FORM 2452
SECTION 1 SLAB-MIZER AUTO FEED INSTALLATION

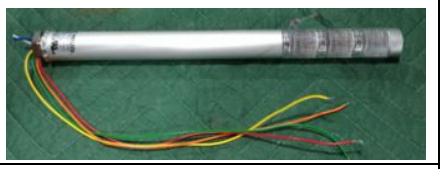
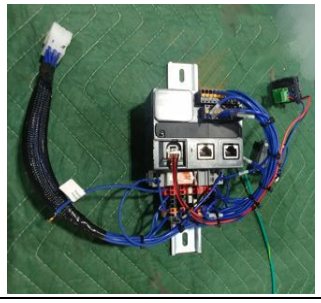
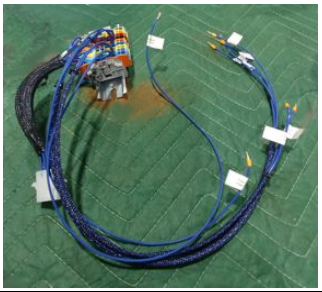
WARNING! Turn the base unit's power to OFF, remove the key, and disconnect the battery ground terminal, if applicable.

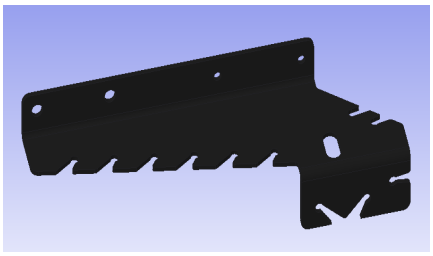
On electric equipment, lock out power supply before performing any installation. See Electrical Lockout Procedures (OSHA regulation 1910.147, appendix A reprinted in the Operator's Manual).

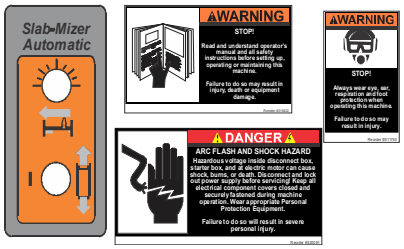
Ensure all electrical installation, service, and/or maintenance is performed by a qualified electrician.

Part No. MB200AF

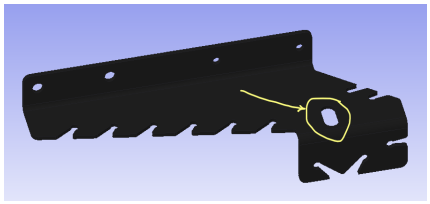
Items included in MB200AF.

Description	Quantity	
Light	1	
PLC Harness	1	
Terminal Block Harness	1	
Feed Limit Bracket	2	

Description	Quantity	
Front Panel Swiches		
Cross Feed Stop Bracket	1	
Cross Feed Rope Bracket [1]	1	
Proximity Switch with Cables and Nuts	2	
Small Cord Grips	2	

Description	Quantity	
Decals	4	
Hardware		
#10-24x ½ Screws	4	
#10 Flat Washer	4	
#10-24 Nuts	4	
6mmx20 Bolts	4	
6mm Locknuts	4	
6mm Flat Washer	4	
3/16” Cable Clamp	6	
Step drill bit	1	
Small flat-tip screwdriver-	1	
12mm Flat Washer	2	
Cable ties		

[1] Necessary only if your unit does **not** have the version with mounting hole.



Tools Needed

Drill	Small flat screwdriver
Phillip Screwdriver	3/8” wrench
Pliers	17mm wrench
Wire cutters	Wire Stripper and/or utility knife
Adhesive tape	

Installation

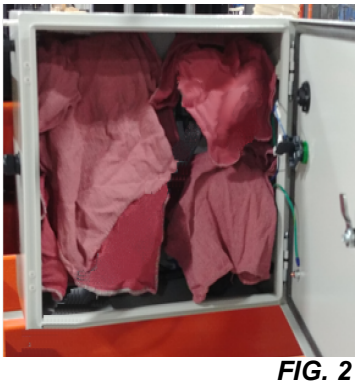


FIG. 2

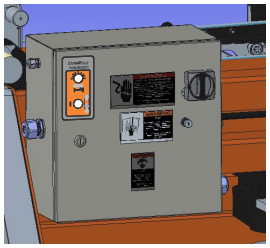
NOTICE Securely cover all electrical components inside the control box before drilling holes. Vacuum up any debris.

Metal debris may cause equipment damage.

1. Download the templates from the Wood-Mizer Online Manual website.

2. Apply the MB200AF control decal on the front door as shown in FIG. 4.

Clean decal area with a residue-free solvent.



Best practice is to peel back paper enough to apply the top 1/4", then roll the decal away from the paper as you proceed downwards. Smooth out any bubbles or wrinkles as you go.

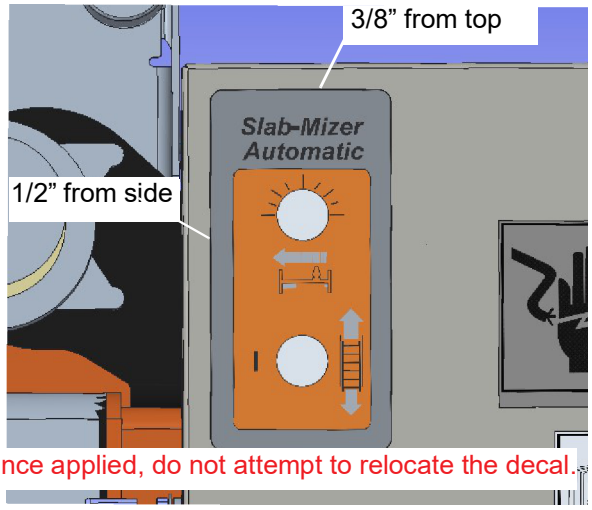


FIG. 3

NOTE: If the control decal holes do not quite line up with the template holes, use the control decal holes as guides.

When drilling through the control decal, using a lubricant (water, cutting oil) may reduce chances of melting the edges of the decal.

If necessary, remove any safety decals if they conflict with the hole location. Replace them with the decals provided. **Do not remove safety decals without replacing them.**

3. Use the step drill bit to drill the four holes through the control box door as shown in FIG. 4.

Fold or cut the template to match the door edge to the template line.

