

Keep This Manual Handy For Quick Reference

SUPERBRUSH OWNER'S MANUAL

For SUPERBRUSH 24 x 2 and SUPERBRUSH 36 x 2



IMPORTANT: BEFORE OPERATING YOUR SUPERBRUSH READ THE INSTRUCTIONS
IN THIS MANUAL FOR UNPACKING AND SETTING UP YOUR MACHINE.



SuperMax
Tools

USA

CONGRATULATIONS

You have made a wise purchasing decision by adding this “Made In USA” machine to your tool line-up. The main purpose in inventing and developing the machine you’ve purchased was to bring a new dimension of productivity to your workshop, be it large or small. Right from the start, our goal at SuperMax Tools has been to manufacture equipment that is capable of providing you with maximum economy, maximum utility, and maximum performance.

Your SUPERBRUSH will pay you back many fold in the years ahead by helping you get better results in less time, start to finish. This tool incorporates a bundle of exclusive features which you will appreciate more every time you use it. All SuperMax Tools brush sanders feature a variable brush speed (RPM) and the exclusive variable-speed power feed conveyor system. Together, they provide you with ultra-precise control, for a variety of applications.

SuperMax Tools and its dealers are committed to providing you with innovative solutions, from selecting the right machine to helping you get top performance when you put it to work in your shop. Regardless of how you take advantage of these innovations, we are confident our equipment will help bring you a giant step forward in precision shop productivity.

If you have any questions contact SuperMax Tools at 888-454-3401 or sales@supermaxtools.com or visit our website **supermaxtools.com**.

CAUTION, SAFETY FIRST

When maintaining and operating this machine, always put safety first. For your own safety, read and understand this owner’s manual before operating this machine. Always heed and follow all normal safety precautions, including the following:

- Always wear eye protection while operating the sander.
- Always feed stock against the brush rotation.
- Never place hands or fingers under the brush or dust cover.
- Keep hands and clothing away from operating brush.
- Never operate the sander without its dust cover or pulley guarding in place.
- Always maintain control of boards to avoid kickback; know how to prevent it.
- Always disconnect electrical power before doing any servicing or adjusting of the machine.

MODEL IDENTIFICATION

Your SUPERBRUSH sander is one of a family of machines from SuperMax Tools designed to help you achieve results comparable to industrial-size sanders at a fraction of the cost. The double SUPERBRUSH is available in 24” or 36” sizes. For future reference, find the model and serial numbers on the table mount bracket (#42, page 27) and write them in below.

Model: _____

Serial Number: _____

Date Purchased: _____

Dealer: _____

IMPORTANT: KEEP THIS MANUAL HANDY

Please read this manual first. It was designed to help you get the most from your SUPERBRUSH sander. Before unpacking or using the machine, familiarize yourself with its components, features, and basic adjustments by reviewing 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 dealer.

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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.

ABOUT THE SUPERBRUSH SYSTEM

This manual is designed to help familiarize you with your SUPERBRUSH sander, and to help you 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 SUPERBRUSH system is basically made up of: 1) a height adjustment control and

handle which raises and lowers the conveyor table; 2) two brush speed control handles which controls brush speed from 400 to 1200 RPM; 3) Two motor starter switches which start and stop the drive motors and sanding brush; and 4) a feed rate control knob which starts feed conveyor and selects feed rate from 0-30 feet per minute.

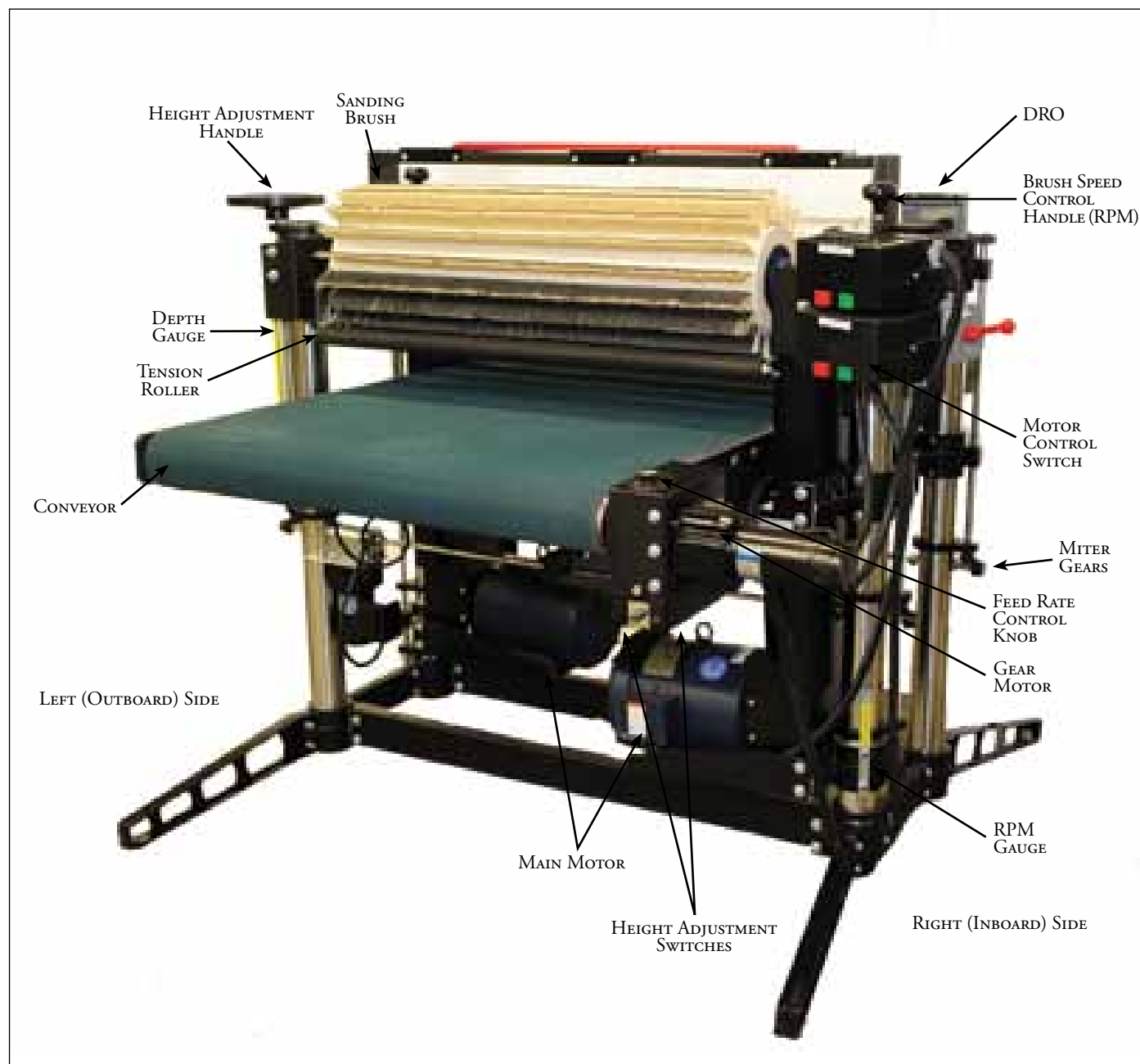


Fig. 1. SUPERBRUSH nomenclature.

UNPACKING YOUR SUPERBRUSH

Your SUPERBRUSH sander has been shipped assembled from the factory on a pallet and shrink-wrapped. 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. Unbolt the machine legs from the shipping pallet. Using a forklift, lift machine from table mount brackets (#42, page 27). While SuperBrush is suspended with forklift install caster set (Fig. 2).

2. Loosen the eight hex nuts and set screws on the table support castings (Fig. 3) and four on the motor support castings (Fig. 8). The set screws on the table support castings have been tightened at the factory to eliminate free-play between the castings and the column tube during shipment. There are two table support castings on the SUPERBRUSH, one each for the right and left column tubes, and two motor support casting, all with set screws.

Important: These set screws are tightened for shipping and must be loosened and readjusted before operating either the height adjustment mechanism or the brush speed control handle.

To properly adjust for operation, loosen each set screw by first loosening its hex nut with a wrench and then the set screw with an Allen wrench. Then retighten each set screw with your fingers so it only lightly touches the column tube. Hold each set screw in position with an Allen wrench and retighten the hex nut. Failure to follow these procedures may result in misalignment of the brush and/or the conveyor table.

Caution: Do not loosen the set screws on the upper brush support castings.

Note: Some models have a block under the main motors. If so, remove at this time.



Fig. 2. Caster and mounting hardware.

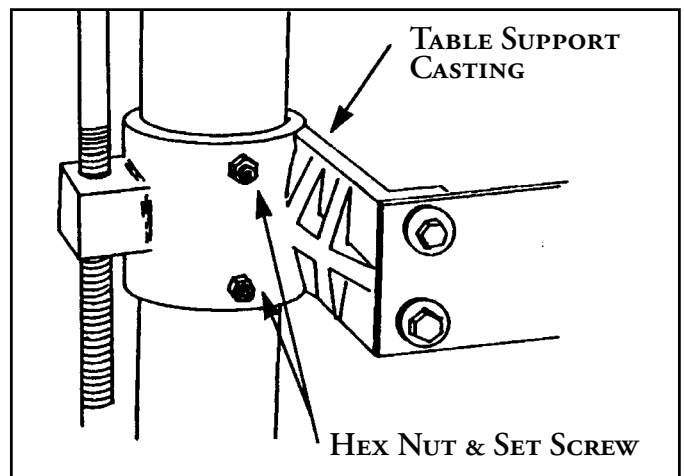


Fig. 3. Table support casting and set screws

SETTING UP YOUR SUPERBRUSH

Your SUPERBRUSH 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 being put to use. This section covers the pre-operational 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 (page 12) will help assure trouble-free service.

MAKING ELECTRICAL CONNECTIONS

Power for the brush heads for the standard double head brush sander is supplied by two 5 HP motors. Optional 7-1/2 HP motors available.

Electrical service for the SUPERBRUSH 24x2 and 36 x 2, 60 HZ

- **Single Phase 5 HP motors, 208-230 Volt:** A single 60 Amp service/breaker or two 30 Amp service/breakers are required, depending on how the electrical configuration was ordered (one or two service lines).
- **Three Phase 5 HP motors, 208 Volt:** A single 40 Amp service/breaker or two 20 Amp service/breakers

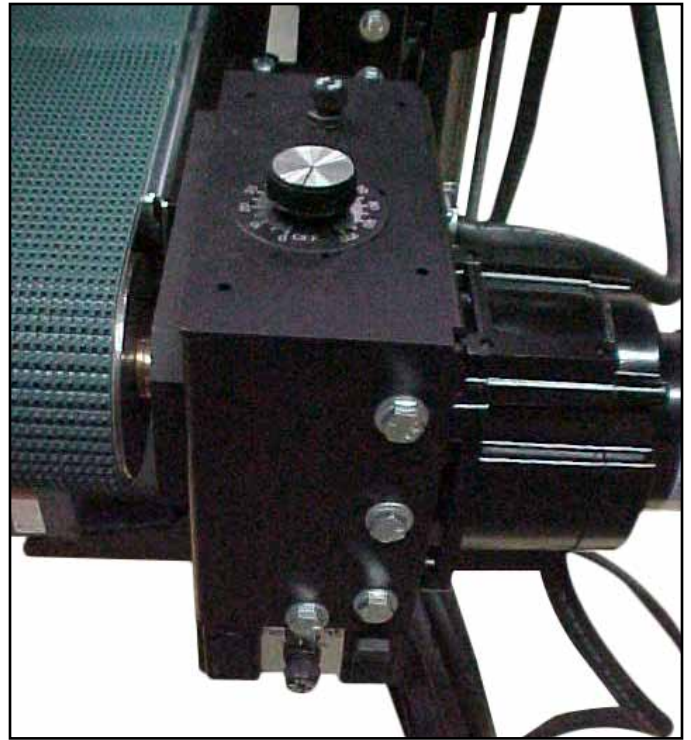


Fig. 4. Conveyor motor fuse (top), height adjustment fuse (bottom)

are required, depending on how the electrical configuration was ordered (one or two service lines).

- **Three Phase 5 HP motors, 440-460 Volt:** A single

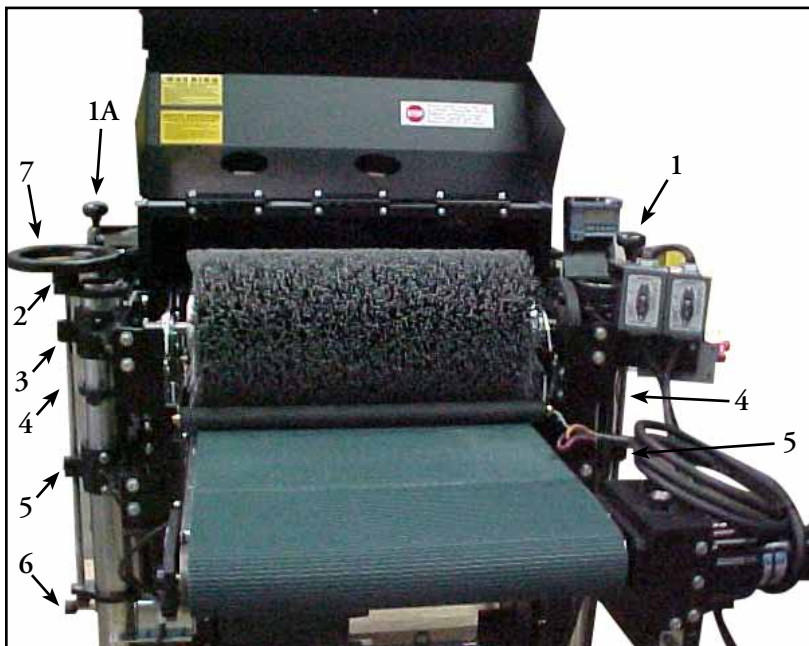


Fig. 5. SUPERBRUSH Components.

