

**SuperMax**<sup>®</sup> BY LAGUNA

**19-38 Combo**

**Brush/Drum Sander**

**Owner's Manual**



**LAGUNA**



[Lagunatools.com](http://Lagunatools.com)

SKU: 219383

**CONGRATULATIONS:**

Thank you for investing in a 19-38 Combo brush/drum sander. This sander is one of a family of unique machines proudly offered by Laguna Tools. Every Laguna machine is engineered for years of dependable service. Please feel free to contact Laguna Tools if you have a question or suggestion. We appreciate working with you and your choice of a Laguna Tools machine for your shop.

Regards, Torben Helshoj

President & Founder Laguna Tools

**MODEL IDENTIFICATION:**

Your 19-38 Combo sander is one of a family of machines from Laguna Tools designed to help you achieve results comparable to industrial-size sanders at a fraction of the cost. For future reference, find the model, stock and serial numbers on the back of machine base and write them in below.

Model: \_\_\_\_\_ Date Purchased: \_\_\_\_\_

Stock Number: \_\_\_\_\_ Distributor: \_\_\_\_\_

Serial Number: \_\_\_\_\_

**IMPORTANT KEEP THIS MANUAL HANDY:**

Please read this manual first. It was designed to help you get the most from your 16-32 drum sander. Before unpacking or using the machine, familiarize yourself with its components, features, and basic adjustments by re-viewing the following pages. You will find it an invaluable aid in setting up, operating, and servicing your machine. If, after reviewing this manual, you still have a problem you can't solve, please call your SuperMax Tools distributor.

**LATEST MANUAL:**

Below is a QR code which will direct you to the manual reference page, where the latest version of the 19-38 Combo manual is located on the Laguna Tools website. The online manual may have updates and information added after the printed copy was released. Scan the code with your smartphone or copy the URL link to be directed to the latest manual page to reference your specific machine and model.

<https://lagunatools.com/resources/product-manuals/#classic>



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**FOR YOUR SAFETY:** Read all instructions carefully, and note the safety cautions on the opposite page and on the back cover of this manual.

## SAFETY RULES:

1. **KEEP GUARDS IN PLACE** and in working order.
  2. **REMOVE ADJUSTING KEYS AND WRENCHES.**  
Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
  3. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
  4. **DON'T USE IN DANGEROUS ENVIRONMENT.**  
Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
  5. **KEEP CHILDREN AWAY.** All visitors should be kept safe distance from work area.
  6. **MAKE WORKSHOP CHILD PROOF** with padlocks, master switches, or by removing starter keys.
  7. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
  8. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.
  9. **USE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table A (on the next page) shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.
  10. **WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
  11. **ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
12. **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
13. **DON'T OVERREACH.** Keep proper footing and balance at all times.
  14. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
  15. **DISCONNECT TOOLS** before servicing; when changing accessories, such as blades, bits, cutters, and the like.
  16. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in off position before plugging in.
  17. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
  18. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
  19. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function - check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
  20. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
  21. **NEVER LEAVE TOOL RUNNING UNATTENDED.**  
**TURN POWER OFF.** Don't leave tool until it comes to a complete stop.

Proposition 65 Warning

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

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

Your risk of exposure 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 face or dust masks that are specifically designed to filter out microscopic particles.

## CONSIGNES DE SÉCURITÉ

1. MAINTENEZ TOUS LES PROTECTEURS en place et bon état de marche.
2. RETIREZ LES CLÉS ET OUTILS. Prenez pour habitude de
3. MAINTENIR VOTRE LIEU DE TRAVAIL PROPRE. Un endroit de travail mal entretenu est source d'accidents.
4. NE JAMAIS UTILISER DANS UN ENVIRONNEMENT DANGEREUX. N'utilisez jamais d'outils électriques dans les endroits humides; ne les exposez jamais à la pluie. Gardez le lieu de travail bien éclairé.
5. ÉLOIGNEZ LES ENFANTS et les visiteurs de l'endroit de travail lorsque la machine est en marche
6. EMPECHEZ LES ENFANTS D'UTILISER VOS OUTILS à l'aide de cadenas, d'interrupteurs électriques principaux et d'interrupteurs à clés.
7. 

ritaire si vous utilisez un outil pour effectuer ce pour quoi il a été conçu.
8. UTILISEZ LE BON OUTIL DE TRAVAIL. Ne forcez pas un pas été conçu.
9. UTILISEZ UNE RALLONGE ÉLECTRIQUE ADÉQUATE. Assurez-vous que la rallonge est en bon état et que son ampérage est adapté à la machine. Une rallonge sous-calibrée entraîne une chute de tension, causant perte de puissance et surchauffe. Le tableau A (voir page suivante) indique l'ampérage adéquat en fonction de la longueur du câble et de l'ampérage nominal indiqué sur la plaque signalétique de la machine. En cas de doute, utilisez un câble d'ampérage immédiatement supérieur.
10. PORTEZ DES VÊTEMENTS APPROPRIÉS. Ne pas porter de vêtements amples, de gants, de bracelets, de colliers et autres bijoux pouvant être happés par les parties mobiles de la machines. Portez des chaussures antidérapantes et rassemblez et couvrez les cheveux longs pour évitez que ceux-ci se prennent dans les parties mobiles de la machine.
11. PORTEZ TOUJOURS DES LUNETTES DE SÉCURITÉ. Portez toujours un masque de protection du visage ou respiratoire si la poussière est abondante. Les lunettes de vue ne sont pas des lunettes de sécurité et ne sont pas conçues pour résister aux impacts.
12. TRAVAIL SÉCURITAIRE. Utilisez des serres ou un étau pour maintenir la pièce en place lorsque c'est pratique. Plus sécuritaire, cela vous permet aussi de garder les mains libres pour manier un outil s'il y a lieu.
13. ÉVITEZ DE TRAVAILLER dans une position inconfortable ou instable. Gardez les deux pieds au sol en tout temps.
14. ENTRETENIR VOS OUTILS AVEC SOINS. Pour une meilleure performance et plus de sécurité, veillez à la propreté et le changement d'accessoires, suivez toujours les instructions fournies.
15. DÉBRANCHEZ TOUJOURS LA PONCEUSE avant de changer des accessoires comme les lames, forets, couteaux ou autres.
16. REDUIRE LE RISQUE DE DÉMARRAGE NON INTENTIONNEL. Assurez-vous que l'interrupteur est en position "OFF" avant de brancher la machine à une source électrique.
17. UTILISEZ SEULEMENT LES ACCESSOIRES RECOMMANDÉS. Consultez votre manuel les accessoires recommandés. L'utilisation de pièces et d'accessoires non recommandés augmente les risques de blessures.
18. NE MONTEZ JAMAIS SUR LA PONCEUSE. Vous risquez de subir de graves blessures si celle-ci bascule ou est mise en marche par mégarde.
19. INSPECTEZ BIEN LES PIÈCES ENDOMMAGÉES avant utilisation. Les protecteurs et pièces endommagés de des pièces en mouvement, les obstacles, bris, montures et points d'attache affectant l'opération sécuritaire de la machine. Un protecteur ou une pièce endommagé devrait être immédiatement remplacé.
20. DIRECTION DE L'ALIMENTATION. Passez la pièce de travail dans la ponceuse contre le sens de rotation du tambour.
21. NE LAISSEZ JAMAIS LA MACHINE EN FONCTION SANS SURVEILLANCE. METTEZ-LA HORS TENSION. Attendez qu'elle soit complètement arrêtée avant de quitter l'endroit de travail.

Certaines particules issues des opérations de ponçage, sciage, meulage, perçage ou d'autres procédés de fabrication contiennent des composés chimiques connus pour être à l'origine de cancers, de malformations congénitales et de troubles de la santé reproductive. Ces composés chimiques peuvent être:

- Le **plomb** contenu dans certaines peintures à base de plomb.
- La **silice cristalline** contenue dans les briques, le ciment et les matériaux de maçonnerie.
- L'**arsenic** et le **chrome** issus du traitement chimique des planches de bois.

Les risques encourus dépendent de la fréquence d'exposition à ces composés chimiques. Pour réduire l'exposition à ces com-

les masques respiratoires ou antipoussières spécialement conçus pour empêcher l'inhalation de micro-particules.

# About The 19-38 Combo

This manual is designed to help familiarize you with your sander, and to help take advantage of its exclusive features. By understanding its major components, and how they work together, you will be able to get the most from your investment. The 19-38 Combo is basically made up of: 1) a height adjustment handle which raises and lowers the

sanding head; 2) a brush speed control knob which controls brush speed from 200 to 1000 RPM and drum speed to 1750 RPM; 3) a feed rate control knob which starts feed conveyor and selects feed rate from 0-10 feet per minute. 4) a motor switch which starts and stops the drive motor and sanding brush/drum;



**Fig. 1 SUPERBRUSH Controls.**

1. Height Adjustment Handle
2. RPM Control Knob (Sanding)
3. Conveyor Motor, Speed Control & ON/OFF Switch
4. Sanding Motor, ON/OFF Switch

## Unpacking

The 19-38 Combo sander has been shipped mostly assembled from the factory. If any damage has occurred as a result of shipment, notify the transportation company as soon as possible and ask them to make an immediate inspection. Ask for a damage or loss report. Also notify your dealer of any loss or damage during shipment. See enclosed Warranty Statement.

**Important:** To avoid problems and potential damage to the machine, please read through the unpacking instructions below before proceeding to set up the machine in your shop.

1. Assemble stand or prepare dedicated bench for sander attachment. See next section for assembly instructions for open-stand.
2. Open "Box 1" with main sanding unit. Remove cardboard liner. Open plastic bag.
3. Cut each corner of Box 1 to fold sides flat, providing access to sanding unit. (Fig 2)
4. Remove two wood packing plates from bottom of sanding unit. (Fig 3)
5. With one or two helpers, place sanding unit on stand or bench and attach securely. Use bolts from packing plates.
6. Install knob to height adjustment handle, finger tighten nut to knob. Thread stud from knob into hand wheel (Fig 2). Tighten nut against handwheel.
7. Using handle, raise sanding head to high position and remove packing block from under carriage arm and motor, if so equipped. (Fig 4)
8. Remove conveyor from packaging and place on sanding unit. The conveyor motor should be near main motor and depth gauge.
9. Install two lock washers and two flat washers on studs on outboard side of conveyor.
10. Install lock washer and flat washer onto two socket head (or hex head bolts) and install into flange of conveyor bed on inboard (motor side). Keep support plate in place on inboard side and make sure "fast lever" is positioned up. Fig. 4A
11. Tighten all bolts and nuts.

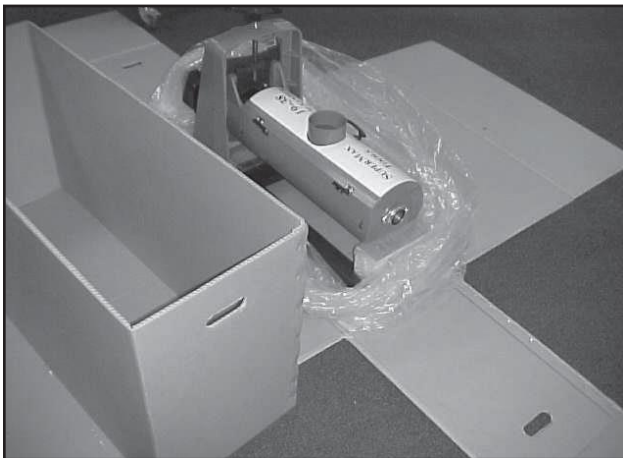


Fig. 2 Open plastic, remove liner, cut box

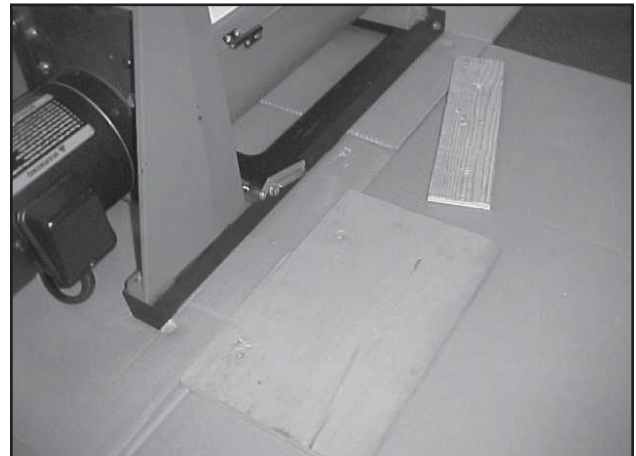


Fig. 3 Remove packing plates

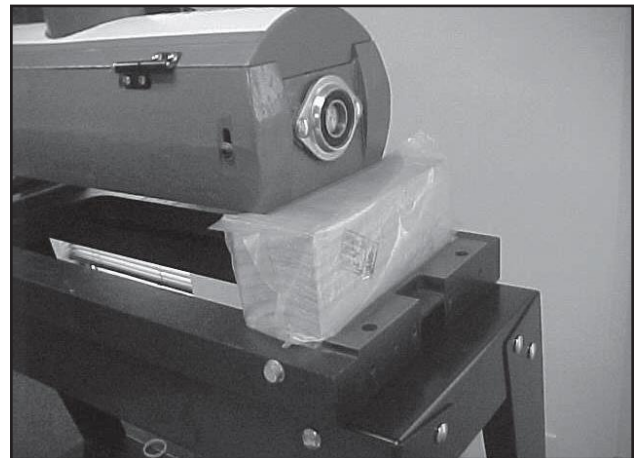
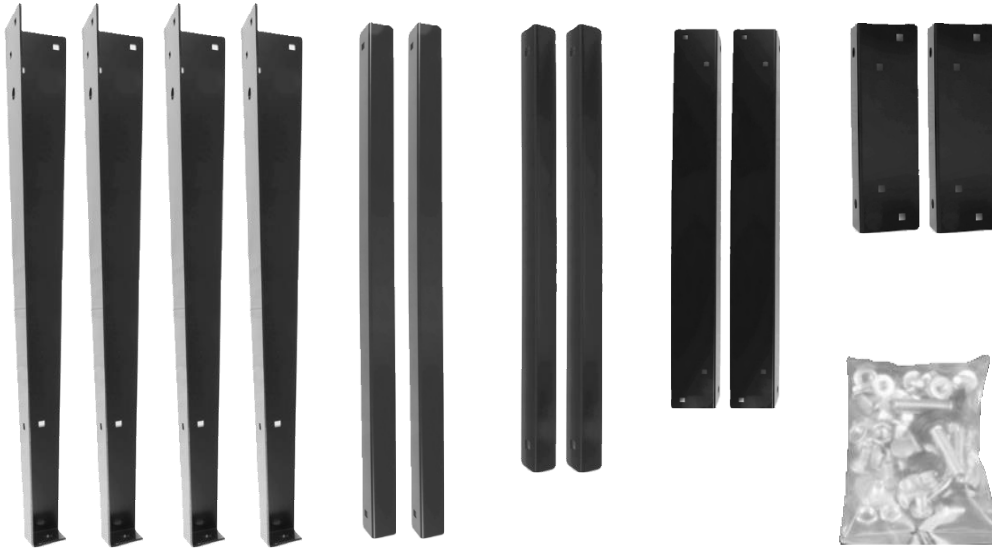


