MODEL G0410
43" 25 HP 3-PHASE EXTREME SERIES WIDE-BELT SANDER
OWNER'S MANUAL
(For models manufactured since 05/26)



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******Keep for Future Reference******

⚠ WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

⚠ WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **Arsenic and chromium from chemically-treated lumber.**

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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INTRODUCTION

Contact Info

We stand behind our machines! If you have questions or need help, contact us with the information below. Before contacting, make sure you get the **serial number** and **manufacture date** from the machine ID label. This will help us help you faster.

Grizzly Technical Support
1815 W. Battlefield
Springfield, MO 65807
Phone: (570) 546-9663
Email: techsupport@grizzly.com

We want your feedback on this manual. What did you like about it? Where could it be improved? Please take a few minutes to give us feedback.

Grizzly Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

⚠WARNING

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

⚠CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.

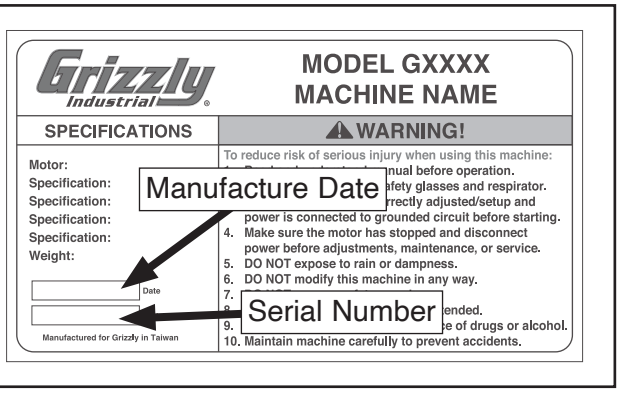
Manual Accuracy

We are proud to provide a high-quality owner's manual with your new machine!

We made every effort to be exact with the instructions, specifications, drawings, and photographs in this manual. Sometimes we make mistakes, but our policy of continuous improvement also means that **sometimes the machine you receive is slightly different than shown in the manual**.

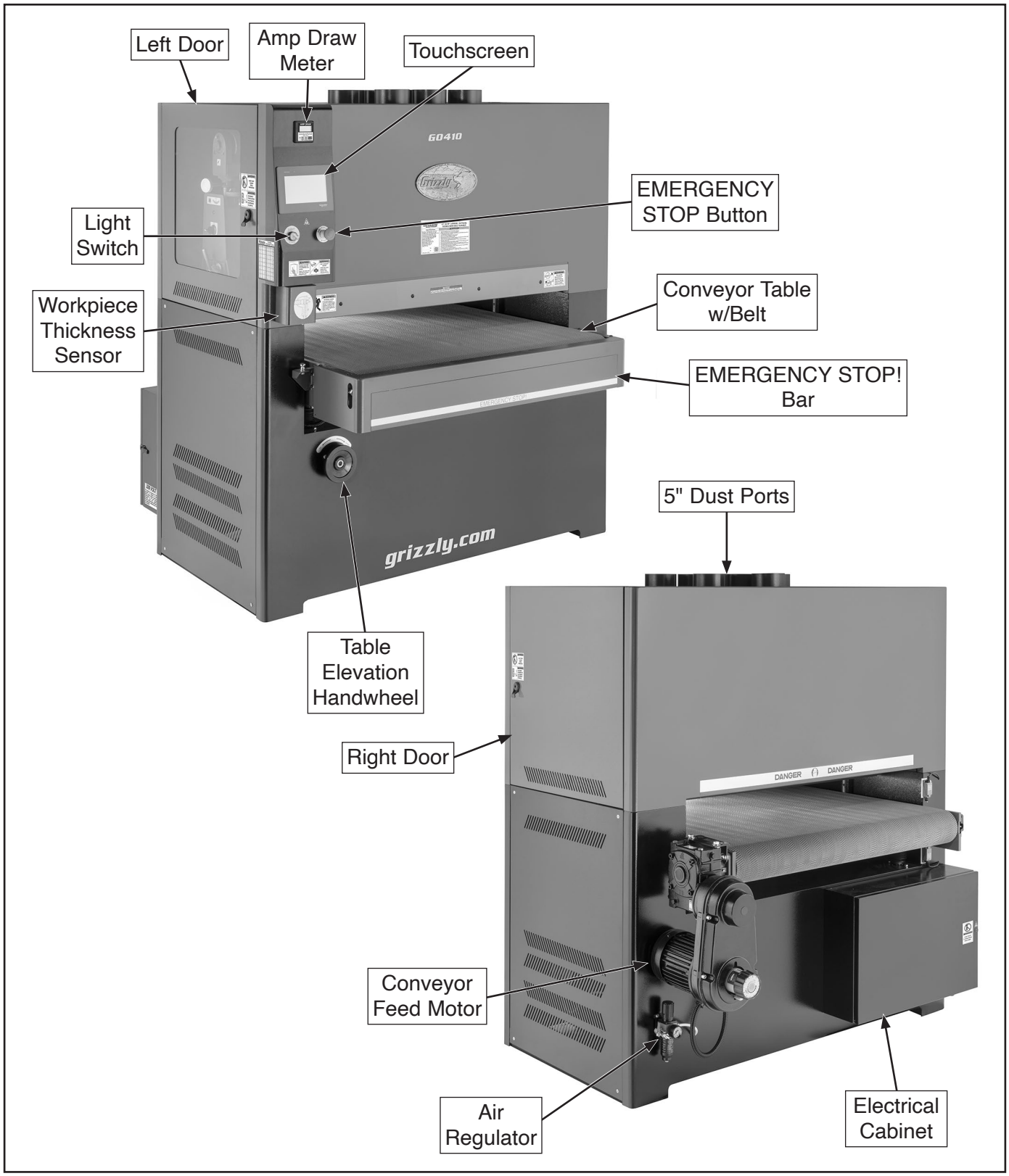
If you find this to be the case, and the difference between the manual and machine leaves you confused or unsure about something, check our website for an updated version. We post current manuals and manual updates for free on our website at **www.grizzly.com**.

Alternatively, you can call our Technical Support for help. Before calling, make sure you write down the **manufacture date** and **serial number** from the machine ID label (see below). This information is required for us to provide proper tech support, and it helps us determine if updated documentation is available for your machine.

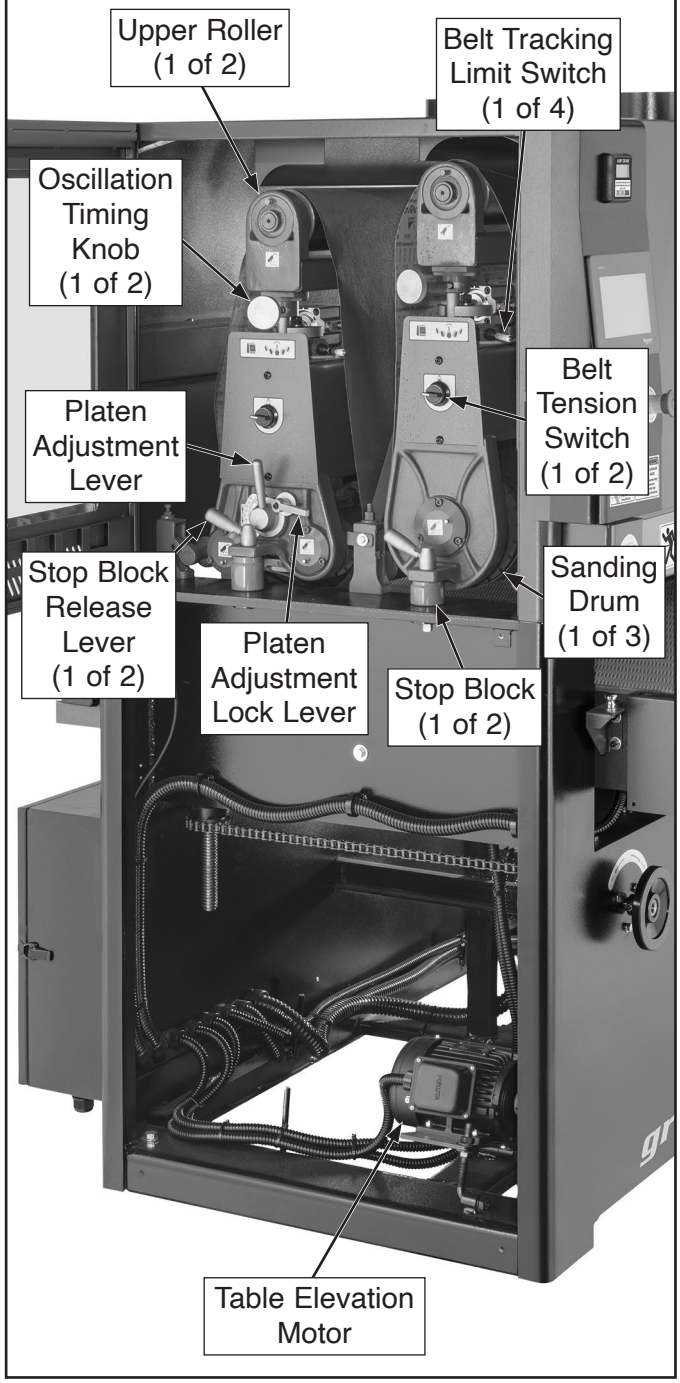


Identification

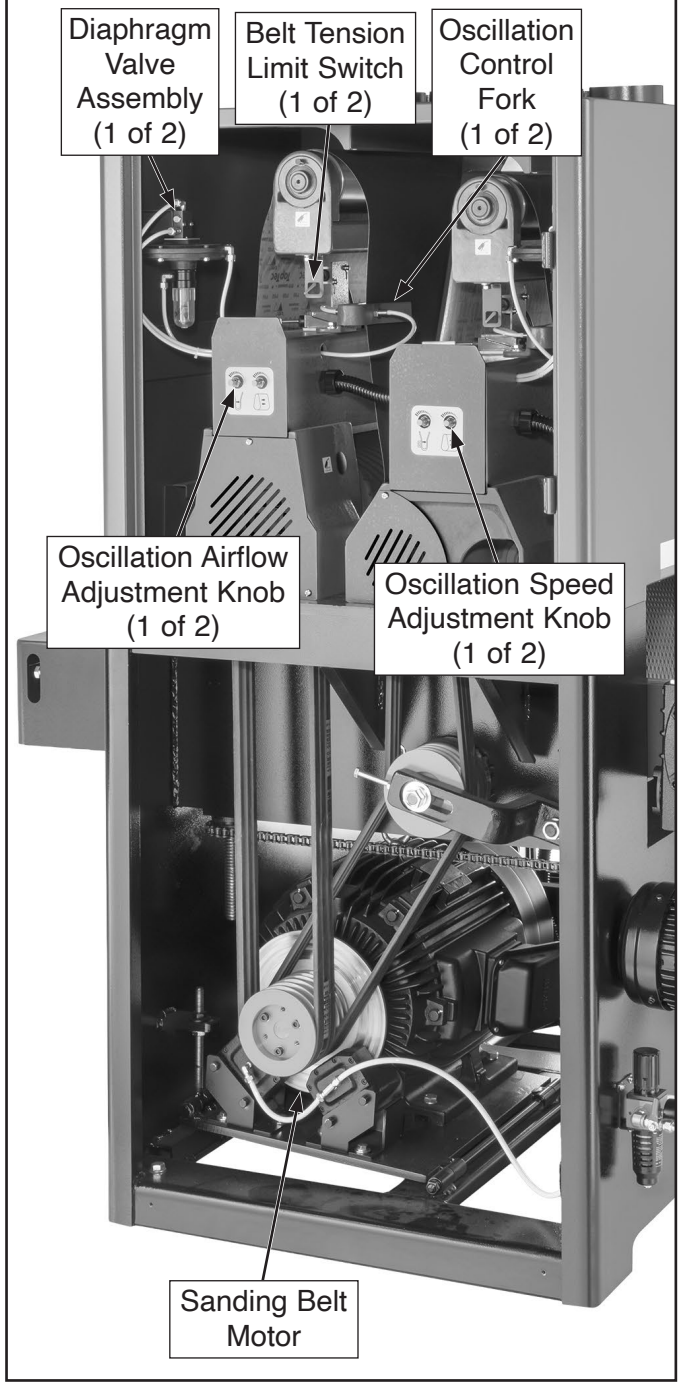
Become familiar with the names and locations of the controls and features shown below and on the following page to better understand the instructions in this manual.



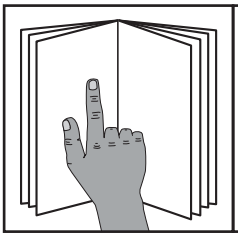
(Left Side Interior)



(Right Side Interior)



Controls & Components



⚠WARNING

To reduce your risk of serious injury, read this entire manual BEFORE using machine.

Refer to the following descriptions to become familiar with the basic machine controls and components. Understanding how these items work will help you understand the rest of the manual and minimize your risk of injury during operation.

Control Panel

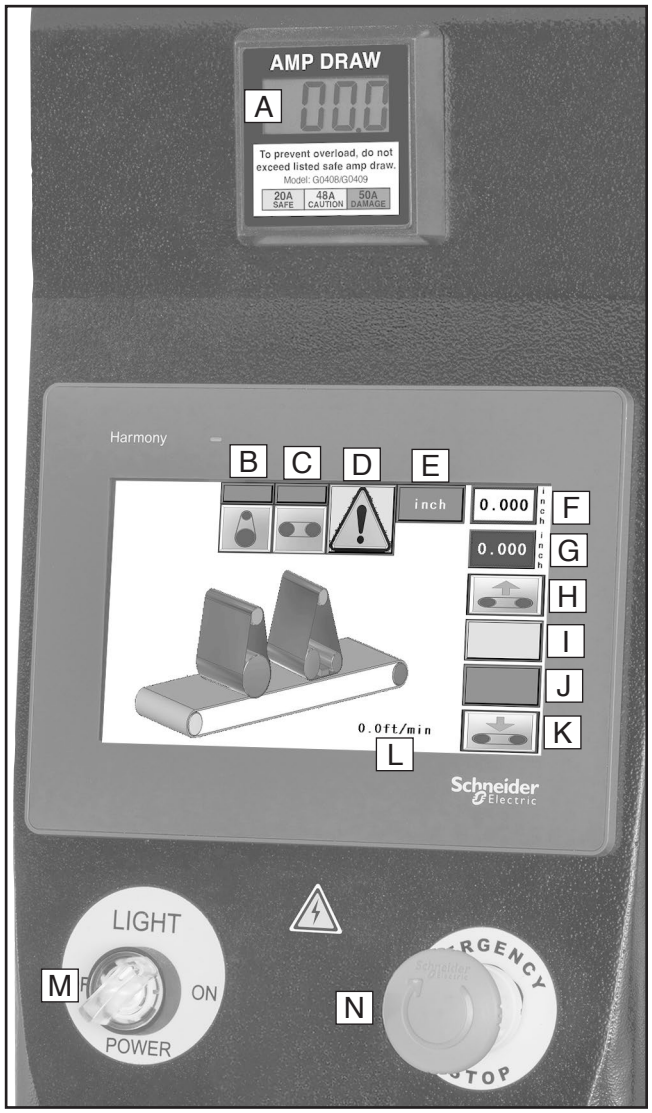


Figure 1. Control panel components.

A. Amp Draw Meter: Indicates amp load of main motor during sanding operations. Used to determine maximum depth of cut machine can handle.

B. Sanding Belt ON/OFF Button: Turns main motor ***ON*** or ***OFF***.

C. Conveyor Belt ON/OFF Button: Turns conveyor feed motor ***ON*** or ***OFF***.

D. Fault Indicator: Illuminates red when machine is engaged in a safety fault: motors will stop, interior lights will turn red, active fault log screen will appear, and table will automatically lower to prevent machine damage.

E. Inch/mm Button: Toggles display measurements between in./ft. or mm when held.

F. Thickness Display: Shows table position in relation to drums (i.e., workpiece thickness).

G. Adjust Thickness Value: Shows desired table position (i.e., workpiece thickness). Table will move to entered value after 3–5 seconds.

H. Table Up Button: Decreases "adjust thickness value" by 0.005" (0.125mm) when pressed; continuously moves table up when held.

I. Cleared Fault Button: Returns table to last entered value when table has automatically lowered due to safety fault.

J. Calibration Button: Calibrates thickness display to same value as "adjust thickness" value when held.

K. Table Down Button: Increases "adjust thickness" value by 0.005" (0.125mm) when pressed; continuously moves table down when held.

L. Feed Rate Display: Shows conveyor feed rate in ft./min. or mm/min.

M. Light Switch: Turns machine interior light ***ON*** or ***OFF***.

N. EMERGENCY STOP Button: Turns all machine functions ***OFF***; engages emergency brake to stop drum(s). Twist clockwise to reset.

Sanding Heads

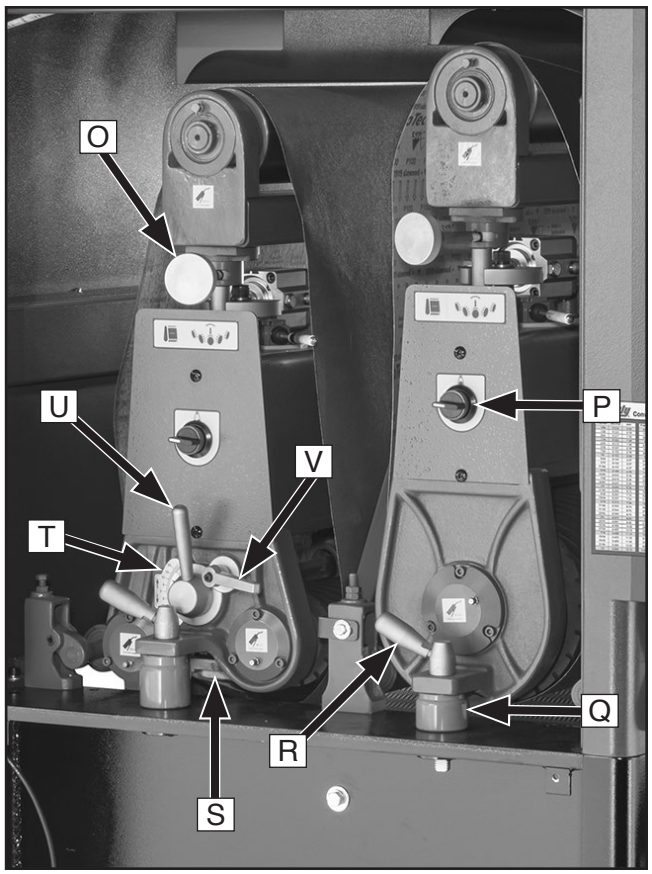


Figure 2. Left sanding head components.

O. Oscillation Timing Knob (1 of 2): Adjusts timing of sanding belt oscillation from left to right on sanding head.

P. Belt Tension Switch (1 of 2): Engages or disengages sanding belt tension on sanding head.

Q. Stop Block (1 of 2): Prevents sanding belt from oscillating off of drum(s) and roller.

R. Stop Block Release Lever (1 of 2): Unlocks to remove stop block.

S. Platen: Adjusts up and down in relation to drums on rear sanding head to provide sanding belt support and achieve a smoother finish.

T. Platen Scale: Indicates height of platen above or below sanding drums on rear sanding head.

U. Platen Adjustment Lever: Adjusts platen height for three basic types of sanding: initial heavy sanding pass, intermediate finishing pass, and final sanding pass.

V. Platen Adjustment Lock Lever: Loosens to adjust platen height; tightens to secure.

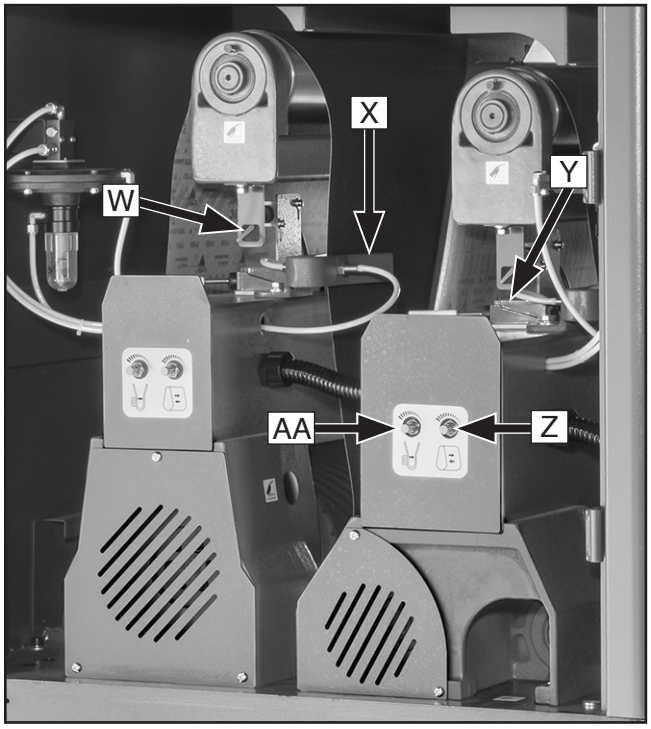


Figure 3. Right sanding head components.

W. Belt Tension Limit Switch (1 of 4): Stops sanding drum motor if sanding belt tension on either sanding head is incorrect.

X. Oscillation Control Fork (1 of 2): Directs sanding belt to reverse oscillation direction on sanding head when it passes through fork.

Y. Belt Tracking Limit Switch (1 of 4): Stops sanding drum motor if sanding belt tracking on either sanding head is incorrect.

Z. Oscillation Speed Adjustment Knob (1 of 2): Controls oscillation speed of sanding belt as it moves left and right on sanding head.

AA. Oscillation Airflow Adjustment Knob (1 of 2): Controls airflow to pneumatic cylinder that controls oscillation of sanding head.

Conveyor Table

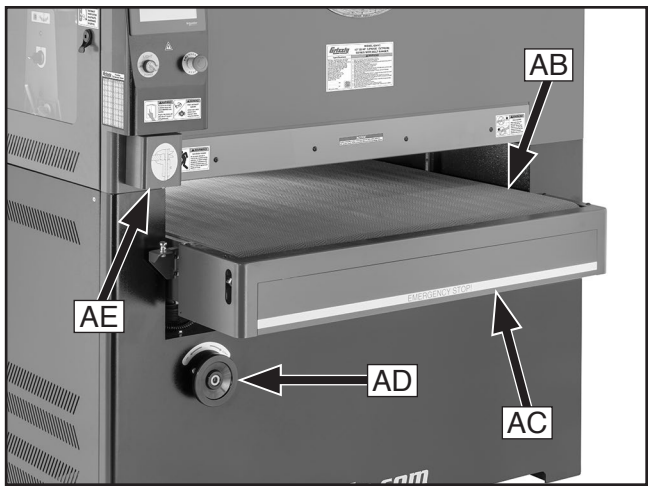


Figure 4. Front conveyor table components.

AB. Conveyor Table w/Belt: Supports and feeds workpiece during operations; can be raised or lowered according to workpiece thickness.

AC. EMERGENCY STOP! Bar: Stops all machine functions when pressed; engages emergency brake to stop rotating drums.

AD. Table Elevation Handwheel: Manually raises and lowers conveyor table. Rotate clockwise to lower table; rotate counterclockwise to raise table. One full rotation moves table approximately 0.020" (0.5mm).

AE. Workpiece Thickness Sensor: Stops table from raising past workpiece thickness. To function, workpiece must be positioned under sensor.

Note: *While sensor is engaged, all touchscreen table controls will be disabled except for table down button. Remove workpiece or press and hold table down button to disengage sensor and enable other table controls.*

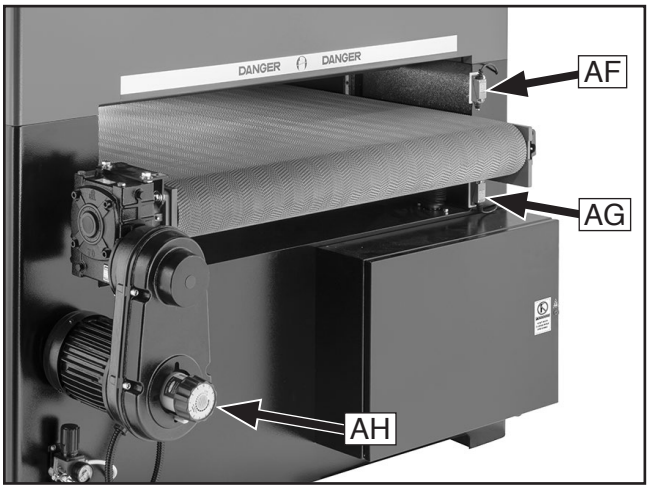


Figure 5. Rear conveyor table components.

AF. Upper Table Elevation Limit Switch: Stops control panel controls from raising table to prevent machine damage.

Note: *While switch is engaged, all touchscreen table elevation controls will be disabled except for table down button. Press and hold table down button to disengage switch and enable other table controls.*

AG. Lower Table Elevation Limit Switch: Stops control panel controls from lowering table to prevent machine damage.

Note: *While switch is engaged, all touchscreen table elevation controls will be disabled except for table up button. Press and hold table up button to disengage switch and enable other table controls.*

AH. Feed Rate Adjustment Knob: While conveyor is moving, turn knob clockwise to increase feed rate, and turn it counterclockwise to decrease feed rate.

Air Supply

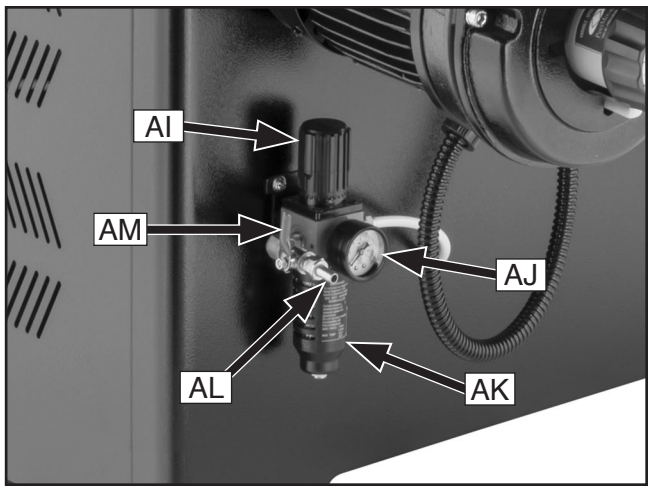


Figure 6. Air regulator components.

AI. Air Regulator Knob: Adjusts incoming air pressure. Lift knob and rotate clockwise to *increase* PSI; lift knob and rotate counter-clockwise to *decrease* PSI.

AJ. Air Regulator Gauge: Displays air pressure entering machine pneumatic system.

AK. Filter Trap: Filters water and dirt from incoming air and collects it for draining.

AL. Air Inlet: Connects to compressed air supply of 75 PSI with a ⅜" air hose.

AM. Air Supply Valve: Opens to pneumatically power sanding belt tracking and oscillation; closes to stop air from entering machine pneumatic system.

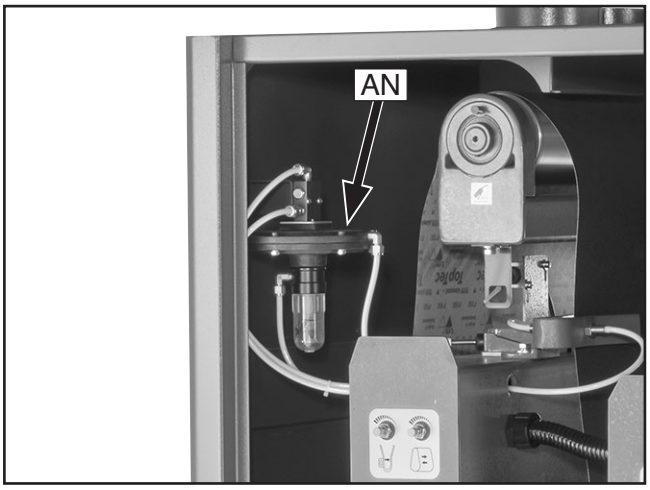


Figure 7. Diaphragm valve assembly.

AN. Diaphragm Valve Assembly (1 of 2): Directs air for sanding belt tracking and tension, and collects and traps dust within.

MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

MODEL G0410 43" 25 HP 3-PHASE EXTREME SERIES WIDE-BELT SANDER

Product Dimensions:

Weight..... 3131 lbs.
Width (side-to-side) x Depth (front-to-back) x Height..... 63 x 60 x 68 in.
Footprint (Length x Width)..... 61-1/2 x 31 in.

Shipping Dimensions:

Type..... Wood Crate
Content..... Machine
Weight..... 3418 lbs.
Length x Width x Height..... 67 x 63 x 79 in.
Must Ship Upright..... Yes

Electrical:

Power Requirement..... 220V or 440V, 3-Phase, 60 Hz
Prewired Voltage..... 220V
Full-Load Current Rating..... 70.9A at 220V, 35.5A at 440V
Minimum Circuit Size..... 90A at 220V, 50A at 440V
Connection Type..... Permanent (Hardwire to Shutoff Switch)
Switch Type..... Control Panel w/Magnetic Switch Protection

Motors:

Main

Horsepower..... 25 HP
Phase..... 3-Phase
Amps..... 64.9A/32.5A
Speed..... 1760 RPM
Type..... AEEF
Power Transfer ..... Belt
Bearings..... Shielded & Permanently Lubricated

Feed

Horsepower..... 2 HP
Phase..... 3-Phase
Amps..... 6A/3A
Speed..... 1710 RPM
Type..... AEVF
Power Transfer ..... Belt
Bearings..... Shielded & Permanently Lubricated

Table Elevation

Horsepower..... 1/4 HP
Phase..... 3-Phase
Amps..... 1.2A/0.6A
Speed..... 1650 RPM
Type..... AEEF
Power Transfer ..... Belt
Bearings..... Shielded & Permanently Lubricated

Main Specifications:

Operation Information

Number of Sanding Heads	2
Maximum Board Width	43 in.
Minimum Board Width	2 in.
Maximum Board Thickness	6 in.
Minimum Board Thickness	3/16 in.
Minimum Board Length	14 in.
Sandpaper Speed	3543 (Front), 2565 (Rear) FPM
Sanding Belt Oscillations per Minute	35 - 40 OPM
Sanding Belt Oscillation Stroke Length	3/16 - 5/8 in.
Conveyor Feed Rate	14 - 60 FPM
Sandpaper Length	60 in.
Sandpaper Width	43 in.

Drum Information

Infeed Sanding Drum Type	Spiral Grooved Rubber
Infeed Sanding Drum Size	Front 8, Rear 4 in.
Outfeed Sanding Drum Type	Steel
Outfeed Sanding Drum Size	3 in.
Shore Hardness (Durometer)	Front 70, Rear 65

Platen Information

Platen Type	Adjustable Graphite Pad
Platen Length	44-1/4 in.
Platen Width	2-1/8 in.
Platen Travel	0 - 3.5mm

Construction

Conveyor Belt	Rubber
Body	Steel
Paint Type/Finish	Powder Coated

Other Related Information

Floor To Table Height	31-7/8 - 37-1/2 in.
Belt Tracking	Pneumatic
Sanding Belt Tension	Pneumatic
Number of Pressure Rollers	3
Pressure Roller Type	Rubber
Pressure Roller Size	1-9/16 in.
Conveyor Table Length	51 in.
Conveyor Belt Length	102-3/8 in.
Conveyor Belt Width	43-5/16 in.
Belt Roller Size	4 in.
Number of Dust Ports	8
Dust Port Size	5 in.
Air Requirement	75 PSI

Other Specifications:

Country of Origin	Taiwan
Warranty	1 Year
Approximate Assembly & Setup Time	1 Hour
Serial Number Location	Machine ID Label
ISO 9001 Factory	Yes

SECTION 1: SAFETY

For Your Own Safety, Read Instruction Manual Before Operating This Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures. Always use common sense and good judgment.

⚠DANGER **Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.**

⚠WARNING **Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.**

⚠CAUTION **Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.**

NOTICE **Alerts the user to useful information about proper operation of the machine to avoid machine damage.**

Safety Instructions for Machinery

⚠WARNING

OWNER'S MANUAL. Read and understand this owner's manual BEFORE using machine.

TRAINED OPERATORS ONLY. Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make your workshop kid proof!

DANGEROUS ENVIRONMENTS. Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increases the risk of accidents and injury.

MENTAL ALERTNESS REQUIRED. Full mental alertness is required for safe operation of machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

ELECTRICAL EQUIPMENT INJURY RISKS. You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

DISCONNECT POWER FIRST. Always disconnect machine from power supply BEFORE making adjustments, changing tooling, or servicing machine. This prevents an injury risk from unintended startup or contact with live electrical components.

EYE PROTECTION. Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are NOT approved safety glasses.

⚠WARNING

WEARING PROPER APPAREL. Do not wear loose clothing, gloves, neckties, or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to reduce risk of slipping and losing control or accidentally contacting cutting tool or moving parts.

HAZARDOUS DUST. Dust created by machinery operations may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material. Always wear a NIOSH-approved respirator to reduce your risk.

HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

REMOVE ADJUSTING TOOLS. Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!

USE CORRECT TOOL FOR THE JOB. Only use this tool for its intended purpose—do not force it or an attachment to do a job for which it was not designed. Never make unapproved modifications—modifying tool or using it differently than intended may result in malfunction or mechanical failure that can lead to personal injury or death!

AWKWARD POSITIONS. Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.

GUARDS & COVERS. Guards and covers reduce accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly BEFORE operating machine.

FORCING MACHINERY. Do not force machine. It will do the job safer and better at the rate for which it was designed.

NEVER STAND ON MACHINE. Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.

STABLE MACHINE. Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.

USE RECOMMENDED ACCESSORIES. Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase the risk of serious injury.

UNATTENDED OPERATION. To reduce the risk of accidental injury, turn machine ***OFF*** and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.

MAINTAIN WITH CARE. Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

DAMAGED PARTS. Regularly inspect machine for damaged, loose, or mis-adjusted parts—or any condition that could affect safe operation. Immediately repair/replace BEFORE operating machine. For your own safety, DO NOT operate machine with damaged parts!

MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical Support at (570) 546-9663.

Additional Safety for Wide Belt Sanders

⚠WARNING

Serious injury or death can occur from getting hands trapped between workpiece and conveyor table and being pulled into machine, or becoming entangled in rotating parts inside machine. Workpieces thrown by sander can strike nearby operator or bystanders with significant force. Long-term respiratory damage can occur from using sander without proper use of a respirator. To reduce the risk of these hazards, operator and bystanders MUST completely heed the hazards and warnings below.

FEEDING WORKPIECE. Placing fingers between workpiece and conveyor can result in pinching injuries, or possibly getting trapped and pulled into sanding area of machine. DO NOT place fingers under bottom of workpiece while feeding it into sander.

SANDING DUST. Sanding creates large amounts of fine airborne dust that can lead to eye injury or serious respiratory illness. Reduce your risk by always wearing approved eye and respiratory protection when sanding. Never operate without adequate dust collection system in place and running. However, dust collection is not a substitute for using a respirator.

POWER DISCONNECT. An accidental startup while changing sanding belts or performing adjustments or maintenance can result in entanglement or abrasion injuries. Make sure machine is turned ***OFF***, disconnected from power and air, and all moving parts are completely stopped before changing belts, doing adjustments, or performing maintenance.

KICKBACK. Occurs when a workpiece is ejected out the front of sander at a high rate of speed toward operator or bystanders. To reduce risk of kickback-related injuries, always stay out of workpiece path, only feed one board at a time, and always make sure pressure rollers are properly adjusted below sanding roller. Never sand workpieces below minimum specifications listed in **Machine Data Sheet**.

AVOIDING ENTANGLEMENT. Tie back long hair, remove jewelry, and do not wear loose clothing or gloves. These can easily get caught in moving parts. Never reach inside machine or try to clear jammed workpiece while machine is operating. Keep all guards in place and secure.

SANDPAPER CONTACT. Rotating sandpaper can remove a large amount of flesh quickly. Keep hands away from rotating sanding drum(s) during operation. Never touch moving sandpaper.

⚠WARNING

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

⚠CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.

Additional Safety for Compressed Air

⚠WARNING

Serious impact injuries can occur from bursting air components. Eyes and other soft tissues can be easily injured by air streams and debris projected by compressed air. To reduce these risks, operator and bystanders MUST completely heed the warnings below.

PROPER PPE. Always wear ANSI-approved eye and hearing protection. Pneumatic components can propel objects and debris at high speeds or even explode. Air escaping from pneumatic components and connections can exceed safe noise exposure limits and may cause hearing damage with prolonged exposure.

AIR SUPPLY. Only supply clean, dry, regulated compressed air for operations. Never exceed maximum operating pressure or components may burst and cause injury. Never use oxygen, carbon dioxide, combustible gases, or any bottled gas as air source, as these can explode.

INTEGRITY OF AIR COMPONENTS. Inspect air tank, attachment connections, hoses, fittings, and valves for rust, damage, leaks, weakness, looseness, or excessive wear and repair/replace damaged components before operating. Do not attempt to modify, weld on, or repair tank because doing so could cause it to burst. Replace a damaged tank immediately.

AIR ATTACHMENTS. Never use damaged components—they are more likely to rupture. Use proper air hose for connections and confirm air hose is long enough to reach work area without stretching. Always relieve line pressure before connecting or disconnecting air supply or tools. Disconnect air supply when not in use.

MODIFICATIONS. DO NOT adjust or remove safety relief valve. Safety relief valve is designed and adjusted for correct tolerances and abilities of air supply to keep tank and other components from bursting.

INTENDED USE. DO NOT use compressed air as breathable air supply, and DO NOT aim compressed air or air tools at body parts or people. Compressed air can injure or propel debris into eyes or other soft tissues.

DAILY MAINTENANCE. Drain moisture from air supply tank daily to prevent internal corrosion that will weaken tank.

SECTION 2: POWER SUPPLY

Availability

Before installing the machine, consider the availability and proximity of the required power supply circuit. If an existing circuit does not meet the requirements for this machine, a new circuit must be installed. To minimize the risk of electrocution, fire, or equipment damage, installation work and electrical wiring must be done by an electrician or qualified service personnel in accordance with all applicable codes and standards.



⚠WARNING

Electrocution, fire, shock, or equipment damage may occur if machine is not properly grounded and connected to power supply.

Full-Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or sum of all motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating at 220V..70.9 Amps
Full-Load Current Rating at 440V..35.5 Amps

The full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating.

If the machine is overloaded for a sufficient length of time, damage, overheating, or fire may result—especially if connected to an undersized circuit. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the specified circuit requirements.

Circuit Information

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)

⚠CAUTION

For your own safety and protection of property, consult an electrician if you are unsure about wiring practices or electrical codes in your area.

Note: *Circuit requirements in this manual apply to a dedicated circuit—where only one machine will be running on the circuit at a time. If machine will be connected to a shared circuit where multiple machines may be running at the same time, consult an electrician or qualified service personnel to ensure circuit is properly sized for safe operation.*

Circuit Requirements for 220V

This machine is prewired to operate on a power supply circuit that has a verified ground and meets the following requirements:

Nominal Voltage 220V, 230V, 240V
Cycle ..... 60 Hz
Phase 3-Phase
Power Supply Circuit ..... 90 Amps

Circuit Requirements for 440V

This machine can be converted to operate on a power supply circuit that has a verified ground and meets the requirements listed below. (Refer to **Voltage Conversion** instructions for details.)

Nominal Voltage 440V, 480V
Cycle ..... 60 Hz
Phase 3-Phase
Power Supply Circuit ..... 50 Amps

Connection Type

A permanently connected (hardwired) power supply is typically installed with wires running through mounted and secured conduit. A disconnecting means, such as a locking switch (see following figure), must be provided to allow the machine to be disconnected (isolated) from the power supply when required. This installation must be performed by an electrician in accordance with all applicable electrical codes and ordinances.

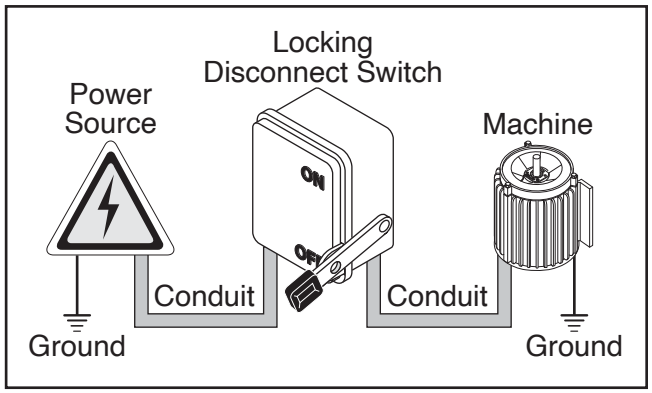


Figure 8. Typical setup of a permanently connected machine.

NOTICE

DO NOT use a phase converter to supply 3-phase power, as it could damage or decrease life of electrical components. Damage caused by running this machine with a phase converter will not be covered under warranty.

Extension Cords

Since this machine must be permanently connected to the power supply, an extension cord cannot be used.

Grounding Instructions

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electrical current to reduce the risk of electric shock. A permanently connected machine must be connected to a grounded metal permanent wiring system; or to a system having an equipment-grounding conductor. All grounds must be verified and rated for the electrical requirements of the machine. Improper grounding can increase the risk of electric shock!

⚠WARNING

Serious injury could occur if you connect machine to power before completing setup process. DO NOT connect to power until instructed later in this manual.

Converting Voltage to 440V

The Model G0410 is prewired to operate on 220V power, but it can be converted for 440V operation. This conversion must be done by an electrician or qualified service personnel before the machine has been connected to power. The procedure consists of: 1) moving a wire on the transformer from the 220V to the 440V terminal, 2) replacing the main and feed motor overload relays, and 3) rewiring the motors for 440V operation.

Wiring diagrams are provided in the wiring section showing the Model G0410 wired for both 220V and 440V. Refer to these when following this procedure.

IMPORTANT: If the diagram included on any of the motors conflicts with the one shown in this manual, the motor may have changed since the manual was printed. Use the diagram provided on the motor.

Items Needed	Qty
Phillips Head Screwdriver #2	1
Flat Head Screwdriver 1/16" (or Smaller)	1
Wrenches 8, 10mm	1 Ea.
Schneider Overload Relays	
—LR3D22 (P04107112X)	1
—LR3D08 (P04107114X)	1
Phillips Head Screws M6-1 x 12	3
Hex Nuts M6-1	3
Transfer Tape	As Needed
Electrical Tape	As Needed

To convert voltage to 440V:

1. Remove Phillips head screw shown in **Figure 9**, then open electrical cabinet door.

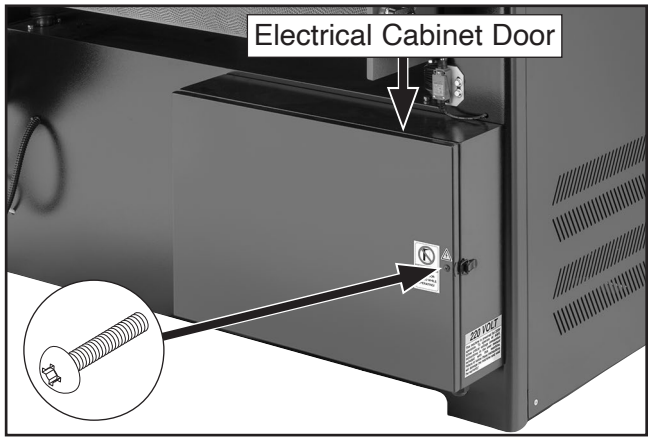


Figure 9. Electrical cabinet door and screw.

2. Remove wire labeled "1" at 220V terminal of transformer (see **Figure 10**) and connect it to 440V terminal.

   Note: *Press rear of terminal spring clamp to release/attach wire.*

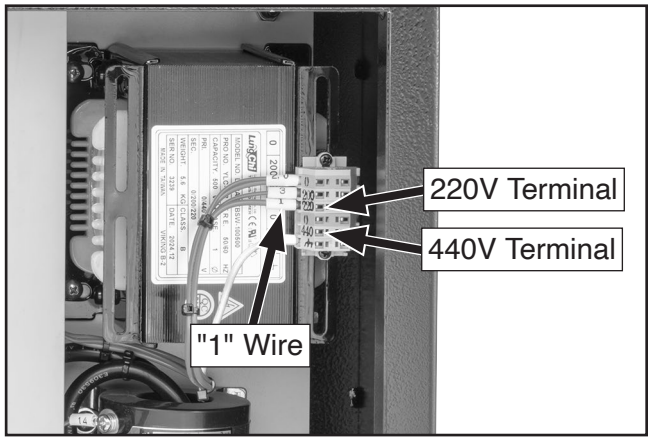


Figure 10. Location of "1" wire and supply voltage terminals on transformer.

3. Remove main motor overload relay (see **Figure 11**), replace it with LR3D22 (16–24A) relay, and set dial to 16A.

4. Remove feed motor overload relay (see **Figure 11**), replace it with LR3D08 (2.5–4A) relay, and set dial to 3A.

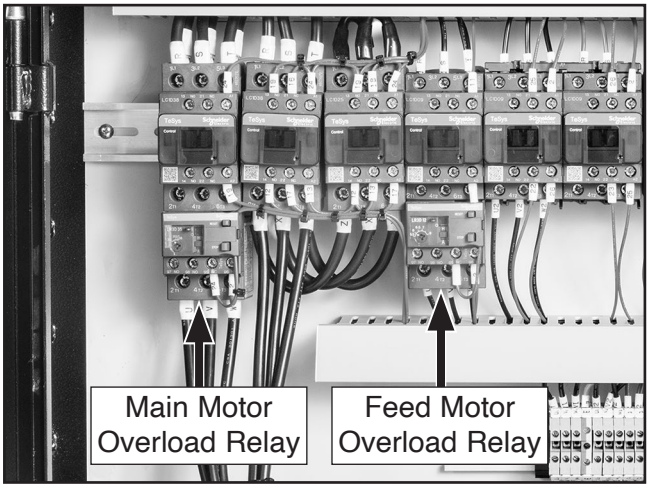


Figure 11. Location of main motor and feed motor overload relays.

5. Remove (8) screws shown in **Figure 12** to remove left and right access panels.

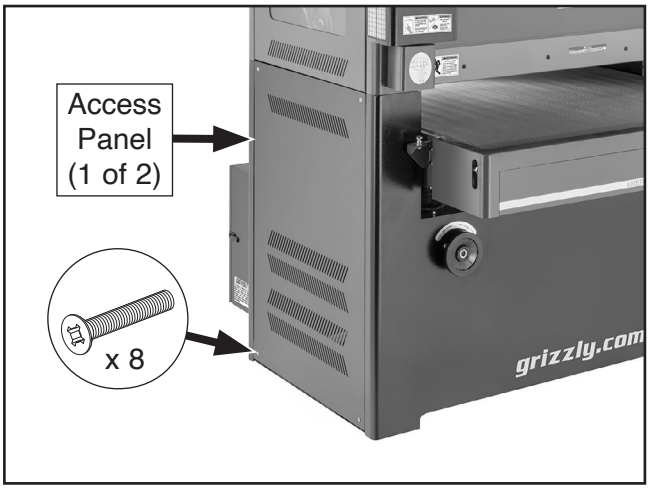


Figure 12. Location of access panels and screws.

6. Open main motor junction box and remove (12) terminal hex nuts (see **Figure 13**) to disconnect motor wires.

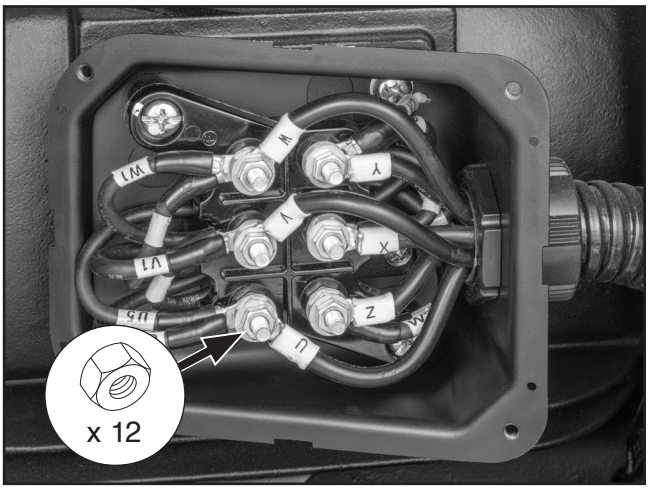


Figure 13. Location of terminal hex nuts in main motor junction box.

7. Connect "W2" wire to "W5" wire with (1) M6-1 x 12 Phillips head screw and M6-1 hex nut, as shown in **Figure 14**, then wrap screw and nut with heat transfer tape and electrical tape.

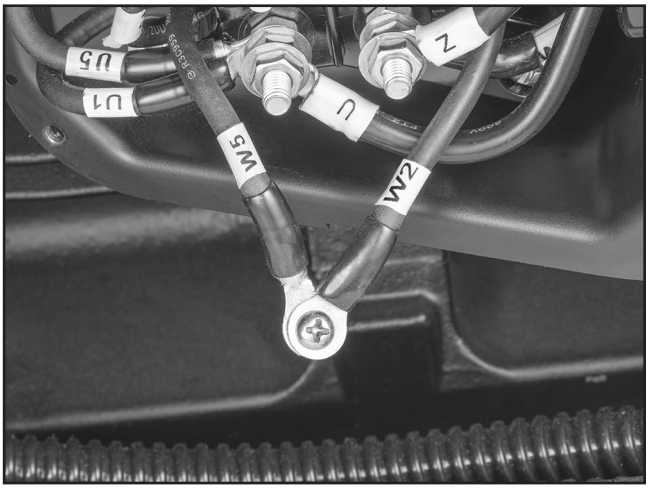


Figure 14. W2 and W5 wires connected with screw and nut.

8. Repeat **Step 7** to connect "U2" and "U5" wires.

9. Repeat **Step 7** to connect "V2" and "V5" wires.

10. Use hex nuts removed in **Step 6** to connect remaining main motor wires to terminals shown in **Figure 15**, then close main motor junction box.

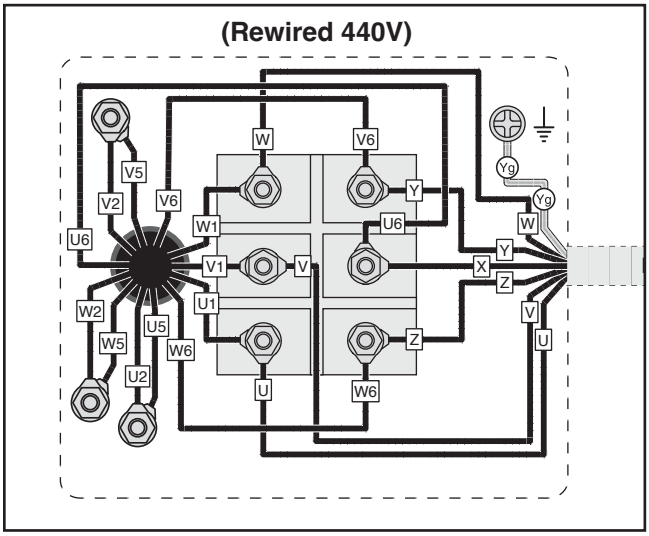


Figure 15. Main motor wired for 440V operation.

11. Open feed motor junction box and remove (6) terminal hex nuts (see **Figure 16**) to disconnect motor wires.

12. Remove (2) jumpers from terminals (see **Figure 16**). Jumpers will not be reused.

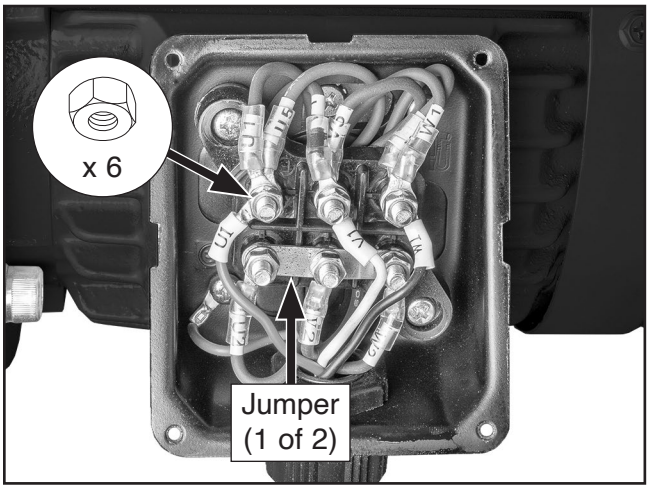


Figure 16. Location of terminal hex nuts and jumpers in feed motor junction box.

13. Use hex nuts removed in **Step 11** to connect feed motor wires to terminals shown in **Figure 17**, then close feed motor junction box.

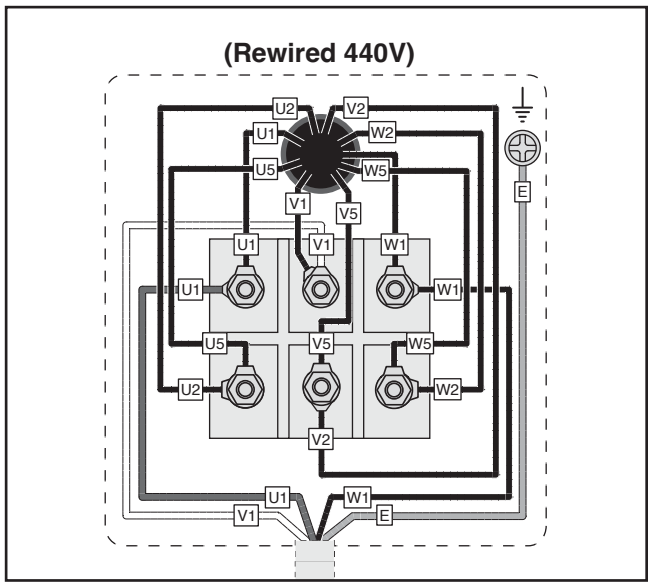


Figure 17. Feed motor wired for 440V operation.

14. Open table elevation motor junction box and remove (6) terminal hex nuts (see **Figure 18**) to disconnect motor wires.

15. Remove (2) jumpers from terminals (see **Figure 18**). Jumpers will not be reused.

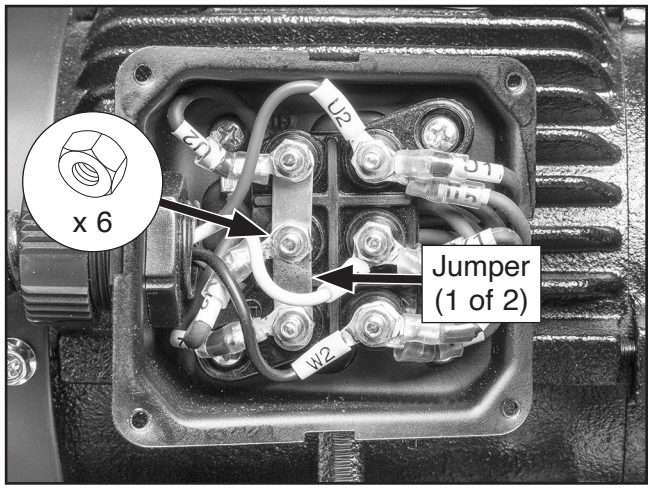


Figure 18. Location of terminal hex nuts and jumpers in table elevation motor junction box.

