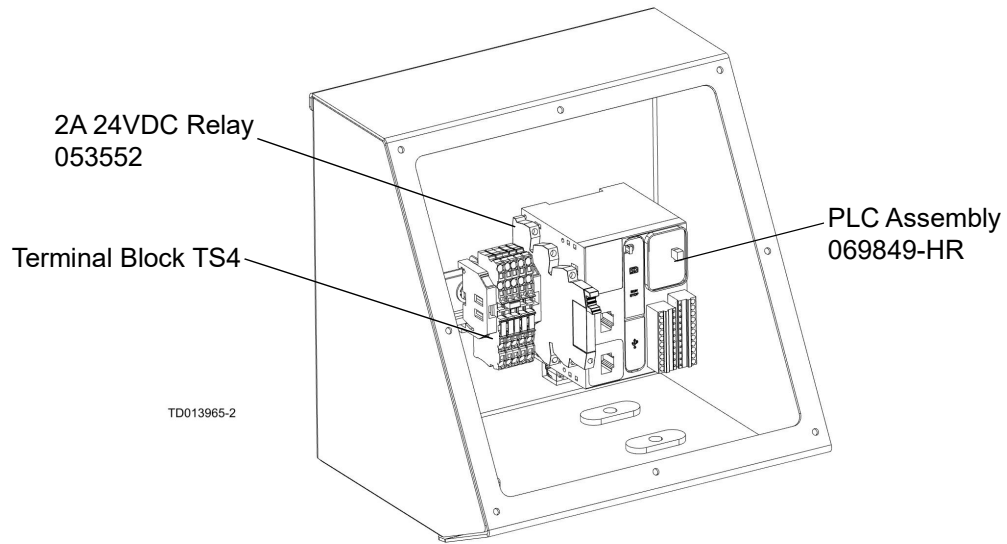
See Figure 1.



**FIGURE 1**

3. Install all the switches to the provided front panel plate equipped with the Networks.
4. Loosen the rail clamp securing the terminal block TS4 inside the operator control box and move the clamp to the right end of the rail.
5. Install the provided PLC Assembly with the connected relay to the rail next to the existing terminal block TS4 and secure with the rail clamp.

See Figure 2.



**FIGURE 2**

- 6.** Connect all the wires from the PLC1 and the relay (R2) to the existing terminal block TS4.
- 7.** Connect wire GND to terminal #3 of terminal block #1 (TS4 TB1.3).
- 8.** Connect wire #53 to terminal #3 of terminal block #2 (TS4 TB2.3).
- 9.** Connect wire #55 to terminal #4 of terminal block #3 (TS4 TB3.4).
- 10.** Connect wire #56 to terminal #3 of terminal block #4 (TS4 TB4.3).
- 11.** Connect wire #53 from terminal A2 of the relay (R2) to terminal B.X2 of the switch PBL3 located on the front panel.
- 12.** Connect wire #13 to terminal A.4 of the selector switch (SS1A.4) on the front panel.
- 13.** Connect wire #14 to terminal C.4 of the selector switch (SS1C.4) on the front panel.

See Figure 3.

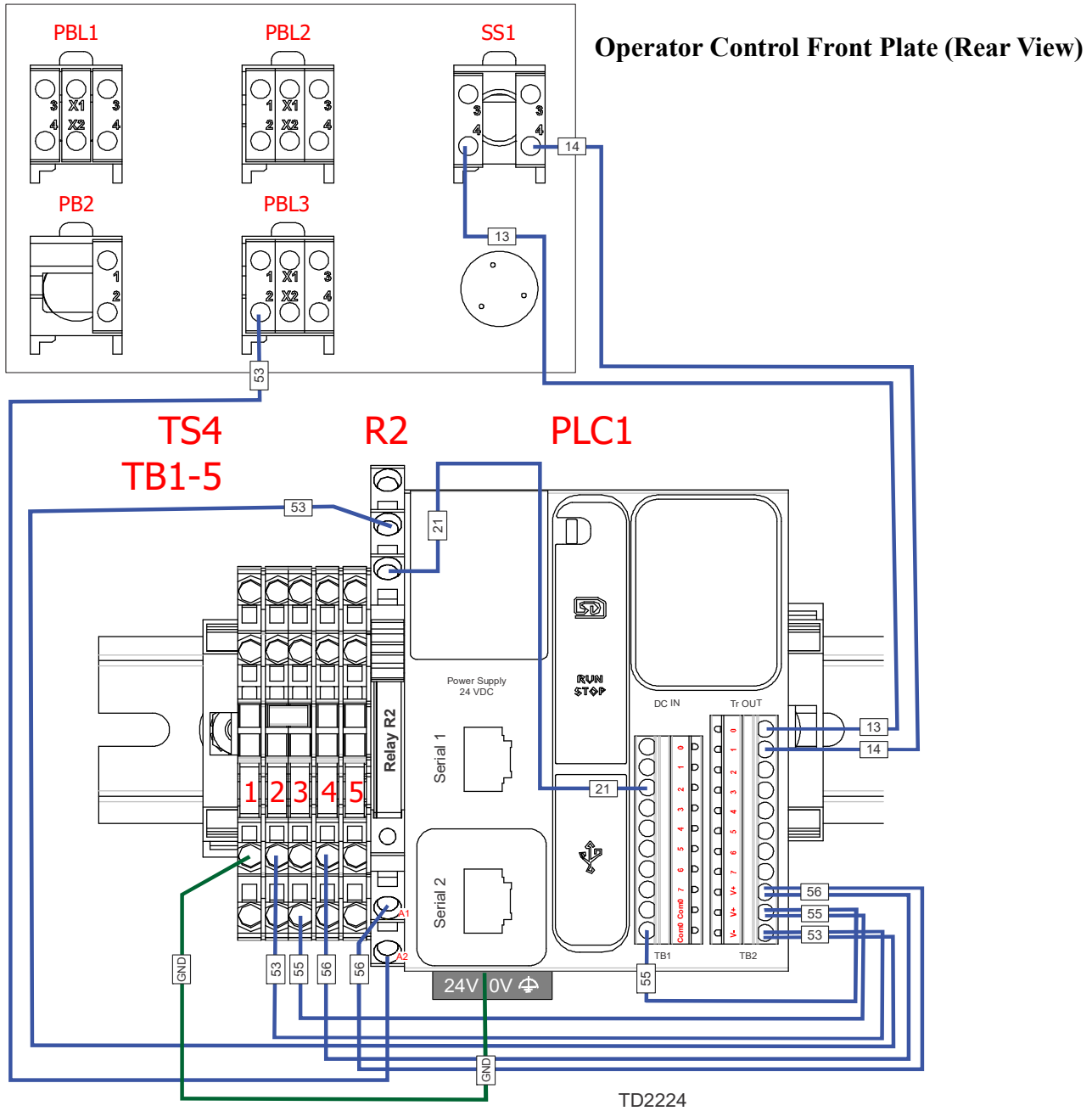


FIGURE 3

## Encoder Installation

1. Remove the lift drive chain cover from the saw head lift assembly.

2. Install the encoder to the encoder mount on top of the saw head lift shaft. Secure the encoder to the mount with the provided two (2) round head phillips screws and hex nuts as shown below. Tighten the encode set screw to secure the encoder to the lift shaft.

See Figure 4.