1. Brush Speed (RPM) Handle, Front
- 1A. Brush Speed (RPM) Handle, Rear.
2. Adjusting Screw Support.
3. Brush Support Casting.
4. Height Adjusting Screw.
5. Table Support Casting.
6. Miter Gear.
7. Height Adjustment Handle.
8. Height Adjustment Switches.

20 Amp service/breaker or two 10 Amp service/breakers are required, depending on how the electrical configuration was ordered (one or two service lines).

Note: 440-460 volt requires a neutral line. See page 25.

Other HP, voltage and Hertz configurations are available. See manual insert if custom/unique electrical configurations apply to your model. Please call SuperMax Tools for more information. 888-454-3401.

CONNECTING DUST COLLECTORS

Dust collection is necessary for all SUPERBRUSH models. The SUPERBRUSH 24 x 2 and the 36 x 2 are equipped with four, 4" dust exhaust ports on the top of the dust cover.

To attach the SUPERBRUSH to your collection system, install 4" hose from your collector. (See Tips For Maximum Performance, page 12 of this manual.) The minimum recommended dust collector capacities for the 24x2 and the 36x2 are 2400 CFM (600 CFM per port). 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 SUPERBRUSH. Before making fine tune adjustments to the machine place the unit where it will be used in the shop. Adjust only if the machine is severely twisted (one leg low). Adjust by adding washers (user supplied) between the caster and leg on the lowest corner. Mark position of casters on the floor with tape so it can be returned to the same position.

HEIGHT ADJUSTMENT

The table height is controlled by the "UP/DOWN" switch, located at the bottom/right of the conveyor (gear motor) control panel (Fig. 4). A secondary switch offers control over a "FAST" or "SLOW" height adjustment speed (Fig. 4). The speed of "SLOW" conveyor UP/DOWN is adjustable with



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

a small dial under the conveyor (gear motor) control panel and base bracket (Fig. 10C, pg. 9). Overload fuse protection is located between the two switches (Fig. 4). $\frac{3}{4}$ Amp max fuse size.

A manual override handle is located on the left (outboard) side of the machine (Fig. 5), next to the infeed dust cover. Turning the handle raises or lowers both sides of the conveyor simultaneously. One revolution of the handle raises or lowers the conveyor $\frac{3}{32}$ ".

Before operating height adjustment, be sure 8 set screws located in four table support castings (Fig. 3) are loose to allow table support to slide on both column

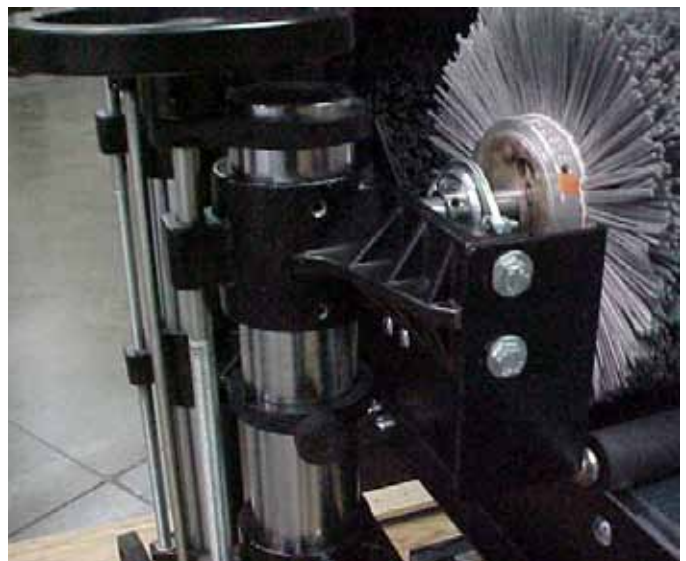


Fig. 7. Adjusting brush alignment.

tubes. (These set screws are tightened for shipping.)

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 10) and raising the table so that the brush just contacts the conveyor surface. Brush contact should be equal across the width of the conveyor. If the SUPERBRUSH is properly leveled (See checking machine for level, page 7), brush misalignment can be corrected by loosening the two or four set screws in the outboard brush support casting (Fig. 7) and by raising or lowering casting to correct alignment.

NOTE: Improper brush alignment will cause uneven results and lead to reduced brush life.

BRUSH SPEED ADJUSTMENT (RPM)

The SUPERBRUSH is equipped with a variable speed drive which allows the brush to be operated anywhere between 400 and 1200 RPM (Fig. 8). The faster the brush speed, the more aggressive the brush action. The brush speed control handles (Fig. 5, #1 & 1A) raises or lowers the motor support casting which activates the variable speed drive pulley.

Each brush head and motor is equipped with independent variable speed RPM. The first or inboard brush is controlled by a handle on the right (inboard) side of the machine (Fig. 5, #1) The second or outboard brush is controlled by a handle on the left (outboard) rear of the machine (Fig. 5, #1A). Each of these adjustment handles allows independent control

of RPM for each brush head and is displayed on the RPM Gauge.

RPM GAUGE

The RPM gauge (Fig. 8) displays the brush speed and is read where the scale intersects the top of the screw support casting. To calibrate the gauge, lower the motor to the lowest position. Loosen both hex nuts while holding set screws. Position the RPM scale so that "400" RPM intersects the top of the screw support casting (Fig. 8). Tighten hex nuts to hold gauge in this position.

CHECKING THE CONVEYOR BELT

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 (see Fig. 9) on the side the belt is drifting toward, and loosen the take-up screw on the opposite side. Adjusting the take-up screw on both sides of the conveyor allows belt tracking adjustments to be made without affecting belt tension. Adjust the take-up screw 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 removed when brushing.



Fig. 8. Brush RPM gauge



Fig. 9. Adjusting conveyor belt tracking.

OPERATING YOUR SUPERBRUSH

Before using your SUPERBRUSH, 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 SUPERBRUSH offers considerable control and versatility through infinitely 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 RPM may tend to raise the grain or excessively round edges. It may be better to make two or more passes with a less aggressive brush or setting.

The first brush is rotating against the direction of feed; therefore, the leading edges of contours will receive more sanding than trailing edges. The rear brush should be rotating in the opposite direction for uniform brushing of all edges. Stock may also be fed at an angle to allow more brush penetration on the sides.

OPERATING YOUR SUPERBRUSH

The rear brush has a “Forward/Reverse” switch located behind the “ON/OFF” switches for the brush heads

(figs. 10A & 10B). The correct rotation of the rear brush will depend on the application and brush type. Defuzzing, profile sanding and deburring usually has the rear brush rotating opposite the first brush head. “Step” sanding or graining with two different grit brushes usually has the rear brush rotating in the same direction as the first brush head. Please note, these are the typical scenarios, your application(s), brush types, etc., may affect ideal rotation. Contact SuperMax Tools if you have questions.

BASIC OPERATING PROCEDURES

After you have connected the machine to a dust collection system, you are ready to begin to use the SUPERBRUSH. The basic operating procedure for the SUPERBRUSH models is as follows (Fig. 5):

1. Set depth of cut/bristle contact (page 11).
2. Set tension rollers to type of stock being sanded (See Tension Roller Adjustment page 10)
3. Start sanding brush and select slow brush speed (page 8).
4. Start conveyor and select feed rate (page 10 & 11)
5. Start dust collector system.
6. Feed stock through unit.
7. Gradually increase brush speed (RPM) until the desired finish is achieved.



Fig. 10A. Forward/Reverse switch, Rear head.



Fig. 10B. Forward/Reverse switch, Rear head.



Fig. 10C. Variable speed control, height adjustment.

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) are provided to maintain downward pressure on stock being sanded and to prevent slippage of the stock on the feed 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. If the Depth Gauge is properly calibrated (page 11), Tension Roller height is adjusted as follows: Note: Make sure brush head is appropriate for application and contact.

Flat Surfaced Stock: Set the bottom of the tension rollers even with the bottom of the brush. Loosen the four Tension Roller locking knobs (Fig. 11A & 11B). Raise the table to the "0" mark on the Depth Gauge. At this position, the brush and Tension Rollers are resting on the table surface. Lock all four Tension Roller knobs. For example, to brush a $3/4"$ thick flat board, lower the table to $5/8"$ on the Depth Gauge. This allows $1/8"$ for Tension Roller engagement and $1/8"$ brush penetration.

Contoured Surface Stock: (Example: A $3/4"$ thick piece of molding with $3/8"$ of molding relief.) Loosen all eight tension roller locking bolts (Fig. 11A & 11B). Adjust the conveyor table $1/4"$ into the bristle tips (measure with a ruler from "0" mark on depth gauge.). At this position, the tension rollers are resting on the table surface and are positioned $1/4"$ above the bottom of the brush. Lock all four Tension Roller locking bolts. To brush the piece, lower the table to the $3/8"$ position on the Depth Gauge. This allows for $1/8"$ of tension roller engagement and $3/8"$ of brush penetration.

SELECTING STOCK FEED RATES



Fig. 11A. Tension Roller Adjustment.

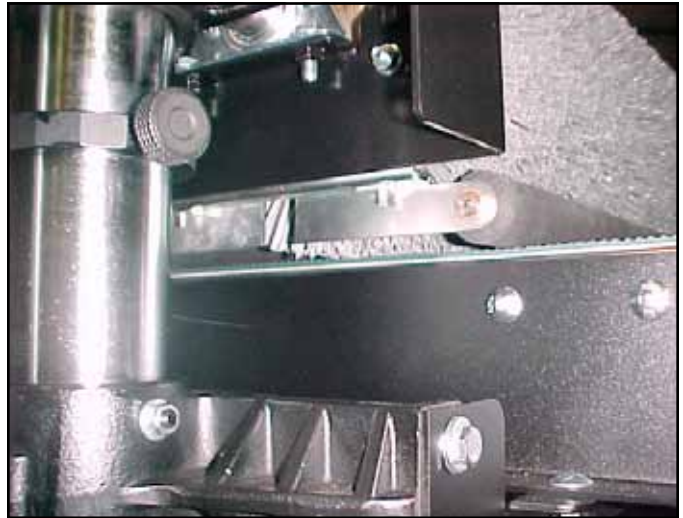


Fig. 11B. Tension Roller Adjustment.

Selecting the proper feed rate is essential to proper brushing. Feed rate controls the duration of brushing on a particular spot. 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 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. 4).

The best feed rate will depend on a number of 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.

SELECTING STOCK FEED RATES

The standard conveyor feed rates for the 24x2 and 36x2 are infinitely adjustable from 0 – 30ft/min. This is read as a percentage (%) on the dial. The dial shows 0 – 100%. For example: a 50% setting would equal 15'/min. conveyor feed rate.

SETTING BRUSH DEPTH OF CUT/CONTACT

SuperMax Tools tests sample applications for all customers before selling a SUPERBRUSH. We recommend following the suggested RPM, contact and conveyor settings outlined in the sample letter. If you have questions about your application(s) or your needs change, please contact SuperMax Tools for updated information or new sample testing, as brush types, materials, etc. may have changed.

The information and suggestions listed below are not specific to any application and may have changed since printing. Please call SuperMax Tools if you have questions.

When using a wire brush for “distressing” wood, a brush speed of 400-600 RPM with light contact of bristles and a moderate feed rate generally leaves the best finish and offers the longest brush life. When brushing metal with a wire brush, it is important to use light contact of the bristle tips and slow to moderate RPM (generally under 600 RPM). Excessive contact will reduce brushing effectiveness and damage brush.

When using a nylon brush, the tips of the bristles should be touching the stock being brushed. Typical tip penetration is 1/16”. Excessive bristle penetration will damage the brush and should only be set deep enough for good contact at the tip.

When using Flatter brush heads, the tips should penetrate the lowest part of the stock being brushed approximately 1/8”-1/4”. Excessive penetration will prematurely wear abrasives.

BRUSH AND BRISTLE MAINTENANCE

Wire brushes frequently (every 8 hours of operation) flipped end-for-end, to reduce bending of bristles in one direction, will extend brush life. **Caution:** if you choose not to flip the brush frequently, it is better not

to flip the brush at all.

If a nylon, nylon impregnated or Scotch-Brite™ brush becomes unevenly worn, the tips of the bristles or outer diameter can be dressed. This will even the bristle length/outer diameter and expose fresh abrasive at the tips of the bristles.

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. Raise 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.

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 polishing brush is worn, the brushing material will become smooth or the brush will be considerably smaller in diameter as compared to new. Polishing brush heads may only need cleaning to rejuvenate the material. 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.