16. Use hex nuts removed in **Step 14** to connect table elevation motor wires to terminals shown in **Figure 19**, then close table elevation motor junction box.

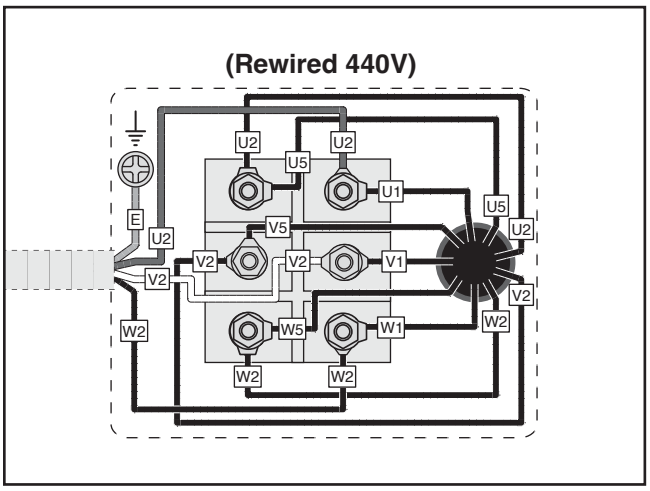
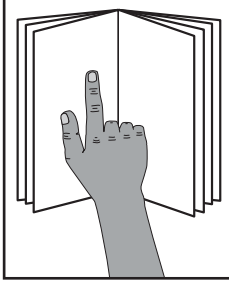


Figure 19. Table elevation motor wired for 440V operation.

17. Install access panels.

18. Close electrical cabinet door, then secure with screw removed in **Step 1**.

SECTION 3: SETUP



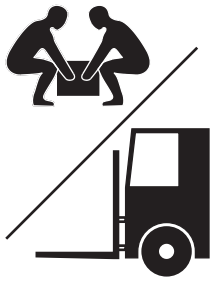
⚠WARNING

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



⚠WARNING

Wear safety glasses during the entire setup process!



⚠WARNING

HEAVY LIFT!

Straining or crushing injury may occur from improperly lifting machine or some of its parts. To reduce this risk, get help from other people and use a forklift (or other lifting equipment) rated for weight of this machine.

Needed for Setup

The following items are needed, but not included, for the setup/assembly of this machine.

Description	Qty
• Safety Glasses (For Each Person)	1
• Disposable Rags	As Needed
• Cleaner/Degreaser	As Needed
• Disposable Gloves	As Needed
• Lifting Equipment (Rated For at Least 4300 lbs.)	1
• Level	1
• Compressed Air Supply (Rated For at Least 75 PSI)	1
• Air Hose 3/8" (Rated For at Least 75 PSI)	1
• Hose Clamp 3/8"	1
• 2x4 (36" Long)	1
• Jointer	1
• Table Saw	1
• Dust Hoses 5"	8
• Hose Clamps 5"	As Needed
• Dust Collection System	1
• Flat Head Screwdriver 1/8"	1
• Wrenches 12, 14mm	1 Ea.
• Open-End Wrenches 33mm	2

Unpacking

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. ***If items are damaged, please call us immediately at (570) 546-9663.***

IMPORTANT: Save all packaging materials until you are completely satisfied with the machine and have resolved any issues between Grizzly or the shipping agent. *You MUST have the original packaging to file a freight claim. It is also extremely helpful if you need to return your machine later.*

Inventory

The following is a list of items shipped with your machine. Before beginning setup, lay these items out and inventory them.

If any non-proprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

NOTICE

If you cannot find an item on this list, carefully check around/inside the machine and packaging materials. Often, these items get lost in packaging materials while unpacking or they are pre-installed at the factory.

Loose Inventory (Figure 20)	Qty
A. Door Keys	2
B. Sanding Belts 43" x 60" 100-Grit, 180-Grit	1 Ea.
C. Flexible Grease Gun Extension	1
D. Phillips Head Screwdriver #2	1
E. Flat Head Screwdriver ¼"	1
F. Tool Box	1
G. Hex Wrenches 1.5, 2, 2.5, 3, 4, 5, 5.5, 6, 8, 10mm	1 Ea.
H. Open-End Wrenches 8 x 10, 12 x 14, 17 x 19mm	1 Ea.
I. Spare Limit Switch Tips	2
J. Spare Fuses 4A 600V	2
K. Strain Relief	1
L. Platen Removal Tool	1
M. Platen Felt Pad	1
N. Platen Graphite Pads	2

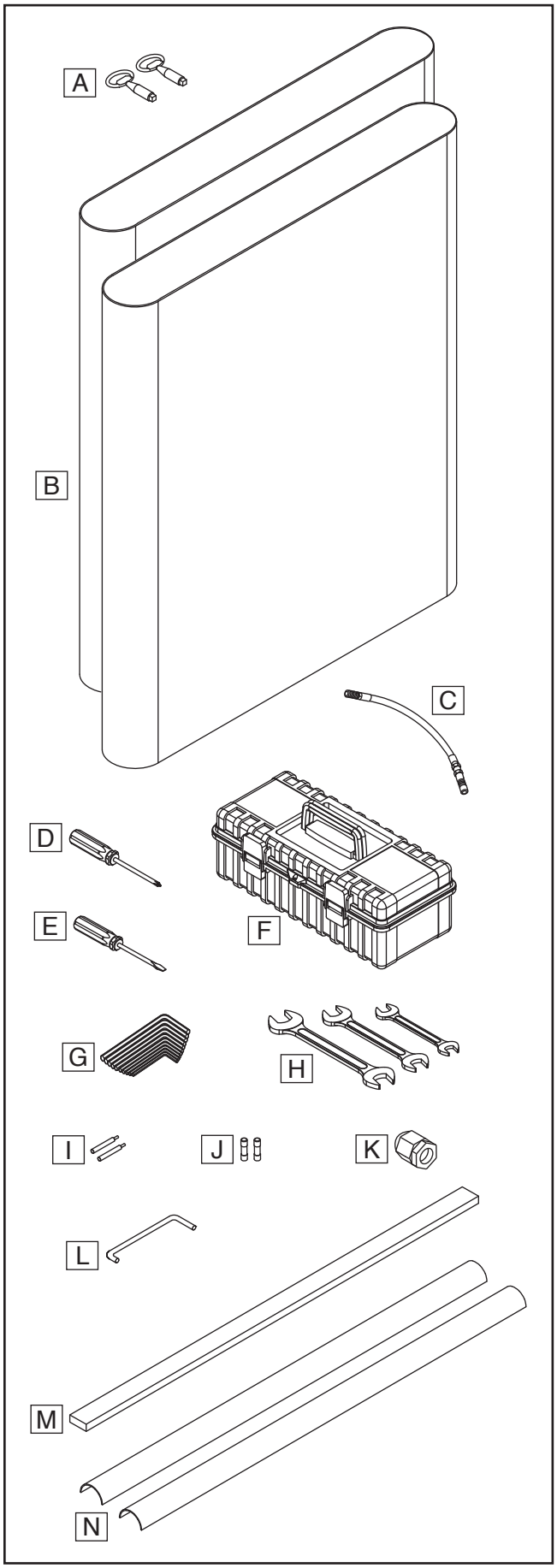


Figure 20. Loose inventory.

Cleanup

The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage. This rust preventative works extremely well, but it will take a little time to clean.

Be patient and do a thorough job cleaning your machine. The time you spend doing this now will give you a better appreciation for the proper care of your machine's unpainted surfaces.

There are many ways to remove this rust preventative, but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

Basic steps for removing rust preventative:

1. Put on safety glasses and disposable gloves.

2. Coat rust preventative with liberal amount of cleaner/degreaser (WD•40 works well), then let it soak for 5–10 minutes.

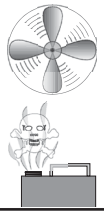
3. Wipe off surfaces. If cleaner/degreaser is effective, rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with a rag.

4. Repeat **Steps 2–3** as necessary until clean, then coat all unpainted surfaces with quality metal protectant to prevent rust.



⚠WARNING

Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. Avoid using these products to clean machinery.



⚠CAUTION

Many cleaning solvents are toxic if inhaled. Only work in a well-ventilated area.

NOTICE

Avoid harsh solvents like acetone or brake parts cleaner that may damage painted surfaces. Always test on a small, inconspicuous location first.

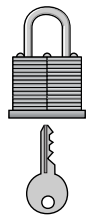
Site Considerations

Weight Load

Refer to the **Machine Data Sheet** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest workpiece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

Space Allocation

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. **See below for required space allocation.**



⚠CAUTION

Children or untrained people may be seriously injured by this machine. Only install in an access restricted location.

Physical Environment

The physical environment where the machine is operated is important for safe operation and longevity of machine components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range exceeds 41°–104°F; the relative humidity range exceeds 20%–95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

Electrical Installation

Place this machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure to leave enough space around machine to disconnect power supply or apply a lockout/tagout device, if required.

Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.

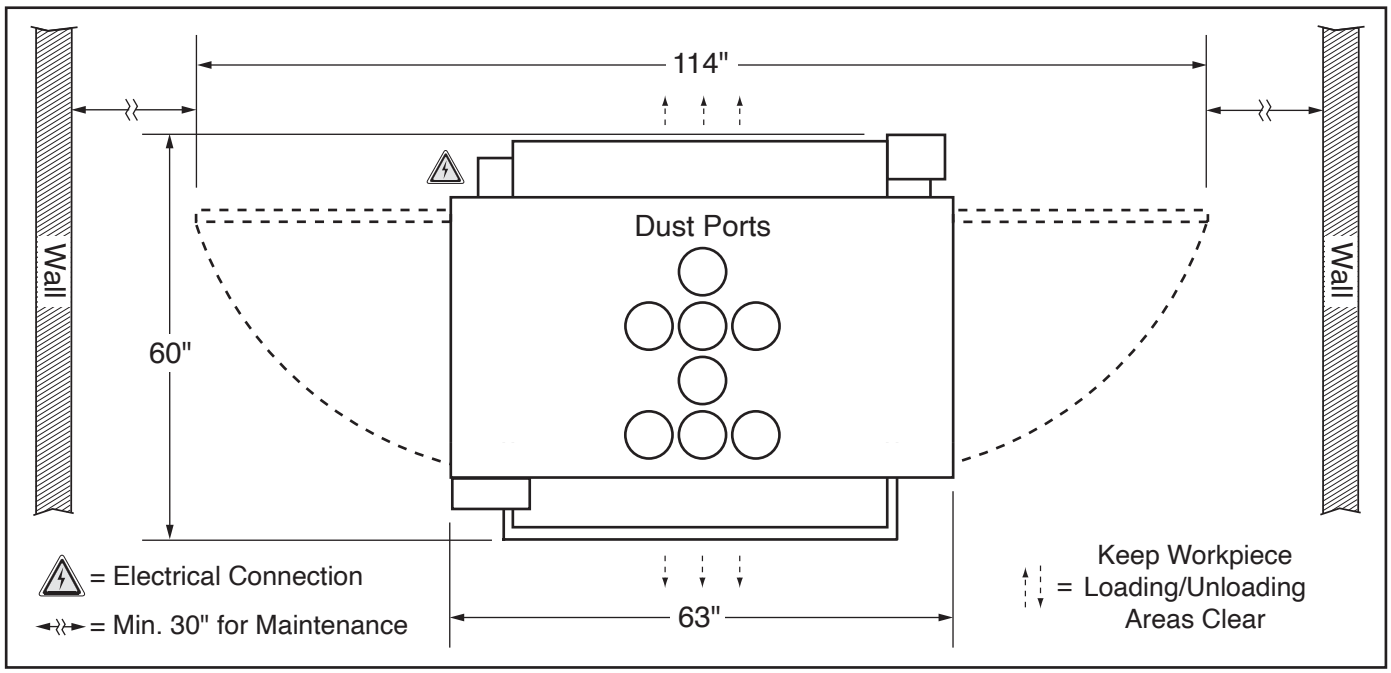


Figure 21. Minimum working clearances.

Lifting & Placing



⚠WARNING

HEAVY LIFT!

Straining or crushing injury may occur from improperly lifting machine or some of its parts. To reduce this risk, get help from other people and use a forklift (or other lifting equipment) rated for weight of this machine.

Do not attempt to lift or move this machine without using the proper lifting equipment (such as a forklift or crane). Each piece of lifting equipment must be rated for **at least 4300 lbs.** to support the dynamic loads that may be applied while lifting.

To lift and place machine:

1. Remove shipping crate top and sides, then remove toolbox and sanding belts from shipping pallet.

2. Move machine to prepared location while it is still attached to shipping pallet.

3. Remove (8) flat head screws and (2) access panels (see **Figure 22**).

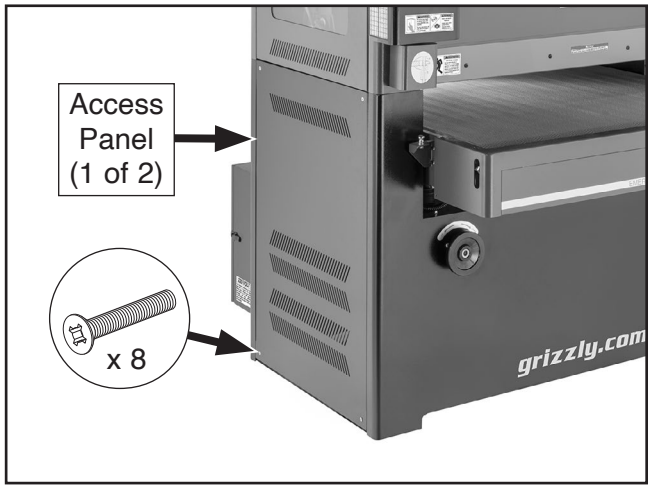


Figure 22. Location of access panels and screws.

4. Remove (4) lag screws and flat washers securing machine to pallet (see **Figure 23**).

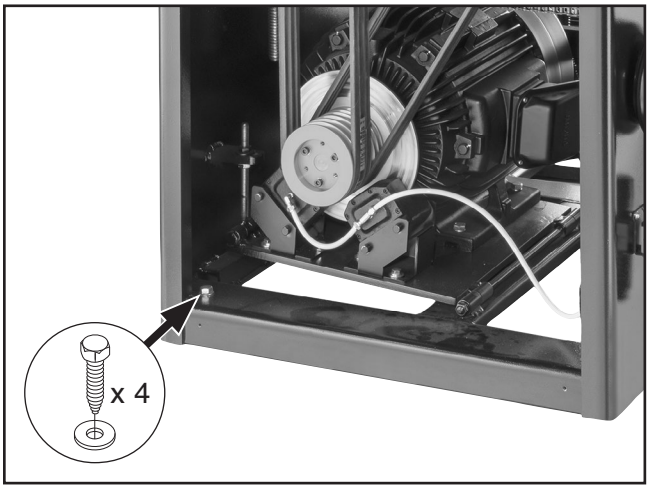


Figure 23. Location of lag screws and flat washers.

5. Carefully place forklift forks under sander (see **Figure 24**).



Figure 24. Example of lifting machine with forklift.

6. Lift sander just enough to remove pallet, then slowly lower sander to floor.

7. Level (see **Leveling** on **Page 25**) and anchor machine (see **Anchoring to Concrete Floors** on **Page 25**), if desired.

8. Install access panels and secure with screws removed in **Step 3**.

Leveling

NOTICE

For accurate sanding results and to prevent warping conveyor table, sander frame MUST be leveled from side to side and from front to back on both ends.

Re-check sander frame 24 hours after installation, two weeks after that, and then annually to make sure it will remain level.

Leveling machinery helps precision components, such as conveyor tables, remain straight and flat during the lifespan of the machine. Components on a machine that is not level may slowly twist due to the dynamic loads placed on the machine during operation.

IMPORTANT: Use only hand tools to secure machine to floor. Do not tighten with impact tools, which can permanently twist and bend components and pull a level machine out of alignment.

If needed, use metal shims between the sander frame and the ground when leveling the machine.

Anchoring to Floor

Number of Mounting Holes 4
Diameter of Mounting Hardware..... ½"

Anchoring machinery to the floor prevents tipping or shifting and reduces vibration that may occur during operation, resulting in a machine that runs slightly more quietly and feels more solid.

If the machine will be installed in a commercial or workplace setting, or if it is permanently connected (hardwired) to the power supply, local codes may require that it be anchored to the floor.

If not required by any local codes, fastening the machine to the floor is an optional step. If you choose not to do this with your machine, we recommend placing it on machine mounts, as these provide an easy method for leveling and they have vibration-absorbing pads.

Anchoring to Concrete Floors

Lag shield anchors with lag screws (see below) are a popular way to anchor machinery to a concrete floor, because the anchors sit flush with the floor surface, making it easy to unbolt and move the machine later, if needed. However, anytime local codes apply, you MUST follow the anchoring methodology specified by the code.

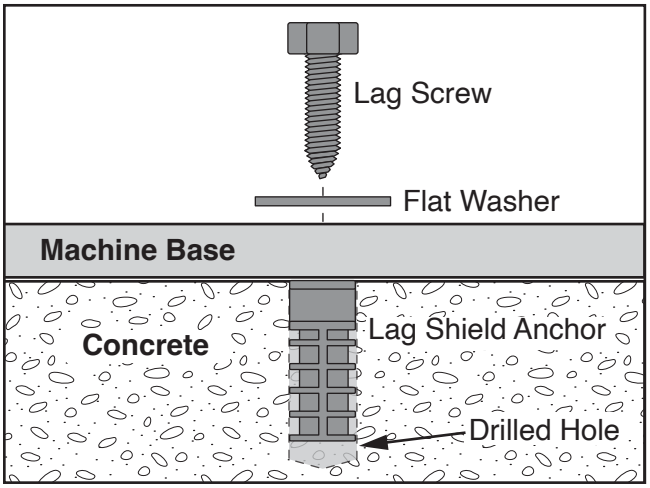


Figure 25. Popular method for anchoring machinery to a concrete floor.

Assembly

The machine must be fully assembled before it can be operated. Before beginning the assembly process, refer to **Needed for Setup** and gather all listed items. To ensure the assembly process goes smoothly, first clean any parts that are covered or coated in heavy-duty rust preventative (if applicable).

Assembly of the machine consists of installing an air supply line, installing the sanding belts, and verifying the factory-set pressure roller settings.

To assemble machine:

1. VERIFY INCOMING AIR SUPPLY IS ***OFF*** OR SET TO 0 PSI!

2. Connect air supply hose to air inlet on regulator (see **Figure 26**) and secure with hose clamp.

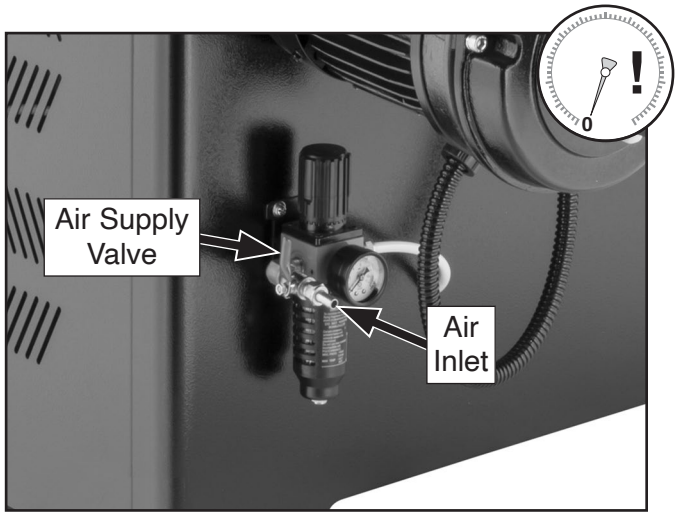


Figure 26. Location of air inlet and air supply valve on regulator.

3. Open air supply valve or turn air compressor ***ON***, and verify incoming air pressure is set to at least 75 PSI.

4. Make sure red air supply valve on regulator (see **Figure 26**) is in open position.

5. Lift regulator knob to unlock (see **Figure 27**) and rotate it until gauge reads 75 PSI.

   Note: *Rotate knob clockwise to increase air pressure and counterclockwise to decrease.*

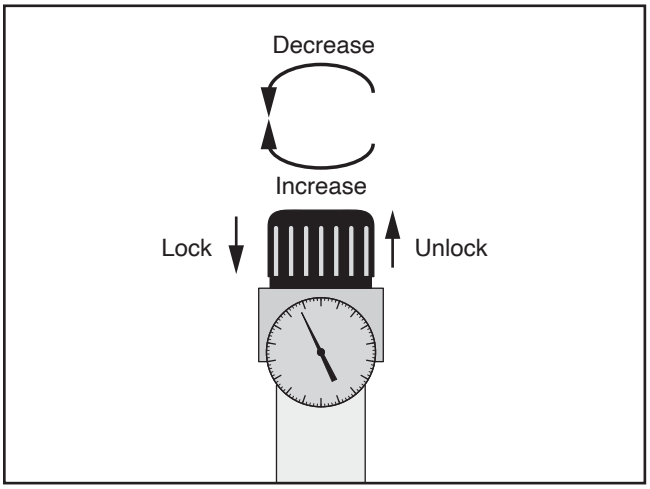


Figure 27. Regulator knob adjustment.

6. Push knob down until it clicks to lock knob.

7. With machine connected to air, open left door and turn (2) belt tension switches counterclockwise to detensioned position (see **Figure 28**).

8. Remove (2) stop block release levers by turning them counterclockwise a ½ turn and pulling them up and out of mounting holes (see **Figure 28**).

9. Remove (2) stop blocks (see **Figure 28**).

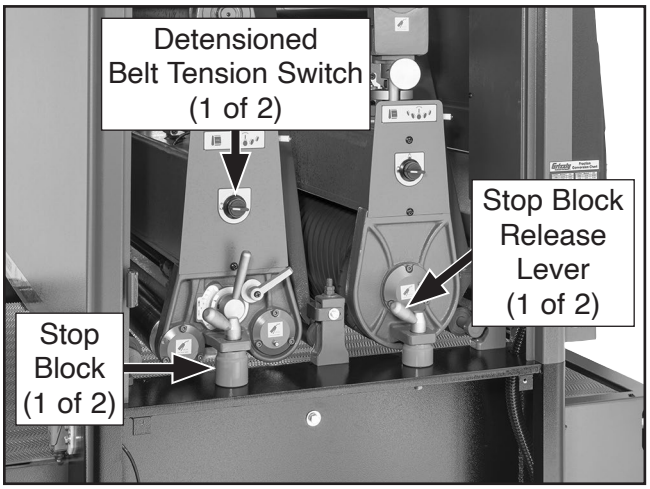


Figure 28. Sanding belt installation components (door removed for clarity).

10. On rear sanding head, install desired sanding belt over roller and drums, starting with roller (see **Figure 29**).

Tip: *We recommend installing finer grit sanding belt on rear drum so workpiece will be sanded with progressively higher grit as it advances through machine.*

Note: *Sanding belt must be centered between limit switch tips of rear sanding head and edge of sanding belt must be between tongs of belt oscillation control fork, as shown in* ***Figure 29–Figure 30****. Rotation arrows on sanding belt must also be pointing in a counterclockwise direction, as shown with dashed line in* ***Figure 29****.*

NOTICE

Failure to install and position sanding belts correctly will result in damage to sanding belts and sander.

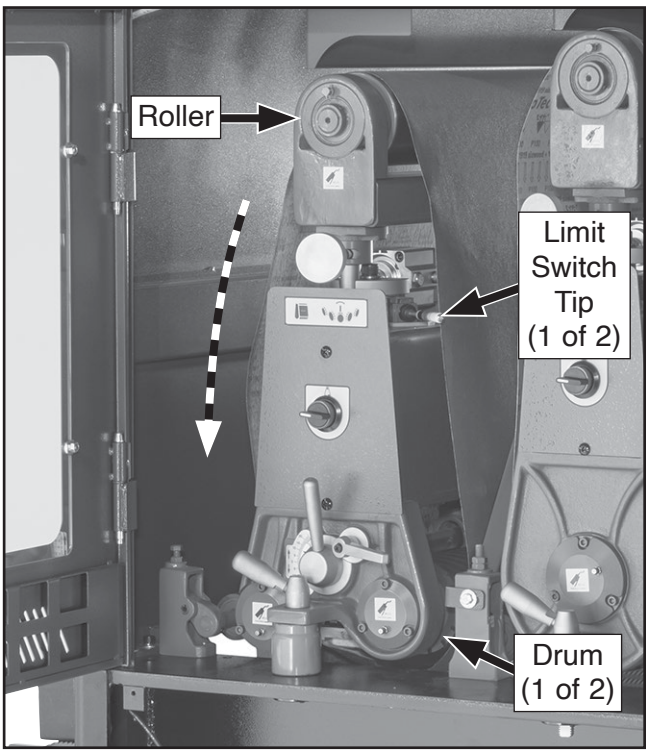


Figure 29. Sanding belt installed correctly on rear sanding drum.

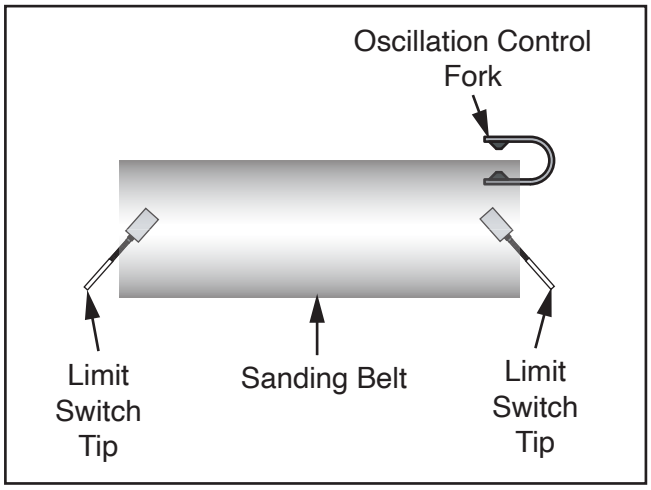


Figure 30. Proper position of belt on sanding head (top view).

11. Install stop block and stop block release lever on rear sanding head.

12. With hands clear of all moving parts, turn rear sanding head belt tension switch clockwise to tension belt.

13. Repeat **Steps 10–12** to install sanding belt on front sanding head.

⚠WARNING

Pressure rollers must be set below level of sanding drums. If pressure rollers are even with, or higher than sanding drums, wood WILL be propelled from machine at high rate of speed toward front of machine. This could cause serious kickback injury.

14. Joint 36" 2x4 so one side is flat, then use flat side against table saw fence to cut opposite side of workpiece parallel.

IMPORTANT: 2x4 MUST have uniform thickness for following steps to be completed accurately.

15. Place 2x4 across one side of conveyor table so it spans both front and rear pressure rollers (see **Figure 31**).



Figure 31. Example of 2x4 positioned to check pressure roller height.

16. Use table elevation handwheel (see **Figure 32**) to manually raise conveyor table and verify that board touches all three pressure rollers before touching sanding belt.

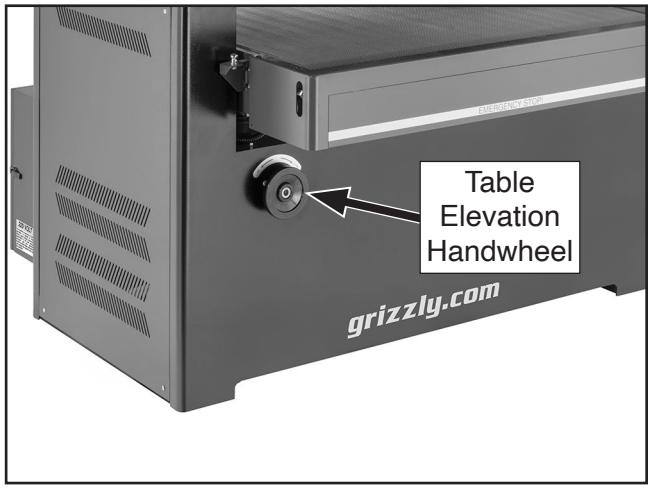


Figure 32. Location of table elevation handwheel.

17. Repeat **Steps 15–16** on opposite side of conveyor belt.

— If board touched pressure rollers before touching sanding belt on both sides, no adjustment is required. Proceed to **Step 18**.

— If board did not touch pressure rollers before touching sanding belt on both sides, or if board was difficult to place between rollers and table, then refer to **Adjusting Pressure Rollers** on **Page 72** to adjust pressure rollers before proceeding with operations.

18. Close and secure left door.

19. Turn ***OFF*** air compressor or close air valve at compressor.

Dust Collection

⚠CAUTION

This machine creates a lot of wood chips/dust during operation. Breathing airborne dust on a regular basis can result in permanent respiratory illness. Reduce your risk by wearing a respirator and capturing the dust with a dust-collection system.

Minimum CFM at Each Dust Port: 600 CFM
Do not confuse this CFM recommendation with the rating of the dust collector. To determine the CFM at the dust port, you must consider these variables: (1) CFM rating of the dust collector, (2) hose type and length between the dust collector and the machine, (3) number of branches or wyes, and (4) amount of other open lines throughout the system. Explaining how to calculate these variables is beyond the scope of this manual. Consult an expert or purchase a good dust collection "how-to" book.

To connect dust collection system to machine:

1. Fit 5" dust hose over each dust port, as shown in **Figure 33**, and secure in place with hose clamps.



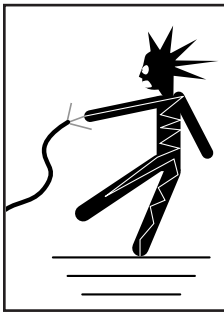
Figure 33. Example of dust hose attached to dust port.

2. Tug hoses to make sure they do not come off.

   Note: *A tight fit is necessary for proper performance.*

Power Connection

Before the machine can be connected to the power source, an electrical circuit and connection device must be prepared per the **POWER SUPPLY** section in this manual; and all previous setup instructions in this manual must be complete to ensure that the machine has been assembled and installed properly. The disconnect switch installed by the electrician (as recommended) is the primary means for disconnecting or connecting the machine to the power source.



⚠WARNING

Electrocution, fire, shock, or equipment damage may occur if machine is not properly grounded and connected to power supply.

⚠WARNING

Connecting power supply wires to machine without first disconnecting power supply may result in serious injury or death.

NOTICE

The Model G0410 is prewired for 220V. If you plan to operate machine at 440V, voltage conversion must be performed before connecting machine to power. Use instructions in Converting Voltage to 440V on Page 16 before proceeding with setup.

Hardwiring to Power Supply

Hardwire setups require the power supply lines to be enclosed inside of conduit, which is securely mounted and constructed in adherence to applicable electrical codes.

A hardwire setup for this machine must be equipped with a locking disconnect switch as a means to disconnect power during adjustments or maintenance, which is a typical requirement for many lock-out/tag-out safety programs.

Figure 34 shows a simple diagram of a hardwire setup with a locking disconnect switch between the power supply and the machine.

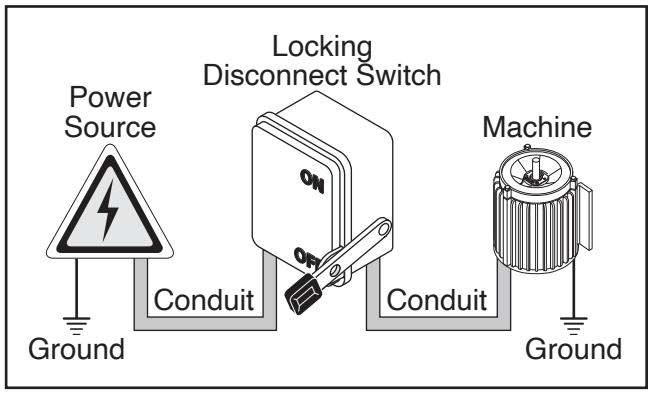


Figure 34. Typical setup of a locking disconnect switch.

Due to the complexity required for planning, bending, and installing the conduit necessary for a code-compliant hardware setup, an electrician or other qualified personal MUST perform this type of installation.

Connecting Power Supply Wires

1. Prepare hardwire power source according to circuit requirements specified on **Page 15**.

2. DISCONNECT HARDWIRED POWER SOURCE OR LOCK DISCONNECT SWITCH BOX IN OFF POSITION!

3. Remove Phillips head screw shown in **Figure 35**, then open electrical cabinet door.

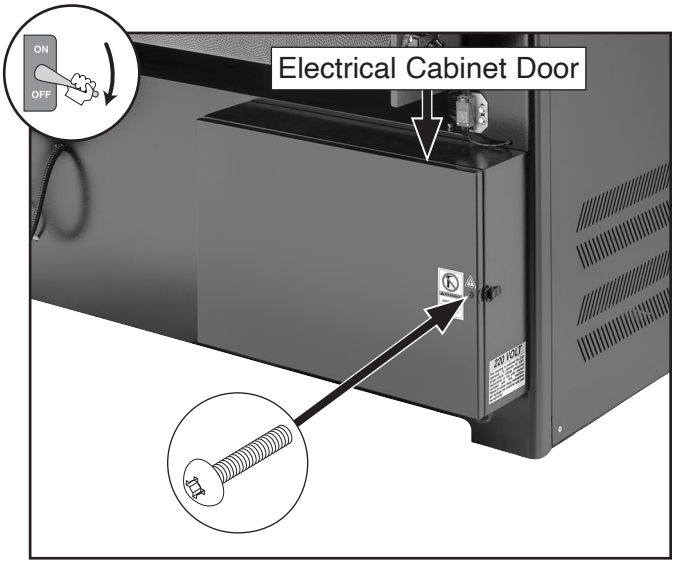


Figure 35. Location of electrical cabinet door and screw.

4. Locate strain relief (see **Figure 36**) loose inside electrical cabinet and remove nut.

5. Insert strain relief into hole shown in **Figure 36**, then secure by loosely threading nut onto strain relief.

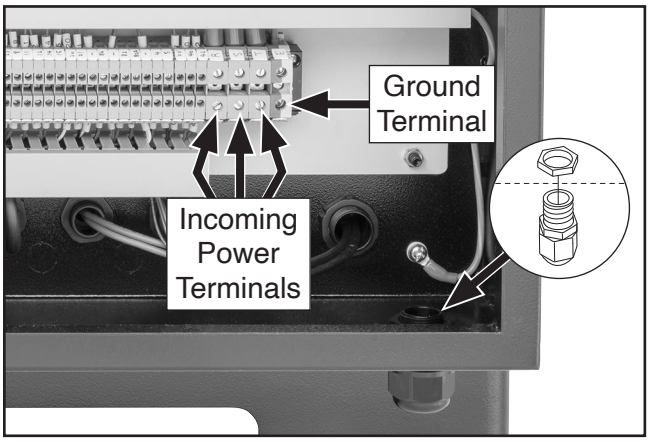


Figure 36. Power supply strain relief installed and location of ground and power wire terminals.

6. Insert incoming power wires through strain relief.

⚠WARNING

During next step, incoming ground wire MUST be connected to correct terminal to ensure machine will be properly grounded (see "Ground Terminal" in Figure 36). Ungrounded or improperly grounded machine can cause electrocution if live electrical wires make contact with frame or other parts touched by operator.

7. Connect ground wire to bottom of ground terminal "E", then connect incoming power wires to "R," "S," and "T" terminals shown in **Figure 36**.

   IMPORTANT: If connecting 4-wire delta (high-leg delta) 3-phase power supply, wild wire should attach to "T" terminal.

8. Make sure wires have enough slack inside electrical cabinet so they are not pulled tight or stretched, then tighten strain relief nut to secure.

9. Close electrical cabinet door, then secure with screw removed in **Step 3**.

Connecting to Power Source

Move the disconnect switch handle to the ON position, as illustrated below. The machine is now connected to the power source.

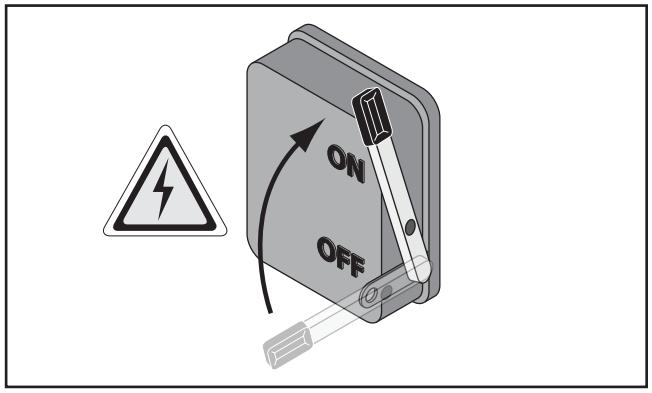


Figure 37. Connecting power to machine.

Disconnecting from Power Source

Move the disconnect switch handle to the OFF position, as illustrated below. The machine is now disconnected from the power source.

Note: *Lock the switch in the OFF position to restrict others from starting the machine.*

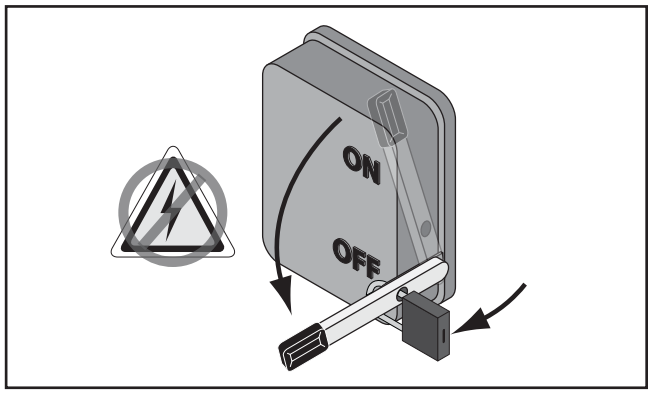


Figure 38. Disconnecting power from machine.

Correcting Phase Polarity

This subsection is only provided for troubleshooting 3-phase power connections. If you discover during the test run that the machine will not operate, or that the motor runs backwards, the power supply connection may be wired "out of phase," meaning that the polarity is incorrect as wired. This is a common situation with 3-phase power and it is easy to correct.

To correct phase polarity:

1. DISCONNECT MACHINE FROM POWER!

2. Remove Phillips head screw shown in **Figure 39**, then open electrical cabinet door.

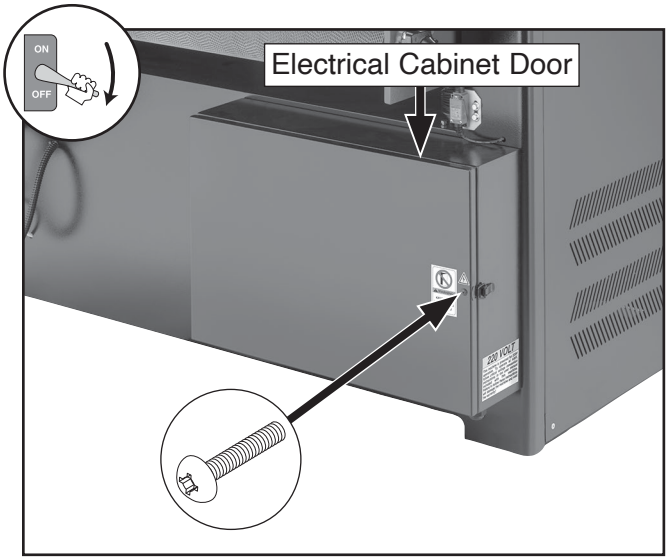


Figure 39. Location of electrical cabinet door and screw.

3. Swap wires connected to R and S power supply terminals (see **Figure 40**).

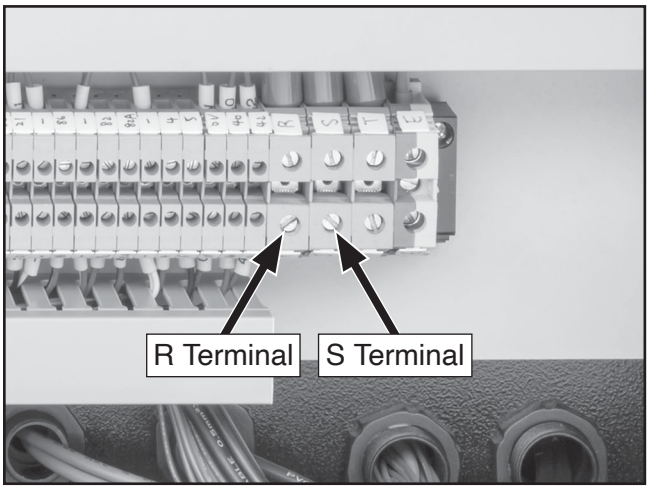


Figure 40. Location of R and S power supply terminals.

4. Close and latch electrical cabinet door.

5. Perform **Test Run** on **Page 32** to ensure that machine functions properly.

Test Run

Once assembly is complete, test run the machine to ensure it is properly connected to power and safety components are functioning correctly.

If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem BEFORE operating the machine again. The **Troubleshooting** table in the **SERVICE** section of this manual can help.

The test run consists of verifying the following: 1) the power supply polarity is correct, 2) the motors power up and run correctly, 3) the EMERGENCY STOP button works correctly, 4) the EMERGENCY STOP! bar works correctly, 5) the workpiece thickness sensor works correctly, and 6) the conveyor table elevation limit switches work correctly.

⚠WARNING

Serious injury or death can result from using this machine BEFORE understanding its controls and related safety information. DO NOT operate, or allow others to operate, machine until the information is understood.

⚠WARNING

DO NOT start machine until all preceding setup instructions have been performed. Operating an improperly set up machine may result in malfunction or unexpected results that can lead to serious injury, death, or machine/property damage.

To test run machine:

1. Clear all setup tools away from machine.

2. Connect machine to power and wait for touch screen to display main menu screen (see **Figure 41**).

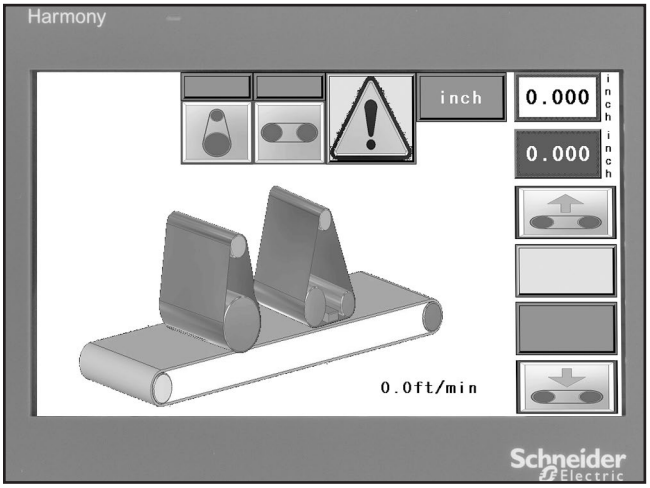


Figure 41. Main menu screen.

3. Press EMERGENCY STOP button in. Touchscreen will show active fault log screen (see **Figure 42**) to indicate that EMERGENCY STOP safety feature or limit switch is preventing machine operation.

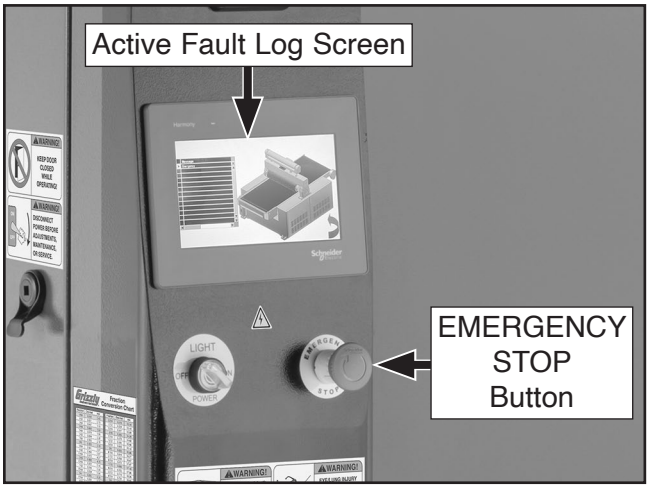


Figure 42. Active fault log screen and location of EMERGENCY STOP button.

4. Open air supply valve or turn air compressor ***ON***, and verify pressure gauge on air regulator is set to 75 PSI.

5. Twist EMERGENCY STOP button clockwise until it springs out (see **Figure 43**). This resets switch so machine can start.



Figure 43. Resetting switch.

6. Press touchscreen back arrow shown in **Figure 44** to return to main menu screen.

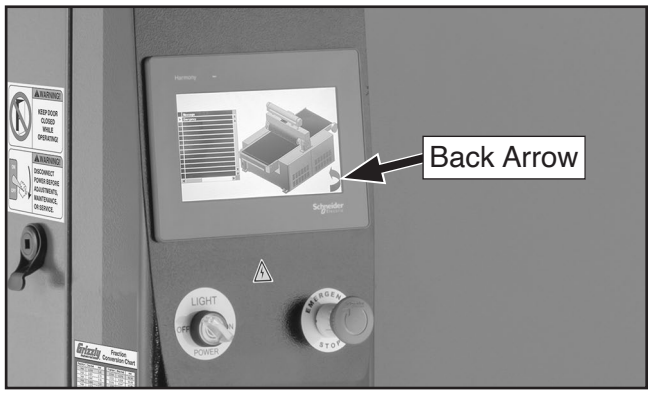


Figure 44. Location of back arrow on touchscreen.

7. Verify power supply polarity is correct by pressing and holding table up and table down buttons, respectively (see **Figure 45**).

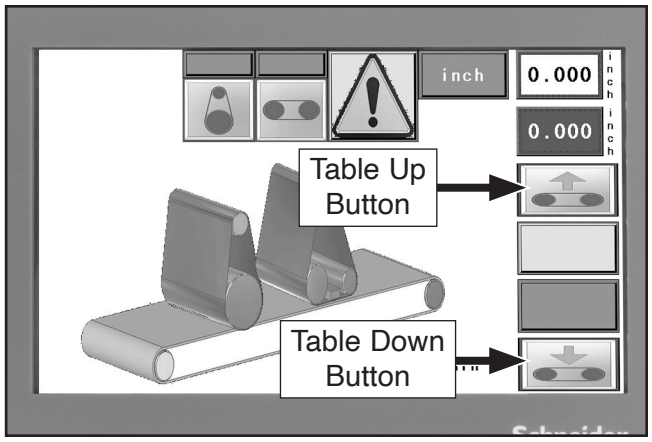


Figure 45. Location of table up and table down buttons.

— If table moves in *same* direction as key description, power supply polarity is correct.

— If table moves in *opposite* direction as key description, stop machine and DISCONNECT FROM POWER. Phase polarity of incoming power is reversed. Refer to **Correcting Phase Polarity** on **Page 31** before proceeding with Test Run.

⚠WARNING

You MUST verify that table moves in direction that button describes, otherwise all controls will function in reverse. Conveyor belt/sanding belts MUST rotate in correct direction or serious personal injury and machine damage could occur.

8. Press sanding belt ON/OFF button (see **Figure 46**). Verify main motor starts up and runs smoothly without any unusual problems or noises.

9. Press conveyor belt ON/OFF button (see **Figure 46**). Verify feed motor starts up and runs smoothly without any unusual problems or noises.

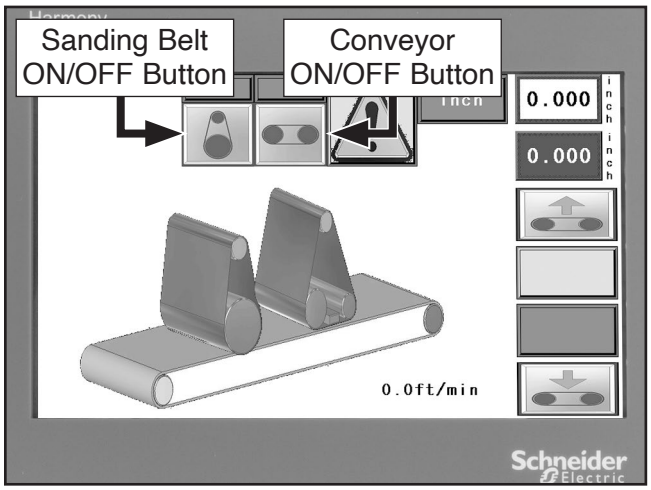


Figure 46. Location of sanding belt and conveyor ON/OFF buttons on main menu screen.

10. Press EMERGENCY STOP button to turn motors ***OFF***.

11. WITHOUT resetting EMERGENCY STOP button, try to start machine by returning to main menu screen and pressing sanding belt and conveyor belt ON/OFF buttons. Motors should not start.

— If motors *do not* start, safety feature of EMERGENCY STOP button is working correctly.

— If one or both motors *do* start, immediately turn it ***OFF*** and disconnect power. Safety feature of EMERGENCY STOP button is NOT working properly and must be corrected before further using machine. Contact Tech Support.

12. Reset EMERGENCY STOP button.

13. Press sanding belt and conveyor ON/OFF buttons to start motors.

14. Press EMERGENCY STOP! bar (see **Figure 47**).



Figure 47. Location of EMERGENCY STOP! bar.

— If sanding and conveyor belts come to a complete stop, safety feature of EMERGENCY STOP! bar is working correctly.

— If sanding and conveyor belts *do not* come to complete stop, immediately disconnect power. Safety feature of EMERGENCY STOP! bar is NOT working correctly and must be corrected before further using machine. Contact Tech Support.

15. Press touchscreen back arrow to return to main menu screen.

16. Place 2x4 on conveyor table so part of it extends under workpiece thickness sensor (see **Figure 48**).

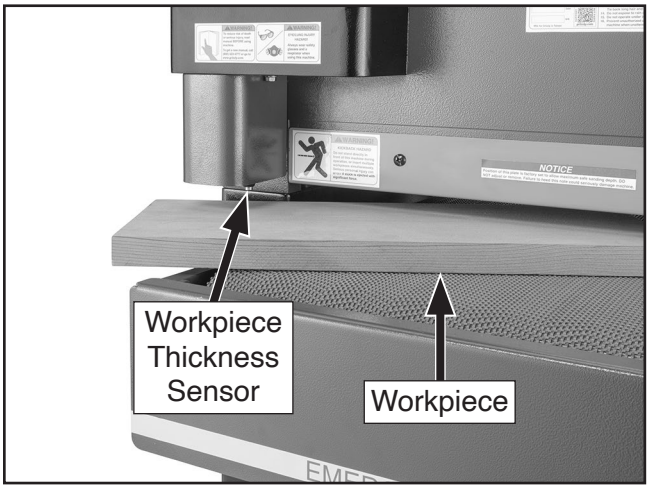


Figure 48. Example of workpiece under workpiece thickness sensor.

17. Press and hold table up button. When workpiece contacts workpiece thickness sensor, table should stop.

— If table *does* stop, workpiece thickness sensor is working correctly.

— If table *does not* stop, refer to **Calibrating Workpiece Thickness Sensor** on **Page 60** to adjust sensor before proceeding with test run.

18. Remove workpiece from conveyor table.

19. Press and hold table up button. When table stop block (see **Figure 49**) presses upper table elevation limit switch, table should stop.

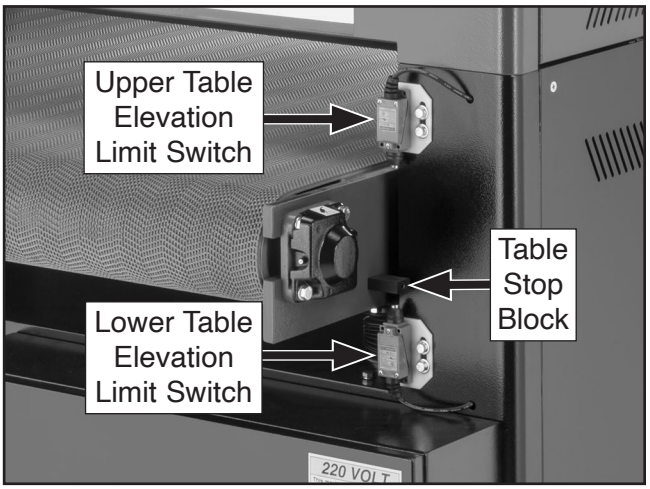


Figure 49. Location of table elevation limit switches and stop block.

— If table *does* stop, upper limit switch is working correctly.

— If table *does not* stop, immediately disconnect power. Upper limit switch is not working correctly and must be adjusted before further using machine. Contact Tech Support.

20. Press touchscreen back arrow to return to main menu screen.

21. Press and hold table down button. When table stop block (see **Figure 49**) presses lower table elevation limit switch, table should stop.

— If table *does* stop, lower limit switch is working correctly.

— If table *does not* stop, immediately disconnect power. Lower limit switch is not working correctly and must be adjusted before further using machine. Contact Tech Support.

22. Press touchscreen back arrow to return to main menu screen.

23. Press and hold table up button to raise table until limit switch is no longer engaged.

Congratulations! The test run is complete.

Recommended Adjustments

The following list of adjustments were performed at the factory before your machine was shipped:

- V-belt adjustment (**Page 49**).
- Workpiece thickness sensor calibration (**Page 60**).
- Thickness display calibration (**Page 61**).
- Oscillation timing and speed (**Page 62**).
- Table parallelism (**Page 70**).
- Conveyor belt tension (**Page 74**).
- Conveyor belt tracking (**Page 75**).

Be aware that machine components can shift during the shipping process. Pay attention to these adjustments as you test run your machine. If you find that the adjustments are not set according to the procedures in this manual or your personal preference, re-adjust them.

NOTICE

V-belts will stretch and seat into pulley grooves. After about 16 hours of use, adjust tension to ensure good power transfer from motors and avoid reducing life of V-belts.

NOTICE

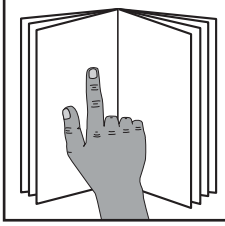
To prevent damage and unnecessary wear and tear to conveyor gearbox, change conveyor gearbox oil after first 100 hours of use (about 3 months). Refer to maintenance schedule for following oil changes.

SECTION 4: OPERATIONS

Operation Overview

The purpose of this overview is to provide the novice machine operator with a basic understanding of how the machine is used during operation, so the machine controls/components discussed later in this manual are easier to understand.

Due to the generic nature of this overview, it is **not** intended to be an instructional guide. To learn more about specific operations, read this entire manual, seek additional training from experienced machine operators, and do additional research outside of this manual by reading "how-to" books, trade magazines, or websites.



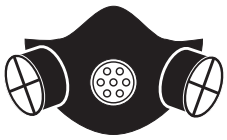
⚠WARNING

To reduce your risk of serious injury, read this entire manual BEFORE using machine.

⚠WARNING

To reduce risk of eye injury from flying chips or lung damage from breathing dust, always wear safety glasses and a respirator when operating this machine.