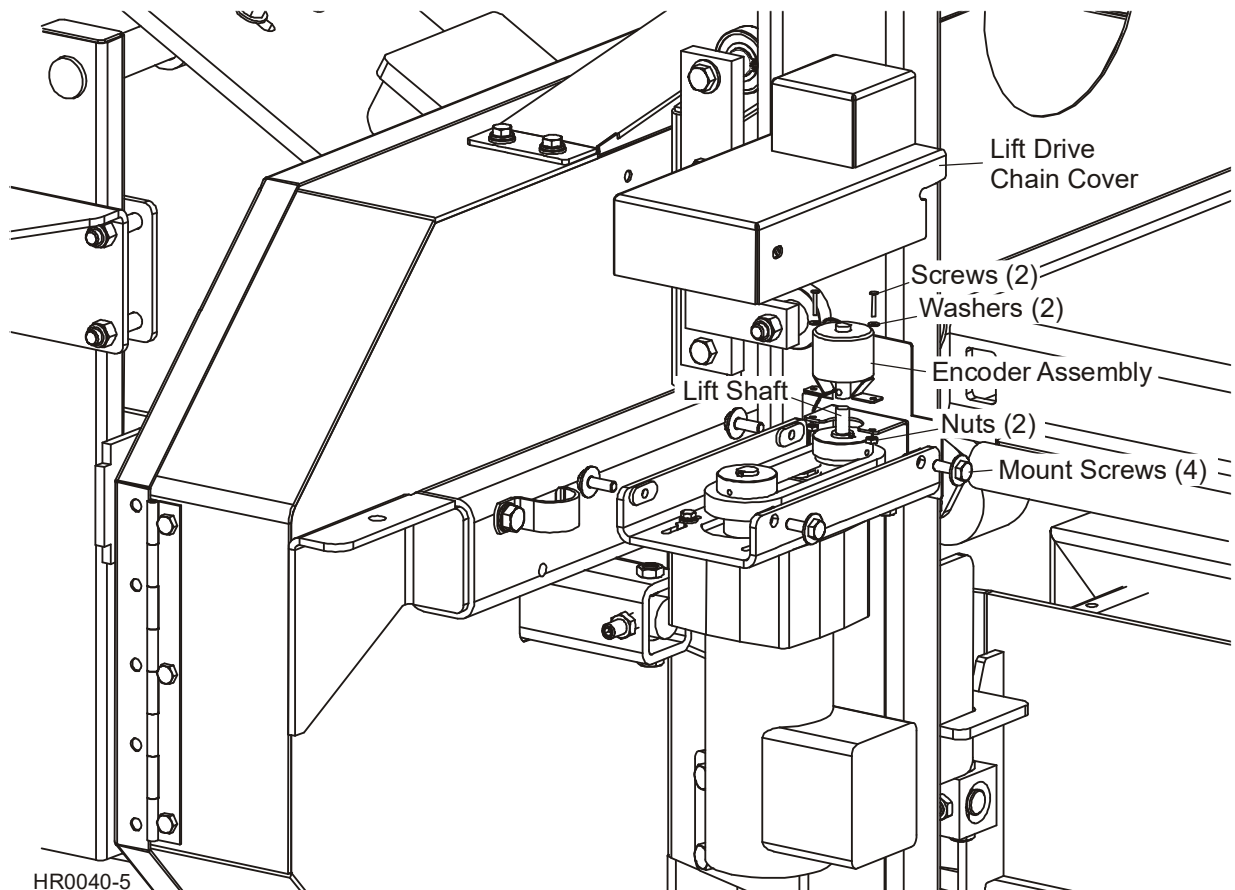


FIGURE 4

3. Route the encoder cable along the existing motor harness towards the control box. Secure the encoder cable to the existing harness with the provided tie wraps.
4. Connect the provided gray encoder cable (069839) to the encoder cable. Route the gray encoder cable to the operator control box. Remove the plug from the rear wall of the operator control box. Route the gray encoder cable inside the control box. Secure the gray encoder cable to the control box with the provided cable connector.
5. Connect red wire #55 of the encoder cable to terminal #2 of the terminal block #3. Connect green wire #53 to terminal #2 of the terminal block #2. Connect black wire #19 to terminal #0 of the PLC. Connect white wire #20 to terminal #1 of the PLC. Connect the ground wire (bare wire) to terminal #2 of the terminal block #1.

See Figure 5.

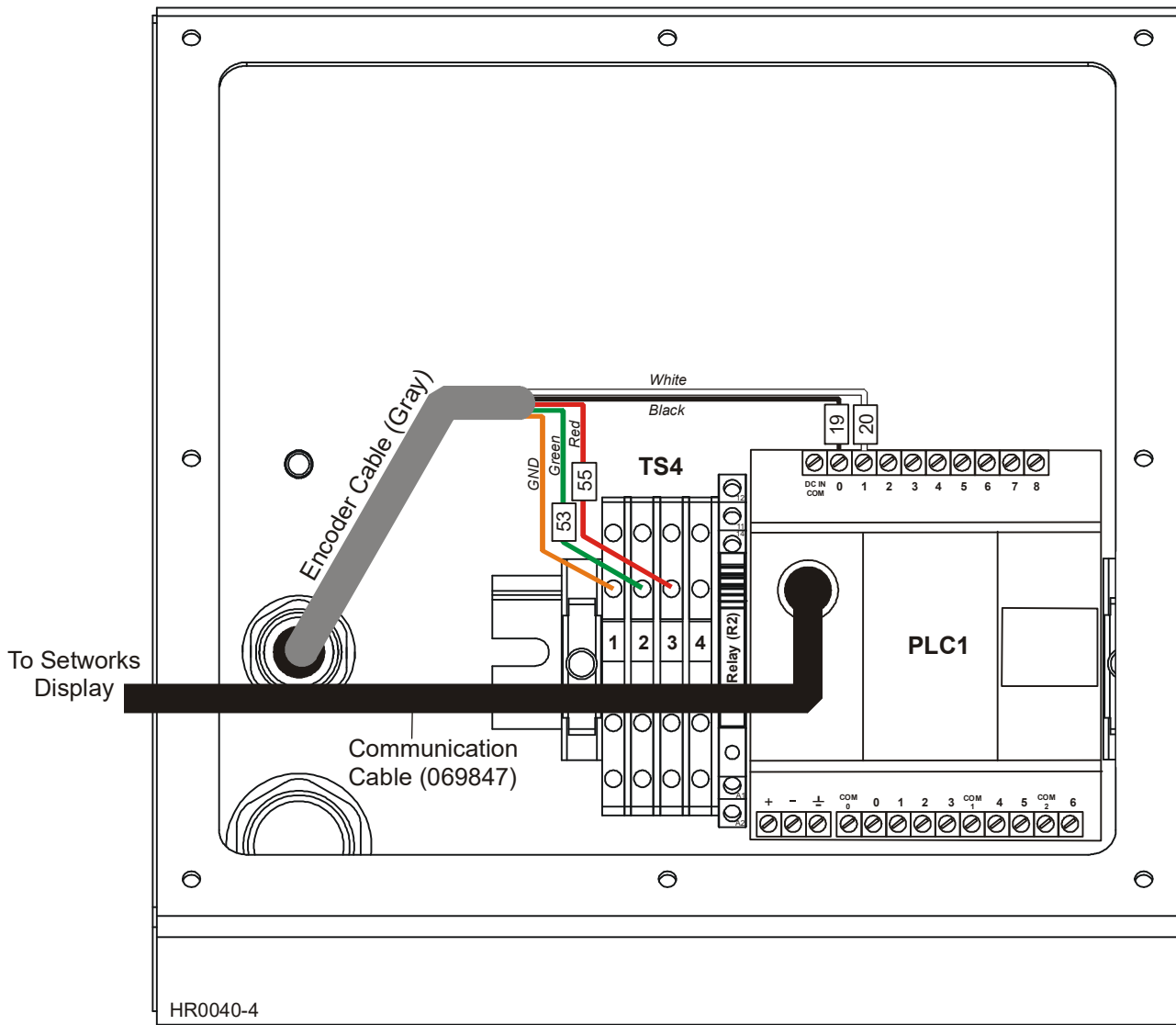


FIGURE 5

6. Use the provided communication cable (069847) to connect the PLC to the Setworks display on the front panel plate.
7. Replace the front panel with the Setworks to the operator control box and secure in place using the eight existing screws.

## NETWORKS SETUP AND OPERATION



**DANGER!** Make sure all guards and covers are in place and secured before operating the resaw. Failure to do so may result in serious injury. Be sure the blade housing and pulley covers are in place and secure.

**DANGER!** Always be sure all persons are away from the resaw before starting the motor. Failure to do so will result in serious injury.



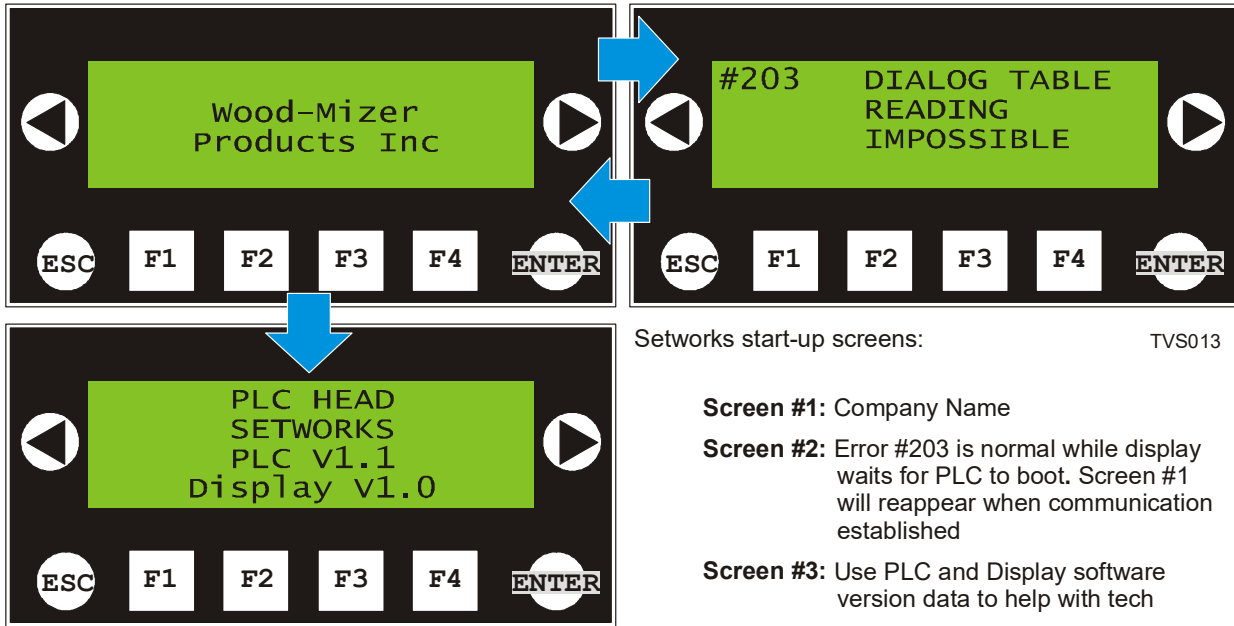
**WARNING!** Always wear eye, ear, respiration, and foot protection when operating the resaw. Failure to do so may result in serious injury.

**WARNING!** Always check the control box mounted and cable activated Emergency Stop switches for proper operation prior to each use of the machine. Failure to do so may result in serious injury.

The Networks option allows you to program eight positions for the blade and adjust to those positions by pushing a single button. For Networks to be operational, the power to the machine must be on and the green power indicator on the operator control illuminated.