Use tape to secure template to the control box door

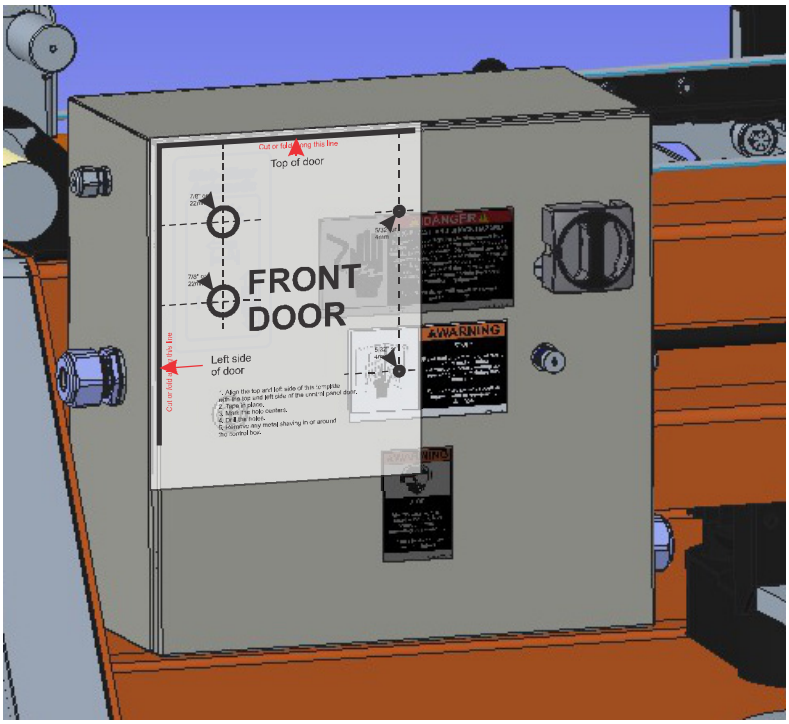


FIG. 4

4. Use the step drill bit to drill one hole through the control box top as shown in FIG. 5.

Fold or cut the template to match the door edge to the template line.

Use tape to secure template to the control box door

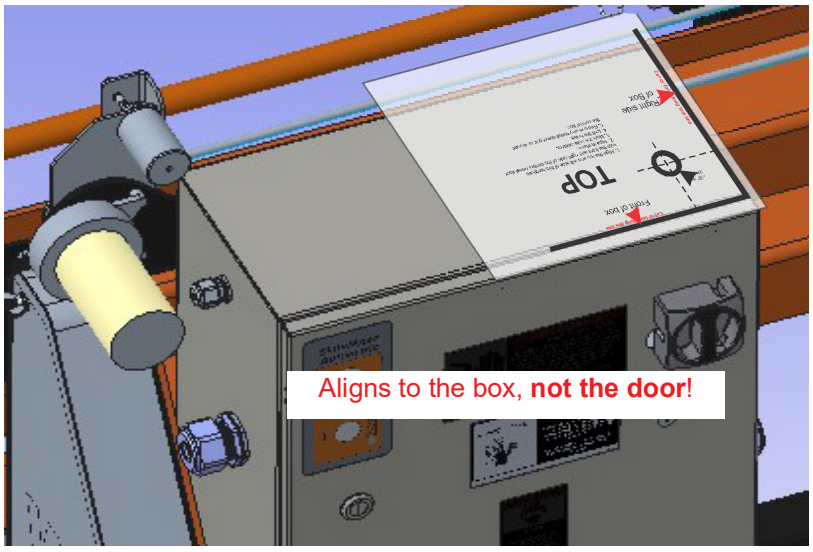


FIG. 5

5. Drill two holes in control box right side as shown in FIG. 6.

Fold or cut the template to match the door edge to the template line.

Use tape to secure template to the control box door

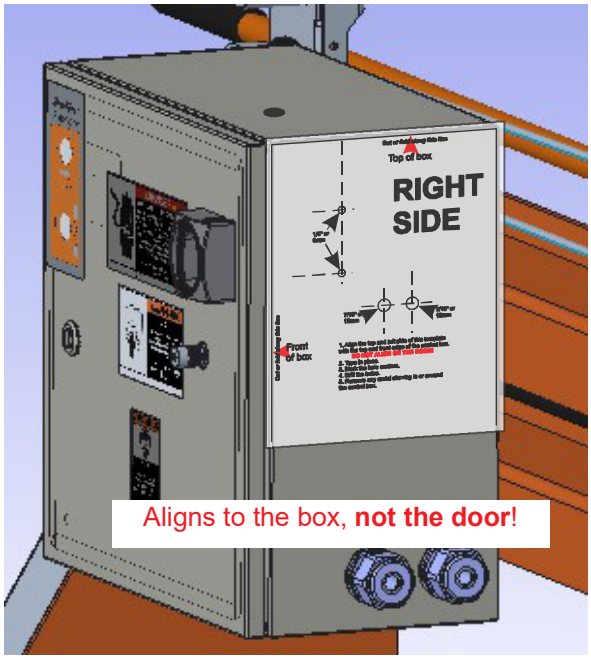


FIG. 6

Mount light

1. Remove mounting nut from light.
2. Place wires and light base through hole in top of the control box.
3. Replace mounting nut.

NOTE: The light uses only the green, yellow, red, and orange wires.

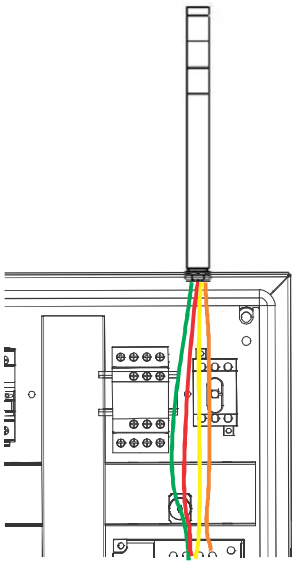


FIG. 7

Terminal Block Harness

INSERTING WIRES

1. Press down in the square hole with the small screwdriver and hold.
2. Push the wire into the adjacent round hole.
3. Release the screwdriver.
4. Gently tug on the wire to ensure it is secure.