Fig. 4 Secure to stand, remove packing block



## Open-Stand Inventory

- |                                  |   |
|----------------------------------|---|
| 1. Stand leg.....                | 4 |
| 2. Long lower cross braces.....  | 2 |
| 3. Short lower cross braces..... | 2 |
| 4. Long top cross braces.....    | 2 |
| 5. Short top cross braces.....   | 2 |
| 6. Hardware bag.....             | 1 |



## Stand Assembly

Note: For initial stand assembly secure all fasteners finger tight. Fully tighten fasteners before use.



1

Assemble the stand, by securing two legs to the out-side of each of the two short top cross braces using the supplied carriage bolts and flange nuts.



2

Secure the two long top rails inside of the legs and on top of the short rails.

**Note:** To avoid incorrect leg positioning, the holes in the legs are spaced so that the short and long top braces will only line up from one face of each leg.





*Note: Long rail on top of short rail and both rails inside of legs.*



Connect the second leg sub-assembly to the top long rails.



Attach the lower cross braces to the legs – again, the longer cross braces should sit on top of the short ones.



Thread a hex nut onto each of the leveling feet attach a leveling foot to the bottom of each leg with the hardware order as shown (not required if installing optional caster set #98-0130).

*Note: After final assembly and sander installation, adjust the nuts on the threads as needed to level the stand.*

# Setting Up

Your 19-38 Combo sander was adjusted and aligned at the factory, and it has been carefully packed for shipment. However, because of possible stress during transit, the unit should be thoroughly checked before using. This section covers the preoperational checks you should make after unpacking and final assembly. Unnecessary problems can be avoided if these essential checks are performed before operating. Likewise, performing the recommended monthly maintenance procedures will help assure trouble-free service.

## Connecting Dust Collectors

Dust collection is necessary for all models. The 19-38 Combo is equipped with one 4" diameter dust exhaust port at the top of the cover.

To attach to your collection system, install 4" hose from your collector. (See Tips For Maximum Performance.) The minimum recommended dust collector capacities is 600 cfm. For best results, follow the recommendations of the manufacturer of your dust collection equipment. NOTE: Some applications will require more dust collection than the recommended minimum CFM.

## Checking Machine For Level

Proper leveling of the machine is important to achieve continued maximum performance from the 19-38 Combo.



Fig. 4A Install knob

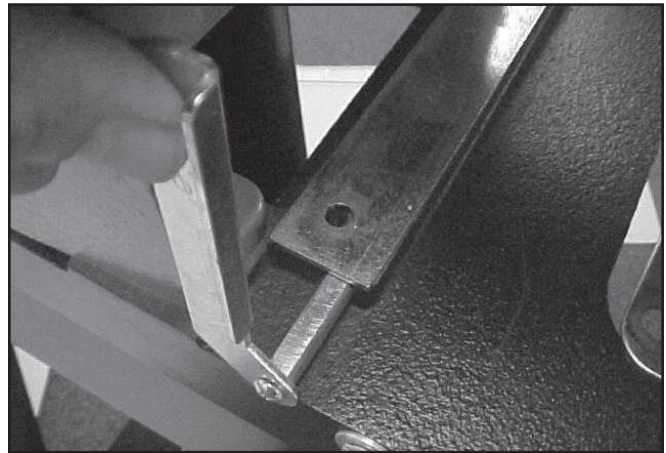


Fig. 4B FAST Lever "UP"



- Fig. 5 Components.**
1. Height Adjustment Handle
  2. Speed Knob, Sanding (RPM)
  3. Depth Gauge
  4. Conveyor Adjustment
  5. Drum/Brush ON/OFF Switch
  6. Conveyor Table
  7. Tension Rollers
  8. Drum/Brush Carriage

Fig. 5 Components

## INSTALLING A POWER CORD



Confirm power cord is NOT plugged in before installation.

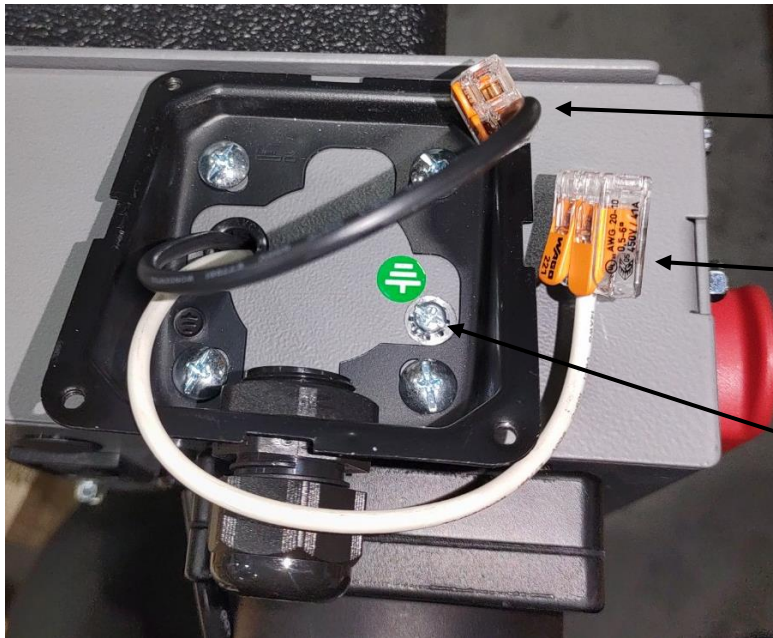


Confirm power cord and plug are designed and rated for 110 Volt/15 amp, 14 gauge minimum, with ground.

**IMPORTANT:** Refer to picture and diagram on next page.

**IMPORTANT:** GFCI protected receptacles tend to trip unnecessarily (nuisance tripping) and cause operation issues with the VFD, and should not be used for the 19-38 Combo.

1. Unpack cord and straighten.
2. Remove the cover of the conduit box, on the underside of the conveyor motor box, by removing the screws holding the cover in place.
3. Loosen (do not remove) the tension nut of the strain relief bushing.
4. Feed the new cord through the strain relief bushing.
5. Attach the NEUTRAL (white) wire to the white terminal by lifting the orange clamp and sliding the bare end of the white wire into the terminal connector. Press down on the orange clamp to secure the white wire. Confirm the white wire is secure in the terminal clamp and that there is no exposed, non-insulated wire.
6. Attach the HOT (black) wire to the black terminal clamp by lifting the orange clamp and sliding the bare end of the black wire into the terminal connector. Press down on the orange clamp to secure the black wire. Confirm the black wire is secure in the terminal clamp and that there is no exposed, non-insulated wire.
7. Attach the GROUND (green) wire to the ground screw of the conduit box. Confirm a secure connection.
8. Confirm all electrical connections are secure and tight.
9. Confirm the wires of the cord are in place within the conduit box and will not be pinched when installing the conduit cover.
10. Tighten nut of strain relief, securing the power cord. Confirm the Power cord is secure and cannot be pulled from the strain relief.
11. Re-attach the conduit box cover and secure with the screws.

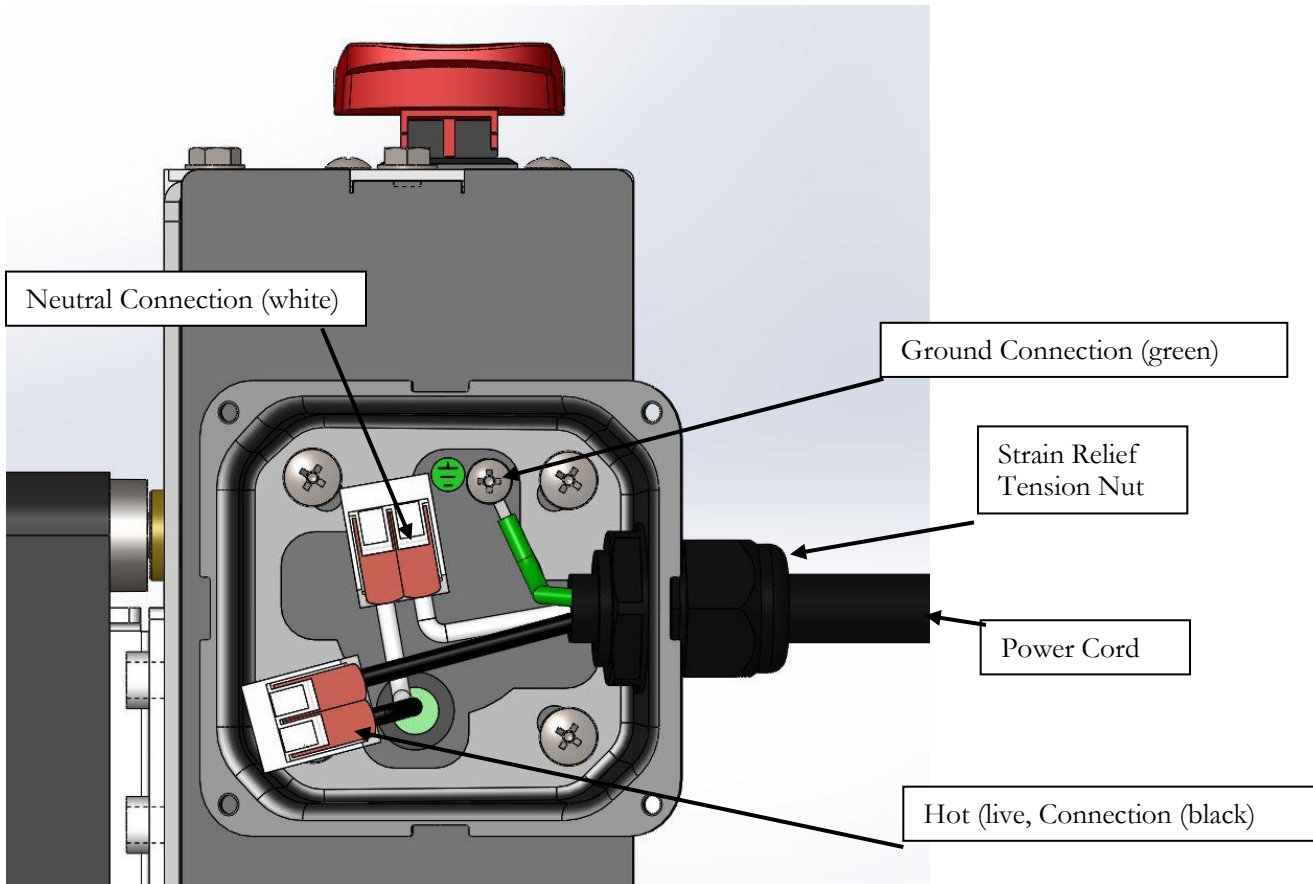


Hot (black) terminal clamp connection with orange clamp

Neutral (white) terminal clamp connection with orange clamp

Ground Connection (green)

**Connecting Power Cord**



Neutral Connection (white)

Ground Connection (green)

Strain Relief Tension Nut

Power Cord

Hot (live, Connection (black)

**Power Cord Connected**



Do not use a GFCI receptacle with this machine, as the VFD will not work.



## Height Adjustment

The brush/drum height is controlled by the height adjustment handle (Fig.5). Turning the handle raises or lowers the sanding head. One revolution of the handle raises or lowers the table 1/16 of an inch.

Before operating height adjustment, be sure the packing-block is removed. It is located under the outboard end of the carriage arm (Fig. 3). Raise drum/brush to remove.