NOTICE

If you are not experienced with this type of machine, WE STRONGLY RECOMMEND that you seek additional training outside of this manual. Read books/magazines or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

To complete a typical operation, the operator does the following:

1. Examines workpiece to make sure it is suitable for sanding.
2. Connects air supply, verifies pressure regulator is set to 75 PSI, then installs and tensions sanding belts of desired grit(s).
3. Adjusts platen as necessary.
4. Connects machine to power.
5. Adjusts conveyor table height to approximate thickness of workpiece.
6. Puts on safety glasses and respirator, and starts dust collection.
7. Starts main motor, starts feed motor, then adjusts conveyor feed rate for operation.
8. Feeds workpiece into machine by placing front end on infeed side of conveyor table and supporting back end until workpiece engages with infeed pressure roller.

   Note: *During initial pass with new workpiece, operator adjusts table height as necessary so workpiece only makes light contact with sanding belts and does not overload sander.*
9. Receives workpiece from outfeed side of conveyor table.
10. Raises height of conveyor a small amount, then repeats feeding process of workpiece through sander.
11. Disconnects power to change sanding belts to finer grit(s) and adjust platen as necessary.
12. Connects machine to power and repeats **Steps 7–11** as needed.
13. Turns machine ***OFF*** and disconnects it from power. When motors have come to complete stop, turns ***OFF*** air supply and dust collection.

Sanding Workpieces

The sanding process is influenced by the feed rate, sanding depth, grit size and material type of sandpaper, platen position, and oscillation speed. We strongly recommend that you experiment with these variables, or research best practices for achieving your desired sanding results with the type of material you have. Also, to avoid unnecessary wear on belts, always make sure the workpiece has been surface planed with a jointer or planer before sanding.

Typically, no more than 0.020" (one full rotation of the handwheel or four touches of the table up button) of material should be removed during a single sanding pass. The maximum sanding depth can also be influenced by the thickness of the sanding belt, which can vary from 0.010" (fine sandpaper) to 0.060" (coarse sandpaper).

Attempts to remove too much material at one time can cause jamming, wood burning, rapid sandpaper wear or tearing, poor finish, short motor life, and belt slippage. The operator usually makes a pass, raises the table a little, and repeats until the entire surface is sanded to satisfaction. Before sanding, review **Workpiece Inspection** on **Page 38** and put on the required safety glasses and respirator.

Note: *It may take more than one pass to achieve the full sanding depth.*

The overall sanding process consists of the operator starting with the platen in the up position with a coarse sandpaper (such as grit #60), and then repeatedly sanding for subsequent grit sizes (#80–#100) until the workpiece is evenly smooth. The operator then sets the platen level with the drums and performs intermediate sanding passes using finer grit sandpaper (#100–#150). For the final sanding pass, the operator sets the platen in the down position and sands the workpiece with fine sandpaper (#180+). Refer to **Adjusting Platen** on **Page 41** for more information about platen positions.

IMPORTANT: As you sand, observe the amp draw meter (see **Page 42**). If the meter indicates motor overload, slightly lower the table or reduce the feed rate.

The tables below suggest a maximum depth of cut (DOC) for 15" stock at relative conveyor feed rates. After selecting the appropriate feed rate, find the grit size you plan to use. Locate the DOC for that grit according to the workpiece hardness, and note the DOC for the platen setting.

	15 FPM			
	Wood Hardness		Platen Settings	
Grit Size	Hard	Soft	Max DOC	Position
60	0.030"	0.040"	n/a	Up 1.5mm
80	0.025"	0.035"	n/a	Up 1.5mm
100	0.020"	0.030"	0.010"	Even
120	*0.015"	*0.020"	0.010"	Even
150	*0.010"	*0.015"	0.007"	Even
180	0.005"	*0.010"	0.005"	Down 0.5mm
240	*0.003"	*0.005"	0.002"	Down 1mm

	23 FPM			
	Wood Hardness		Platen Settings	
Grit Size	Hard	Soft	Max DOC	Position
60	0.025"	0.035"	n/a	Up 1.5mm
80	0.020"	0.030"	n/a	Up 1.5mm
100	0.015"	0.020"	0.007"	Even
120	*0.010"	*0.015"	0.007"	Even
150	0.005"	*0.010"	0.005"	Even
180	*0.003"	*0.005"	0.002"	Down 0.5mm
240	*0.002"	*0.004"	0.001"	Down 1mm

	33 FPM			
	Wood Hardness		Platen Settings	
Grit Size	Hard	Soft	Max DOC	Position
60	0.020"	0.030"	n/a	Up 1.5mm
80	0.015"	0.025"	n/a	Up 1.5mm
100	0.010"	0.015"	0.005"	Even
120	*0.007"	*0.010"	0.005"	Even
150	*0.005"	*0.007"	0.003"	Even
180	*0.003"	*0.005"	0.002"	Down 0.5mm
240	0.001"	*0.003"	0.001"	Down 1mm

**These numbers assume the platen is raised 1.5mm during the sanding pass.*

Note: *These numbers are approximate values only. These are intended to give you a "ballpark" idea of the machine material removal rates to expect. Many additional factors can influence the maximum depth-of-cut or removal rates that can be achieved with each pass (i.e., oscillation speed settings, depth of cut taken on previous pass, actual hardness of workpiece, etc.), so do not be surprised if you experience slightly different results.*

Workpiece Inspection

Some workpieces are not safe to sand or may require modification before they are safe to sand.

Before sanding, inspect all workpieces for the following:

- ***Material Type:*** This machine is intended for sanding natural and man-made wood products. This machine is NOT designed to sand metal, glass, stone, tile, plastics, drywall, cement backer board, laminate products, etc.

  Sanding improper materials increases risk of respiratory harm to operator and bystanders due to especially fine dust inherently created by all types of sanding operations—even if a dust collector is used. Additionally, life of the machine and sanding belts will be greatly reduced (or immediately damaged) from sanding improper materials or from exposure to fine dust created when doing so.

- ***Foreign Objects:*** Nails, staples, dirt, rocks and other foreign objects are often embedded in wood. While sanding, these objects can become dislodged and tear sanding belt. Always visually inspect your workpiece for these items. If they cannot be removed, DO NOT sand the workpiece.

- ***Wet or "Green" Stock:*** Sanding wood with a moisture content over 20% causes unnecessary clogging and wear on sanding belts, increases the risk of kickback, and yields poor results.

- ***Excessive Warping:*** Workpieces with excessive cupping, bowing, or twisting can be dangerous to sand because they are unstable and unpredictable when being sanded. DO NOT use workpieces with these characteristics!

- ***Minor Warping:*** Workpieces with slight cupping can be safely supported if the cupped side is facing the table. On the contrary, a workpiece supported on the bowed side will rock during sanding and could cause kickback injury.

Sanding Tips

- Avoid sanding a workpiece more than is necessary, since doing so will unnecessarily decrease belt life and cost you more money over time.

- Only sand with as slow of feed speeds as necessary to meet your sanding goals. In other words, avoid running the sander faster than is necessary. Increasing feed speeds beyond the required level can decrease the quality of the finished product and the lifespan of sanding belts.

- As a general rule, use the sanding drums for the initial heavy sanding pass, then use a combination of the platen and the drums for the intermediate pass, and the platen alone for the final sanding pass.

- As a rule-of-thumb, sand with progressively higher grit numbers in increments of 50 or less.

- Replace sandpaper with a higher grit to achieve a finer finish (refer to **Changing Sanding Belts** on **Page 39**).

- When making multiple passes on the workpiece, avoid raising the conveyor table more than 0.015" (a ¾ turn of the elevation handwheel or three touches of the table up button) per each pass.

- Reduce snipe when sanding more than one board of the same thickness by feeding them into the machine with the front end of the second touching the back end of the first board (a.k.a. "butt feeding").

- Feed boards into the machine at different points on the conveyor to maximize sandpaper life and prevent uneven belt wear.

- Extend the life of the sandpaper by regularly cleaning sanding belts (refer to **Cleaning Sanding Belts** on **Page 56**).

- DO NOT sand boards smaller than 14" long, 2" wide, and 3/16" thick to prevent damage to the workpiece and the sander (see **Figure 50**).

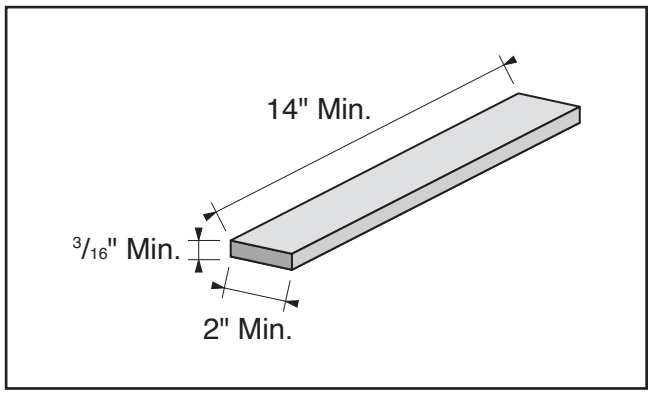


Figure 50. Minimum dimensions for sanding.

- DO NOT edge sand boards. This can cause boards to kickback, causing serious personal injury, or damage to the conveyor and sanding belts.

- Only use the amp draw meter to keep the motor from overloading—that is its main purpose. Avoid using the amp draw meter to monitor how much material is being removed, as this can lead to problems, including belts loading, burning, and poor quality sanding results.

- Make sure to adjust platen position accordingly when changing grit sizes.

- The faster the feed rate you use, the faster your sanding belts will wear out.

Changing Sanding Belts

Required Sanding Belt Size ..... 43" x 60"

We recommend using aluminum-oxide sanding belts for best results. The grit you choose will depend on the condition and species of wood and the level of finish you wish to achieve.

When choosing sanding belts, use these grit numbers as a general guide:

Grit	Type
60 or less	Coarse
80–100	Medium
120–150	Fine
180+	Finish

The general rule of thumb is to sand a workpiece with progressively higher grit numbers—in increments of 50 or less.

Note: *Sandpaper finer than 180-grit will quickly load up or burn workpieces.*

For additional sanding belt selections beyond those included with the machine, see the following belts of the correct size offered by Grizzly. These aluminum oxide belts are on a heavy polyester backing, and come in either "X" or "Y" weight.

Model G0410 Sanding Belts
H8828—Asst. Grit 3-Pk. (60, 100, 150), Y-Weight
H8826—120-Grit, Y-Weight, 3-Pk.
H8827—150-Grit, Y-Weight, 3-Pk.
H7905—40-Grit, X-Weight, 5-Pk.
H7907—80-Grit, X-Weight, 5-Pk.
H7908—100-Grit, X-Weight, 5-Pk.
H7909—120-Grit, X-Weight, 5-Pk.
H7910—150-Grit, X-Weight, 5-Pk.
H7911—180-Grit, X-Weight, 5-Pk.

To change sanding belt:

1. DISCONNECT MACHINE FROM POWER!

2. Open air supply valve or turn air compressor ***ON***, and verify pressure gauge on air regulator is set to 75 PSI.

3. Open left door.

4. Turn (2) belt tension switches counterclockwise to release sanding belt tension (see **Figure 51**).

5. Remove (2) stop block release levers by turning them counterclockwise a ½ turn and pulling them up and out of mounting holes (see **Figure 51**).

6. Remove (2) stop blocks (see **Figure 51**).

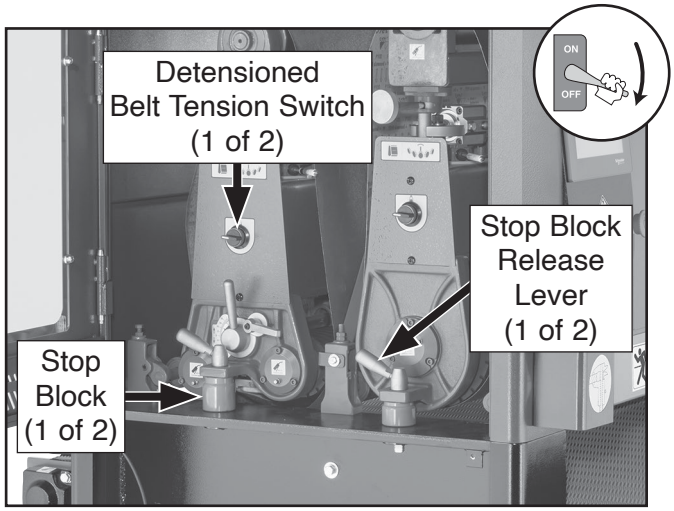


Figure 51. Components for changing sanding belts.

7. Remove existing sanding belts.

8. On rear sanding head, install desired sanding belt over roller and drums, starting with roller (see **Figure 52**).

   Note: *Sanding belt must be centered between limit switch tips of rear sanding head and edge of sanding belt must be between tongs of belt oscillation control fork, as shown in* ***Figure 52***–***Figure 53****. Rotation arrows on sanding belt must also be pointing in a counterclockwise direction, as shown in* ***Figure 52****.*

NOTICE

Failure to install and position sanding belts correctly will result in damage to sanding belts and sander.

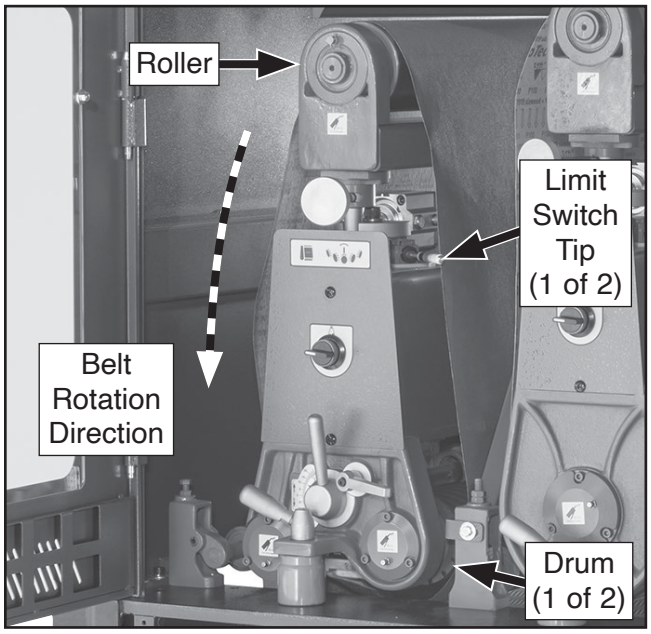


Figure 52. Sanding belt installed correctly on rear sanding head.

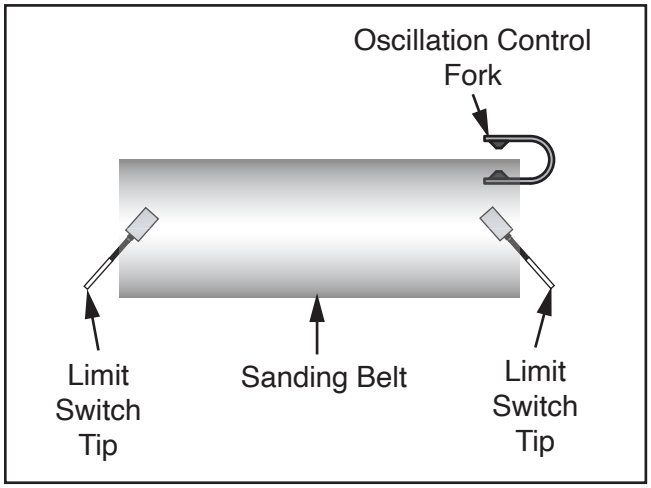


Figure 53. Proper position of belt on sanding head (top view).

9. Install stop block and stop block release lever on rear sanding head.

10. With hands clear of all moving parts, turn rear sanding head belt tension switch clockwise to tension belt.

11. Repeat **Steps 8–10** to install sanding belt on front sanding head.

12. Close and secure left door.

Adjusting Platen

The Model G0410 is equipped with an adjustable platen (see **Figure 54**) with a graphite pad that is designed to be used during finish sanding to create a polished-type finish and to prepare the workpiece for orbital sanding or a finish coat.

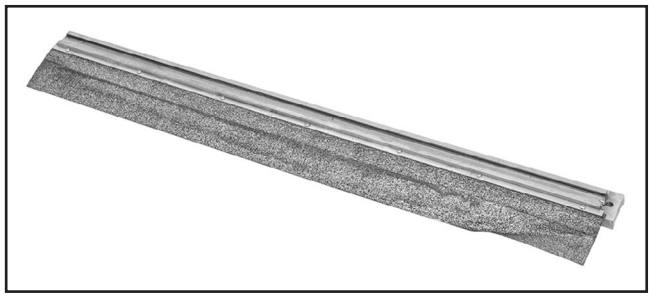


Figure 54. Example of platen removed from machine.

The platen position allows for three basic types of sanding: up, even, and down. Adjust the platen by loosening the platen adjustment lock lever and rotating the scale pointer arrow to the desired position with the platen adjustment lever (see **Figure 55**). Secure the setting for the sanding operation by tightening the lock lever.

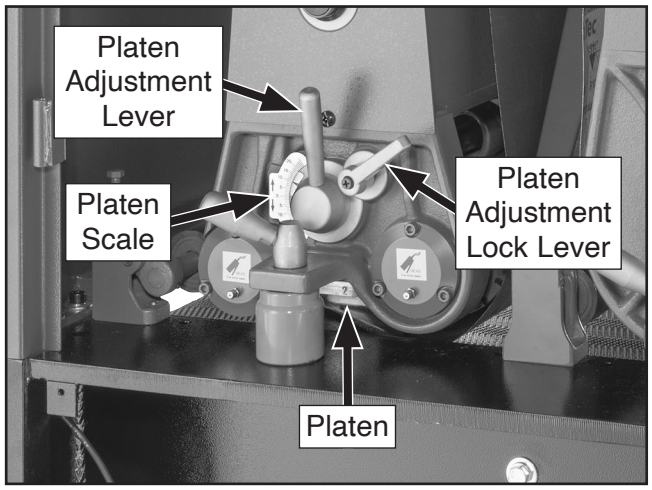


Figure 55. Platen height components.

Unlike the sanding drums alone, which typically produces short but deep scratch patterns, the platen produces long and shallow scratch patterns that create an overall smoother finish. Due to its cushioned-construction, the platen is less likely to leave belt-splice or chatter marks.

However, we do not recommend lowering the platen depth more than 2mm or over-using the platen by expecting it to remove marks beyond its ability to do so, since this can reduce the life of the sanding belt and platen, and result in premature streaking.

Tip: *Given the short life-span of most graphite pads, keep replacement pads on hand.*

Platen Up: The platen is raised above the level of the drums (typically set at 1.5mm up), so only the sanding drums are making contact with the workpiece. This position is typically used for heavy sanding passes or dimensioning. The drums do all the work, but you will have a rough finish. Typically platens are used in this position with #100 grit or coarser.

Platen Even: The platen is set level with the drums. This position is used for intermediate-finishing passes. The depth of cut should not exceed 0.010". This position typically uses #100–#150 grit.

Platen Down: The platen is set below the level of the drums so it is the primary contact point while performing finish sanding.

The platen should be lowered to 0.2–0.5mm (maximum) below the sanding drums, but not more than 0.2mm per pass. You can lower the platen up to 2mm below the drums for short intervals, but streaking, burn marks, and premature graphite/platen wear can occur if this setting is abused or over-used.

It is not necessary to use the table elevation handwheel or touchscreen buttons to adjust the sanding depth during the final sanding pass—the platen movement alone will take care of the depth of cut. Typically the final-sanding pass position uses #180 grit or finer.

Note: *The platen scale is broken down in 0.1mm increments (approximately 0.004").*

NOTICE

If workpiece has straight notches across it, graphite cloth and felt have worn out and need to be replaced immediately to prevent further damage to workpieces and platen.

Adjusting Feed Rate

The conveyor belt is variable-speed, which is controlled by the knob shown in **Figure 56**.

Conveyor Feed Rate..... 14–60 FPM

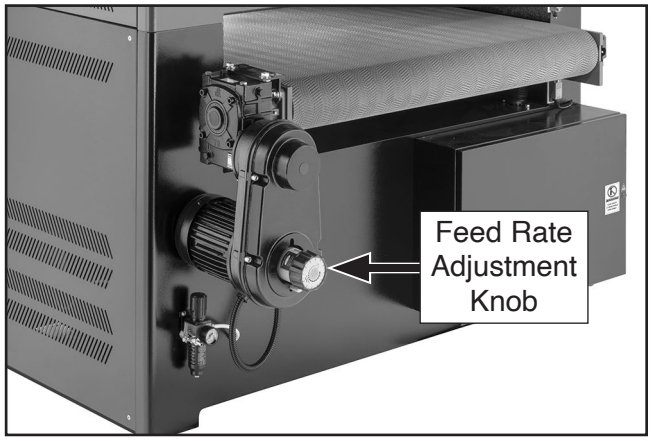


Figure 56. Location of feed rate adjustment knob.

As a general rule, slower feed rates are more beneficial than faster feed rates since they allow the sanding belts to remove more material. We recommend you always start with the slowest feed rate and only increase the feed speed as needed to meet your sanding goals. Be sure to always test the feed rate using scrap wood similar to your workpiece.

Softwoods typically require a faster feed rate than hardwoods; however, there is not a definitive rule to follow when determining the best feed rate to use for any type of wood.

Also, keep in mind that an increase in feed rate will increase the amperage load for a given sanding depth. This means you need to use shallower sanding depths at higher feed rates to avoid overloading the sanding motor.

To adjust feed rate:

1. Turn conveyor belt ***ON***. Conveyor belt must be running to adjust feed rate.

2. Turn knob counterclockwise to increase feed rate or clockwise to decrease feed rate.

   Note: *Turn knob in ⅛" increments.*

Reading Amp Draw Meter

The amp draw meter (see **Figure 57**) is used to keep the machine from overloading during sanding operations. It should not be used as the main method for controlling material removal rates—doing so can result in belt loading, burning, and even breaking—because there are many different variables that affect optimum removal rates and these will affect the amp load in different ways.

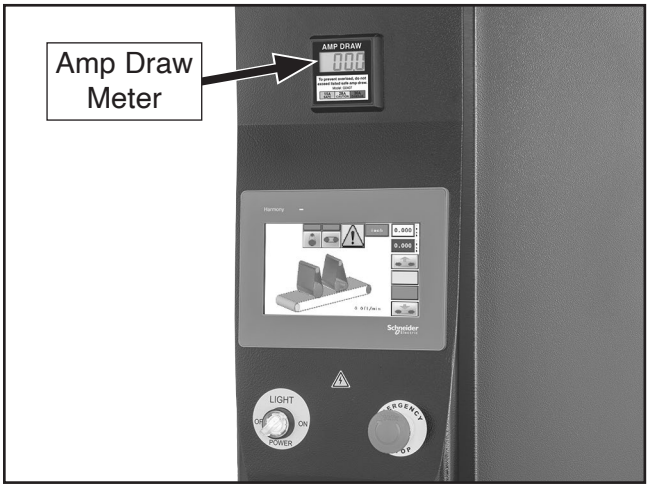


Figure 57. Location of amp draw meter.

Amp load is directly affected by factors such as feed rate, depth of cut, wood type, sandpaper grit, and workpiece width. If the amp load is in the red load range, the machine is overloaded and motor damage may soon occur. Adjust the table elevation accordingly to reduce the load, and use the amp draw chart on the meter to keep the amp load in the green, SAFE range during operation.

As a general rule, always start with a small load and work your way up. DO NOT work the machine to its maximum load, or to where you can hear the motors lose RPM; instead, make multiple light passes or install coarser grit sanding belts.

NOTICE

Keep amp draw within GREEN load range shown on chart on meter. If you operate machine in RED load range, motor damage may occur and it will not be covered under warranty.

Using EMERGENCY STOP! Bar

The EMERGENCY STOP! bar can help prevent operator injury during an emergency and reduce the amount of damage to internal components. Pushing the EMERGENCY STOP! bar (see **Figure 58**) causes the disc brake to stop the main motor, immediately stopping the sanding belts.



Figure 58. Location of EMERGENCY STOP! bar.

An operator should be careful when loading a workpiece not to trap fingers between workpiece and conveyor table, but if it should happen, the EMERGENCY STOP! bar can be pressed by the operator while their hands are otherwise engaged.

⚠WARNING

Keep sanding drum V-belts correctly tensioned (see Page 49) to ensure proper functionality of EMERGENCY STOP! bar. Otherwise, pulleys can slip when brake is applied and not immediately stop machine during emergency!

Using Workpiece Thickness Sensor

The workpiece thickness sensor allows the operator to quickly adjust the table elevation according to the workpiece size.

To use workpiece thickness sensor:

1. Place workpiece on conveyor table so part of it extends under workpiece thickness sensor (see **Figure 59**).

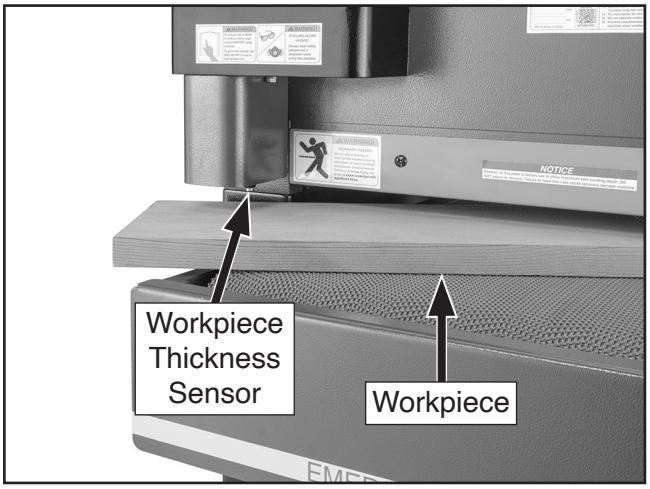


Figure 59. Example of workpiece under workpiece thickness sensor.

2. Press and hold table up button. Table will adjust up until workpiece contacts sensor.
3. Remove workpiece from conveyor table.
4. Adjust table up according to your desired depth of cut, then proceed with operation.

Safety Faults

The machine is equipped with a safety fault system that helps prevent unsafe operation and machine damage. Should one of these features be engaged, such as a limit switch or an EMERGENCY STOP, the interior LED lights will illuminate red, and the touchscreen will open the active fault log screen, as shown in **Figure 60**. Pressing the arrow on the bottom right corner of the screen will return the touchscreen to the main menu.

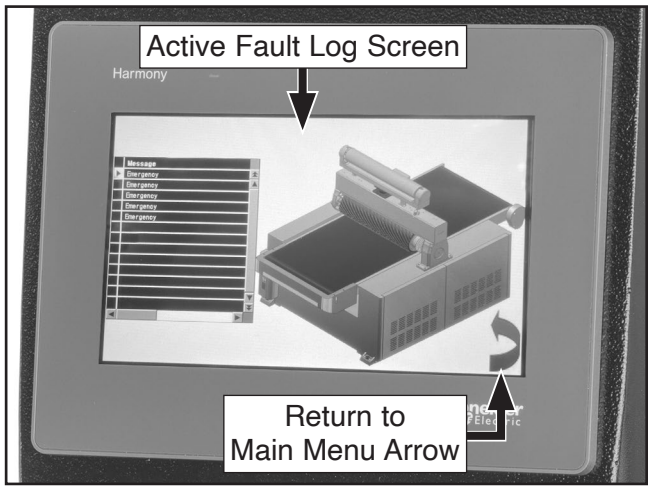


Figure 60. Active fault log screen.

If you return to the main menu without clearing the fault, the fault indicator shown in **Figure 61** will turn red and a red banner will move across the screen with the fault description. If a fault occurs after another safety feature has been too recently engaged, the touchscreen may stay on the main menu and show the **Figure 61** components.

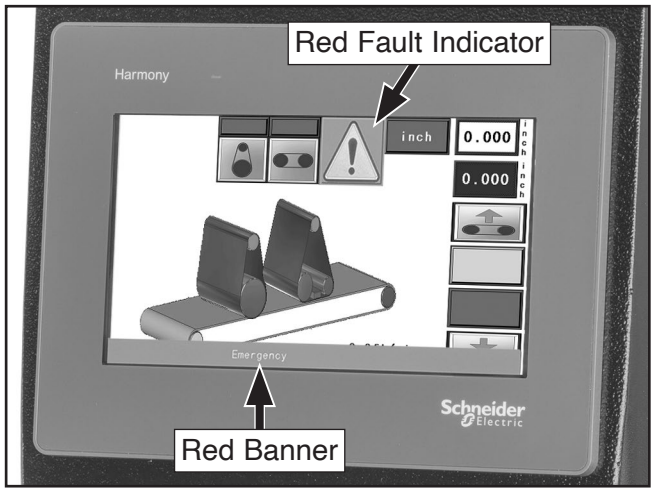


Figure 61. Main menu screen showing fault.

If you wish to review the fault log, you can also press the fault indicator to display the fault log screen shown in **Figure 62**.

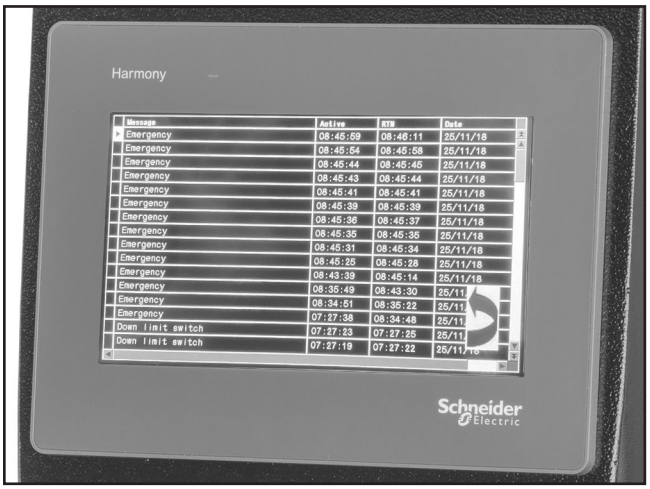


Figure 62. Fault log screen.

Below is a list of the most common fault messages and what they mean. Take the described action to clear the fault and continue with operation.

- **1st/2nd Shaft Belt Limit Switch:** Belt tracking or tension limit switch is engaged. Make sure that sanding belt tension is engaged. If tension is engaged, release belt tension, and center belts on rollers and drums to clear. Belt oscillation may need to be adjusted.

- **Down Limit Switch:** Lower table elevation limit switch is engaged. Raise table to clear.

- **Emergency:** EMERGENCY STOP button or EMERGENCY STOP! bar has been pressed. Twist to reset button or release bar to clear.

- **Encoder Error:** Proximity switch has detected table elevation motor rotating incorrectly. To clear, disconnect machine from power, check/correct table elevation motor wiring connections, then connect machine to power.

- **R.S.T Phase Error:** Incoming power wires are connected incorrectly or electrical system needs to be reset. To clear, disconnect machine from power, check/connect incoming power wires correctly (see **Correcting Phase Polarity** on **Page 31**), then connect machine to power.

- **Up Limit Switch:** Upper table elevation limit switch is engaged. Lower table to clear.

SECTION 5: MAINTENANCE

Schedule

For optimum performance from this machine, this maintenance schedule must be strictly followed.

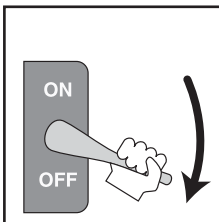
Ongoing
To minimize your risk of injury and maintain proper machine operation, shut down the machine immediately if you ever observe any of the items below, and fix the problem before continuing operations:

- Loose mounting bolts.
- Worn or damaged sanding belts.
- Worn or damaged wires.
- Low conveyor gearbox oil.
- Worn or damaged platen graphite pad.
- Cracks, chafing, or hardening in air hoses.
- Leaks, cracks in air hoses or connections.
- Any other unsafe condition.

Weekly Maintenance
- Empty dust and water traps.
- Lubricate grease fittings.

Monthly Maintenance
- Clean/vacuum dust buildup from inside frame and off motors.
- Lubricate table elevation chain, leadscrews, and sprockets.
- Check V-belts for correct tension, damage, or wear.
- Inspect/clean dust from electrical cabinet and control box.

Yearly Maintenance
- Replace air regulator filter.
- Check air hoses and connections for leaks or clogs. If soapy water at suspected leak creates bubbles, air is escaping. Repair or replace affected parts. Remove line with suspected clog and blow through it as a test.
- Change conveyor gearbox oil.



⚠WARNING
To reduce risk of shock or accidental startup, always disconnect machine from power before adjustments, maintenance, or service.

Cleaning & Protecting

Cleaning the machine is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If resin has built up, use a resin-dissolving cleaner to remove it.

Lubrication

An essential part of lubrication is cleaning the components with an oil/grease solvent before lubricating them. This step is critical because dust and chips build up on lubricated components, which makes them hard to move. Simply adding more grease to built-up grime will not result in smooth-moving parts.

The following are the main components that need to be lubricated:
- Grease fittings.
- Table elevation chain, leadscrews, and sprockets.
- Conveyor gearbox.

Schedules are based on average use. Adjust lubrication according to your level of use.

Grease Fittings

Lubrication Type ..... T26419 or NLGI#2 Equiv.
Amount ..... 1–2 Pumps
Frequency ..... Weekly

Items Needed	Qty
Phillips Head Screwdriver #2	1
Flat Head Screwdriver ¼"	1
Rag	1
Mineral Spirits	As Needed
Grease Gun	1
Flexible Grease Gun Extension	1

To lubricate grease fittings:

1. DISCONNECT MACHINE FROM POWER!

2. Open right and left doors.

3. Use shop rag and mineral spirits to clean (2) conveyor roller, (4) sanding belt roller, and (6) sanding belt drum grease fittings (see **Figure 63**–**Figure 65**).

   Note: *Each grease fitting is identified with a yellow label.*

   Note: *Dashed arrows (see **Figure 65**) indicate access plugs that can be removed with flat head screwdriver to access grease fittings behind them.*

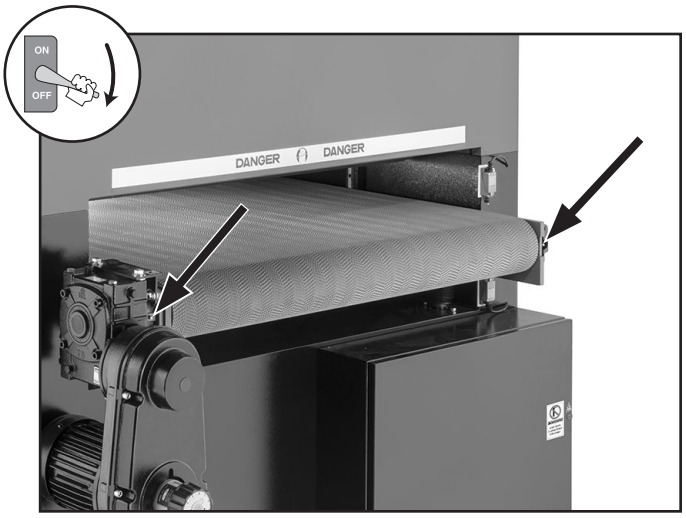


Figure 63. Location of conveyor belt roller grease fittings.

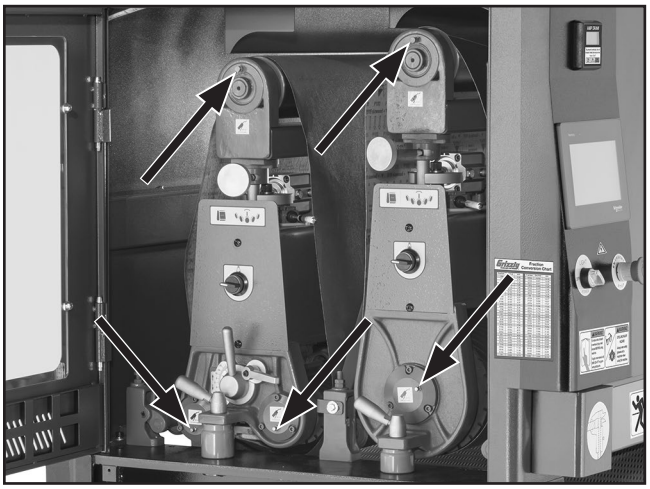


Figure 64. Location of left sanding belt roller and drum grease fittings.

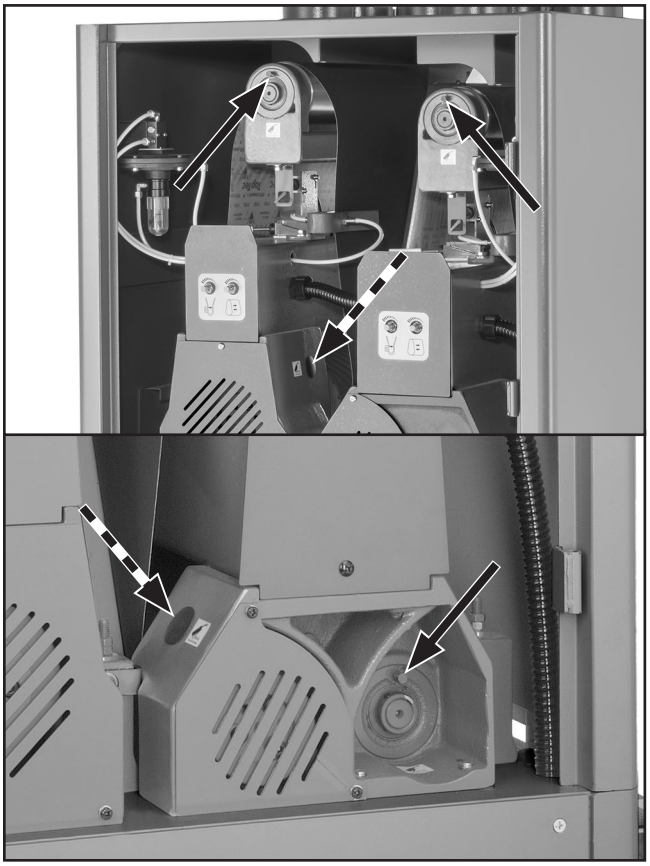


Figure 65. Location of right sanding belt roller and drum grease fittings.

4. Add 1–2 pumps of grease to each grease fitting.

5. Close left and right doors.

Table Elevation Chain, Leadscrews, & Sprockets

Lubrication Type ..... T26419 or NLGI#2 Equiv.
Amount ..... Thin Coat
Frequency ..... Monthly

Items Needed	Qty
Phillips Head Screwdriver #2	1
Wire Brush	1
Mineral Spirits	As Needed

Note: *In the following steps, be careful not to get any grease on the exposed V-belts. This could cause the V-belts to slip on the pulleys. If you do get grease on the V-belts, thoroughly clean or replace them.*

To lubricate table elevation chain, leadscrews, and sprockets:

1. Lower conveyor table all the way.

2. DISCONNECT MACHINE FROM POWER!

3. Remove (8) screws shown in **Figure 66** to remove left and right access panels.

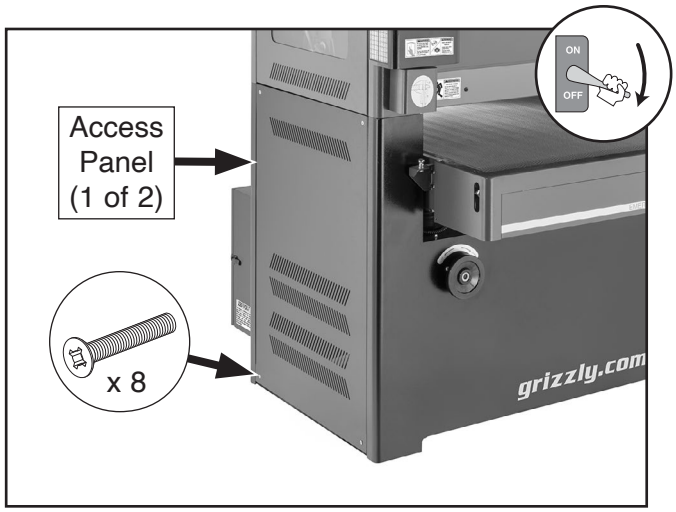


Figure 66. Location of access panels and screws.

4. Use wire brush and mineral spirits to remove old lubricant and built-up grime from chain, exposed leadscrew teeth, and sprockets (see **Figure 67**).

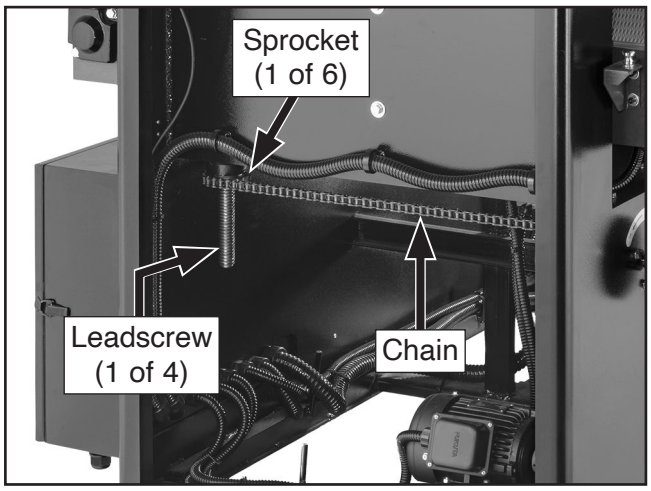


Figure 67. Location of table elevation chain, leadscrews, and sprockets.

5. When components are dry, brush grease onto chain, leadscrews, and sprockets, being careful not to get grease on V-belts.

6. Wipe off any excess or spilled grease.

7. Install left and right access panels and secure with screws removed in **Step 3**.

8. Connect machine to power, then raise and lower table through its full range of movement to evenly distribute grease.

Checking Conveyor Gearbox Oil

Lubrication Type ..... ISO-VG 460 Gear Oil
Amount ..... As Needed
Frequency..... Daily

The gearbox oil should fill the sight glass about halfway full. Use the following steps to check the gearbox oil level and add oil when needed.

Items Needed **Qty**
Wrench or Socket 14mm 1

To check conveyor gearbox oil:

1. Run machine for 10 minutes to warm up oil in gearbox.
2. DISCONNECT MACHINE FROM POWER!
3. Check oil level in sight glass (see **Figure 68**).
   - — If oil level fills about half of sight glass, no oil needs to be added.
   - — If oil level fills less than half of sight glass, proceed to **Step 4**.
4. Remove fill plug (see **Figure 68**), add oil until it fills half of sight glass, then install fill plug.

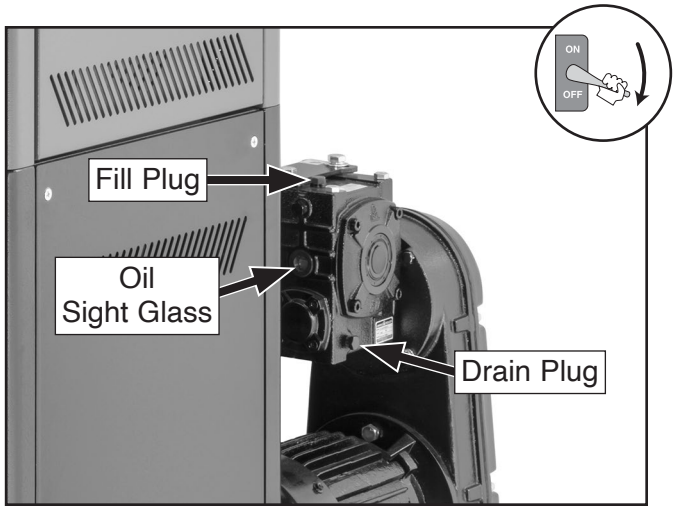


Figure 68. Conveyor gearbox oil components.

Changing Conveyor Gearbox Oil

Lubrication Type ..... ISO-VG 460 Gear Oil
Amount ..... As Needed
Frequency..... Yearly

The gearbox oil should be drained and refilled after the first 100 hours of use, then once every year.

Items Needed **Qty**
Wrench or Socket 14mm 1
Drain Pan..... 1
Thread-Sealing Tape ..... As Needed

To change conveyor gearbox oil:

1. Run machine for 10 minutes to warm up oil in gearbox.
2. DISCONNECT MACHINE FROM POWER!
3. Remove fill plug (see **Figure 68**).
4. Place drain pan under drain plug (see **Figure 68**), then remove drain plug to drain oil.
5. When oil is drained, clean threads of drain plug, wrap threads with thread-sealing tape, then install drain plug.
6. Fill gearbox with oil until oil level is at halfway point in sight glass (see **Figure 68**), then install fill cap.
7. Connect machine to power, then complete **Checking Conveyor Gearbox Oil**.

Checking/Adjusting V-Belt Tension

The V-belts must be tensioned properly for best performance, and to ensure the sanding belts stop when the emergency brake is applied.

IMPORTANT: Loose belts will not allow the sanding belts to stop immediately if the EMERGENCY STOP! bar or EMERGENCY STOP button is pressed.

⚠CAUTION

Use care when handling V-belts as they could pinch your fingers. They may also be hot after extended use, so wait to touch V-belts if machine has been in use.

Table Elevation Motor V-Belt

Items Needed	Qty
Phillips Head Screwdriver #2	1
Open-End Wrench 19mm	1

To check/adjust table elevation motor V-belt tension:

1. DISCONNECT MACHINE FROM POWER!

2. Remove (4) screws shown in **Figure 69** to remove left access panel.

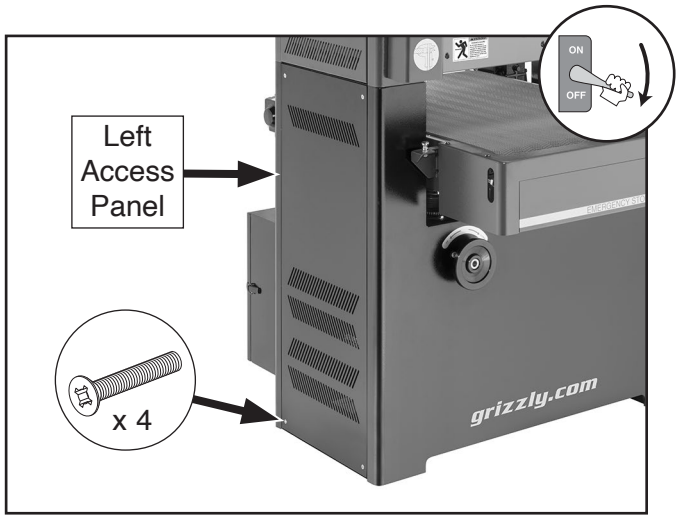


Figure 69. Location of left access panel and screws.

3. Check V-belt tension: V-belt (see **Figure 70**) is correctly tensioned when there is approximately ½"–¾" deflection when it is pushed with moderate pressure, as shown in **Figure 71**.

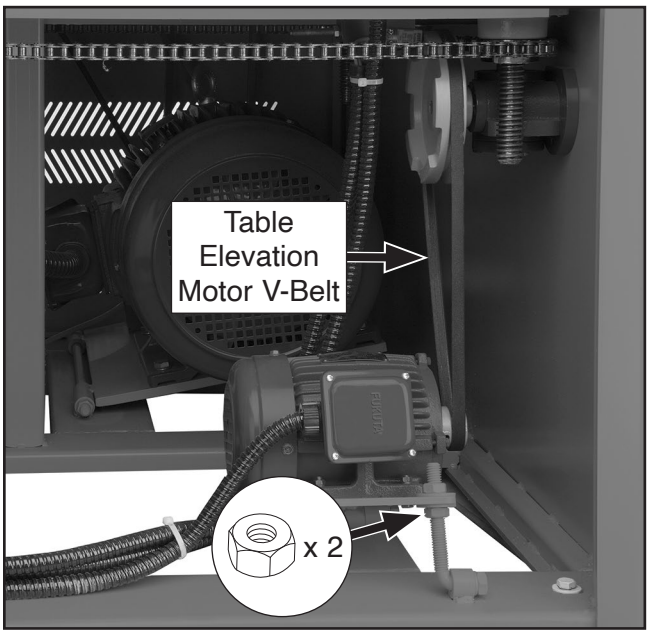


Figure 70. Location of table elevation motor V-belt and adjustment nuts.

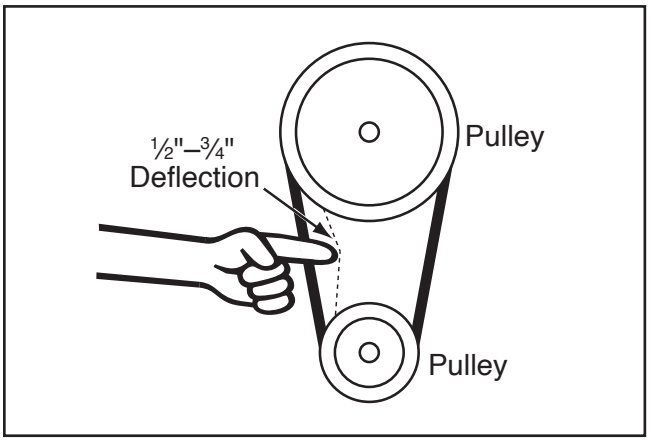


Figure 71. Checking V-belt tension.

— If there *is* approximately ½"–¾" deflection when V-belt is pushed with moderate pressure, V-belt is properly tensioned and no adjustment is necessary. Proceed to **Step 5**.

— If there *is not* approximately ½"–¾" deflection when V-belt is pushed with moderate pressure, V-belt is not properly tensioned. Proceed to **Step 4**.

4. Rotate (2) V-belt tension nuts (see **Figure 70** on **Page 49**) to raise or lower motor until there is approximately ½"–¾" deflection when V-belt is pushed with moderate pressure.

   — Rotate nuts clockwise to lower motor and apply tension to V-belt.

   — Rotate nuts counterclockwise to raise motor and release tension from V-belt.

5. Install left access panel and secure with screws removed in **Step 2**.

Main Motor V-Belts

Items Needed	Qty
Phillips Head Screwdriver #2	1
Open-End Wrench 19mm	1
Open-End Wrenches 14mm	2
Wrenches or Sockets 26mm	1

To check/adjust main motor V-belt tension:

1. DISCONNECT MACHINE FROM POWER!

2. Remove (4) screws shown in **Figure 72** to remove right access panel.

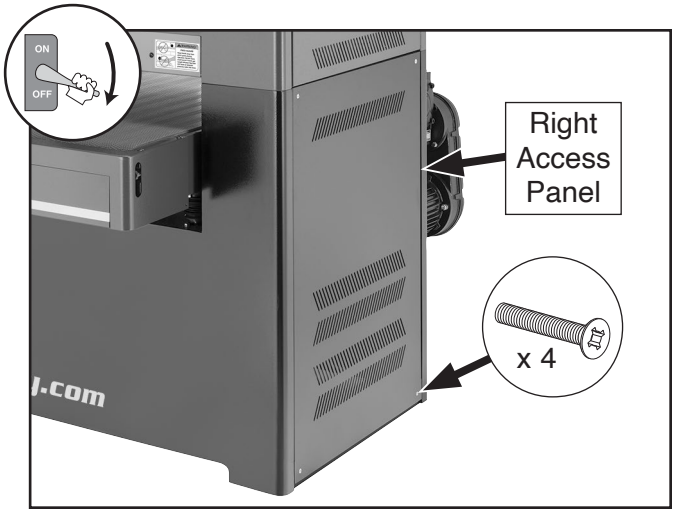


Figure 72. Location of right access panel and screws.

3. Check V-belt tension: each V-belt (see **Figure 73**) is correctly tensioned when there is approximately ½"–¾" deflection when it is pushed with moderate pressure, as shown in **Figure 74**.

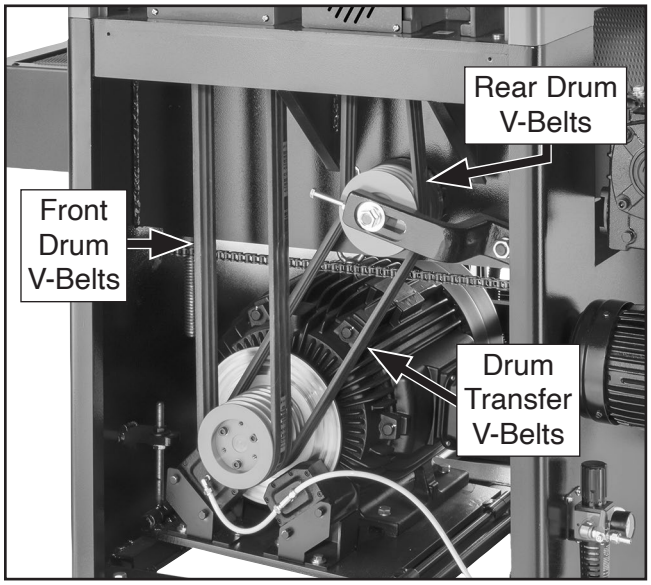


Figure 73. Location of main motor V-belts.

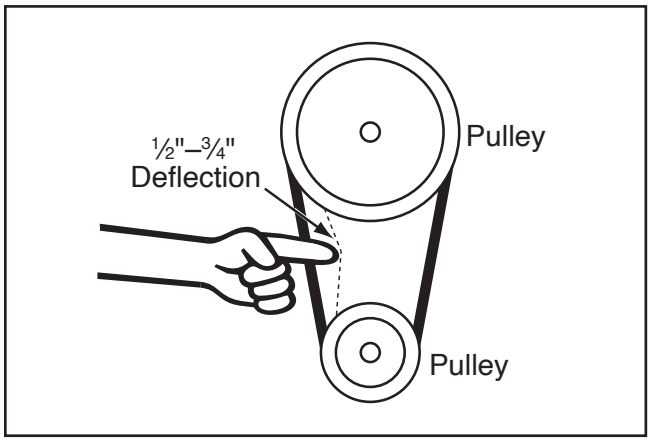


Figure 74. Checking V-belt tension.

— If there *is* approximately ½"–¾" deflection on all V-belts, V-belts are properly tensioned and no adjustment is necessary. Proceed to **Step 6**.

— If there *is not* approximately ½"–¾" deflection on front drum V-belts, proceed to **Step 4**.

— If there *is* approximately ½"–¾" deflection on front drum V-belts, but there *is not* ½"–¾" deflection on rear drum or drum transfer V-belts, proceed to **Step 5**.

4. Rotate (2) V-belt tension nuts (see **Figure 75**) to raise or lower motor until there is approximately ½"–¾" deflection when front drum V-belts are pushed with moderate pressure.

   — Rotate nuts counterclockwise to lower motor and apply tension to V-belt(s).

   — Rotate nuts clockwise to raise motor and release tension from V-belt(s).

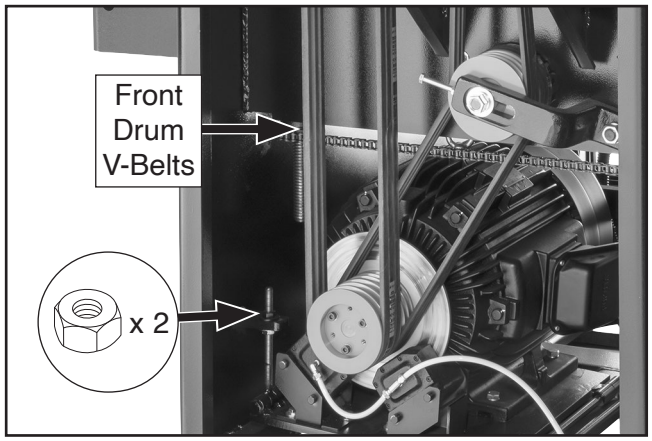


Figure 75. Location of front drum V-belt tension nuts.

