



SuperMax
Tools

OWNER'S MANUAL



16-32 DRUM SANDER

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CONGRATULATIONS

SuperMax Tools takes pride in our products and stands behind them with continuing service and support for our customers. Your SuperMax Tools sander was designed with several features that will bring a new dimension of productivity to your shop. Our goal at SuperMax Tools is to develop machines that provide you with maximum performance, maximum economy and maximum utility. Your 16-32 drum sander has features that will give you better results in less time in the years ahead. This sander is designed to be tailored to every project and features ultra-precise control for any sanding project.

This sander is covered with a warranty and your distributor can answer any questions you may have. Additionally, we will always be here to offer support, service information, and product supplies and services. Before using your sander for the first time learn how to use it. This manual covers unpacking step-by-step, sander set up and fine-tuning the controls. Safety information is also provided to make sure your process is hassle free. If you have any questions this manual will provide answers and you can also refer to our website or customer service for any updates or further details.

MODEL IDENTIFICATION

Your 16-32 drum 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. 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 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 distributor.

WARNING: 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:

- a. Always wear eye protection while operating sander.
- b. Always feed boards against the drum rotation.
- c. Tighten all locks before operating.
- d. Keep hands and clothing away from operating drum.
- e. Do not operate sander with dust cover opened.
- f. Do not operate sander without dust collector connected to the dust cover.
- g. Always maintain control of boards to avoid kickback (know how to prevent it).
- h. Always disconnect power before servicing or adjusting.



WARNING: FOR YOUR OWN SAFETY READ THIS INSTRUCTION MANUAL BEFORE OPERATING THE SANDER.

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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 STABBING.** 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.

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.

TABLE A - MINIMUM GAUGE FOR CORD

AMPERAGE RATING		VOLTS	TOTAL LENGTH OF CORD (IN FEET)			
-	-		25	50	100	150
-	-	120	25	50	100	150
-	-	240	50	100	200	300
MORE THAN	NOT MORE THAN	MINIMUM GAUGE FOR CORD				
0	6	-	18	16	16	14
6	10	-	18	16	14	12
10	12	-	16	16	14	12
12	16	-	14	12	Not recommended	

GROUNDING INSTRUCTIONS**1. All grounded, cord-connected tools:**

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

- Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.
- Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, **DO NOT CONNECT** the equipment-grounding conductor to a live terminal.
- Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
- Use only 3-wire extension cords that have 3-prong grounding plugs and 3 pole receptacles that accept the tool's plug.
- Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating less than 150 V:

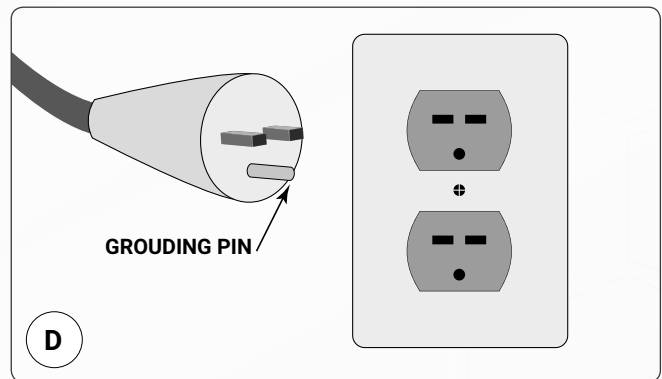
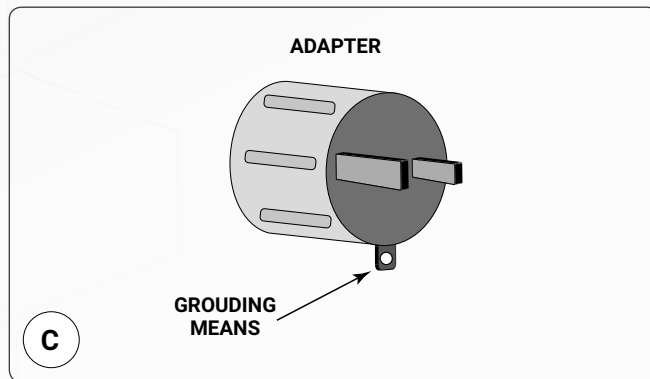
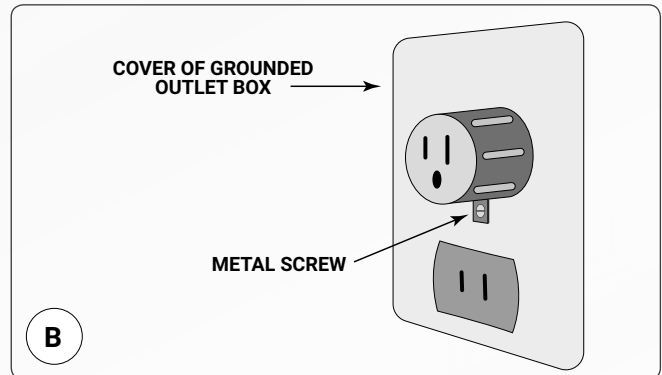
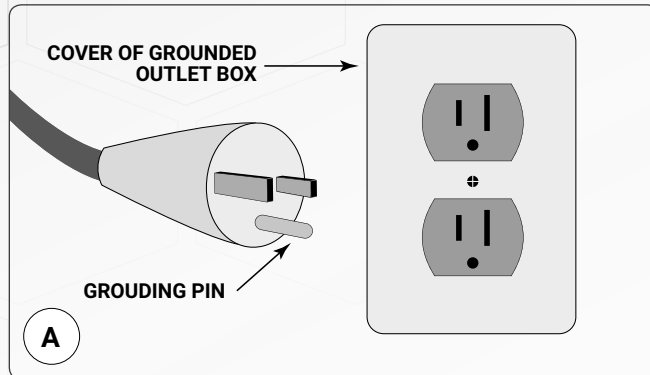
- This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in sketch **A** in Fig. 1. The tool has a grounding plug that looks like the plug illustrated in sketch **A** in Fig. 1. A temporary adapter, which looks like the adapter illustrated in sketch **B** and **C**, may be used to connect this plug to a 2 pole receptacle as shown in sketch **B** if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. **This adapter is not permitted in Canada.** The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

3. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating between 150 – 250 V, inclusive:

- This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in sketch **D**. The tool has a grounding plug that looks like the plug illustrated in sketch **D**. Make sure the tool is connected to an outlet having the same configuration as the plug. No adapter is available or should

be used with this tool. If the tool must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after reconnection, the tool should comply with all local codes and ordinances.

GROUNDING METHODS



SPECIFICATIONS

Maximum Width	32" (2 passes)
Minimum Length	2-1/4"
Maximum Thickness	3"
Minimum Thickness	1/32"
Drum Dimensions	5" x 16"
Drum Speed	1740 rpm
Dust port diameter	4"
Conveyor Speed	0 - 10 fpm
Drive Motor	1-1/2 HP
Power Requirements	110V, 1Ph, 15A, 20 Amp Service
Shipping Weight	158 lbs