Many types of brush heads may be rewound with new bristles or re-equipped with new brush material. Please contact SuperMax Tools if you have questions about a new or re-wrapped brush head.

Some types of brush heads, some flatter brushes, for example, will allow changing of the brush material by the operator, thus eliminating the need to send the brush head out for re-wrapping. Please call SuperMax Tools if you have any questions about re-wrapping a brush.

Flatter bristles can be moved deeper into profiles to compensate for abrasive wear at the tips. As long as the bristles can penetrate the stock being sanded, the bristles can be set deeper into the material being brushed. Note, when brushing thin stock/material the bristles may contact the conveyor belt, thus causing faster conveyor belt wear.

SETTING (REAR) BRUSH DEPTH OF CUT/CONTACT

The height or contact of the rear brush is adjusted using shims (page 13, Fig. 12D) between the bearing mount bracket and bearing bracket. Generally (most applications) the tips of the bristles should be contacting the top of stock. To adjust, loosen the two bolts holding the bearing bracket to the machine bracket (page 20, Fig. 19A) and add or remove shims until the proper bristle contact is achieved.

DEPTH GAUGE OPERATION

The depth gauge (see Fig. 1) measures the distance between the conveyor table and the bottom of the sanding brush. The sanding brush must be parallel to the conveyor bed surface. To calibrate the depth gauge, loosen the locking knob of the lower depth gauge casting so it rests on top of the table support casting. Raise the conveyor table until it touches the sanding brush. Then loosen the locking knob of the upper depth gauge casting and position the “0” mark of the scale even with the top of the lower depth gauge casting. Lock the upper depth gauge casting in position.

Once calibrated, the locking knob of the lower depth gauge casting can be loosened, allowing the lower depth gauge casting to ride on top of the table support casting. The depth can then be read where the scale enters the lower depth gauge casting. The depth

gauge can also be used as a stop gauge as follows: Position the lower depth gauge casting along the scale to a desired finish thickness. Then lock the lower depth gauge casting with the locking knob to prevent the conveyor table from being raised above that point

DRO (DIGITAL DEPTH GAUGE) OPERATION

Note: The full manual for the DRO is included in the “STOP” bag along with the main brush manual.

Operation of the DRO is controlled by the buttons on the display panel. The far left button is the “on/off”. The “units” button changes from inch to mm and from decimal to fraction settings. The “+” and “-” button changes the readout of the measurement up or down (Fig. 12C).

MONTHLY MAINTENANCE

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

- Lubricate bushings and check for wear (light machine oil or graphite lube).
- Lubricate all moving parts, such as threaded rods, washers, and column tubes.
- Clean dust from the conveyor belt.
- Blow dust from the motors.
- Check all bolts and set screws for tightness on parts such as brush support castings, bearings, conveyor coupler, castings, pulleys, miter gears and brush heads

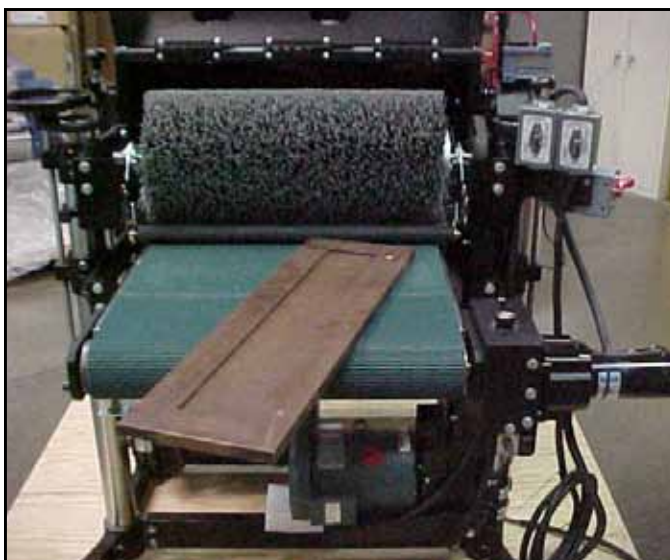


Fig. 12A. Offset stock feeding angle, wood.



Fig. 12B. Offset stock feeding angle, metal.

- Clean brush, if applicable.
- Use light weight machine oil, penetrating lube or dry graphite powder for lubrication.

TIPS FOR MAXIMUM PERFORMANCE

The versatility designed into the SUPERBRUSH 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.

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. When connecting to the dual ports of the SUPERBRUSH 36, use a larger diameter pipe to the machine, and then split to two 4" hoses connected to the ports. An alternative is to use two separate 4" lines running to the ports; do not use only one 4" line and split it by the machine.

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 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 brushing on some stock, such as paneled doors or deburring metal (Fig. 12A & 12B).

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 brush. Also brush the conveyor belt after cleaning operations. If not cleaned, the conveyor belt could allow stock to slip during brushing operations.



Fig. 12C. DRO.



Fig. 12D. Shims. Rear brush contact adjustment.

TROUBLESHOOTING YOUR SUPERBRUSH

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(s) unplugged from receptacle.	Plug in the primary power cord.
	2. Brush motor cord unplugged from receptacle near power-feed motor	Plug in brush motor cord at receptacle on machine if so equipped.
	3. Circuit fuse blown or circuit breaker tripped.	Replace fuse or retrip breaker (after determining cause).
	4. Conveyor motor fuse blown.	Replace 3/4 amp fuse (page 24 & 25)
Brush motor overloads.	1. Inadequate circuit.	Check electrical requirements (page 6).
	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 (page 31).
	3. Drive roller bent.	Replace drive roller (Page 31).
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; (page 31) 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 10). 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 10). Readjust (page 19). Readjust by leveling machine (page 7). Replace conveyor belt (page 19). Replace drive roller (page 19). Replace bushings (page 19).

TROUBLESHOOTING GUIDE: MACHINE

Problem	Possible Cause	Solution
Brush height adjustment works improperly.	1. Improper adjustment of height control.	Readjust height control (page 17).
Knocking sound while running.	1. V-belt worn. 2. Pulleys wobbling or out of round. 3. Set screws loose in pulley or bearing. 4. Bearing worn.	Replace V-belt (page 20). Tighten set screws or replace pulley (page 22). Retighten set screws. Replace bearing (page 22).
Sniping of wood (gouging near end of board).	1. Inadequate support of stock. 2. Conveyor drive or driven rollers higher than conveyor bed.	Use roller stands to support stock. Readjust rollers (page 19).
Burning of wood or melting of finish.	1. Feed rate too slow 2. Excessive depth of cut.	Increase feed rate. Reduce depth of cut, decrease brush RPM.
Gouging of wood.	1. Conveyor belt is too loose. 2. Excessive depth of cut. 3. Wood slipping on conveyor due to lack of contact.	Adjust belt tension. Reduce depth of cut, decrease brush RPM. Use alternate feeding procedure (page 12).

SERVICING YOUR SUPERBRUSH

The basic adjustment procedures for your machine are covered under Setting Up Your SUPERBRUSH, page 6. Review that section first. If following the general instructions does not solve a specific problem or result in smooth operation, also check Troubleshooting Your SUPERBRUSH, page 14. Below are suggested procedures to follow when more thorough readjustment or replacement is necessary.

ADJUSTING HEIGHT CONTROLS

Height adjustment problems may be the result of not loosening the 8 set screws in the table support castings before attempting operation. (This is covered on page 5 of this manual, and also on the separate unpacking sheet which was shipped with your machine.) If the set screws were not loosened as instructed, do so now before proceeding further. Also make sure all moving parts of the height adjusting mechanism are well lubricated, including the miter gears, column tubes, and threaded height adjusting screws.

When troubleshooting the height adjustment mechanism, first check the conveyor table for level (see page 7). Then test the height adjustment mecha-

nism (See Fig. 13). If it does not operate easily, further adjustments may be necessary, as outlined below. Following these steps should result in smooth operation.

Readjustment Procedure

1. Loosen the set screws located at the front of the table support castings (Fig. 3).
2. Lubricate thoroughly by applying penetrating lubricant to the table support castings where they contact the column tubes, and to all contact points of adjusting screws and transfer rod. Also apply grease or oil to the miter gears.
3. If the height adjustment feels stiff, check for misalignment of adjusting screw supports and the brush support castings which could cause binding on the adjusting screw (Fig. 5). These castings can be adjusted by loosening the set screws which secure them to the column tubes. Realign the adjusting screw supports by loosening the two set screws that hold them to the column tubes and rotate to the proper position.

Also check to see that the column tubes are cen-

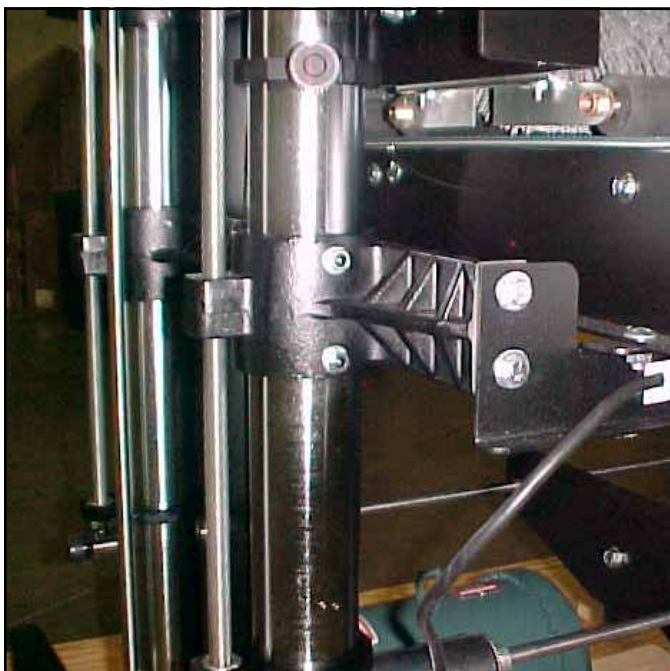


Fig. 13. Table support casting set screws.



Fig. 14. Adjusting miter gears for proper mesh.

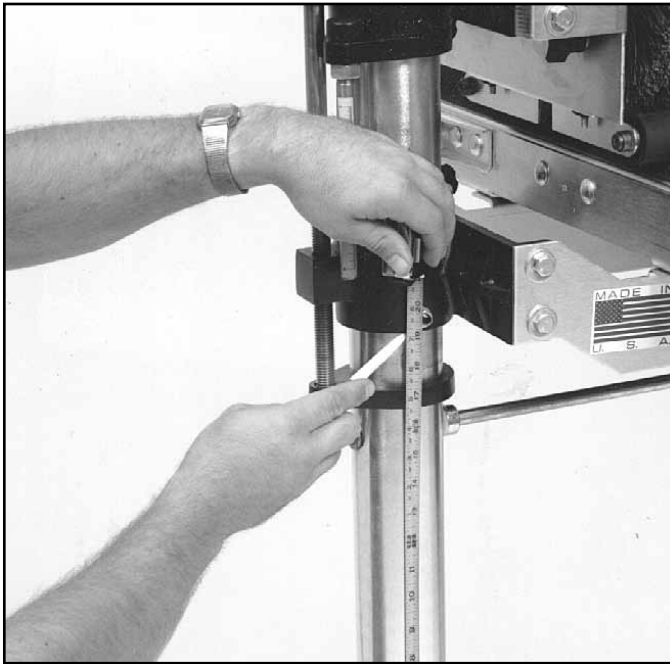


Fig. 17. Adjusting table support castings.

tered inside the bore of the table support castings (Fig. 5). If not, loosen the casting bolts and tighten the set screws at the front of table support casting to center the tube. Retighten the bolts and loosen the set screws.

4. If the height adjustment mechanism feels rough, check the miter gear (Fig. 14) alignment. The miter gears can be adjusted on their shafts by loosening the set screws on the gears. Check and adjust so that the gear mesh is not too tight or too loose, and that the gear teeth align with the opposing gear. The mesh of the miter gears should be smooth and even. If not, adjust the gears for good mesh.

LEVELING TABLE

To measure levelness of table, measure the distance between the top of the base casting (Fig. 17) and the bottom of the table support castings. This measurement should be the same for both sides. If it is not the same, adjust as follows:

Remove the plastic cap from the miter gear (Fig. 14) on the outboard side of the machine. Loosen the set screw of the miter gear and slide it back to disengage it from the miter gear of the adjusting screw. Turn the adjusting screw handle to raise or lower the outboard side of the table so that the measurement

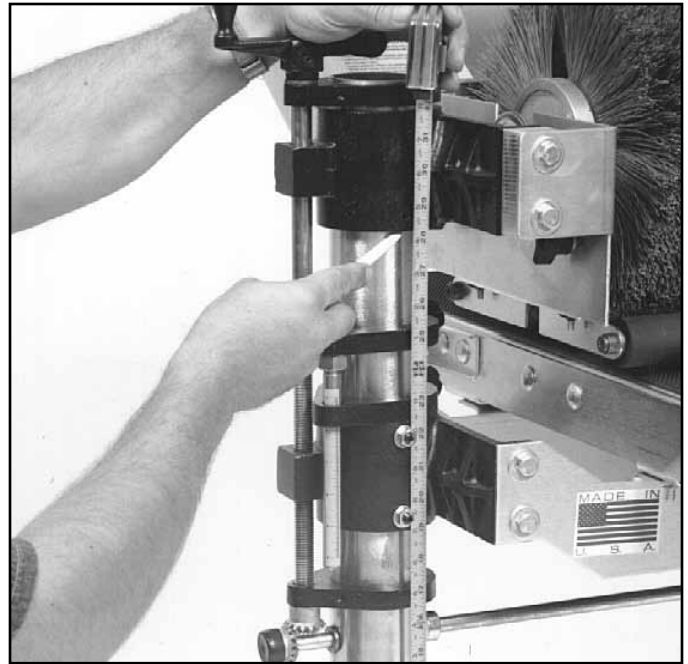


Fig. 18. Comparing brush support casting heights.

taken above equals the inboard side of the table. After adjusting is complete, re-engage miter gear making sure that miter gear set screw is aligned with flat on cross bar shaft.