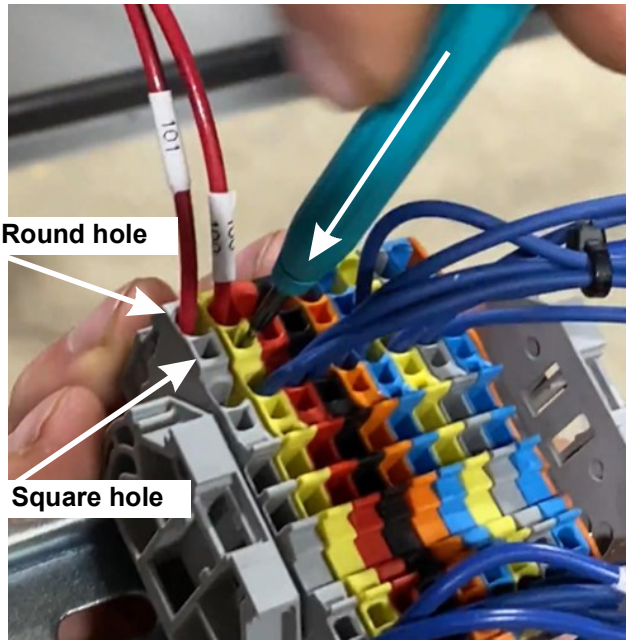


FIG. 8

WIRING CHART

NOTE: Complete the wiring **before** mounting the terminal block on the right-hand, inside wall.

Remove (pop off) the wire channel guards as necessary.

1. Remove **red wire** from main motor VFD LI1 and put in **1 Gray** terminal block.
2. Remove **red wire with black tracer** from main motor VFD LI2 and put in **2 Yellow** terminal block.
3. Put wire from **2 Yellow** terminal block to main motor VFD LI2.
4. Put wire from **3 Red** terminal block to main motor VFD LI1.
5. Put **yellow wire** from light on **4 Black** terminal block.
6. Put wire from **4 Black** terminal block to power supply V-.
7. Put **green wire** from light on **5 Orange** terminal block.
8. Remove wire from main motor VFD R1C and put **5 Orange** terminal block.