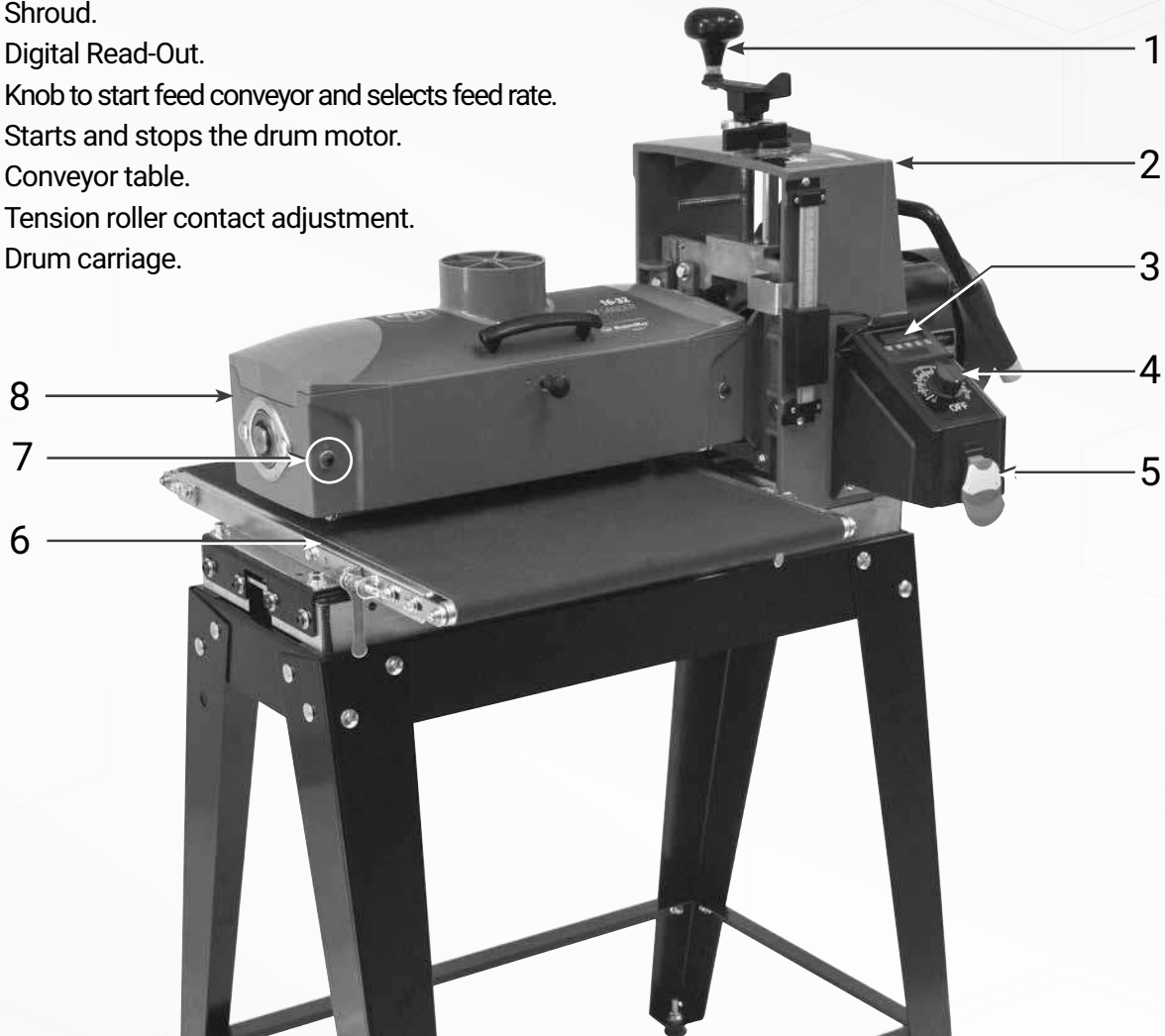
2 YEAR WARRANTY

Limited warranty. We will provide all replacement parts which are found to be defective in materials or workmanship. Register the warranty for your new machine online using our fast and easy warranty form by visiting our website at www.SuperMaxTools.com

ABOUT THE SUPERMAX TOOLS DRUM SANDER

This manual is designed to help familiarize you with your SuperMax Tools drum 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.

1. Height adjustment handle of the drum.
2. Shroud.
3. Digital Read-Out.
4. Knob to start feed conveyor and selects feed rate.
5. Starts and stops the drum motor.
6. Conveyor table.
7. Tension roller contact adjustment.
8. Drum carriage.



UNPACKING YOUR SUPERMAX TOOLS DRUM SANDER

Your 16-32 drum 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 distributor of any loss or damage during shipment. See enclosed Warranty Statement.

Note: Before setting up make sure that the space is adequate for your new equipment. We also recommend that there is more than one person available for lifting and initial set up procedures.

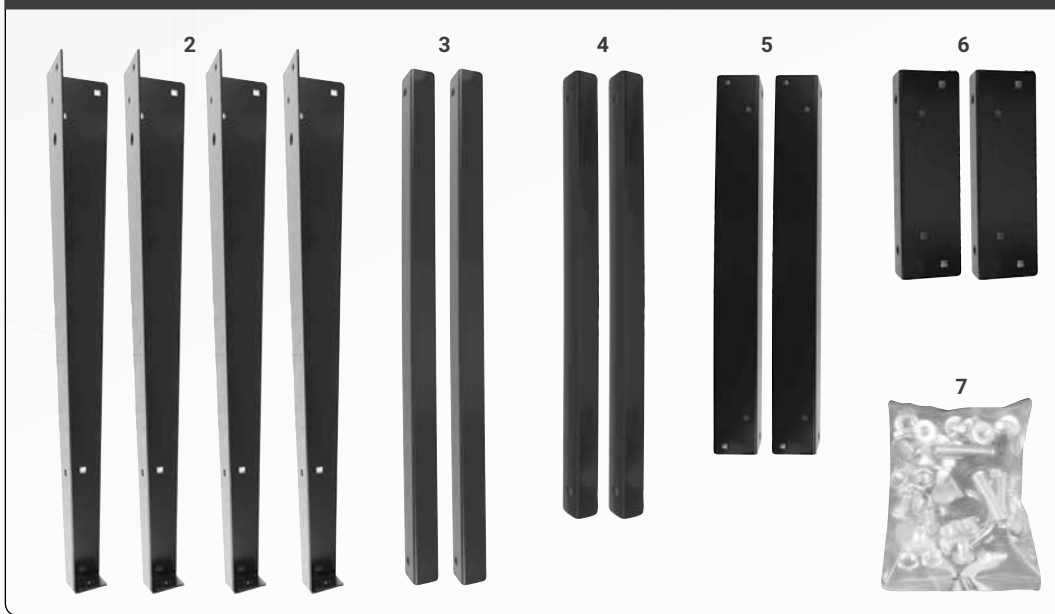


TO AVOID PROBLEMS AND POTENTIAL DAMAGE TO THE MACHINE, PLEASE READ THROUGH THE UNPACKING INSTRUCTIONS BELOW BEFORE PROCEEDING TO SET UP THE MACHINE IN YOUR SHOP.

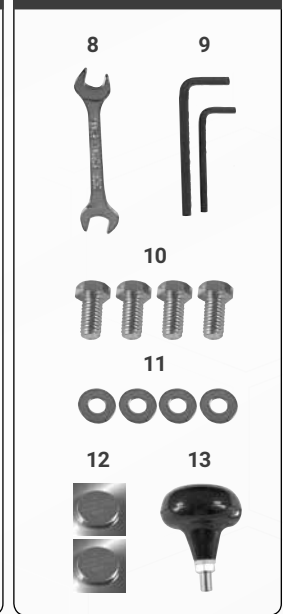
PACKAGE CONTENTS

1. Machine (not shown).....	x 1	8. Wrench 12 - 14 mm.....	x 1
2. Stand leg.....	x 4	9. Allen key 4 & 5 mm.....	x 2
3. Long lower cross braces.....	x 2	10. Bolt 3/8".....	x 4
4. Short lower cross braces.....	x 2	11. Flat washer 3/8".....	x 4
5. Long top cross braces.....	x 2	12. Battery.....	x 2
6. Short top cross braces.....	x 2	13. Knob.....	x 1
7. Hardware bag.....	x 1		

STAND BOX CONTENTS (found inside the main box)



MAIN BOX CONTENTS



ASSEMBLING YOUR SUPERMAX TOOLS DRUM SANDER

Note: For initial stand assembly secure all fasteners finger tight to start. This will allow for easier levelling after the sanding unit is installed on the stand.



1
Assemble the stand by securing two legs to the outside 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.



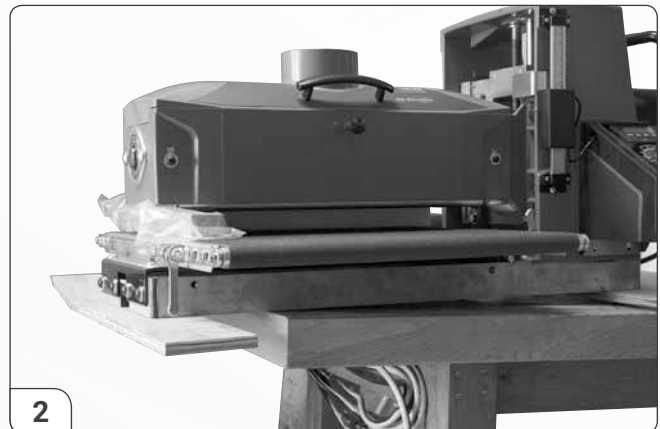
Thread a hex nut onto each of the leveling feet attach a leveling foot to the bottom of each leg with the hardware order as shown (not required if installing optional caster set #98-0130).

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

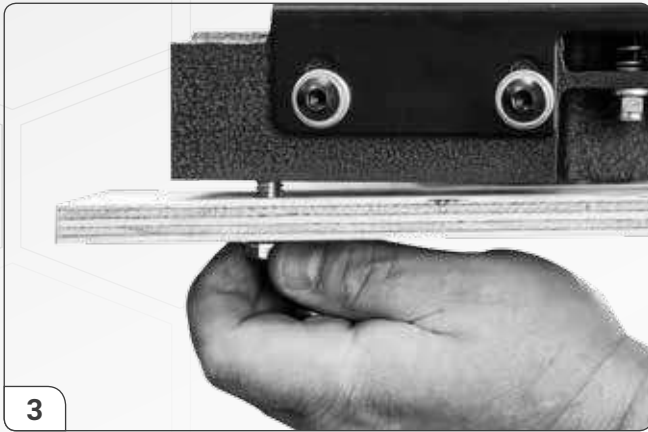
INSTALLING YOUR SUPERMAX TOOLS DRUM SANDER



For easier access to remove the unit from the box, peel back the plastic liner, cut the box at the corners, and fold down the 4 sides of the box.