MITER GEAR ALIGNMENT

If height adjustment mechanism does not operate easily, perform the following checks or adjustments:

1. Loosen set screws located on table support castings. (Fig. 13).
2. Lubricate thoroughly! Apply penetrating lubricant to table support castings where it contacts the column tubes, and to all contact points of adjusting screws and cross bar. Apply grease/oil to miter gears.
3. Check miter gear alignment. Check and adjust gears so that gear mesh is not too tight nor too loose and that gear teeth align with opposing gear. The miter gears can be adjusted on their shafts by loosening the set screws on the gears. Note that set screws **MUST** align with flat of shaft.
4. Check and adjust for misalignment of adjusting screw supports (Fig. 5) and brush support castings which could cause binding on the adjusting screw. These castings can be slightly rotated by loosening the set screws which secure it to the inside of the

column tubes. NOTE: The adjusting screw support (Fig. 5) located immediately below the height adjusting handle and the outboard brush support casting, must be set at the proper height along the column tubes to position the adjusting screws so that there is proper miter gear alignment. Before adjusting these parts, tighten one set screw of table support castings to maintain adjusting screw position during adjustment.

BRUSH SPEED ADJUSTMENT

If the brush speed adjustment does not operate easily, perform the following check or adjustments:

1. Loosen set screws located on front of motor support casting (Fig. 3 & 13).
2. Lubricate thoroughly!! Apply penetrating lubricant to motor support casting where it contacts the column tubes and to all contact points between adjusting screw and adjusting screw supports (Fig. 5).
3. Improper alignment of adjusting screw supports may cause binding on the adjusting screw. Loosen both set screws on each adjusting screw support to rotate or adjust screw supports. Note that adjusting screw supports control both lateral and vertical movement of the adjusting screw mechanism and must be adjusted accordingly.

CHANGING OR REPLACING BRUSH

Changing the brush on the SUPERBRUSH is relatively simple. To begin, first disconnect power source to the machine. Lower the motor to its lowest position using the brush speed control handle. Raise the motor to its highest position. This loosens the V-belt tension so the V-belt can be lifted off the driven pulley, pulled back and placed under the control handle to hold it out of the way. Loosen and remove bearing bolts (Fig. 19 and 19A, depending on model. See also page 23 and Fig. 25.) Lift brush out of machine. Loosen set screws of bearing collars and pulley. Remove bearings and pulley and install on replacement brush.

Install replacement brush in machine and center brush before tightening bearing bolts. Tighten bearing set screws after bearing bolts are tightened. Install



Fig. 19. Removing brush head.

V-belt on driven pulley and adjust pulley for proper V-belt alignment before tightening pulley set screw.

REPLACING CONVEYOR BELTS

To replace the conveyor belt, the conveyor assembly must be removed from the machine. Lower the conveyor table. Disconnect power source to machine. Place conveyor motor assembly on top of dust cover. Loosen the conveyor take-up screws (Fig. 21) to relieve belt tension and slide the driven roller fully inward. Remove the eight bolts that attach the conveyor assembly to the table mount brackets (see Fig. 20). Lift the conveyor and remove it from the machine by sliding the conveyor back. Avoid tearing the belt on any edges underneath the conveyor bed during removal. Reverse the procedure for re-installation.

Note: If the conveyor belt continually tracks to one side of the machine, follow these steps:

1. Check the conveyor drive and driven roller to make sure each is parallel to the surface of the conveyor bed. To do this, first center the conveyor belt on the bed. Then lay a straight-edge on the exposed edge of the conveyor table on the left (outboard) side, extending it over the drive or driven roller. Note the distance between the drive or driven roller and the straight-edge.
2. Now repeat Step 1 on the right (inboard) side of the conveyor. Compare the measurements from side to side. If they are not equal, loosen one of

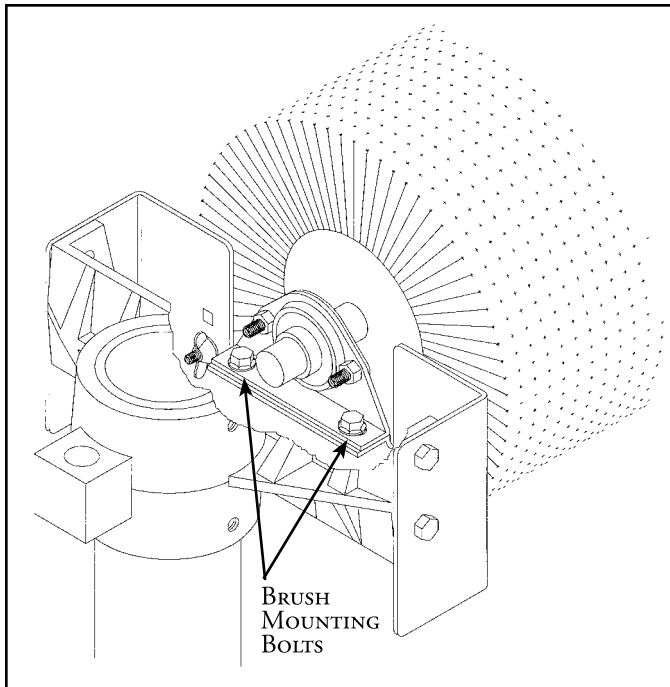


Fig. 19A. Removing brush head (some models).

the brackets that hold the drive or driven roller in place. Tip this bracket until the distance between the drive roller and the straight-edge are equal from side to side, then tighten the bracket.

Conveyor Belt Tension: To adjust the tension of the conveyor belt, first adjust the take-up screw (Fig. 21) 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 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 bearings or conveyor belt

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 (Fig. 21) on the side the belt is drifting toward, and loosen the take-up screw on the opposite side. Adjusting the take-up screw on both sides of the conveyor allows

belt tracking adjustments to be made without affecting belt tension. Note: Adjust the take-up screw 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.

REPLACING V-BELT

To change the V-belt on the SUPERBRUSH, first disconnect power source to machine.

1. Lower the main motor to its lowest position using the brush speed control (RPM) handle. Raise the motor to its highest position. This will loosen the V-belt in the drive pulley so the V-belt can be lifted off the driven (brush) pulley.
2. Remove the miter gear from the right (inboard) side of the transfer rod (Fig. 14). Now loosen the shaft collar on the left (outboard) side of the rod, and pull the rod back enough so the V-belt can be removed. (Make sure to catch the nylon washer which will drop off the transfer rod.)
3. Remove the inner half of the pulley guard by removing the six screws holding the inner half to the outer half. Remove the inner half of the pulley guard.
4. Remove V-belt from drive pulley. If there is not enough clearance to remove V-belt loosen the four bolts securing the main motor to bracket. Note location of motor before sliding motor out of the way for ease of reassembly. Note the routing of the old V-belt: now remove the old V-belt and replace it with the new V-belt (Fig. 23 and 24).

NOTE: If the V-belt will not fit between the driven pulley and the brush support casting, loosen or remove the bolts holding the bearings. Lift brush enough to allow V-belt to be removed. After installing new V-belt, retighten bolts.

Machine Reassembly

1. To reassemble the unit after replacing the V-belt, first reassemble the pulley guards.
2. Place the transfer rod back through the machine and reinstall the nylon washer. Tighten the shaft collar. Reinstall the miter gear on the transfer rod, making sure the set screw is centered on the flat of

the rod.

3. Adjust the tension on the V-belt by lowering the motor using the brush speed control handle.
4. Make sure that the V-belt is in alignment. Also check that all belts are tight before using the SUPERBRUSH.

ROTATING/REPLACING BRUSH BEARINGS

Replacing the permanently lubricated bearings on the SUPERBRUSH is a relatively straight-forward procedure. Bearings should be replaced when they allow excessive play of the brush, make excessive noise, or otherwise indicate failure.

Bearing Replacement:

1. Disconnect power source to the machine.
2. Lower motor to its lowest position using the RPM adjustment handle. Then raise motor to its highest position using the RPM adjustment handle. This loosens the V-belt tension so the V-belt can be lifted off the driven pulley.

3. Raise conveyor bed until the brush rests on bed.

If replacing both bearings, begin with bearing on the left (outboard) side.

Replacing Left (Outboard) Bearing:

Make sure power is disconnected to the machine.

1. Loosen set screws in bearing collar. Remove the two Brush Mounting Bolts (Fig. 19A) holding bearing assembly to frame of machine. Slide bearing assembly off shaft of brush head.
2. If the shaft of the brush is rough from the set screws, use emery cloth or sandpaper to smooth down any raised edges. Slide the new bearing on the shaft, but do not tighten the set screws or bearing flange bolts yet.
3. Install and tighten the two Brush Mounting Bolts (Fig. 19A). Tighten the two bearing flange bolts. Tighten the two set screws in the bearing collar.

If the left (outboard) bearing is the only one that needs changing, proceed to reassemble the unit. You can check the brush at this point by lowering the conveyor bed and spinning the brush by hand. This will help

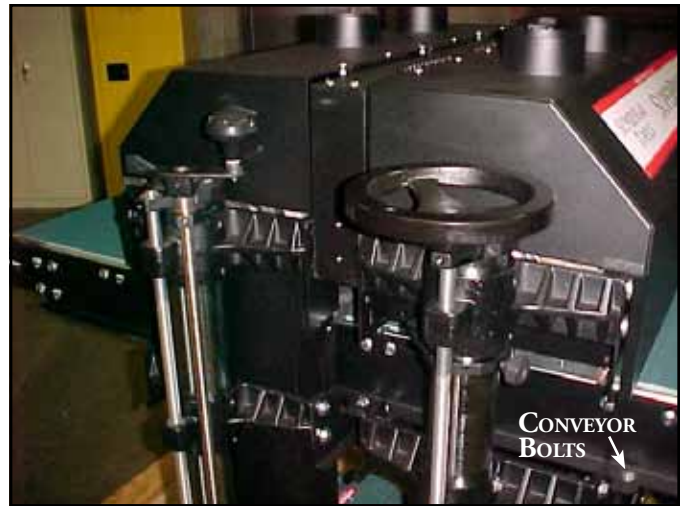


Fig. 20. Conveyor belt replacement.

determine if the inboard bearing needs to be changed to eliminate noise or excessive play in the brush.

Replacing Right (Inboard) Bearing:

Disconnect power source to brush.

1. Lower motor to its lowest position using the RPM adjustment handle. Then raise motor to its highest position using the RPM adjustment handle. This loosens the V-belt tension so the V-belt can be lifted off the driven pulley.
2. Raise conveyor table so brush rests on conveyor.
3. Remove four Brush Mounting Bolts from both inboard and outboard bearings



Fig. 21. Tensioning and tracking conveyor belt.

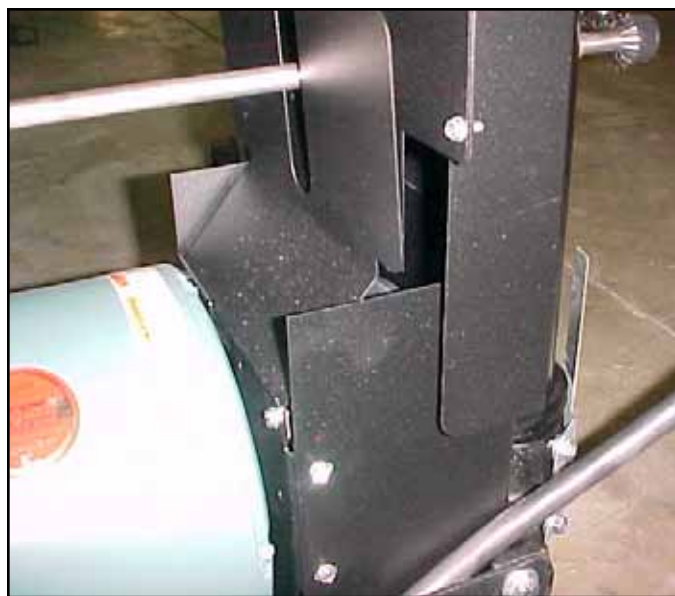


Fig. 23. Removing lower guard and transfer rod.