9. Put wire from **5 Orange** terminal block to main motor VFD R1C.

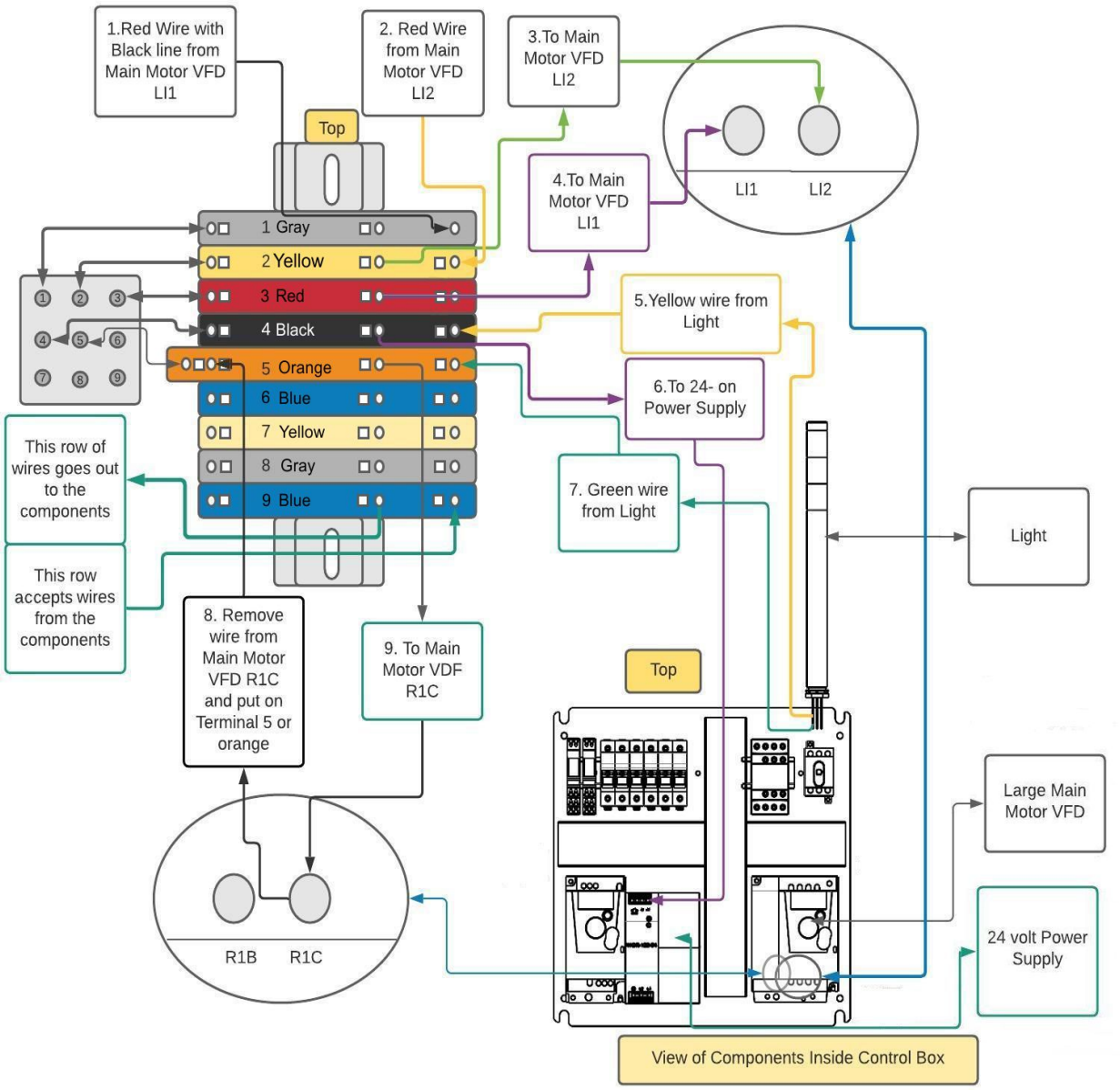


FIG. 9

10. Remove **orange wire** from small feed motor VFD LI1 and put in **7 Yellow** terminal block.

11. Put wire from **7 Yellow** terminal block to small feed motor VFD LI1

12. Remove **orange wire with brown tracer** from small feed motor VFD LI2 and put in **8 Gray** terminal block.

13. Put wire from **8 Gray** terminal block to small feed motor VFD LI2

14. Remove **brown wire** from cross feed relay A1 and put in **9 Blue** terminal block.

15. Put wire from **9 Blue** terminal block to cross feed relay A1

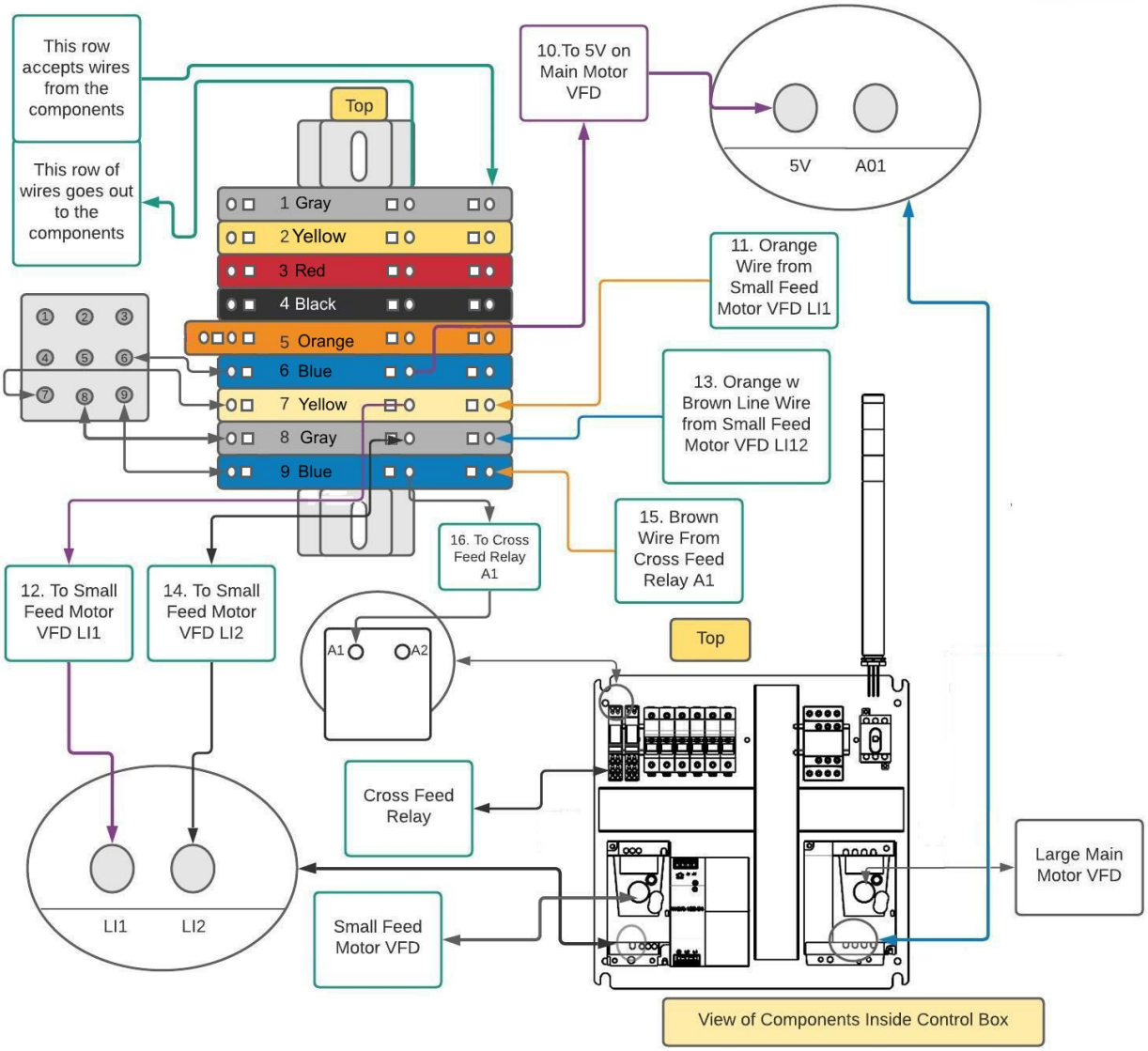


FIG. 10

16. Use the #10-24 screws, washer, and nuts to mount the terminal block to the right-hand inside wall of the control box door, using the holes previously drilled.

Install PLC and Switches on Door

1. Use the #10-24 screws, washer, and nuts to mount PLC to the inside of the control box door, using the holes previously drilled.

2. Mount the potentiometer on the door.

FIG. 11

   a. Place the black plastic scale and mounting ring through the top large hole in the door.

   b. Set the scale in the orientation shown in FIG. 11.

   c. Secure with the green mounting nut.

   d. Insert potentiometer from the PLC harness. See FIG. 12.

FIG. 12

   e. From the outside, place brass washer over shaft.

   f. Place brass collet over the washer.

   g. Screw on the brass ring, with the slotted end facing outward.

   h. Slide the plastic knob over the collet and ring.

   i. Snap the knob cap in place.

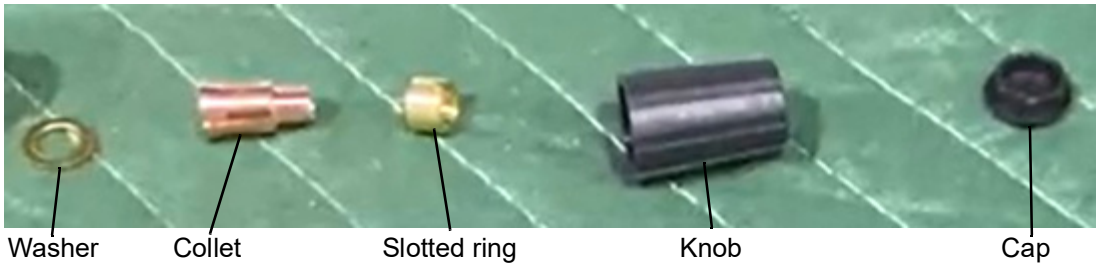


FIG. 13

3. Mount the yellow “On” switch on the door.

4. Run the wire from the red (24+) terminal blocks to the same side of keyed switch on door that has a **dark blue** wire.

FIG. 14

   a. Lift the white lever.

   b. Insert the wire.

   c. Close the white lever.