5. Loosen jam nut, then adjust bolt shown in **Figure 76** until there is approximately ½"–¾" deflection when rear drum and drum transfer V-belts are pushed with moderate pressure.

   — Rotate bolt clockwise to apply tension to V-belt(s).

   — Rotate bolt counterclockwise to release tension from V-belt(s).

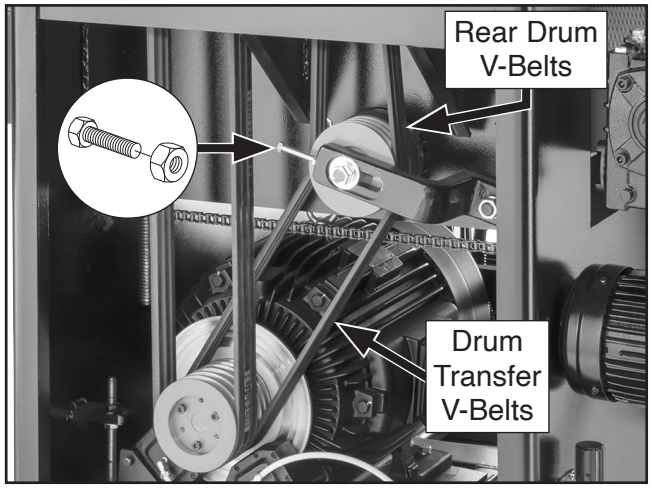


Figure 76. Location of rear drum and drum transfer V-belt tension bolt.

6. Tighten jam nut from **Step 5** to secure tension setting.

   Note: *If adjustment in **Step 5** did not result in correctly tensioned rear drum and drum transfer V-belts, loosen hex nut shown in **Figure 77** to pivot pulley mounting bracket until correct adjustment can be achieved. Tighten hex nut to secure.*

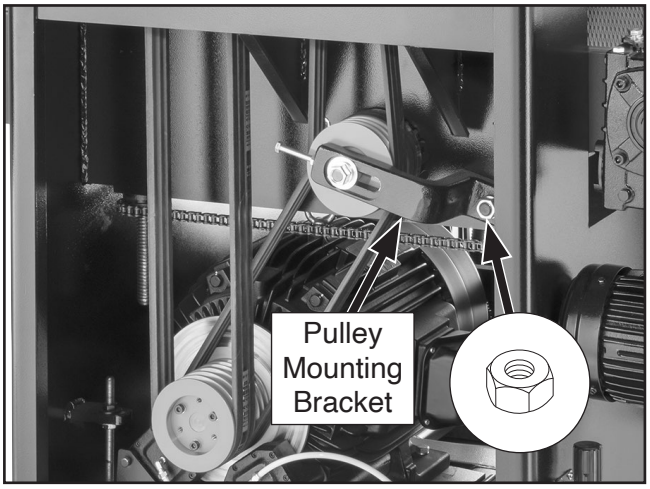


Figure 77. Location of pulley mounting bracket and hex nut.

7. Install access panels and secure with screws removed in **Step 2**.

Replacing V-Belts

Check the V-belts monthly for signs of glazing, cracking, fraying, oil/grease, or any other evidence of damage or wear. If any of these conditions are present, replace the V-belt(s). If any of the main motor V-belts show these conditions, replace the V-belts as a matched set.

⚠CAUTION

Use care when handling V-belts as they could pinch your fingers. They will also be hot after extended use, so wait to touch V-belts if machine has been in use.

Replacing Table Elevation Motor V-Belt

Items Needed	Qty
Phillips Head Screwdriver #2	1
Open-End Wrench 19mm	1
Replacement V-Belt (P04101315)	1

To replace table elevation motor V-belt:

1. DISCONNECT MACHINE FROM POWER!

2. Remove (4) screws shown in **Figure 78** to remove left access panel.

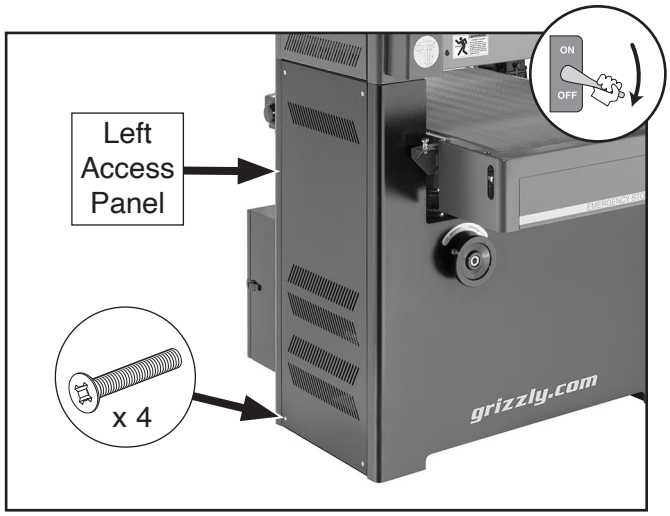


Figure 78. Location of left access panel and screws.

3. Rotate (2) V-belt tension nuts (see **Figure 79**) counterclockwise to release V-belt tension until you can remove V-belt from pulleys.

4. Place new V-belt onto table pulley, then loop other end of V-belt around motor pulley (see **Figure 79**).

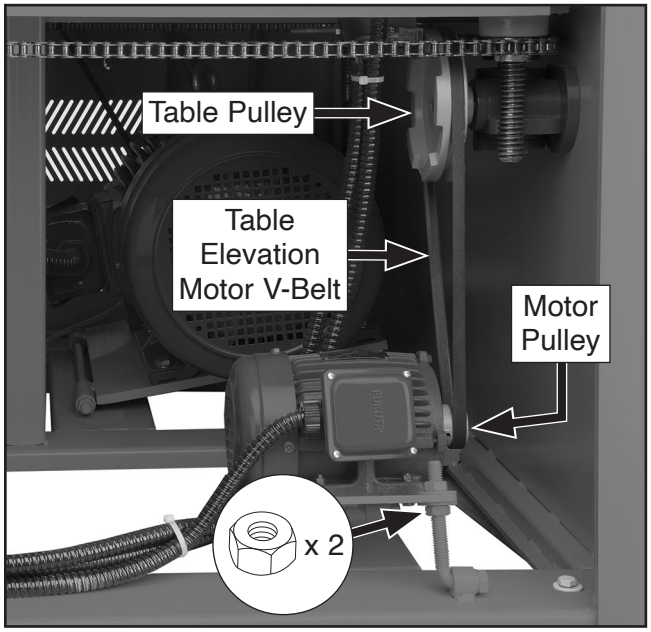


Figure 79. Table elevation motor V-belt components.

5. Properly tension V-belt (refer to **Checking/ Adjusting V-Belt Tension** on **Page 49** for more information).

6. Install left access panel and secure with screws removed in **Step 2**.

Replacing Main Motor V-Belts

Items Needed	Qty
Phillips Head Screwdriver #2	1
Open-End Wrench 19mm	1
Open-End Wrenches 14mm	2
Wrench or Socket 26mm	1
Replacement V-Belts	
—Front Drum (P04100117)	3
—Drum Transfer (P04100119)	3
—Rear Drum (P04100213)	3

To replace main motor V-belts:

1. DISCONNECT MACHINE FROM POWER!

2. Remove (4) screws shown in **Figure 80** to remove right access panel.

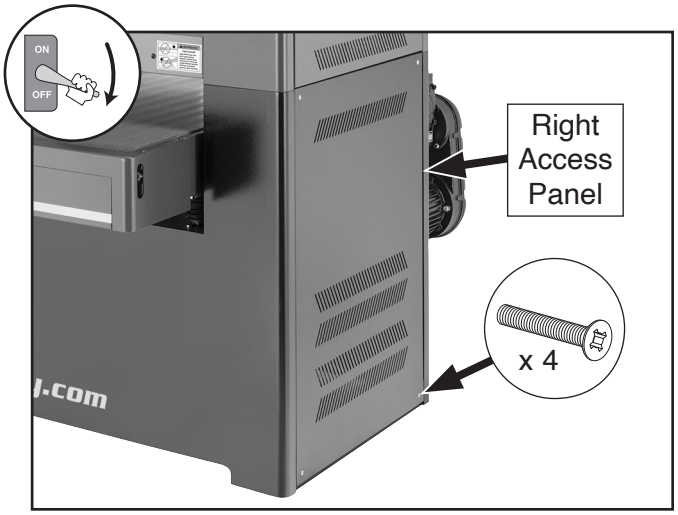


Figure 80. Location of right access panel and screws.

3. Open right door, then remove (5) screws shown in **Figure 81** to remove (2) V-belt covers.

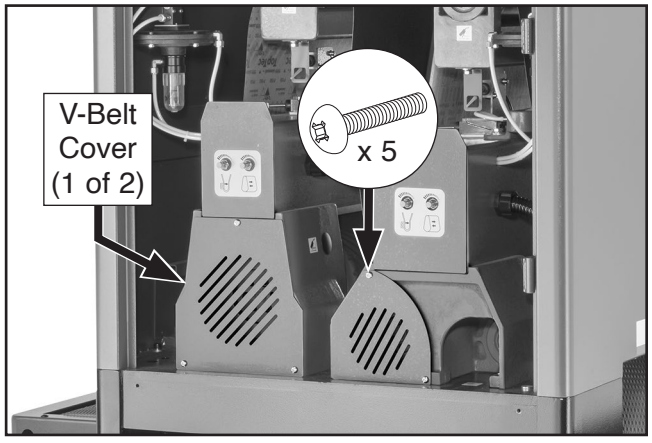


Figure 81. Location of V-belt covers and screws.

4. Rotate (2) V-belt tension nuts (see **Figure 82**) clockwise to release tension from front drum V-belts until V-belts can be removed from motor pulley.

Note: *If either brake assembly prevents V-belt removal, refer to* ***Checking/Replacing Brake Pads*** *on* ***Page 66*** *for detailed instructions on how to remove brake assemblies.*

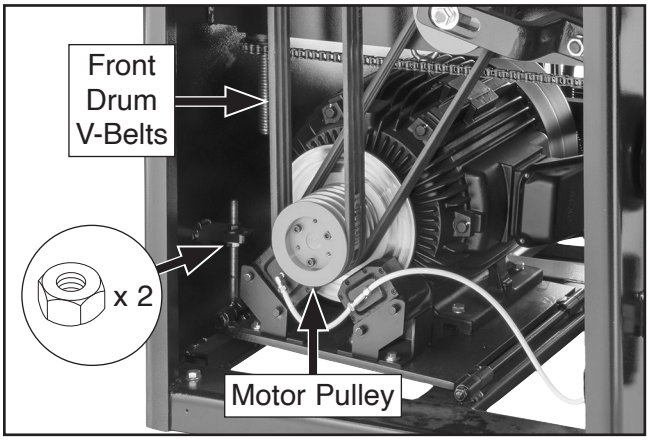


Figure 82. Front drum V-belt tension components.

5. Remove front drum V-belts from front drum pulley (see **Figure 83**).

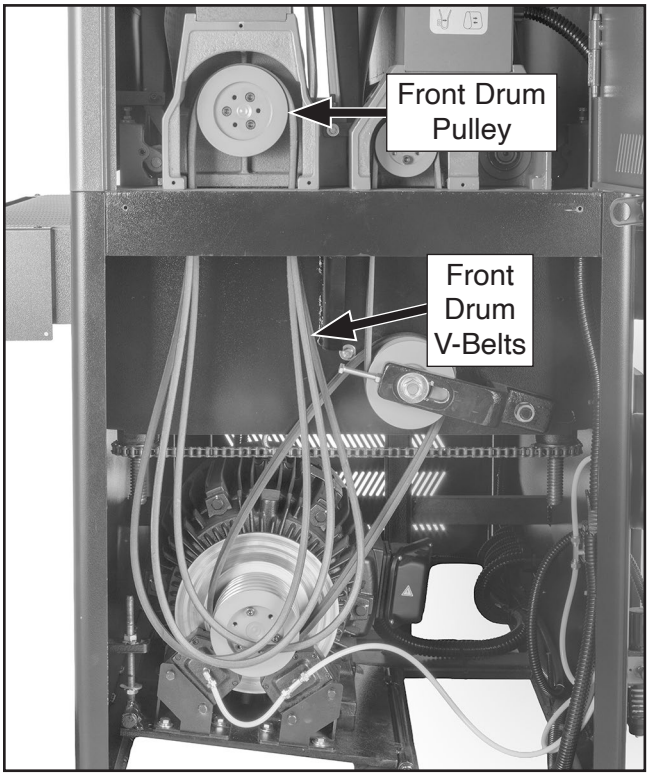


Figure 83. Location of front drum V-belt tension nuts.

6. Loosen tension shaft hex nut (see **Figure 84**).

7. Remove pulley mounting bracket hex nut so you can pull bracket away from machine and remove drum transfer V-belts from motor and transfer pulleys (see **Figure 84**).

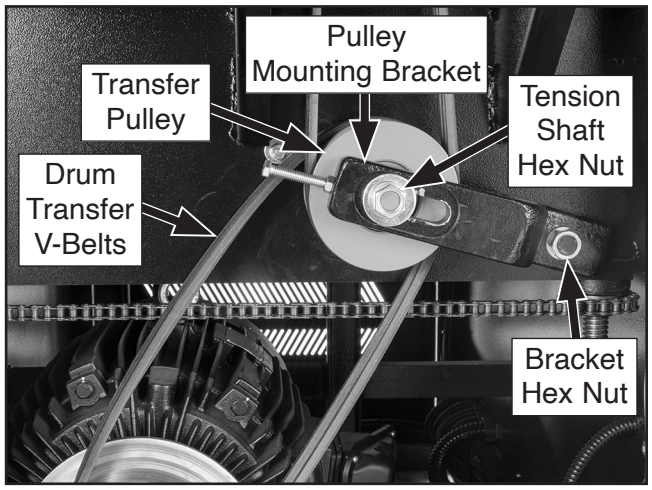


Figure 84. Drum transfer V-belt removal components.

8. Remove transfer pulley assembly from bottom of rear drum V-belts (see **Figure 85**).

9. Replace rear drum V-belts (see **Figure 85**).

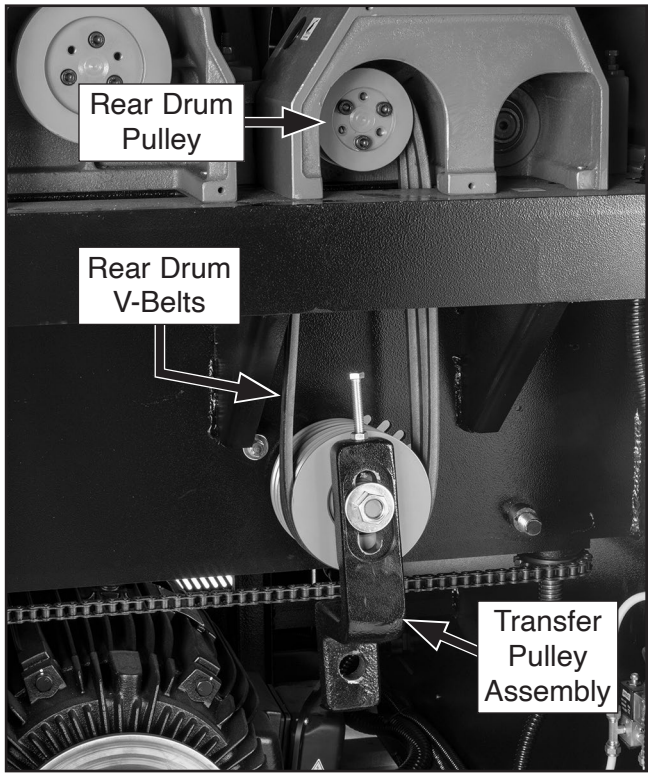


Figure 85. Rear drum V-belt removal components.

10. Rest transfer pulley assembly on bottom of new rear drum V-belts, slotting V-belts into (3) front pulley sheaves (see **Figure 86**).

11. Slot new drum transfer V-belts into remaining transfer pulley sheaves (see **Figure 86**).

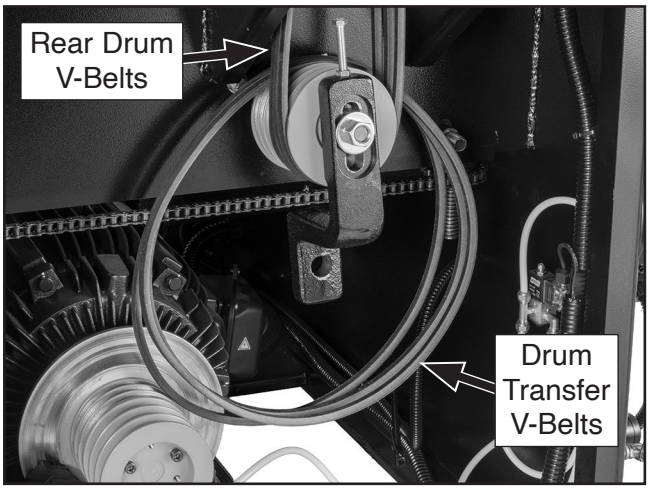


Figure 86. Transfer pulley assembly ready for installation.

12. Secure pulley mounting bracket to machine with hex nut removed in **Step 7** (see **Figure 87**). Finger-tighten for now.

13. Slot drum transfer V-belts into (3) rear pulley sheaves on motor pulley (see **Figure 87**).

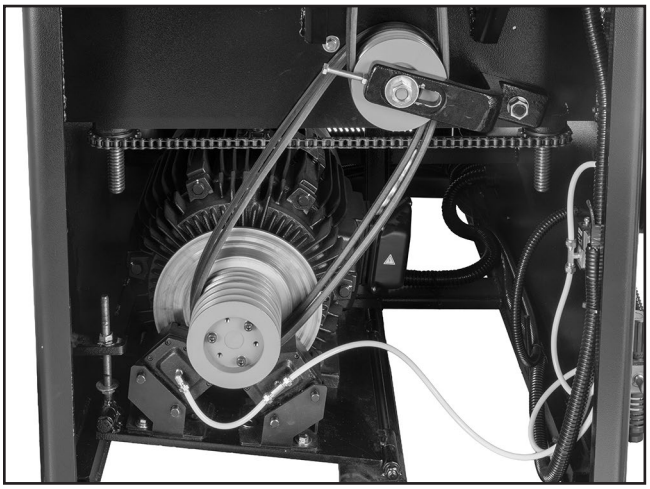


Figure 87. Transfer pulley assembly installed.

14. Install new front drum V-belts on front drum pulley (see **Figure 83** on **Page 53**).

15. Slot front drum V-belts into remaining motor-pulley sheaves.

16. Rotate (2) V-belt tension nuts (see **Figure 88**) counterclockwise until there is approximately ½"–¾" deflection when front drum V-belts are pushed with moderate pressure (see **Figure 89**).

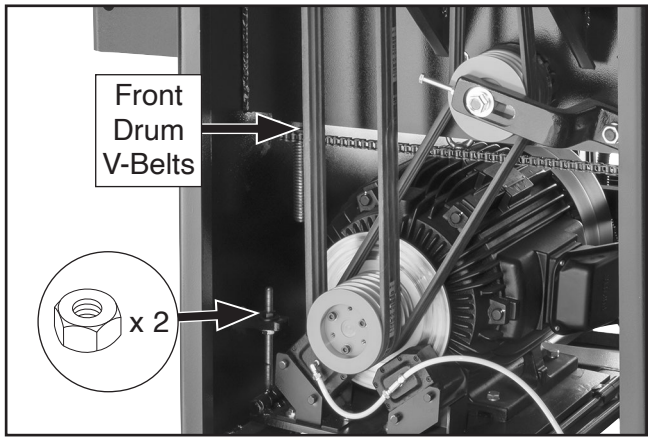


Figure 88. Location of front drum V-belt tension nuts.

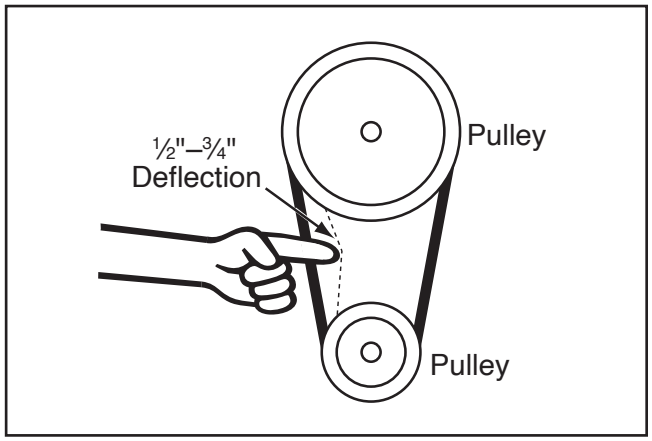


Figure 89. Checking V-belt tension.

17. Loosen jam nut, then adjust bolt shown in **Figure 90** until there is approximately ½"–¾" deflection when rear drum and drum transfer V-belts are pushed with moderate pressure.

— Rotate bolt clockwise to apply tension to V-belt(s).

— Rotate bolt counterclockwise to release tension from V-belt(s).

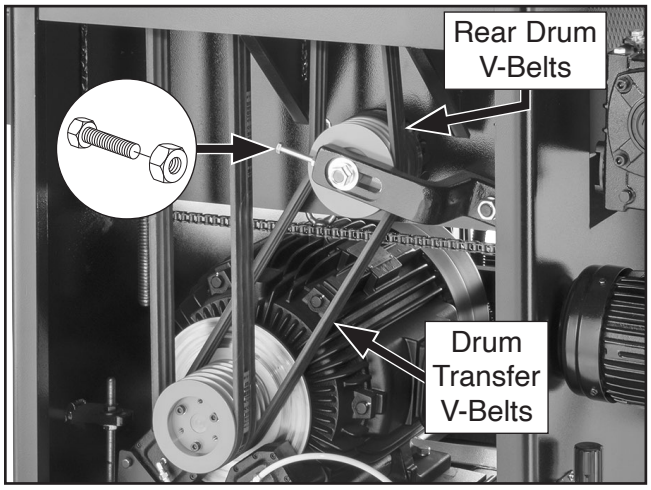


Figure 90. Location of rear drum and drum transfer V-belt tension bolt.

18. Tighten jam nut from **Step 17** and hex nuts shown in **Figure 91** to secure tension setting.

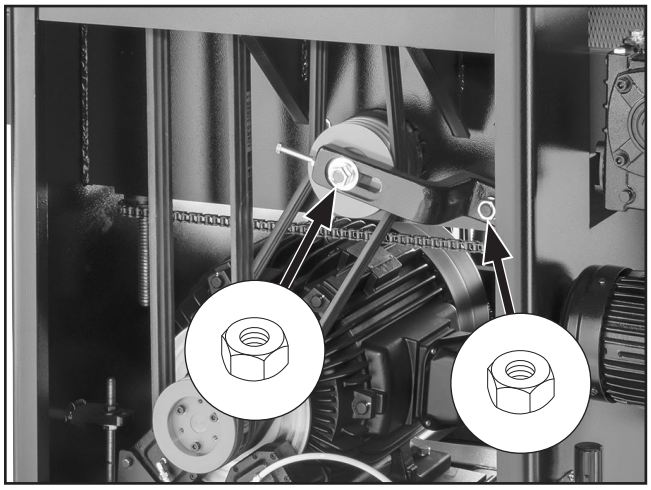


Figure 91. Location of securing hex nuts.

19. Install V-belt covers and screws from **Step 3**, then close right door.

20. Install right access panel and secure with screws removed in **Step 2**.

Emptying Dust & Water Traps

Two collection traps on this sander need to be emptied regularly. DO NOT allow these traps to become full or you risk serious damage to the machine.

The regulator filter trap (see **Figure 92**) is attached to the air pressure regulator and traps condensation from the incoming air supply. With the system pressurized, pull the drain valve down to empty the collected water. Once a year, replace the internal filter.

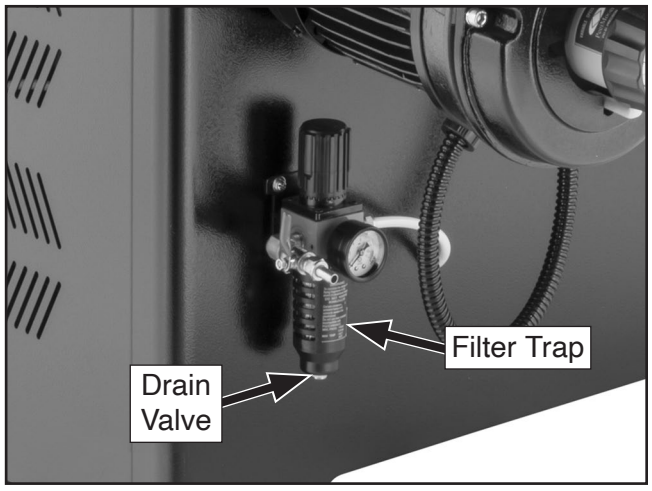


Figure 92. Regulator filter trap components.

There are two dust trap bowls inside the right door (see **Figure 93**). To empty these bowls, turn the incoming air ***OFF***, allow the pressure to bleed out, then unscrew and empty the bowls.

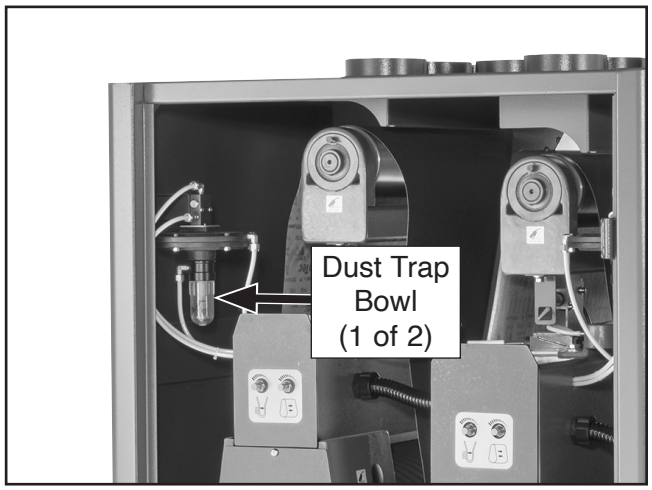


Figure 93. Location of dust trap bowls.

Cleaning Sanding Belts

To increase the working life of your sanding belts, clean them whenever they decrease in performance due to heavy loading of material. Use a cleaning pad like the one shown below.

D3003—PRO-STIK® 15" x 20" Sanding Pad
Extend the life of your sandpaper! Just feed this crepe-rubber cleaning pad through your sander to remove dust build-up from the sandpaper without damage. ¾" thick.



Figure 94. D3003 PRO-STIK® 15" x 20" Sanding Pad.

To clean sanding belts:

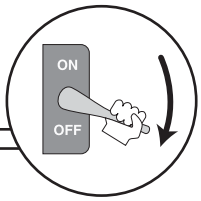
1. Set table elevation to thickness of cleaning pad.

2. Run pad through sander two or three times. DO NOT take too deep of a cut—belts should barely touch cleaning pad.

SECTION 6: SERVICE

Review the troubleshooting procedures in this section if a problem develops with your machine. If you need replacement parts or additional help with a procedure, call our Technical Support. **Note:** *Please gather the serial number and manufacture date of your machine before calling.*

Troubleshooting



Motor & Electrical

Symptom	Possible Cause	Possible Solution
Touchscreen does not illuminate, or power supply breaker immediately trips after startup.	1. Power supply circuit breaker tripped or fuse blown. 2. Blown machine fuse. 3. Incorrect power supply voltage or circuit size. 4. Wiring broken, disconnected, or corroded.	1. Ensure circuit is free of shorts. Reset circuit breaker or replace fuse. 2. Replace fuse/ensure no shorts. 3. Ensure correct power supply voltage and circuit size. 4. Fix broken wires or disconnected/corroded connections (**Page 83**).
Motors do not start, or power supply breaker immediately trips after startup.	1. Safety fault engaged. 2. Power supply circuit breaker tripped or fuse blown. 3. Thermal overload relay has tripped. 4. Blown machine fuse. 5. Incorrect power supply voltage or circuit size. 6. Motor wires connected incorrectly. 7. Wiring broken, disconnected, or corroded. 8. Timer/start delay module adjusted incorrectly. 9. Motor or motor bearings at fault.	1. Use fault message to determine required action (**Page 44**). 2. Ensure circuit is free of shorts. Reset circuit breaker or replace fuse. 3. Reset relay. 4. Replace fuse/ensure no shorts. 5. Ensure correct power supply voltage and circuit size (**Page 15**). 6. Correct motor wiring connections (**Page 83**). 7. Fix broken wires or disconnected/corroded connections (**Page 83**). 8. Adjust to correct delay. 9. Replace motor.
Machine stalls or is underpowered.	1. Motor wires connected incorrectly. 2. Motor overheated. 3. Motor or motor bearings at fault. 4. Timer/start delay module adjusted incorrectly.	1. Correct motor wiring connections (**Page 83**). 2. Clean motor, let cool, and reduce workload. 3. Replace motor. 4. Adjust to correct delay.
Machine has vibration or noisy operation.	1. Motor or component loose. 2. Motor mount loose/broken. 3. Motor fan rubbing on fan cover. 4. Motor bearings at fault.	1. Replace damaged or missing bolts/nuts or tighten if loose. 2. Tighten/replace. 3. Fix/replace fan cover; replace loose/damaged fan. 4. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.
Table does not move in direction of button description.	1. Phase polarity of incoming power is reversed.	1. Correct phase polarity (**Page 31**).
Interior light does not illuminate.	1. Wiring broken, disconnected, or corroded.	1. Fix broken wires or disconnected/corroded connections (**Page 83**).

Operation

Symptom	Possible Cause	Possible Solution
Machine slows or is underpowered; stops under load.	1. Workpiece material unsuitable for machine. 2. Feed rate too high. 3. Excessive depth of cut. 4. Sanding belt grit(s) too fine for particular job. 5. Sanding belt(s) clogged/worn. 6. V-belt(s) slipping/pulleys misaligned. 7. Pulley/sprocket slipping on shaft. 8. Conveyor gearbox at fault.	1. Only sand wood/ensure moisture is below 20% (**Page 38**). 2. Reduce feed rate (**Page 42**). 3. Reduce depth of cut (**Page 37**). 4. Replace with coarser grit sanding belt(s) (**Page 39**). 5. Clean (**Page 56**)/replace (**Page 39**) sanding belt(s). 6. Clean/tension (**Page 49**)/replace (**Page 52**) V-belts(s); ensure pulleys are aligned. 7. Tighten/replace loose pulley/shaft. 8. Select appropriate gear ratio and replace broken or slipping gears; replace broken or slipping bearing.
Loud, repetitious noise/vibration coming from machine.	1. Sanding belt seam(s) open/damaged. 2. V-belt(s) worn, loose, pulleys misaligned or belt slapping cover. 3. Pulley loose. 4. Conveyor gearbox at fault.	1. Replace sanding belt(s) (**Page 39**). 2. Inspect/replace belt(s) (**Page 52**). Realign pulleys if necessary. 3. Inspect pulleys. Replace or tighten if necessary. 4. Select appropriate gear ratio and replace broken or slipping gears; replace broken or slipping bearing.
Rounded workpiece edges.	1. Excessive depth of cut.	1. Reduce depth of cut (**Page 37**).
Uneven thickness from left to right of board.	1. Conveyor belt worn. 2. Sanding belt(s) worn unevenly. 3. Conveyor table not parallel to sanding drums.	1. Replace conveyor belt (**Page 76**). 2. Feed workpieces across sanding belt(s) to distribute wear evenly, not just on one side. 3. Adjust conveyor table parallelism (**Page 70**).
Workpiece slips on conveyor belt.	1. Conveyor belt dirty. 2. Pressure rollers set too high. 3. Conveyor belt worn.	1. Clean conveyor belt. 2. Lower pressure rollers (**Page 72**). 3. Replace conveyor belt (**Page 76**).
Grooves down length of workpiece.	1. Platen felt/graphite damaged. 2. Sanding belt(s) dirty/damaged.	1. Replace graphite pad or felt pad (**Page 65**). 2. Clean (**Page 56**)/replace (**Page 39**) sanding belt(s).
Lines across width of workpiece.	1. Sanding belt seam(s) open/damaged.	1. Replace sanding belt(s) (**Page 39**).
Glossy spots or streaks on workpiece.	1. Feed rate too slow. 2. Using amp draw meter to establish material removal amount. 3. Worn sanding belt(s). 4. Rear pressure roller too low.	1. Increase feed rate (**Page 42**). 2. Use more accurate method to establish correct material removal amount (**Page 37**). 3. Replace sanding belt(s) (**Page 39**). 4. Raise rear pressure roller (**Page 72**).
Sanding belts clogs quickly.	1. Sanding belt grit(s) too fine for particular job. 2. Excessive depth of cut. 3. Using amp draw meter to establish material removal amount. 4. Wood is too moist.	1. Replace with coarser grit sanding belt(s) (**Page 39**). 2. Reduce depth of cut (**Page 37**). 3. Use more accurate method to establish correct material removal amount (**Page 37**). 4. Allow wood to dry to below 20% moisture content (**Page 38**).
Sanding belt does not tension correctly; drum(s)/roller slip under belt.	1. Low air pressure. 2. Air leaks in system. 3. Belt tension cylinder shaft worn/damaged.	1. Adjust air pressure to 75 PSI at regulator. 2. Inspect all hoses and connections for leaking air; use water/soap mixture on suspected area to detect bubbles. 3. Repair/replace belt tension cylinder.

Operation (Cont.)

Symptom	Possible Cause	Possible Solution
Sanding belt runs off to one side, stopping sander.	1. Oscillation speed/timing not adjusted correctly. 2. Oscillation control fork gap/air lines clogged. 3. Solenoid valve/air manifold at fault.	1. Adjust oscillation speed/timing (**Page 62**). 2. Clean fork gap/air lines. 3. Test/repair/replace.
Poor, non-aggressive sanding results.	1. Sanding belt(s) clogged/worn. 2. Sanding belt grit(s) too fine for particular job. 3. Conveyor table not parallel to sanding drums.	1. Clean (**Page 56**)/replace (**Page 39**) sanding belt(s). 2. Replace with coarser grit(s) (**Page 39**). 3. Adjust conveyor table parallelism (**Page 70**).
Sanding belt will not start, but table will move with power controls.	1. No air pressure to machine. 2. Sanding belt(s) not tensioned.	1. Connect machine to compressed air system. 2. Tension sanding belt(s).
Conveyor belt runs off to one side.	1. Conveyor belt tracking not adjusted correctly.	1. Adjust conveyor belt tracking (**Page 75**).
Conveyor belt slipping.	1. Conveyor rollers contaminated with dirt/dust. 2. Conveyor belt has incorrect tension.	1. Clean conveyor rollers. 2. Adjust conveyor rollers to place more tension on conveyor belt (**Page 74**).
Emergency brake stops slowly.	1. Low air pressure. 2. Air leaks in system. 3. Main motor brake disc contaminated with oil. 4. Brake pads worn out or disc brake assemblies not functioning correctly.	1. Adjust incoming air pressure to 75 PSI at regulator. 2. Inspect hoses/connections for leaking air; use water/soap mixture on suspected area to detect bubbles. 3. Clean brake disc with automotive brake parts cleaner. 4. Take apart and inspect disc brake assemblies. Replace brake pads (**Page 66**) and any other worn parts.
Grinding noise when braking.	1. Brake pads worn out.	1. Replace brake pads (**Page 66**); have machine shop turn/true main motor brake disc; replace disc.
Air leaking from machine.	1. Compressed air release typical of pneumatic systems. 2. Water filter/trap drain valve open. 3. Air leaks in system.	1. Unless there is clear evidence of air leak or performance problem with belt oscillation or braking speed, take no action. Air release sound is normal. 2. Ensure water filter/trap drain valve is closed and tight (**Page 56**). 3. Inspect hoses/connections for leaking air; use water/soap mixture on suspected area to detect bubbles.
Poor dust collection.	1. Dust collection lines sized incorrectly or dust collector too far away from machine. 2. Dust collector underpowered.	1. Redesign dust collection system. 2. Upgrade dust collector.
Interior light does not illuminate.	1. LED strip covered with dust.	1. Clean LED strip.

Calibrating Workpiece Thickness Sensor

If the workpiece thickness sensor fails to adjust the table elevation to the thickness of your workpiece, the sensor may need to be calibrated.

Items Needed	Qty
Workpiece of Uniform Thickness	1
Hex Wrench 5mm	1
Wrench or Socket 10mm	1

To calibrate workpiece thickness sensor:

1. Place workpiece across conveyor table so part of it rests over peg shown in **Figure 95**.

Note: *Ensure workpiece used for this procedure is flat along its length. A warped workpiece will not result in accurate calibration.*

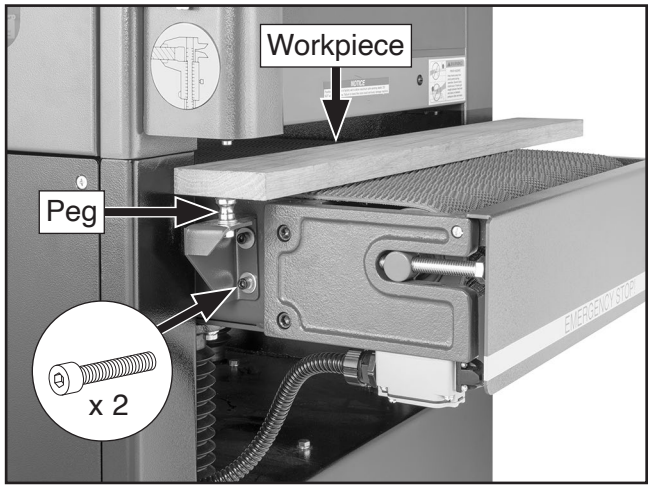


Figure 95. Example of workpiece resting on workpiece thickness peg.

— If workpiece is touching peg, and entire workpiece length is flat against conveyor belt, peg is even with conveyor table. Proceed to **Step 3**.

— If workpiece *does not* contact peg, or workpiece contacts peg, but entire workpiece length *is not* flat against conveyor belt, peg needs to be adjusted. Proceed to **Step 2**.

2. Loosen (2) cap screws shown in **Figure 95**, adjust peg so it touches workpiece without lifting any part of workpiece off of conveyor belt, then tighten cap screws to secure.

3. Reposition workpiece on conveyor table so part of it extends under workpiece thickness sensor and under drum (see **Figure 96**).

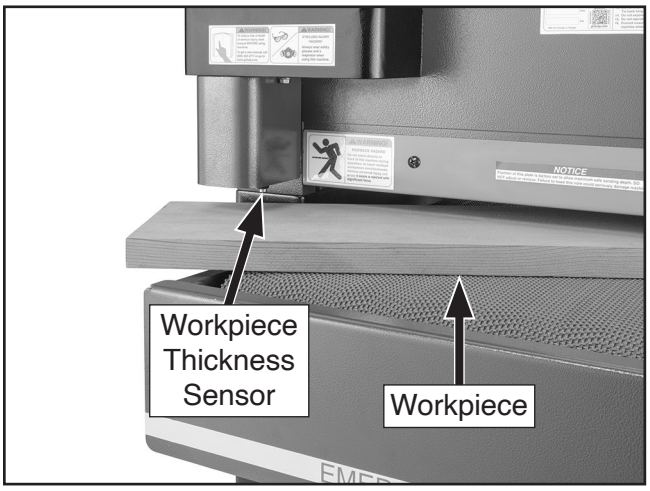


Figure 96. Example of workpiece under workpiece thickness sensor and sanding drum.

4. Press and hold table up button until workpiece triggers sensor or just touches sandpaper on sanding drum.

— If workpiece triggers sensor and contacts sandpaper at the same time, no further adjustment is required.

— If workpiece triggers sensor before it contacts sandpaper, or workpiece contacts sandpaper without triggering sensor, proceed to **Step 5**.

5. DISCONNECT MACHINE FROM POWER!

6. Open left door.

7. Remove (4) flange bolts shown in **Figure 97** to remove sensor cover.

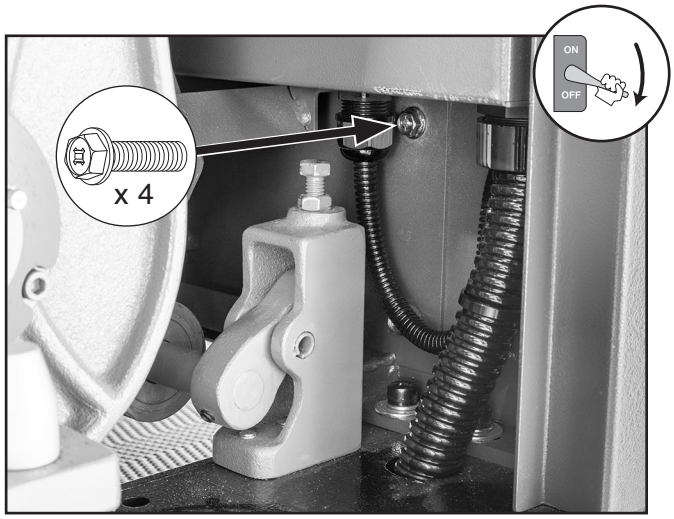


Figure 97. Location of sensor cover bolts.

8. Loosen (2) hex bolts shown in **Figure 98**.

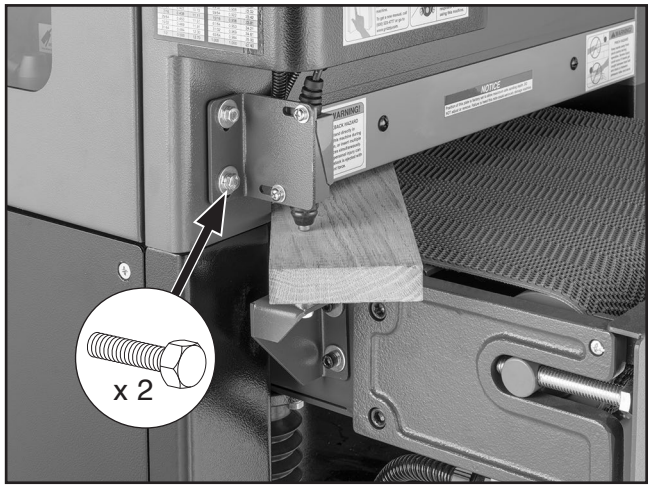


Figure 98. Location of workpiece thickness sensor calibration hex bolts (example shown).

9. Adjust table elevation until workpiece just contacts sandpaper.

10. Adjust workpiece thickness sensor until you hear it click against workpiece, then tighten hex bolts to secure position.

11. Lower table, then repeat **Step 4** to check adjustment. When sensor is correctly calibrated, install sensor cover and close left door.

Calibrating Thickness Display

For the digital display to be accurate, it must be calibrated. We recommend calibrating the thickness display anytime the table elevation leadscrews are adjusted.

Items Needed	**Qty**
2x4 (36" Long)	1
Digital Calipers	1

To calibrate thickness display:

1. Sand planed 2x4 multiple times at the same table elevation until no sanding occurs when workpiece goes through sander.

2. Measure workpiece thickness.

3. Check thickness display (see **Figure 99**).

   — If display matches measurement taken in **Step 2**, no calibration is required.

   — If display does not match measurement taken in **Step 2**, proceed to **Step 4**.

4. Use table up/down buttons to change "adjust thickness" value (see **Figure 99**) to match measurement taken in **Step 2**, then quickly hold calibration button until thickness display changes.

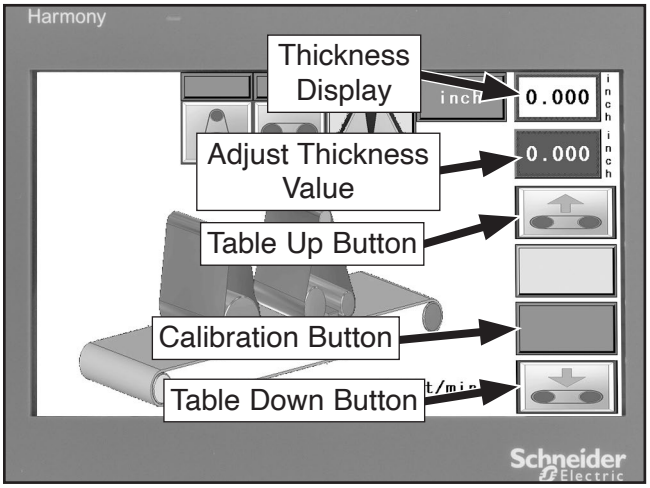


Figure 99. Location of thickness display calibration components.

Adjusting Belt Tracking Limit Switches

Sanding belt tracking limit switches (see **Figure 100**) are positioned on both sides of each sanding belt to act as emergency machine stops if either belt travels too far to one side or the other during oscillation.

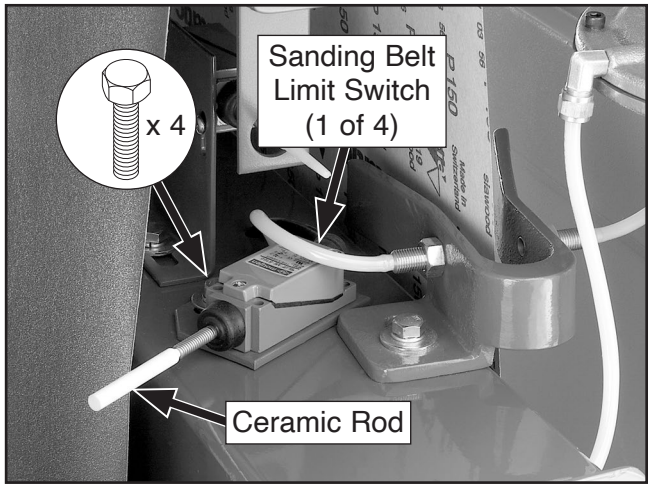


Figure 100. Limit switch adjustment components.

Tool Needed	Qty
Wrench or Socket 12mm	1

To adjust belt tracking limit switches:

1. Make sure sanding belt oscillation is adjusted properly (see **Adjusting Oscillation Timing & Speed**).

2. DISCONNECT MACHINE FROM POWER!

3. Release belt tension, center sanding belts on rollers, then apply tension to belts.

4. Measure distance between edge of sanding belts to limit switch ceramic rods (see **Figure 100**).

5. Loosen adjustment bolts shown in **Figure 100**, move switches so belts and rods are about ¼" apart, then tighten bolts to secure.

6. Start machine and make sure limit switches are working properly.

Adjusting Oscillation Timing & Speed

When the oscillation is correctly adjusted, the sanding belts oscillate to the left and to the right at the same speed. If a sanding belt makes contact with a limit switch, as shown in **Figure 101**, the emergency braking system will activate and stop the sander immediately.

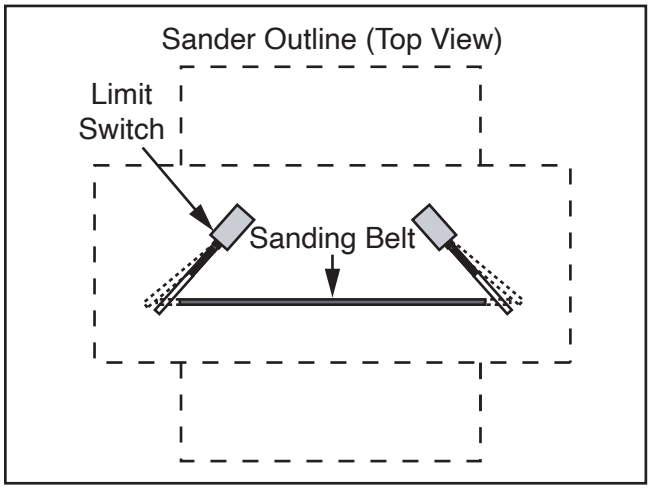


Figure 101. Improper oscillation.

Checking Oscillation

1. Confirm sanding belts are properly installed, belt tension knobs are in tensioned position, and air supply is ***ON***.

2. Close left door and start sanding belts, watching through view window as belts track along upper rollers.

   — If sanding belts oscillate without contacting limit switches, and oscillation time left and right is equal, no adjustment is required.

   — If sanding belt on either sanding head tracks away from oscillation control fork, colliding into left limit switch, proceed to **Adjusting Fork Airflow** on **Page 63**.

   — If sanding belts oscillate without contacting limit switches, but oscillation time left and right on either sanding head is not equal, proceed to **Equalizing Oscillation Speed** on **Page 64**.

Adjusting Fork Airflow

An adequate stream of air through the oscillation control fork gap is essential for proper oscillation (see **Figure 102**). If airflow is weak through the gap, the belt on that sanding head will track away from the fork and into the limit switch on the opposite end of the roller.

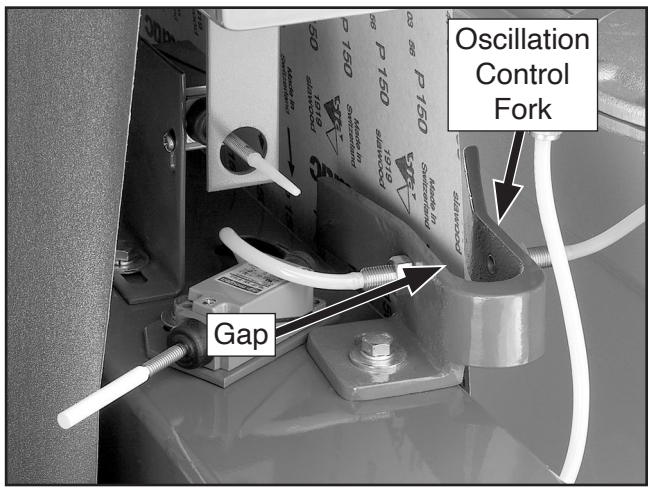


Figure 102. Oscillation control fork components.

Items Needed	Qty
Wrench 9mm	1
Scrap Cardboard Piece	1

To adjust fork airflow:

1. DISCONNECT MACHINE FROM POWER!

2. Remove sanding belt and move belt tension knob to tensioned position.

3. Open right door.

4. Loosen lock nut on airflow adjustment knob (see **Figure 103**).

5. Turn airflow adjustment knob (see **Figure 103**) clockwise until airflow is completely ***OFF***. Upper roller should swing right.

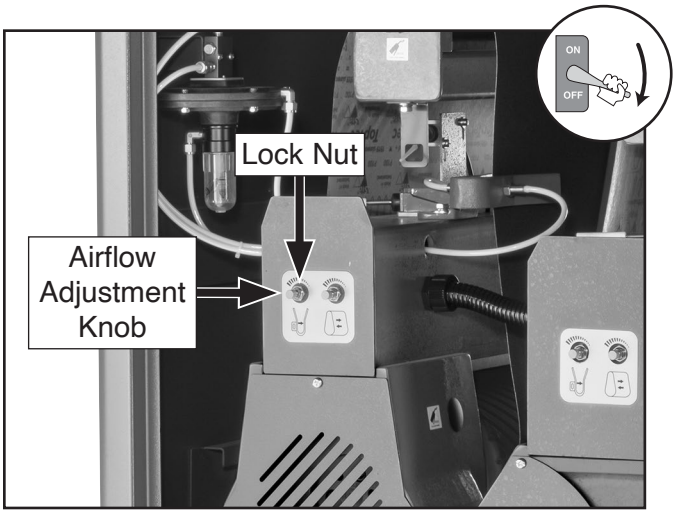


Figure 103. Airflow adjustment components (front sanding head shown).

6. Slowly turn airflow adjustment knob counterclockwise until airflow swings roller left.

7. Tighten lock nut to secure airflow adjustment.

8. Restrict airflow across fork gap with piece of cardboard. Roller should swing right. When cardboard is removed, roller should swing back left.

9. Install sanding belt, connect machine to power, then refer to **Checking Oscillation** on **Page 62** to determine if further adjustment is required.

Equalizing Oscillation Speed

⚠WARNING

Belts must be moving and door must be open during this adjustment. Keep away from moving sanding belts to avoid entanglement and abrasion injuries.

To equalize oscillation speed:

1. Open left door and start sanding belts. Make note of time it takes for belt in question to oscillate from left to right, and from right to left.

   — If oscillation time to *left* is longer than to *right*, loosen oscillation timing knob (see **Figure 104**) and move it left until timing is equalized. Tighten knob when satisfied.

   — If oscillation time to *right* is longer than to *left*, loosen oscillation timing knob (see **Figure 104**) and move it right until timing is equalized. Tighten knob when satisfied.

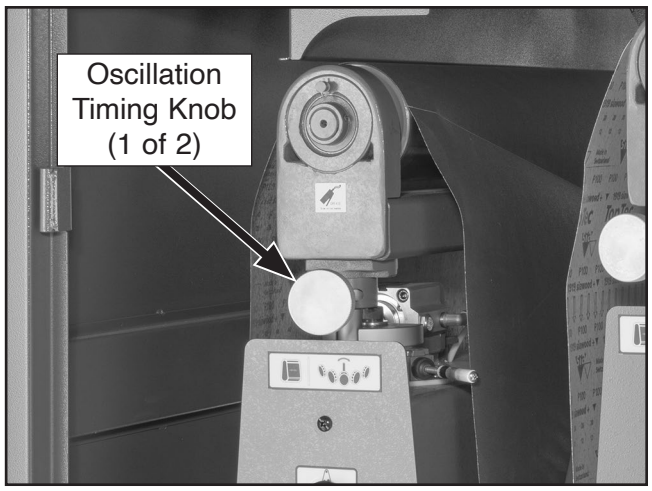


Figure 104. Location of oscillation timing knob (rear sanding head shown).

Adjusting Oscillation Speed

The oscillation speed of the sanding belt on each sanding head is adjustable. Different oscillating speeds yield different sanding results. We recommend trying various speeds on a scrap piece of wood similar to the final workpiece.

Tool Needed	Qty
Wrench 9mm	1

⚠WARNING

Belts must be moving and door must be open during this adjustment. Keep away from moving sanding belts to avoid entanglement and abrasion injuries.

To adjust oscillation speed:

1. Open right door.

2. Loosen lock nut on speed adjustment knob (see **Figure 105**).

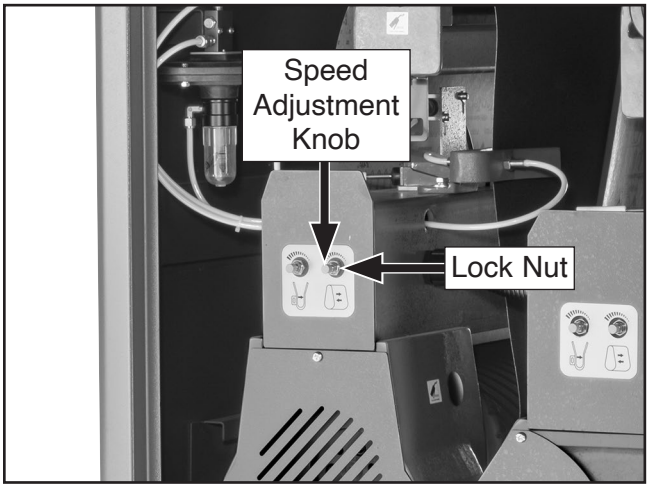


Figure 105. Oscillation speed adjustment components (front sanding head shown).