4. Remove brush head from machine and place on flat surface, making sure the brush cannot roll.
5. Make note of pulley location on brush shaft. Loosen set screw(s) in driven pulley and remove pulley.
6. Loosen set screws in right bearing and remove bearing from shaft. If the shaft of the brush is rough from the set screws, use emery cloth or sandpaper to smooth down and roughness.
7. Slide new bearing assembly onto shaft. Do not tighten set screws or bolts.
8. Reinstall pulley in same location and tighten set screw(s).
9. Place brush head back into machine. Make sure brush head is centered.
10. Tighten all four Brush Mounting Bolts (Fig. 19A).
11. Tighten bearing flange bolts.
12. Tighten bearing collar set screws.
13. Install V-Belt on driven pulley.
14. Confirm V-Belt alignment and brush location before running. Adjust if necessary.
15. After running for a couple of hours check all bolts and set screws for tightness.



Fig. 24. Removing main motor V-belt.

REPLACING BRUSH HEAD

1. Lower motor to its lowest position using the RPM adjustment handle. Then raise motor to its highest position using the RPM adjustment handle. This loosens the V-belt tension so the V-belt can be lifted off the driven pulley.
2. Remove the bearing bolts (Fig. 19, 19A and 25) and lift brush out of machine. Note: Some models have two mounting bolts attaching the bearing housing down into the brush support bracket. These two bolts can be used to remove the brush head instead of the bolts through the bearing flange.
3. Loosen set screws in bearing collars and driven pulley and remove from brush shaft.
4. Install new bearings and driven pulley. Do not tighten set screws at this time.
5. Install brush in machine and center before tightening bearing bolts. Tighten bearing bolts and then set screws in bearings.
6. Install V-belt on driven pulley and adjust pulley for proper V-belt alignment before tightening pulley set screw.
7. Check the alignment of the brush to the conveyor system. (For instructions on this procedure, see page 8 of this manual).
8. Lower the conveyor and spin the brush by hand

to make sure the brush shaft is not binding in the bearing. If the bearings bind, loosen the set screws and the bearing flange for one bearing at a time. Spin the brush within the collar, then tighten the bolts in the bearing flange and then the set screws.

9. Test-run the SUPERBRUSH before brushing stock to check that all is operating properly and is aligned before brushing good stock. Also, stop the SUPERBRUSH after a couple hours of use and check the bolts and set screws to make sure they are seated properly.

REPLACING ELECTRICAL COMPONENTS

To replace either the variable-speed controller, or the conveyor motor, use the following disassembly procedure (pages 23-25):

To replace either the variable-speed controller, the ON/OFF switch, conveyor motor or the height adjustment controller use the following disassembly procedure (Fig. 26)

Disconnect the power supply to the machine. Remove the “height adjustment” bottom tray from the control box by removing two bolts and disconnect three wires. Loosen the set screws in the shaft coupler. Remove the six bolts holding the conveyor motor assembly (Fig. 26). Remove the gear motor assembly and place it upside down on conveyor to access the leads to disconnect the leads from the components to be removed.

To replace the variable speed controller for the conveyor or height adjustment (Fig. 26), remove the variable speed control knob. Remove the nut that holds the controller in place and pull the controller out of the housing. Install the new controller, referring to the correct electrical diagram and reverse the disassembly procedure.

To replace on/off switch, make sure power is disconnected to sander. Remove the two screws holding the front cover of the switch in place. Disconnect and mark wire leads connected to switch mechanism. Remove switch from box and install new switch. Connect wires to new switch following the wiring diagram and marked wires. **IMPORTANT:** Make sure bare wire does not touch any other wire or the switch box when connected. Install switch assembly and cover.

To replace the conveyor gear motor, disconnect the two wire leads from the controller. Also disconnect the

plastic grommet protecting the wires passing through the housing. Remove the four cap head set screws that hold the motor to the housing bracket. Remove the old motor and install new motor. Install the wiring leads according to the electrical diagram pertaining to the correct model (See following diagrams).

To replace conveyor fuse (Fig. 4), push and turn fuse cap 1/8 turn counter clockwise. Pull cap with fuse from base. Pull fuse from cap and replace with 3/4 amp fuse (pages 24 and 25). Place fuse and cap into base,

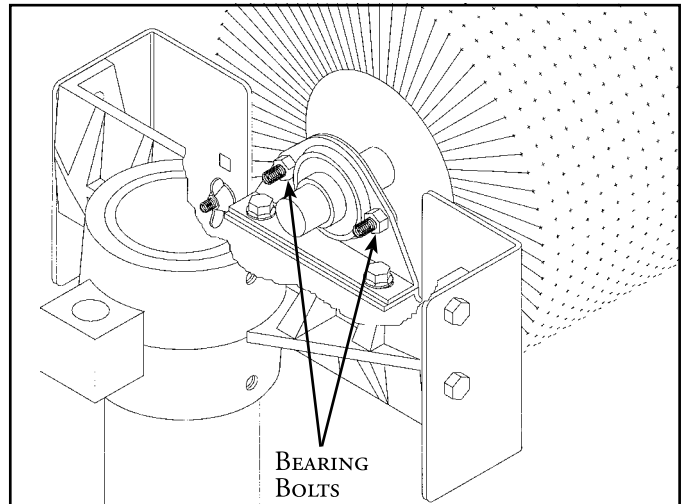
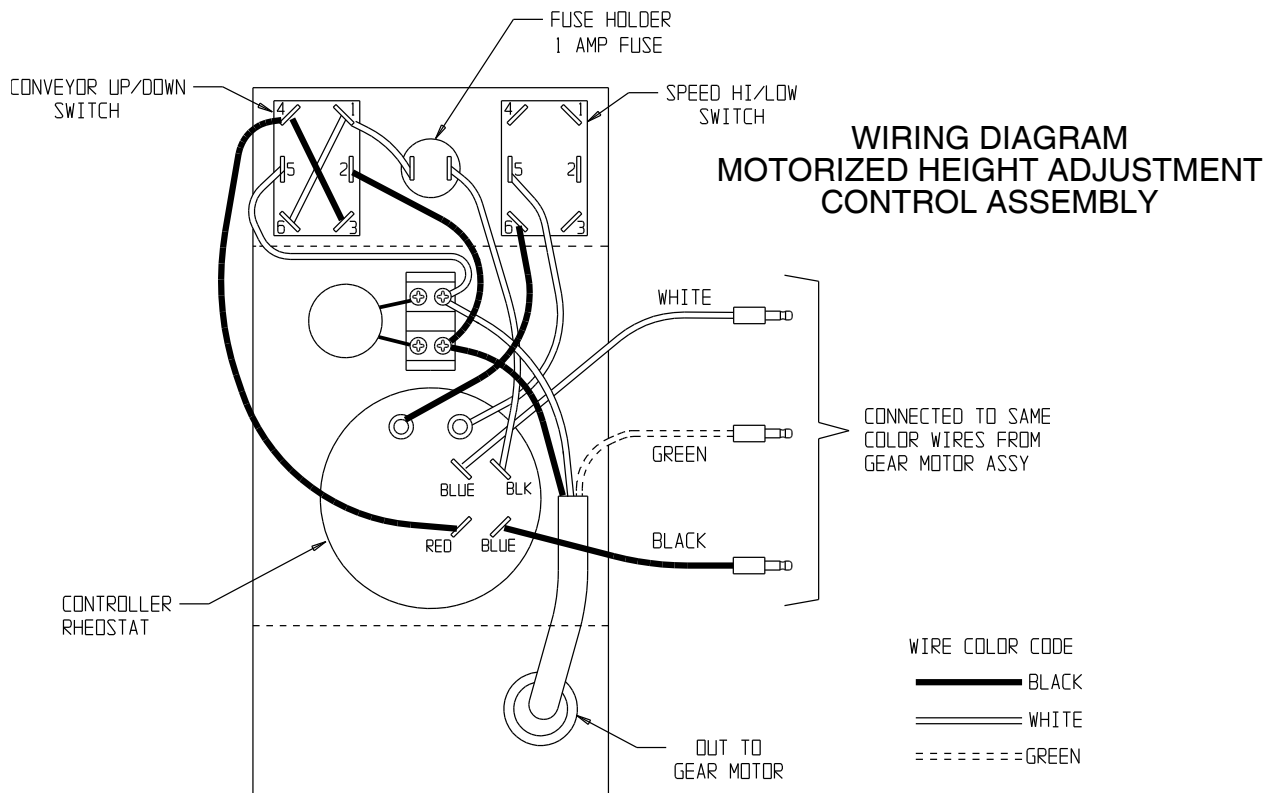
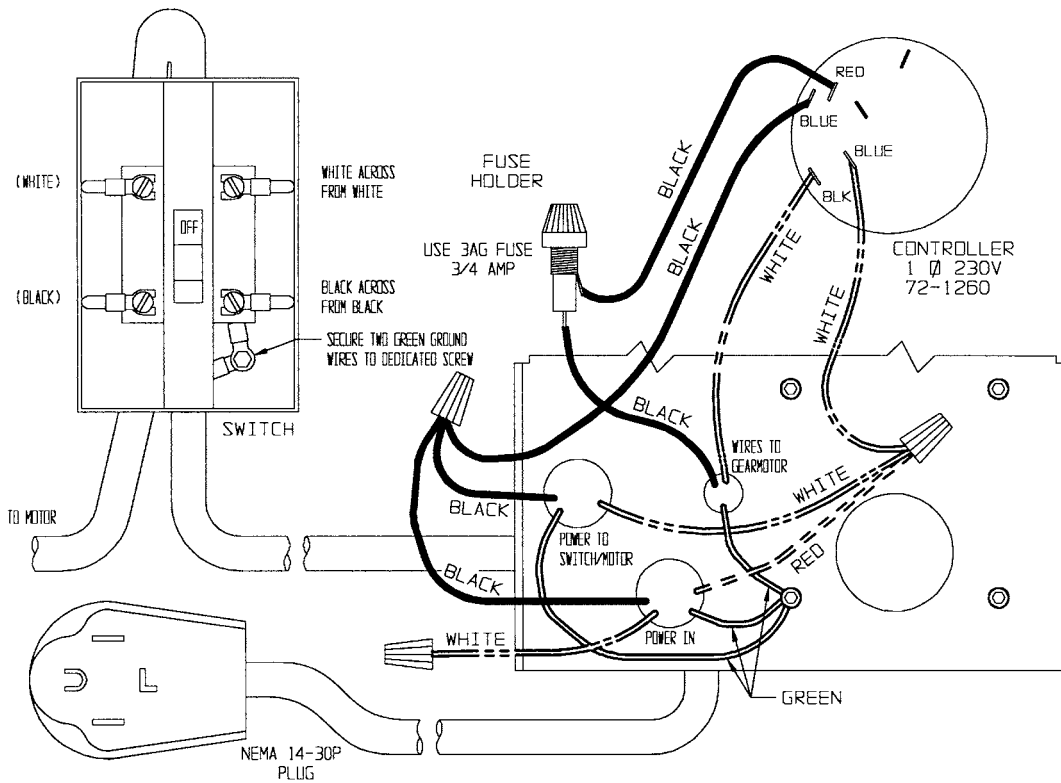