## Brush Alignment

The brush must be parallel to the conveyor bed surface. Brush alignment can be visually checked by raising the tension rollers (Fig. 6) to their highest position (See Tension Roller Adjustment page 9) and lowering the head so the brush just contacts the conveyor surface. Brush contact should be equal across the width of the conveyor. Brush misalignment can be corrected by loosening the four cap screws on the outboard edge of the conveyor and turning the 7/16" adjustment nut to bring the conveyor parallel to the brush or drum. See Fig. 7

## Drum Alignment

Check alignment when using sanding drum. After installing sanding drum, remove abrasive from drum. Using a flat piece of wood or aluminum as a thickness gauge, insert it between the conveyor belt and the drum on the right (inboard) side of the machine (Fig. 5). Lower the sanding head so the drum just contacts the thickness gauge. Then, holding up the front tension roller, check both sides of the drum using the thickness gauge. If the drum is not parallel, loosen the four socket head cap screws (along the outboard edge of the conveyor) and raise or lower the conveyor with the 7/16" adjustment nut to achieve parallel alignment. Tighten the four socket head cap screws.

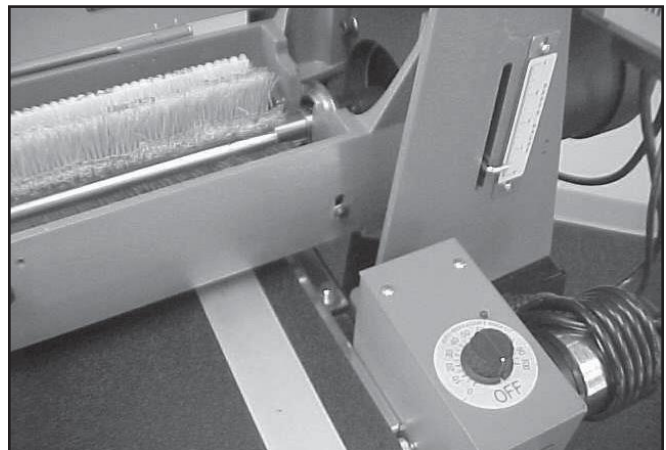




Fig. 6A Checking brush alignment (inboard side).

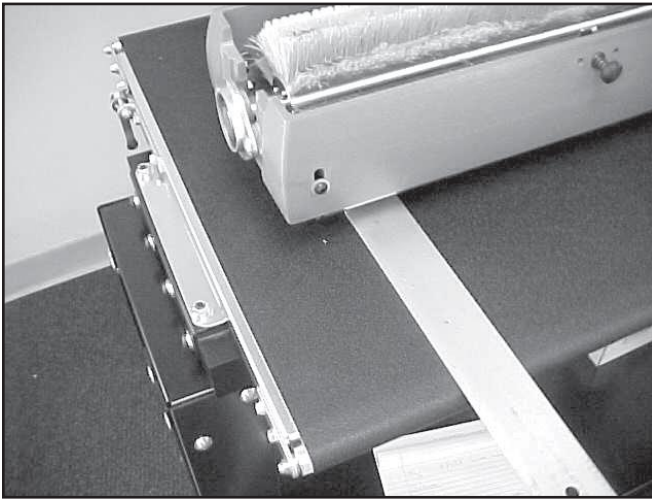


Fig. 6 Checking brush alignment and table height adjustment (outboard side).

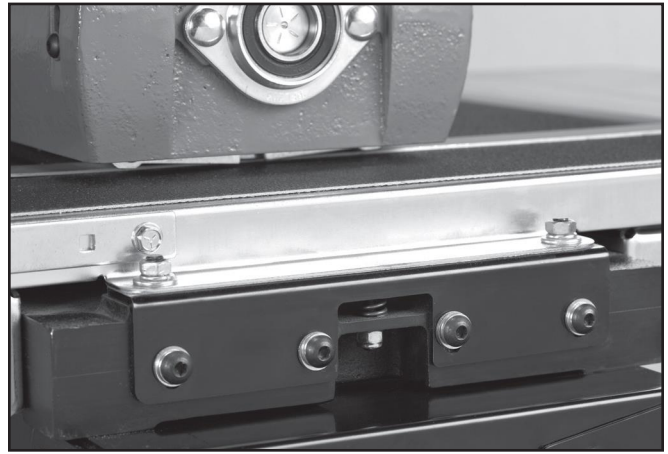


Fig. 7 Adjusting brush alignment.

**IMPORTANT!** When using the sanding drum accessory, adjust RPM Gauge to “drum sanding” highest setting, turned fully clockwise. Only use drum sander at this setting!

## RPM readout

The RPM readout (Fig. 8) displays the brush speed or rotation. The label under the control knob is a guide.

**IMPORTANT: The brush heads are to be run between 200-1000 RPM only! The sanding drum is to be run at max (1750) RPM only!** Damage to the machine, brush or drum can result from not following this guide. Choose proper brush RPM for the best results and type of brush.

## Checking Conveyor Belt Tracking

Conveyor belt tracking adjustments may occasionally be necessary during break-in and normal operation to compensate for belt stretching. If adjustments are necessary, follow the instructions below: Belt tracking adjustments are made while the conveyor belt is running. With the conveyor unit on and set at the fastest speed setting, watch for a tendency of the conveyor belt to drift to one side of the conveyor. To adjust the belt tracking, tighten the take-up screw nut (Fig. 9) on the side the belt is drifting toward, and loosen the take-up screw nut on the opposite

side. Adjusting the take-up screw nuts on both sides of the conveyor allows belt tracking adjustments to be made without affecting belt tension. Adjust the takeup screw nuts only 1/4 turn at a time. Then allow time for the belt to react to the adjustments before proceeding further. Try to avoid over-adjustments. NOTE: Make sure wrench is below surface when brushing or sanding.



Fig. 8 Brush/Drum RPM gauge & adjustment.



Fig. 9 Hanging wrench 1 of 2, for tracking conveyor



# Operating

Before using your Brush, review the previous pages in this manual on initial set-up and adjustment. In this section, you will learn how to operate the machine. Note that connecting the machine to an adequate dust collection system is necessary before operating the unit.

The Brush offers considerable control and versatility through variable brush speed and feed rate. Experiment with both to find the proper sander performance for a given application. Varying the brush speed makes the brush more or less aggressive. Too aggressive on the brush may tend to raise the grain or excessively round edges. Sometimes it may be better to make two or more passes with a less aggressive brush or setting.

The brush is rotating against the direction of feed; therefore, the leading edges of contours will receive more sanding than trailing edges. Stock should be reversed on subsequent passes to sand all surfaces. Stock may also be fed at an angle to allow more brush penetration on the sides.

## Basic Operating Procedures

After you have connected the machine to a dust collection system, you are ready to begin to use the Brush. The basic operating procedure for the Brush is as follows (Fig. 10):

1. Set depth of cut/bristle contact (page 10).
2. Set tension rollers to type of stock being sanded (See Tension Roller Adjustment below and Fig. 11).



Fig. 10 Operating controls.

3. Start sanding brush and select slow brush speed (page 8).
4. Start conveyor and select feed rate (page 10)
5. Start dust collector system.
6. Feed stock through unit.
7. Gradually increase brush speed (RPM) until the desired finish is achieved (Fig. 8).

To feed stock through the SuperBrush, rest and hold the stock to be sanded on the conveyor table, allowing the conveyor belt to carry the stock into the brush. Once the stock is halfway through, reposition yourself to the outfeed side of the machine to receive and control the stock as it exits the unit.

## Tension Roller Adjustment

Spring loaded infeed and outfeed Tension Rollers (Fig. 11 & page 26) are provided to maintain downward pressure on stock being sanded and to prevent slippage of the stock on the conveyor. When properly set, the Tension Rollers should engage or raise up about 1/8" to accommodate the stock being brushed.

The Tension Rollers can and must be adjusted to accommodate flat surfaced stock vs highly contoured surface stock. Tension Roller height is adjusted as follows: Note: Make sure brush head is appropriate for application and contact.

## Tension Roller Pressure

The tension roller pressure is factory set for most applications. However, the pressure of each roller can be adjusted. Caution, too little pressure can result in slippage of stock on conveyor belt or kick-back. Too much tension can cause snipe when drum sanding or not enough lift when sanding profiled material. To increase tension, turn the tension adjusting screw clockwise 1/4 revolution at a time. To decrease tension, turn the adjusting screw counterclockwise 1/4 revolution at a time. See fig (11).

## Tension Roller Pressure

The tension rollers are factory set for the most versatile use and longest minimum length, approximately 4-1/2" for most applications. The rollers can be adjusted closer to the sanding drum when sanding

short, flat stock only. To adjust, remove the four tension adjusting screws, keeping track of screw penetration into retaining nut. Slide rollers in toward drum using retaining nut closest to drum. Reinstall four adjusting screws with the same tension or penetration into retaining nut. See page 26.

**Flat Surfaced Stock:** Loosen the four socket head screws holding the tension roller brackets. Place stock under brush. Lower brush to proper bristle penetration. Raise brush two-to-three revolutions. Tighten the four socket head screws. Remove stock, lower brush head to previous setting when adjusting and brush material.

**Bristle Contact:** Proper bristle penetration is critical for the best finish and longest brush life. Flatter brushes should be set to penetrate between 1/8 to 1/4" into the deepest part of the profile being sanded. Nylon brushes should be set to penetrate approximately 1/16" into the deepest part of the profile being sanded. Wire brushes should be set to penetrate 1/32 to 1/16" into the material being brushed.

## Selecting Brush Stock Feed Rates

Selecting the proper feed rate is essential to proper Brushing and sanding. Feed rate controls the duration or "dwell time" of brushing on the contact area. A slower feed rate allows more brushing to occur. In some instances, a slow feed rate and slow brush speed may produce the same result as a fast feed rate and fast brush speed. The variable feed rate control of the conveyor belt adjusts the load on the machine; it can be infinitely adjusted for maximum operating

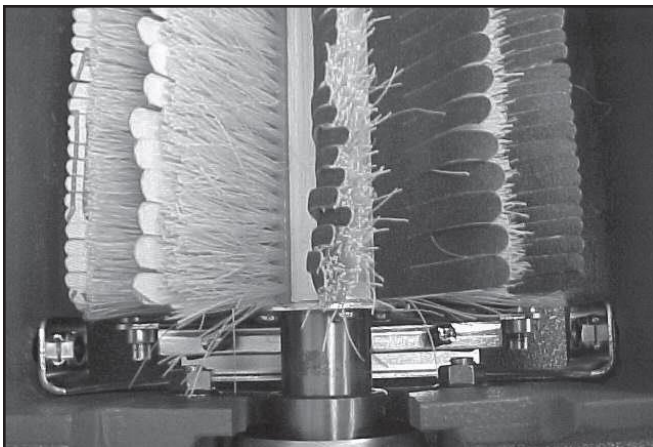


Fig. 11 Tension rollers and adjustment bracket

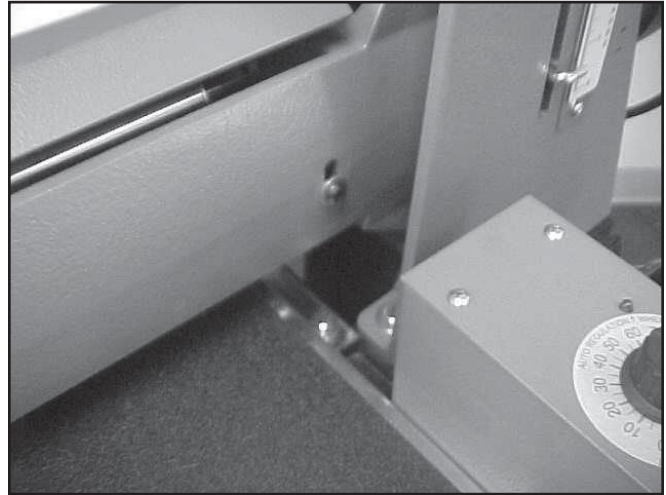


Fig. 11A Tension roller height and depth gauge adjustment

performance. A faster feed rate allows faster brushing but fewer revolutions of the brush per inch of sanding. A slower feed rate provides more revolutions of the brush per inch of sanding (Fig. 10).

The best feed rate will depend on several factors, including type of stock, brush, depth of cut used, and whether the stock is fed directly in line with the conveyor bed or at an angle. When testing feed rates, begin with a mid-range (50%) setting and adjust faster or slower depending on conditions and performance.

## Drum Sanding Feed Rates

Selecting the proper feed rate is essential to proper finish sanding. For finish sanding the best finish is usually achieved with a slow to moderate feed rate, after the proper depth of cut has been determined. This allows for the most revolutions of the drum per inch of sanding. When abrasive planning, faster feed rates can be used as long as the machine is not overstressed. Please note, angling stock as it is sanded will allow the most effective stock removal and least loading of the abrasives. Feeding stock straight through yields the widest sanding capacity and least noticeable scratch pattern.

Please note; when drum sanding with RPM adjusted to fastest speed, INTELLISAND will automatically adjust the conveyor feed rate if an excess load is detected. This prevents excessive gouging, reduces the risk of burning and it protects the machine from overload or stalling. The red light by the adjustment

knob will come on when INTELLISAND is operating. (Fig. 11 a) When the load is decreased, INTELLISAND will automatically increase the feed rate to the pre-selected speed. INTELLISAND **does not** engage when brush sanding or if drum sanding at a slower RPM than recommended.