3. Start sanding belts. Make note of time it takes for belt in question to oscillate from one side to the other.

4. Turn speed adjustment knob (see **Figure 105**) clockwise to decrease oscillation speed or counterclockwise to increase oscillation speed.

5. When satisfied with adjustment, stop sanding belts and DISCONNECT MACHINE FROM POWER!

6. Tighten lock nut to secure speed adjustment.

7. Close right door.

Servicing Platen

The platen graphite pad and felt pad should be inspected on a daily basis and replaced when they become worn or damaged.

Due to its function, it is very important for the graphite pad to be flat, smooth, and free of grooves or low spots. It is also important that no dust or chips get trapped between the graphite pad and felt pad of the platen.

If surface defects are found, lightly hand-sand the platen to make the surface flat again. If surface defects are more serious, the graphite pad may need to be replaced. If you notice a lot of streaking, this can also be a sign that the graphite pad or felt pad needs to be replaced.

Replacing Graphite Pad

Items Needed	Qty
Platen Removal Tool	1
Phillips Head Screwdriver #2	1
Replacement Graphite Pad (P04100005)	1
Drill	1
Drill Bit 3/16"	1

To replace graphite pad:

1. DISCONNECT MACHINE FROM POWER!

2. Open left door and remove rear sanding belt. Keep stop block and stop block release lever removed.

3. Use platen removal tool to pull platen from rear sanding head, as shown in **Figure 106**.

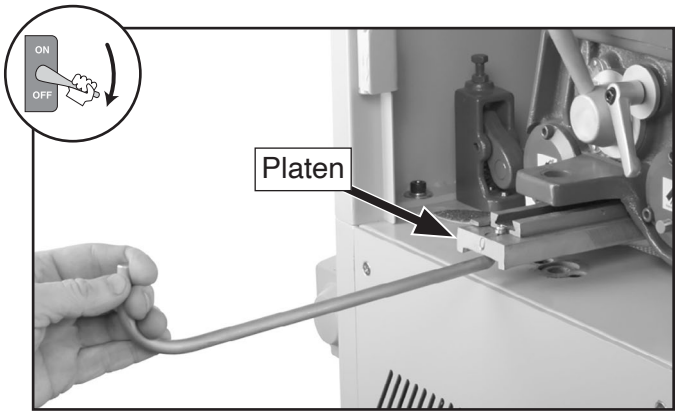


Figure 106. Example of removing platen.

4. Remove (12) Phillips head screws shown in **Figure 107** to remove pressure plate that secures graphite pad.

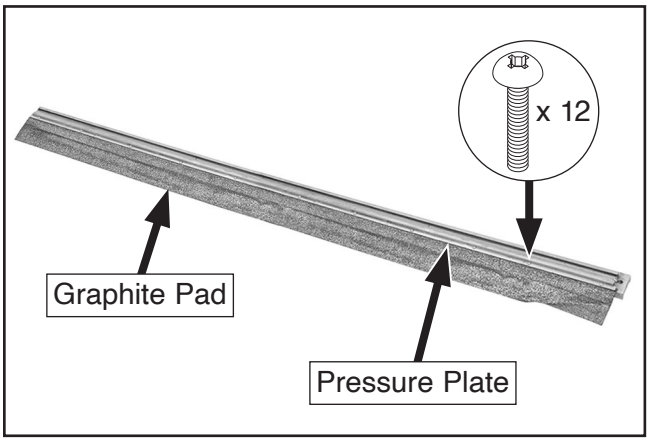


Figure 107. Platen components.

5. Install new graphite pad onto platen and secure pad with pressure plate and screws removed in **Step 4**.

   Tip: *If new pad does not have mounting holes, use old pad as template for drilling holes in new pad.*

6. Insert platen in same manner it was removed, making sure open end of graphite pad points toward front of machine.

7. Install rear sanding belt, stop block, and stop block release lever, then close left door.

Replacing Felt Pad

Items Needed	Qty
Platen Removal Tool	1
Solvent Cleaner	As Needed
Putty Knife	1
Replacement Felt Pad (P04100004)	1
Spray Adhesive or Contact Cement	As Needed

To replace felt pad:

1. DISCONNECT MACHINE FROM POWER!

2. Open left door and remove rear sanding belt. Keep stop block and stop block release lever removed.

3. Use platen removal tool to pull platen from rear sanding head, as shown in **Figure 106**.

4. Thoroughly soak felt pad (see **Figure 108**) in solvent to loosen glue securing pad to platen, then lift felt pad off and let platen dry. Use putty knife to scrape off any remaining felt and glue.

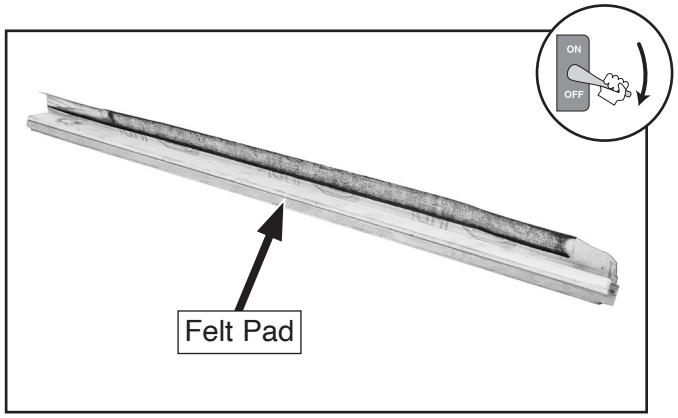


Figure 108. Location of felt pad.

5. Use spray adhesive or contact cement to secure new felt pad to platen.

6. Insert platen in same manner it was removed, making sure open end of graphite pad points toward front of machine.

7. Install rear sanding belt, stop block, and stop block release lever, then close left door.

Checking/Replacing Brake Pads

The disc brake assemblies use brake pads to stop the main motor when the EMERGENCY STOP button is pressed, the EMERGENCY STOP! bar is pressed, if the belt tension is disengaged, or if one of the belt tracking limit switches is activated. Eventually, the brake pads will wear out. All four brake pads should be changed at the same time.

Items Needed	**Qty**
Phillips Head Screwdriver #2	1
Fine Ruler	1
Open-End Wrench 14mm	1
Hex Wrenches 4, 5mm	1 Ea.
Brake Pads	
—Inner (P04100302)	2
—Outer (P04100316)	2

To check/replace brake pads:

1. DISCONNECT MACHINE FROM POWER!

2. Disconnect machine from air, then release all air pressure in machine by opening air valve on regulator (see **Figure 109**).

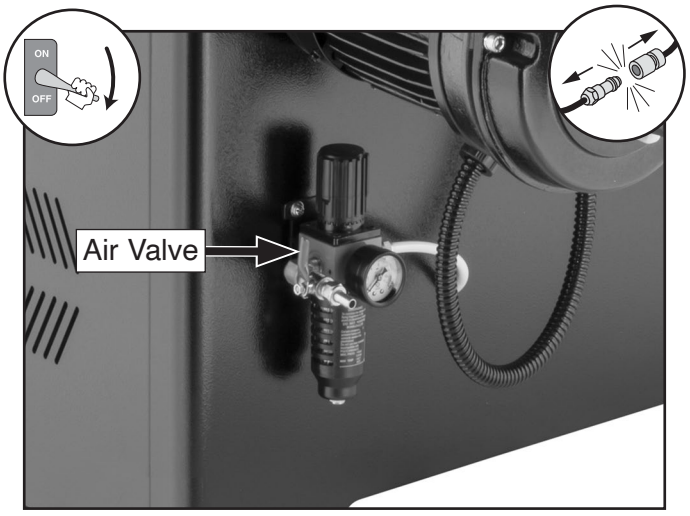


Figure 109. Location of air valve on regulator.

3. Remove (4) screws shown in **Figure 110** to remove right access panel.

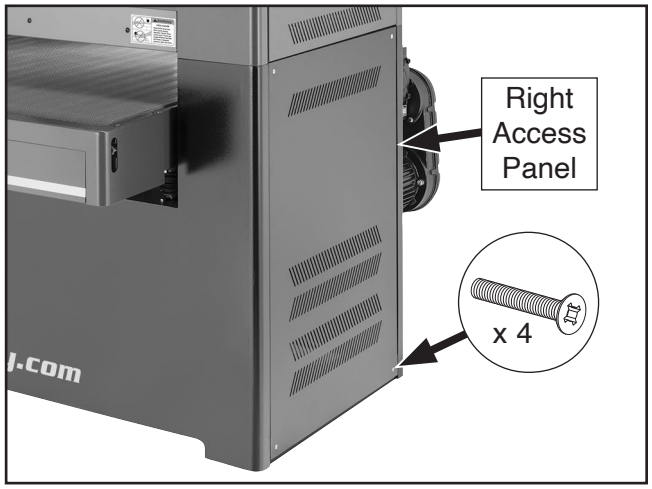


Figure 110. Location of right access panel and screws.

4. Measure thickness of each brake pad. Brake pads consist of a metal plate with a composite pad. Measure thickness of composite pads only (see **Figure 111**).

   — If thickness of each pad is *greater than* ⅛", pads do not need to be replaced. Proceed to **Step 15**.

   — If thickness of any pad is *less than* ⅛", proceed to **Step 5** to replace pads.

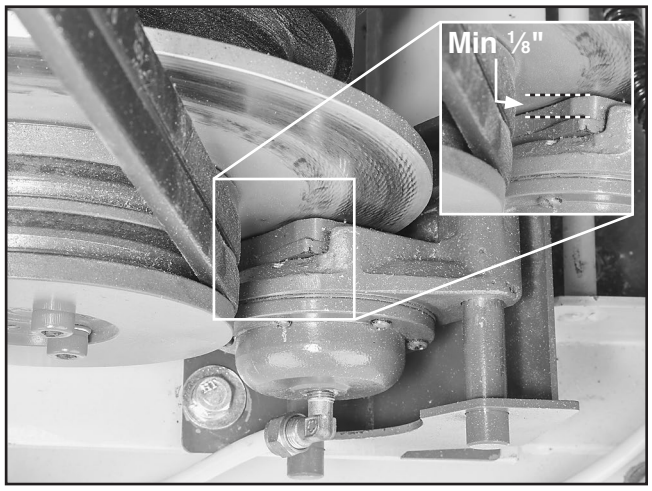


Figure 111. Example of measuring outer brake pad.

5. Remove (4) hex nuts and lock washers securing (4) brake assembly studs (see **Figure 112**), then remove studs.

6. Slide brake assemblies counterclockwise out of their mounts and out from under brake disc to remove (see **Figure 112**).

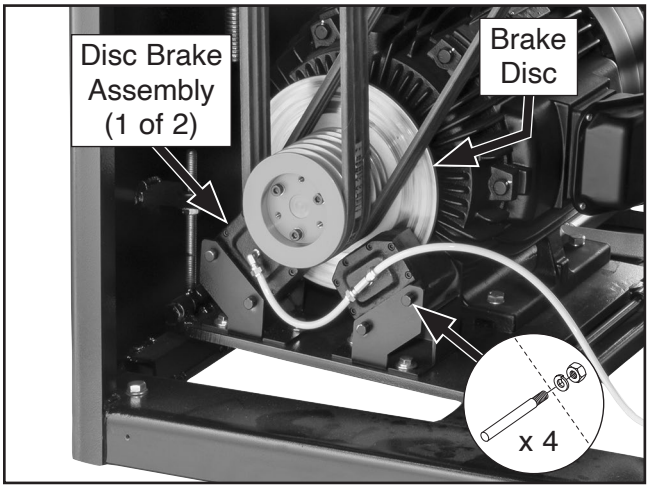


Figure 112. Brake assembly removal components.

7. Remove (16) cap screws shown in **Figure 113** to remove diaphragm covers from brake assemblies.

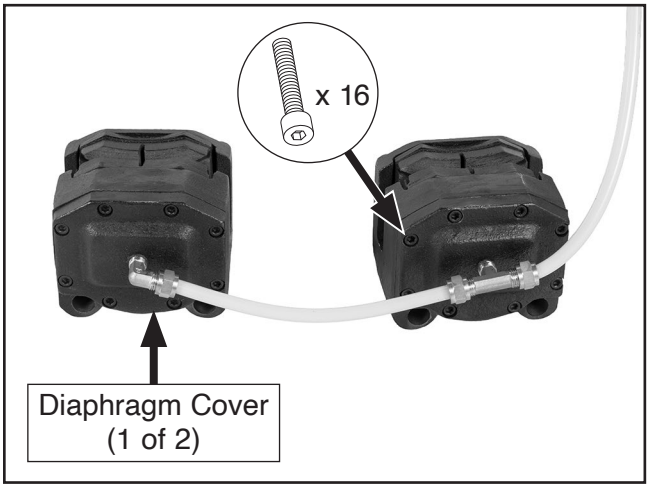


Figure 113. Location of diaphragm covers and securing screws.

8. Remove diaphragm from each brake assembly (see **Figure 114**).

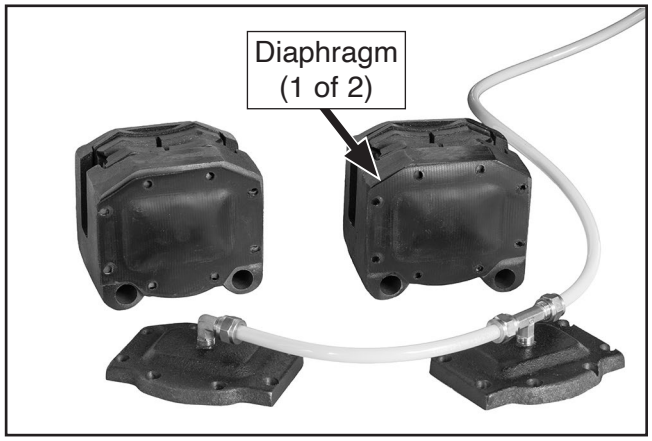


Figure 114. Location of brake assembly diaphragms.

9. Turn brake assemblies around, then remove (2) cap screws shown in **Figure 115** to remove inner brake pads.

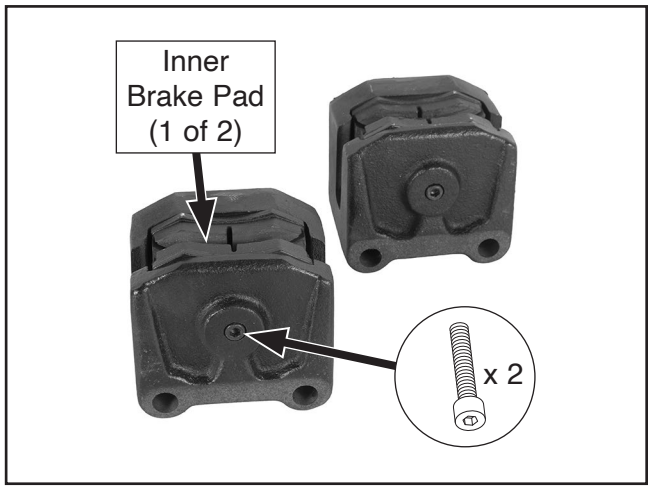


Figure 115. Location of inner brake pads and screws.

10. Use short end of a hex wrench or screw holes from **Step 9** to remove cap screws that secure outer brake pads (see **Figure 116**).

    Note: *Diaphragm plates on other side of brakes are under pressure from compression spring and will pop out when released (see **Figure 117**).*

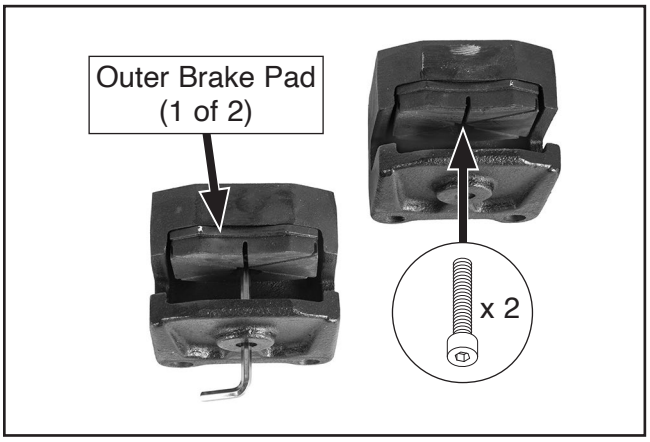


Figure 116. Accessing outer brake pad cap screws.

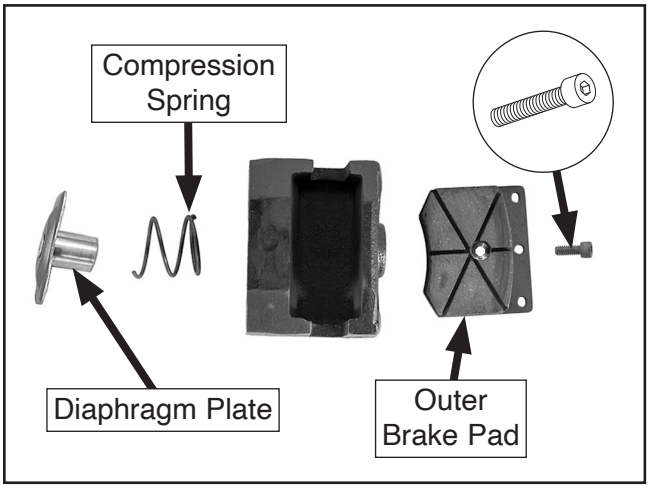


Figure 117. Outer brake components.

11. Install new outer brake pads and secure with diaphragm plates, springs, and cap screws removed in **Step 10**. Make sure diaphragm plates are fully seated in brake frames.

12. Install new inner brake pads and secure with cap screws removed in **Step 9**.

13. Install diaphragms, diaphragm covers, and screws removed in **Steps 7–8**.

14. Slide brake assemblies back into mounts so brake pads are surrounding brake disc, then secure with fasteners removed in **Step 5**.

15. Install right access panel and secure with screws removed in **Step 3**.

16. Connect machine to air and power, then start sander and test EMERGENCY STOP system to make sure brakes function properly.

Checking/Adjusting Table Parallelism

We only recommend adjusting table parallelism if absolutely necessary due to factors that may cause the factory settings to change. Adjusting the table parallelism can take a fair amount of time and patience.

IMPORTANT: DO NOT adjust the table unless you are having trouble sanding your workpiece to a uniform thickness and have eliminated all other possible causes. For instance, a sanding or conveyor belt that is unevenly worn should be replaced before adjusting table parallelism.

The four corners of the table can be independently adjusted up or down to achieve parallelism with the frame by adjusting the elevation leadscrew flanges or repositioning the table elevation leadscrew sprockets (see **Figure 118**).

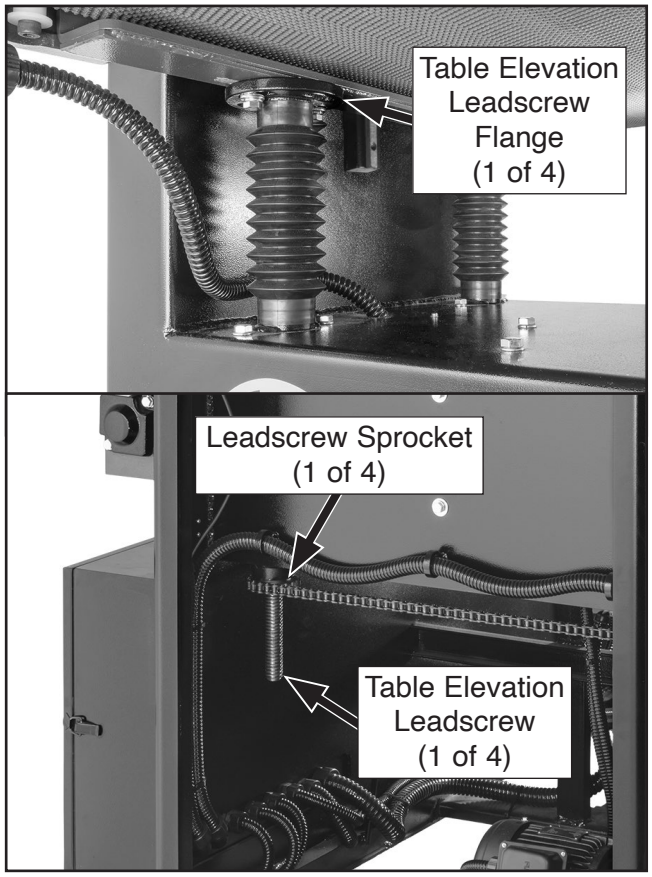


Figure 118. Location of table elevation adjustment components.

If a table adjustment is needed, mark the original positions of the table elevation flanges, sprockets, and leadscrews. This will allow the original setting to be restored if needed.

Items Needed	Qty
Vacuum Cleaner	1
Shop Rags	As Needed
Wood Block (Approx. 4" Long)	1
Fine Ruler or Calipers	1
Open-End Wrenches 12, 14mm	1 Ea.
Phillips Head Screwdriver #2	1
White Marker or Correction Fluid	As Needed

Checking Table Parallelism

1. DISCONNECT MACHINE FROM POWER!

2. Clean table and frame at each corner so sawdust will not interfere with measurements during following steps.

3. Connect machine to power, then adjust table elevation until table is approximately 6" below sanding belt.

4. Take precise measurement (within 0.001") of 4" long wood block and record measurement.

5. Place wood block on edge of table at rear left corner, then raise table until wood block just touches upper frame (see **Figure 119**). Do not allow table to squeeze or compress wood block.

   Note: *Make sure wood block does not touch conveyor belt.*

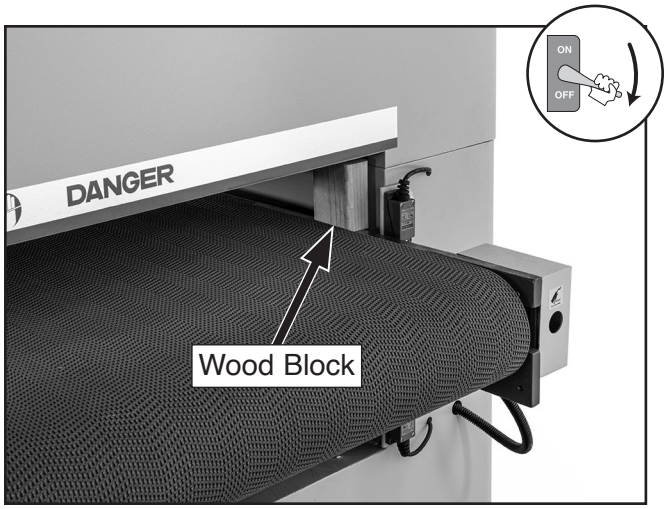


Figure 119. Example of wood block placed for checking table parallelism.

6. Take precise measurements between edge of conveyor table and upper frame at each of the remaining (3) corners (see **Figure 120**).

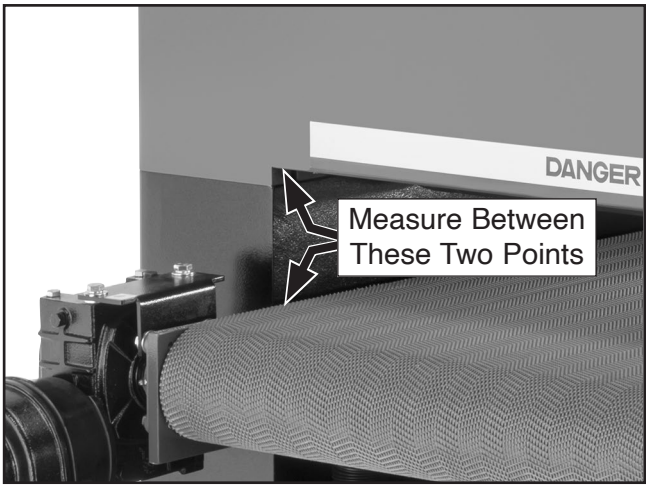


Figure 120. Distance to measure at rear right corner.

Note: *When measuring at front right and left corners, measure from upper frame; DO NOT measure from safety plate (see **Figure 121**).*

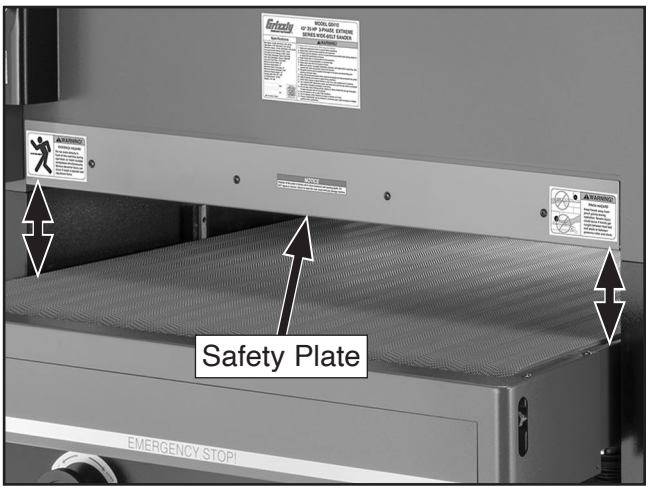


Figure 121. Distance to measure at front right and front left corners.

— If measurement at each corner is exactly the same as measurement of wood block taken in **Step 4**, table is parallel to frame and no adjustment is necessary. Remove wood block.

— If measurement at any corner *is not* exactly the same as measurement of wood block taken in **Step 4**, table is not parallel to frame. DO NOT remove wood block and proceed to **Adjusting Table Parallelism**.

Adjusting Table Parallelism

1. Check table parallelism (refer to **Checking Table Parallelism** on **Page 69**) to confirm table needs adjustment before proceeding.

2. DISCONNECT MACHINE FROM POWER!

3. With wood block still positioned at rear left corner of conveyor table, locate elevation leadscrew flange (see **Figure 122**) at corner that needs to be adjusted.

4. Loosen (2) hex bolts on flange (see **Figure 122**). Rotate flange a small amount to adjust that corner of table until it is within 0.003" of measurement of wood block taken in **Checking Table Parallelism**.

   — Rotate flange clockwise (from below) to raise corner.

   — Rotate flange counterclockwise (from below) to lower corner.

   Note: *Each flange can be adjusted for up to 0.015" of table height adjustment.*

   Tip: *It may help to rotate flange with vise grip if it is difficult to move.*

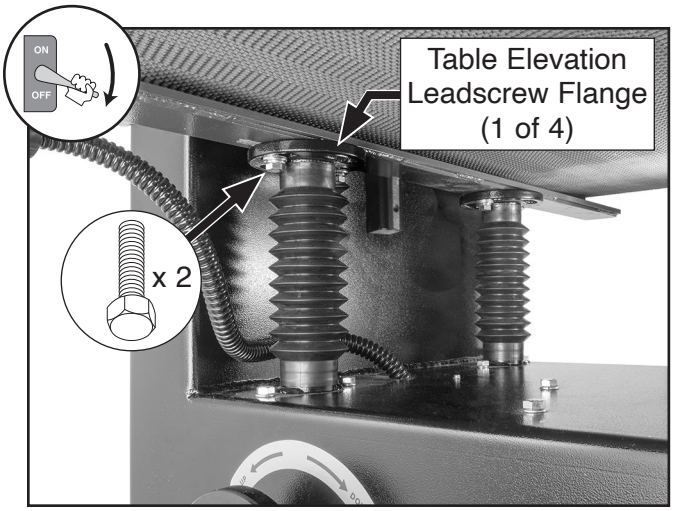


Figure 122. Table flange components.

5. Tighten hex bolts to secure adjustment.

6. Repeat **Steps 3–5** for any remaining corners that need adjustment.

— If adjusting flanges brought all table corners to same distance from upper frame, table is parallel and no further adjustment is necessary. Remove wood block.

— If any corner is still higher or lower than corner with wood block by more than 0.003", you will need to adjust elevation leadscrew sprocket for that corner. Proceed to **Step 7**.

7. Remove (8) screws shown in **Figure 123** to remove left and right access panels.

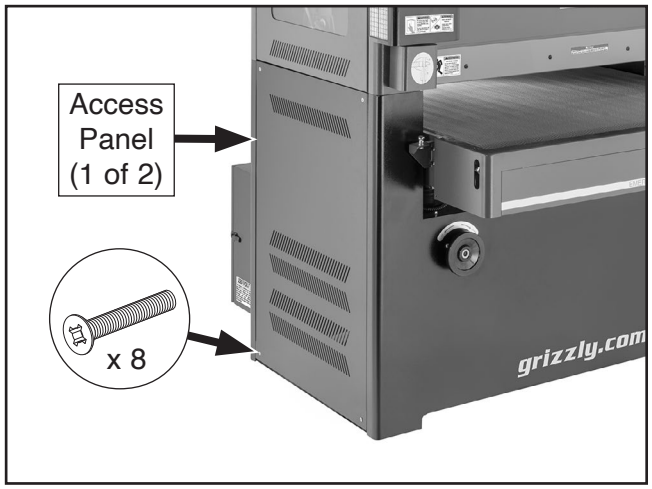


Figure 123. Location of access panels and screws.

8. Mark one tooth of table elevation leadscrew sprocket (see **Figure 124**) that you need to adjust, and its location on frame.

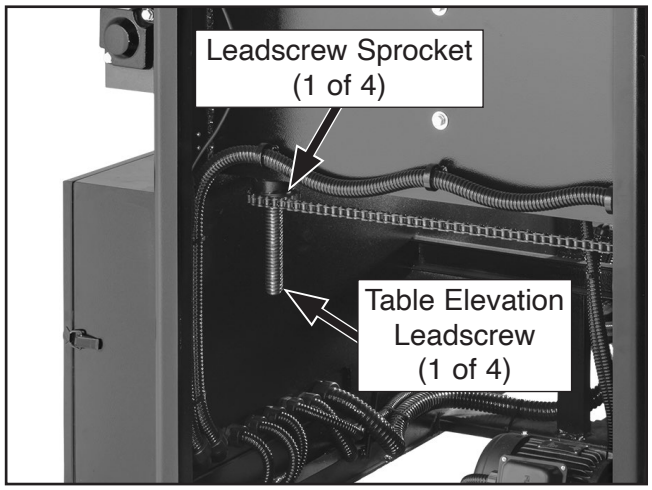


Figure 124. Location of table elevation leadscrew sprockets.

9. On table elevation chain tensioner, loosen sprocket nut on sprocket wheel shaft, and jam nut (see **Figure 125**).

10. Push sprocket adjustment rod (see **Figure 125**) away from table elevation motor to loosen chain tension.

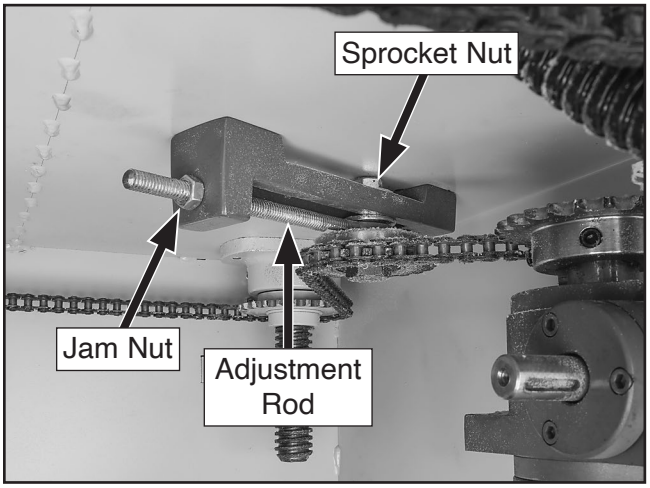


Figure 125. Example of table elevation chain tensioner components.

11. Remove chain from sprocket you want to adjust so only that sprocket can be moved independent of chain.

12. Carefully rotate sprocket just enough to position next tooth at marked location from **Step 8**, then fit chain around sprocket again.

— Rotate sprocket clockwise (from below) to raise corner of table.

— Rotate sprocket counterclockwise (from below) to lower corner of table.

13. Pull sprocket adjustment rod toward table elevation motor until chain is moderately tight, then tighten sprocket nut and jam nut to secure.

14. Check table parallelism (refer to **Checking Table Parallelism** on **Page 69**). If necessary, repeat these steps to further adjust table elevation leadscrew sprockets until all corners of table are same distance from upper frame.

15. Install access panels and remove wood block.

Adjusting Pressure Rollers

The pressure rollers have been adjusted at the factory and should not require routine adjustments.

Ideally, the pressure rollers should be positioned slightly lower than the sanding drums. However, we recommend verifying this setting. If the pressure rollers are incorrectly adjusted, you can end up with burned sanding belts, streaking, and poor workpiece results.

Recommended Pressure Roller Setting Below Sanding Drums

Infeed.....0.020"–0.030"
Center.....0.020"–0.030"
Outfeed..... 0.040"–0.060"

Note: *Variables such as feed rate, the depth of cut, and the type of sanding belt can play a part in determining the proper amount of downward pressure exerted by rollers. Some experimentation may be necessary to achieve the desired results. However, under no circumstances should the pressure rollers be set even with, or higher than, the sanding drums.*

Items Needed	Qty
Phillips Head Screwdriver #2	1
Platen Removal Tool	1
2x4 (6' Long)	1
Open-End Wrench 19mm	1
Wrenches 12, 15mm	2 Ea.

To adjust pressure rollers:

1. DISCONNECT MACHINE FROM POWER!

2. Remove (4) screws shown in **Figure 126** to remove right access panel.

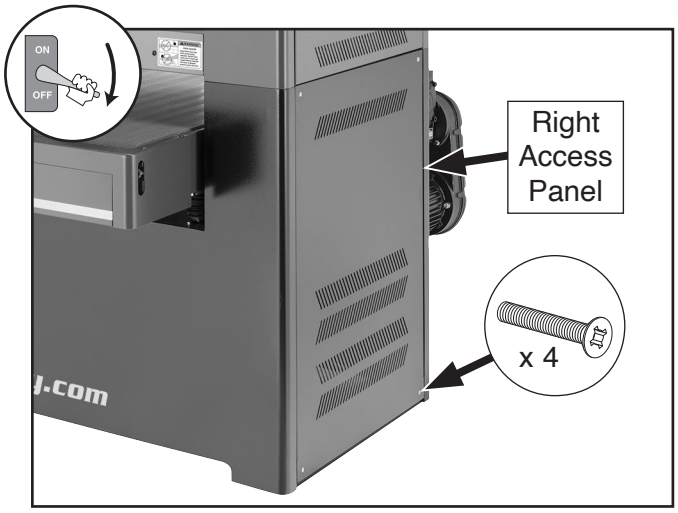


Figure 126. Location of right access panel and screws.

3. Open left and right doors.

4. Remove sanding belts and platen so they will not interfere with the following steps.

5. Rotate (2) V-belt tension nuts counterclockwise (see **Figure 127**) to raise sanding motor just enough so you can remove front drum V-belts from motor pulley. This will allow front drum to rotate freely in the following steps.

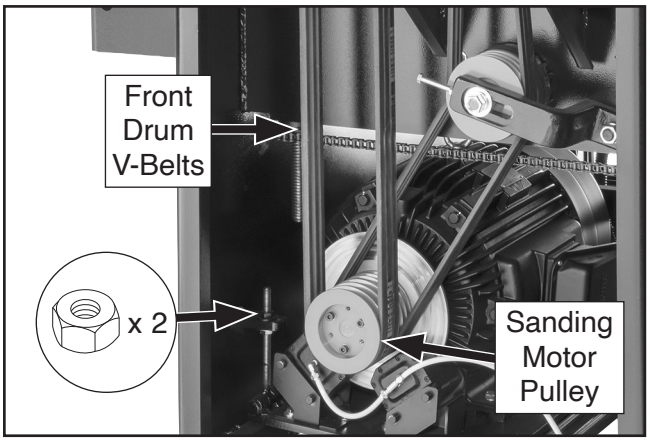


Figure 127. Front drum V-belt removal components.

6. Plane 6' long 2x4 to uniform thickness and cut it in half to make (2) 3' long pieces.

7. Place one board along length of conveyor belt on right side, and place other board on left side, as shown in **Figure 128**.



Figure 128. Example of 2x4s placed on conveyor belt under sanding drums.

8. Move front sanding drum by hand, and use handwheel to raise table until you hear wood just contact surface of drum.

   Note: *DO NOT raise table beyond this point.*

9. Connect machine to power, and press table down button four–six times to lower table 0.020"–0.030". This is how much lower infeed and center pressure rollers should be compared to surface of sanding drum.

10. DISCONNECT MACHINE FROM POWER!

11. Loosen (2) jam nuts on infeed pressure roller, rotate (2) adjustment bolts (see **Figure 129**) to adjust infeed pressure roller until it just touches boards, then tighten jam nuts to secure.

    — Rotate adjustment bolts clockwise (from above) to raise pressure roller.

    — Rotate adjustment bolts counterclockwise (from above) to lower pressure roller.

   Note: *DO NOT lower pressure rollers beyond this point.*

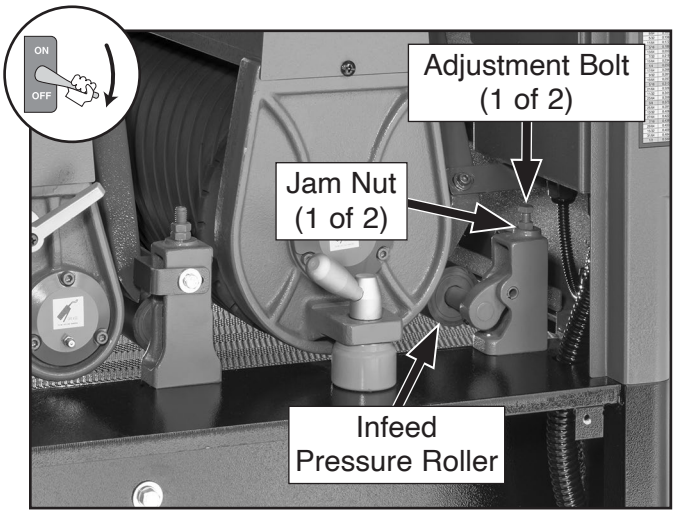


Figure 129. Infeed pressure roller adjustment components.

12. Loosen (2) jam nuts on center pressure roller, rotate (2) adjustment nuts (see **Figure 130**) to adjust center pressure roller until it just touches boards, then tighten jam nuts to secure.

    — Rotate adjustment nuts clockwise (from above) to raise pressure roller.

    — Rotate adjustment nuts counterclockwise (from above) to lower pressure roller.

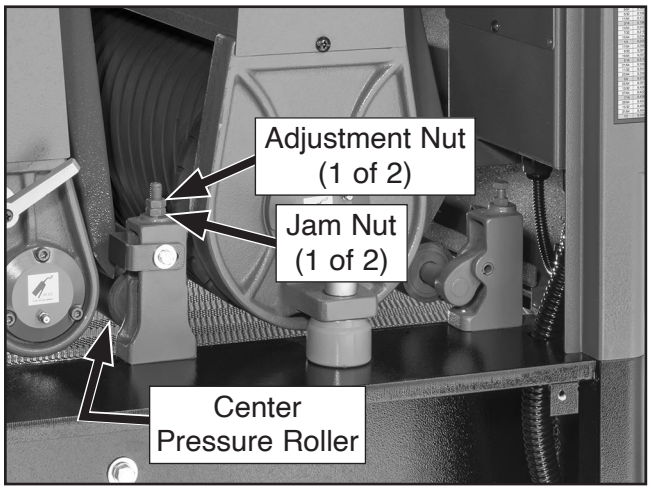


Figure 130. Center pressure roller adjustment components.

13. Connect machine to power, and press table down button four–six times to lower table another 0.020"–0.030". This is how much lower outfeed pressure roller should be compared to surface of sanding drum.

14. DISCONNECT MACHINE FROM POWER!

15. Loosen (2) jam nuts on outfeed pressure roller, rotate (2) adjustment bolts (see **Figure 131**) to adjust outfeed pressure roller until it just touches boards, then tighten jam nuts to secure.

    — Rotate adjustment bolts clockwise (from above) to raise pressure roller.

    — Rotate adjustment bolts counterclockwise (from above) to lower pressure rollers.

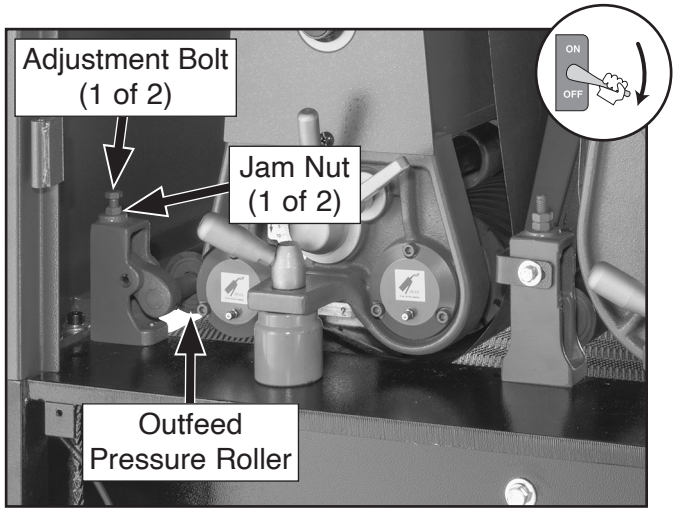


Figure 131. Outfeed pressure roller adjustment components.

16. Install and tension V-belts on sanding motor pulley (see **Checking/Adjusting V-Belt Tension** on **Page 49**).

17. Lower table and remove 2x4s.

18. Install platen and desired sanding belts.

19. Close left and right door and install right access panel.

Adjusting Conveyor Belt Tension

The conveyor belt tension has been adjusted at the factory. However, over time the belt will stretch, so adjust the conveyor belt tension if you notice that your conveyor belt is slipping or is tracking off center.

The conveyor belt tension is adjusted by rotating two adjustment bolts, located on each side of the conveyor table (see **Figure 132**).

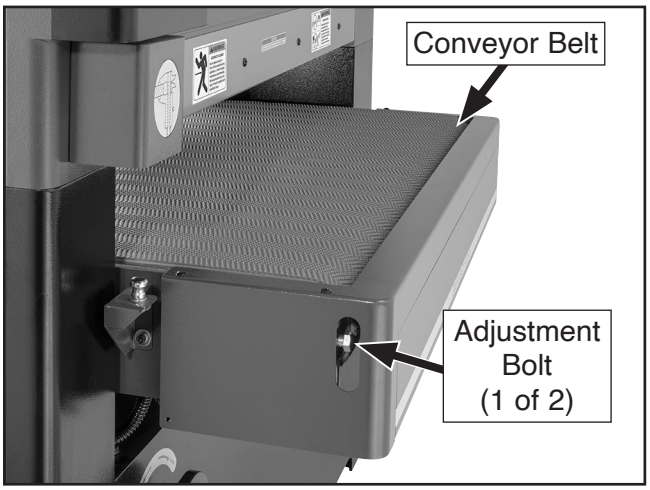


Figure 132. Location of conveyor belt adjustment bolts.

Tool Needed **Qty**
Open-End Wrench 19mm..... 1

To adjust conveyor belt tension:

1. DISCONNECT MACHINE FROM POWER!

2. Rotate both left and right adjustment bolts (see **Figure 132**) equally to adjust conveyor belt tension. When tensioned properly, you should not be able to lift conveyor belt off of table or slide it back and forth.

    — Rotate adjustment bolts clockwise to increase conveyor belt tension.

    — Rotate adjustment bolts counterclockwise to decrease conveyor belt tension.

Adjusting Conveyor Belt Tracking

The conveyor belt is tracking properly when it stays centered on its rollers during operation and does not wander from side to side. The tracking is adjusted by rotating either the left or right conveyor belt tension adjustment bolt (see **Figure 133**), depending on the needs of the adjustment.

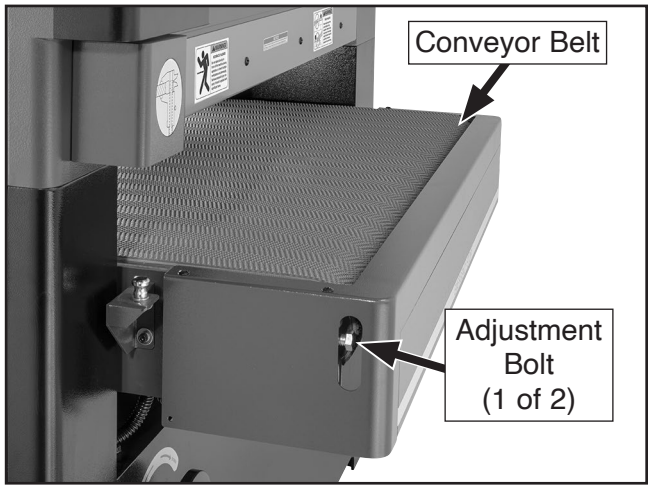


Figure 133. Location of conveyor belt adjustment bolts.

Two guide wheels (see **Figure 134**) protect the conveyor belt from damage if the tracking is out of adjustment, by preventing it from rubbing against the inside surfaces of the conveyor table.

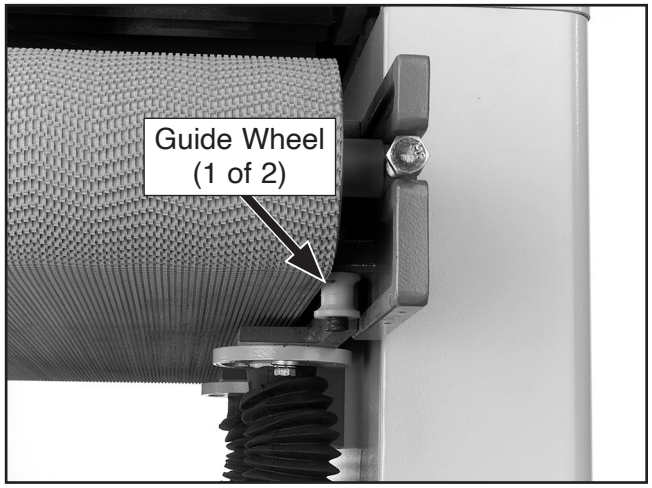


Figure 134. Location of conveyor belt guide wheels (safety guard removed for clarity).

NOTICE

Adjust conveyor belt tension before adjusting conveyor belt tracking.

Tool Needed	Qty
Open-End Wrench 19mm	1

To adjust conveyor belt tracking:

1. Turn conveyor belt ***ON***.

   — If conveyor belt is tracking *right*, rotate right adjustment bolt (see **Figure 133**) clockwise.

   — If conveyor belt is tracking *left*, rotate left adjustment bolt (see **Figure 133**) clockwise.

2. Run conveyor belt for 3–5 minutes while you observe tracking.

3. Repeat **Steps 1–2** as necessary until conveyor belt is properly tracking.

   Note: *Edge of conveyor belt should just touch guide wheels shown in* ***Figure 134****.*

Replacing Conveyor Belt

Replace the conveyor belt if it becomes damaged or you are not able to adjust the conveyor belt tracking due to excessive wear (refer to **Adjusting Conveyor Belt Tracking** on **Page 75**).

Note: *The diagram shown on **Page 79** illustrates the steps in the following procedure.*

Items Needed	Qty
Open-End Wrench 12mm	1
Additional Person	1
Wrenches or Sockets 10, 14, 17, 19mm	1 Ea.
Phillips Head Screwdriver #2	1
Hex Wrenches 5, 8mm	1 Ea.
Marker	1
2x4s (6' Long)	2
Cleaner/Degreaser	As Needed
Rags	As Needed
Replacement Conveyor Belt (P04102102)	1

To replace conveyor belt:

1. Adjust table elevation so conveyor belt is approximately 2" away from sanding drums, then DISCONNECT MACHINE FROM POWER!

2. Remove (2) hex bolts, (2) lock washers, (4) flat washers, and (2) vibration dampening washers securing motor and gearbox assembly to table, then have assistant help slide assembly from roller shaft and lower it to floor (see **Figure 135**).

3. Remove (2) hex bolts, lock washers, and flat washers to remove gearbox mounting bracket (see **Figure 135**).

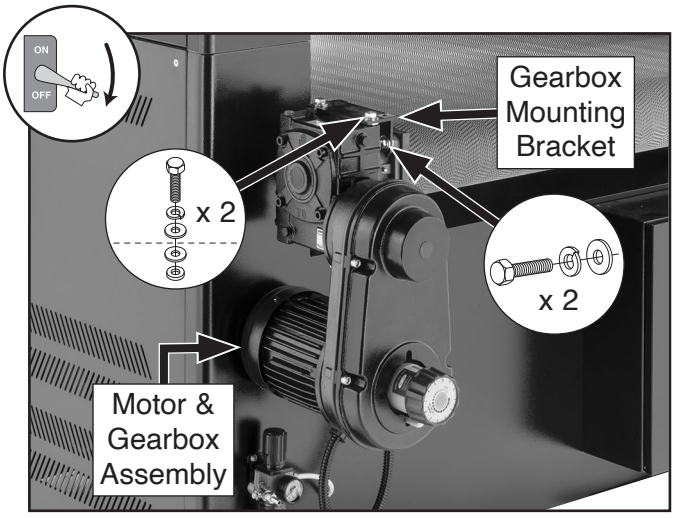


Figure 135. Motor and gearbox assembly components to remove.

4. Remove (4) hex bolts, lock washers, and flat washers shown in **Figure 136** to remove table elevation limit switches.

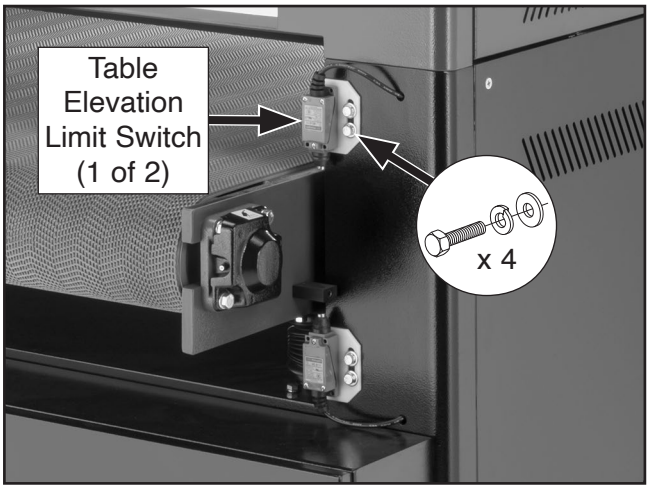


Figure 136. Location of table elevation limit switches and securing fasteners.

5. Remove (8) screws shown in **Figure 137** to remove access panels.

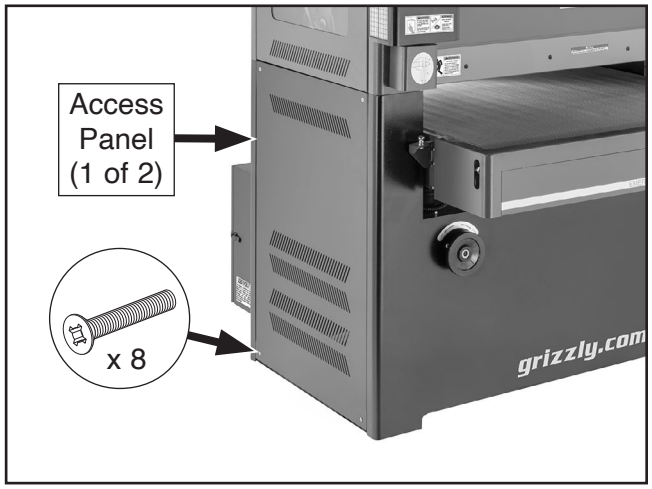


Figure 137. Location of access panels and screws.

6. Remove (4) hex bolts and washers shown in **Figure 138** to remove left and right table guides (see **Figure 139**).

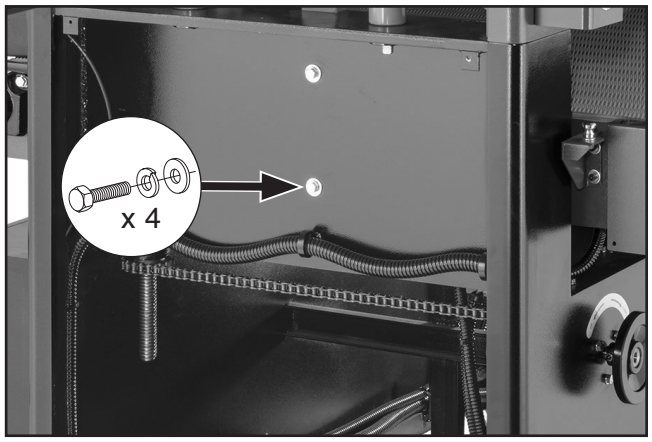


Figure 138. Location of table guide fasteners.

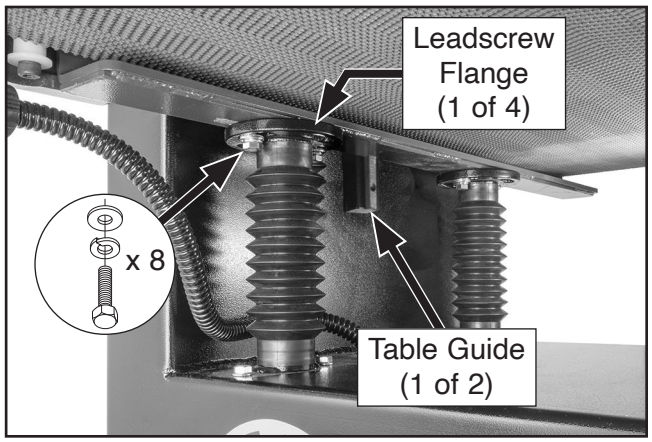


Figure 139. Location of table guides and leadscrew flanges.

7. Mark all four leadscrew flange positions, then remove all hex bolts and washers from flanges (see **Figure 139**). Try not to turn flanges during following steps.

8. Remove (4) Phillips head screws shown in **Figure 140** to remove EMERGENCY STOP! bar assembly from front of conveyor table.

9. Remove (2) cap screws and washers shown in **Figure 140** to remove peg assembly.

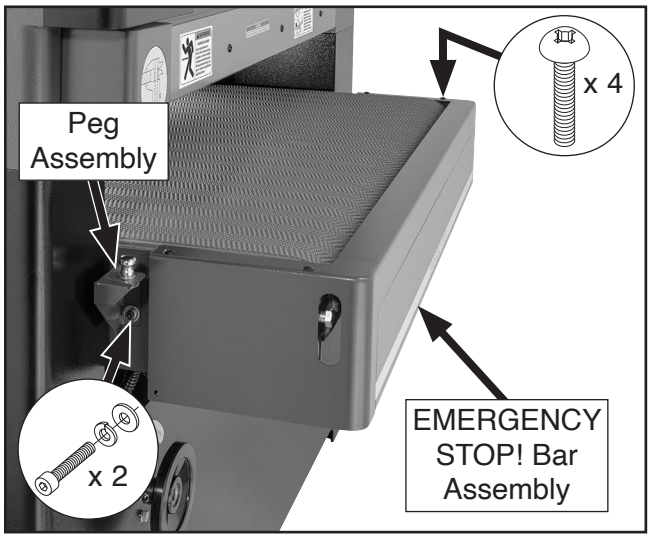


Figure 140. Peg and EMERGENCY STOP! bar assembly components.