### Networks Start-up

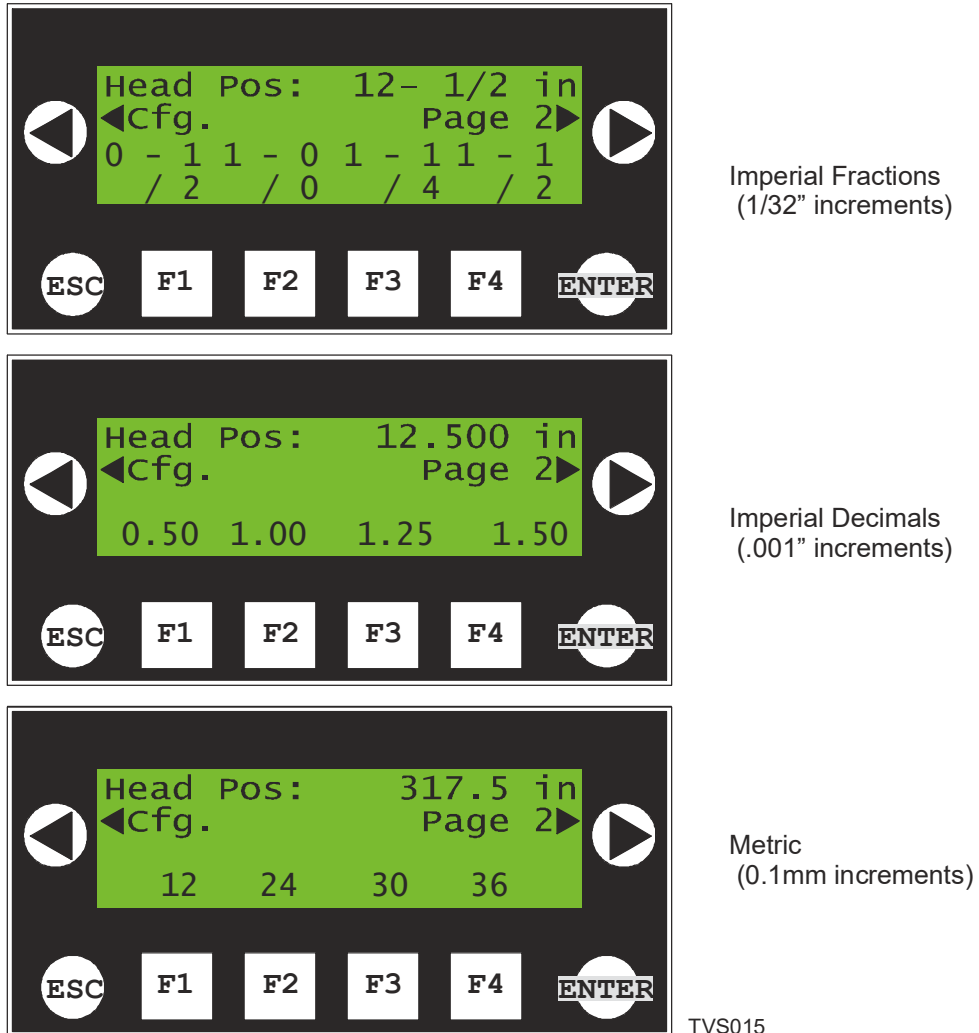
**See Figure 5-1.** When the power to the machine is turned on, the Networks display flashes the company name first. After a short delay, you may see an Error #203 displayed. This is normal during start-up as the display waits for the PLC to boot up. Once communication with the PLC is established, the display will return to the first screen and then show the PLC and Display software versions. This information should be supplied to Customer Service when requesting service.



**FIG. 5-1**



**See Figure 5-2.** After the Networks display scrolls through the start-up screens, the Main screen will be displayed. Depending on how the control is programmed, the Main screen will display in one of three unit options: Imperial Fractions, Imperial Decimals or Metric.



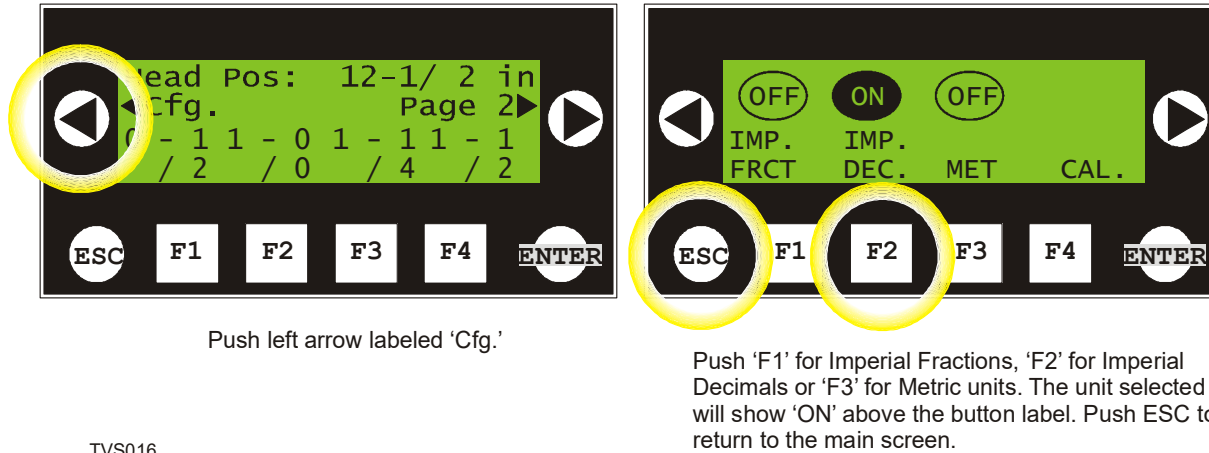
**FIG. 5-2**

The Main screen displays the position of the head and the first set of four Presets. Push the corresponding 'F' button to select a preset. The saw head will move until the blade and belt are that distance apart. Push the right arrow labeled 'Page 2' to scroll to the second set of four Presets.

**NOTE:** If the head is required to move down to reach the desired preset value, it will travel down past the preset target and then move up to the target. This compensates for backlash in the mechanical system.

## Select Unit Of Measure

See Figure 5-3. Push the left arrow labeled 'Cfg.' to enter the Configuration menu. Use the F1, F2 or F3 buttons to select the unit of measure you wish to use. The units currently selected will be labeled 'ON'. Push 'ESC' to return to the main screen.



TVS016

FIG. 5-3

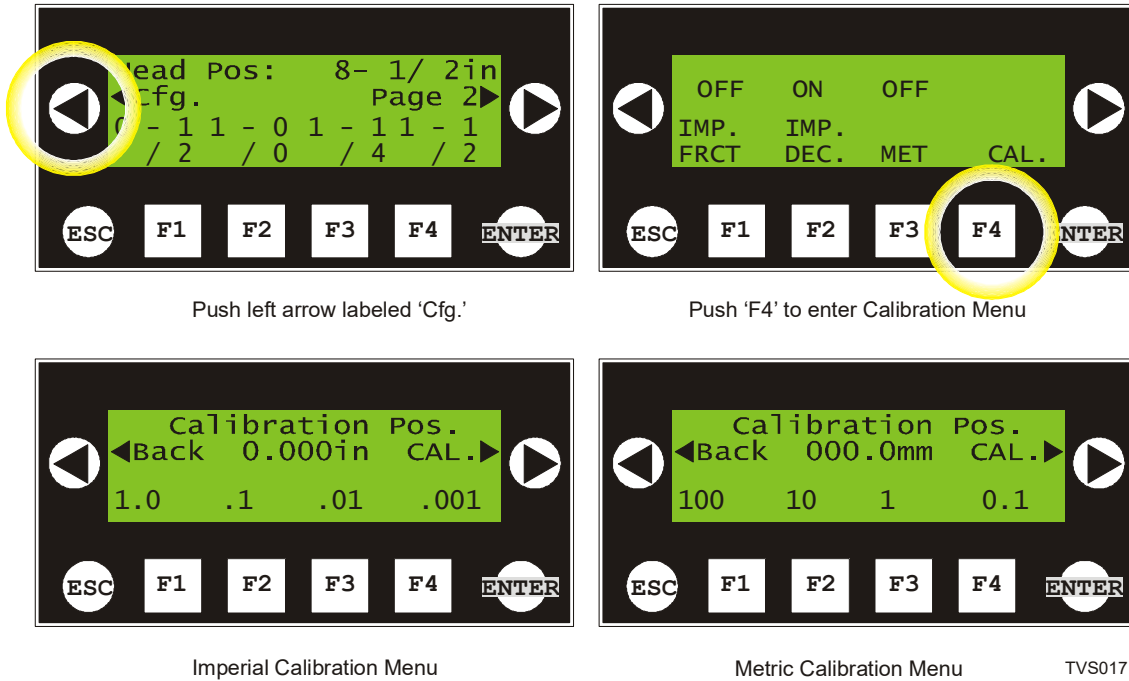
## Calibrate Head Position

After the Setworks option is installed or if inaccurate position of the head is observed, calibration of the Setworks control with the saw head position may be required.

Adjust the head positions so the blade and the belt are an easy-to-measure distance from each other (as measured from teeth set down toward the belt). **NOTE:** Because the Setworks control calibration values are limited to integers between 0 and 9, the distance between the blade and belt should be set less than 9.999 inches in Imperial units or 999.9mm in Metric units. When adjusting the head position, be sure to move the head up to compensate for any backlash in the mechanical system.

See Figure 5-4. Push the left arrow labeled 'Cfg.' to enter the Configuration menu. Push the F4 button to enter the Calibration menu. If using Imperial Fractions or Imperial Decimal units, the Calibration menu will display in inch increments. If using Metric units, the menu will display

increments in millimeters.



**FIG. 5-4**

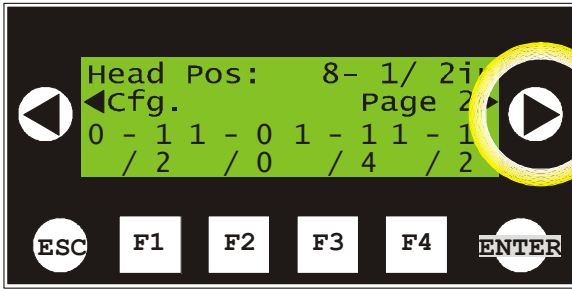
Use the F1 - F4 buttons to scroll each value as desired. When the value reaches '9' pushing the button again will return the value to '0'. Adjust the values until the Calibration Position equals the actual measurement between the blade and belt.