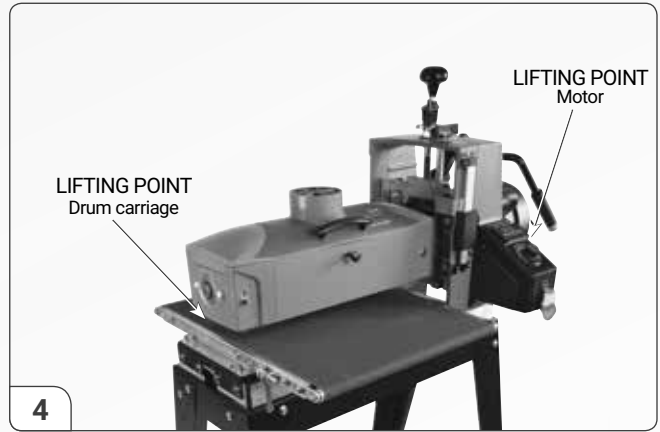


Then with the help of an assistant carefully lift the unit and set it down on a workbench with one end hanging slightly over the edge.



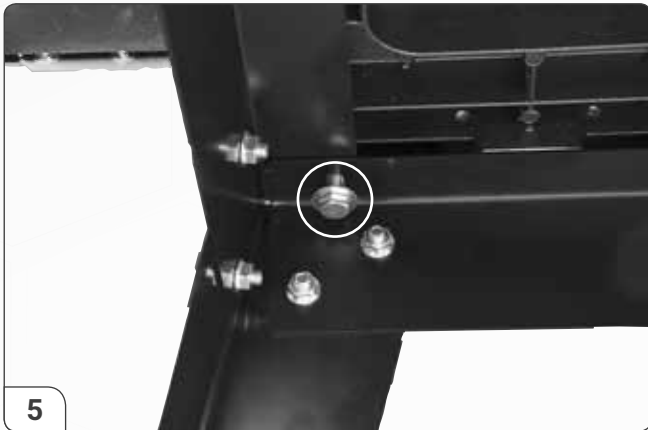
3

Unscrew the bolts holding the wooden packing support to the underside of the unit and then carefully swing the unit around on the bench and repeat for the wooden support at the opposite end (these bolts can be re-used to secure the unit to the stand in step #5; extra bolts are also provided for this with the machine).



4

With the help of an assistant place the unit on its stand taking care to line up the mounting holes in the top of the stand with the holes in the underside of the unit's base, and then remove the Styrofoam and wooden support block from under the sanding head.



5

Using the supplied 14 mm wrench bolt the machine to the stand from underneath using one of the supplied hex bolts and flat washers in each corner.

Note: With the unit properly secured, level the stand and tighten all its fasteners with a 1/2" or 13 mm socket.



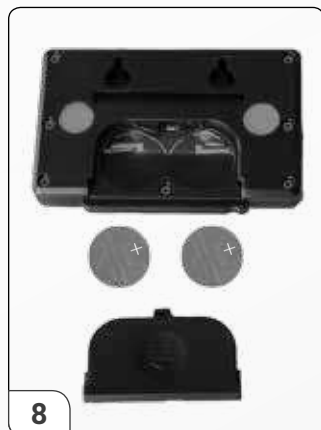
6

Screw the height adjustment knob into the handle and tighten it down with the supplied 14 mm wrench.



7

Slide the digital read-out (DRO) from its slot and install the supplied batteries with the (+) side facing up.



8



9

Re-install the DRO fully into the slot and plug in the cable from the machine.

INSTALLING YOUR SUPERMAX TOOLS DRUM SANDER (CONTINUED)



10

Plug the short power cord that is attached to the motor into the outlet on the control box. This cord will provide switched power for the motor when the machine is plugged into the power source.



11

Check your power supply to make sure that it is adequate (110V, 15 A, 20 Amp service required) but do not plug the machine into the power supply until it is fully set-up.

SETTING UP YOUR DRUM SANDER

Your SuperMax Tools 16-32 sander should now be in place and ready for the final set-up. The sander was adjusted and aligned at the factory. However simple alignment checks will ensure that everything is in perfect order. Problems can be avoided if these essential checks and set-up procedures are performed prior to operation.

CHECKING DRUM ALIGNMENT



DISCONNECT THE MACHINE FROM THE POWER SOURCE.

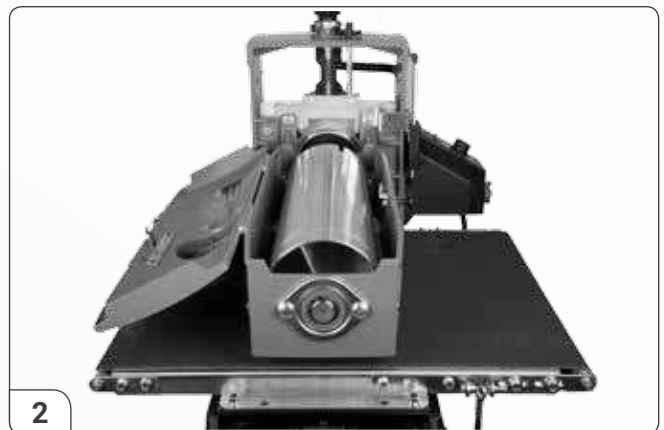
During initial set-up only, checking the alignment before using the sanding drum is necessary to make sure that the drum is parallel.



1

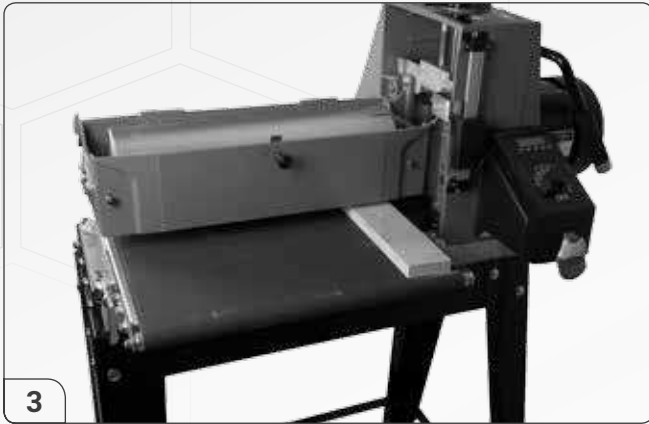
Before checking drum alignment make sure that the fast lever between the conveyor motor and the unit is in the up position.

The conveyor table bolts on the inboard side should not be so tight that the Fast Lever does not rotate – see first note on page #17.



2

Remove the abrasive from the drum. This is necessary to make sure that the adjustment is as accurate as possible and the texture on the abrasive will make the adjustment imprecise.



3

Use a flat, uniform piece of wood as a thickness gauge. Set it between the conveyor belt and the drum on the inboard (right) side of the machine.



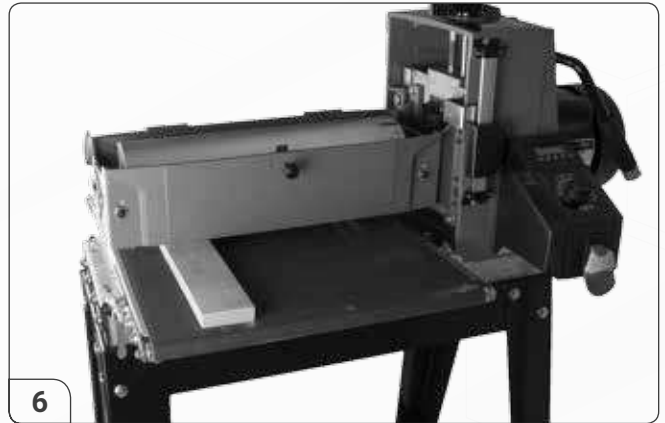
4

The tension rollers are set just below the drum enough so that items cannot pass easily underneath. Use the height adjustment handle as necessary to lower the head of the sander until the drum just makes contact with the piece of wood. Turn on the DRO and take note of the thickness indicated on the display.



5

Raise the head of the sander by rotating the height adjustment handle up exactly one full turn.