5. Connect the plugs.

6. Put green wire with yellow tracer onto the ground stud on door.

FIG. 15

7. Connect the light wires as shown in FIG. 16.

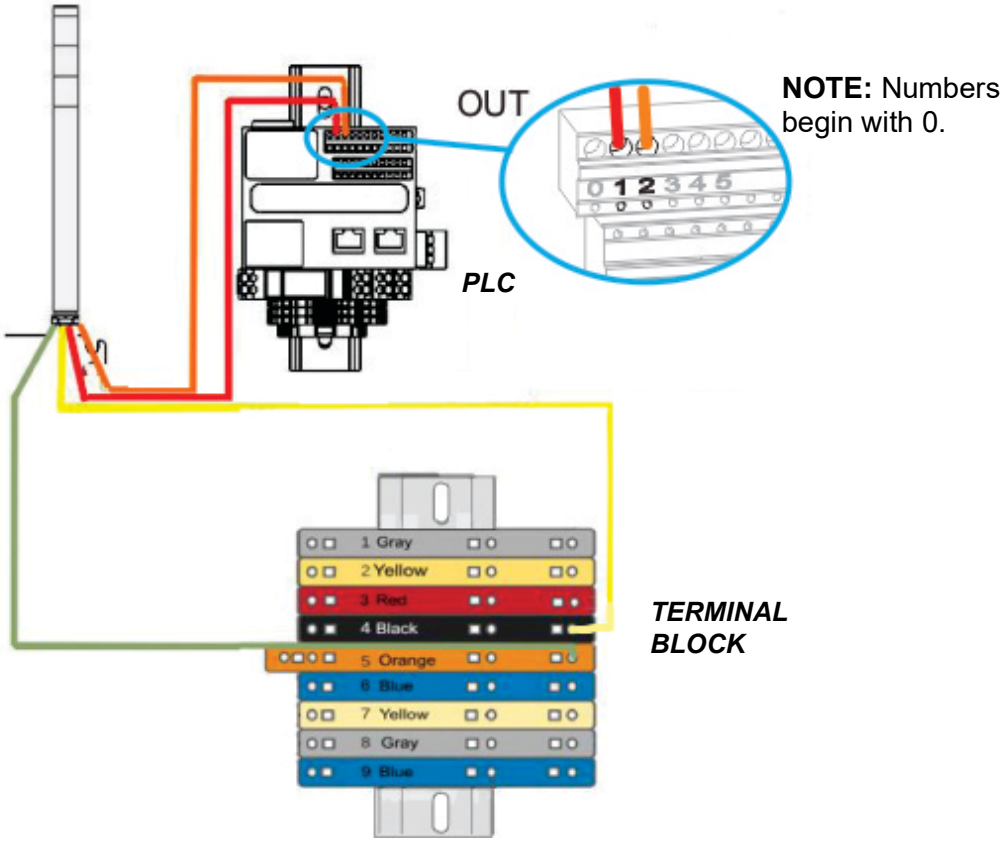


FIG. 16

8. Put **orange wire** to **OUT#2** position -- **NOTE:** Numbers begin with 0.

9. Put **red wire** on **OUT#1** position.

10. Put **yellow wire** on **4 Black** terminal block.

11. Put **green wire** on **5 Orange** terminal block.

Install Proximity Switches

NOTE: The cables are labeled “Feed” and “Cross Feed.” The Feed cable mounts on the side of the gantry. See FIG. 18. The Cross Feed mounts on the cross feed rope bracket. See FIG. 22.

Feed Cable Side

1. Remove the covers from the chain drive.

2. Place one of the switch mounting nuts on the switch.

NOTE: The cables are labeled “Feed” and “Cross Feed.” The Feed cable mounts on the side of the gantry. See FIG. 18. The Cross Feed mounts on the cross feed rope bracket. See FIG. 22.