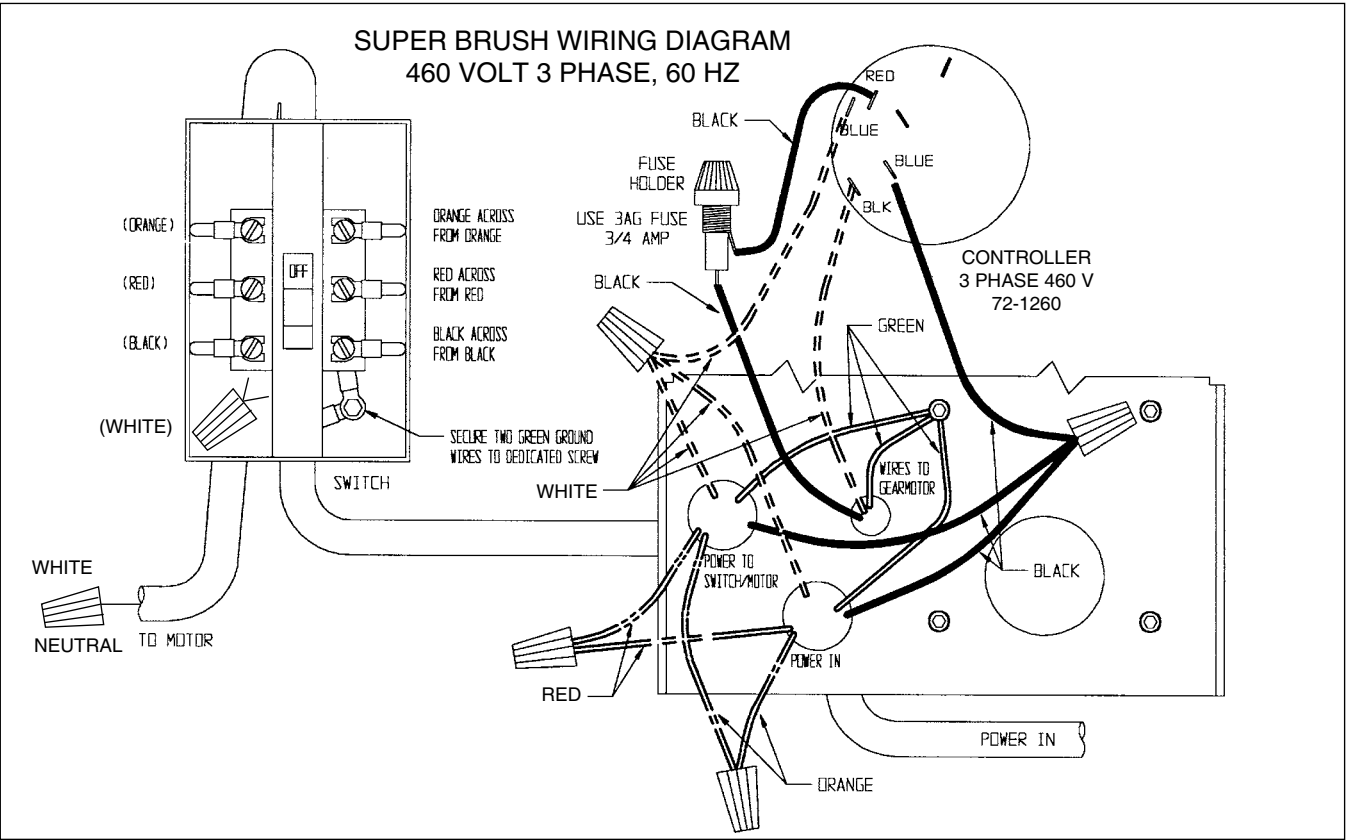
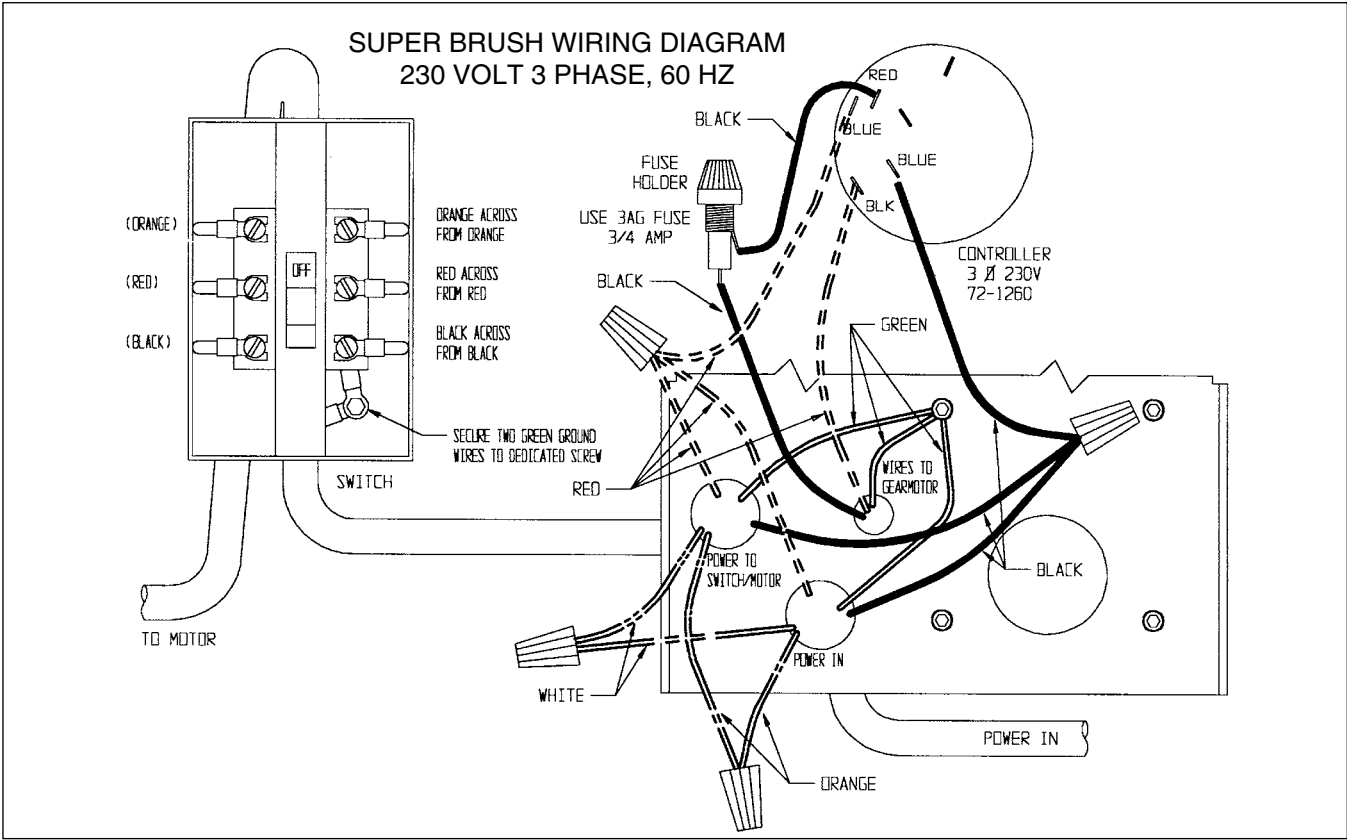
Fig. 25. Supporting brushes to remove bearings.



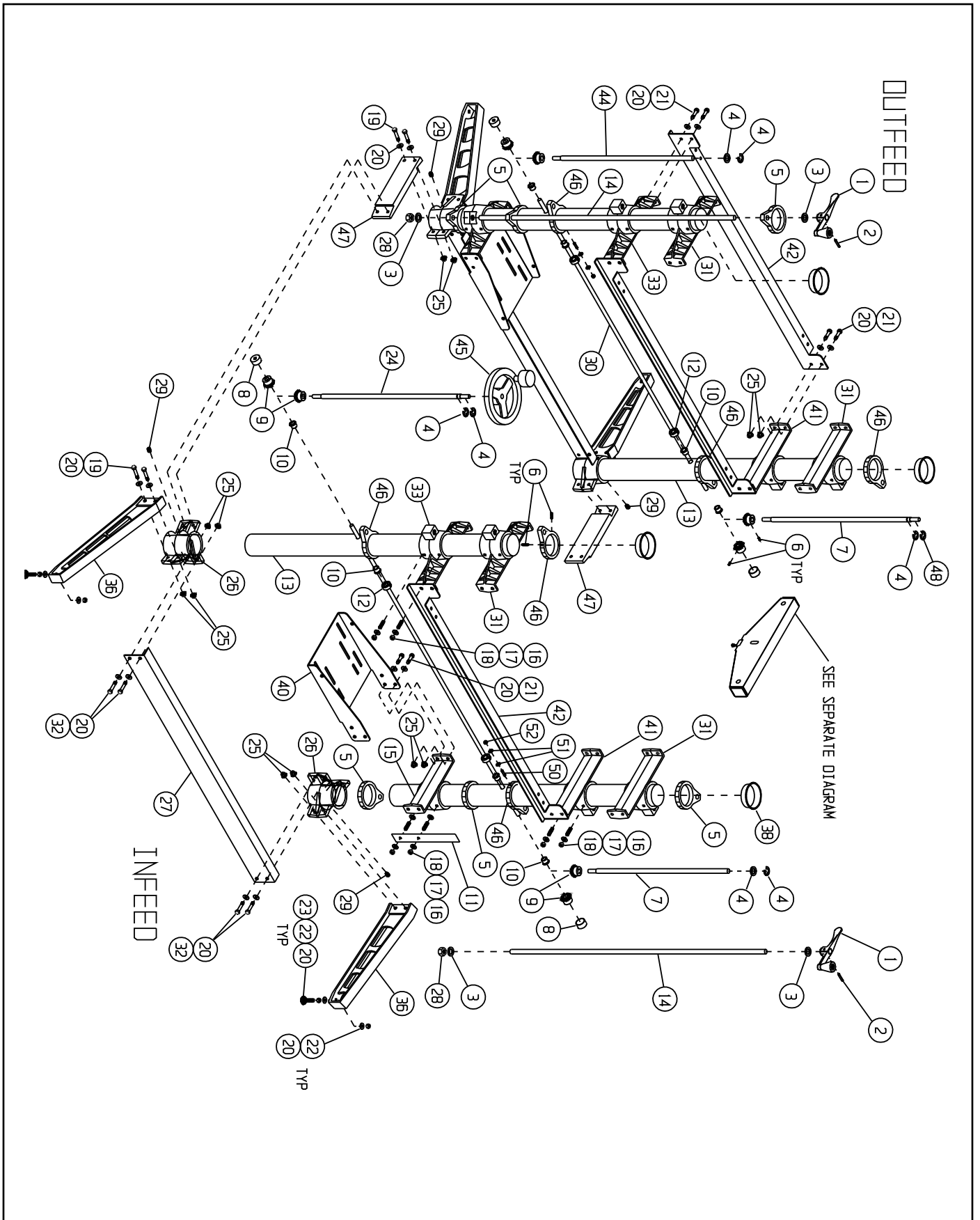
Fig. 26. Conveyor motor control box and brush on/off switches.