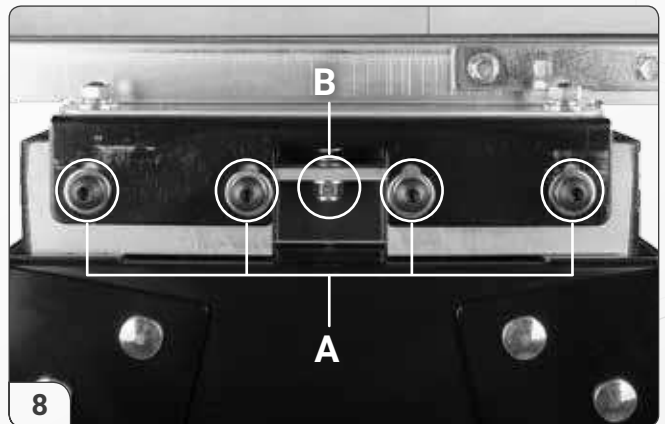
6

After the height has been adjusted move the piece of wood over to the outboard side (left) and lower the head by turning the handle down exactly one full turn until the DRO thickness matches what was noted in step #4.



7

Check the height of the drum in relation to the piece of wood. If the drum is aligned it will just make contact with the wood as it did on the inboard side. If you cannot turn the handle one full turn, or if there is a gap between the drum and the wood, proceed to the following alignment procedure.



8

If the drum is not parallel, loosen the 4 socket head screws A along the outboard (left) side of the conveyor belt and raise or lower the conveyor with the adjustment nut B to achieve parallel alignment. Then tighten the four socket head screws

CONNECTING DUST COLLECTORS

Dust collection is necessary for the SuperMax Tools 16-32 drum sander. The sander comes equipped with a 4" diameter dust exhaust port at the top of the cover. Check to make sure that the minimum dust requirements are sufficient. To attach to your collection system, install 4" hose from your collector. The minimum recommended dust collector capacities is 600 cfm. For best results, follow the recommendations of the manufacturer of your dust collection equipment. When connecting dust collectors straight pipe is preferred because it is the least restrictive for airflow. If straight pipe is not possible Y's and elbows are preferred because they are less restrictive to airflow than T's.

Note: Some applications will require more dust collection than the recommended minimum.

POWER AND ELECTRICAL SAFETY

The SuperMax Tools 16-32 drum sander requires 110 V, single-phase 20 amp service. After the dust collection system is in place and the drum alignment is checked your machine should be ready to be powered up and operated.

ABRASIVE SELECTION GUIDE

To attach a strip to the drum, follow the procedure below.

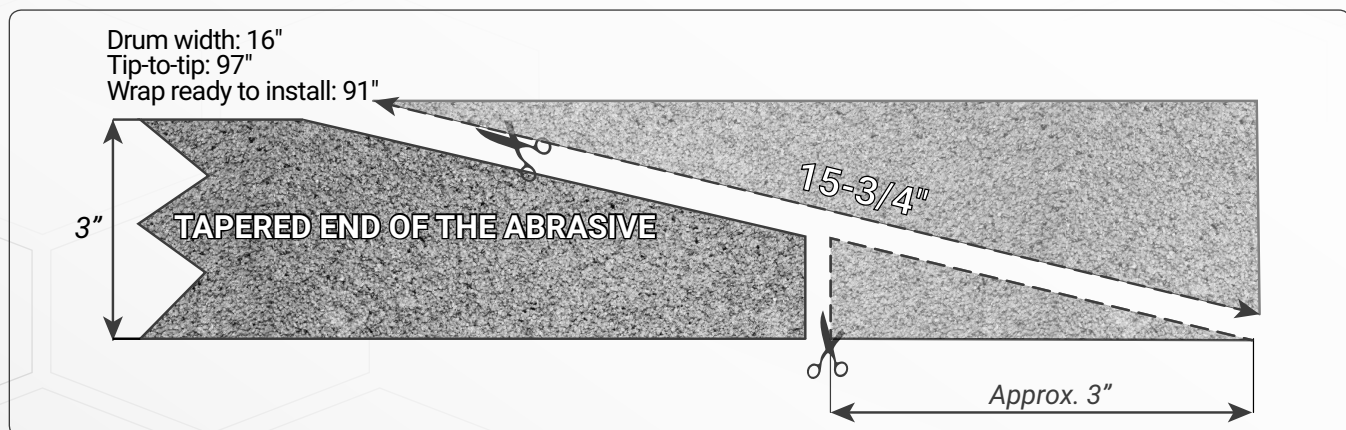
GRIT COMMON APPLICATION

36 GRIT	Abrasive planing, surfacing rough-sawn boards, maximum stock or glue removal
60 GRIT	Surfacing and dimensioning boards, trueing warped boards
80 GRIT	Light dimensioning, removal of planer ripples
100 GRIT	Light surfacing, removal of planer ripples
120 GRIT	Light surfacing, minimal stock removal
150 GRIT	Finish sanding, minimal stock removal
180 GRIT	Finish sanding only, not for stock removal
220 GRIT	Finish sanding only, not for stock removal

Note: See page #20 for complete list of pre-cut abrasives offered by SuperMax Tools for this specific unit.

INSTALLING AND WRAPPING ABRASIVES

Accurate attachment of the abrasive strip to the drum is critical to achieving the top performance from your SuperMax Tools 16-32 drum sander. Abrasive strips do not have to be pre-measured. The end of the roll is first tapered and attached to the outboard (left) side of the drum. Then the strip is wrapped around the drum, and the second taper is made for attachment to the inboard (right) side of the drum.



Note: Pre-cut wraps have been factory tapered to the specific width of your drum. If you are cutting your own abrasive, use the wrap that came on the drum as a template (abrasive side up).

INSTALLING AND WRAPPING ABRASIVES (CONTINUED)



DISCONNECT THE MACHINE FROM THE POWER SOURCE.



1 Start on the left (outboard) side of the drum. Pinch or squeeze the clip lever and insert the tapered end of the paper 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 end in the fastener.

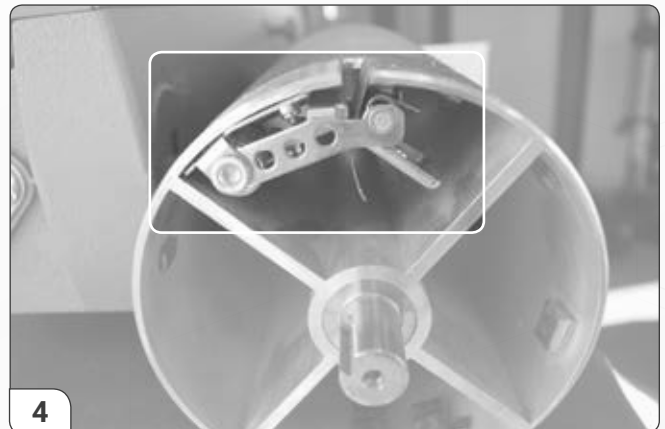


2 Wind the wrap around the drum, being careful not to overlap the windings. The tapered cut of the wrap end should follow the edge of the drum.

Continue to wrap the abrasive in a spiral fashion by rotating the drum with your left hand and guiding the wrap with your right hand. Successive windings of the wrap should be flush with previous windings without any overlap.



3 Pinch or squeeze the clip lever to open the clip, and pull the take-up lever to the top. Insert the tapered end through the slot in the inboard (right) end of the drum.



4 The take-up fastener is designed to automatically take up any slack caused by stretching of the abrasive wrap. If during use the abrasive wrap stretches enough to allow the take-up lever to reach its lowest position and no longer maintain tension on the wrap, see "Abrasive wrap tension adjustment" for corrective measures.

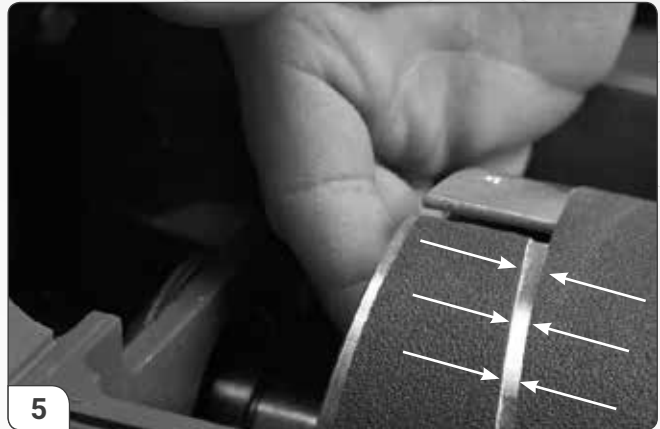
Note: Take notice that for detail only the drum was removed to show the inboard (right) take-up fastener.

PROPER ABRASIVE WRAP POSITION

Position the abrasive wrap in the slot with sufficient room between the inside of the slot and the tapered end of the wrap to allow it to be pulled into the drum as needed (see opposite picture). If enough space is not left between the wrap and the inside of the slot the take-up fastener will not operate properly.

ABRASIVE WRAP TENSION ADJUSTMENT

The abrasive wrap may stretch enough in use to allow the take-up lever to reach its lowest position. If this occurs then tension is not longer maintained on the abrasive wrap. To fix this reset the take-up lever by raising it, pushing the abrasive wrap into the slot and then releasing the clip lever.