FIG. 17

3. Place a proximity (prox) switch and cable in the existing hole on the feed side of the gantry. See FIG. 18.

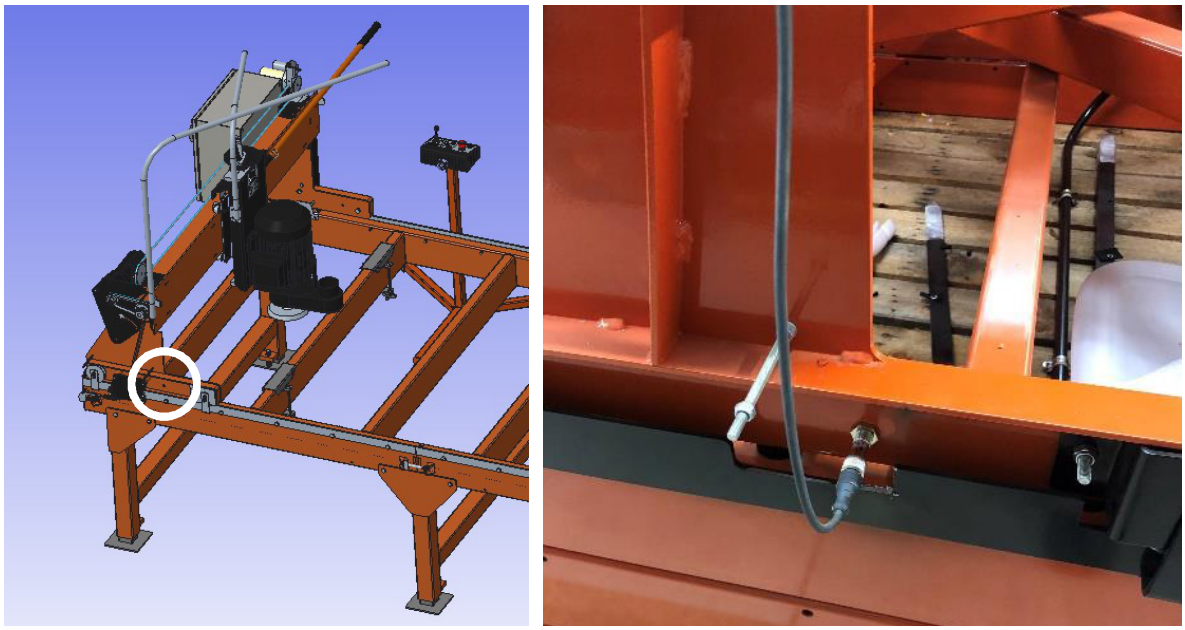


FIG. 18

4. Loosely apply the second mounting nut.

5. Use a straight edge to align the switch within 1/32” to 1/16” **parallel to the edge of the frame**. See FIG. 19.

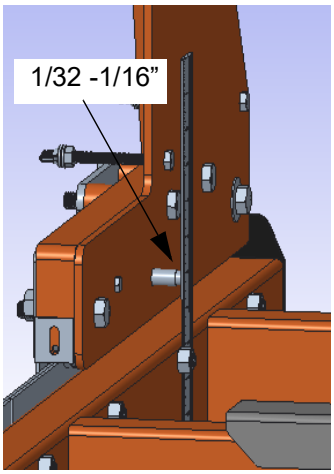


FIG. 19

NOTE: With power on, the switch will light when the limit stop bracket is close enough for operation.

6. Set the switch in place by tightening both mounting nuts.

7. Route the feed switch cable.

   a. Unbolt the two bracket bolts identified in FIG. 20.

   b. Place the cable in an EMT cable clamps. 

   c. Reattach the bolts in the brackets with the cable clamps.

   d. Use the four 6mm bolts, washer, and nuts to attach the cable along the front gantry frame with four cable clamps. See FIG. 20.

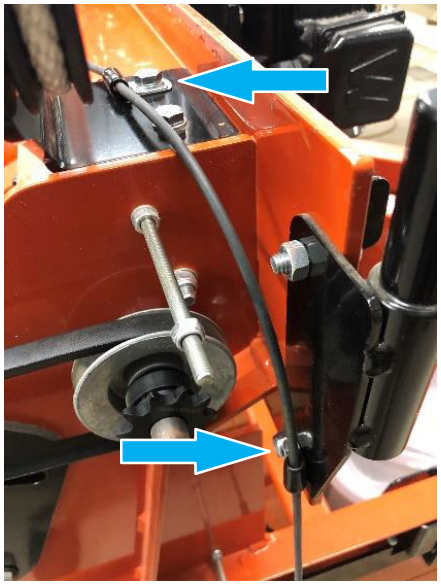


FIG. 20

   e. Install both cable grips in the holes on the side of the control box. 

   f. Thread the feed switch cable through the hole closer to the gantry frame.

NOTE: The switch cables are longer than needed. Either cut and strip the wires to a reasonable length, or coil the excess wire to fit into the control box.

g. Connect the black, brown, and blue wires only to the PLC as shown in FIG. 21.

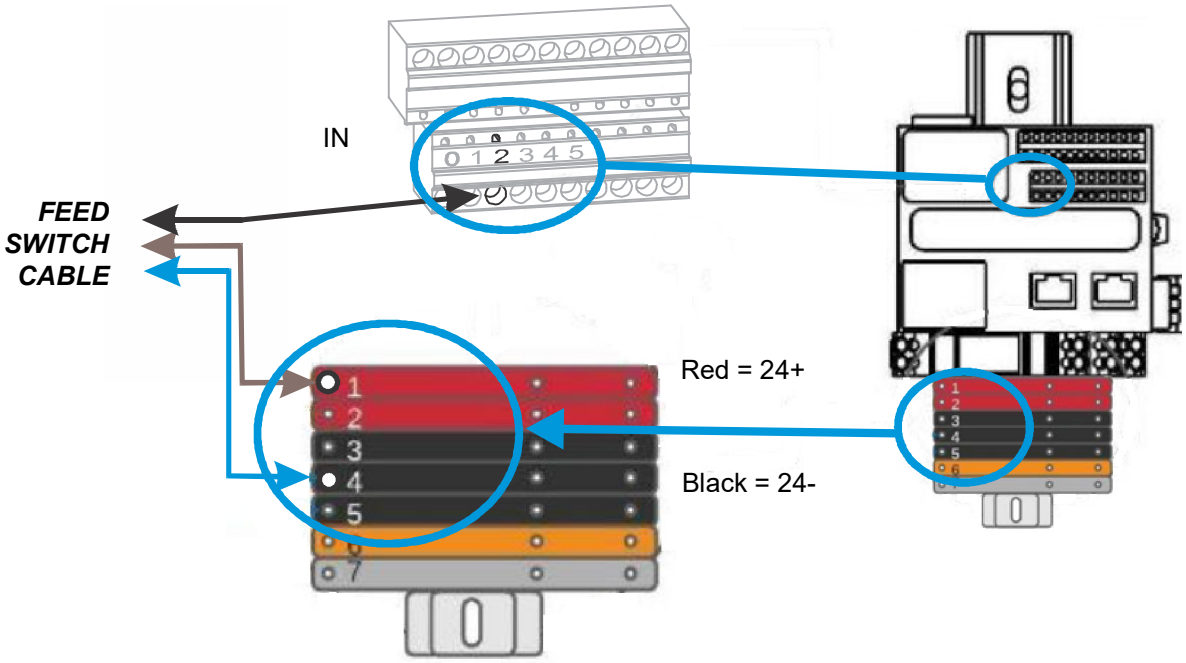


FIG. 21

Put **black wire** to **IN #2** position -- **NOTE:** Numbers begin with 0.
Put **brown wire** on **1 Red** terminal block.
Put **blue wire** on **4 Black** terminal block.

8. Replace the feed chain drive cover.

Cross Feed Cable

NOTE: Check your cross feed rope bracket. If it does not have the switch mounting hole shown in FIG. 22 then replace it with the provided bracket.