To save the Calibration Position setting, push the right arrow button labeled 'CAL.' To exit without changing the calibration, push the left 'BACK' arrow. Push the Back button to return to the Configuration screen or the 'ESC' button to return to the Main screen.

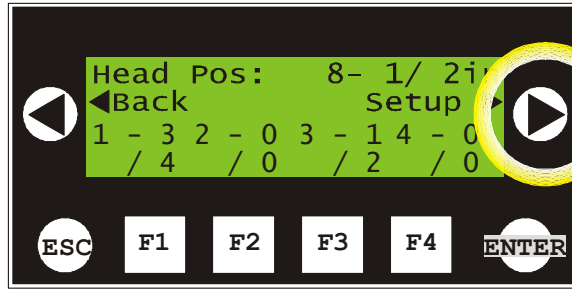
## Adjust Preset Values

**See Figure 5-5.** To enter different values for each preset, push the right arrow button labeled 'Page 2' from the Main screen. Push the right arrow again to enter the presets Setup menu. Push

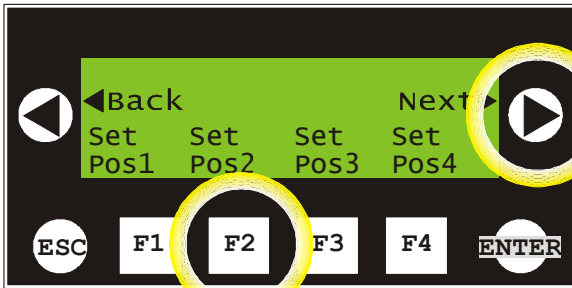
the left arrow 'Back' button to return to the Main screen.



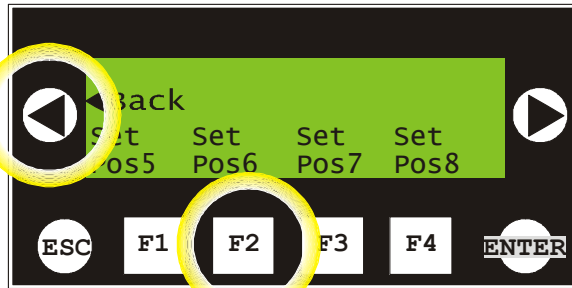
Push right arrow labeled 'Page 2'



Push right arrow labeled 'Setup'



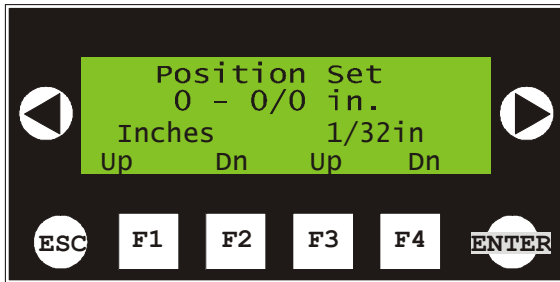
Push F1 - F4 to adjust preset value or push right arrow labeled 'Next' to show presets 5 - 8



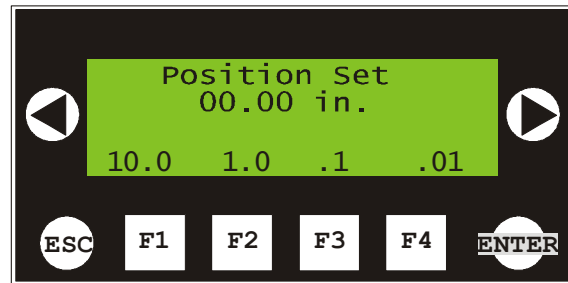
Push F1 - F4 to adjust preset value or push left arrow labeled 'Back' to show presets 1 - 4 TVS018

**FIG. 5-5**

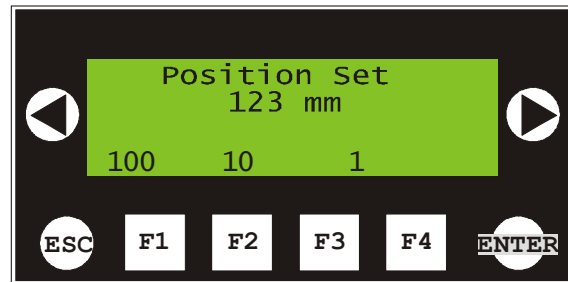
**See Figure 5-6.** In the Setup menu, select the corresponding 'F' button for the value you wish to set. Push the right arrow 'Next' button to scroll to Presets 5-8. Once you select a Preset to change, the Position Set menu will appear.



**Imperial Fractions:**  
Use F1 & F2 to adjust inches up or down;  
Use F3 & F4 to adjust fraction up or down



**Imperial Decimals:**  
Use F1 to adjust tens value; F2 to adjust ones;  
F3 to adjust tenths; F4 to adjust hundredths



**Metric:**  
Use F1 to adjust hundreds value; F2 to adjust tens;  
F3 to adjust ones

TVS019

**FIG. 5-6**

**Imperial Fractions:** Use the F1 and F2 buttons to scroll the whole inch by a value of one up or down each time the corresponding button is pushed. Use F3 and F4 to adjust the fraction value by 1/32 inch up or down each time the corresponding button is pushed.

**Example:** To set the value to 1-1/4, press F1 once and F3 eight times.

**Imperial Decimals:** Use the F1 button to scroll the tens value in increments of 1, F2 to scroll the ones value, F3 to scroll the tenths and F4 to scroll the hundredths.

**Example:** To set the value to 1.25, press F2 once, F3 twice and F4 five times.

**Metric:** Use the F1 button to scroll the hundreds value in increments of 1, F2 to scroll the tens value, and F3 to scroll the ones.

**Example:** To set the value to 25mm, press F2 twice and F3 five times.

Push 'ENTER' to save the preset value and return to the Setup menu. Push the 'Back' button to scroll back through the menus or push 'ESC' to return to the Main screen.

## Set the Parameters for the Networks

1. From the Main screen press the "Left Arrow" button to go to the Configuration screen.



FIGURE 5

2. On the Configuration screen press and hold both the "Left Arrow" and the "Enter" buttons until the Parameter 1 screen displays.



FIGURE 5

3. Imperial Mechanics should already be selected so press the "Right Arrow" button to go to the Parameter 2 screen.



FIGURE 5

4. The Counts per 1/32in. should already be set to 125 so press the "Right Arrow" to go to the Parameter 3 screen.

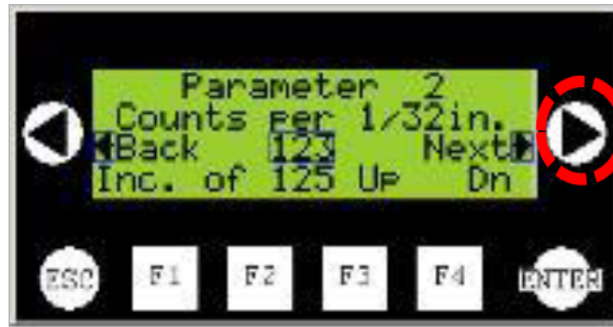


FIGURE 5

5. Use the "F1", and "F2" buttons to set the Travel Upper Limit to "8", then press the "ESC" button to return to the Main screen.