MAXIMIZING ABRASIVE LONGEVITY

A sandpaper cleaning stick may be used to remove deposits and help extend the life of the abrasive.

1. To use the cleaning stick, operate the sanding drum with the dust cover open and dust collection on.
2. Hold the cleaning stick against the rotating drum and move it along the drum surface.
3. Use a shop brush to remove any cleaning stick remnants from the drums before resuming sanding operations.



FOR YOUR OWN SAFETY ALWAYS WEAR EYE PROTECTION WHILE PERFORMING ABRASIVE CLEANING AND TAKE ALL PRECAUTIONS TO AVOID ANY CONTACT WITH HANDS OR CLOTHING ON THE UNCOVERED.

OPERATING THE 16-32 DRUM SANDER

DRUM DEPTH OF CUT

Determining the depth of cut is the most important operating procedure decision. It may take some experimentation to determine the proper depth of cut. We recommend practicing on a scrap of wood prior to sanding a project.

• Digital Read-Out Operation

For added convenience a digital read out (DRO) for sanding thickness is included as standard equipment with this unit. A DRO offers the most precise reading of sanded thickness and allows for accurate repeatability of a thickness. This is great when making parts that must be an exact thickness or when matching a thickness.

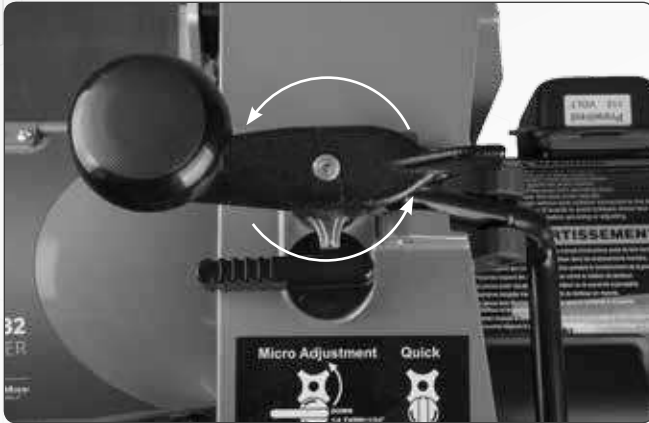


1. To operate, press the ON/OFF button and then use the IN/MM button to select between the standard inch or metric millimeter settings – the inches setting shows readings in both decimal places and fractions.
2. With abrasive installed, lower the drum until it touches the conveyor belt. Then press and hold the “ZERO” button to calibrate the DRO to absolute zero. The DRO is now set to read sanding thickness.
3. The ABS button selects between Absolute (ABS) or Incremental (INC) modes. ABS mode is used to read the actual thickness of the workpiece. INC mode is used to measure the amount of material removed from the piece’s original thickness – it will read as a negative number. When switching back from INC to ABS the unit will once again take its reading from absolute zero as calibrated in step 2.
4. The SET button allows selection in inches mode from either 1/32", 1/64", or 1/128" depending on the level of precision required.

OPERATING THE 16-32 DRUM SANDER (CONTINUED)

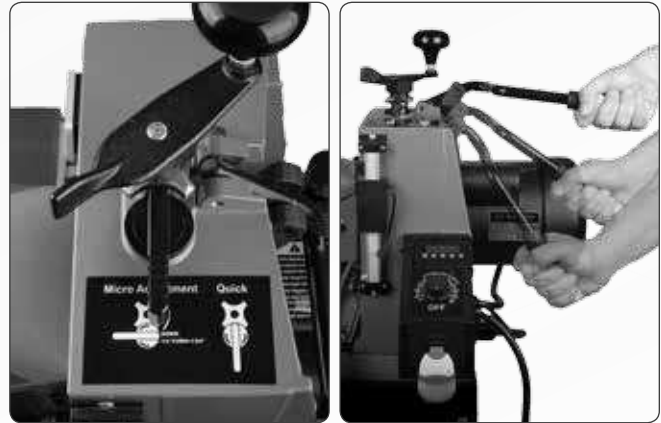
• Drum Head Height Adjustments

The drum height can be adjusted using one of two methods determined by the position of the height adjustment selector.



In the micro adjustment position turning the main height adjustment handle controls the height of the drum. Clockwise for Up and counter-clockwise for Down.

Note: One full turn of the handle raises or lowers the head approximately 1/16" (each quarter turn = 1/64")



With the selector in the quick lever position the main handle is disengaged and the head will float freely. Quick large-scale adjustments of up to 3" can then be made by pulling up or down on the Quick Lever.

Note: After completing height adjustments in quick lever mode always return the selector back to micro adjustment mode to lock the head in place.

CONVEYOR AND SPEED RATE

After the depth of cut has been determined, selecting the proper feed rate is essential. For finish sanding the best finish is usually achieved with a slow to moderate feed rate. This allows for the most revolutions of the drum per inch of sanding. Faster feed rates can be used as long as the machine is not over-stressed.

When finish sanding with grits finer than 80, the best finish can usually be obtained if INTELLISAND does not engage. If INTELLISAND does slow the conveyor when finish sanding, it is best to make another sanding pass without changing the thickness setting and sand again.

Note: INTELLISAND will automatically adjust the conveyor feed rate if an excess load is detected. This prevents excessive gouging, reduces the risk of burning and protects the machine from overload or stalling. The red light by the adjustment knob will come on when INTELLISAND is operating. When the load is decreased, INTELLISAND will automatically increase the feed rate to the pre-selected speed.

STOCK FEEDING OPERATION

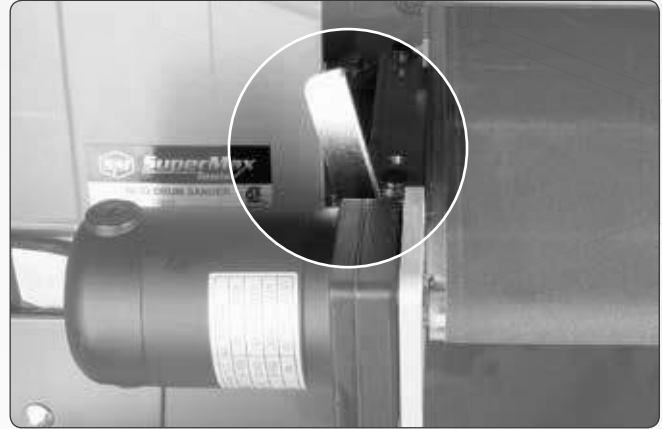
To feed stock through the sander rest the stock and hold the stock to be sanded on the conveyor table. Allow the conveyor to carry the stock into the drum. Once the stock is halfway through, reposition yourself to the outfeed side of the machine to receive and control the stock as it exits the unit.

STOCK FEEDING MAXIMUM PERFORMANCE

The built-in versatility of the SuperMax Tools 16-32 drum sander allows it to be used for a wide range of tasks. Learning to use the multiple controls to make adjustments will allow you to fine tune the machine for maximum results no matter what the job. The best results come from experimenting with different machine adjustments to best fit the job at hand.

- **Sanding stock wider than the drum**

When sanding stock wider than the drum the fast lever will be very useful (see picture). Wide stock requires extra space between the drum and conveyor on the outboard (left) edge. The extra space prevents overlap ridge lines from developing along the part that extends beyond the drum. Adjust the fast lever 45 degrees from the vertical position to slightly shift the drum position without changing initial drum alignment. Before sanding always test on a scrap piece. If a line or ridge is still visible, adjustments can be made to the drum alignment. Always return the lever to the upright position when wide stock sanding is completed.



Note: The fast lever raises the inboard side of the table .003. Upon first use, you may notice that the conveyor table bolts have been set too tight at the factory not allowing the Fast Lever to be moved. This was done to keep the unit secure for shipping. The conveyor table bolts may need a slight loosening to allow for proper Fast Lever movement. Never tighten the table bolts all the way. Tighten the bolts enough to still allow the fast lever to be moved between the up and down positions.

- **Sanding multiple pieces simultaneously**

When sanding multiple pieces at once, make sure to stagger or step the pieces across the width of the conveyor belt. This position provides better contact with the tension rollers. It is best to only process multiple pieces that are all of a similar thickness. If there is a thickness difference the thinner pieces may not come in contact with the tension rollers and may slip on the conveyor belt

- **Sanding Imperfect or Tall Stock**

To avoid bodily injury take special care when sanding stock that is twisted, bowed or otherwise varied in thickness from end to end. If possible support such stock as it is being sanded to keep it from slipping or tipping. Use extra roller stand, assistance from another person, or hand pressure on the stock to minimize potentially hazardous situations. When sanding high or tall stock special attention is necessary to prevent tipping or slippage. Extra care may be needed as the stock exits the machine.