Cross feed rope bracket

switch mounting hole

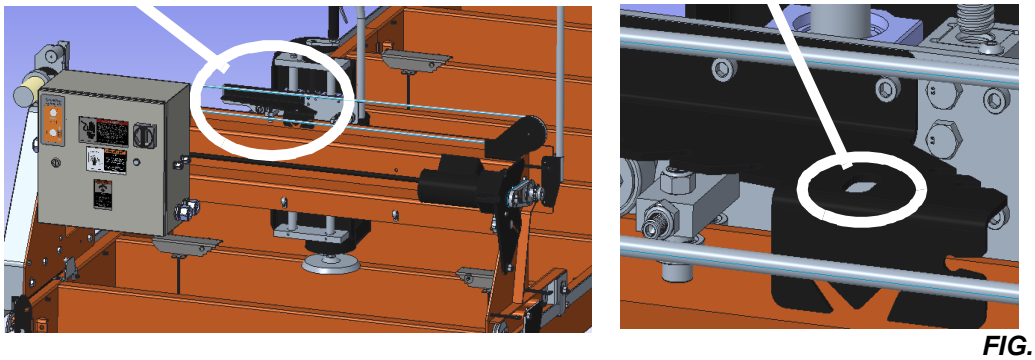


FIG. 22

1. Place one of the switch mounting nuts and one 12mm washer on the switch.

   NOTE: The cables are labeled “Feed” and “Cross Feed.” The Feed cable mounts on the side of the gantry. See FIG. 18. The Cross Feed mounts on the cross feed rope bracket. See FIG. 22.

2. Place a proximity (prox) switch and cable in the switch mounting hole on the cross feed rope bracket.

3. Place the cross feed stop bracket directly under the switch.

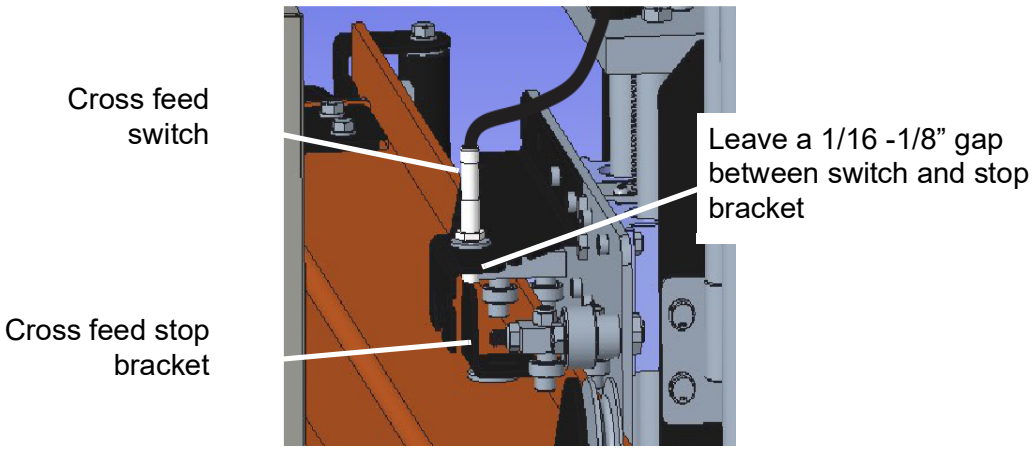


FIG. 23

NOTE: With power, switch will light when the limit stop bracket is close enough for operation.

4. Tighten the switch mounting nuts when properly positioned.

5. Route the switch cable along the cross feed cable arm and cable, securing it with cable ties as needed.

6. Insert the cross feed cable into the remaining cable grip installed with the feed cable.

   NOTE: The switch cables are longer than needed. Either cut and strip the wires to a reasonable length, or coil the excess wire to fit into the control box.

7. Connect the black, brown, and blue wires only to the PLC as shown in FIG.

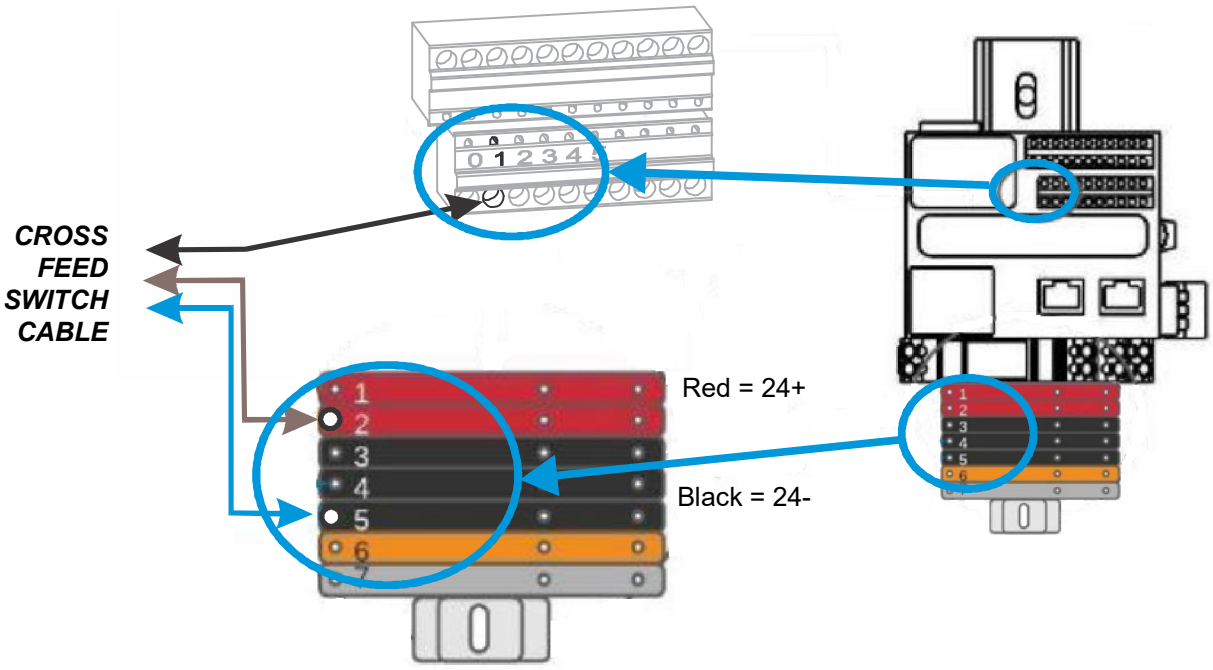


FIG. 24

Put **black wire** to **IN #1** position -- **NOTE:** numbers begin with 0.
Put **brown wire** on **2 Red** terminal block.
Put **blue wire** on **5 Black** terminal block.

INSTALLATION FINISHED

Operation

WARNING! Follow all safety instructions found in the Slab-Mizer operators manual.

1. Lift the cutting head to ensure that it clears any wood that is placed on the planer, and does not contact anything unintentionally.

2. Place the feed limit brackets at least 12 inches away from the feed proximity switch, ensuring that the switch is between the two feed limit brackets.