SUPER BRUSH WIRING DIAGRAM 230 VOLT 1 PHASE, 60 HZ

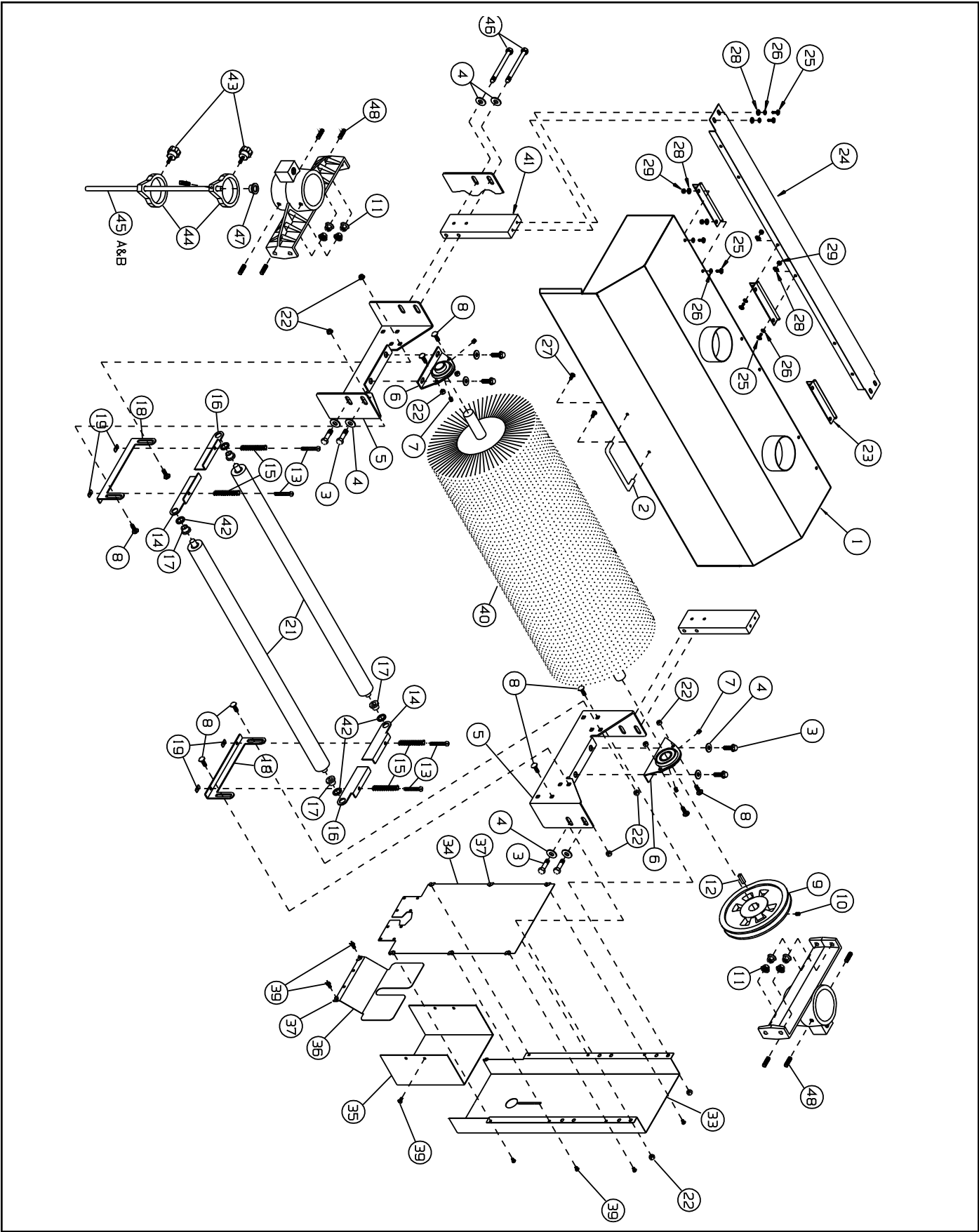




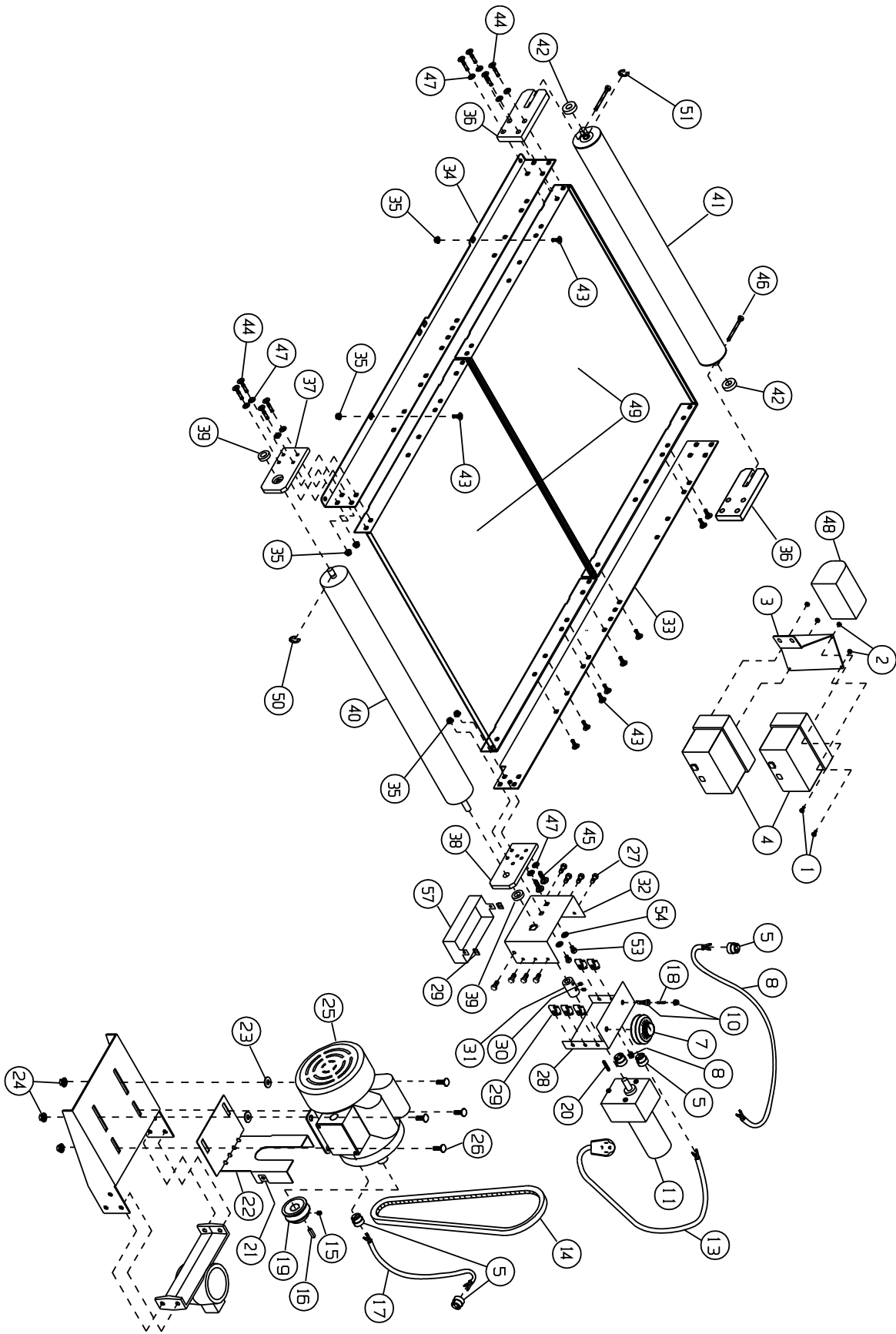
Ref. Number	Description	Part Number			Qty./ Unit
		SB24x2	Both Models	SB36x2	
1	HANDLE, SWIVEL ASSY		31-0020		3
2	PIN, ROLL 3/16X1		20-0772		2
3	WASHER, 5/8 I.D. OILITE		50-3080		4
4	RING, 5/8 RETAINING		20-0752		4
5	SUPPORT, ADJUSTING SCREW		30-1112		4
6	SCREW, 1/4-20X1/2 SOCKET HEAD SET		10-2804		12
7	SCREW, INBOARD HEIGHT ADJ. FOLLOW		30-1240		2
8	CAP, 1" PLASTIC		80-4013		4
9	GEAR, MITER HEAVY DUTY		20-1101		10
10	BUSHING, 1/2 I.D. OILITE ROUND		50-3107		8
11A	RPM, BRACKET		40-0670		2
11B	RPM, DECAL (not shown)		94-1674		2
12	COLLAR, 1/2 I.D. SHAFT		20-1103		4
13	TUBE, COLUMN		30-3044		4
14	SCREW, RPM, MOTOR		30-1209		2
15	MOUNT, MOTOR		30-5103		2
16	NUT, 5/16-18 HEX		12-0003		12
17	WASHER, 5/16 SAE		11-0206		16
18	SCREW, 5/16-18X3/4 BRASS TIPPED SET		10-9906		12
19	BOLT, 3/8-16X1-1/2 HEX HEAD		10-9207		16
20	WASHER		11-9103		40
21	BOLT, 3/8-16X1 HEX HEAD		10-9205		24
22	NUT, 3/8-16 HEX		12-0005		16
23	CASTER		98-0131		4
24	SCREW, OUTBOARD HEIGHT ADJ.		30-1241		1
25	NUT, 3/8-16 FLANGE LOCK		12-0209		24
26	BASE, COLUMN		30-1101		4
27	BASE SUPPORT BRACKET	40-0230		40-4241	2
28	NUT, 5/8-11HEAVY HEX LOCK		12-8015		2
29	SCREW, 1/2-13X1/2 SOCKET HEAD SET		10-8905		2
30	ROD, TRANSFER	30-1213		30-3117	2
31	SUPPORT BRUSH		30-5206		2
32	BOLT, 3/8-16X1 1/4 HEX		10-9206		4
33	SUPPORT, OUTBOARD TABLE		30-5204		2
34A	DEPTH GAUGE ROD (not shown)		30-1260HR		1
34B	DECAL, SCALE (not shown)		94-1654		1
35	NUT, 9/16-12 HEX		12-0011		2
36	LEG, SE		30-1103		4
38	CAP, PLASTIC COLUMN TUBE		80-4015		4
39	CLIP, FRAME (not shown)		72-6208		5
40	MOTOR MOUNT		40-0106		2
41	SUPPORT, INBOARD TABLE		30-5205		1
42	BRACKET, TABLE MOUNT	40-0025		40-0037	4
44	SCREW, ADJUSTING, MAIN		30-1208HR		1
45	HANDLE, SWIVEL, LARGE		31-0030		1
46	SUPPORT, ADJUSTING SCREW, W/BEARING		30-1112-0		8
47	SPACER, STAND (LEG TIE)		30-1045		2
48	RING, 1/2" RETAINING (E CLIP)		20-0750		3
50	SET SCREW, 5/16"		10-9906		1
51	WASHER, 5/16"		11-0206		2
52	NUT, 5/16"		12-0205		1



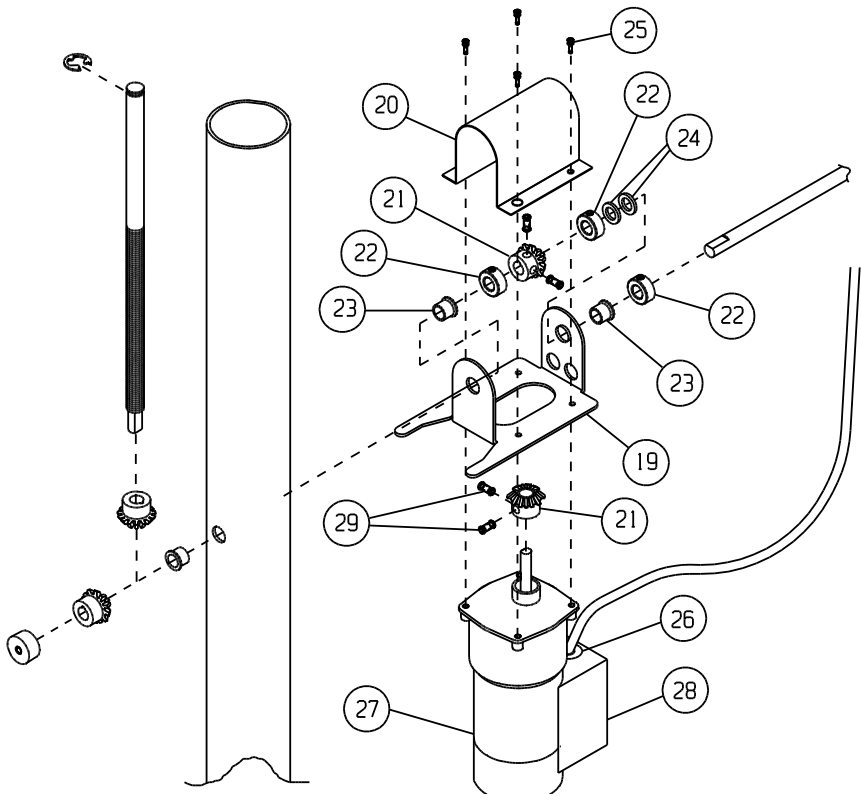
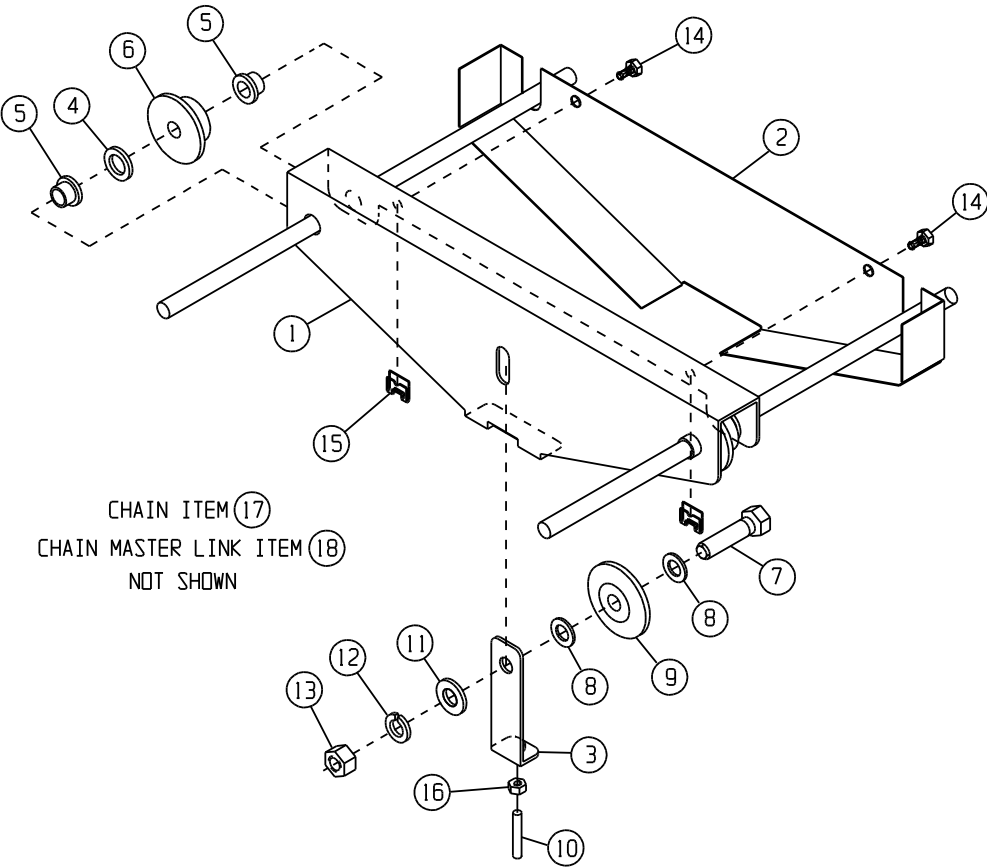
Ref. Number	Description	Part Number			Qty./ Unit
		SB24x2	Both Models	SB36x2	
1	DUST COVER	40-3654		40-3655	2
2	HANDLE, DUST COVER		80-2841		2
3	BOLT, HEX 3/8-16X1		10-9205		16
4	WASHER, 5/16 SAE		11-0206		16
5	BRACKET, BEARING MOUNTING (SEE FIG. 25)		40-0613		4
6	BEARING		50-3086		4
7	SCREW, 1/4" SOCKET HEAD SET		10-8602		8
8	BOLT, 5/16-18X3/4 CARRIAGE		10-1203		16
9	PULLEY, 7"-10" (TYPICAL)		50-0701		2
10	SCREW, 5/16-18X3/8 SOCKET HEAD SET		10-8903		2
11	NUT, 3/8-16 FLANGE LOCK		12-0209		16
12	KEY STOCK, 1/4X1/4X1 1/4		20-0764		2
13	SCREW, 1/4-20X1 3/4 ROUND HEAD MACHINE		10-3213		8
14	BRACKET, LEFT SUSPENSION		40-0323		4
15	SPRING, TENSION ROLLER		20-3284		8
16	BRACKET, RIGHT SUSPENSION		40-0326		4
17	BUSHING, 1/2 ID OILITE ROUND		50-3107		8
18	BRACKET, SUSPENSION BASE		40-0322		4
19	NUT, 1/4-20 RETAINING		20-1153		8
21	ROLLER TENSION	30-1218		30-3218	4
22	NUT, 5/16-18 FLANGE LOCK		12-0207		12
23	HINGE		40-0225		6
24	BRACKET, DUST COVER MOUNTING	40-3659		40-3658	1
25	SCREW, 1/4-20X1/2 ROUND HEAD MACH		10-3205		28
26	WASHER, 1/4 INTERNAL TOOTH LOCK		11-0504		28
27	SCREW, 8X1/2 SELF TAPPING		10-3904		4
28	WASHER, 1/4 SAE		11-0205		24
29	NUT, 1/4-20 HEX		12-0001		24
30	NUT 5/16-18 WING		12-9050		8
31	WASHER, 5/16 INTERNAL TOOTH LOCK		11-0505		8
32	BUMPER, DUST COVER (not shown)		80-1065		4
33	GUARD, BELT COVER		40-0009		2
34	GUARD, BELT, PLATE		40-0010		2
35	GUARD, BELT LOWER		40-0011		2
36	GUARD, BELT, ANGLED		40-0012		2
37	NUT, RETAINING		20-1155		12
38	NUT, RETAINING		20-1157		4
39	SCREW, 10-24X3/8 SLOTTED HEX HEAD		10-3803		24
40	BRUSH		See page 35		2
41	SPACER, HEAD		30-1310		2
42	WASHER, 5/8"		80-2324		4
43	KNOB, LOCKING W/SET SCREW		81-3132		2
44	SUPPORT, ADJUSTING SCREW		30-1112		2
45A	DEPTH GAUGE ROD		30-1260HR		1
45B	DECAL, SCALE		94-1654		1
46	BOLT, HEX 3/8 X 4-1/2"		10-9209		4
47	NUT, HEX 1/2"		12-0009		2
48	SCREW, 5/16" SOCKET HEAD SET		10-2903		8
49	DRO DISPLAY BRACKET (not shown)		40-4310		1
50	DRO DISPLAY, DIGITAL (not shown)		98-0118-4		1
51	DRO SCALE, READ (not shown)		98-0118-6		1
52	DRO SCALE BRACKET (not shown)		40-4122		1
53	DRO HEAD, READ (not shown)		98-0118-3		1
54	DRO FLEX LINK (not shown)		98-0118-2		1
55	SHIM Kit (not shown)		98-0050		1