## Setting Brush Depth of Cut/Contact

When a nylon or wire brush is worn and needs changing, the bristles will either have fractured and the brush head looks “bald” or the bristle length has worn and the bristles are too short for effective brushing.

When an abrasive or cloth brush is worn, the brushing material will become smooth, or the brush will be considerably smaller in diameter as compared to new. Please call SuperMax Tools if you have any questions. Brush life can vary considerably, due to RPM, contact, type of brush, and material being brushed.

Some types of brush heads, some flatter brushes, for example, will allow changing of the brush material by the operator.

When using a wire brush for “distressing” wood, slowing brush RPM, using light contact and a moderate feed rate generally will give the best finish and longest brush life. When using a wire brush on metal, it is important to use a light contact of the bristle tips. **Nylon Brushes.** If a nylon brush becomes uneven dressing the tips of bristle brush to maintain uniform brush wear will be a benefit.

### Dressing Instructions:

Staple or glue a wide sheet of 60 grit sandpaper to a 1/2” thick flat wood surface. Strips of narrow sandpaper can also be used. Lower the brush so the tips of the bristles contact the sandpaper by 1/32”. Set the conveyor speed to approximately 50% feed rate. Pass the abrasive loaded board through the machine until the brush fibers are sharp and even.

## Setting Drum Depth of Cut

**Determining the depth of cut is the most IMPORTANT set-up procedure before operating as a drum sander.** It may take some experimentation to determine the proper depth of cut, given the variables

of abrasive grit, type of wood, and conveyor feed rate. Practicing on scrap before sanding a project can be beneficial.

A good rule-of-thumb when sanding is to place the workpiece under the drum and lower the sanding head until the workpiece contacts the drum, but the drum can still be rotated by hand. When making successive passes, lower the sanding head no more than the thickness of the grit abrasive, I.e., 1/8-1/16 of a turn for 80 grit and less for finer grits. **Note:** one revolution of the height adjustment handle moves the sanding head approximately 1/16”.

## Depth Gauge Operation

The depth gauge (see Fig. 5) measures the distance between the conveyor table and the bottom of the sanding brush or drum. The sanding head must be parallel to the conveyor bed surface. To calibrate the depth gauge, loosen the two screws holding the scale. Lower the brush or sanding head (with abrasive installed) until the head touches the conveyor belt. Slide the scale to align with the pointer at the “0” mark. Tighten the two screws holding the scale. An optional DRO (digital read out) for depth is available. Fig. 12. This offers the most precise reading of sanded thickness and allows for accurate repeatability of a thickness. Great when making parts that must be an exact thickness or when matching a thickness.

To operate, turn ON and select standard inch “in” or metric millimeter “mm”. Lower drum, with abrasive installed, until it touches the conveyor belt. Press “zero” button to calibrate.



Fig. 12 Optional DRO



## Changing & Installing Brush & Drum Heads

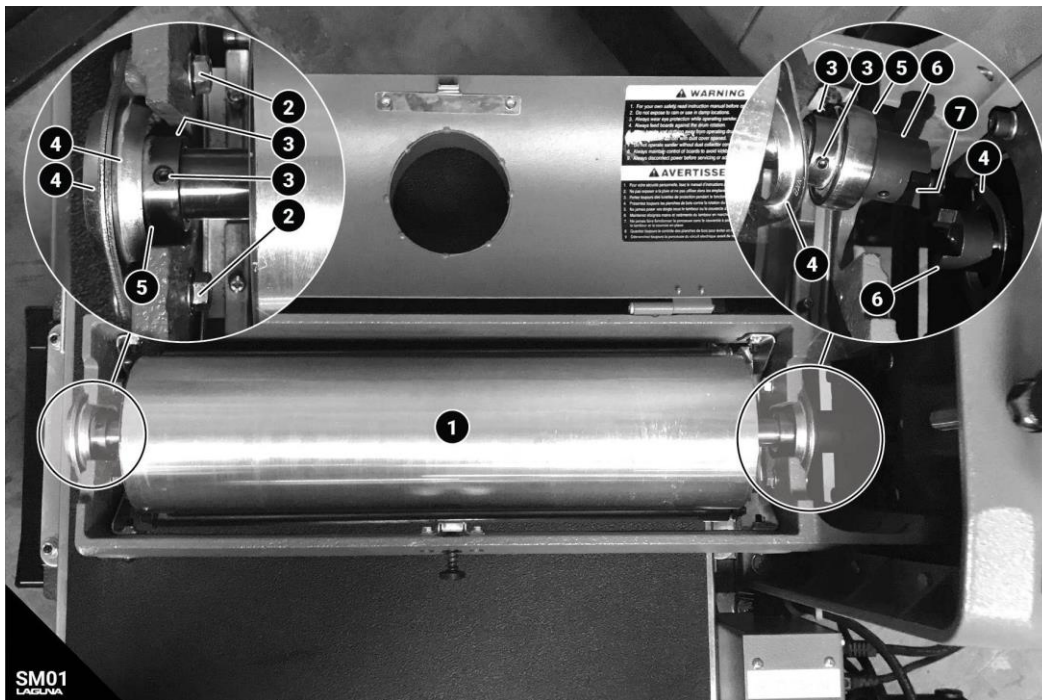


**Unplug machine from power prior to proceeding!**

**NOTICE!** Make sure to follow instructions about set screws. Failures to remove a set screw can damage the machine.

**NOTICE!** USE CAUTION TO NOT DROP THE ALUMINUM DRUM OR BRUSH HEAD DURING THIS PROCESS. Always place head in secure location when not installed.

**NOTICE!** Never store brush heads on the brushing, stand the brush-head up in a vertical positions to prevent dings, damage or flat spots.



**Fig. SM01: Drum Head Assembly Installation/Removal. #'s (1) Drum Head. (2) Mounting Bolts/Nuts. (3) Bearing to Shaft Set Screws. (4) Bearing Seat. (5) Bearing. (6) Coupling 1/2. (7) Spider.**

The drum can be interchanged between the different heads offered for the 19|38 combination machine. The drum and brush heads interchange easily by removing the bolts and seating the spider coupling properly. Take time to learn these instructions prior to attempting a head change.

**NOTICE!** Pay particular attention to the set screws and the removed drum or head. Make sure to release set screws prior to removal and to tighten them only when instructed to. Make sure to place the removed drum head in a location where it cannot fall or become damaged.

**NOTICE!** This help section is only intended for the 19|38 combination drum/brush sanding machine (SKU: SUPMX-71938). The standard 19|38 (SKU: SUPMX-71938- D) is only compatible with the sanding drum head included with purchase.

## Removing (Head)

**Tools Needed:** Size 14MM Wrench. Allen Wrenches

1. Make sure Sander is disconnected from power and cannot be turned on.
2. Use a 14mm wrench to remove the four (#2) mounting bolts/nuts from the left and right side. **SEE STEP 3 PRIOR TO REMOVAL.**
3. Remove all four (#3) Bearing to Shaft Set Screws with an Allen wrench. The four (#4) Bearing seats should now be loose enough to remove the drum head.
4. Remove the (#1) Drum head assembly by tilting the drum head upright from the left side. Pull the drum head away carefully not to bump metal parts.

## Installing (Head)

**Tools Needed:** Size 14MM Wrench. Allen Wrenches. WD40 or other Lubricant



1. Make sure machine is disconnected from power and cannot be turned on.
2. Check the (#6) coupling that is connected to the motor shaft. The motor shaft should be flush with the inner face of the coupling. If not, adjust it by loosening the (not shown) two set screws on the coupling, position it flush, and tighten the set screws back in place.
3. Check the (#6) coupling that is connected to the drum/brush shaft. The drum/brush shaft should be flush with the inner face of the coupling. If not, adjust it by loosening the (not shown) two set screws on the coupling, position it flush, and tighten the set screws back in place.
4. Remove all four (#3) Bearing to Shaft Set Screws with an Allen wrench. **DO NOT** remove the set screws on the coupling unless they need to be adjusted (preceding steps). This will allow the bearings to move left to right on the shaft, giving clearance to position the (#6) couplings and (#7) rubber spider together.
5. **IMPORTANT.** Place one of the (#4) bearing seats behind the motor shaft coupling and motor shaft as shown in figure SM01. Make sure each bearing seat is installed after each bearing on the shaft.
6. Reference the top right of figure SM01. Place the (#7) spider in the drum/brush coupling.
7. With the couplings position as shown in figure SM01, install the drum head by tilting the left side and aligning the couplings such that the brush/drum couplings sits inside the motor shaft coupling.  
**NOTICE: WD40 can prevent damage to the spider and make the installation easier.**
8. Use moderate force as shown in figure SM02 to seat the couplings together. Lower the (#1) drum head into the left casting slot.
9. Now that the spider coupling is in place, set the position by fastening the four (#2) mounting bolts/nuts with a 14mm wrench. The order is: bolt, bearing seat, bearing, bearing seat, cast iron, nut - as shown in figure SM01. **NOTICE:** Make sure the four (#3) bearing to shaft set screws are removed while fastening the four (#2) mounting bolts/nuts. The mounting bolts will position the shaft correctly as long as steps 1 and 2 were performed.
10. Tighten down the four (#3) bearing to shaft set screws and confirm all bolts are tight.

## Monthly Maintenance

For best results, perform the following recommended maintenance procedures on a monthly basis:

- Lubricate conveyor bushings and check for wear.
- Lubricate all moving parts, such as threaded rods and washers
- Clean dust from the conveyor belt.
- Blow dust from the motors.
- Check all set screws for tightness.
- Clean brush or drum and abrasives, if applicable.



Fig. 13 Offset stock feeding angle.

## Tips For Maximum Performance

The versatility designed into the 19-38 Combo allows it to be used for a wide-ranging variety of tasks that will boost the return on your investment. Learning to use its multiple adjustments and controls will allow you to fine-tune the machine for maximum results, regardless of the job to be done. The best results come from experimenting with different machine adjustments to fit the job at hand. Following is a listing of useful tips which can help you improve performance of your brush sander.

## TIPS

**Dust Collection.** When connecting dust collectors, remember that straight pipe will not restrict airflow as much as flexible tubing. Also, Ys and elbows will restrict airflow less than Ts.

**Brushing Multiple Pieces At Once.** When brushing multiple pieces simultaneously, make sure to stagger (step) the pieces across the width of the conveyor belt. This provides better contact with the tension rollers. Try to only process multiple pieces of similar thickness. If there is a significant thickness difference, the thinner pieces can slip on the conveyor belt if they do not contact the tension rollers. When brushing high stock, special care is needed to prevent tipping.

**Brushing Imperfect Stock.** To avoid personal injury, take special care when sanding/brushing stock that is twisted, bowed, or otherwise varies in thickness from end to end. If possible, support such stock as it is being brushed to keep it from slipping or tipping. Use extra roller stands, help from another person, or hand pressure on the stock, to minimize potentially hazardous situations.

**Stock Feeding Angle.** Some pieces, because of their dimensions, will need to be fed into the machine at a 90° angle (perpendicular to the brush). However, even a slight offset angle of the stock can provide for more effective sanding/brushing on some stock (Fig. 13).

**Keeping the Machine Clean.** For best results, make cleaning the machine a regular shop procedure. Allowing excess build-up of dust and debris can adversely affect performance, slippage on the conveyor belt, and/or the accumulation of material on the brush which can throw off the center of balance. Leave the dust collector on when cleaning dust from the drum or brush. Also sweep the conveyor belt after cleaning operations. If not cleaned, the conveyor belt could allow stock to slip during operation.



**Do Not Re-wire machine to 220 volt.**



## Changing Flatter Strips

19-38 Combo Flatter abrasive strip changing

Unplug sander.

Loosen two set screws from outboard (left) brush support bearing.

Remove two 3/8" carriage bolts from outboard brush support bearing.

Remove outboard bearing from shaft of brush.

Remove four screws from end-caps of outboard side of brush head.

Remove two end caps.

Pull strips of abrasive from outboard side of brush head. Remove one strip at-a-time.

Replace strips by sliding them into brush head. Abrasive side must face "up" on infeed or front of brush head.

Note: Abrasive side of strips must be oriented so abrasive side contacts top of stock as it passes through sander.

Replace end caps of brush head and install four screws.

Reinstall bearing and tighten the two 3/8" carriage bolts.

Tighten the two set screws, in the bearing, to the brush shaft.

Close dust cover.

Plug in sander.