- **Stock Feeding Position and Angle**

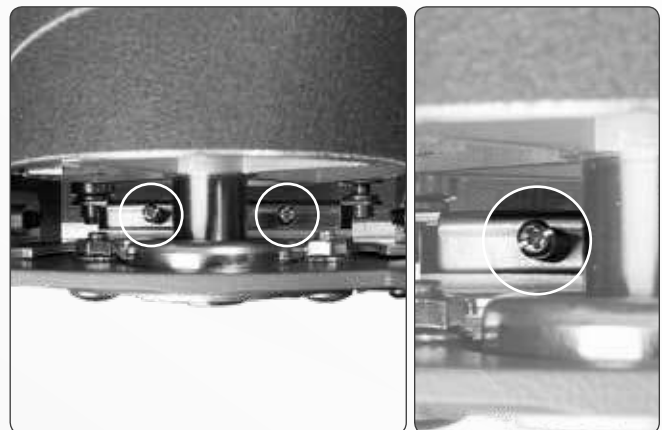
Positioning the stock at an angle will allow the most effective stock removal and least loading on the abrasives. Feeding stock straight through yields the widest sanding capacity and least noticeable scratch pattern. Some pieces because of their dimensions will need to be fed into the sander at a 90-degree angle, which will be perpendicular to the drum. However, even a slight offset angle of the stock can provide for more effective sanding. Final pass sanding should be done following the grain pattern.

TENSION ROLLER PRESSURE

The tension roller pressure is factory set and should be adequate. However, the pressure of each roller can be adjusted as needed.

To increase the tension turn the tension adjusting screw clockwise 1/4 revolution at a time. To decrease tension turn the adjusting screw counter-clockwise 1/4 revolution at a time (see opposite picture).

Note: Too little pressure can result in slippage of stock on conveyor belt or kick-back. Too much tension can cause snipe when drum sanding.



TENSION ROLLER CONTACT ADJUSTMENT

The tension rollers are factory set for the most versatile use.

1. If necessary, to adjust tension roller contact, loosen the four socket head screws holding the tension roller brackets (two per side; front and back – shown in opposite picture).
2. Have abrasive wrapped on drum.
3. With machine unplugged, lower sanding drum until it rests on conveyor belt.
4. Raise drum 2 to 3 revolutions.
5. Tighten the four socket head screws (two per side; front and back).
6. Raise drum up, off of the conveyor belt.
7. Set drum for proper sanding height and process stock.



CONVEYOR BELT TENSION

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

To adjust the tension of the conveyor belt, first adjust the take-up screw nut on both sides of the conveyor to obtain approximately equal tension on both sides of the belt when taut (see opposite picture).



CONVEYOR BELT TRACKING

Belt tracking adjustments are made while the conveyor belt is running.

After the proper belt tension is obtained 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 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.

MAINTENANCE

MONTHLY MAINTENANCE CHECKLIST

- Lubricate conveyor bushings and check for wear.
- Lubricate with a dry lubricant spray all of the moving parts, such as threaded rods and washers.
- Clean dust from conveyor belt.
- Check all set screws for tightness.
- Clean drum and abrasives if necessary.

REPLACING CONVEYOR BELTS

To replace the conveyor belt, the conveyor assembly must be removed from the machine.



DISCONNECT THE MACHINE FROM THE POWER SOURCE.



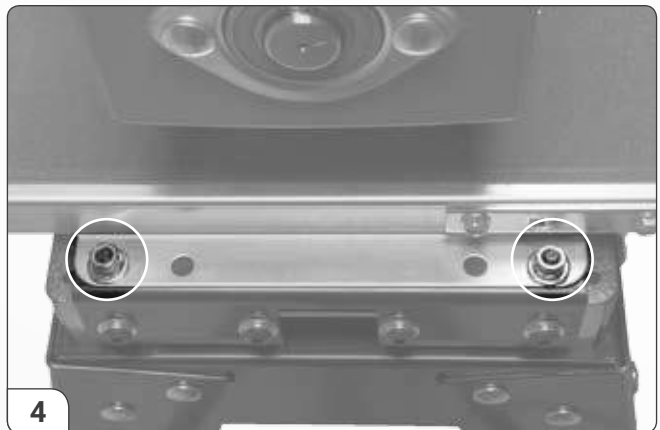
1 Raise the drum carriage to its highest position using the height adjustment handle. Turn off power source to machine. Unplug main drive motor from receptacle (in gear motor assembly).



2 Loosen the conveyor take-up screws to relieve belt tension and slide the drive roller fully inward.



3 Remove the two Allen head bolts on the inboard (right) side that attach the conveyor assembly to the base.



4 Remove the two nuts and washers from outboard (left) side. Lift the conveyor and remove it from the sander. Set 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.

CLEANING THE MACHINE

The sander may need to be cleaned more frequently depending upon frequency of use. The drum and the conveyor belt need to be clean. Allowing excess build-up of dust and debris can adversely affect performance and increase the likelihood of slippage on the conveyor belt. Sweep the conveyor belt clean after all operations. When cleaning dust from the drum leave the dust collection system on.

SUPPLY CHECKLIST

OPTIONAL ACCESSORIES

59120



Abrasive Cleaning Stick

98-0130



Caster Set, heavy duty, roll & swivel lock (used with open stand)

71632-7F



Folding Infeed/Outfeed tables

875600



Expandable Roller Conveyor

CONVEYOR BELTS

60-0316 (Type 1)	100 grit abrasive surface with reinforced backing (standard equipment)
61-1001 (Type 2)	Polyurethane textured surface with monofilament backing

DRUM ABRASIVES

60-6036	36 Grit	SuperMax Tools 16-32 - 4-Wraps in Box
60-6060	60 Grit	SuperMax Tools 16-32 - 4-Wraps in Box
60-6080	80 Grit	SuperMax Tools 16-32 - 4-Wraps in Box
60-6100	100 Grit	SuperMax Tools 16-32 - 4-Wraps in Box
60-6120	120 Grit	SuperMax Tools 16-32 - 4-Wraps in Box
60-6150	150 Grit	SuperMax Tools 16-32 - 4-Wraps in Box
60-6180	180 Grit	SuperMax Tools 16-32 - 4-Wraps in Box
60-6220	220 Grit	SuperMax Tools 16-32 - 4-Wraps in Box
60-6000	Assorted box (36/80/80/120 grit)	SuperMax Tools 16-32 - 1 each in Box

For information call SuperMax Tools 1-(888)-454-3401 or visit www.SuperMaxTools.com

TROUBLESHOOTING YOUR SUPERMAX TOOLS DRUM SANDER

Any operating problems with the drum sander 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 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
MOTOR DOES NOT START	Main power cord unplugged from receptacle	Plug in primary power cord
	Drum motor cord unplugged from receptacle near power-feed motor.	Plug in drum motor cord at receptacle on machine if so equipped (Fig 5)
	Circuit fuse blown or circuit breaker tripped	Replace fuse or retrip breaker (after determining cause)
BRUSH MOTOR OVERLOADS	Inadequate circuit	Check electrical requirements
	Machine overloaded	Use slower feed rate; reduce depth of cut
CONVEYOR MOTOR OSCILLATES	Motor not properly aligned	Loosen housing bolts and Allen screw holding the coupler to drive roller.
	Shaft collar or bushing worn	Replace shaft collar or bushing
	Drive roller bent	Replace drive roller
DRUM MOTOR OR CONVEYOR GEAR MOTOR STALLS	Excessive depth of cut	Reduce depth of cut; reduce feed rate