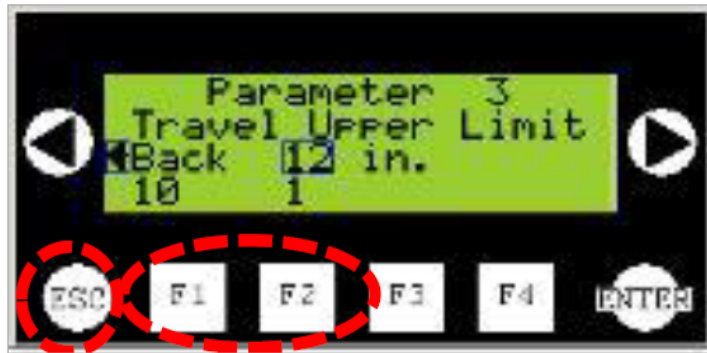


FIGURE 5



# ELECTRICAL INFORMATION

## Electrical Symbol Diagram

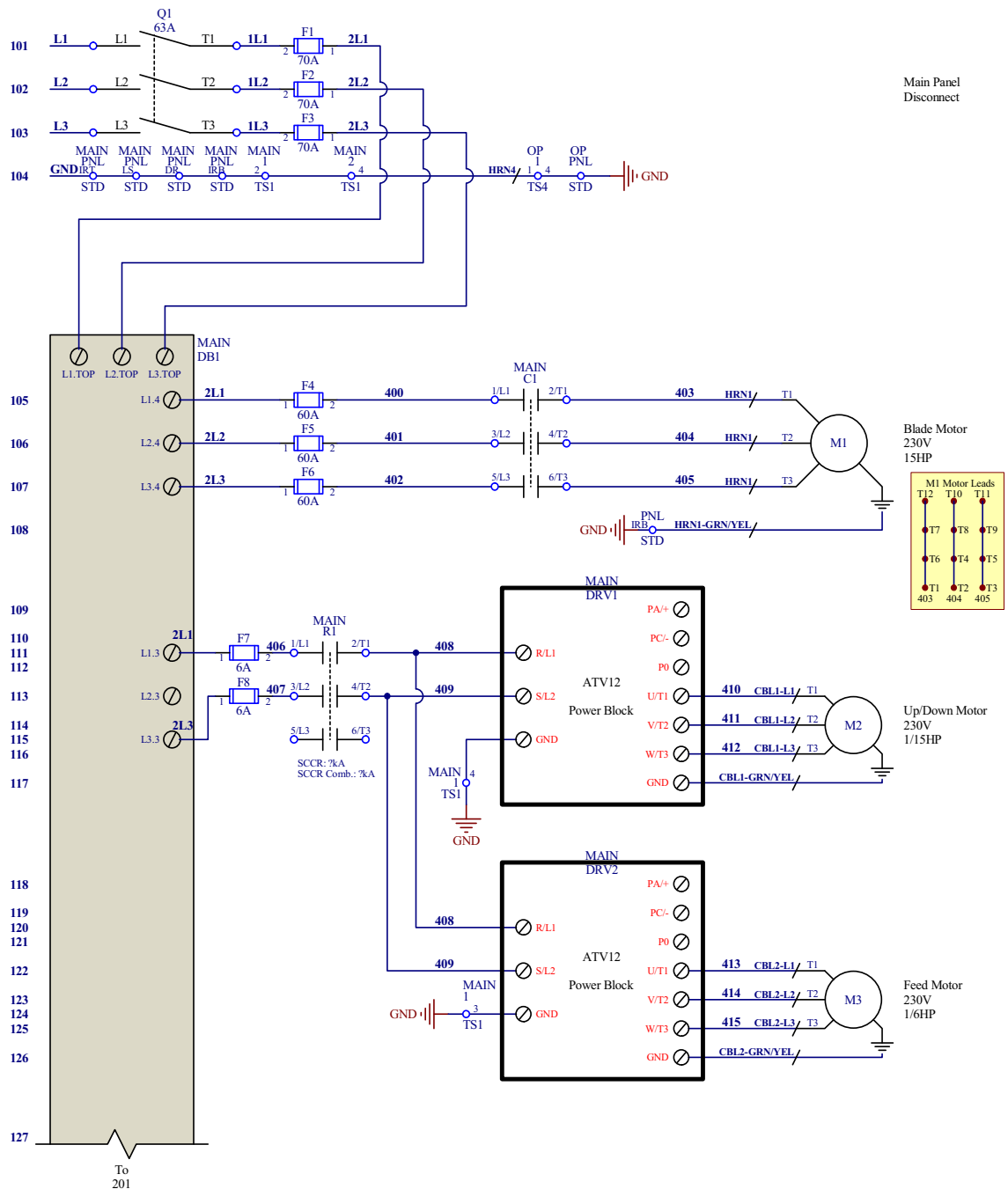
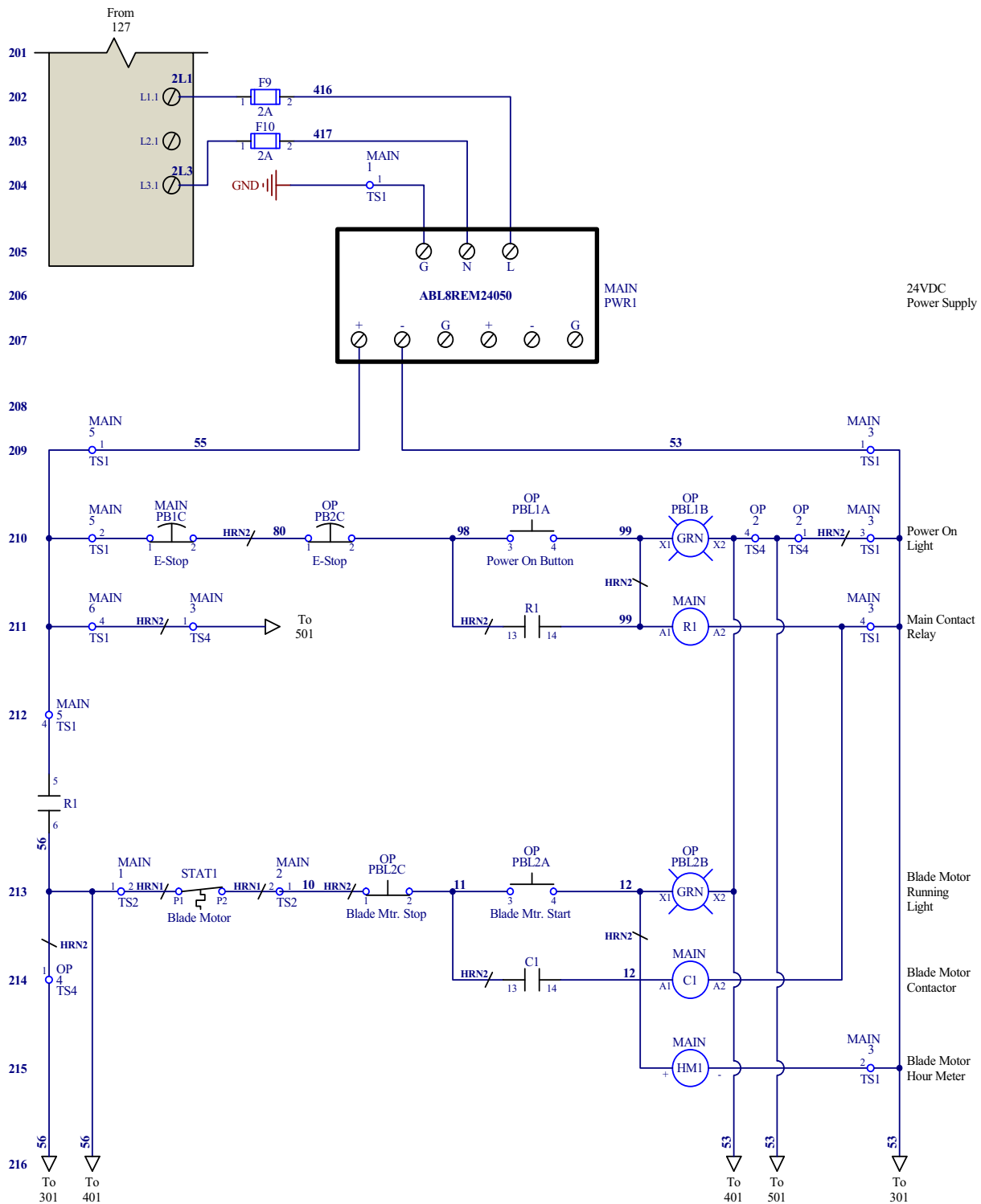
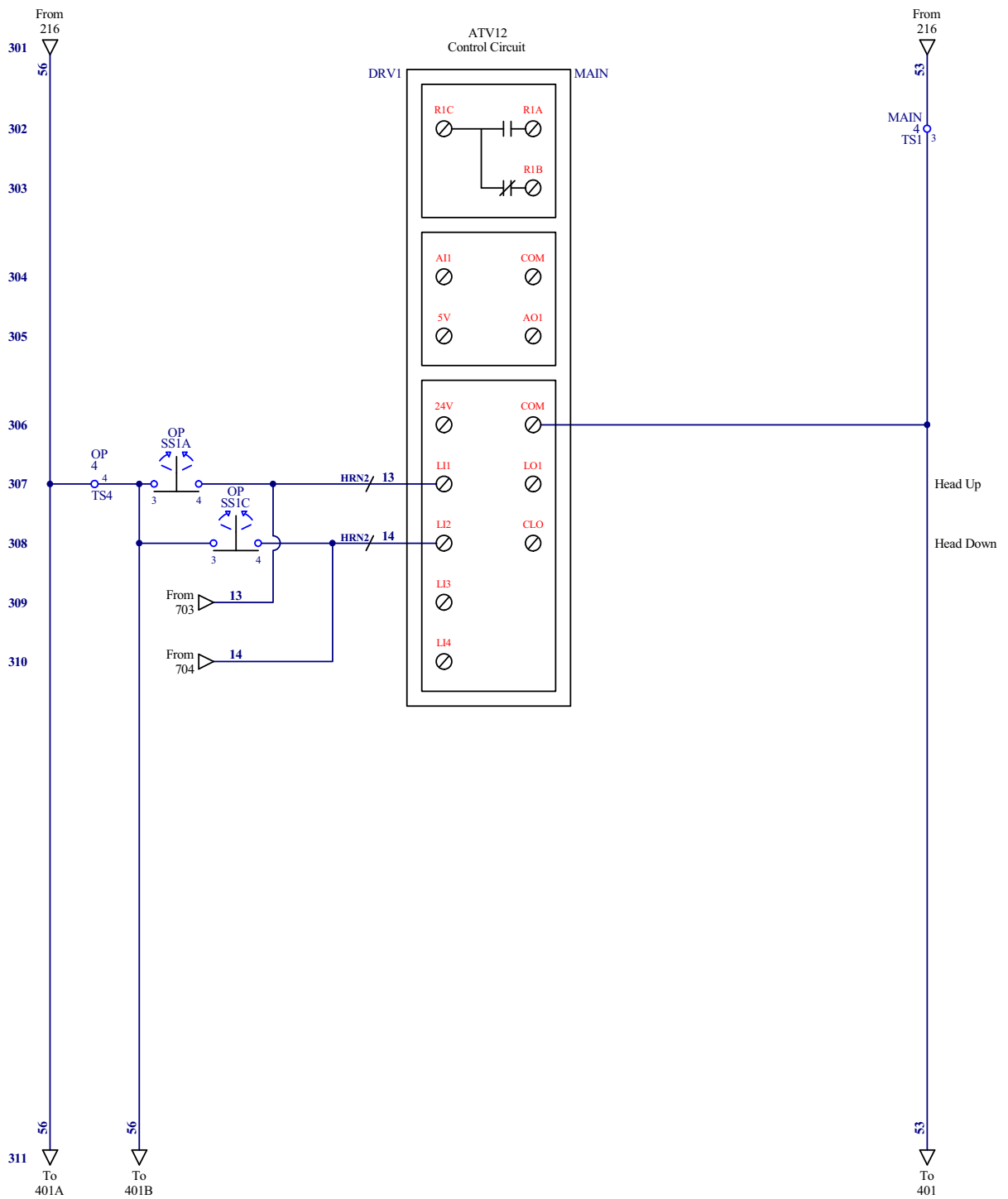


FIG. 5-1 SYMBOL DIAGRAM (1 OF 8)