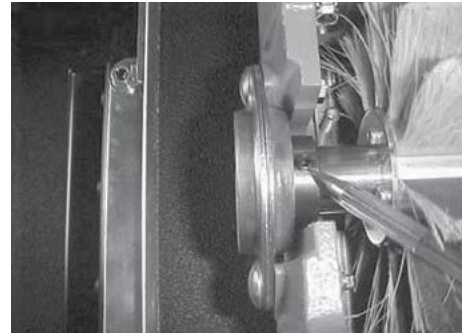


Fig. 14A

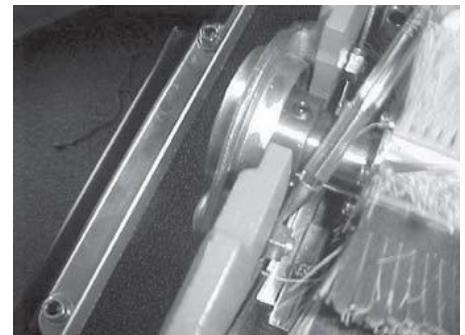


Fig. 14B

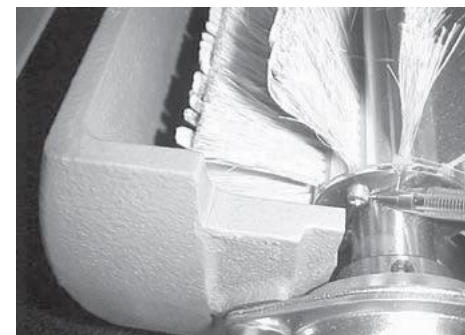


Fig. 14C



Fig. 14D

# Abrasive Selection Guide

## Grit Common Application

<b>24 Grit</b>	Abrasive planing, surfacing rough-sawn boards, maximum stock removal, glue removal.
<b>36 Grit</b>	Abrasive planing, surfacing rough-sawn boards, maximum stock removal, glue removal.
<b>50 Grit</b>	Surfacing and dimensioning boards, trueing warped boards.
<b>60 Grit</b>	Surfacing and dimensioning boards, trueing warped boards.
<b>80 Grit</b>	Light dimensioning, removal of planer ripples.
<b>100 Grit</b>	Light surfacing, removal of planer ripples.
<b>120 Grit</b>	Light surfacing, minimal stock removal.
<b>150 Grit</b>	Finish sanding, minimal stock removal.
<b>180 Grit</b>	Finish sanding only, not for stock removal.
<b>220 Grit</b>	Finish sanding only, not for stock removal.

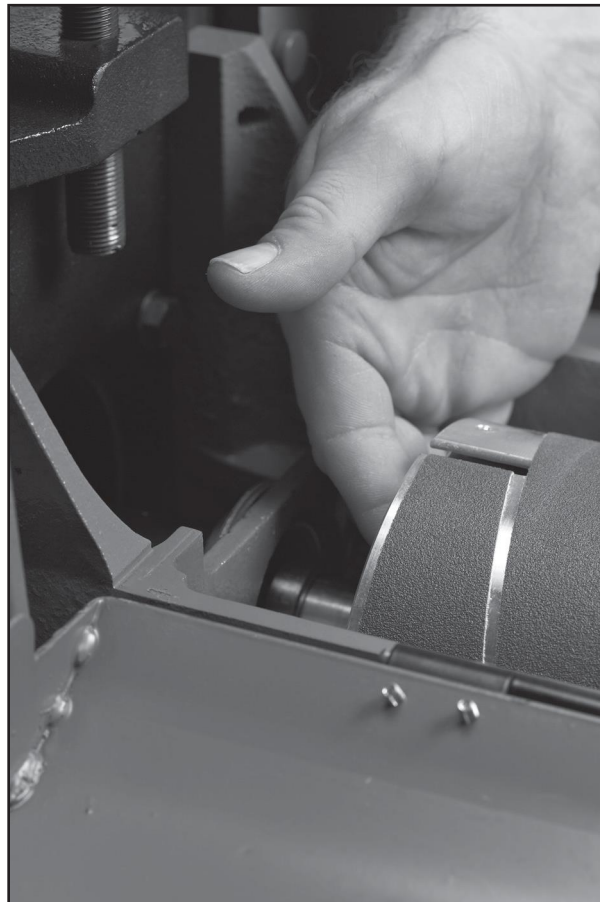


Fig. 15 Accessing inboard abrasive fastener

## Wrapping Abrasive Strips

**Note:** When using Pre-Marked™ or Pre-Cut™ abrasives, not all of the steps below are necessary.

Proper attachment of the abrasive strip to the drum is critical to achieving top performance from your SuperMax Tools drum sander. Abrasive strips do not have to be pre-measured. The end of the roll is first tapered and attached to the left (outboard) side of the drum. Then the strip is wrapped around the drum, and the second taper is made for attachment to the right (inboard) side of the drum. To attach a strip to the drum, follow the procedure below.

1. Mark and cut a taper at one end of the roll as shown in Fig. 16a. Because the tapered end should use most of the left (outboard) slot width, its end must be trimmed (Fig. 16B and 16C). Raise the clip lever on the left (outboard) side of the drum (Fig. 16D). Insert the tapered end through the slot and into the fastener so that it uses most of the width of the slot. Release the clip lever to securely hold the strip end in the fastener.
2. Wrap the strip around the drum, being careful not to overlap the windings. The tapered cut of the strip end should follow the edge of the drum. Continue to wrap the abrasive in a spiral fashion by rotating the drum with your left hand and guiding the strip with your right hand (Fig 16E). Successive windings of the strip should be flush with previous windings without any overlap.
3. Mark the trailing end of the strip where it crosses the right (inboard) end of the drum (Fig. 16F). From this point, cut a taper as was done with the starting edge of the strip. (The taper on the remaining roll can be used as the taper for the starting edge of the next strip to be cut.)
4. With the trailing edge of the strip properly cut, rewrap the drum and insert the tapered end through the slot in the right (inboard) end of the drum. Insert the tapered end into the inboard take-up fastener. Pull up on the clip lever to open the clip, and pull the take-up lever to the top as shown (Fig. 16G). After inserting the strip end, release the clip lever by moving your index finger toward the drum slot. This allows the clip to retain the abrasive while holding the take-up lever in an “up” position.
5. The take-up fastener is designed to automatically take up any slack caused by stretching of the abrasive strip. **Important: Position the abrasive strip in the slot with sufficient room between the inside of the slot and the tapered end of the strip to allow it to be pulled into the drum as needed (Fig. 16H).** Note that not leaving enough space between the strip and the inside of the slot will prevent the take-up fastener from operating properly.
6. The abrasive strip may stretch enough in use to allow the take-up lever to reach its lowest position so it no longer is able to maintain tension on the strip (Fig. 16I). If this occurs, it will be necessary to reset the take-up lever by raising it, pushing the strip end into the slot, and then releasing the clip lever.

**Note:** A sandpaper cleaning stick may be used to remove deposits and help extend sandpaper life. To use, operate the sanding drum with the dust cover open. (**Caution:** For your own safety, always wear eye protection while performing sandpaper cleaning, and take all precautions to avoid any contact of hands or clothing with uncovered drums.) Hold the cleaning stick against the rotating drum and move it along the drum surface. It is good procedure to use a shop brush to remove any cleaning stick crumbs from the drums before resuming sanding operations.

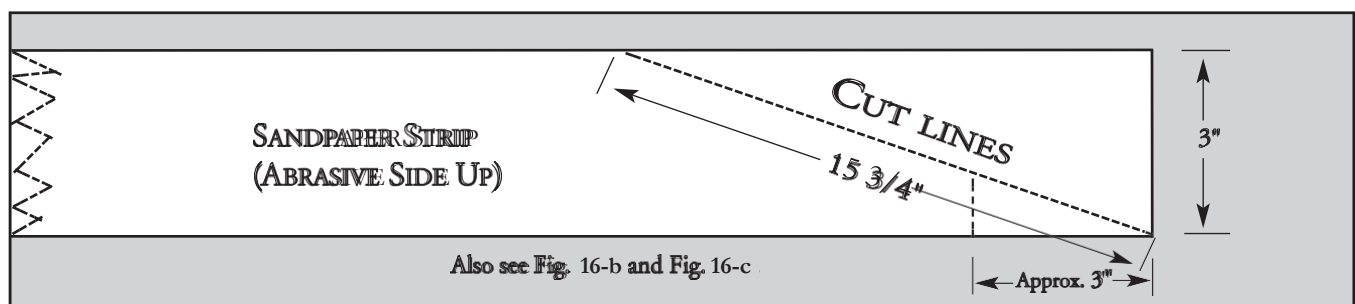


Fig. 16 Marking and cutting taper on strip.



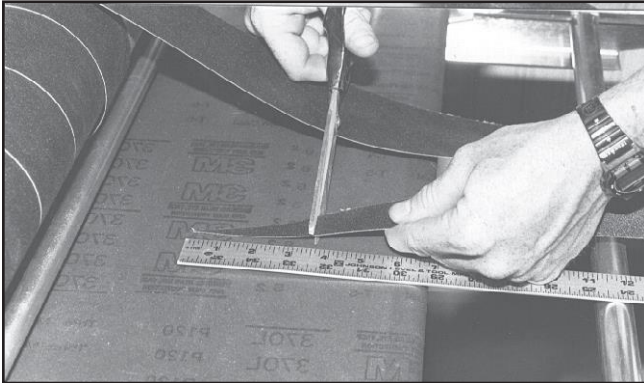


Fig. 16B Trim about 3" from end of cut taper.

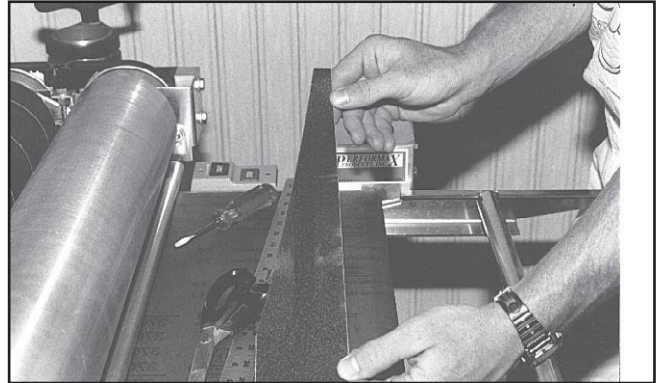


Fig. 16C Trimmed tapered end ready to install.

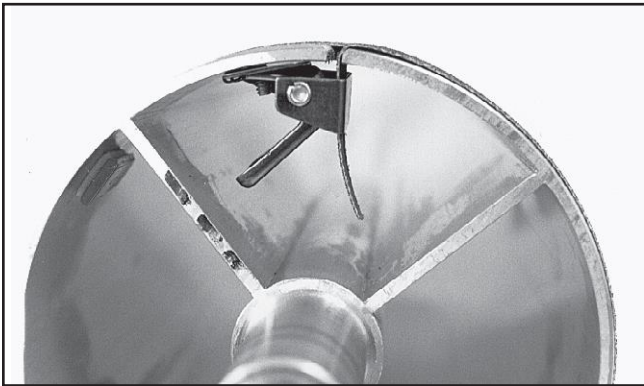


Fig. 16D Insert tapered end into outboard slot.

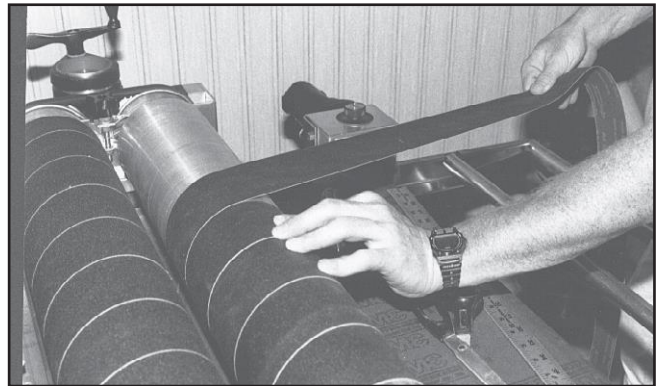


Fig. 16E Wrap strip around drum without overlap.

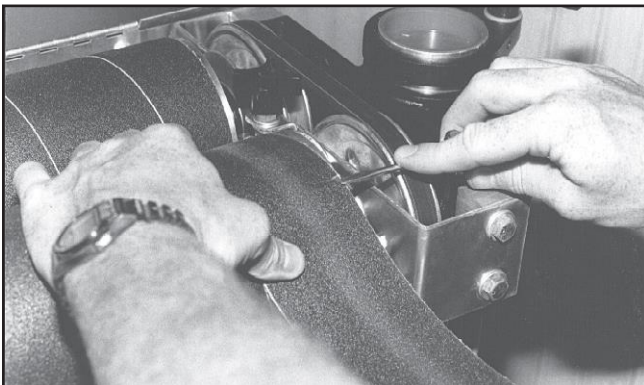


Fig. 16F Mark strip where it crosses drum edge.

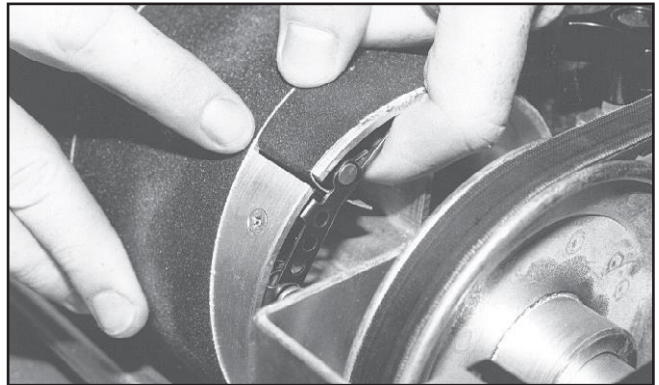


Fig. 16G Insert tapered end into inboard slot.

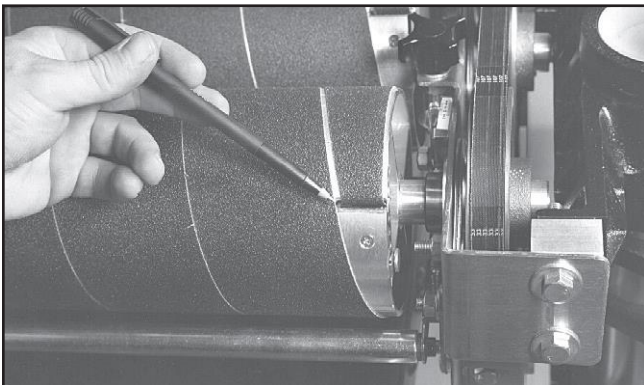


Fig. 16H Allow room inside slot for strip to move.