10. Remove (2) Phillips head screws shown in **Figure 141** to remove EMERGENCY STOP! limit switch from front of conveyor table.

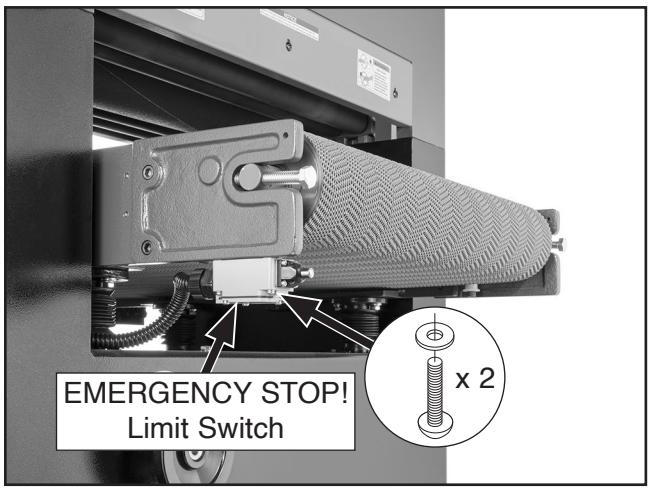


Figure 141. Location of EMERGENCY STOP! limit switch.

11. Place (2) 6' long 2x4s under table for support, then have assistant help lift table slightly and move it out of rear of machine.

12. Turn both conveyor belt adjustment bolts counterclockwise five turns, remove one roller support, and slide front conveyor roller out of table assembly (see **Figure 142**).

13. Remove old conveyor belt (see **Figure 142**), clean rollers, and inspect rollers, bearings, and table for wear and replace as required.

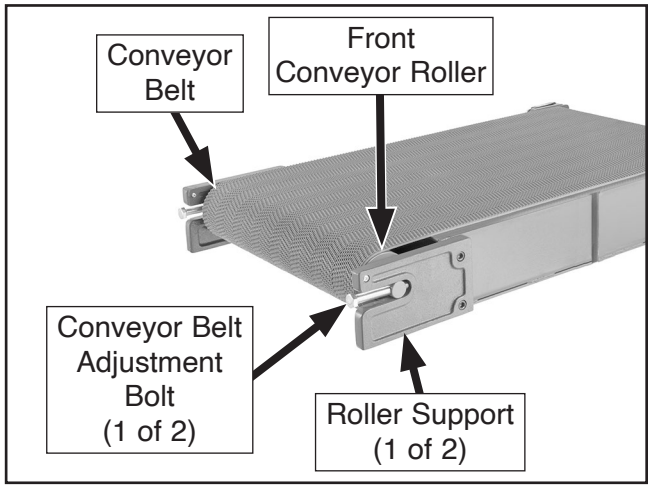


Figure 142. Example of removed conveyor table.

14. Install new conveyor belt.

15. Install front conveyor roller and roller support, then turn both conveyor belt adjustment bolts clockwise equally so conveyor belt becomes taut and does not hang loose. DO NOT OVERTIGHTEN belt tension.

16. With lifting assistant, install table from rear, then remove 2x4s.

17. Install table guides and access panels.

18. Align leadscrew flanges with marks made in **Step 7**, then install hex bolts and washers.

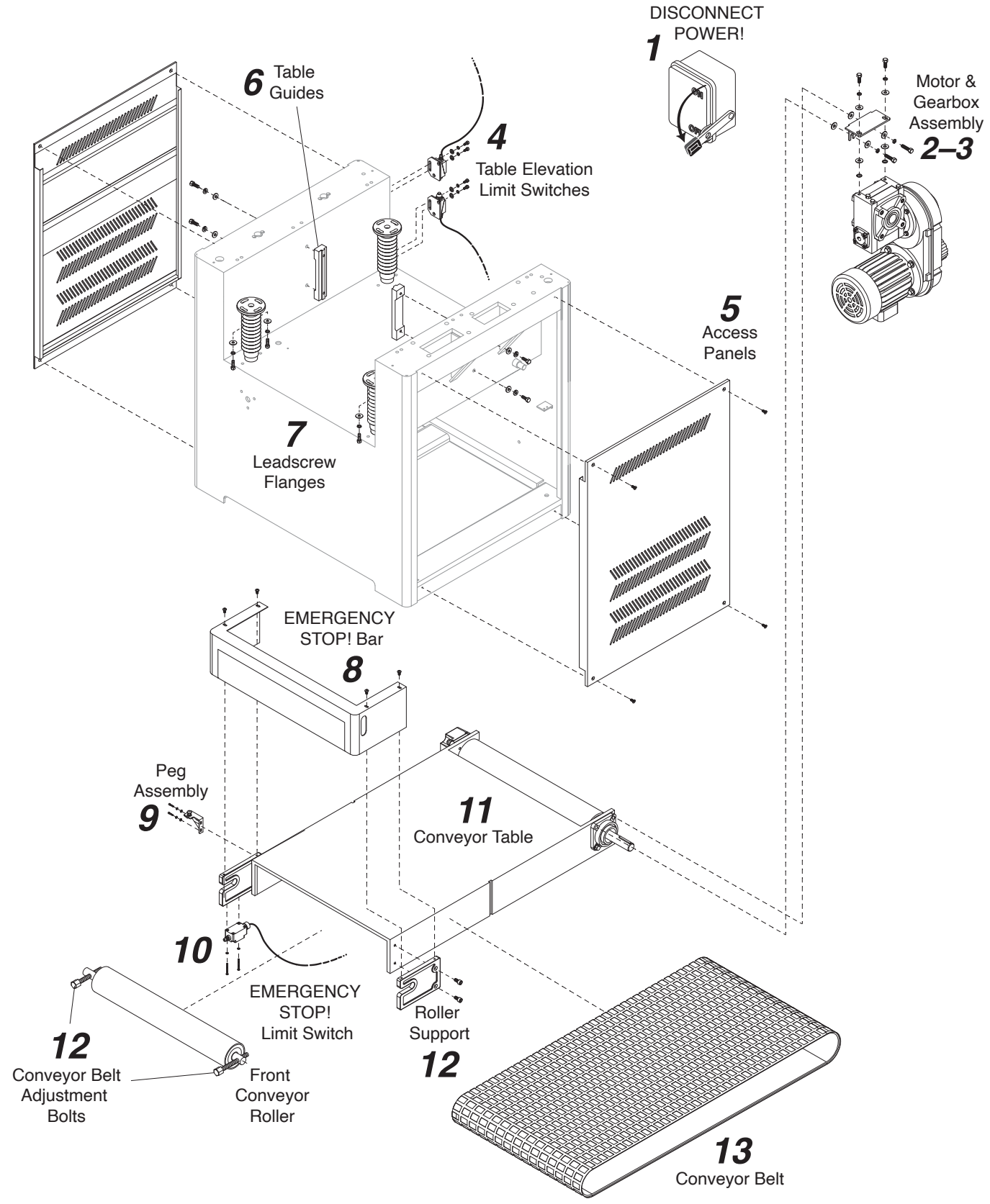
19. Install table elevation limit switches so upper switch clicks when conveyor surface is ⅛" away from sandpaper, and lower switch clicks when conveyor table is ⅛" higher than its lowest position. Make sure to test settings with handwheel manually so table does not crash if incorrectly set at first use.

20. With assistant, install feed motor assembly.

21. Install and calibrate workpiece thickness sensor peg assembly (see **Calibrating Workpiece Thickness Sensor** on **Page 60**), EMERGENCY STOP! limit switch, and EMERGENCY STOP! bar assembly.

22. Connect machine to power, and refer to **Adjusting Conveyor Belt Tracking** on **Page 75** to adjust belt tracking.

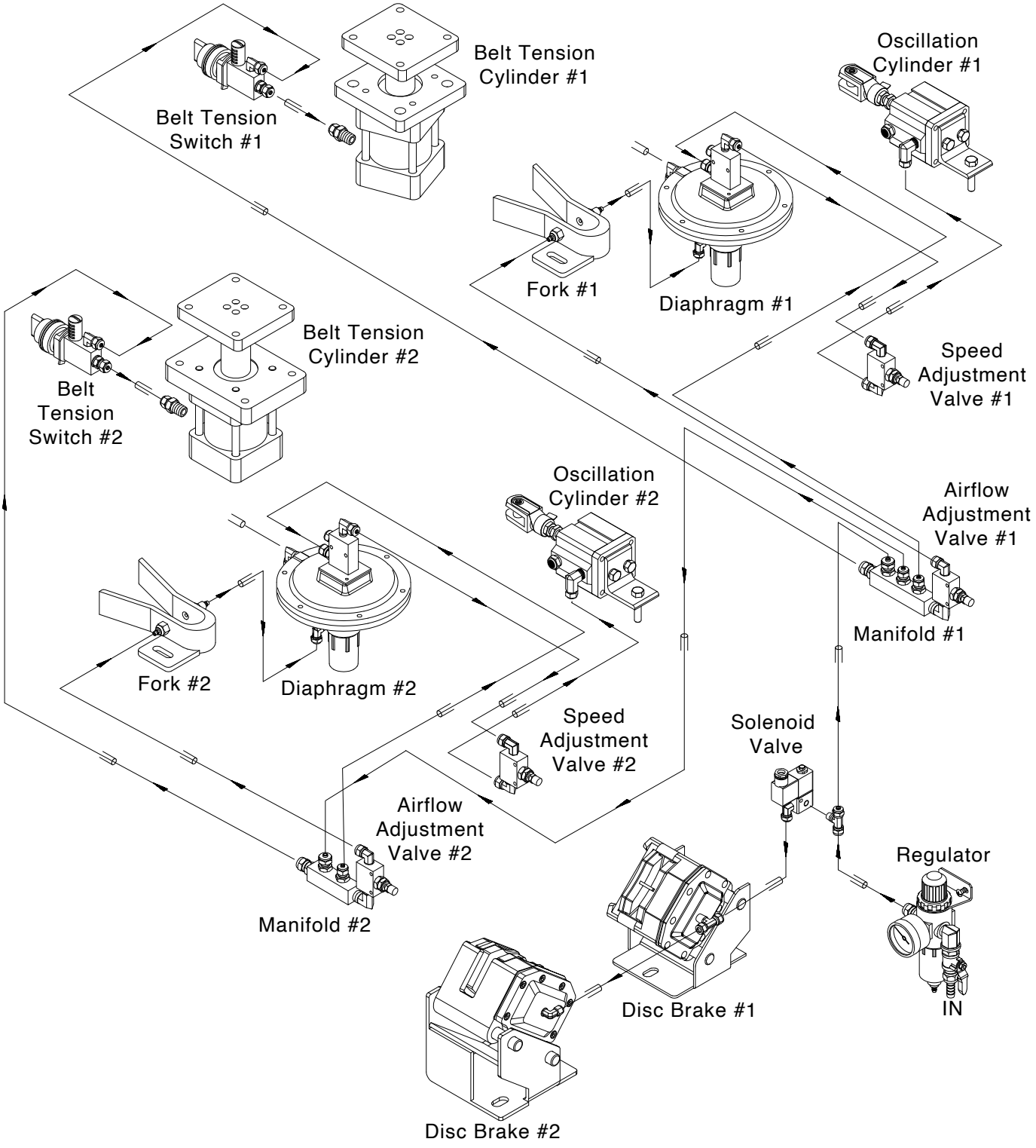
Conveyor Belt Removal Sequence



SECTION 7: PNEUMATIC SYSTEM

Before making any changes to the pneumatic system on your machine, refer to **Page 14** for safety information about compressed air to reduce your risk of injury.

Pneumatic Diagram



Pneumatic System Component Photos

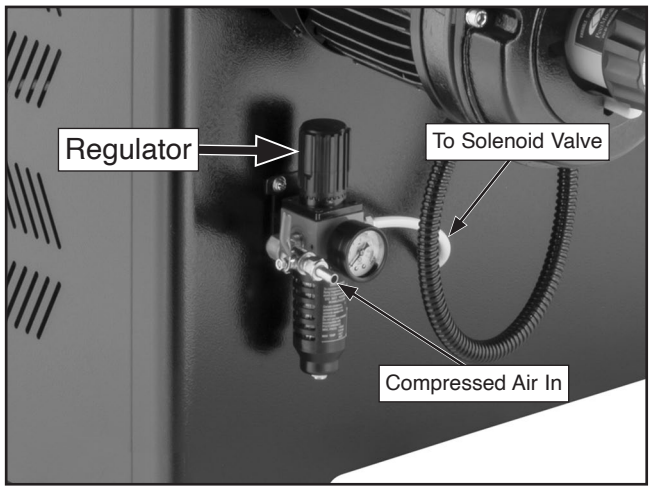


Figure 143. Regulator.

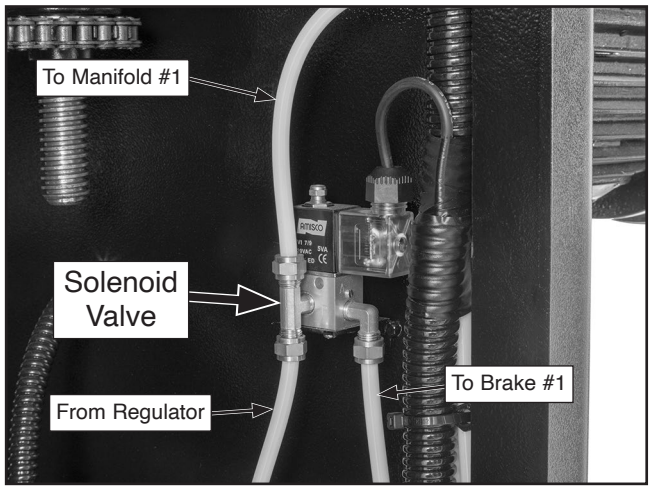


Figure 144. Solenoid valve.

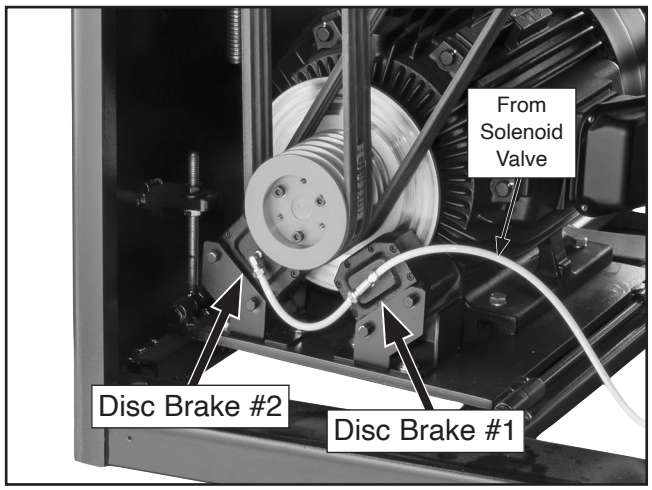


Figure 145. Brakes.

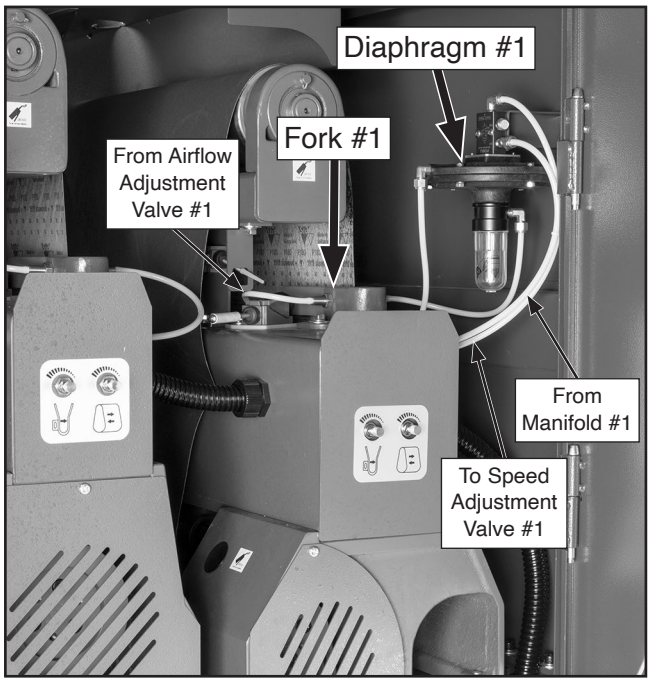


Figure 146. Rear sanding head diaphragm and fork.

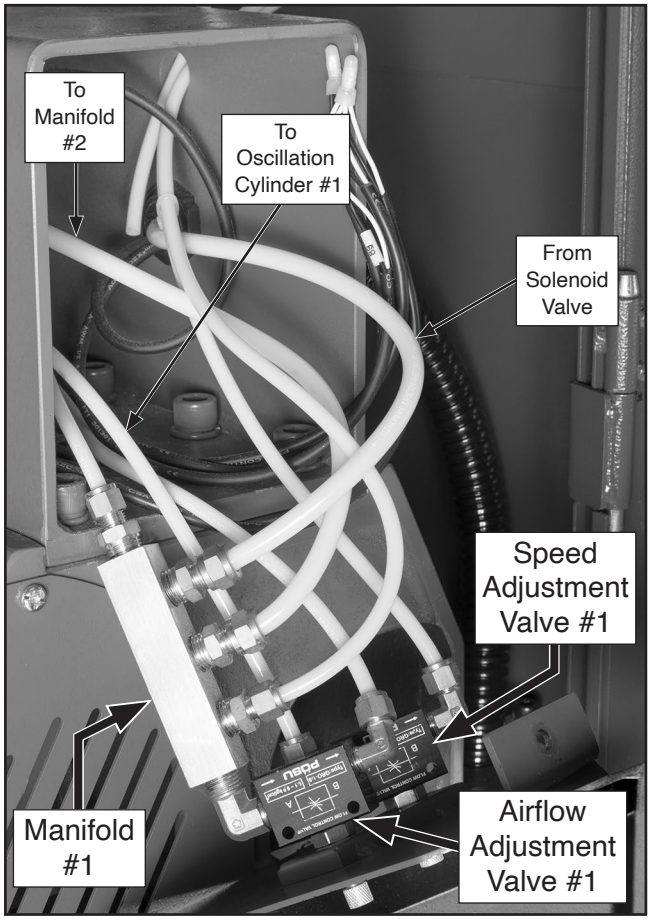


Figure 147. Rear sanding head manifold and adjustment valves.

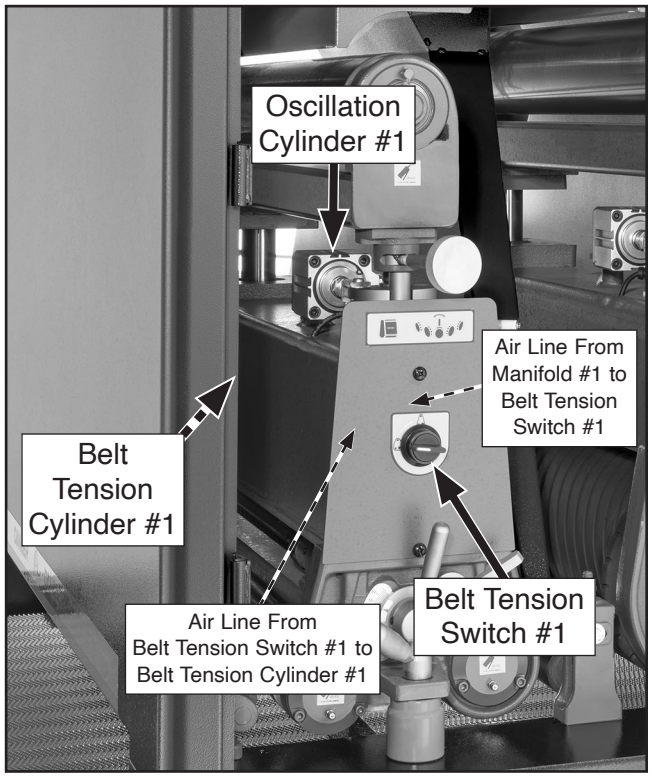


Figure 148. Rear sanding head cylinders and belt tension switch.

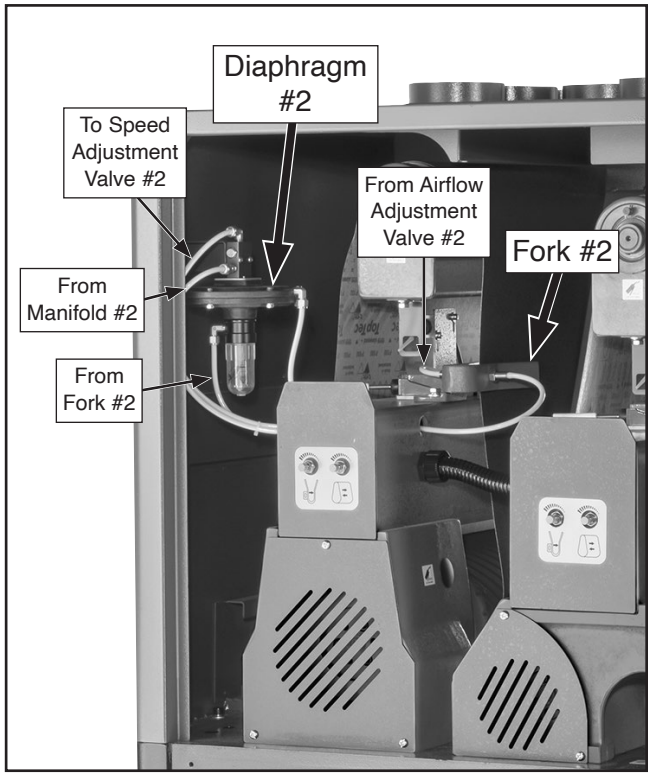


Figure 149. Front sanding head diaphragm and fork.

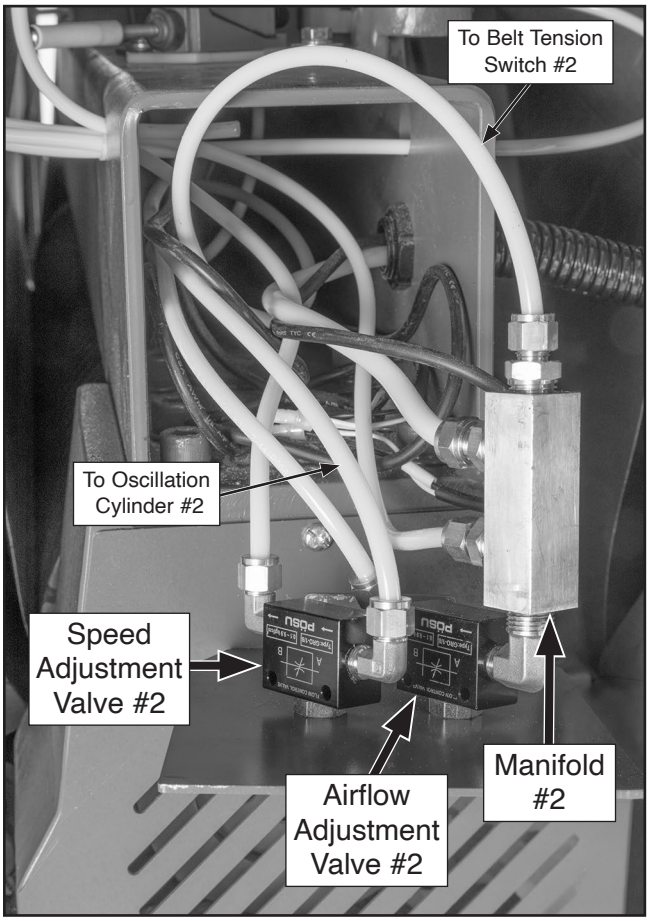


Figure 150. Front sanding head manifold and adjustment valves.

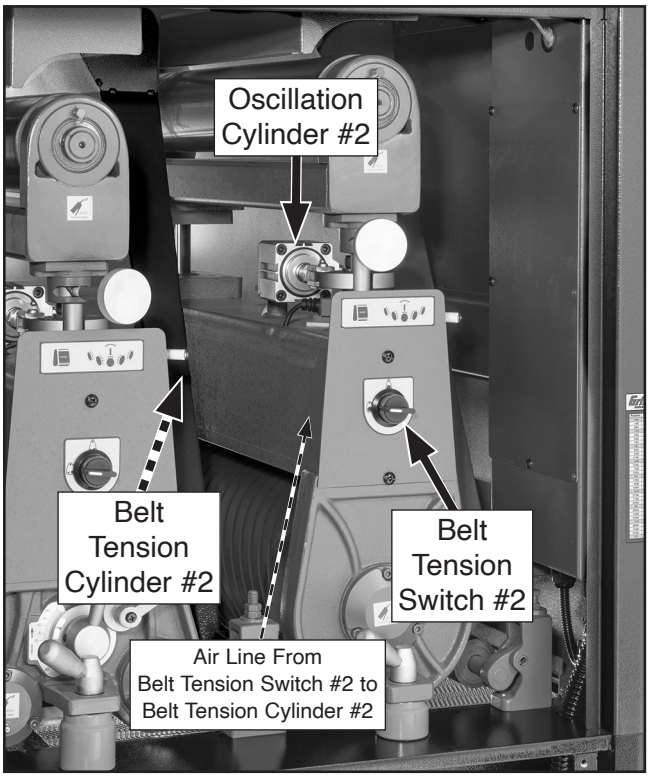


Figure 151. Front sanding head cylinders and belt tension switch.

SECTION 8: WIRING

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

If there are differences between your machine and what is shown in this section, call Technical Support at (570) 546-9663 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** *Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.*

⚠WARNING
Wiring Safety Instructions

SHOCK HAZARD. Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!

MODIFICATIONS. Modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire. This includes the installation of unapproved aftermarket parts.

WIRE CONNECTIONS. All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.

CIRCUIT REQUIREMENTS. You MUST follow the requirements at the beginning of this manual when connecting your machine to a power source.

WIRE/COMPONENT DAMAGE. Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components.

MOTOR WIRING. The motor wiring shown in these diagrams is current at the time of printing but may not match your machine. If you find this to be the case, use the wiring diagram inside the motor junction box.

CAPACITORS/INVERTERS. Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

EXPERIENCING DIFFICULTIES. If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

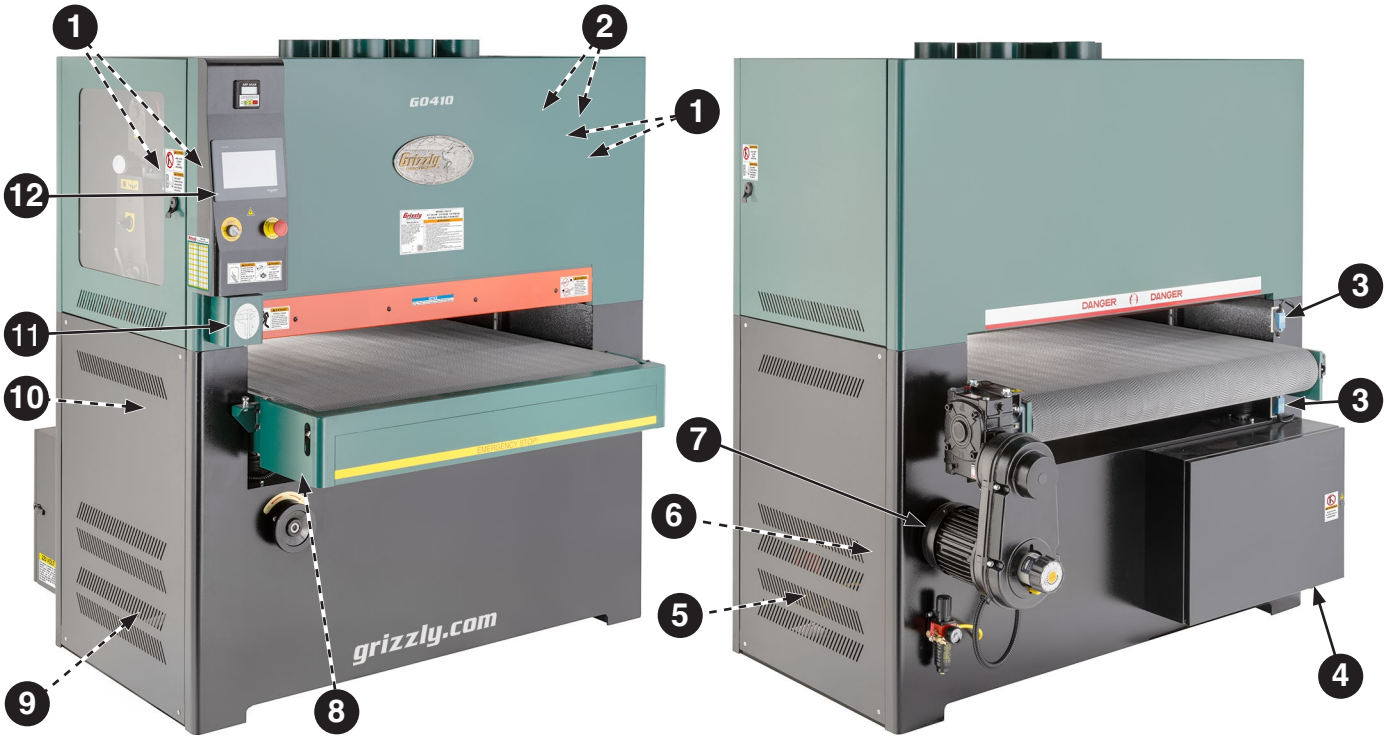
NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at www.grizzly.com.

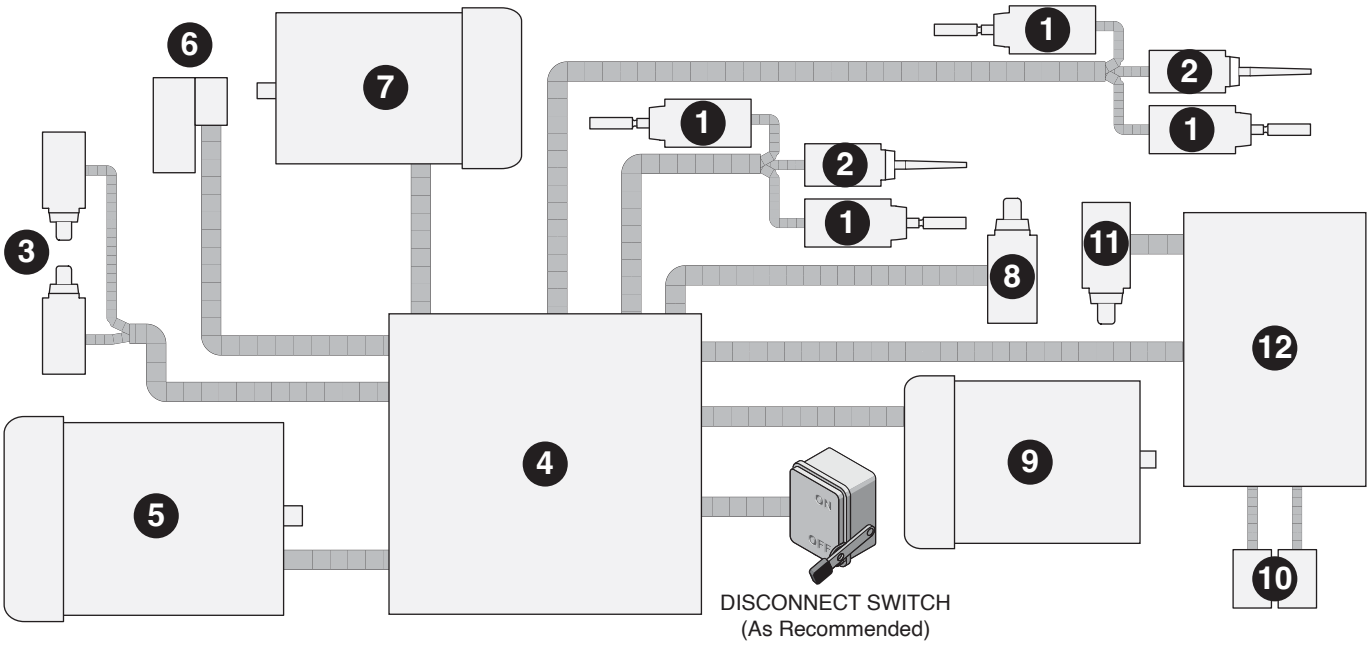
COLOR KEY

BLACK	Bk	BLUE	Bl	YELLOW	Yl	LIGHT BLUE	Lb
WHITE	Wt	BROWN	Br	YELLOW GREEN	Yg	BLUE WHITE	Bw
GREEN	Gn	GRAY	Gy	PURPLE	Pu	TURQUOISE	Tu
RED	Rd	ORANGE	Or	PINK	Pk		

Wiring Overview



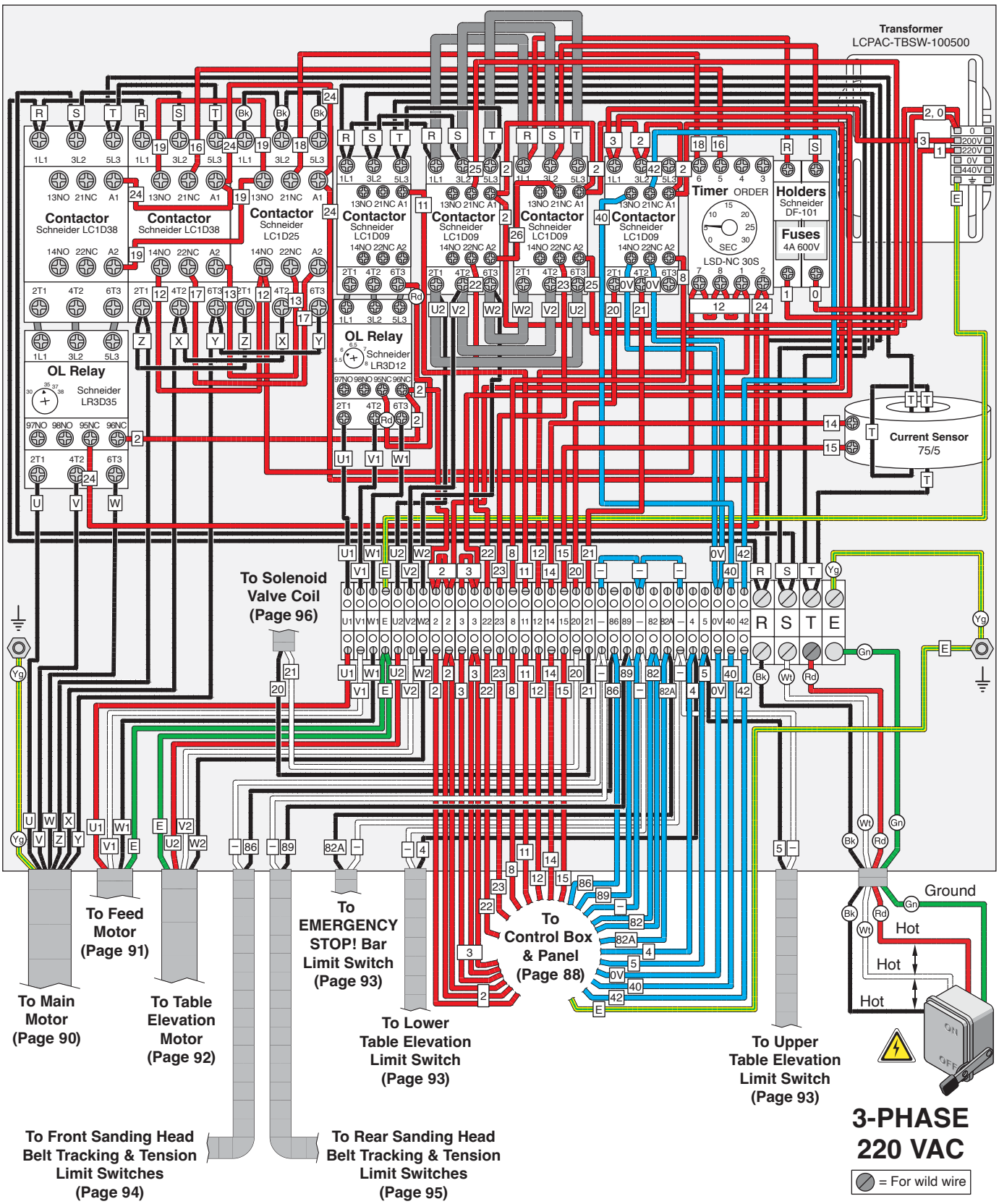
1	Belt Tracking Limit Switches (**Page 94, 95**)	7	Feed Motor (**Page 91**)
2	Belt Tension Limit Switches (**Page 94, 95**)	8	EMERGENCY STOP! Limit Switch (**Page 93**)
3	Table Elevation Limit Switches (**Page 93**)	9	Table Elevation Motor (**Page 92**)
4	Electrical Cabinet (**Page 85, Page 86**)	10	Table Elevation Sensors (**Page 96**)
5	Main Motor (**Page 90**)	11	Workpiece Thickness Sensor (**Page 96**)
6	Solenoid Valve Coil (**Page 96**)	12	Control Box & Panel (**Page 88**)



READ WIRING SAFETY ON PAGE 83!

Electrical Cabinet Wiring (220V)

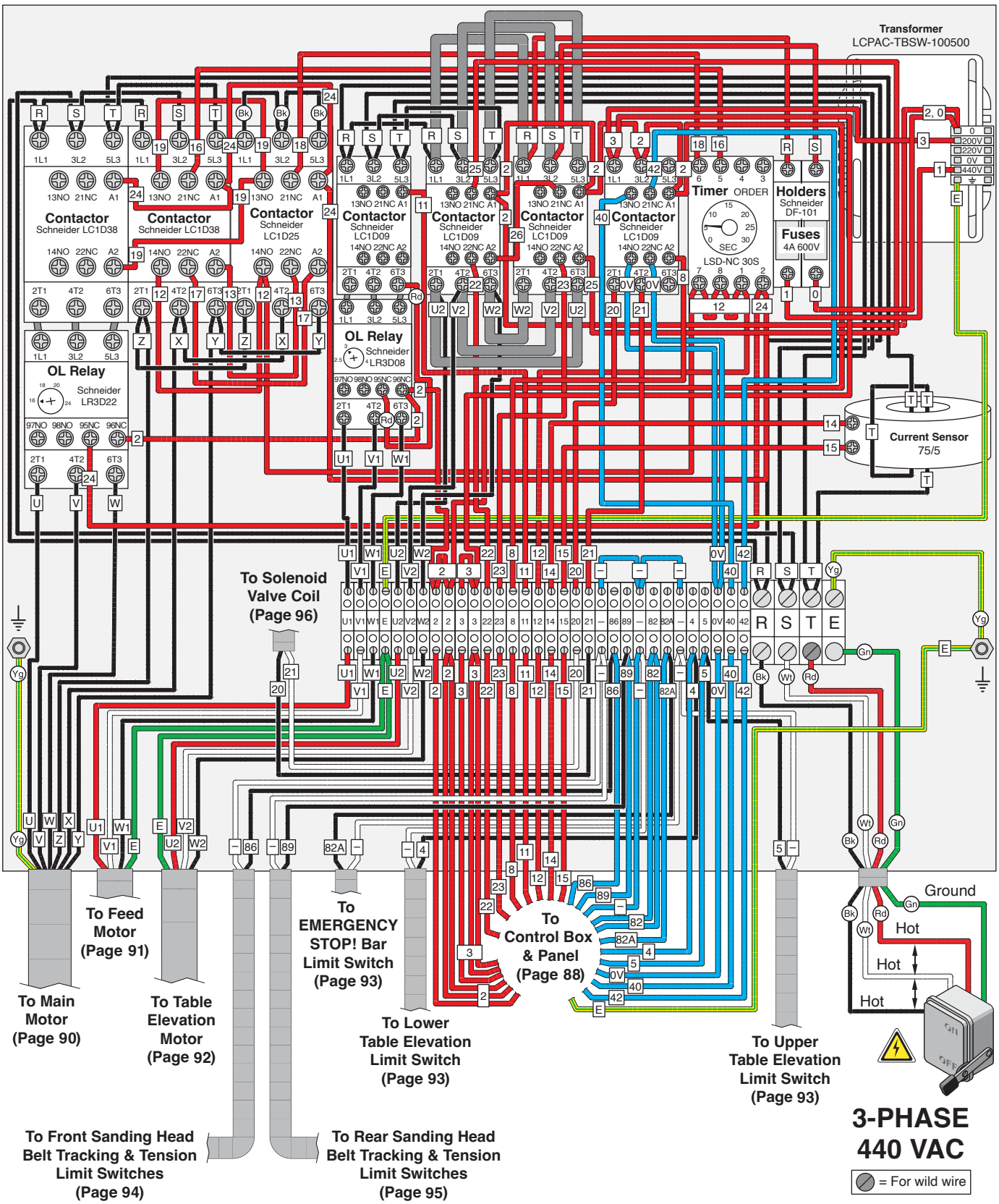
ELECTRICAL CABINET



READ WIRING SAFETY ON PAGE 83!

Electrical Cabinet Wiring (440V)

ELECTRICAL CABINET



STOP

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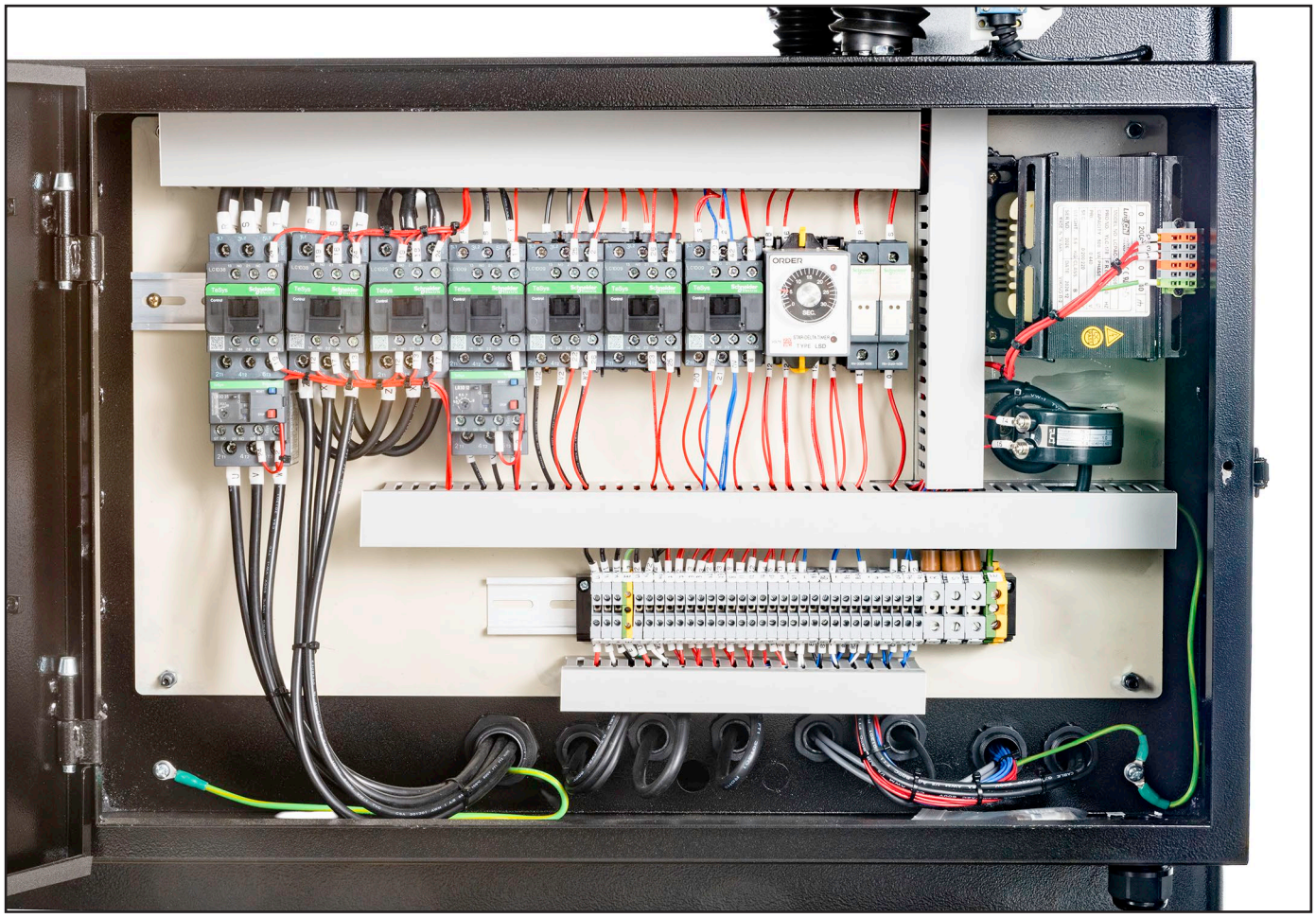
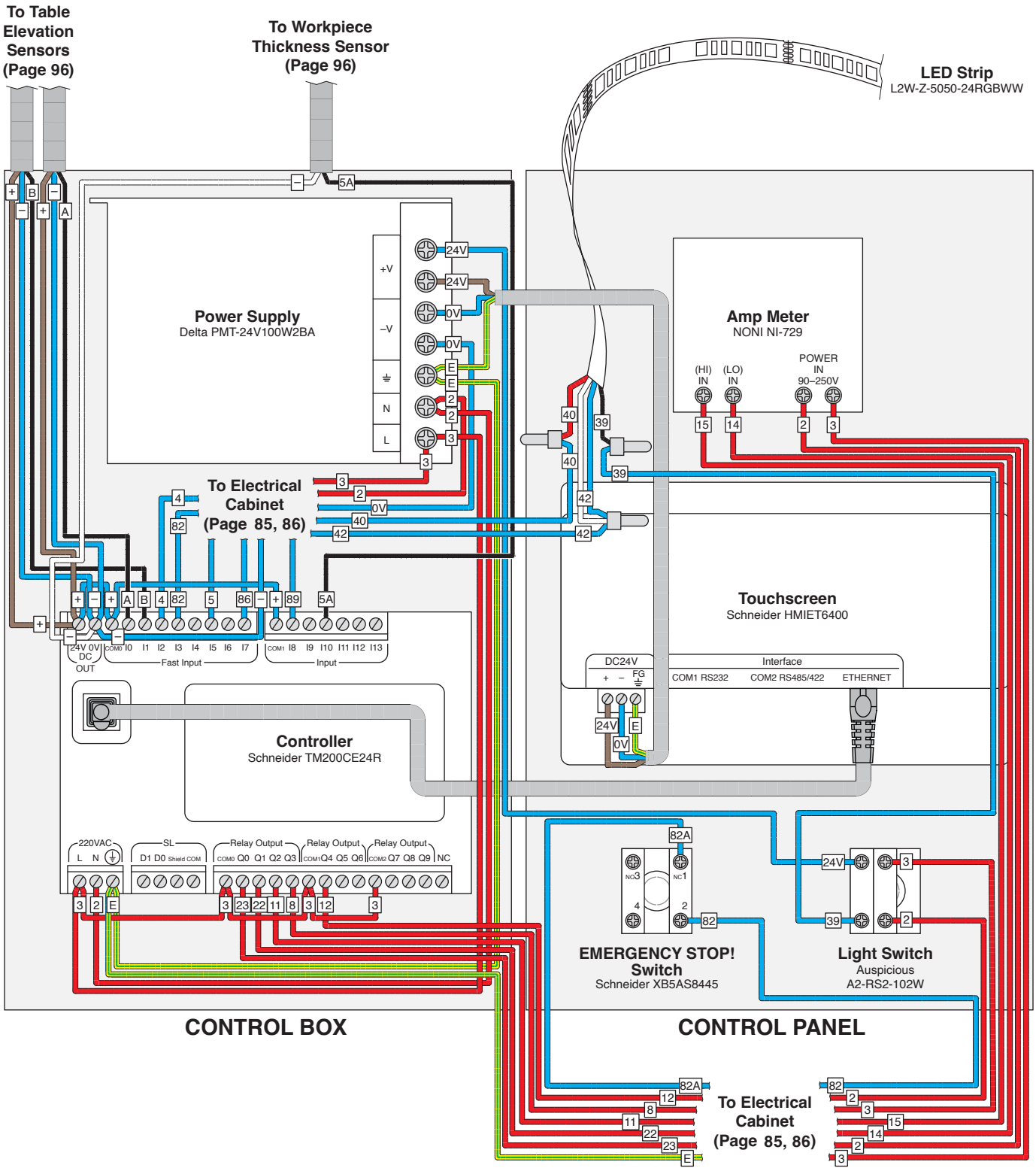


Figure 152. Electrical cabinet wiring.

Control Box & Panel Wiring





READ WIRING SAFETY ON PAGE 83!



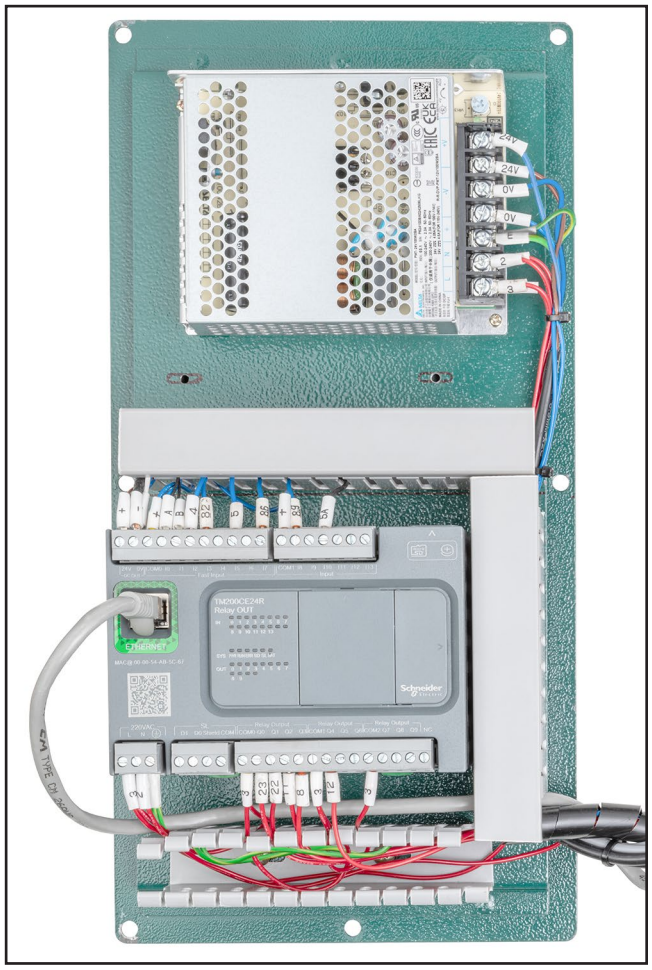


Figure 153. Control box wiring.

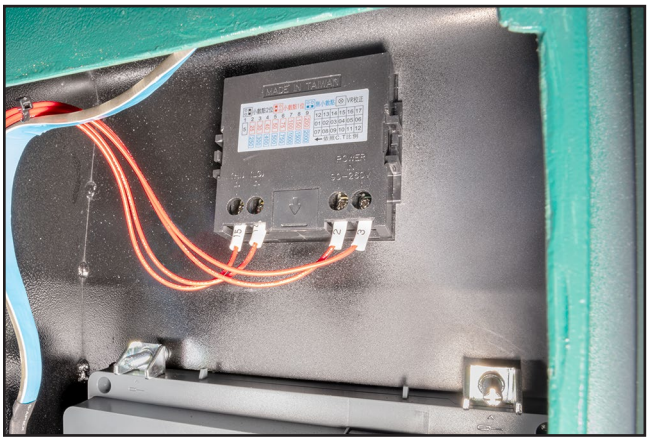


Figure 154. Control panel upper wiring.

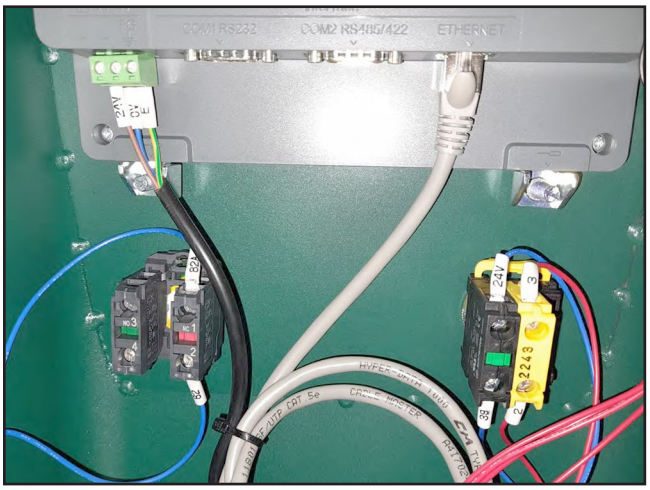


Figure 155. Control panel touchscreen and switch wiring.