TROUBLESHOOTING GUIDE: CONVEYOR

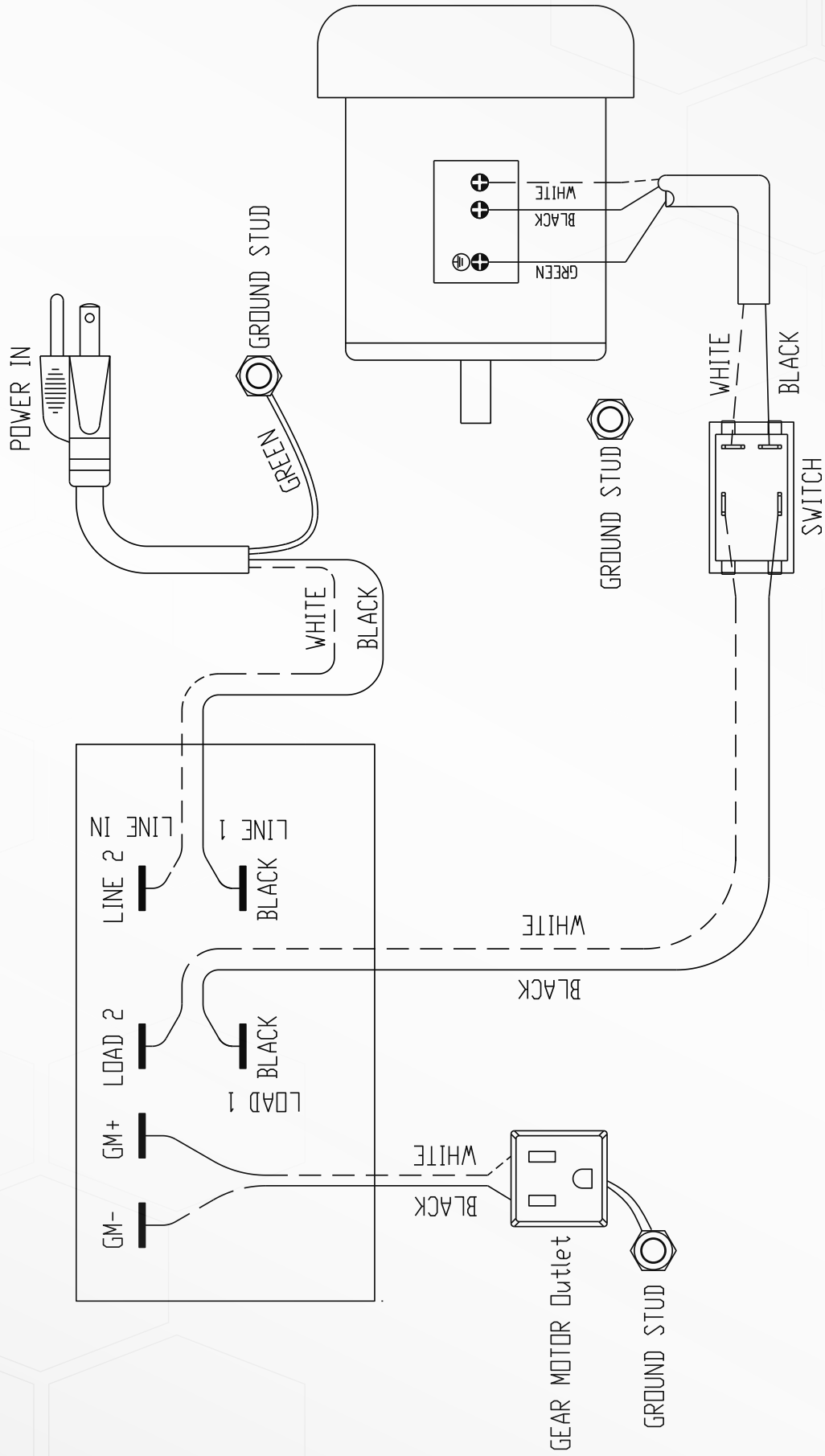
PROBLEM	POSSIBLE CAUSE	SOLUTION
CONVEYOR DRIVE ROLLERS RUN INTERMITTENTLY	Shaft coupling loose	Align shaft flats of gear motor and drive roller; tighten shaft coupling set screws
CONVEYOR BELT SLIPS ON DRIVE ROLLER	Improper conveyor belt tension	Adjust belt tension
	Excessive depth of cut	Reduce depth of cut reduce feed rate

PROBLEM	POSSIBLE CAUSE	SOLUTION
STOCK SLIPS ON CONVEYOR BELT CAUSING GOUGING	Excessive depth of cut	Reduce depth of cut
	Tension rollers too high	Lower tension rollers
	Excessive feed rate	Reduce feed rate
	Dirty or worn conveyor belt	Clean or replace conveyor belt
CONVEYOR MOTOR STALLS	Belt out of adjustment	Readjust belt
	Roller bushings elongated due to excessive wear	Replace bushings

TROUBLESHOOTING GUIDE: MACHINE

PROBLEM	POSSIBLE CAUSE	SOLUTION
DRUM HEIGHT ADJUSTMENT WORKS IMPROPERLY	Improper adjustment of height control	Readjust height control
KNOCKING SOUND WHILE RUNNING	Bearing worn	Replace bearing Contact distributor
SNIPING OF WOOD (GOUGING NEAR END OF BOARD)	Inadequate support of stock	Use roller stands to support stock
	Conveyor drive or driven rollers higher than conveyor bed	Readjust rollers
	Excessive tension roller pressure	Adjust rollers
BURNING OF WOOD OR MELTING OF FINISH	Feed rate too slow	Increase feed rate
	Excessive depth of cut	Reduce depth of cut
CONVEYOR MOTOR STALLS	Conveyor belt is too loose	Adjust belt tension
	Excessive depth of cut	Reduce depth of cut
	Wood slipping on conveyor due to lack of contact	Use alternate feeding procedure