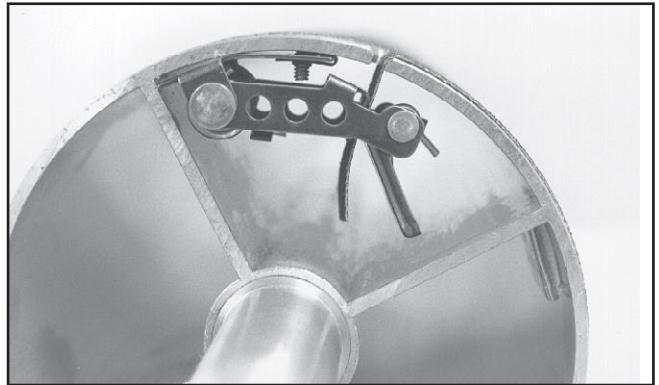


Fig. 16I Reset take-up as needed as strip stretches.

## Replacing Conveyor Belts

To replace the conveyor belt, the conveyor assembly must be removed from the machine. Raise the drum/brush carriage to its highest position using the height adjustment handle. Turn off power source to machine. Unplug main drive motor and inverter from receptacle (in gear motor assembly). Loosen the conveyor take-up screws (Fig. 9) to relieve belt tension and slide the driven roller fully inward. Remove the two bolts (inboard side) that attach the conveyor assembly to the base (see Fig. 11A & 17). Remove the two nuts and washers (outboard side) (Fig. 7 & 18). Lift the conveyor and remove it from the sander. Stand conveyor on motor side. Avoid tearing the belt on any edges underneath the conveyor bed during removal. Reverse the procedure for re-installation. Re-install the conveyor bed to sander.

**Conveyor Belt Tension:** To adjust the tension of the conveyor belt, first adjust the take-up screw nut (Fig. 9) on both sides of the conveyor to obtain approximately equal tension on both sides of the belt when taut. Insufficient belt tension will cause slippage of conveyor belt on the drive roller during sanding operation. The conveyor belt is too loose if it can be stopped by hand pressure applied directly to the top of the conveyor belt. Excessive belt tension can result in bent rollers, premature wearing of the bronze bushings or conveyor belt

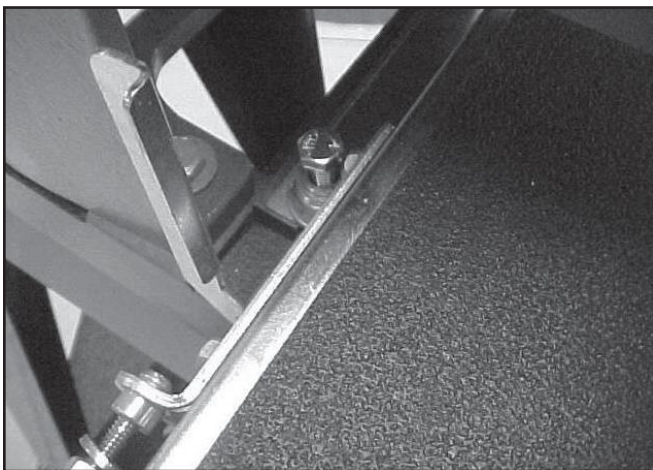


Fig. 17 Inboard conveyor attachment bolts.

**Conveyor Belt Tracking:** Belt tracking adjustments are made while the conveyor belt is running. After the proper belt tension is obtained (see above), turn the conveyor unit on and set it at the fastest speed setting. Watch for a tendency of the conveyor belt to drift to one side of the conveyor. To adjust the belt tracking, tighten the take-up screw nut (Fig. 9) on the side the belt is drifting toward, and loosen the take-up screw nut on the opposite side. Adjusting the take-up screw nuts on either side of the conveyor allows belt tracking adjustments to be made without affecting belt tension. Note: Adjust the take-up screw nuts only 1/4 turn at a time. Then allow time for the belt to react to the adjustments before proceeding further. Avoid over-adjustments.



Fig. 18

# Troubleshooting

Any operating problems with the SuperBrush will likely occur most often during the period that you are becoming familiar with its components and their adjustments. If you are experiencing a problem affecting the machine's brushing performance,

check the following listings for potential causes and solutions; it may also pay to review the previous sections in this manual on setting up and operating your machine.

## Troubleshooting Guide: Motors

PROBLEM	POSSIBLE CAUSE	SOLUTION
Motors do not start.	1. Main power cord unplugged from receptacle.	Plug in primary power cord.
	2. Brush motor cord unplugged from receptacle near power-feed motor.	Plug in brush motor and inverter cord at receptacle on machine if so equipped (Fig. 5).
	3. Circuit fuse blown or circuit breaker tripped.	Replace fuse or retrip breaker (after determining cause).
Brush motor overloads.	1. Inadequate circuit.	Check electrical requirements
	2. Machine overloaded.	Use slower feed rate; slower brush RPM; reduce depth of cut.
Conveyor motor oscillates.	1. Motor not properly aligned.	Loosen housing bolts, run motor, retighten bolts.
	2. Shaft collar or bushing worn.	Replace shaft collar or bushing
	3. Drive roller bent.	Replace drive roller
Brush motor or conveyor gear motor stalls.	1. Excessive depth of cut.	Reduce depth of cut; decrease brush speed; reduce feed rate.



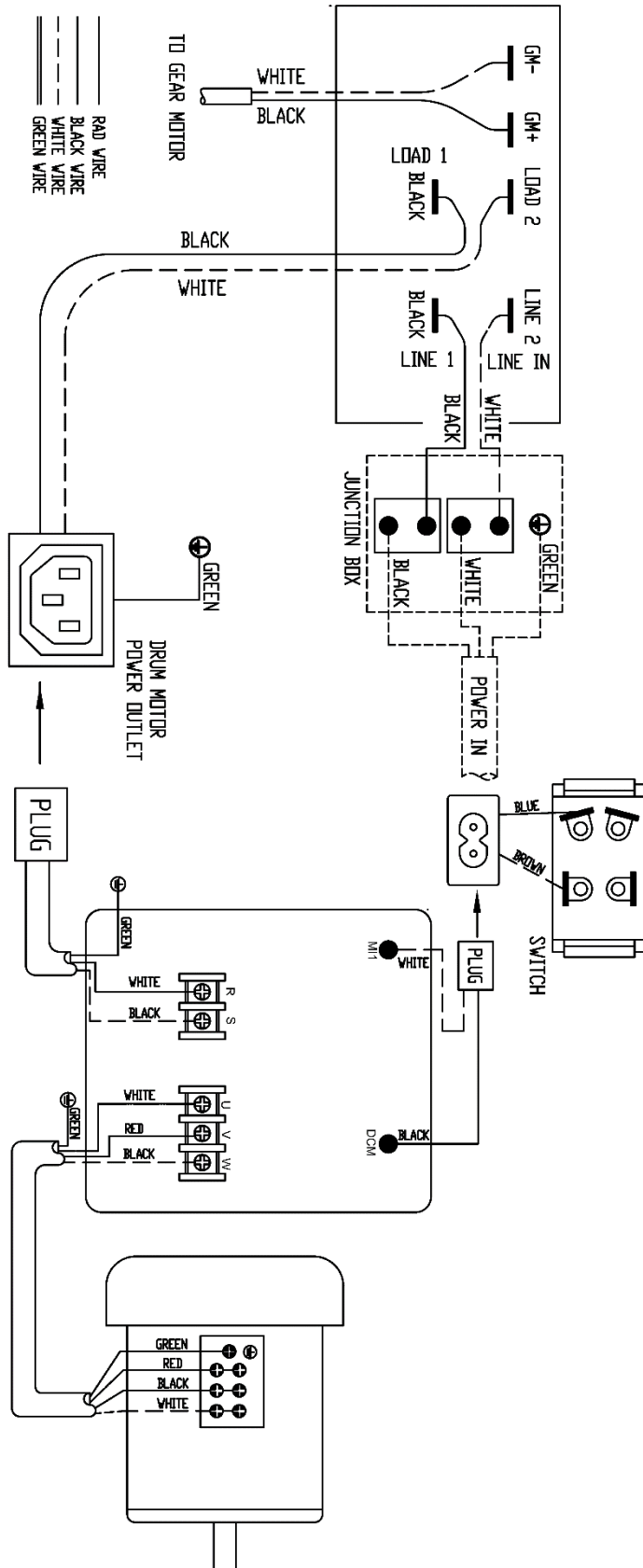
## Troubleshooting Guide: Conveyor

PROBLEM	POSSIBLE CAUSE	SOLUTION
Conveyor rollers run intermittently.	1. Shaft coupling loose.	Align shaft flats of gear motor and drive roller; tighten shaft coupling set screws.
Conveyor belt slips on drive roller.	1. Improper conveyor belt tension. 2. Excessive depth of cut.	Adjust belt tension (page 8). Reduce depth of cut; reduce feed rate.
Stock slips on conveyor belt.	1. Excessive depth of cut. 2. Tension rollers too high. 3. Excessive feed rate. 4. Dirty or worn conveyor belt.	Reduce depth of cut. Lower tension rollers (page 9). Reduce feed rate. Clean or replace conveyor belt.
Conveyor belt tracks to one side, or oscillates from side to side.	1. Belt out of adjustment. 2. Drive or driven conveyor belt rollers misaligned. 3. Conveyor table not flat and square. 4. Conveyor belt worn. 5. Drive roller worn or damaged. 6. Roller bushings elongated due to excessive wear.	Readjust belt; (page 8). Readjust Readjust by leveling machine Replace conveyor belt (page 19). Replace drive roller. Replace bushings.



## Troubleshooting Guide: Machine

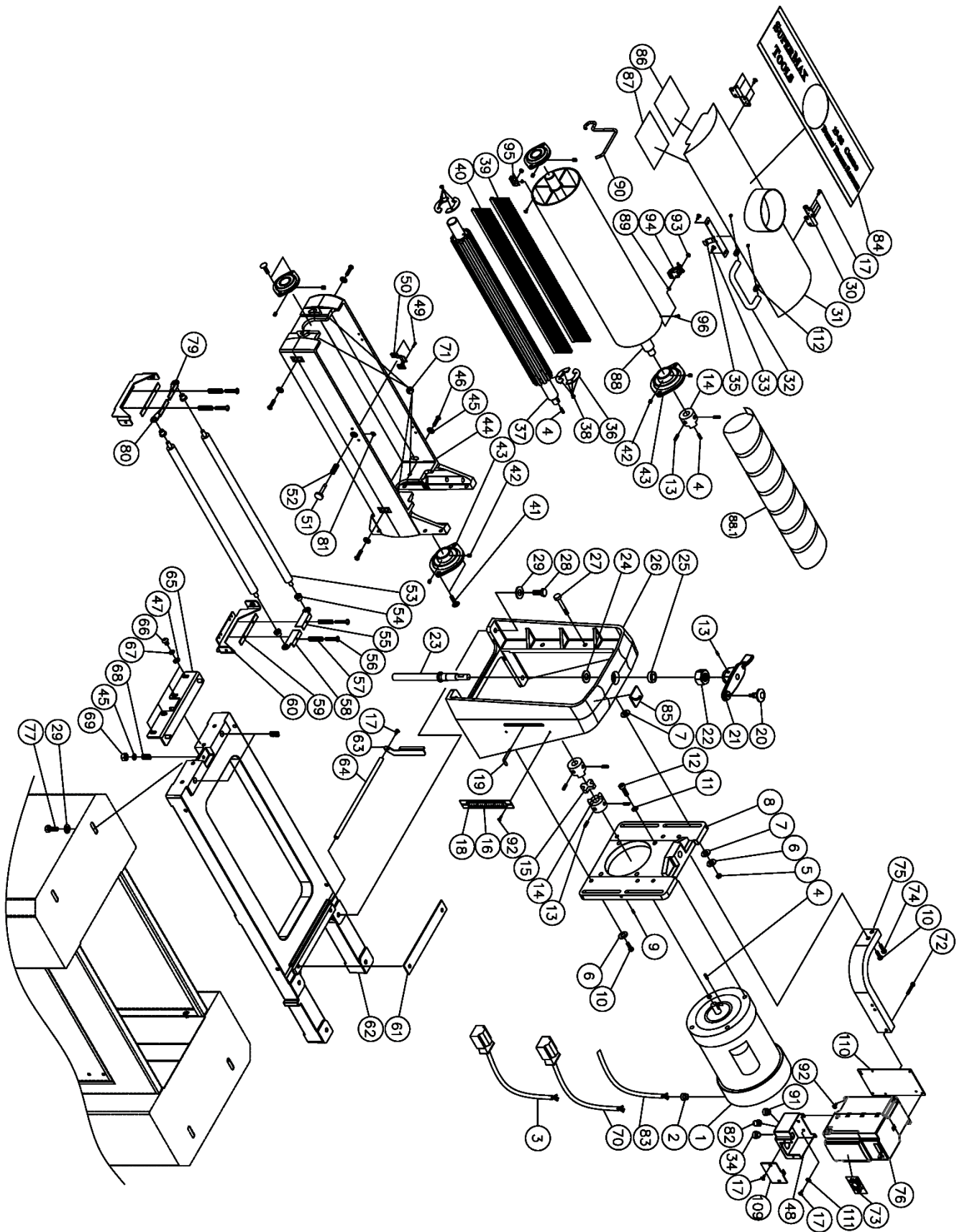
PROBLEM	POSSIBLE CAUSE	SOLUTION
Brush height adjustment works improperly.	1. Improper adjustment of height control.	Readjust height control
Knocking sound while running.	1. Bearing worn.	Replace bearing
Sniping of wood (gouging near end of board).	1. Inadequate support of stock.	Use roller stands to support stock.
	2. Conveyor drive or driven rollers higher than conveyor bed.	Readjust rollers
Burning of wood. or melting of finish	1. Feed rate too slow.	Increase feed rate.
	2. Excessive depth of cut	Reduce depth of cut, decrease brush RPM.
Gouging of wood.	1. Conveyor belt is too loose.	Adjust belt tension.
	2. Excessive depth of cut.	Reduce depth of cut, decrease brush RPM.
	3. Wood slipping on conveyor due to lack of contact.	Use alternate feeding procedure