Main Motor Wiring

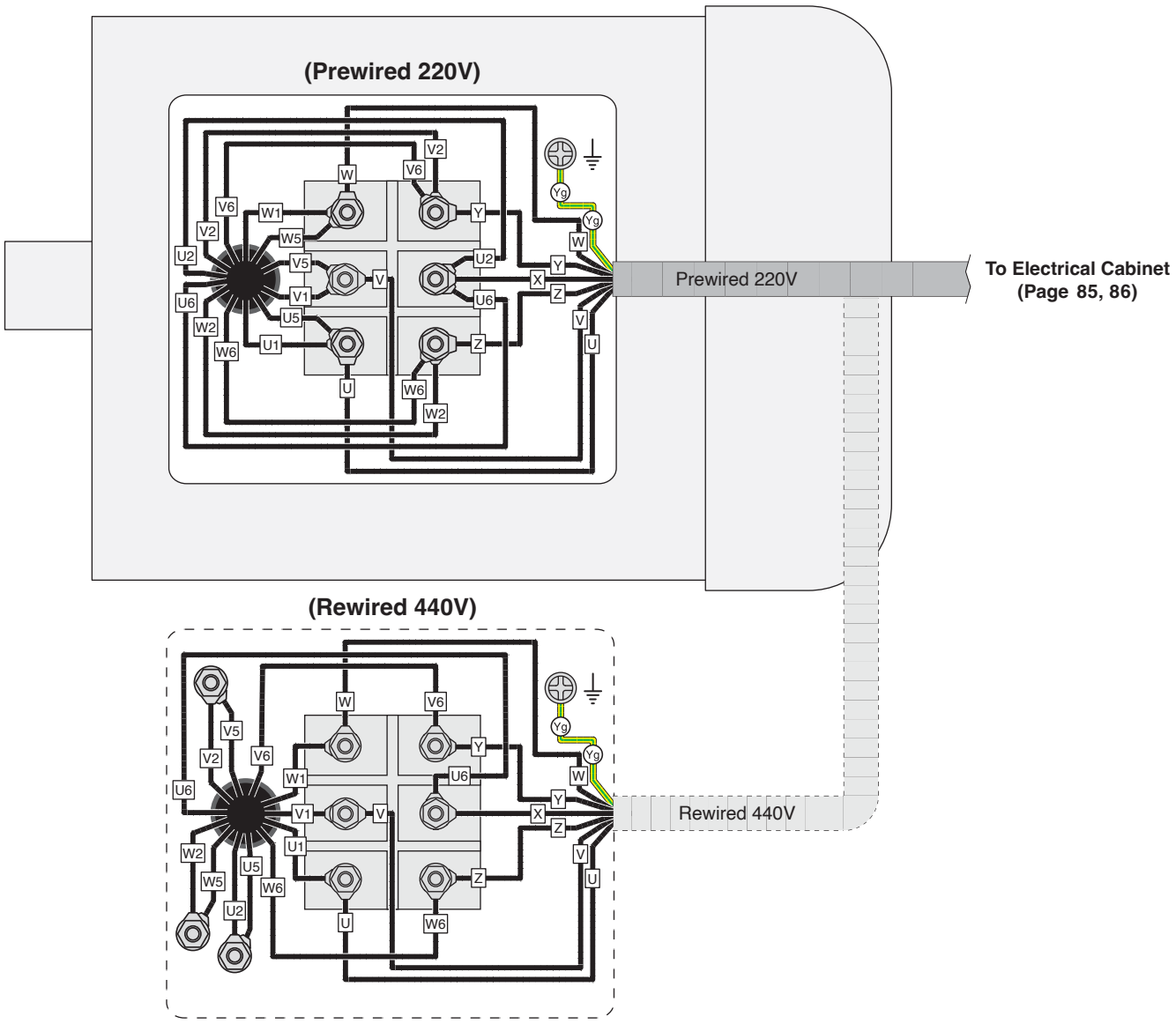




Figure 156. Main motor junction box wiring (220V shown).



READ WIRING SAFETY ON PAGE 83!



Feed Motor Wiring

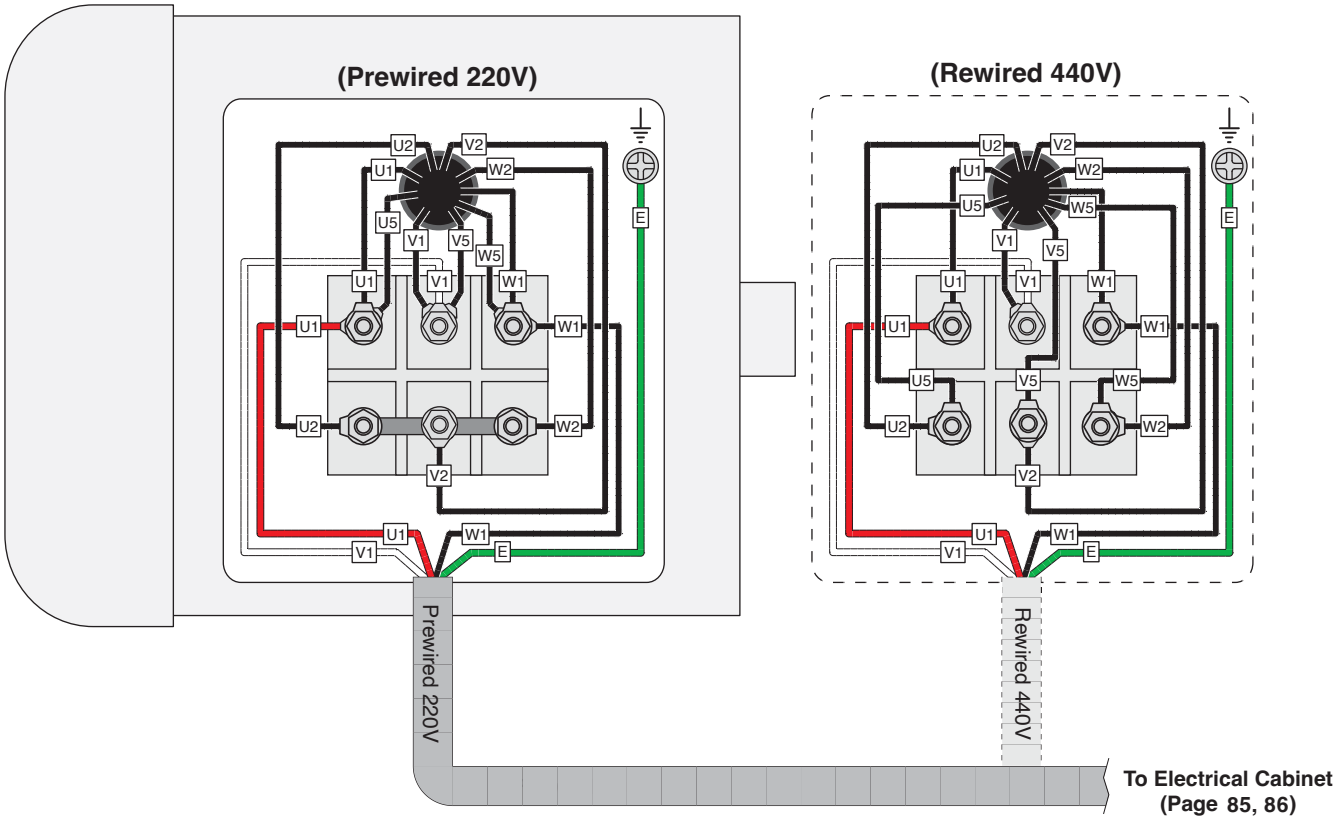
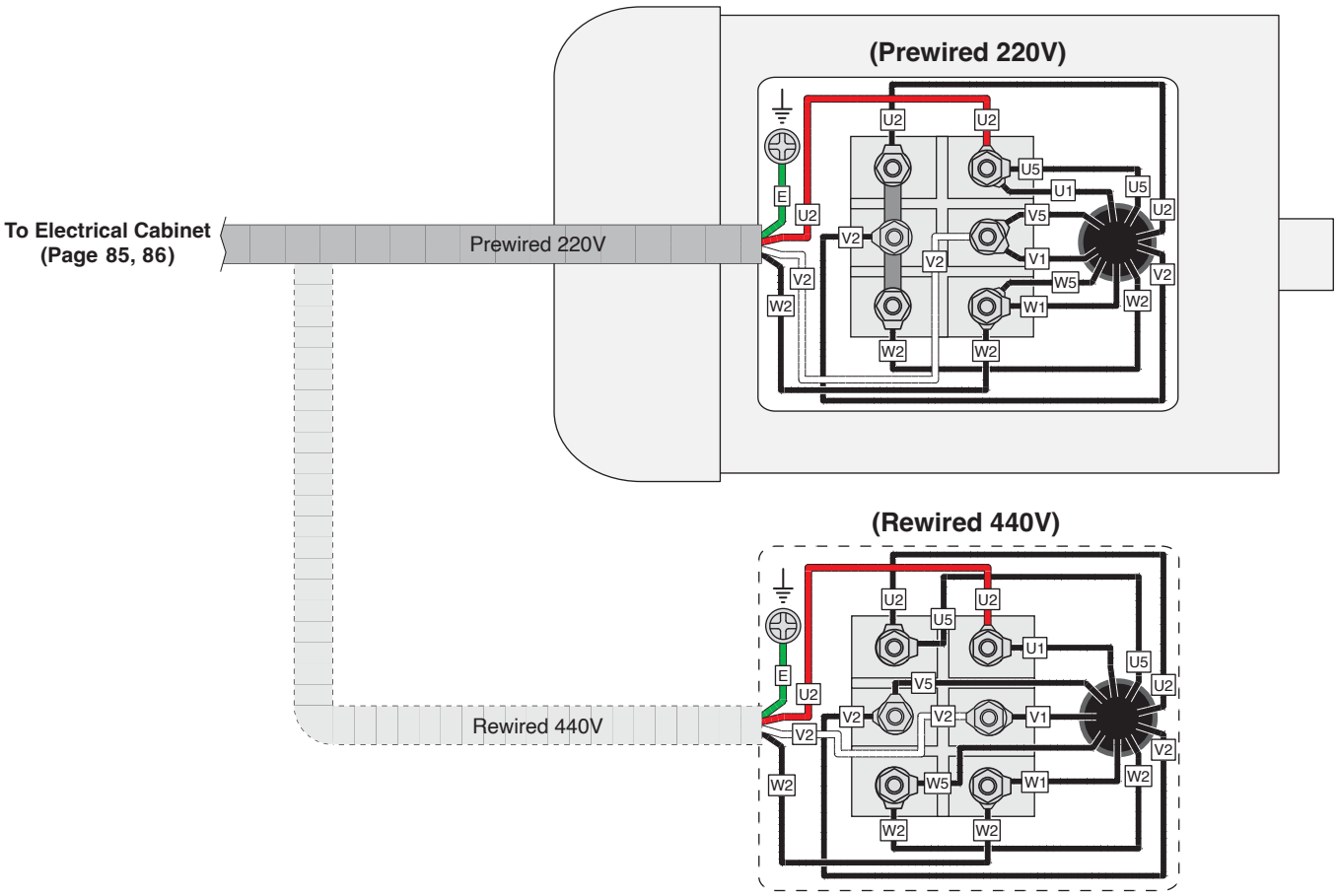




Figure 157. Feed motor junction box wiring (220V shown).

Table Elevation Motor Wiring



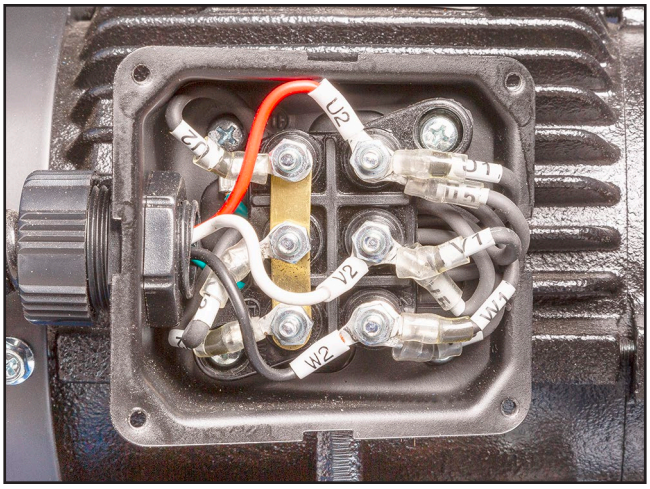
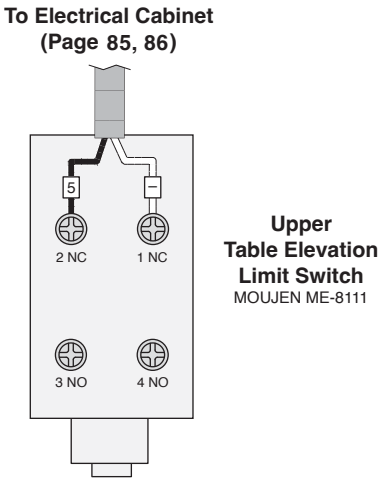


Figure 158. Table elevation motor junction box wiring (220V shown).

Limit Switch Wiring



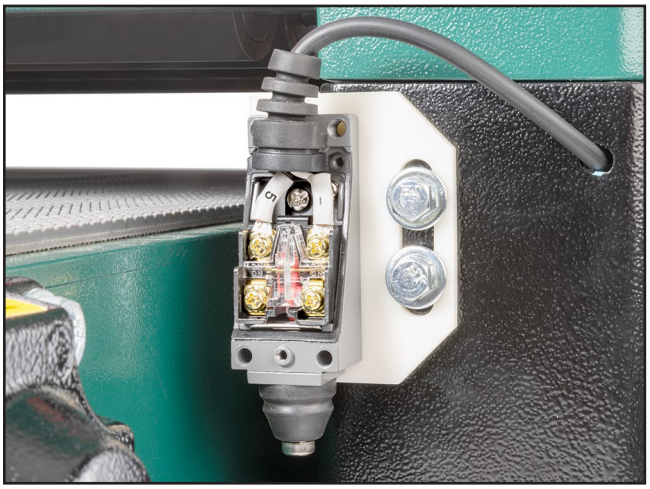
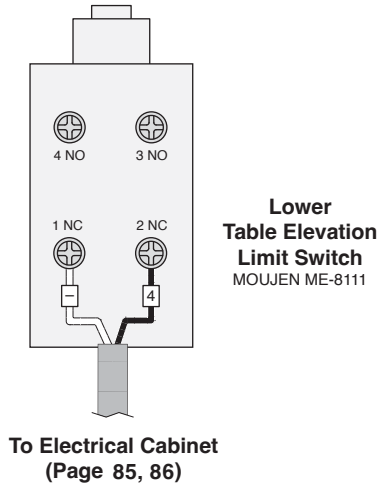


Figure 159. Upper table elevation limit switch wiring.



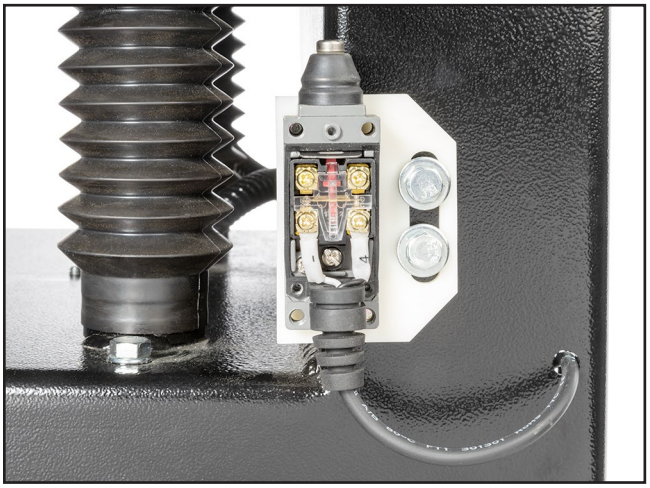
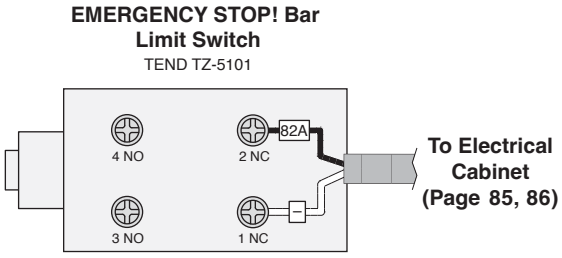


Figure 160. Lower table elevation limit switch wiring.



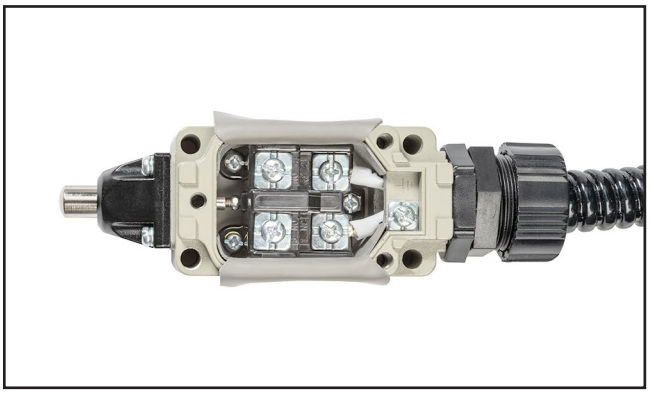
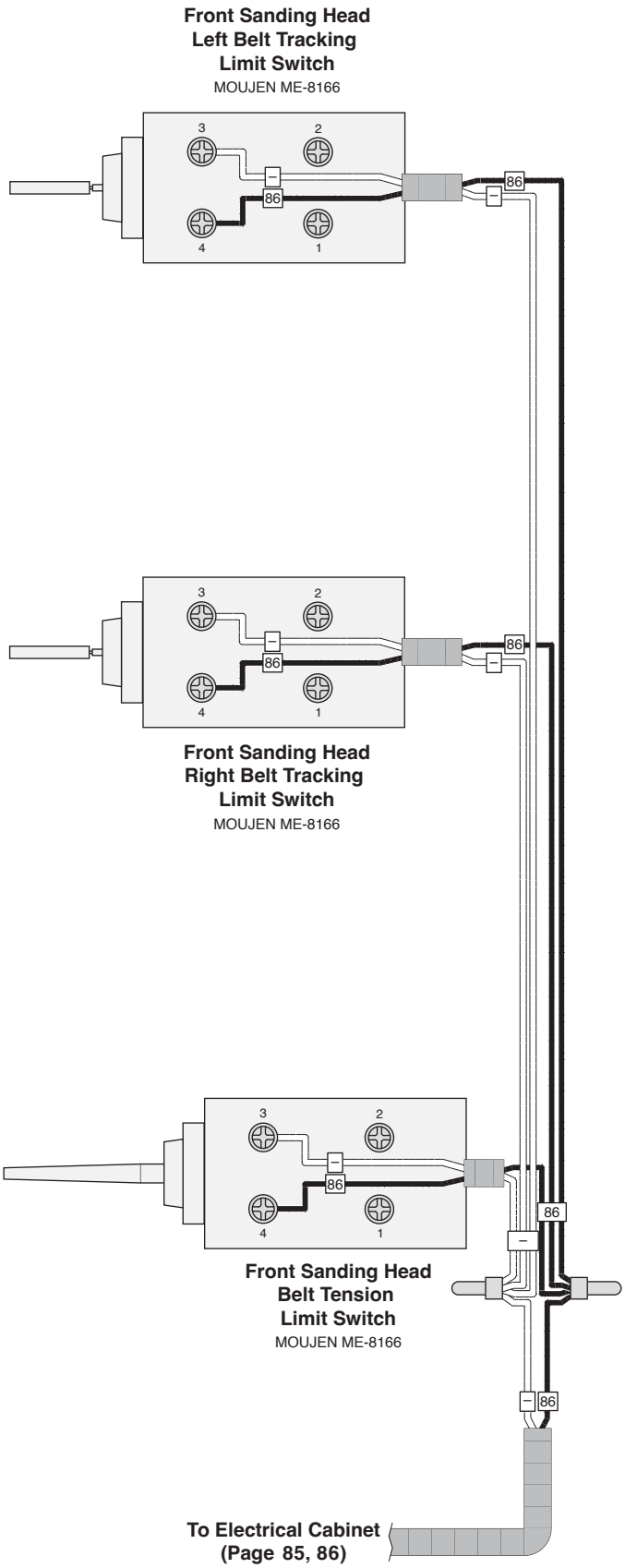


Figure 161. EMERGENCY STOP! bar limit switch wiring.



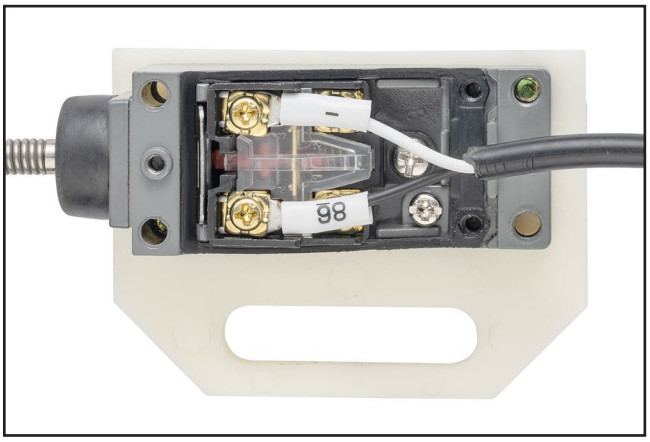


Figure 162. Front sanding head left belt tracking limit switch wiring.

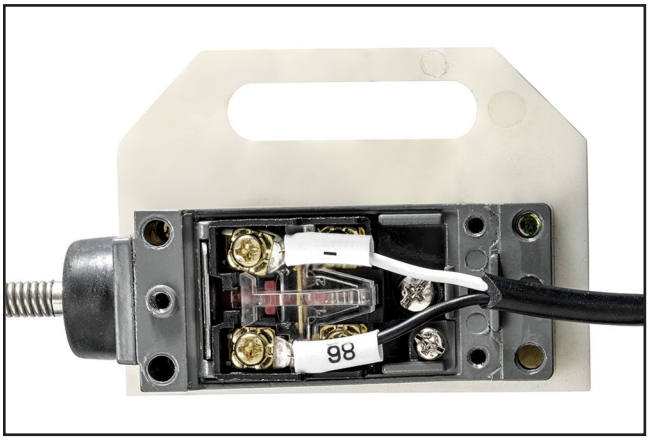


Figure 163. Front sanding head right belt tracking limit switch wiring.

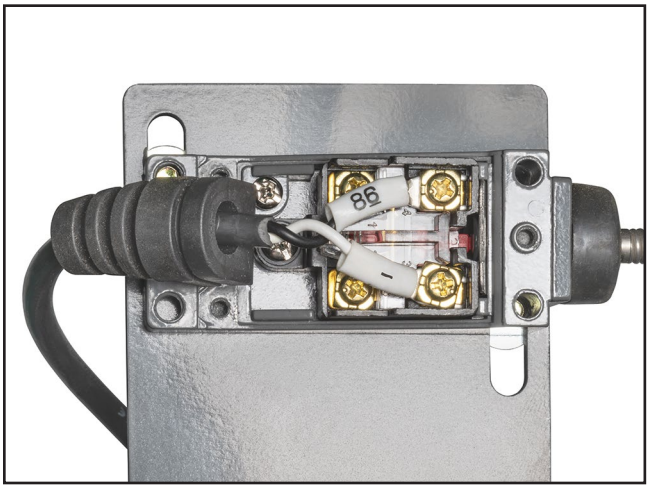
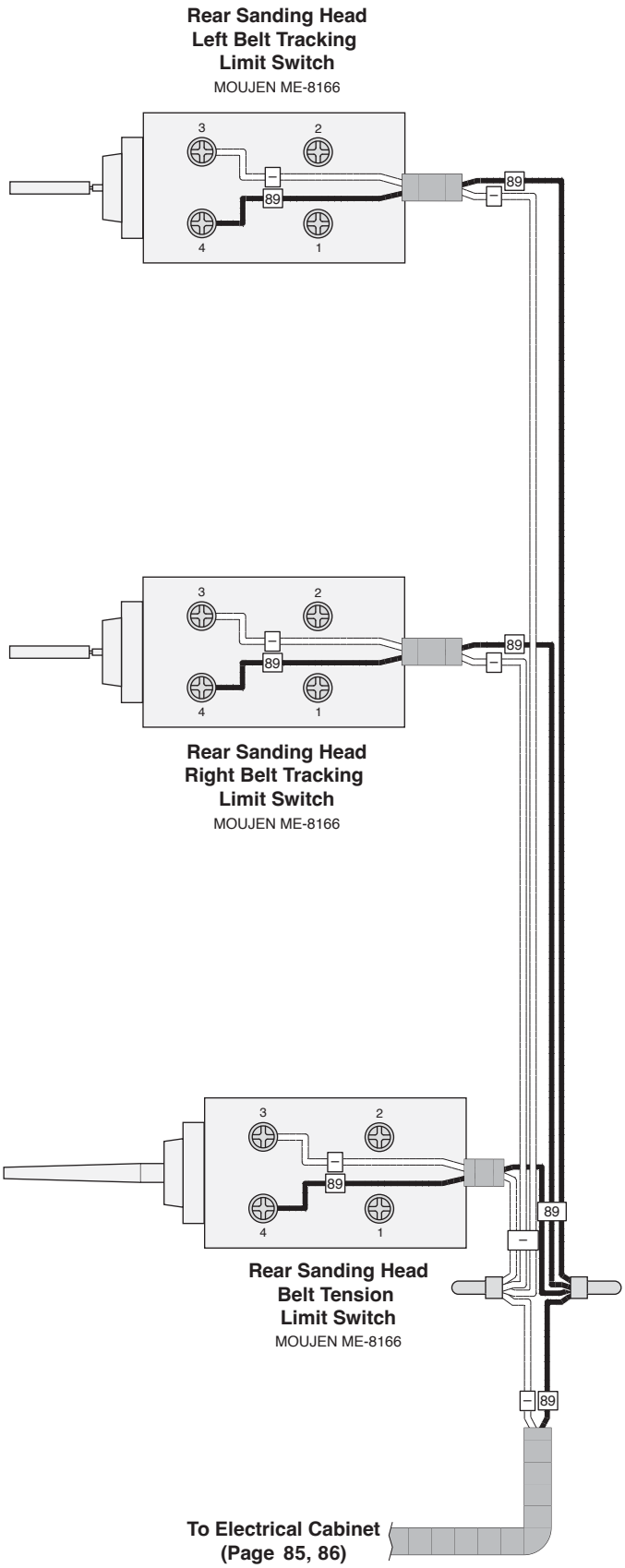


Figure 164. Front sanding head belt tension limit switch wiring.



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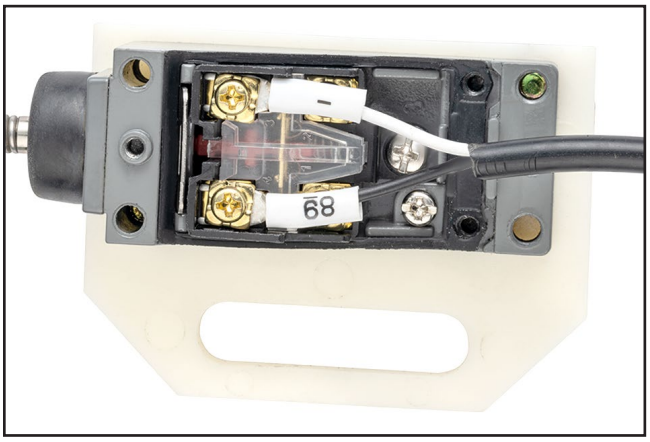


Figure 165. Rear sanding head left belt tracking limit switch wiring.

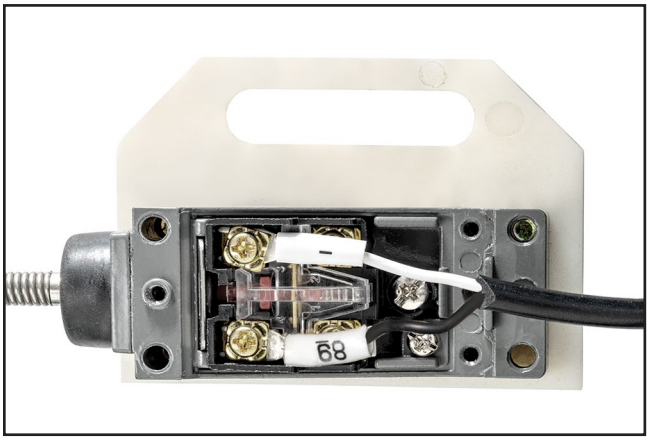


Figure 166. Rear sanding head right belt tracking limit switch wiring.

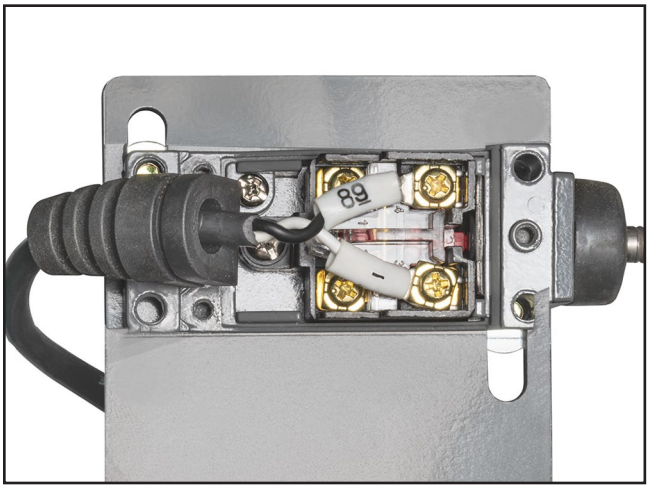
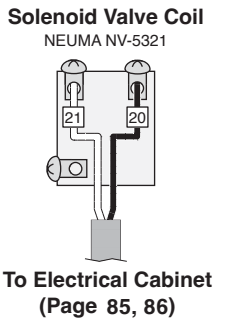


Figure 167. Rear sanding head belt tension limit switch wiring.

Solenoid Valve Coil Wiring



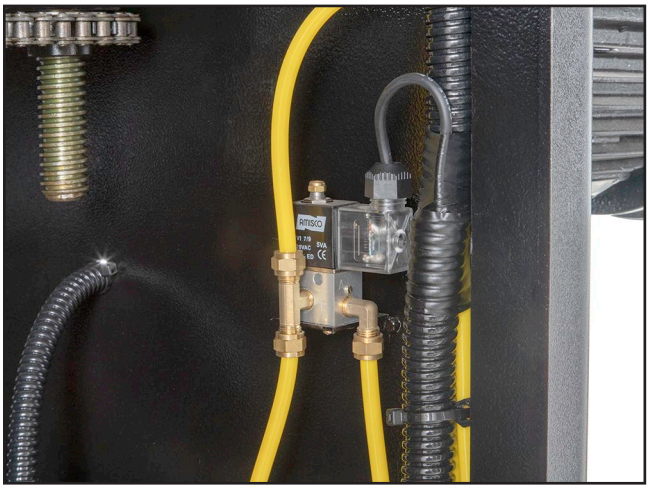
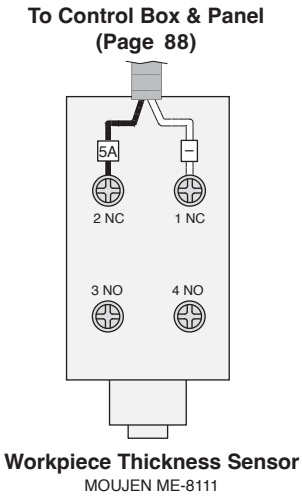


Figure 168. Solenoid valve coil.

Sensor Wiring



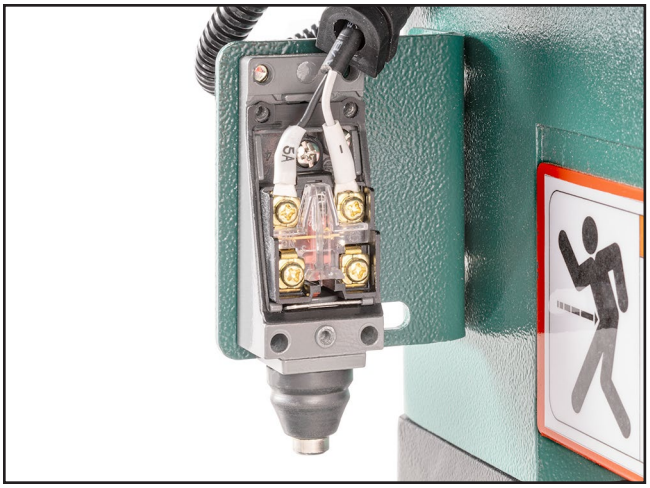
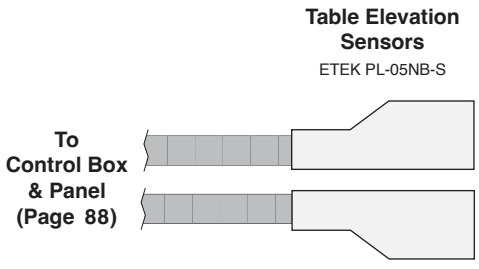


Figure 169. Workpiece thickness sensor wiring.



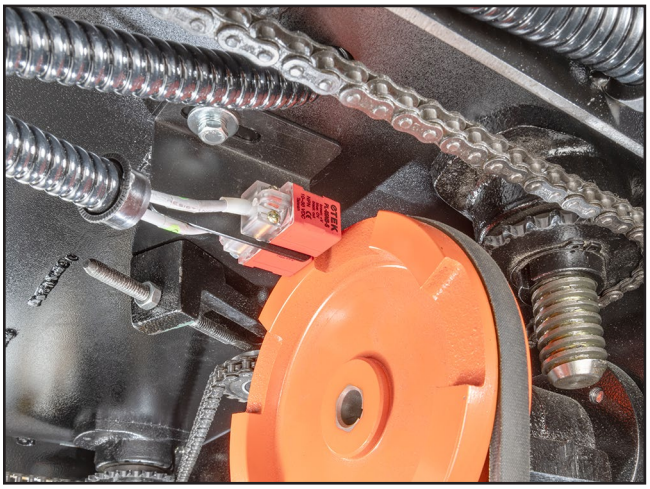


Figure 170. Table elevation sensors.



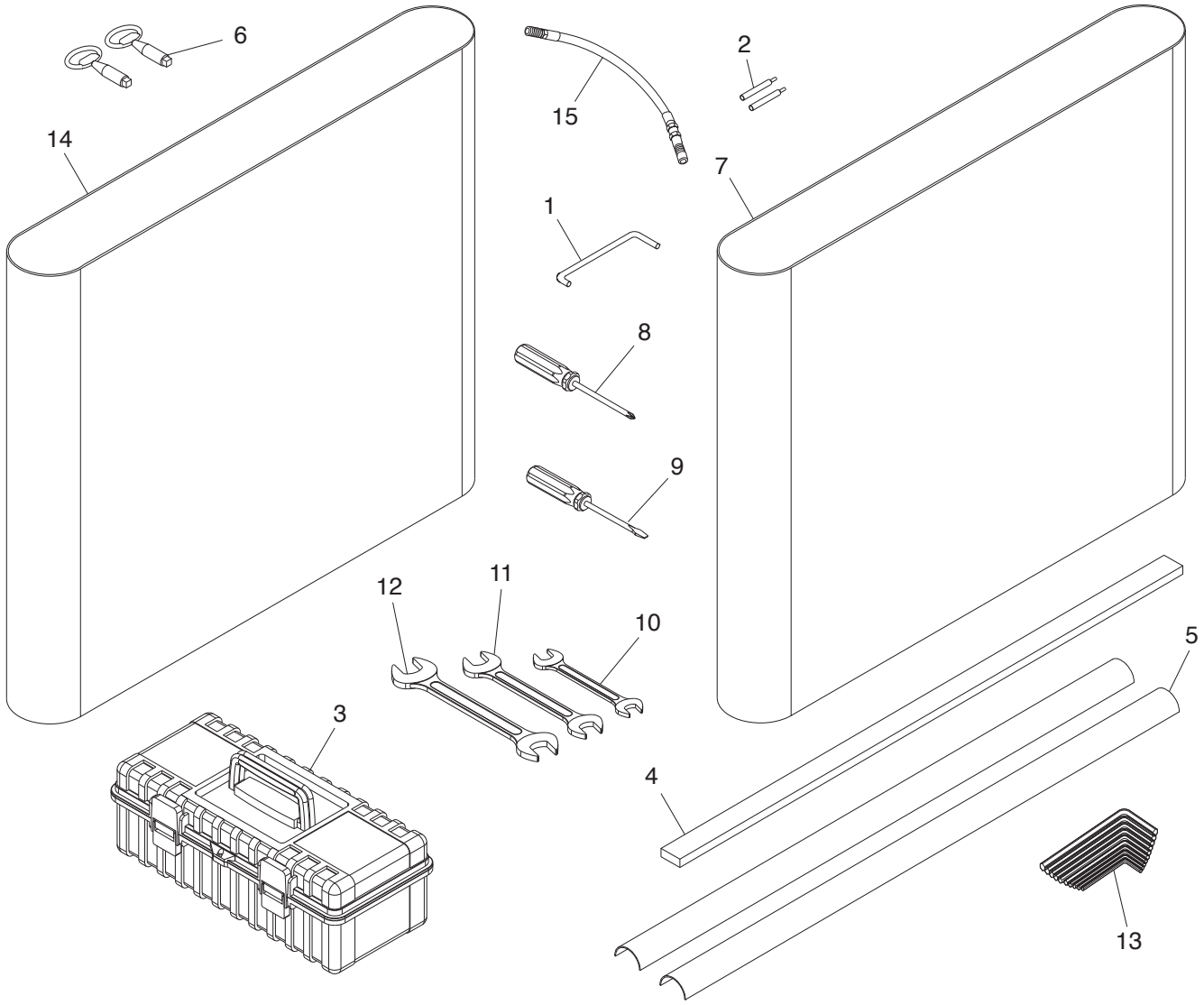
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SECTION 9: PARTS

We do our best to stock replacement parts when possible, but we cannot guarantee that all parts shown are available for purchase. Call **(800) 523-4777** or visit **www.grizzly.com/parts** to check for availability.

Tool Box & Accessories

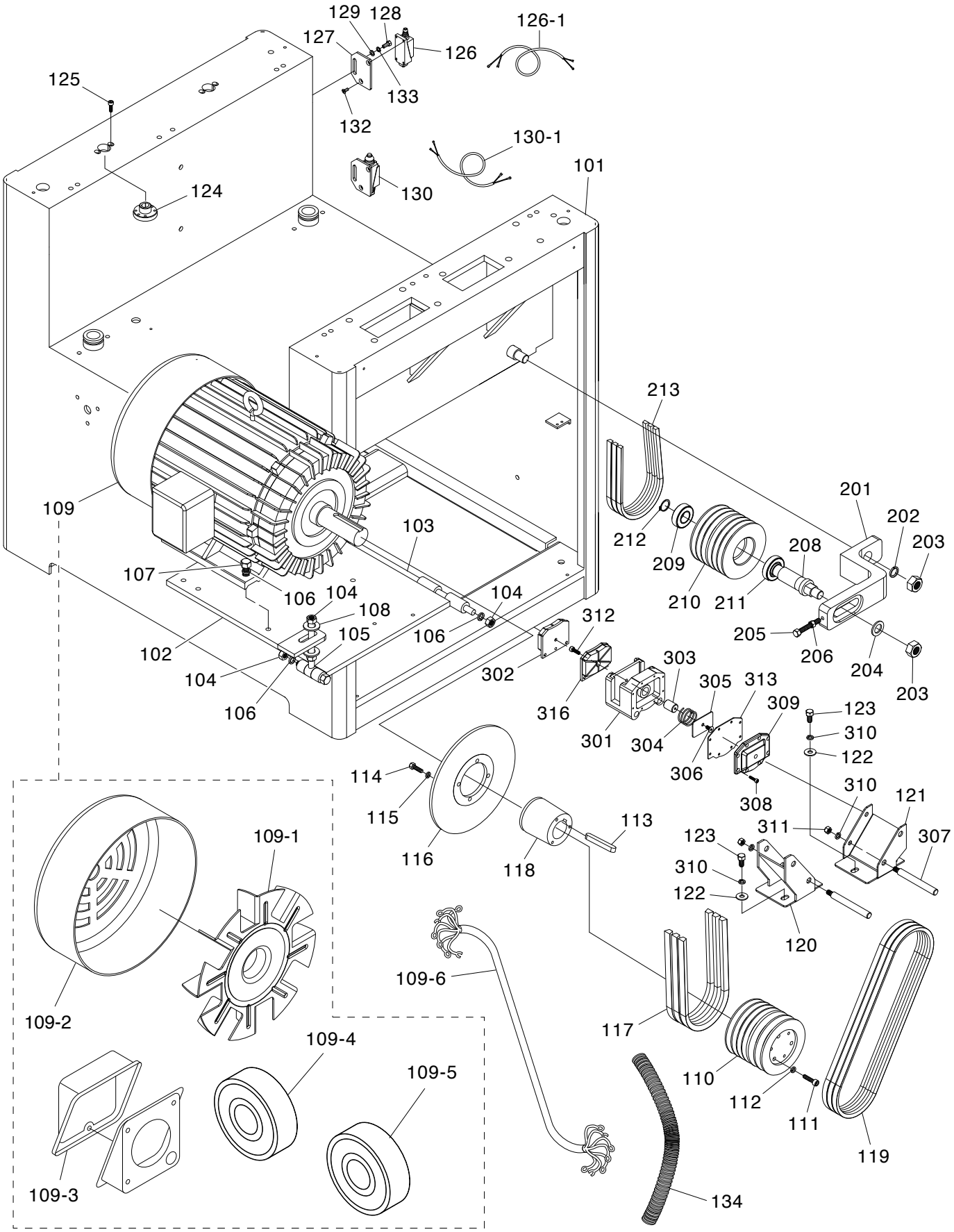


REF	PART #	DESCRIPTION
1	P04100001	PLATEN REMOVAL TOOL
2	P04100002	LIMIT SWITCH CERAMIC TIP
3	P04100003	TOOL BOX
4	P04100004	FELT PAD 3/8" X 1-3/4" X 44-1/4"
5	P04100005	GRAPHITE PAD 3-1/2" X 44-1/2"
6	P04100006	DOOR KEY
7	P04100007	SANDING BELT 43" X 60" 100-GRIT
8	P04100008	SCREWDRIVER PHILLIPS #2

REF	PART #	DESCRIPTION
9	P04100009	SCREWDRIVER FLAT 1/4"
10	P04100010	WRENCH 8 X 10MM OPEN-ENDS
11	P04100011	WRENCH 12 X 14MM OPEN-ENDS
12	P04100012	WRENCH 17 X 19MM OPEN-ENDS
13	P04100013	HEX WRENCH SET (10-PC)
14	P04100014	SANDING BELT 43" X 60" 180-GRIT
15	P04100015	FLEXIBLE GREASE GUN EXTENSION

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Main Motor



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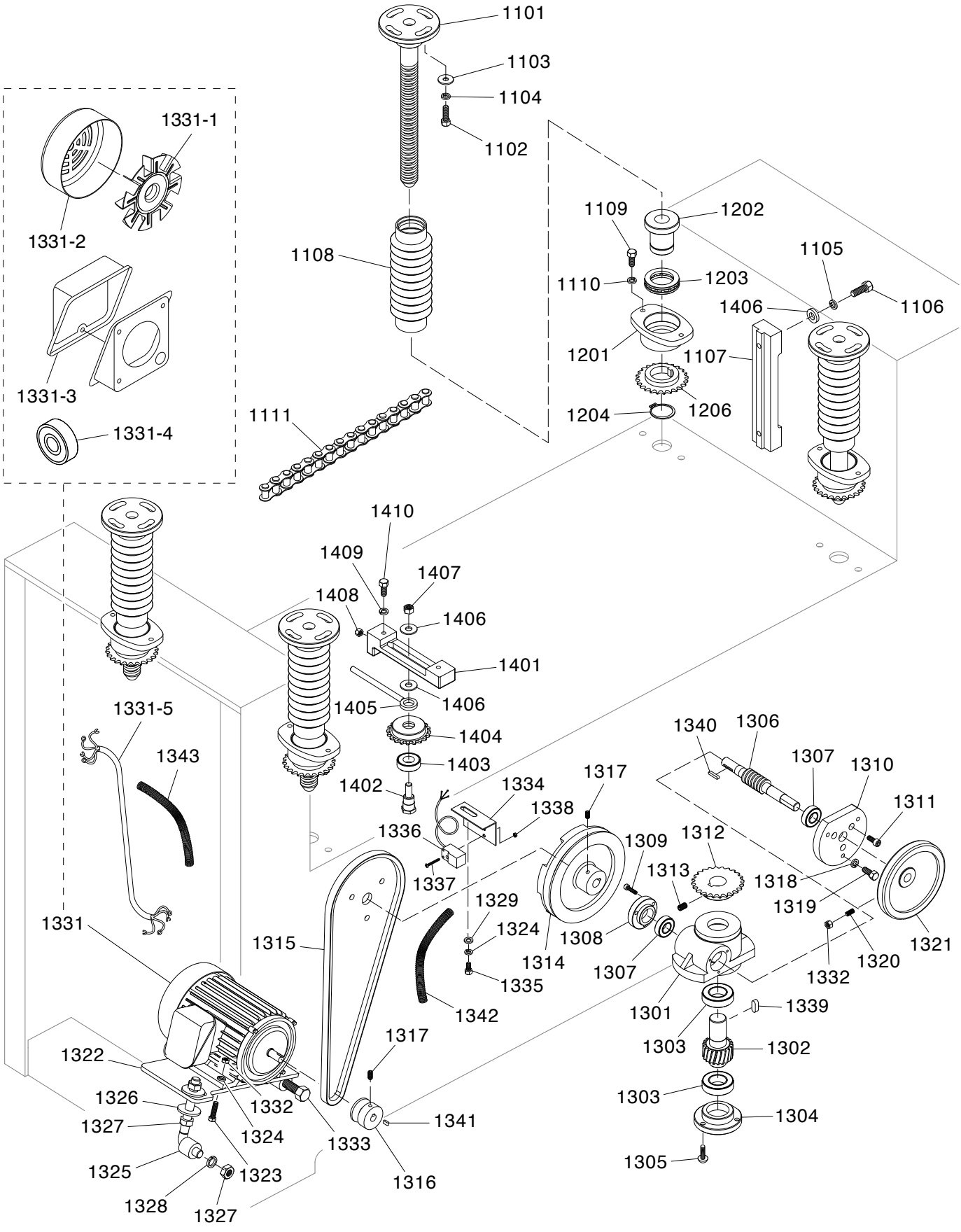
Main Motor Parts List

REF	PART #	DESCRIPTION
101	P04100101	MACHINE FRAME
102	P04100102	MOTOR MOUNTING PLATE
103	P04100103	PIVOT SHAFT
104	P04100104	HEX NUT 1/2-12
105	P04100105	BELT TENSION ADJUSTMENT ROD
106	P04100106	LOCK WASHER 1/2
107	P04100107	HEX BOLT 1/2-12 X 1-1/4
108	P04100108	FLAT WASHER 1/2
109	P04100109	MOTOR 25HP 220V/440V 3-PH
109-1	P04100109-1	MOTOR FAN
109-2	P04100109-2	MOTOR FAN COVER
109-3	P04100109-3	MOTOR JUNCTION BOX
109-4	P04100109-4	BALL BEARING 6311ZZ (FRONT)
109-5	P04100109-5	BALL BEARING 6310ZZ (REAR)
109-6	P04100109-6	MOTOR CORD 8G 7W
110	P04100110	MOTOR PULLEY
111	P04100111	CAP SCREW 5/16-18 X 1-1/4
112	P04100112	LOCK WASHER 5/16
113	P04100113	KEY 14 X 9 X 105 RE
114	P04100114	HEX BOLT 5/16-18 X 1
115	P04100115	LOCK WASHER 5/16
116	P04100116	BRAKE DISC
117	P04100117	V-BELT B76
118	P04100118	KEYED BUSHING
119	P04100119	V-BELT A50
120	P04100120	BRAKE MOUNT L
121	P04100121	BRAKE MOUNT R
122	P04100122	FLAT WASHER 3/8
123	P04100123	HEX BOLT 3/8-16 X 3/4
124	P04100124	LOCK BLOCK NUT
125	P04100125	CAP SCREW 1/4-20 X 3/4
126	P04100126	LIMIT SWITCH MOUJEN ME-8111
126-1	P04100126-1	CORD 20G 2W
127	P04100127	LIMIT SWITCH MOUNT

REF	PART #	DESCRIPTION
128	P04100128	HEX BOLT 1/4-20 X 5/8
129	P04100129	FLAT WASHER 1/4
130	P04100130	LIMIT SWITCH MOUJEN ME-8111
130-1	P04100130-1	CORD 20G 2W
132	P04100132	FLAT HD SCR M5-.8 X 8
133	P04100133	LOCK WASHER 1/4
134	P04100134	CONDUIT 1" X 1-1/8"
201	P04100201	PULLEY MOUNTING BRACKET
202	P04100202	LOCK WASHER 3/4
203	P04100203	HEX NUT 3/4-10
204	P04100204	FLAT WASHER 3/4
205	P04100205	HEX BOLT 3/8-16 X 3-1/2
206	P04100206	HEX NUT 3/8-16
208	P04100208	PULLEY SHAFT
209	P04100209	BALL BEARING 6305-2RS
210	P04100210	TRANSFER PULLEY
211	P04100211	BALL BEARING 6206-2RS
212	P04100212	EXT RETAINING RING 25MM
213	P04100213	V-BELT A40
301	P04100301	BRAKE CALIPER
302	P04100302	BRAKE PAD INNER
303	P04100303	COUNTERSUNK BUSHING
304	P04100304	COMPRESSION SPRING 2.5 X 36 X 41
305	P04100305	DIAPHRAGM PLATE
306	P04100306	FLAT HD CAP SCR 1/4-20 X 5/8
307	P04100307	SHOULDER STUD-SE 3/8-16 X 4-15/16, 1/2
308	P04100308	CAP SCREW 1/4-20 X 3/8
309	P04100309	DIAPHRAGM COVER
310	P04100310	LOCK WASHER 3/8
311	P04100311	HEX NUT 3/8-16
312	P04100312	CAP SCREW 1/4-20 X 5/8
313	P04100313	DIAPHRAGM
316	P04100316	BRAKE PAD OUTER

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Table Elevation



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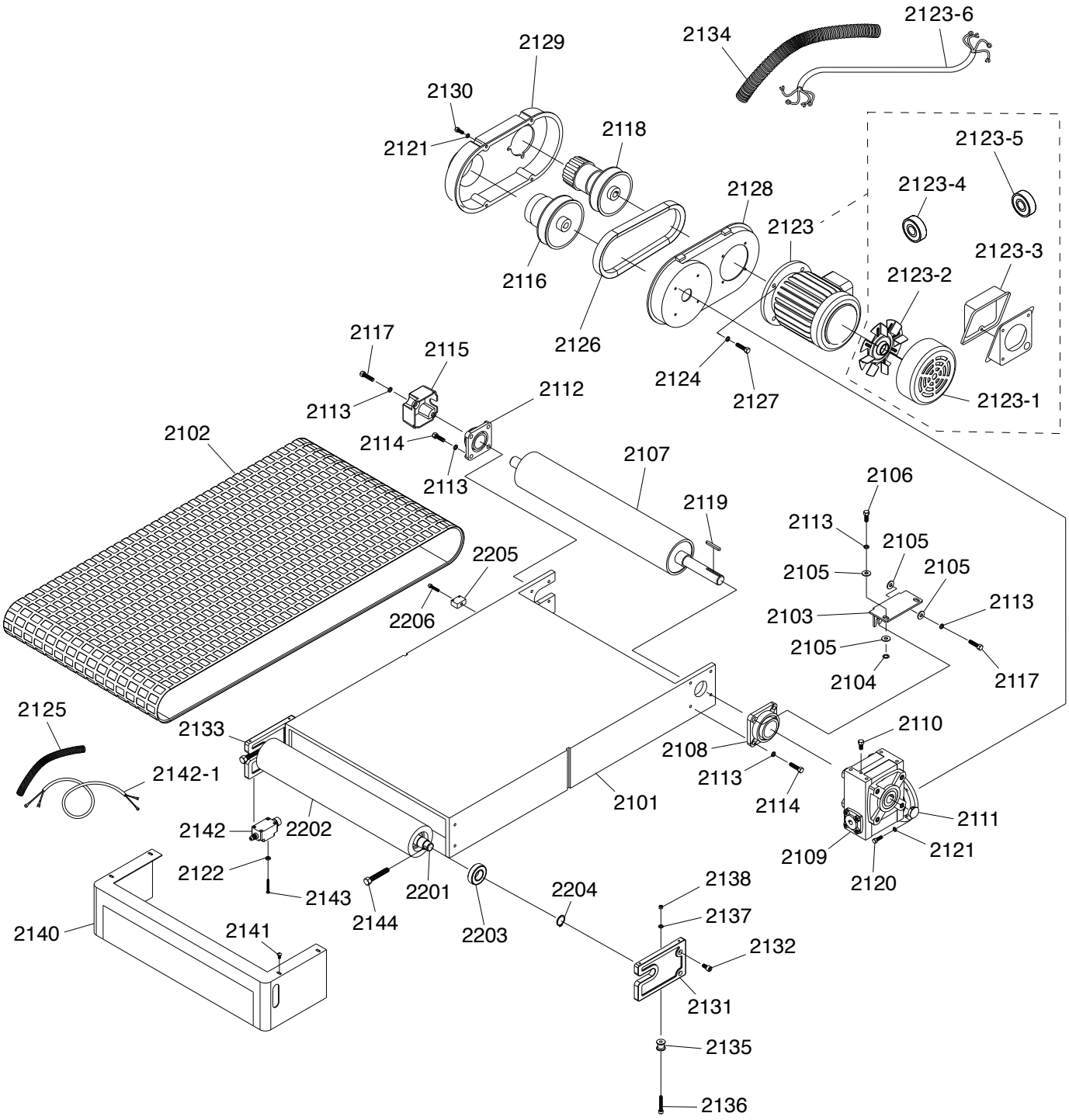
Table Elevation Parts List

REF	PART #	DESCRIPTION
1101	P04101101	LEADSCREW W/FLANGE
1102	P04101102	HEX BOLT 5/16-18 X 1
1103	P04101103	FLAT WASHER 5/16
1104	P04101104	LOCK WASHER 5/16
1105	P04101105	LOCK WASHER 3/8
1106	P04101106	HEX BOLT 3/8-16 X 1
1107	P04101107	TABLE GUIDE
1108	P04101108	DUST BELLOW
1109	P04101109	HEX BOLT 5/16-18 X 3/4
1110	P04101110	LOCK WASHER 5/16
1111	P04101111	ROLLER CHAIN 1/2" X 294"
1201	P04101201	LEADSCREW NUT HOUSING
1202	P04101202	LEADSCREW NUT
1203	P04101203	THRUST BEARING 51107
1204	P04101204	EXT RETAINING RING 35MM
1206	P04101206	SPROCKET 35T
1301	P04101301	ELEVATION GEARBOX
1302	P04101302	WORM GEAR SHAFT 20T 45 X 83MM
1303	P04101303	BALL BEARING 6005Z
1304	P04101304	BEARING CAP
1305	P04101305	PHLP HD SCR 1/4-20 X 3/4
1306	P04101306	WORM SHAFT
1307	P04101307	BALL BEARING 6002Z
1308	P04101308	BEARING CAP
1309	P04101309	CAP SCREW 10-24 X 5/8
1310	P04101310	HANDWHEEL BEARING CAP
1311	P04101311	CAP SCREW 1/4-20 X 5/8
1312	P04101312	SPROCKET 18T
1313	P04101313	SET SCREW 5/16-18 X 1/2
1314	P04101314	TABLE PULLEY
1315	P04101315	V-BELT A36
1316	P04101316	MOTOR PULLEY
1317	P04101317	SET SCREW 1/4-20 X 1/2
1318	P04101318	LOCK WASHER 5/16
1319	P04101319	HEX BOLT 5/16-18 X 3/4
1320	P04101320	SET SCREW 1/4-20 X 1/2
1321	P04101321	HANDWHEEL