Ref. Number	Description	Part Number			Qty./ Unit
		SB24x2	Both Models	SB36x2	
1	1/4"-20X1/2" ROUND HEAD MACH SCREW		10-3205		6
2	1/4"-20 HEX NUT		12-0001		6
3	SWITCH BRACKET		40-5005		1
4	ON/OFF SWITCH, Magnetic		72-1313		2
	ON/OFF SWITCH, Manual (not shown) 3 Phase		72-7810		2
5	STRAIN RELIEF		72-6104		3
6	WASHER, 1/4 INTERNAL TOOTH LOCK		11-0504		6
7	CONTROLLER, 180 VDC, VARIABLE SPEED, CONVEYOR		72-1260		1
8	CORD SET, SINGLE PHASE, 32"		72-5315		2
	CORD SET, THREE PHASE, 32"		72-5305		2
10	FUSE HOLDER (one not shown)		72-6202		2
11	MOTOR, GEAR, 180 VDC		71-1174		1
13	CORD SET, MAIN W/PLUG, SINGLE PHASE		72-5430		1
	CORD SET, MAIN, NO PLUG, THREE PHASE		72-5305		1
14	V-BELT		50-2029		2
15	SCREW, SET, 5/16"		10-2903		2
16	KEY, 1/4"		20-0762		2
17	CORD SET, SINGLE PHASE		72-5315		1
	CORD SET, THREE PHASE		72-5305		1
18	FUSE, 3/4 AMP (one not shown)		72-6201		2
19	PULLEY, DRIVE VARIABLE SPEED		50-0704		2
20	KEY, 3/16"		20-0763		1
21	RETAINING NUT		20-1157		4
22	LOWER, INNER BELT GUARD		40-1000		2
23	WASHER, FLAT 3/8"		11-0104		4
24	5/16"-18 FLANGED LOCK NUT		12-0207		4
25	MOTOR, 5 HP. TEFC, SINGLE PHASE		71-0502		2
	MOTOR, 5 HP. TEFC, THREE PHASE		71-1503		2
26	BOLT, CARRIAGE 5/16"		10-1203		8
28	CONTROL HOUSING		40-5013		1
29	RETAINING NUT, 5/16"		20-1159		8
30	SET SCREW		10-8902		4
31	COUPLER, 5/8"		13-1017		1
33	RAIL, BED RH		40-0502		1
34	RAIL, BED LH		40-0503		1
35	NUT, FLANGE LOCK 3/8"		12-0209		20
36	BRACKET, DRIVEN ROLLER SUPPORT		40-4152		2
37	BRACKET, DRIVE ROLLER SUPPORT LH		40-4151		1
38	BRACKET, DRIVE ROLLER SUPPORT RH		40-4150		1
39	BEARING, DRIVE ROLLER		13-1016		2
40	ROLLER, DRIVE	30-3110		30-3108	1
41	ROLLER, DRIVEN	30-3109		30-3111	1
42	BEARING, DRIVEN ROLLER		13-1015		2
43	BOLT, CARRIAGE 3/8"		10-1302		16
44	BOLT, 3/8"		10-1303		8
45	BOLT, 3/8"		10-9205		4
46	BOLT, TRACKING, 3/8"		10-9215		2
47	WASHER, INTERNAL TOOTH LOCK, 1/2"		11-0508		14
48	SWITCH, REVERSING, (SECOND BRUSH)		72-1310		1
49	CONVEYOR BED	40-4201		40-4101	2
50	WASHER, 5/8"		50-3080		4
51	RETAINING CLIP		20-0753		2
53	BOLT, HEX, 3/8"		10-9205		2
54	WASHER, 3/8"		11-0104		4
55	BELT, CONVEYOR, POLYURETHANE (not shown)	61-1011		61-1008	1
56	CONTROLLER, 180 VDC, VARIABLE SPEED , HGT. ADJ. (not shown)		72-1265		1



Ref. Number	Description	Part Number			Qty./ Unit
		SB24x2	Both Models	SB36x2	
1	BRACKET, CHAIN		40-1047		1
2	GUARD, CHAIN		40-1048		1
3	BRACKET, IDLER TENSION		40-1046		1
4	WASHER, ½" (Not used on all models)		20-1103		2
5	BUSHING, ½		50-3107		4
6	SPROCKET (DRIVE & DRIVEN)		13-1011		2
7	BOLT, ½"		10-0407		1
8	WASHER, INTERNAL TOOTH, 1/2"		11-0508		2
9	SPROCKET, IDLER		13-1010		1
10	STUD		10-9906		1
11	WASHER, flat, ½"		11-0209		1
12	WASHER, LOCK, ½"		11-0013		1
13	NUT, ½"		12-0009		1
14	BOLT, 5/16		10-9101		2
15	NUT, RETAINING		20-1159		2
16	NUT, 5/16		12-0205		1
17	CHAIN, ROLLER (not shown)		13-1013		1
18	CHAIN, CONNECTING LINK (not shown)		13-1014		1
19	BRACKET, GEAR MOTOR MOUNT		40-5000		1
20	GUARD, MITER GEAR		40-5001		1
21	MITER GEAR, HD		20-1100		2
22	COLLAR, SHAFT		20-1103		2
23	BUSHING, ½		50-3107		2
24	WASHER		50-3110		2
25	SET SCREW, SOCKET HEAD		10-2404		4
26	STRAIN RELIEF		72-6101		1
27	GEAR MOTOR		71-1173		1
28	CONDUIT BOX		70-0000		1
29	SET SCREW		10-2804		4



SUPERBRUSH SPECIFICATIONS

SUPERBRUSH 24 x 2

SUPERBRUSH 36 x 2

Warranty: One year on parts and labor, limited;
Manufacturer's warranties on conveyor belts and brush heads.

Dimensions:	24 x 2: Length 66" Width 50" Height 52" 36 x 2: Length 66" Width 62" Height 52"
Dust Hood:	24 x 2: Steel hood with four, 4" vacuum ports, hinged 36 x 2: Steel hood with four, 4" vacuum ports, hinged
Dust Collection:	Mandatory. Minimum 2400 CFM (600 CFM per port)
Brush Speed:	Infinitely variable 400 – 1200 RPM (typical)
Brush:	See Brushes and Supplies, page 35
Bearings, brush:	1" sealed, permanently lubricated, ball
Conveyor:	Variable Speed, 0 – 30 ft./min (typical)
Conveyor Bed:	Steel reinforced with eight cross sections
Conveyor Belt:	Polyurethane, rough-top
Stand:	Steel, plated or powder coated
Drive Motor:	(2) 5 HP TEFC; 1700 RPM; 60 HZ. Continuous Duty, Three Phase 208-230 Volt; Optional Three Phase 440-460 Volt or Single Phase 208-230 Volt, Optional 7-1/2 HP
Minimum Stock Length:	10" without fixtures, can vary with application
Height Adjustment:	3/32" per revolution. Depth gauge included
Stock Thickness Capacity:	9" typical. Can vary with application and brush type
Shipping Weight: approximate:	24 x 2: 1100 lbs 36 x 2: 1340 lbs.
Tension Rollers:	1-1/2" diameter, rubber covered, spring tensioned, fully adjustable

BRUSHES & SUPPLY CHECKLIST

SUPERBRUSH OPTIONS

BRUSHES FOR THE SUPERBRUSH 24 X 2 AND SUPERBRUSH 36 X 2

DESCRIPTION	QTY.
46 Grit, Nylon/Silicon Carbide Short or Long bristle, Open or Dense wound	
60 Grit, Nylon/Silicon Carbide Short or Long bristle, Open or Dense wound	
80 Grit, Nylon/Silicon Carbide Short or Long bristle, Open or Dense wound	
120 Grit, Nylon/Silicon Carbide Short or Long bristle, Open or Dense wound	
180 Grit, Nylon/Silicon Carbide Short or Long bristle, Open or Dense wound	
240 Grit, Nylon/Silicon Carbide Short or Long bristle, Open or Dense wound	
320 Grit, Nylon/Silicon Carbide Short or Long bristle, Open or Dense wound	
Wire, Carbon Steel, Open or Close Wound	
Wire, Stainless Steel, Fineset	
Flatter Style Brush (Head Assembly)	
Flatter Style Brush Abrasives; 36 – 400 grit, various minerals, widths, lengths and densities (Abrasives only)	
Cloth polishing heads	
Scotch-Brite™ Various grades and configurations	

These are just a few types of the dozens of brushes available. Please contact SuperMax Tools for a complete listing of brushes and brush material available or to run test samples of your specific application.

SUPPLIES

ITEM #	DESCRIPTION	QTY.
98-0050	Shim, Kit	

CONVEYOR BELTS

Polyurethane rib-textured surface with monofilament backing

MODEL	ITEM #	QTY.
SUPERBRUSH 24 X 2	PART# 6I-1011	
SUPERBRUSH 36 X 2	PART# 6I-1008	

For information on the SUPERBRUSH and supplies
call SuperMax Tools (888) 454-3401 or visit www.supermaxtools.com.

ONE YEAR WARRANTY

Limited warranty. SuperMax Tools will provide all replacement parts which are found to be defective in materials or workmanship. Manufacturers' warranties on conveyor belts and brush heads.

CAUTION: IMPORTANT SAFETY INFORMATION

FOR SAFE SANDING OPERATION, FOLLOW THESE GUIDELINES:

- **BECOME FAMILIAR WITH THE PROPER OPERATIONAL PROCEDURES FOR USING THIS MACHINE.**
- **ALWAYS BE SAFETY CONSCIOUS WHEN OPERATING THE MACHINE.**
- **ALWAYS WEAR EYE PROTECTION WHILE OPERATING THE SANDER.**
- **FEED STOCK AGAINST THE ROTATION OF THE BRUSH, TYPICAL**
- **NEVER PLACE HANDS UNDER THE BRUSH OR DUST COVER.**
- **NEVER OPERATE SUPERBRUSH WITHOUT ITS DUST COVER OR PULLEYGUARD IN PLACE.**
- **KEEP HANDS AND CLOTHING AWAY FROM OPERATING BRUSH BELT AND PULLEYS.**
- **ALWAYS MAINTAIN CONTROL OF STOCK TO AVOID KICKBACK; KNOW HOW TO PREVENT IT.**
- **ALWAYS DISCONNECT ELECTRICAL POWER BEFORE PERFORMING ANY SERVICING OR ADJUSTMENT OF THE MACHINE.**
- **DO NOT MODIFY THIS MACHINE: MODIFICATIONS ARE DONE AT THE OWNER'S RISK AND ALSO WILL VOID THE MANUFACTURER'S WARRANTY.**
- **FOR CUSTOMER SERVICE AND QUESTIONS ABOUT THE OPERATION OR MAINTENANCE OF THIS MACHINE, PLEASE CALL YOUR AUTHORIZED SUPERMAX DEALER.**