## Part List: Drum Head Assembly

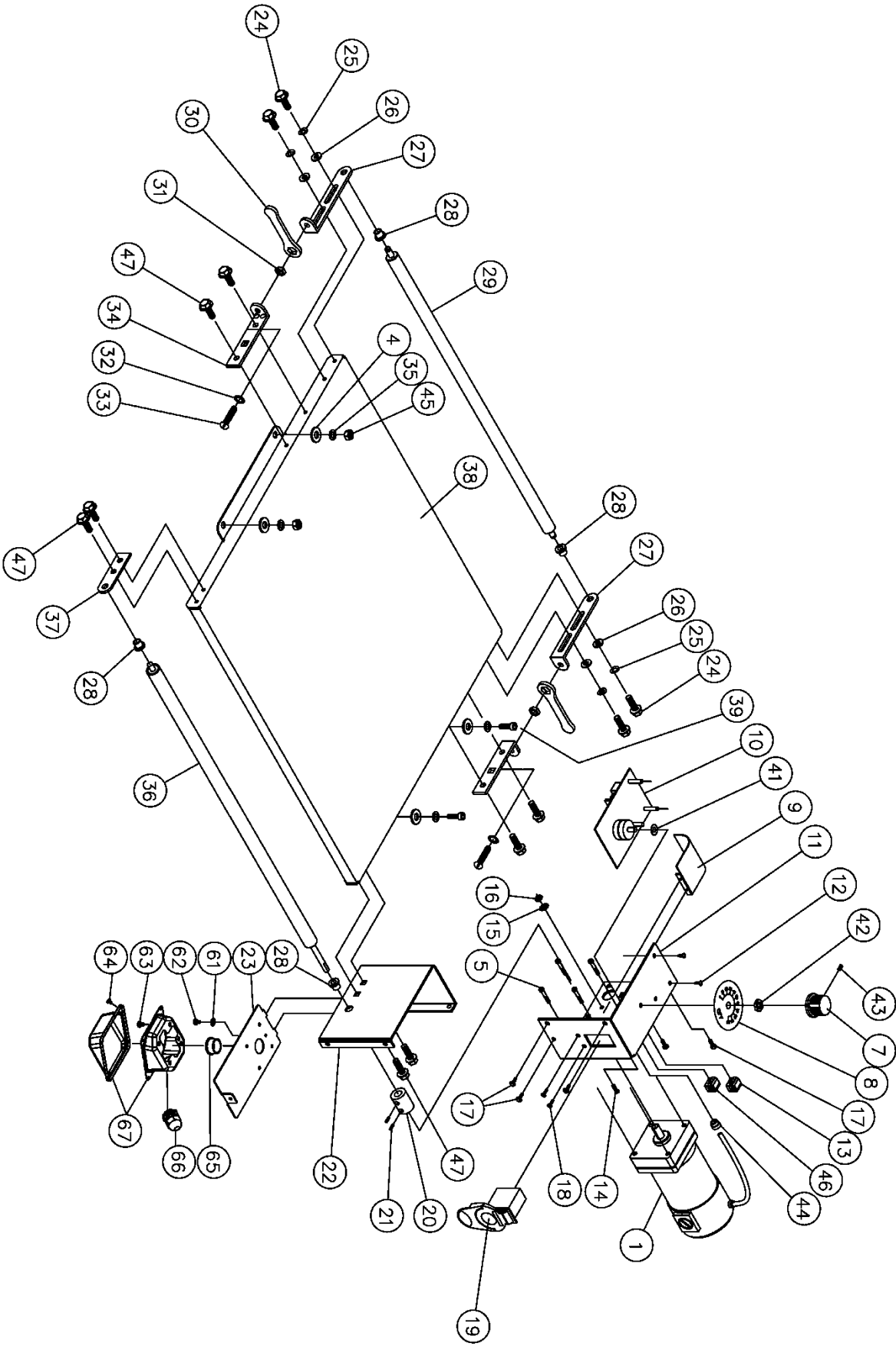
Index No.	Part No.	Description	Size	Qty.
1	480BS-101	Motor		1
	480BS-101MF	Motor Fan (not shown)		1
	480BS-101MFC	Motor Fan Cover (not shown)		1
	480BS-101JB	Junction Box (not shown)		1
	480BS-101JBC	Junction Box Cover (not shown)		1
2	480BS-102	Strain Relief, motor	6N3-4	1
3	480BS-103	Main Cord, Inverter to Control Box		1
4	480BS-104	Key	3/16"SQx3/4"	3
5	480BS-105	Nylon Insert Lock Nut	5/16"-24UNF	4
6	480BS-106	Flat Washer	5/16"	9
7	480BS-107	Oilite Washer		8
8	480BS-108	Motor Plate		1
9	480BS-109	Set Screw	#8-32x1/4"	1
10	480BS-110	Hex Cap Screw	5/16"-18x1-1/4"	6
11	480BS-111	Lock Washer	3/8"	4
12	480BS-112	Socket Head Cap Screw	3/8"-16x1-1/2"	4
13	480BS-113	Set Screw	1/4"-20x1/4"	7
14	480BS-114	Coupling		3
15	480BS-115	Coupling Spider		1
16	480BS-116	Height Plate, Depth Gauge		1
17	480BS-117	Screw	M4x0.7x6	13
18	480BS-118	Label, Depth Gauge (inch)		1
19	480BS-119	Depth Gauge Pointer		1
20	480BS-120	Knob		1
21	480BS-121	Height Adjustment Handle		1
22	480BS-122	Nylon Insert Lock Nut	5/8"-11	1
23	480BS-123	Height Adjustment Screw		1
24	71632-124	Washer, Wave	D17	1
25	480BS-125	Thrust Bearing	51103	1
26	480BS-126	Shroud		1
27	480BS-127	Stud		4
28	480BS-128	Hex Cap Screw	3/8"-16x1-1/4"	4
29	480BS-129	Flat Washer	3/8"	8
30	480BS-130	Hinge		2
31	480BS-131	Dust Cover		1
32	480BS-132	Handle		1
33	480BS-133	Pan Head Machine Screw	#8x1/2"	2
34	480BS-134	Strain Relief, inverter	7N-2	2
35	480BS-135	Dust Cover Latch		1
36	480BS-136	End Cover		4
37	480BS-137	Flatter Head		1
38	480BS-138	Screw	M4x0.7x6	8
39	480BS-139	180 Grit Abrasive Strip	7mm Wide	6
40	480BS-140	180 Grit Abrasive Strip	4mm Wide	6
41	480BS-141	Carriage Bolt	M8x1.25x30	4
42	480BS-142	Set Screw	1/4"-28UNFx1/4"	8
43	480BS-143	Bearing Set		4
44	480BS-144	Drum Carriage		1
45	480BS-145	Flat Washer	1/4"	5
46	480BS-146	Round Socket Head Cap Screw	1/4"-20x1"	4
47	480BS-147	Flat Washer	5/16"	4

<u>Index No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Size</u>	<u>Qty</u>
48	480BS-148C	Junction Box		1
49	480BS-149	Hex Cap Screw w/ Washer	#10-24x3/8"	2
50	480BS-150	Dust Cover Catch		1
51	480BS-151	Stud		1
52	480BS-152	Spring		1
53	480BS-153	Tension Roller		2
54	480BS-154	Bushing, Oilite		4
55	480BS-155	Tension Roller Bracket, Inner Left		1
56	480BS-156	Screw	#8-32x1"	4
57	480BS-157	Spring, Tension Roller		4
58	480BS-158	Tension Roller Bracket, Inner Right		1
59	480BS-159	Pad, Bracket-Tension Roller		2
60	480BS-160	Bracket		2
61	480BS-161	Plate		1
62	480BS-162	Base		1
63	480BS-163	Adjusting Lever		1
64	480BS-164	Adjusting Rod		1
65	480BS-165	Height Adjusting Plate		1
66	480BS-166	Round Socket Head Cap Screw	5/16"-18x1/2"	4
67	480BS-167	Lock Washer	5/16"	4
68	480BS-168	Spring		3
69	480BS-169	Nylon Insert Lock Nut	1/4"-20	1
70	480BS-170	Signal Cord, Inverter to Control Box		1
71	480BS-171	Hex Nut w/ Washer	M8x1.25	4
72	480BS-172A	Screw	M4x25	2
73	480BS-173	RPM Speed Label		1
74	480BS-174	Hex Cap Screw	5/16"-18x1-1/2"	1
75	480BS-175A	Mounting Bracket		1
76	480BS-176C	Inverter		1
77	480BS-177	Hex Cap Screw	3/8"-16x3/4"	4
79	480BS-179	Tension Roller Bracket, Outer Right		1
80	480BS-180	Tension Roller Bracket, Outer Left		1
81	480BS-181	E-Ring	E5	1
82	480BS-182	Strain Relief, Signal Cord	MGB10-06B-ST	1
83	480BS-183	Motor Cord, Motor to Inverter		1
84	480BS-184	Label		1
85	480BS-185	Height Direction Label		1
86	480BS-186	Maintenance Label		1
87	480BS-187	Warning Label		1
88	480DS-137A	Sanding Drum		1
88.1	480BS-1102	Abrasive Strip	#80	1
89	480DS-134	Lock Washer	M3	2
90	635DS-280	Fastener Tool		1
91	480BS-191	Cap		2
92	72550-197	Screw	M4x0.7x12	6
93	480DS-138	Nylon Insert Lock Nut	M3x0.5	2
94	480DS-139	Inboard Abrasive Fastener		1
95	480DS-140	Outboard Abrasive Fastener		1
96	480DS-136	Phillips Flat Head Screw	M3x0.5x10	2
109	480BS-1109A	Cover		1
110	480BS-1100	Plate		1
111	480BS-1111	Washer, Lock-Int. Tooth	M4	2
112	99-1001	Nylon Washer		2