3. Place the cross feed limit bracket within 10 inches of the cross feed proximity switch.

   Cross feed begins at the far right side and runs to the left until it reaches the cross feed limit bracket.

4. Ensure the potentiometer on the door (for the cross feed distance) is set above zero.

   NOTE: Ensure that the feed potentiometer (on the pendant) is adjusted for a low speed.

5. Press the yellow start button on the door to start the planer in Auto Feed Mode.

   NOTE: The cutting head will not begin moving until it reaches full speed.

   NOTE: The cutting head will travel at the speed set at the pendant.

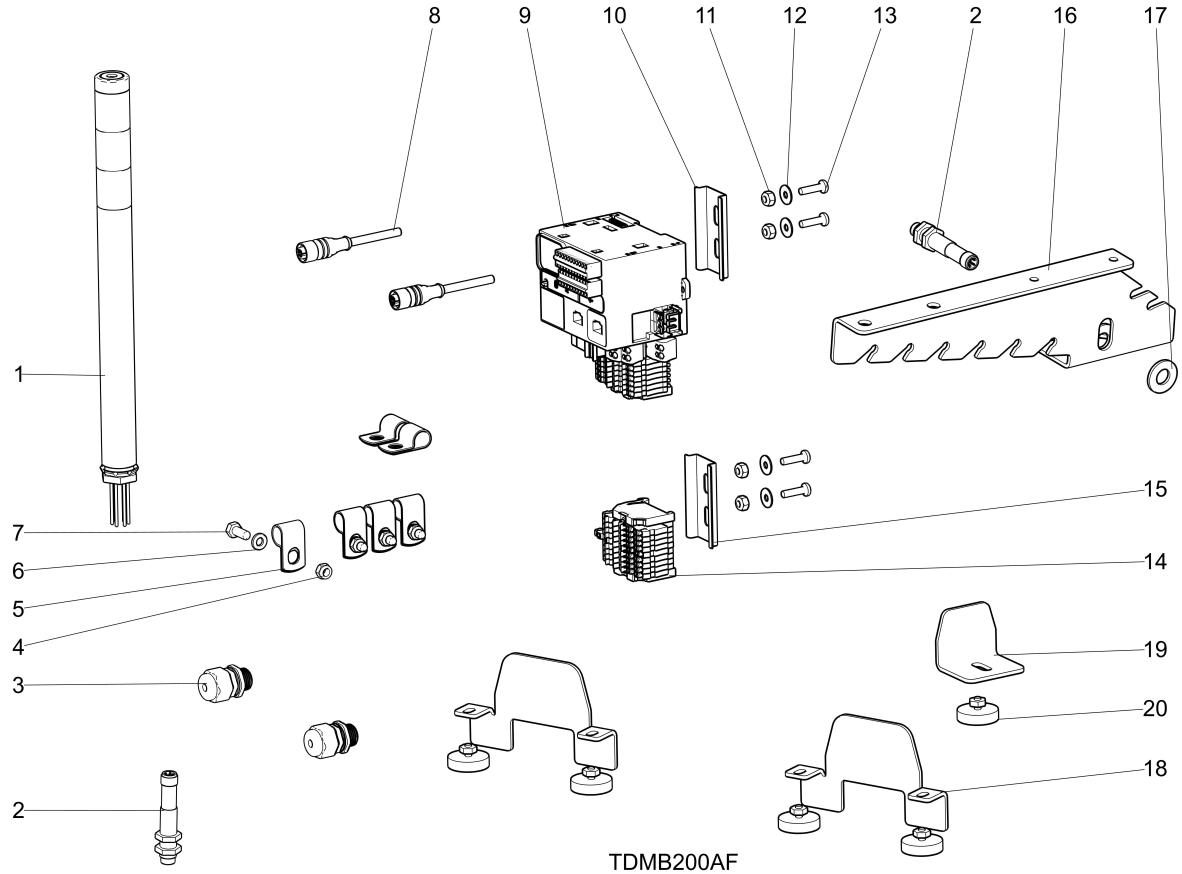
   Once the cutting head moves to each feed limit bracket, it will stop.

6. Adjust the potentiometer on the door to set the distance that the cutting head moves in the cross feed direction.

   The cutting head will move back and forth from one feed limit bracket to the other feed limit bracket, indexing in the cross feed direction, until the cross feed limit bracket is reached.

   NOTICE In Auto Feed Mode, movement of the cutting head in the “cross feed” direction using the pendant joystick is locked out. However, the pendant joystick will move the cutting head in the “feed” direction.

Replacement Parts



TDMB200AF

REF	PART #	DESCRIPTION	COMMENTS	QTY.
	MB200AF	**SlabMizer Auto Feed, Field Install**		1
1	127254	Light		1
2	051439	Sensor, Ind Prox M12 PNP NS Ex		2
3	127252	Grip, Cord		2
4	F05010-200	Nut, M6-1.0 Nylon Lock		1
5	P07584	Clamp, 1/2EMT Coated		6
6	F05026-1	Washer, M6 Flat Class 4		1
7	F05004-219	Screw, M6x1.0x16mm 8.8 HH		1
8	068456	Cable		2
9	127244	Harness, PLC		1
10	127245	DIN-Rail		1
	068434	PLC, M221 Book 16 I/O Transistor		1
	127248	Block, DIN-Rail 3 Term Blk,Red,Org,Gry,Blue,Ylw		7
	127249	Stop, DIN-Rail		1
11	F05010-160	Nut, #10-24 Hex Self-Locking		4
12	F05011-18	Washer, #10 SAE Flat		4
13	F05004-126	Bolt, #10-24x3/4 CrSI PH		4
14	127246	Harness, Terminal Block		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
15	127247	Rail, DIN		1
	127248	Block, DIN-Rail 3 Term Blk,Red,Org,Gry,Blue,Ylw		8
	127249	Stop, DIN-Rail		2
	127250	Block, DIN-Rail 4 Term Orange		1
16	127229	Bracket, Cross Feed Rope		1
17	F05011-124	Washer, M12 Flat Zinc		1
18	127230	Bracket, Feed Limit		2
19	127229	Bracket, Cross Feed Stop		1
20	127251	Magnet, Feed Stop		5
21	068901	Switch, Yellow Button		1
22	068952	Collar, NO Contact		1