**FIG. 5-1 SYMBOL DIAGRAM (2 OF 8)**



**FIG. 5-1 (3 OF 8)**

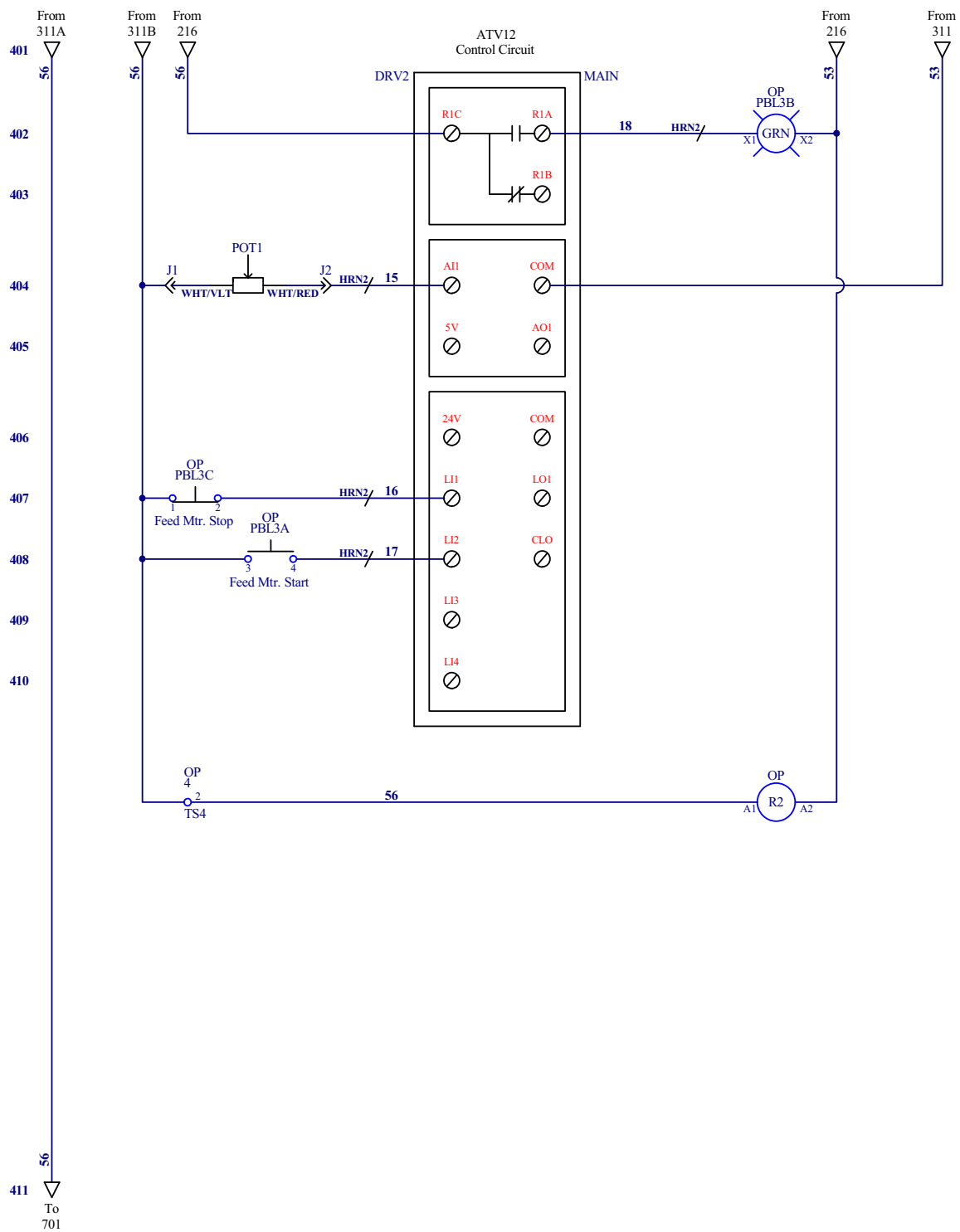
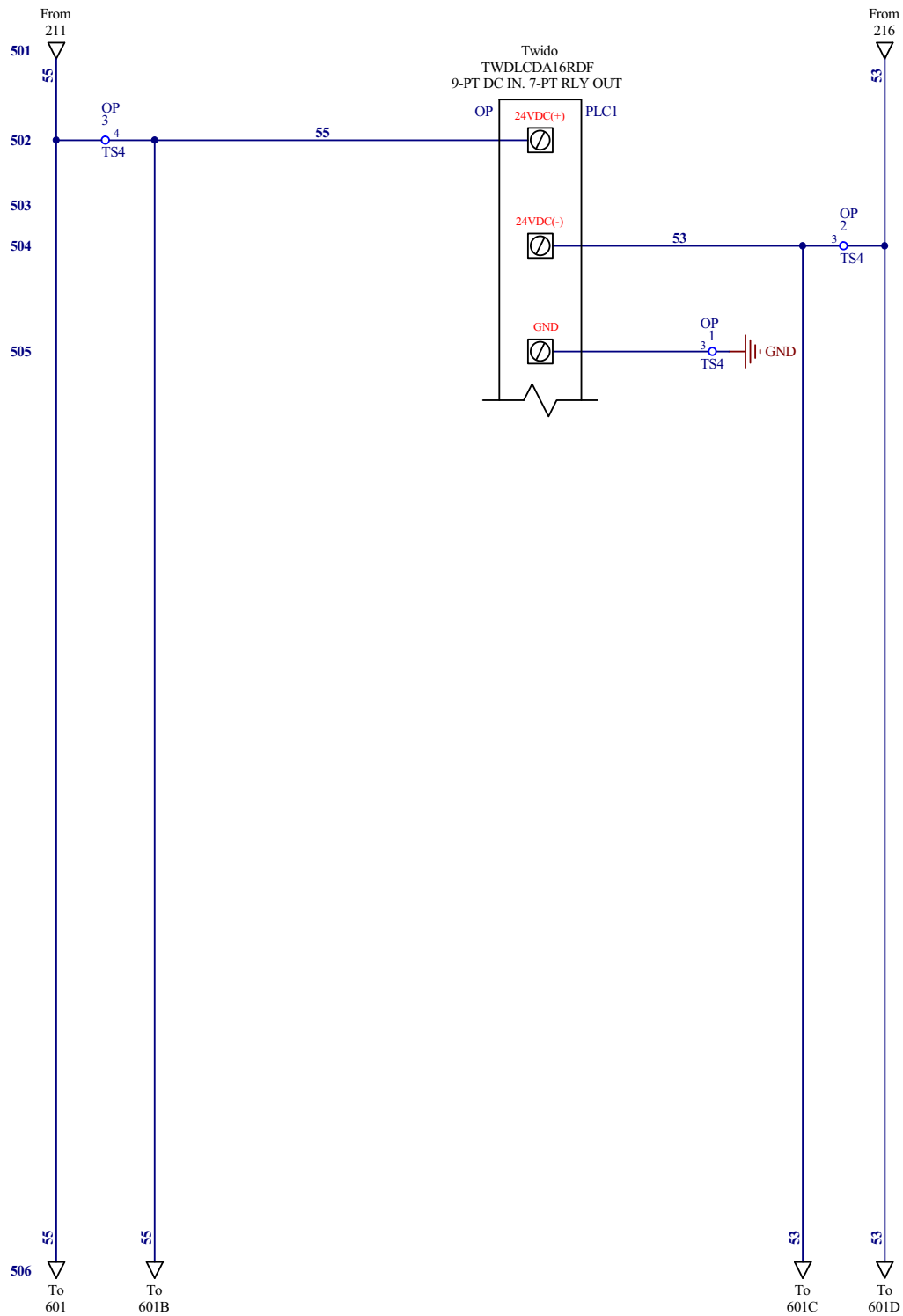


FIG. 5-1 (4 OF 8)