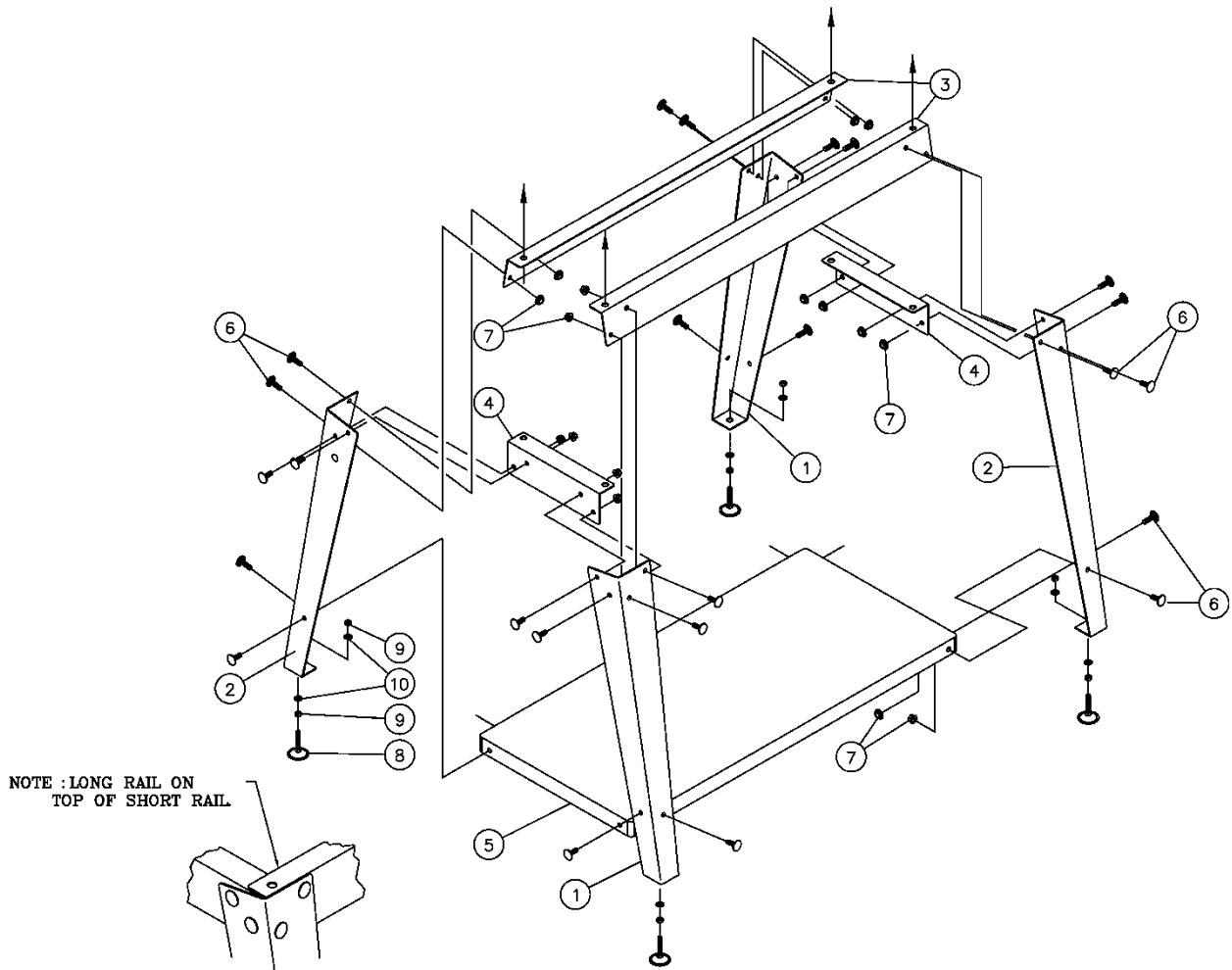


**Part List: Conveyor and Motor Assembly**

<u>Index No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Size</u>	<u>Qty</u>
1	480BS-201	Gear Motor	90 VDC	1
4	480BS-147	Flat Washer	5/16"	4
5	480BS-205	Socket Head Cap Screw	#10-32x1/2"	4
7	480BS-207	Knob		1
8	480BS-208	Speed Adjustment Label		1
9	480BS-209	Wiring Guard		1
10	480BS-210	Controller		1
11	480BS-211	Control Housing Bracket		1
12	480BS-212	Pan Head Self-Tapping Screw	5/32"x1/2"	2
13	480BS-213	Receptacle, Main Cord		1
14	480BS-214	Pan Head Machine Screw	#10-32x1/2"	1
15	480BS-215	Washer, Lock-Int. Tooth	#10	1
16	480BS-216	Hex Nut	#10-32	1
17	480BS-217	Screw, Hex Head-Slotted	#10-32x3/8"	5
18	480BS-218	Screw, Phil Pan Head	#6-32x1/2"	2
19	480BS-219	Switch, ON/OFF		1
20	480BS-220	Coupler, Shaft		1
21	480BS-113	Set Screw	1/4-20x1/4"	2
22	480BS-222	Bracket, Base- Controller		1
23	480BS-223A	Cover, Base-Control Housing		1
24	480BS-224	Hex Cap Screw	1/4"-20x3/4"	4
25	480BS-225	Washer, Wave	1/4"	4
26	480BS-145	Flat Washer	1/4"	4
27	480BS-227	Bracket, Take Up-Slide		2
28	480BS-154	Bushing, Oilite		4
29	480BS-229	Roller, Driven		1
30	480BS-230	Wrench		2
31	480BS-231	Hex Nut	1/4"-20	2
32	480BS-232	Washer, Lock-Int. Tooth	1/4"	2
33	480BS-233	Screw, Round Head- Slotted	1/4"-20x1-3/4"	2
34	480BS-234	Bracket, Take Up-Base		2
35	480BS-167	Lock Washer	5/16"	4
36	480BS-236	Roller, Drive		1
37	480BS-237	Bracket, Support-Drive Roller		1
38	480BS-238	Bed, Conveyor		1
39	480BS-239	Round Socket Head Cap Screw	5/16"-18x3/4"	2
40	480BS-240	Belt Conveyor, Rubber (Not Shown)		1
41	480BS-241	Flat Washer	5/16"	1
42	480BS-242	Hex Nut	5/16"-24	1
43	480BS-243	Slotted Set Screw	#8-36UNFx5/16"	1
44	PLAREVO1216-190	Strain Relief, Gear Motor	6P-4	1
45	480BS-245	Hex Nut	5/16"-18	2
46	480BS-246	Receptacle, Signal Cord		1
47	480BS-247	Hex Cap Screw	1/4-20x1/2"	8
61	480BS-1111	Washer, Lock-Int. Tooth	M4	1
62	480BS-262	Screw	M4x0.7x8	1
63	913003-361	Screw	M5x0.8x8	4
64	480BS-117	Screw	M4x0.7x6	4
65	480BS-265	Snap Bushings		1
66	PG-13.5	Strain Relief	PG-13.5	1
67	480BS-267	Junction Box		1
68	913003-362	Connectors for Junction Boxes (not shown)		2







**Part List: Open Stand Assembly**

<u>Index No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Size</u>	<u>Qty</u>
1	480BS-501	Leg, Left		2
2	480BS-502	Leg, Right (with TUF tool holder)		2
3	480BS-503	Rail, Long		2
4	480BS-504	Rail, Short		2
5	480BS-505	Shelf		1
6	480BS-506	Carriage Bolt	5/16"-18x5/8"	24
7	480BS-507	Hex Nut w/ Washer	5/16"	24
8	480BS-508	Leveling Foot		4
9	480BS-509	Hex Nut	3/8"-16	8
10	480BS-129	Flat Washer	3/8"	8

## 19-38 Combo Specifications

### Sanding Capacity

<b>Maximum Width:</b>	38" (two passes)
<b>Minimum Length:</b>	2-1/4" to 3-1/2" (varies with application)
<b>Maximum Thickness:</b>	4" typical (varies with brush/drum style & application)
<b>Minimum Thickness:</b>	1/32" typical (varies with applications)
<b>Dimensions:</b>	Length – 36" Width – 42" Height – 24" without stand
<b>Brush:</b>	5" diameter typical Typical bristle length: 1-1/2" (varies)
<b>Brush Speed:</b>	Variable 200 - 1000 RPM Brush 1750 RPM Drum
<b>Dust Hood:</b>	Hinged back with 4" vacuum port
<b>Height Adjustment:</b>	1/16" per revolution, Depth Gauge included
<b>Conveyor Motor:</b>	Direct drive D.C. motor Infinitely variable 0–10 feet-per-minute
<b>Drive Motor (TEFC):</b>	1-3/4 HP Continuous-duty
<b>Power Requirements:</b>	110 Volt, Single Phase 20 amp service
<b>Shipping Weight:</b>	242 lbs. ( <i>weight varies on how equipped</i> ) 2 boxes

# WARRANTY & REGISTRATION

## THANK YOU!

Welcome to the Laguna Tools® group of discriminating woodworkers. We understand that you have a choice of where to purchase your machines and appreciate the confidence you have in the Laguna Tools® brand.

Through hands-on experience, Laguna Tools® is constantly working hard to make innovative, precision products. Products that inspire you to create works of art, are a joy to operate, and encourage your best work.

Laguna Tools®  
Imagination, Innovation, and Invention at Work

## WARRANTY & REGISTRATION

Every product sold is warranted to be free of manufacturers' defective workmanship, parts, and materials. For any questions about this product, the intended use or what it was designed for, customer service, or replacement parts, please contact our customer service department:

Laguna Tools® Customer Service  
744 Refuge Way, Grand Prairie, Texas 75050, USA  
1-800-234-1976  
customerservice@lagunatools.com  
www.lagunatools.com/why/customer-service/  
8AM to 5PM PST, Monday through Friday

For warranty claims or to report damage upon receiving – please reach out to our warranty department:

Laguna Tools® Warranty Service  
744 Refuge Way, Grand Prairie, Texas 75050, USA  
1-800-332-4049  
customerservice@lagunatools.com  
www.lagunatools.com/policies/warranty  
8AM to 5PM PST, Monday through Friday

### REGISTRATION

To prevent voiding this warranty, all products sold must be registered within thirty (30) days of receiving the product. Registering the product will enable the original purchaser to receive notifications about important product changes, receive customer service, and be able to file a warranty claim against defective workmanship, parts, or materials.

### WHO IS COVERED

The applicable warranty covers only the initial purchaser of the product from the date of receiving the product. To file such claims, the original purchaser must present the original receipt as proof of purchase.

### WHAT IS COVERED

The warranty covers any defects in the workmanship of all parts and materials that make up the machine unless otherwise specified. Any part, determined by Laguna Tools®, to have a defect will be repaired or replaced (and shipped), without charge. The defective item/part must be returned to Laguna Tools® with the complaint and proof of purchase in the original packaging that it was received in. In the event the item/part is determined to be not covered by this warranty, the customer will be responsible for the cost to replace the item/part and all related shipping charges.



### WARRANTY LIMITATIONS

This limited warranty does not apply to natural disasters, acts of terrorism, normal wear and tear, product failure due to lack of maintenance or cleaning, damage caused by accident, neglect, or lack-of inadequate dust collection. The warranty may be voided against proof of misuse/abuse, damage caused where repair or alterations have been made or attempted by others, using the product for purposes other than those described as intended use (unless with consent by Laguna Tools®), modification to the product, or use with an accessory that was not designed for the product. It is the responsibility of the user to understand basic woodworking machinery settings and procedures and to properly maintain the equipment in accordance with the standards provided in this manual.

### LENGTH OF WARRANTY

All new machines and optional accessories sold through an authorized dealer carry a two-year warranty effective the date of receiving the product. Machines sold for either commercial or industrial use have a one-year warranty. Wearable parts like throat plates, bandsaw guides, etc., have a ninety-day warranty.

Table A-1 Warranty Lengths

2 Year – New Machines Sold Through an Authorized Dealer
2 Year – Accessories Sold as Machine Options (excluding blades)
1 Year – Machines Sold for Commercial or Industrial Use
1 Year – Blades and Accessories outside of Machine Options
90 Days – Wearable Parts

Aside from being free of defects upon receiving, consumable parts, like cutters and abrasives, are not covered by this warranty unless otherwise stated by Laguna Tools®. These parts are designed to be used at the expense of the operator and are available for replacement or inventory purchase. The determination of a consumable part will be made on a case-by-case basis by Laguna Tools®.

### SHIPPING DAMAGE

Laguna Tools® is not responsible for damage or loss caused by a freight company or other circumstances not in the direct control of Laguna Tools®. All shipping-related claims for loss or damage goods must be made to Laguna Tools within twenty-four hours of delivery.

### HOW TO RECEIVE SUPPORT

To file a warranty-claim please contact the warranty department at 1-800-234-1976. To receive customer service or technical support please contact the customer service department at 1-800-332-4049. Parts, under warranty, are shipped at the expense of Laguna Tools® either by common carrier, FedEx ground services or similar method. Technical support to install replacement parts is primarily provided by phone, fax, email, or the Laguna Tools Customer Support Website.

# LAGUNA

## Brushes & Supply Checklist

### OPTIONS:

Item #	Description	Qty.
Varies	80–320 grit flatter abrasives	
<b>SUPMX-71938-3</b>	Nylon impregnated brush, 80 grit	
<b>SUPMX-71938-2</b>	Wire brush	

*Please contact SuperMax Tools for a complete listing of brushes and brush material available*

### ACCESSORIES:

Item #	Description	Qty.
<b>SUPMX-71938-1</b>	Sanding Drum	
<b>SUPMX-71938-CL-1</b>	Closed Stand, includes locking wheels	
<b>SUPMX-71938-OP</b>	Open Stand	
<b>SUPMX-98-0130</b>	Caster Set: Heavy duty, roll & swivel lock (used with open stand).	
<b>SUPMX-71938-7F</b>	Infeed/Outfeed Tables	
<b>SUPMX-71938-DRO</b>	DRO (digital read out) depth gauge	

### CONVEYOR BELTS:

Item	Description	Qty.
<b>SUPMX-60-0322</b>	Type 1: 100 grit abrasive surface with reinforced backing	
<b>SUPMX-61-1003</b>	Type 2: Polyurethane textured surface with monofilament backing	

### DRUM ABRASIVES:

Item	Description	Qty.
<b>SUPMX-60-19-036</b>	36 Grit: SuperMax 19-38 Combo - 3-Wraps in Box	
<b>SUPMX-60-19-060</b>	60 Grit: SuperMax 19-38 Combo - 3-Wraps in Box	
<b>SUPMX-60-19-080</b>	80 Grit: SuperMax 19-38 Combo - 3-Wraps in Box	
<b>SUPMX-60-19-100</b>	100 Grit: SuperMax 19-38 Combo - 3-Wraps in Box	
<b>SUPMX-60-19-120</b>	120 Grit: SuperMax 19-38 Combo - 3-Wraps in Box	
<b>SUPMX-60-19-150</b>	150 Grit: SuperMax 19-38 Combo - 3-Wraps in Box	
<b>SUPMX-60-19-180</b>	180 Grit: SuperMax 19-38 Combo - 3-Wraps in Box	
<b>SUPMX-60-19-220</b>	220 Grit: SuperMax 19-38 Combo - 3-Wraps in Box	

**LAGUNA**<sup>®</sup>

Laguna Tools 744 Refuge Way Suite 200  
Grand Prairie TX 75050  
800-234-1976

[www.lagunatools.com](http://www.lagunatools.com)

Service: +1 (800) 332-4049 or email [customerservice@lagunatools.com](mailto:customerservice@lagunatools.com)

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