REF	PART #	DESCRIPTION
1322	P04101322	MOTOR MOUNTING PLATE
1323	P04101323	HEX BOLT 1/4-20 X 1
1324	P04101324	LOCK WASHER 1/4
1325	P04101325	BELT TENSION ADJUSTMENT ROD
1326	P04101326	FENDER WASHER 1/2
1327	P04101327	HEX NUT 1/2-12
1328	P04101328	LOCK WASHER 1/2
1329	P04101329	FLAT WASHER 1/4
1331	P04101331	MOTOR 1/4HP 220V/440V 3-PH
1331-1	P04101331-1	MOTOR FAN
1331-2	P04101331-2	MOTOR FAN COVER
1331-3	P04101331-3	MOTOR JUNCTION BOX
1331-4	P04101331-4	BALL BEARING 6201ZZ
1331-5	P04101331-5	CORD 16G 4W
1332	P04101332	HEX NUT 1/4-20
1333	P04101333	HEX BOLT 1/2-12 X 4-1/2
1334	P04101334	SENSOR MOUNT
1335	P04101335	HEX BOLT 1/4-20 X 1/2
1336	P04101336	TABLE SENSOR W/CORD ETEK PL-05NB-S
1337	P04101337	PHLP HD SCR M3-.5 X 30
1338	P04101338	HEX NUT M3-.5
1339	P04101339	KEY 5/16 X 5/16 X 3/4 RE
1340	P04101340	KEY 4 X 4 X 20 RE
1341	P04101341	KEY 4 X 4 X 18 RE
1342	P04101342	CONDUIT 3/8" X 1/2"
1343	P04101343	CONDUIT 3/8" X 1/2"
1401	P04101401	CHAIN TENSION BLOCK
1402	P04101402	SPROCKET SHAFT
1403	P04101403	BALL BEARING 6003ZZ
1404	P04101404	SPROCKET 14T
1405	P04101405	TENSION ADJUSTMENT ROD
1406	P04101406	FLAT WASHER 3/8
1407	P04101407	HEX NUT 3/8-16
1408	P04101408	HEX NUT 5/16-18
1409	P04101409	LOCK WASHER 5/16
1410	P04101410	HEX BOLT 5/16-18 X 3/4

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Conveyor Table



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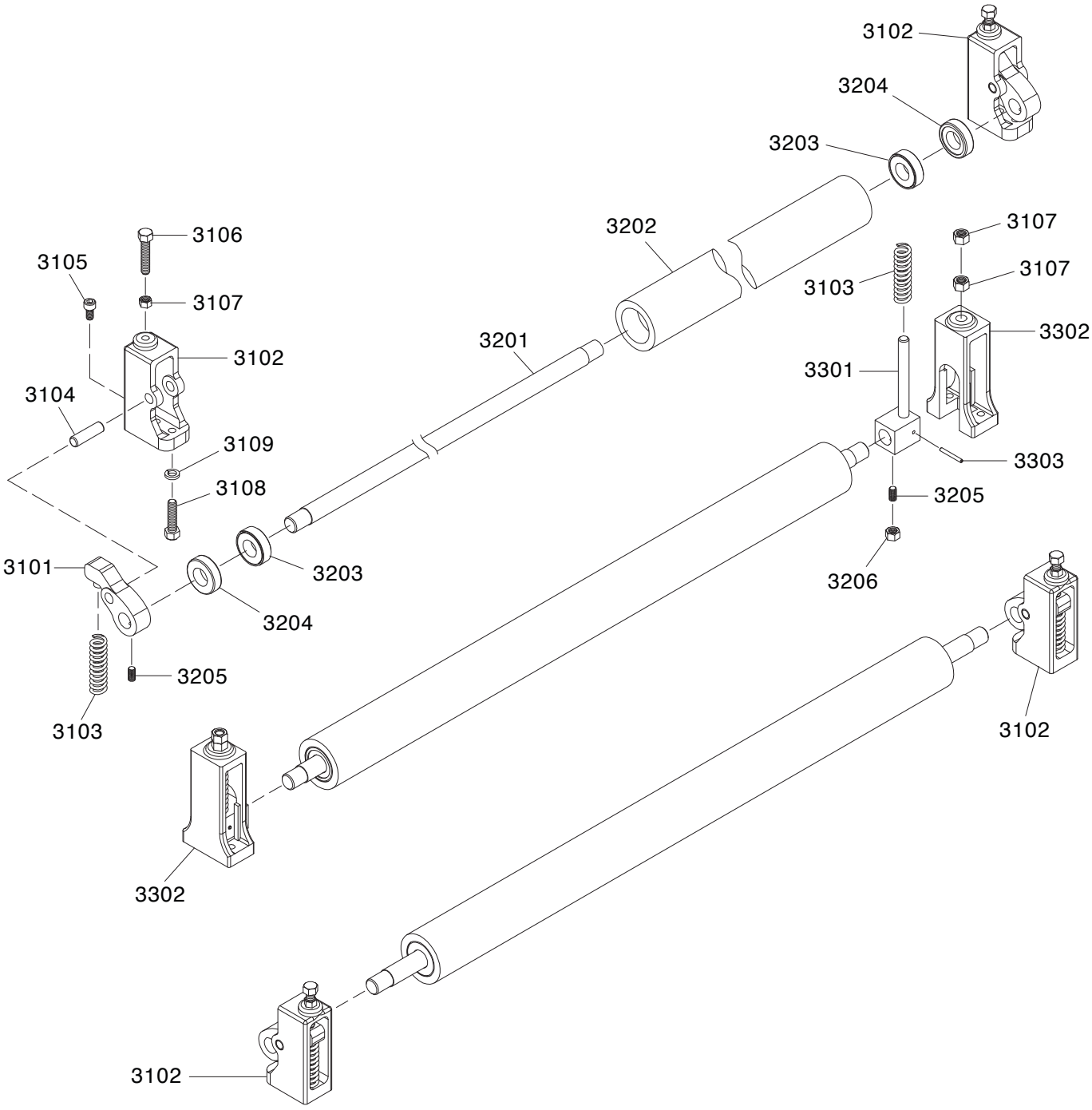
Conveyor Table Parts List

REF	PART #	DESCRIPTION
2101	P04102101	CONVEYOR TABLE
2102	P04102102	CONVEYOR BELT 43-5/16" X 102-3/8"
2103	P04102103	GEARBOX MOUNTING BRACKET
2104	P04102104	CUSHION 10 X 13 X 1.5MM
2105	P04102105	FLAT WASHER 3/8
2106	P04102106	HEX BOLT M10-1.5 X 25
2107	P04102107	OUTFEED ROLLER
2108	P04102108	FLANGE BEARING UCF205
2109	P04102109	GEARBOX REDUCER
2110	P04102110	PLUG BOLT 1/4-20 X 3/8
2111	P04102111	GEARBOX PLUG 30MM
2112	P04102112	FLANGE BEARING UCF205
2113	P04102113	LOCK WASHER 3/8
2114	P04102114	HEX BOLT 3/8-16 X 1-1/4
2115	P04102115	BEARING COVER
2116	P04102116	IDLER PULLEY
2117	P04102117	HEX BOLT 3/8-16 X 1-1/2
2118	P04102118	DRIVE PULLEY
2119	P04102119	KEY 8 X 7 X 55 RE
2120	P04102120	HEX BOLT M8-1.25 X 20
2121	P04102121	LOCK WASHER 8MM
2122	P04102122	LOCK WASHER #10
2123	P04102123	MOTOR 2HP 220V/440V 3-PH
2123-1	P04102123-1	MOTOR FAN COVER
2123-2	P04102123-2	MOTOR FAN
2123-3	P04102123-3	JUNCTION BOX
2123-4	P04102123-4	BALL BEARING 6203ZZ (FRONT)
2123-5	P04102123-5	BALL BEARING 6204ZZ (REAR)

REF	PART #	DESCRIPTION
2123-6	P04102123-6	CORD 16G 4W
2124	P04102124	LOCK WASHER 10MM
2125	P04102125	CONDUIT 3/8" X 1/2"
2126	P04102126	TIMING BELT 1422V-290
2127	P04102127	HEX BOLT M10-1.5 X 25
2128	P04102128	SPEED UNIT BASE PLATE
2129	P04102129	SPEED UNIT COVER
2130	P04102130	HEX BOLT M8-1.25 X 20
2131	P04102131	INFEED ROLLER BRACKET R
2132	P04102132	CAP SCREW 3/8-16 X 3/4
2133	P04102133	INFEED ROLLER BRACKET L
2134	P04102134	CONDUIT 3/8" X 1/2"
2135	P04102135	GUIDE WHEEL
2136	P04102136	CAP SCREW 5/16-18 X 2
2137	P04102137	LOCK WASHER 5/16
2138	P04102138	HEX NUT 5/16-18
2140	P04102140	EMERGENCY STOP BAR ASSEMBLY
2141	P04102141	PHLP HD SCR 1/4-20 X 1/2
2142	P04102142	LIMIT SWITCH TEND TZ-5101
2142-1	P04102142-1	CORD 20G 2W
2143	P04102143	PHLP HD SCR 10-24 X 1-1/2
2144	P04102144	HEX BOLT 1/2-13 X 3
2201	P04102201	INFEED ROLLER SHAFT
2202	P04102202	INFEED ROLLER
2203	P04102203	BALL BEARING 6206ZZ
2204	P04102204	EXT RETAINING RING 30MM
2205	P04102205	ELEVATION STOP BLOCK
2206	P04102206	CAP SCREW 1/4-20 X 1-1/2

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Pressure Rollers

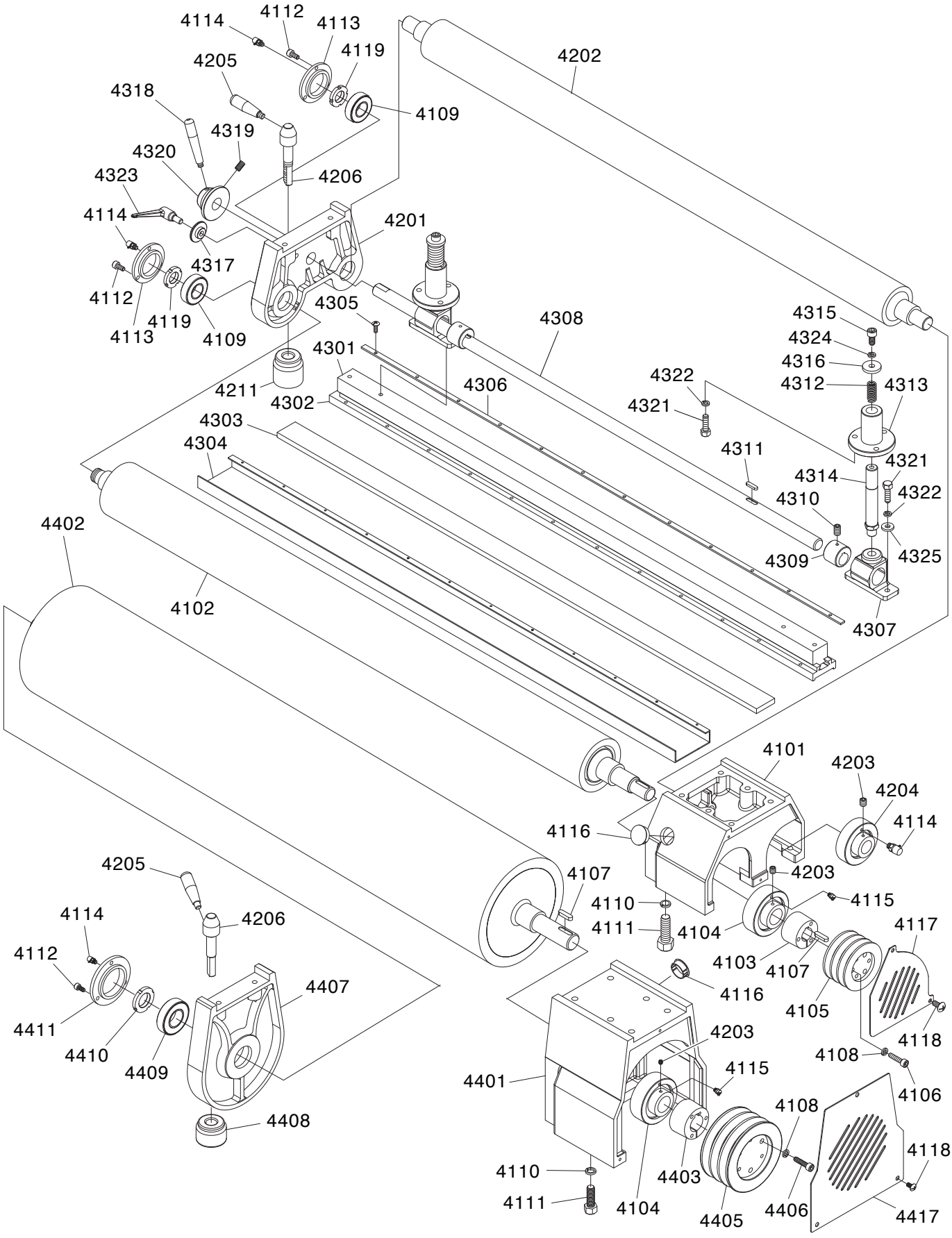


REF	PART #	DESCRIPTION
3101	P04103101	INNER ROLLER BRACKET
3102	P04103102	OUTER ROLLER BRACKET
3103	P04103103	COMPRESSION SPRING 3 X 15.5 X 57
3104	P04103104	DOWEL PIN 10 X 35MM
3105	P04103105	CAP SCREW 1/4-20 X 1/2
3106	P04103106	HEX BOLT 5/16-18 X 1-1/2
3107	P04103107	HEX NUT 5/16-18
3108	P04103108	HEX BOLT 5/16-18 X 1-1/4
3109	P04103109	LOCK WASHER 5/16

REF	PART #	DESCRIPTION
3201	P04103201	PRESSURE ROLLER SHAFT
3202	P04103202	PRESSURE ROLLER
3203	P04103203	BALL BEARING 6003ZZ
3204	P04103204	SHAFT BEARING COLLAR
3205	P04103205	SET SCREW 1/4-20 X 1/2
3206	P04103206	HEX NUT 1/4-20
3301	P04103301	GUIDE STUD-SE 5/16-18 X 4-5/16, 3/8
3302	P04103302	ROLLER BRACKET MIDDLE
3303	P04103303	ROLL PIN 3 X 27

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Sanding Drums



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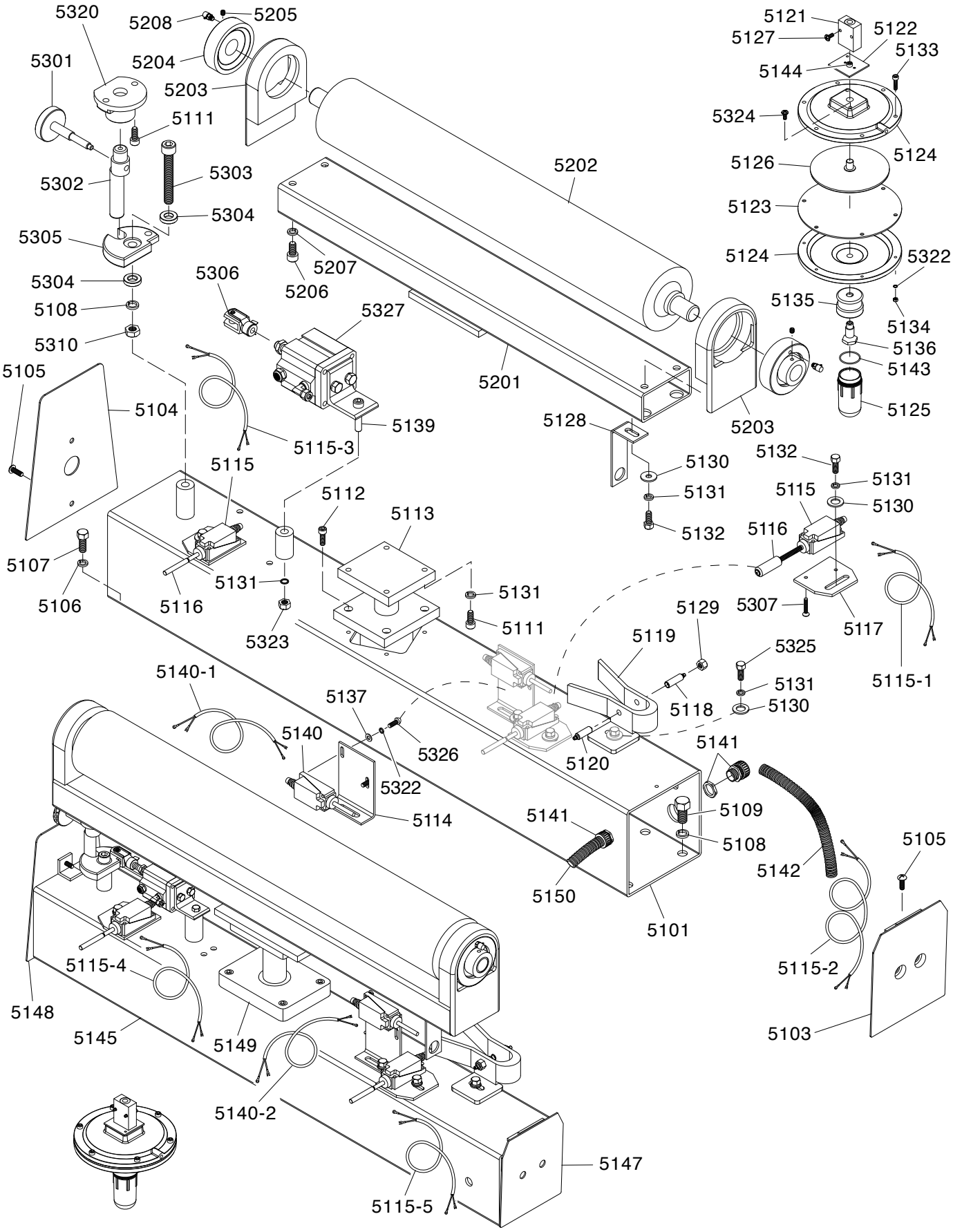
Sanding Drums Parts List

REF	PART #	DESCRIPTION
4101	P04104101	BEARING HOUSING REAR R
4102	P04104102	DRUM REAR RUBBER
4103	P04104103	LOCK COLLAR
4104	P04104104	CARTRIDGE BEARING UCC206
4105	P04104105	DRUM PULLEY REAR
4106	P04104106	CAP SCREW 5/16-18 X 1-1/4
4107	P04104107	KEY 8 X 8 X 30 RE
4108	P04104108	LOCK WASHER 5/16
4109	P04104109	BALL BEARING 6205-2RS
4110	P04104110	LOCK WASHER 1/2
4111	P04104111	HEX BOLT 1/2-13 X 1-1/2
4112	P04104112	CAP SCREW 1/4-20 X 1/2
4113	P04104113	DRUM BEARING CAP REAR
4114	P04104114	GREASE FITTING 1/4"-28 SAE STRAIGHT
4115	P04104115	GREASE FITTING 1/4"-28 SAE 90-DEG
4116	P04104116	PLUG
4117	P04104117	V-BELT COVER REAR
4118	P04104118	PHLP HD SCR 1/4-20 X 1/2
4119	P04104119	SPANNER NUT M25-1.5
4201	P04104201	BEARING HOUSING REAR L
4202	P04104202	DRUM REAR STEEL
4203	P04104203	SET SCREW M6-1 X 6
4204	P04104204	CARTRIDGE BEARING UCC205
4205	P04104205	HANDLE
4206	P04104206	HANDLE SCREW
4211	P04104211	STOP BLOCK REAR
4301	P04104301	PLATEN RAIL MALE
4302	P04104302	PLATEN FEMALE
4303	P04104303	FELT PAD 3/8" X 1-3/4" X 44-1/4"
4304	P04104304	GRAPHITE PAD 3-1/2" X 44-1/2"
4305	P04104305	PHLP HD SCR 10-24 X 1/2

REF	PART #	DESCRIPTION
4306	P04104306	PRESSURE PLATE
4307	P04104307	PLATEN BRACKET
4308	P04104308	PLATEN SHAFT
4309	P04104309	LOCK COLLAR
4310	P04104310	SET SCREW 1/4-20 X 3/8
4311	P04104311	KEY 6 X 6 X 25 RE
4312	P04104312	COMPRESSION SPRING 3 X 27 X 60
4313	P04104313	PLATEN HEIGHT FLANGE
4314	P04104314	PLATEN HEIGHT SHAFT
4315	P04104315	CAP SCREW 3/8-16 X 3/4
4316	P04104316	FLAT WASHER 3/8
4317	P04104317	FLANGE BUSHING
4318	P04104318	HANDLE
4319	P04104319	SET SCREW 5/16-18 X 1/2
4320	P04104320	GRADUATED COLLAR
4321	P04104321	HEX BOLT 5/16-18 X 1
4322	P04104322	LOCK WASHER 5/16
4323	P04104323	ADJUSTABLE HANDLE 3/8-16 X 25
4324	P04104324	LOCK WASHER 3/8
4325	P04104325	FLAT WASHER 5/16
4401	P04104401	BEARING HOUSING FRONT R
4402	P04104402	DRUM FRONT RUBBER
4403	P04104403	LOCK COLLAR
4405	P04104405	DRUM PULLEY FRONT
4406	P04104406	CAP SCREW 5/16-18 X 1-1/4
4407	P04104407	BEARING HOUSING FRONT L
4408	P04104408	STOP BLOCK FRONT
4409	P04104409	BALL BEARING 6206-2RS
4410	P04104410	SPANNER NUT M30
4411	P04104411	DRUM BEARING CAP FRONT
4417	P04104417	V-BELT COVER FRONT

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Upper Rollers



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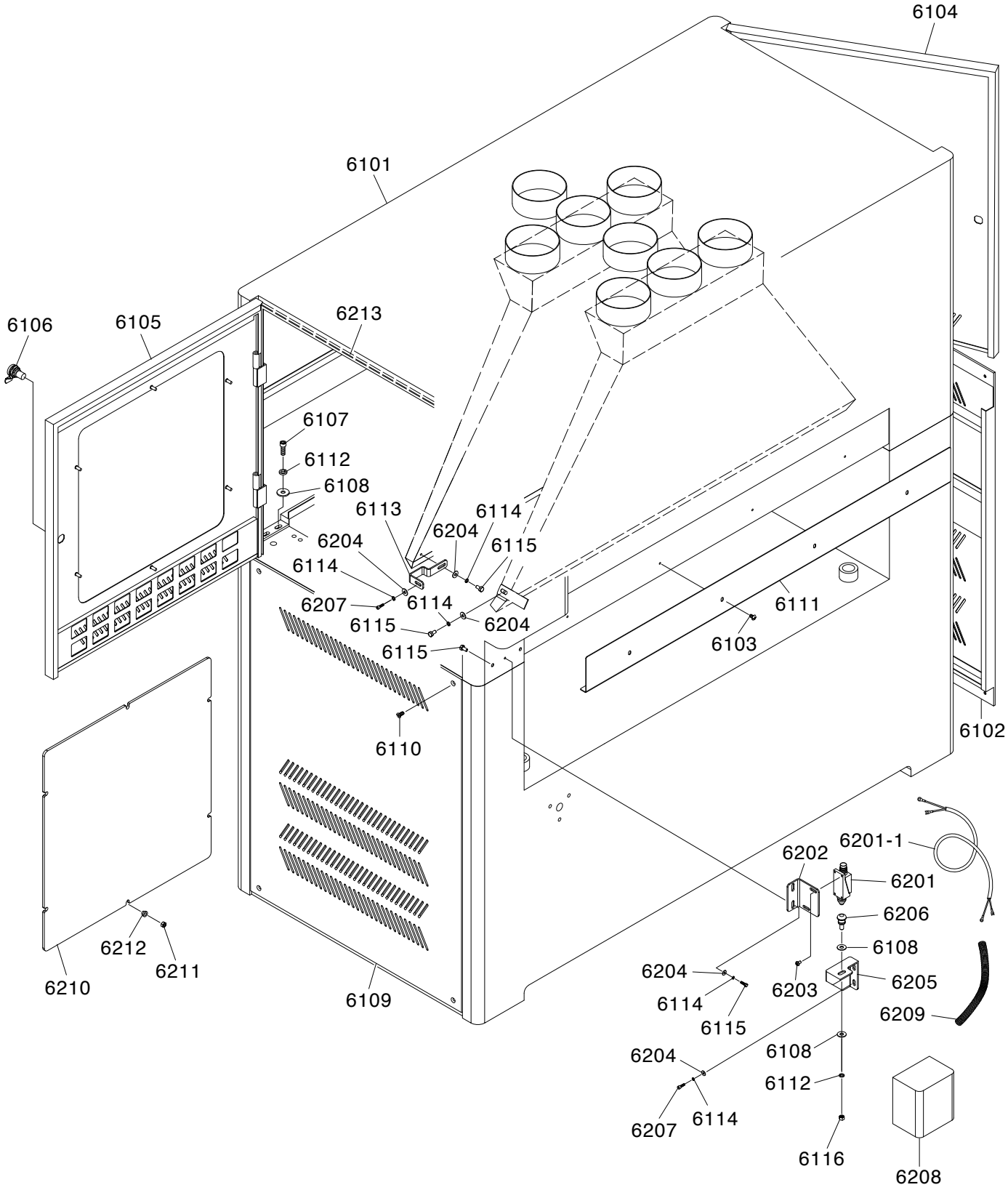
Upper Roller Parts List

REF	PART #	DESCRIPTION
5101	P04105101	SQUARE FRAME REAR
5103	P04105103	SQUARE FRAME COVER REAR R
5104	P04105104	SQUARE FRAME COVER REAR L
5105	P04105105	FLAT HD SCR 1/4-20 X 1/2
5106	P04105106	LOCK WASHER 3/8
5107	P04105107	HEX BOLT 3/8-16 X 1
5108	P04105108	LOCK WASHER 1/2
5109	P04105109	HEX BOLT 1/2-12 X 1
5111	P04105111	CAP SCREW 5/16-18 X 3/4
5112	P04105112	CAP SCREW M8-1.25 X 20
5113	P04105113	BELT TENSION AIR CYLINDER REAR
5114	P04105114	LIMIT SWITCH MOUNTING BRACKET
5115	P04105115	LIMIT SWITCH MOUJEN ME-8166
5115-1	P04105115-1	CORD 20G 2W
5115-2	P04105115-2	CORD 20G 2W
5115-3	P04105115-3	CORD 20G 2W
5115-4	P04105115-4	CORD 20G 2W
5115-5	P04105115-5	CORD 20G 2W
5116	P04105116	LIMIT SWITCH CERAMIC TIP
5117	P04105117	LIMIT SWITCH MOUNT
5118	P04105118	AIR SENSOR NOZZLE FEMALE
5119	P04105119	AIR FORK
5120	P04105120	AIR SENSOR NOZZLE MALE
5121	P04105121	THROTTLE VALVE
5122	P04105122	THROTTLE VALVE BASE
5123	P04105123	DIAPHRAGM
5124	P04105124	DISC HOUSING
5125	P04105125	DUST TRAP BOWL
5126	P04105126	PLATE ALUMINUM
5127	P04105127	PHLP HD SCR M4-.7 X 20
5128	P04105128	LIMIT SWITCH SHUTDOWN BRACKET
5129	P04105129	HEX NUT 3/8-24
5130	P04105130	FLAT WASHER 5/16
5131	P04105131	LOCK WASHER 5/16
5132	P04105132	HEX BOLT 5/16-18 X 3/4
5133	P04105133	CAP SCREW 10-24 X 3/4
5134	P04105134	HEX NUT 10-24
5135	P04105135	DUST TRAP CONNECTOR

REF	PART #	DESCRIPTION
5136	P04105136	DUST TRAP SHAFT
5137	P04105137	FLAT WASHER 5MM
5139	P04105139	CAP SCREW 5/16-18 X 1-1/2
5140	P04105140	LIMIT SWITCH MOUJEN ME-8166
5140-1	P04105140-1	CORD 20G 2W
5140-2	P04105140-2	CORD 20G 2W
5141	P04105141	STRAIN RELIEF 3/4 KO
5142	P04105142	CONDUIT 3/4" X 15/16"
5143	P04105143	O-RING 26.7 X 1.78
5144	P04105144	CAP SCREW M3-.5 X 5
5145	P04105145	SQUARE FRAME FRONT
5147	P04105147	SQUARE FRAME COVER FRONT R
5148	P04105148	SQUARE FRAME COVER FRONT L
5149	P04105149	BELT TENSION AIR CYLINDER FRONT
5150	P04105150	CONDUIT 3/4" X 15/16"
5201	P04105201	ROLLER BEAM
5202	P04105202	UPPER ROLLER
5203	P04105203	UPPER ROLLER BRACKET
5204	P04105204	CARTRIDGE BEARING UCC205
5205	P04105205	SET SCREW M6-1 X 6
5206	P04105206	CAP SCREW 3/8-16 X 3/4
5207	P04105207	LOCK WASHER 3/8
5208	P04105208	GREASE FITTING 1/4"-28 SAE STRAIGHT
5301	P04105301	OSCILLATION ADJUSTMENT KNOB
5302	P04105302	ECCENTRIC ROD
5303	P04105303	CAP SCREW 1/2-12 X 2-3/4
5304	P04105304	SPACER 12 X 25 X 6MM
5305	P04105305	ECCENTRIC CAM
5306	P04105306	UNIVERSAL JOINT FORK ASSEMBLY
5307	P04105307	FLAT HD SCR M5-.8 X 8
5310	P04105310	HEX NUT 1/2-12
5320	P04105320	ECCENTRIC SHAFT FRAME
5322	P04105322	LOCK WASHER #10
5323	P04105323	HEX NUT 5/16-18
5324	P04105324	PHLP HD SCR M5-.8 X 10
5325	P04105325	HEX BOLT 5/16-18 X 3/4
5326	P04105326	PHLP HD SCR M5-.8 X 10
5327	P04105327	OSCILLATION AIR CYLINDER

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Body



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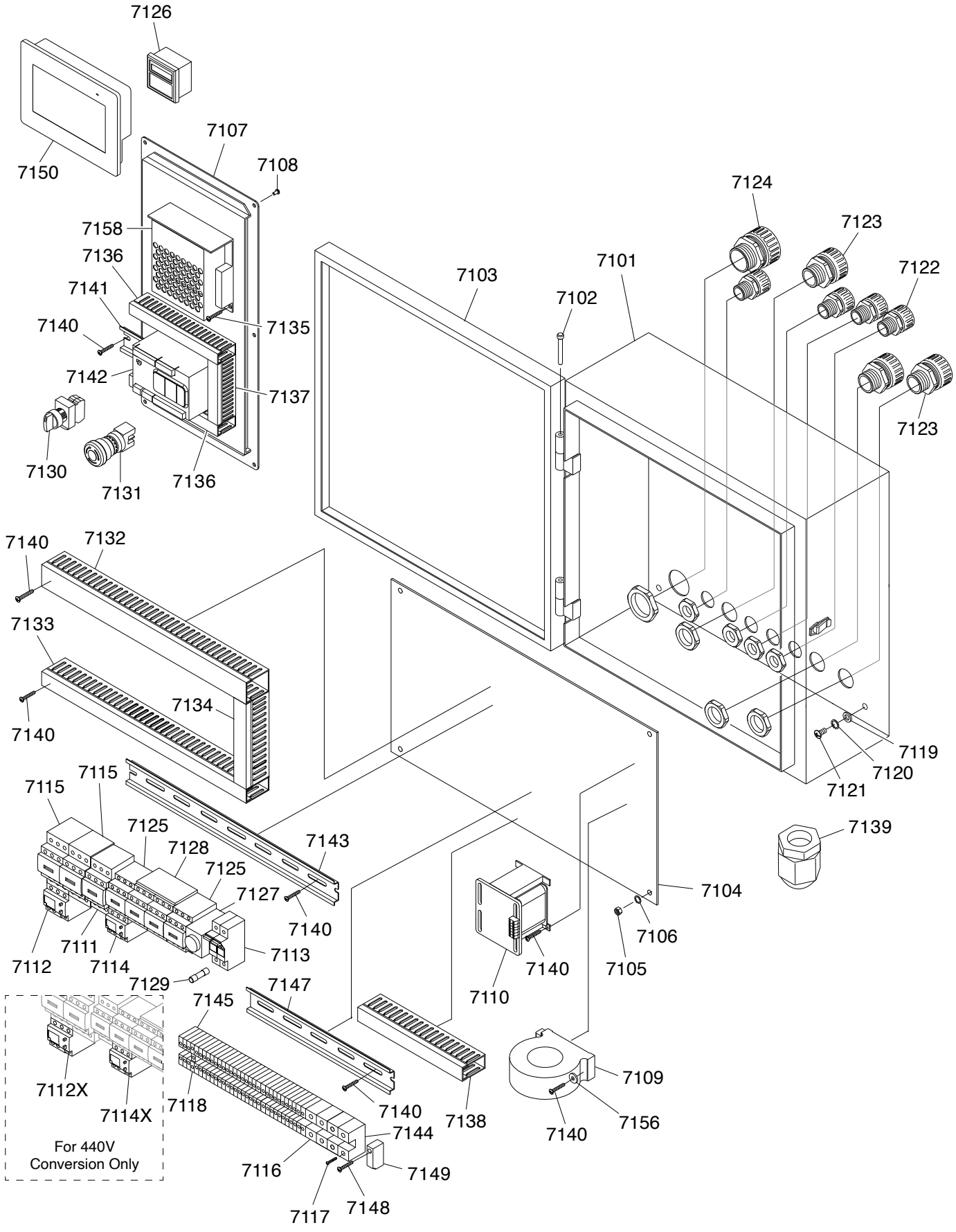
Body Parts List

REF	PART #	DESCRIPTION
6101	P04106101	UPPER FRAME COVER
6102	P04106102	ACCESS PANEL R
6103	P04106103	PHLP HD SCR M6-1 X 10
6104	P04106104	DOOR R
6105	P04106105	DOOR L
6106	P04106106	DOOR LOCK
6107	P04106107	CAP SCREW 5/16-18 X 3/4
6108	P04106108	FLAT WASHER 5/16
6109	P04106109	ACCESS PANEL L
6110	P04106110	FLAT HD SCR 1/4-20 X 1/2
6111	P04106111	DEPTH PLATE
6112	P04106112	LOCK WASHER 5/16
6113	P04106113	CENTER BRACKET
6114	P04106114	LOCK WASHER 1/4
6115	P04106115	HEX BOLT M6-1 X 16

REF	PART #	DESCRIPTION
6116	P04106116	HEX NUT 5/16-18
6201	P04106201	LIMIT SWITCH MOUJEN ME-8111
6201-1	P04106201-1	CORD 20G 2W
6202	P04106202	LIMIT SWITCH MOUNT
6203	P04106203	PHLP HD SCR M5-.8 X 10
6204	P04106204	FLAT WASHER 1/4
6205	P04106205	PEG MOUNT
6206	P04106206	THICKNESS PEG 5/16-18
6207	P04106207	CAP SCREW 1/4-20 X 3/4
6208	P04106208	SENSOR COVER
6209	P04106209	CONDUIT 1/4" X 5/16"
6210	P04106210	PLEXIGLASS 20-3/8" X 10-5/16" X 3/16"
6211	P04106211	HEX NUT M6-1
6212	P04106212	SLEEVE WASHER 6MM
6213	P04106213	LED STRIP L2W-Z-5050-24RGBWW

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Main Electricals



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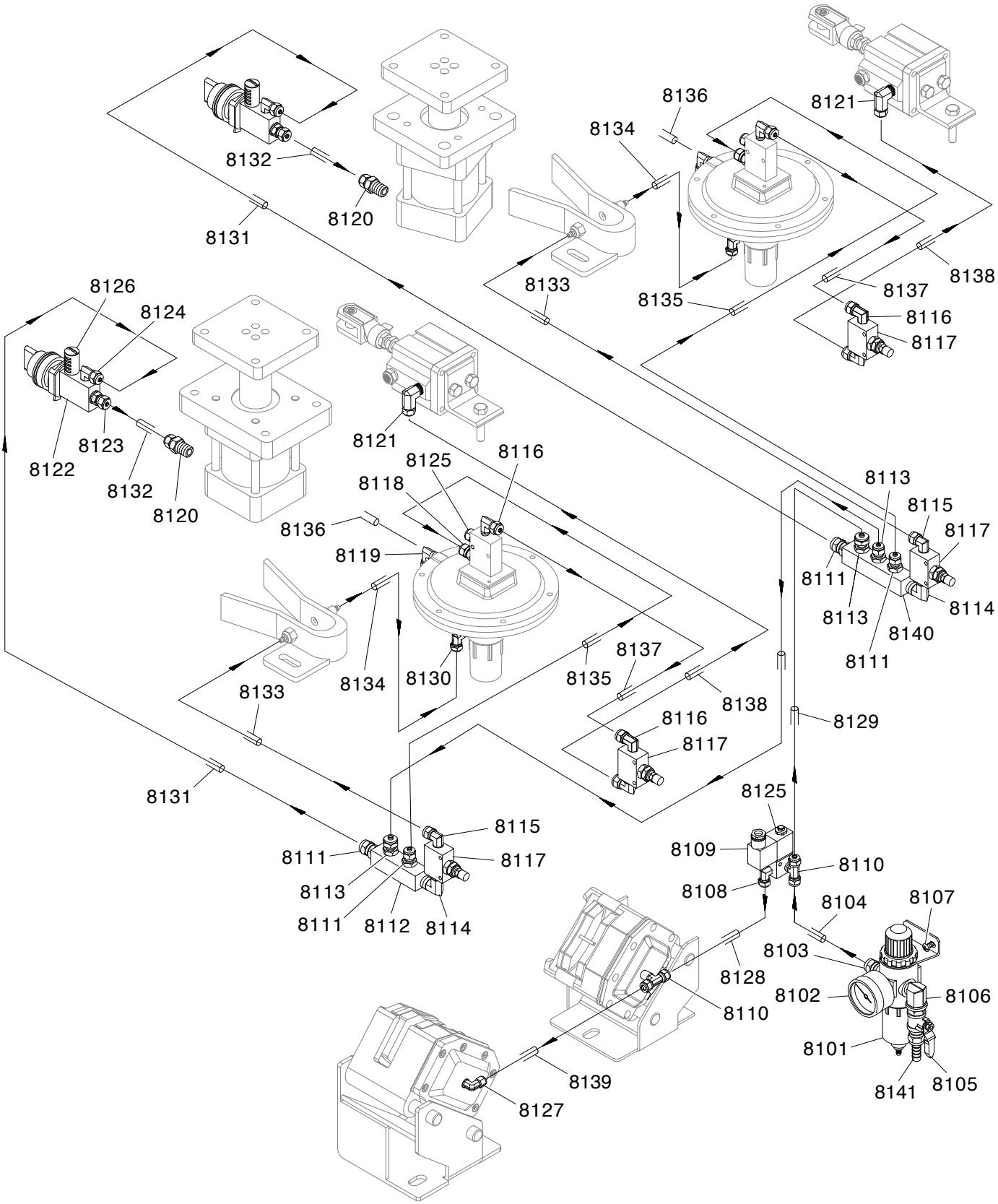
Main Electricals Parts List

REF	PART #	DESCRIPTION
7101	P04107101	ELECTRICAL CABINET
7102	P04107102	HEADED PIN 8 X 65MM
7103	P04107103	ELECTRICAL CABINET DOOR
7104	P04107104	CABINET MOUNTING PLATE
7105	P04107105	HEX NUT 1/4-20
7106	P04107106	LOCK WASHER 1/4
7107	P04107107	PANEL MOUNTING PLATE
7108	P04107108	BUTTON HD CAP SCR M4-.7 X 6
7109	P04107109	CURRENT SENSOR CT 75/5
7110	P04107110	TRANSFORMER LCPAC-TBSW-100500 440V
7111	P04107111	CONTACTOR SCHNEIDER LC1D25M7
7112	P04107112	OL RELAY SCHNEIDER LR3D35 30-38A
7112X	P04107112X	OL RELAY SCHNEIDER LR3D22 16-24A
7113	P04107113	FUSE HOLDER W/FUSE SCHNEIDER DF101
7114	P04107114	OL RELAY SCHNEIDER LR3D12 5.5-8A
7114X	P04107114X	OL RELAY SCHNEIDER LR3D08 2.5-4A
7115	P04107115	CONTACTOR SCHNEIDER LC1D38M7
7116	P04107116	POWER TERMINAL BLOCK 1P 6-8G
7117	P04107117	PHLP HD SCR M4-.7 X 30
7118	P04107118	GROUND TERMINAL BLOCK 1P 14-20G
7119	P04107119	FLAT WASHER 1/4
7120	P04107120	LOCK WASHER 1/4
7121	P04107121	PHLP HD SCR 1/4-20 X 1/2
7122	P04107122	STRAIN RELIEF 1/2" KO
7123	P04107123	STRAIN RELIEF 3/4" KO
7124	P04107124	STRAIN RELIEF 1" KO
7125	P04107125	CONTACTOR SCHNEIDER LC1D09M7

REF	PART #	DESCRIPTION
7126	P04107126	AMP METER NONI NI-729
7127	P04107127	TIMER ORDER LSD-NC 30S
7128	P04107128	CONTACTOR SCHNEIDER LC1D09M7 ASSY
7129	P04107129	FUSE 4A 600V FAST-ACTING
7130	P04107130	LIGHT SWITCH AUSPICIOUS A2-RS2-102W
7131	P04107131	E-STOP SWITCH SCHNEIDER
7132	P04107132	WIRE LOOM W/COVER 1-1/2" X 2-1/2" X 24"
7133	P04107133	WIRE LOOM W/COVER 1-1/4" X 2-1/2" X 24"
7134	P04107134	WIRE LOOM W/COVER 1-1/4" X 2-1/2" X 12"
7135	P04107135	PHLP HD SCR M3-.5 X 6
7136	P04107136	WIRE LOOM W/COVER 1" X 2-1/2" X 7"
7137	P04107137	WIRE LOOM W/COVER 1" X 2-1/2" X 8"
7138	P04107138	WIRE LOOM W/COVER 1" X 2-1/2" X 12"
7139	P04107139	STRAIN RELIEF M25-1.5
7140	P04107140	PHLP HD SCR M4-.7 X 8
7141	P04107141	DIN RAIL TH35 X 7.5 X 180MM
7142	P04107142	CONTROLLER SCHNEIDER TM200CE24R
7143	P04107143	DIN RAIL TH35 X 7.5 X 600MM
7144	P04107144	GROUND TERMINAL BLOCK 1P 6-8G
7145	P04107145	POWER TERMINAL BLOCK 1P 14-20G
7147	P04107147	DIN RAIL TH35 X 7.5 X 300MM
7148	P04107148	TAP SCREW M4 X 9
7149	P04107149	TERMINAL END BLOCK DIN35
7150	P04107150	TOUCHSCREEN SCHNEIDER HMIET6400
7156	P04107156	FENDER WASHER 4MM
7158	P04107158	POWER SUPPLY DELTA PMT-24V100W2BA

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Pneumatic System



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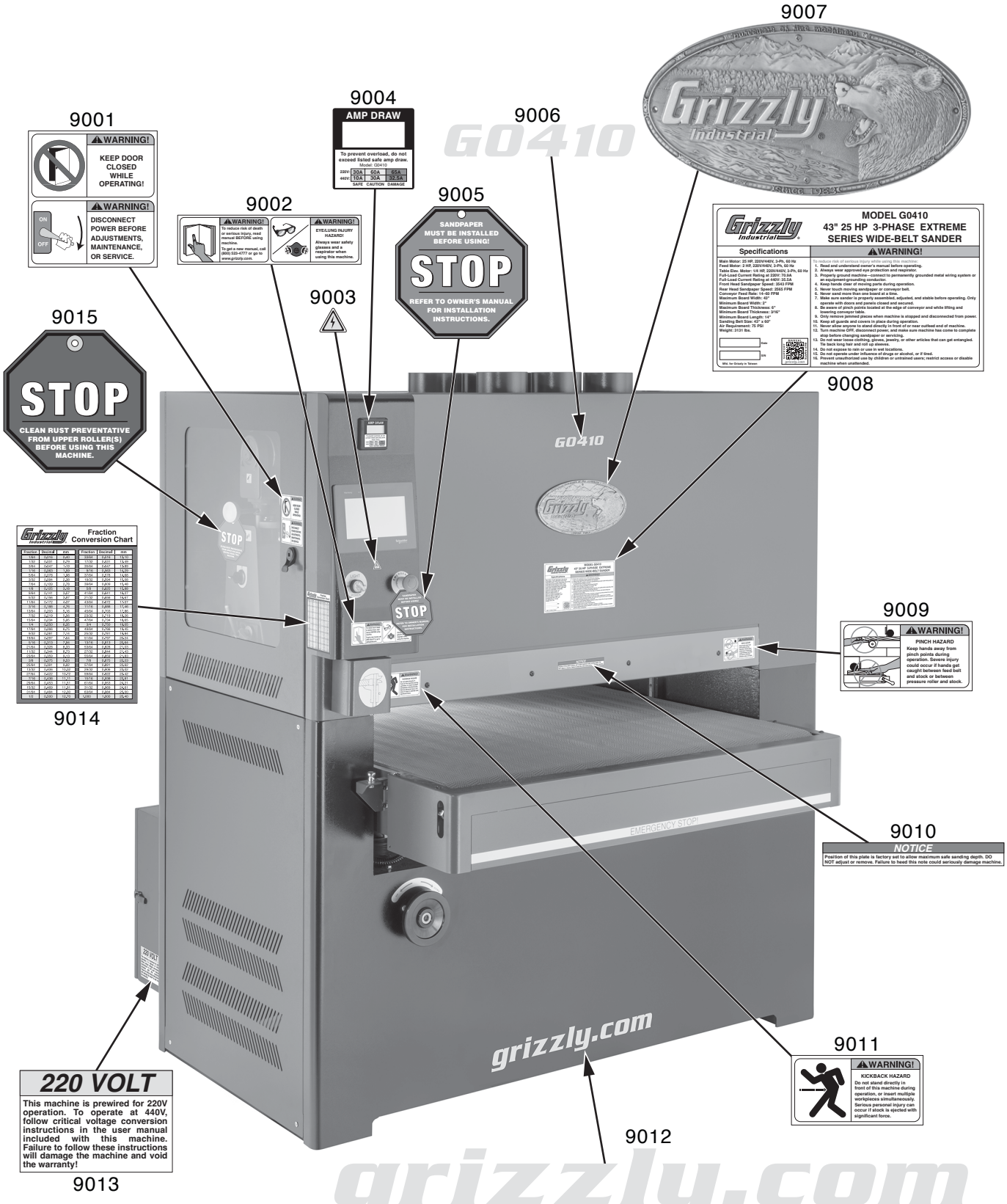
Pneumatic System Parts List

REF	PART #	DESCRIPTION
8101	P04108101	REGULATOR FILTER
8102	P04108102	PRESSURE REGULATOR
8103	P04108103	PIPE-HOSE ADAPTER 1/4 NPT X 8MM
8104	P04108104	FLEXIBLE HOSE 8 X 1200MM
8105	P04108105	BALL VALVE 1/4 NPT
8106	P04108106	PIPE FITTING 90-DEG 1/4 NPT
8107	P04108107	PHLP HD SCR 10-24 X 3/4
8108	P04108108	PIPE-HOSE ADAPTER 90-DEG 1/8 NPT X 8MM
8109	P04108109	SOLENOID VALVE NEUMA NV-5321
8110	P04108110	PIPE-TUBE ADAPTER 1/8 NPT X 8MM X 8MM
8111	P04108111	PIPE-HOSE ADAPTER 1/4 NPT X 6MM
8112	P04108112	AIR MANIFOLD 4-PORT
8113	P04108113	PIPE-TUBE ADAPTER 1/4 NPT X 8MM
8114	P04108114	PIPE FITTING 90-DEG 1/8 NPT X 1/4 NPT
8115	P04108115	PIPE-TUBE ADAPTER 90-DEG 1/8 NPT X 6MM
8116	P04108116	PIPE-HOSE ADAPTER 1/8 NPT X 6MM
8117	P04108117	FLOW CONTROL VALVE POSU GRO-1/8
8118	P04108118	PIPE-HOSE ADAPTER 1/8 NPT X 6MM
8119	P04108119	PIPE-TUBE ADAPTER 90-DEG 1/4 NPT X 6MM
8120	P04108120	PIPE-HOSE ADAPTER 1/4 NPT X 6MM
8121	P04108121	PIPE-TUBE ADAPTER 90-DEG 1/4 NPT X 6MM

REF	PART #	DESCRIPTION
8122	P04108122	MECHANICAL VALVE SWITCH POSU 1/8
8123	P04108123	PIPE-HOSE ADAPTER 1/8 NPT X 6MM
8124	P04108124	PIPE-TUBE ADAPTER 90-DEG 1/8 NPT X 6MM
8125	P04108125	MUFFLER 1/8 NPT COPPER
8126	P04108126	MUFFLER 1/8 NPT PLASTIC
8127	P04108127	PIPE-HOSE ADAPTER 90-DEG 1/8 NPT X 8MM
8128	P04108128	FLEXIBLE HOSE 8 X 800MM
8129	P04108129	FLEXIBLE HOSE 8 X 1500MM
8130	P04108130	PIPE-TUBE ADAPTER 90-DEG 1/8 NPT X 6MM
8131	P04108131	FLEXIBLE HOSE 6 X 1500MM
8132	P04108132	FLEXIBLE HOSE 6 X 700MM
8133	P04108133	FLEXIBLE HOSE 6 X 570MM
8134	P04108134	FLEXIBLE HOSE 6 X 300MM
8135	P04108135	FLEXIBLE HOSE 6 X 650MM
8136	P04108136	FLEXIBLE HOSE 6 X 200MM
8137	P04108137	FLEXIBLE HOSE 6 X 650MM
8138	P04108138	FLEXIBLE HOSE 6 X 1200MM
8139	P04108139	FLEXIBLE HOSE 8 X 200MM
8140	P04108140	AIR MANIFOLD 5-PORT
8141	P04108141	PIPE-HOSE ADAPTER 1/4 NPT X 3/8 PUSH-IN

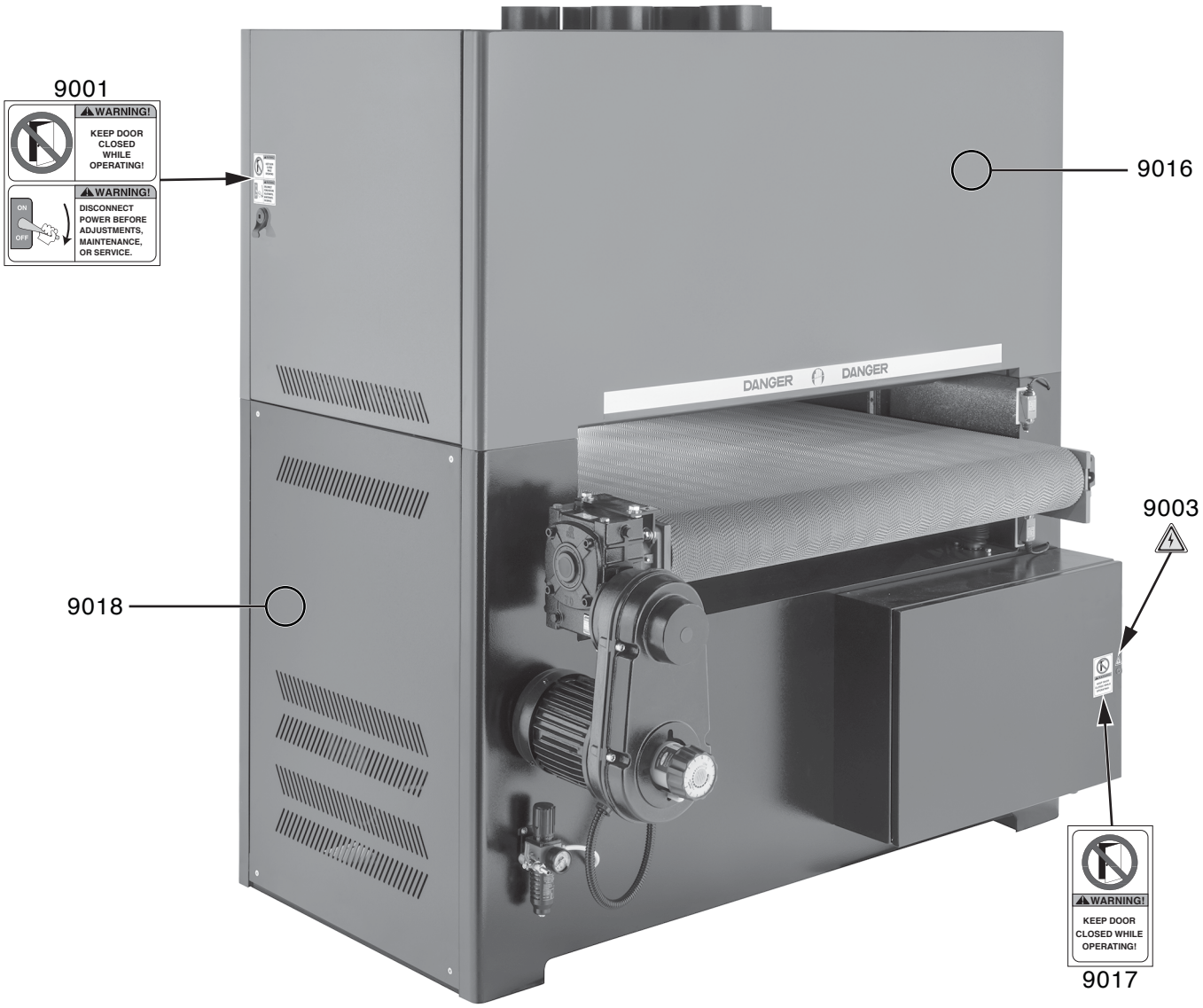
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Labels & Cosmetics



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Labels & Cosmetics (Cont.)



REF	PART #	DESCRIPTION
9001	P04109001	DOOR CLOSED COMBO LABEL
9002	P04109002	READ MANUAL COMBO LABEL
9003	P04109003	ELECTRICITY LABEL
9004	P04109004	AMP DRAW LABEL
9005	P04109005	SANDPAPER HANG TAG
9006	P04109006	MODEL NUMBER LABEL
9007	P04109007	GRIZZLY NAMEPLATE
9008	P04109008	MACHINE ID LABEL
9009	P04109009	PINCH HAZARD LABEL

REF	PART #	DESCRIPTION
9010	P04109010	DEPTH PLATE NOTICE LABEL
9011	P04109011	KICKBACK HAZARD LABEL
9012	P04109012	GRIZZLY.COM LABEL
9013	P04109013	PREWIRED 220V LABEL
9014	P04109014	FRACTION CONVERSION LABEL
9015	P04109015	RUST PREVENTATIVE HANG TAG
9016	P04109016	TOUCH-UP PAINT, GRIZZLY GREEN
9017	P04109017	CABINET DOOR CLOSED LABEL
9018	P04109018	TOUCH-UP PAINT, GLOSSY BLACK

⚠WARNING

Safety labels help reduce the risk of serious injury caused by machine hazards. If any label comes off or becomes unreadable, the owner of this machine MUST replace it in the original location before resuming operations. For replacements, contact (800) 523-4777 or www.grizzly.com.

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WARRANTY & RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

In the event you need to use this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

For further information about the warranty, visit **https://www.grizzly.com/forms/warranty** or scan the QR code below to be automatically directed to our warranty page.



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