**FIG. 5-1 (5 OF 8)**

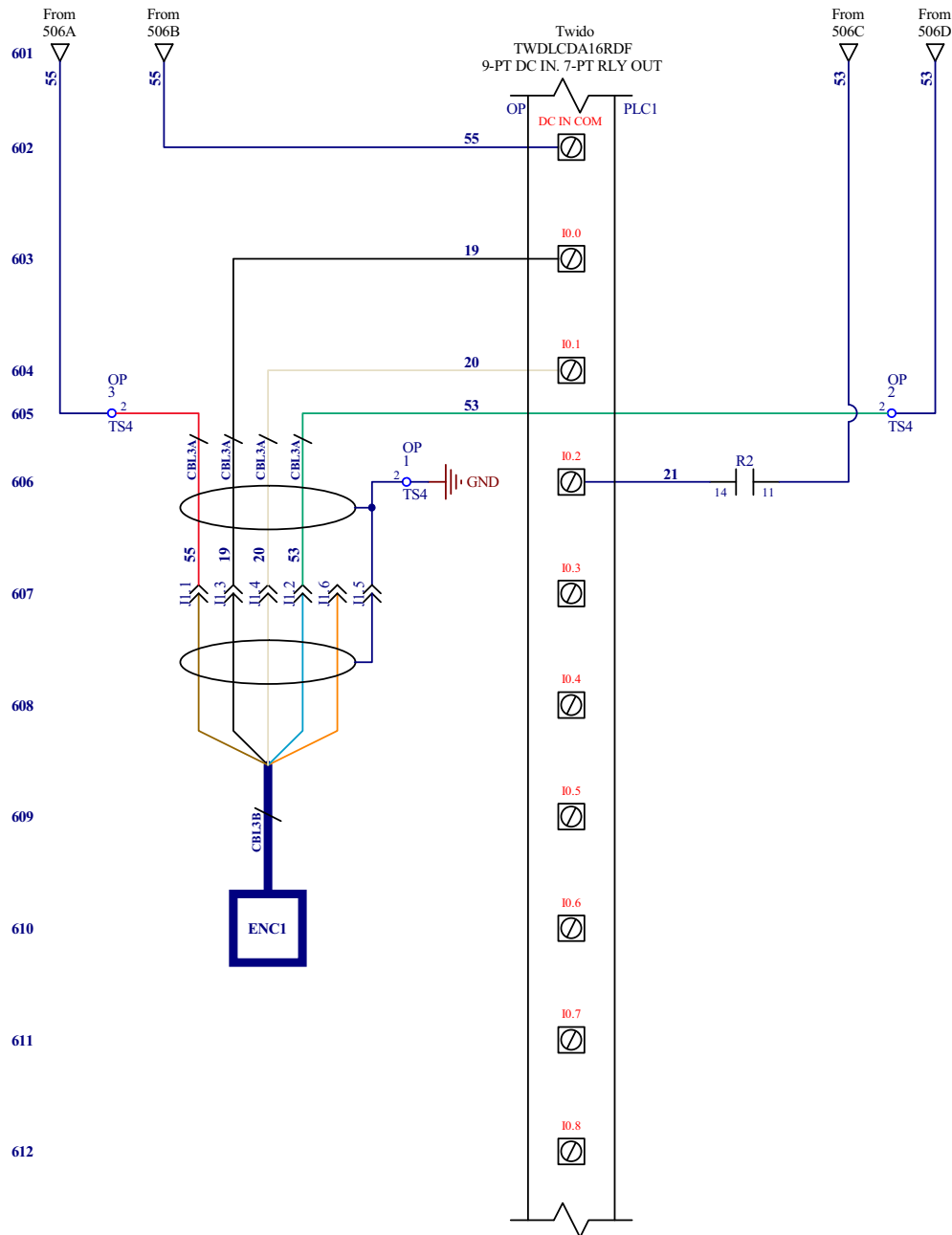
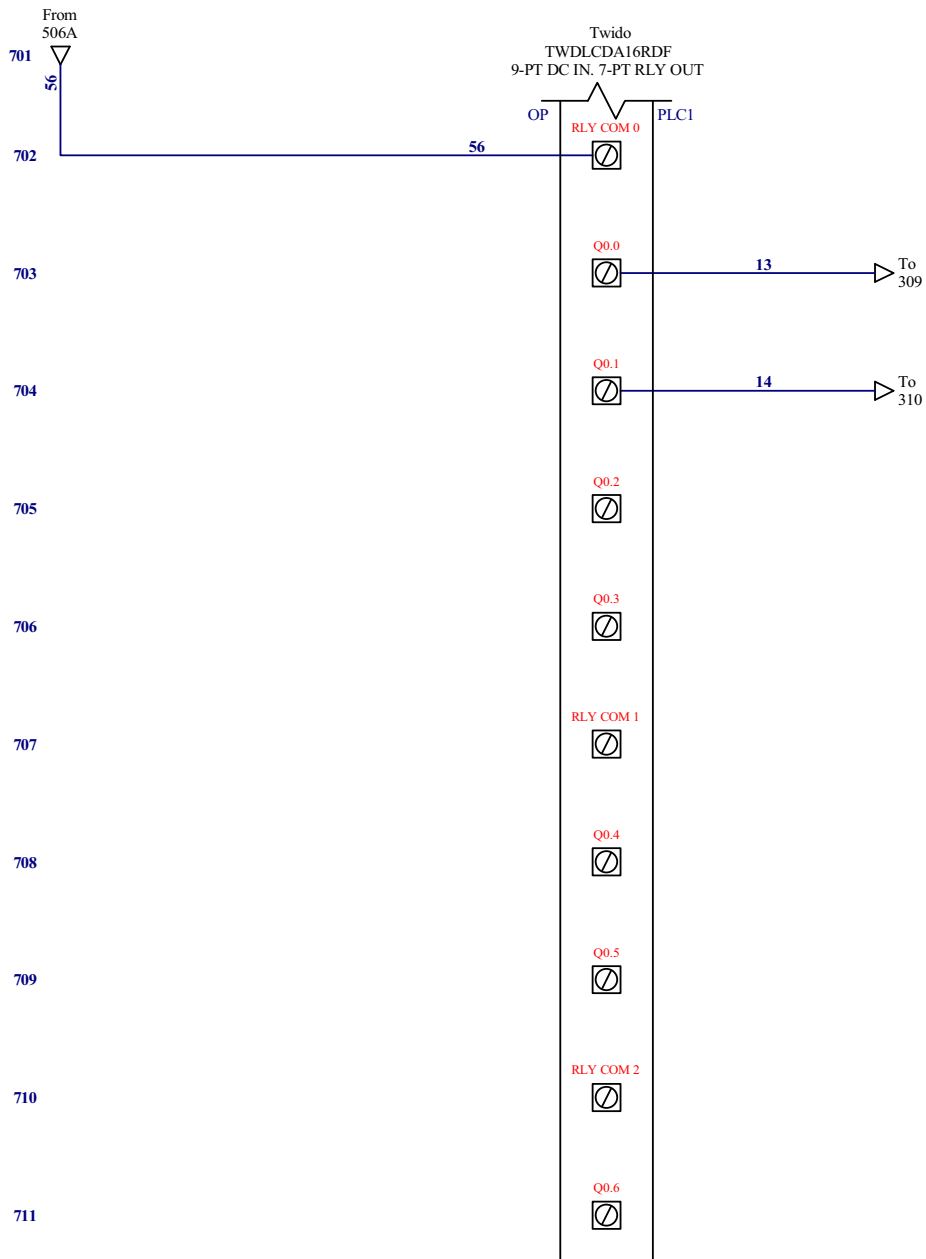
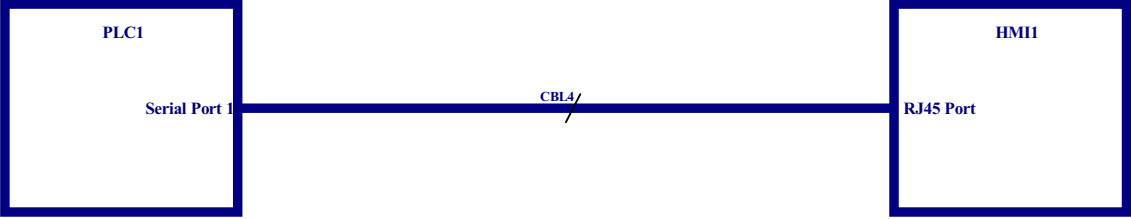


FIG. 5-1 (6 OF 8)



**FIG. 5-1 (7 OF 8)**



**FIG. 5-1 (8 OF 8)**



# Electrical Component List

## HR130EB15

Component List				
Item	Mfg. Part No.	Mfg.	Wood-Mizer Part No.	Description
C1	LC1D50ABD	Square D	053601	Contactora, 50A 3P 24VDC D-A Series
DB1	9080LBA362104	Square D	069701	Distribution Block, 3P 1 to 4
	9080LB23	Square D	069728	Cover, Distribution Block
DRV1 - DRV2	ATV12H018M2	Square D	069704	AC Drive, ATV12 .25HP 230V 1Ph/3Ph
F1 - F3	TCFH100	Cooper Bussman	053586	Fuseholder, Cube 100A
	TCF70RN	Cooper Bussman	069707	Fuse, 70A Class J Cube
F4 - F6	TCFH60	Cooper Bussman	053717	Fuseholder, Cube 60A
	TCF60RN	Cooper Bussman	069708	Fuse, 60A Class J Cube
F7 - F8	LPSC002ID	Littlefuse	052512	Fuseholder, 2P Class CC Finger Safe
	CCMR006	Littlefuse	052456	Fuse, 6A 600V Class CC Delay
F9 - F10	LPSC002ID	Littlefuse	052512	Fuse Block, 2P Class CC 30A Ind. DIN
	CCMR002	Littlefuse	E22716	Fuse, 2A 600V Class CC
HM1	732-0004	Redington Counters	015401	Hour Meter, 12 Volt DC
M1	025698	Wood-Mizer	025698	Motor, 15HP 2230V
M2	M1125283	Leeson	025696	Motor, 1/15HP 57RPM 230V 3PH 30:1 Gear
M3	M1145125	Leeson	025702	Motor, 1/6HP 90RPM 230V 3PH 19:1 Gear
PB1 - PB2	ZB4BS54	Square D	024945	Switch Head, Red Push Button 22mm XB4
	ZB4BZ102	Square D	025161	Switch Body, 22mm 1NC ZB4
PBL1	XB4BW33B5	Square D	024974-3	Switch, Green Push Button 22mm 1NO/1NC LED
PBL2 - PBL3	ZB4BW7L3741 <sup>1</sup>	Square D	051746	Switch Operator, 2 Button w/Pilot Red/Green
	ZBA710 <sup>2</sup>	Square D	052501	Boot, Clear Sealing ZB Switch
	ZB4BW0B31	Square D	025236-31	Switch Body, 22mm Green LED 1NO 24V ZB4
	ZBE102	Square D	050540	Contact, NC ZBE102
POT1	025200	Wood-Mizer	025200	Potentiometer Assembly, 4-20mA 24V w/Conn.
	2-009 N269-70	Zatko Seals	033476	O-Ring, 7/32" ID #009 (2 required)
	MPKES90B-1/4	Apem	033478	Knob, 1/4" ID Fluted Round Plastic
SS1	ZB4BD5	Square D	051744	Switch Operator, 3 Position Momentary Select
	ZB4BZ103	Square D	050545	Switch Base, 2NO Contact
	23000CK	Davies Molding Co.	P06257	Knob, Speed Control
PWR1	ABL8REM24050	Square D	069703	Power Supply, 24VDC 5A 110/230V
Q1	OT63F3	Vision Control	050881-1	Disconnect, 63Amp 600V 3P 6mm
	OHY65J6	RSA, Inc.	050907-1	Operator, Red/Yellow Pistol Grip 6mm
	OXPX6290	RSA, Inc.	050908-1	Shaft, Pistol Grip Disconnect 290mm x 6mm
R1	LC1D09BL	Square D	024890	Relay, Control 9A 3P 24VDC Coil
TS1.1 - TS1.2 TS4.1	AB1RRNTP235U4	Square D	053534	Terminal Block, 4 Position Grounding
TS1.3 - TS1.6 TS4.2 - TS4.4	AB1RRN235U4GR	Square D	053536	Terminal Block, 4 Position Common
TS2.1 - TS2.2	AB1RRN235U2GR	Square D	053550	Terminal Block, 2 Position

<sup>1</sup> Replaces Square D #ZB4BW843743 10/10 (discontinued)

<sup>2</sup> Replaces Square D #ZBW008 10/10 (discontinued).

## HR130EC15

Component List				
Item	Mfg. Part No.	Mfg.	Wood-Mizer Part No.	Description
C1	LC1D25BD	Square D	051322	Contact, 25A 3P 24VDC Coil Compact
DB1	9080LBA362104	Square D	069701	Distribution Block, 3P 1 to 4
	9080LB23	Square D	069728	Cover, Distribution Block
DRV1 - DRV2	ATV12H018M2	Square D	069704	AC Drive, ATV12 .25HP 230V 1Ph/3Ph
F1 - F3	TCFH60	Cooper Bussman	053717	Fuseholder, Cube 60A
	TCF40RN	Cooper Bussman	069702	Fuse, 40A Class J Cube
F4 - F6	TCFH30	Cooper Bussman	053736	Fuseholder, Cube 30A
	TCF30RN	Cooper Bussman	053737	Fuse, 30A Class J Cube
F7 - F8	LPSC002ID	Littlefuse	052512	Fuseholder, 2P Class CC Finger Safe
	CCMR006	Littlefuse	052456	Fuse, 6A 600V Class CC Delay
F9 - F10	LPSC002ID	Littlefuse	052512	Fuse Block, 2P Class CC 30A Ind. DIN
	CCMR002	Littlefuse	E22716	Fuse, 2A 600V Class CC
F11 - F12	LPSC002ID	Littlefuse	052512	Fuseholder, 2P Class CC Finger Safe
	CCMR010	Littlefuse	051957	Fuse, 10A 600V Class CC Delay
HM1	732-0004	Redington Counters	015401	Hour Meter, 12 Volt DC
M1	025698	Wood-Mizer	025698	Motor, 15HP 2230V
M2	M1125283	Leeson	025696	Motor, 1/15HP 57RPM 230V 3PH 30:1 Gear
M3	M1145125	Leeson	025702	Motor, 1/6HP 90RPM 230V 3PH 19:1 Gear
PB1 - PB2	ZB4BS54	Square D	024945	Switch Head, Red Push Button 22mm XB4
	ZB4BZ102	Square D	025161	Switch Body, 22mm 1NC ZB4
PBL1	XB4BW33B5	Square D	024974-3	Switch, Green Push Button 22mm 1NO/1NC LED
PBL2 - PBL3	ZB4BW7L3741 <sup>1</sup>	Square D	051746	Switch Operator, 2 Button w/Pilot Red/Green
	ZBA710 <sup>2</sup>	Square D	052501	Boot, Clear Sealing ZB Switch
	ZB4BW0B31	Square D	025236-31	Switch Body, 22mm Green LED 1NO 24V ZB4
	ZBE102	Square D	050540	Contact, NC ZBE102
POT1	025200	Wood-Mizer	025200	Potentiometer Assembly, 4-20mA 24V w/Conn.
	2-009 N269-70	Zatkoff Seals	033476	O-Ring, 7/32" ID #009 (2 required)
	MPKES90B-1/4	Apem	033478	Knob, 1/4" ID Fluted Round Plastic
SS1	ZB4BD5	Square D	051744	Switch Operator, 3 Position Momentary Select
	ZB4BZ103	Square D	050545	Switch Base, 2NO Contact
	23000CK	Davies Molding Co.	P06257	Knob, Speed Control
PWR1	ABL8REM24050	Square D	069703	Power Supply, 24VDC 5A 110/230V
Q1	OT63F3	Vision Control	050881-1	Disconnect, 63Amp 600V 3P 6mm
	OHY65J6	RSA, Inc.	050907-1	Operator, Red/Yellow Pistol Grip 6mm
	OXP6X290	RSA, Inc.	050908-1	Shaft, Pistol Grip Disconnect 290mm x 6mm
R1	LC1D09BL	Square D	024890	Relay, Control 9A 3P 24VDC Coil
T1	2S1F	Square D	069705	Transformer, 240x480 Pri/120x240 Sec 2kA Sealed
TS1.1 - TS1.2 TS4.1	AB1RRNTP235U4	Square D	053534	Terminal Block, 4 Position Grounding

Component List				
Item	Mfg. Part No.	Mfg.	Wood-Mizer Part No.	Description
TS1.3 - TS1.6 TS3.1 - TS3.2 TS4.2 - TS4.4	AB1RRN235U4GR	Square D	053536	Terminal Block, 4 Position Common
TS2.1 - TS2.2	AB1RRN235U2GR	Square D	053550	Terminal Block, 2 Position

<sup>1</sup> Replaces Square D #ZB4BW843743 10/10 (discontinued)

<sup>2</sup> Replaces Square D #ZBW008 10/10 (discontinued).

## Component Layout Diagrams

### Control Box Components

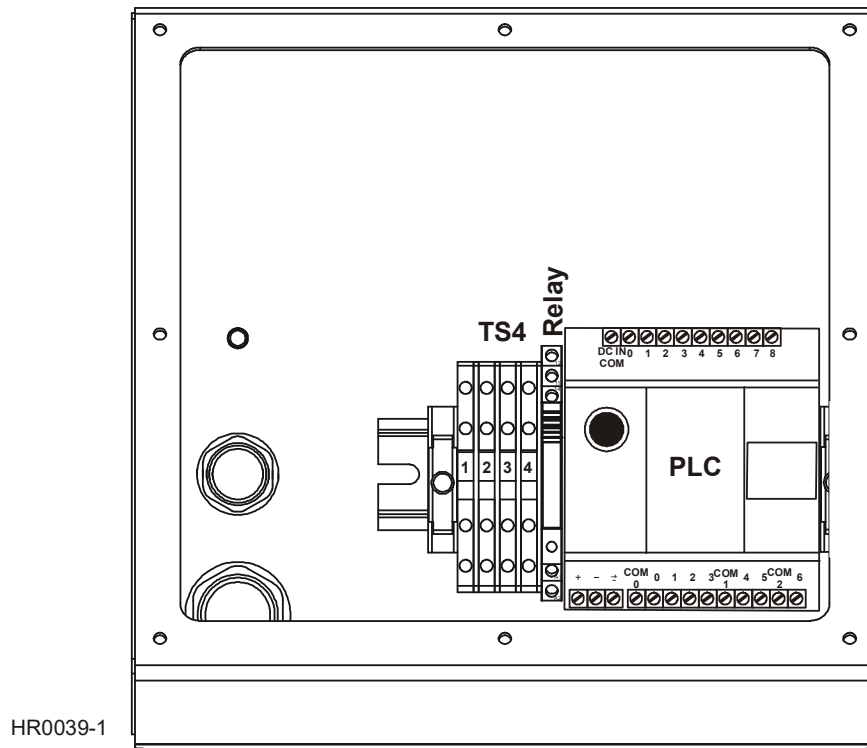
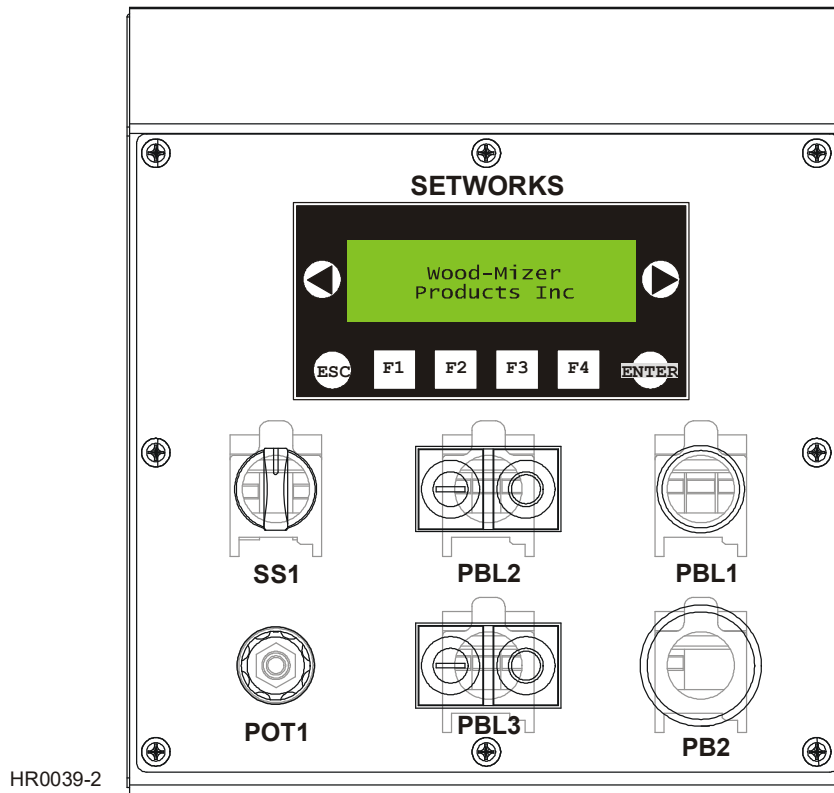


FIG. 5-2

**Control Box Front Panel with Networks**



**FIG. 5-3**