16-32 - WIRING DIAGRAM



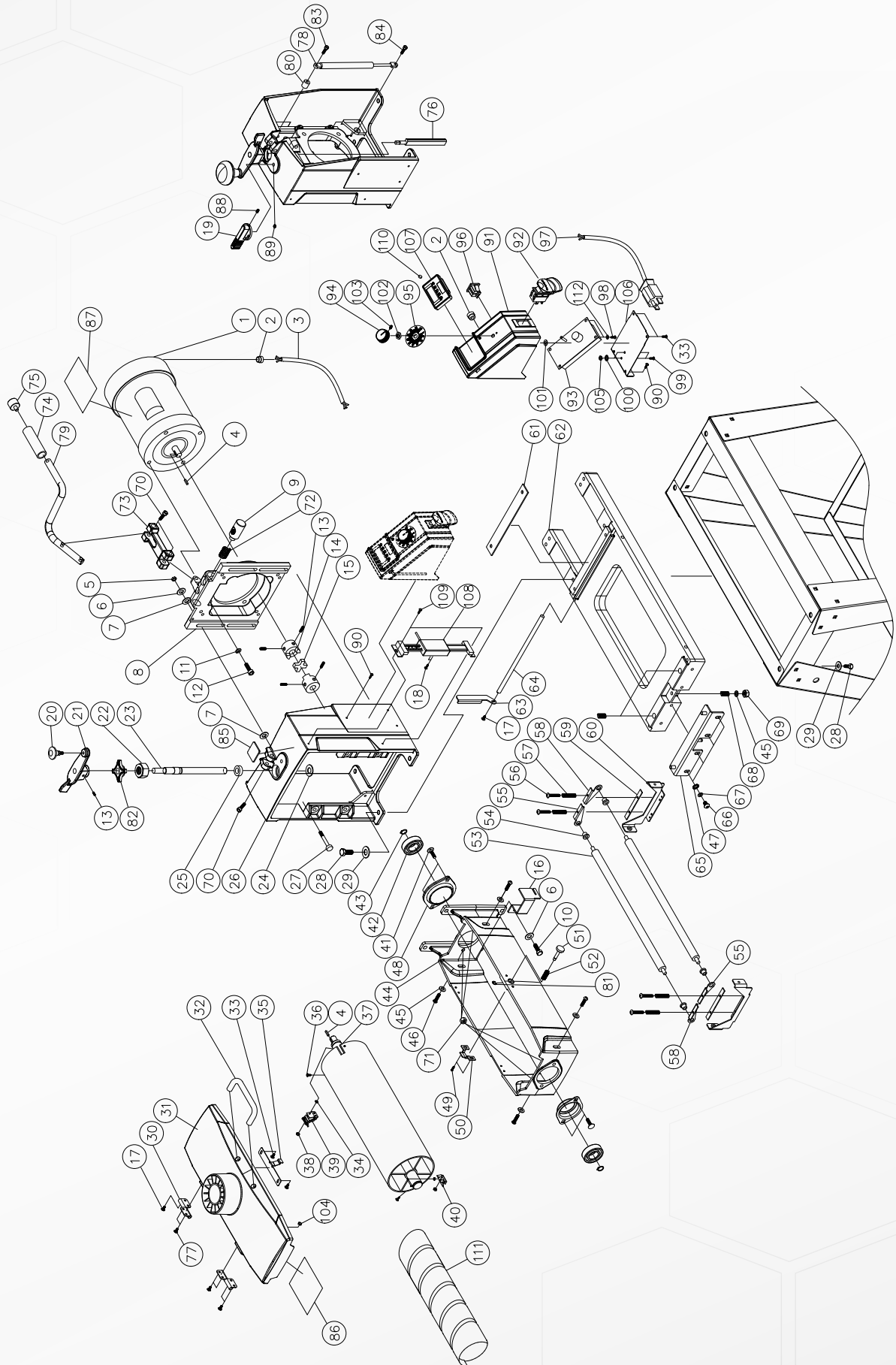
16-32 - PARTS LIST - HEAD ASSEMBLY

#	PART NO.	DESCRIPTION	SIZE	QTY
1	71632-101	MOTOR	1-1/2HP, 115VOLT W/CORD	1
2	480BS-102	STRAIN RELIEF, MOTOR	7P-2	3
3	71632-103	MAIN CORD, MOTOR TO CONTROL BOX		1
4	480BS-104	KEY	3/16" SQ X 3/4"	2
5	480BS-105	NYLOCK NUT	5/16"-24	4
6	480BS-106	FLAT WASHER	5/16"	8
7	480BS-107	OILITE WASHER	5/16"	8
8	71632-108	MOTOR PLATE		1
9	71632-109	STUD		1
10	71632-110	HEX CAP SCREW	5/16"-18 X 1"	4
11	480BS-111	LOCK WASHER	3/8"	4
12	71632-112	SOCKET HEAD CAP SCREW	3/8"-16 X 3/4"	4
13	480BS-113	SET SCREW	1/4"-20 X 1/4"	5
14	480BS-114	COUPLING		2
15	480BS-115	COUPLING SPIDER		1
16	71632-116	DRO MOUNTING PLATE		1
17	480BS-117	PHILLIPS PAN HEAD SCREW	M4 X 0.7 X 6	5
18	71632-118	PHILLIPS PAN HEAD SCREW	M3 X 0.5 X 8	2
19	71632-119	SWITCH KNOB		1
20	480BS-120	KNOB		1
21	480BS-121	HEIGHT ADJUSTMENT HANDLE		1
22	480BS-122	NYLOCK NUT	5/8"-11	1
23	71632-123	HEIGHT ADJUSTMENT SCREW		1
24	71632-124	WASHER, WAVE	D17	1
25	480BS-125	THRUST BEARING	51103	1
26	71632-126	SHROUD		1
27	30-3028	STUD		4
28	71632-128	HEX CAP SCREW	3/8"-16 X 3/4"	8
29	480BS-129	FLAT WASHER	3/8"	8
30	480BS-130	HINGE		2
31	71632-131	DUST COVER		1
32	480BS-132	HANDLE		1
33	480BS-133	PAN HEAD MACHINE SCREW	#8 X 1/2"	4
34	480DS-134	LOCK WASHER	M3	2
35	480BS-135	DUST COVER LATCH		1
36	480DS-136	PHILLIPS FLAT HEAD SCREW	M3 X 0.5 X 10	2
37	71632-137	SANDING DRUM		1
38	480DS-138	HEX NUT	M3 X 0.5	2
39	480DS-139	INBOARD ABRASIVE FASTENER		1
40	480DS-140	OUTBOARD ABRASIVE FASTENER		1
41	71632-141	CARRIAGE BOLT	5/16"-18 X 3/4"	4
42	480DS-142	BEARING	6205LLU	2
43	480DS-143	C-RING	S25	2
44	71632-144	DRUM CARRIAGE		1
45	480BS-145	FLAT WASHER	1/4"	5
46	71632-146	ROUND SOCKET HEAD CAP SCREW	1/4"-20 X 3/4"	4
47	480BS-147	FLAT WASHER	5/16"	4
48	480DS-148	BEARING SEAT		2
49	480BS-149	HEX CAP SCREW W/ WASHER	#10-24 X 3/8"	2
50	480BS-150	DUST COVER CATCH		1
51	480BS-151	STUD		1
52	480BS-152	SPRING		1
53	71632-153	TENSION ROLLER		2
54	480BS-154	OILITE BUSHING		4
55	480BS-180	TENSION ROLLER BRACKET, INNER LEFT		2

16-32 - PARTS LIST - HEAD ASSEMBLY

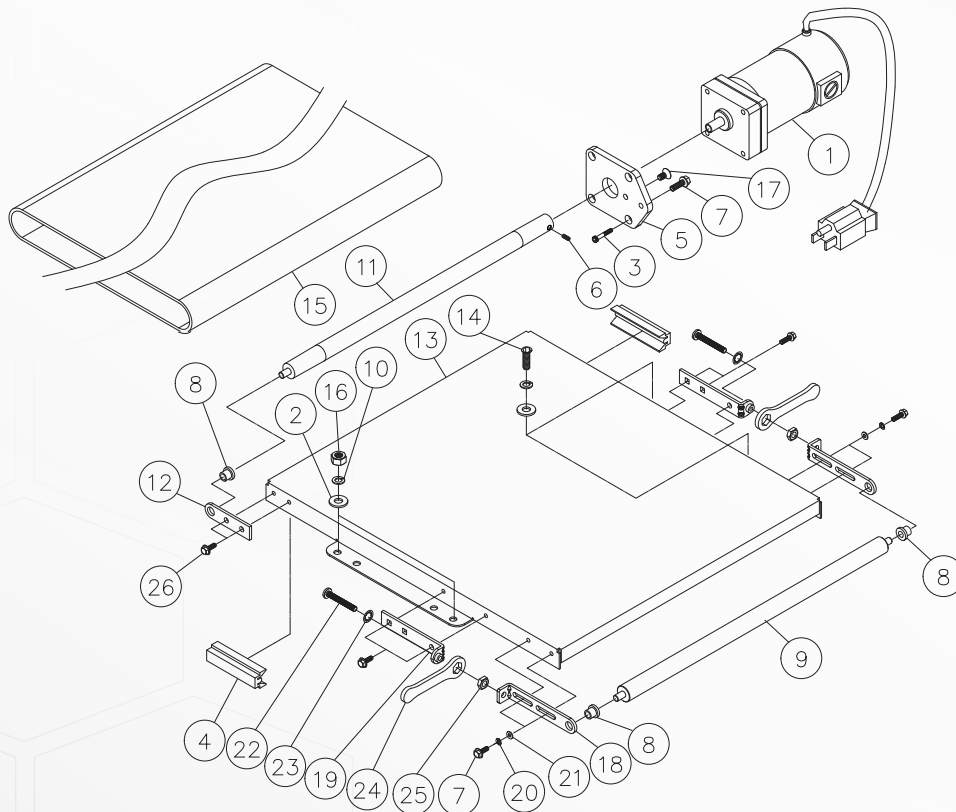
56	480BS-156	SCREW	#8-32 X 1"	4
57	480BS-157	TENSION ROLLER SPRING		4
58	480BS-179	TENSION ROLLER BRACKET, INNER RIGHT		2
59	480BS-159	TENSION ROLLER BRACKET PAD		2
60	71632-160	BRACKET		2
61	480BS-161	PLATE		1
62	71632-162	BASE		1
63	480BS-163	QUICK ADJUSTING LEVER		1
64	480BS-164	ADJUSTING ROD		1
65	480BS-165	HEIGHT ADJUSTING PLATE		1
66	71632-166	ROUND SOCKET HEAD CAP SCREW	5/16"-18 X 3/4"	4
67	480BS-167	LOCK WASHER	5/16"	4
68	480BS-168	SPRING		3
69	480BS-169	NYLOCK NUT	1/4"-20	1
70	71632-170	SOCKET HEAD CAP SCREW	5/16"-18 X 1-1/2"	3
71	480DS-171	FLANGE NUT	5/16"	4
72	71632-172	SPRING		1
73	71632-173	LINKAGE		1
74	71632-174	RUBBER SLEEVE		1
75	71632-175	CAP		1
76	71632-176	ROD		1
77	71632-1110	PAN HEAD PHILLIPS SCREW	M4 X 0.7 X 12	4
78	71632-178	CYLINDER		1
79	71632-179	QUICK HANDLE		1
80	71632-180	SPACER		1
81	480BS-181	E-RING	E5	1
82	71632-182	NUT		1
83	71632-183	SOCKET HEAD CAP SCREW	M6 X 1.0 X 30	1
84	71632-184	SOCKET HEAD CAP SCREW	M6 X 1.0 X 15	1
85	71632-185	MICRO ADJUSTMENT/QUICK LABEL		1
86	480BS-186	MAINTENANCE LABEL		1
87	480BS-187	WARNING LABEL		1
88	71632-188	SET SCREW	#10-24 X 3/8"	1
89	71632-189	O-RING	P8	1
90	71632-190	SCREW	M5 X 0.8 X 12	3
91	71632-191	CONTROL BOX		1
92	71632-192	ON/OFF SWITCH		1
93	480DS-210	CONTROLLER		1
94	480BS-207	KNOB		1
95	71632-195	SPEED ADJUSTMENT LABEL		1
96	480DS-213	RECEPTACLE		1
97	480DS-203	POWER CORD		1
98	71632-198	SELF-TAPPING PAN HEAD SCREW	M3 X 0.5 X 10	2
99	480BS-214	SCREW	#10-32 X 1/2"	2
100	480BS-215	INT. TOOTH LOCK WASHER	#10	2
101	480BS-204	FLAT WASHER	5/16"	1
102	480BS-242	HEX NUT	5/16"-24	1
103	480BS-243	SLOTTED SET SCREW	#8-36 X 5/16"	1
104	71632-1104	HEX NUT	M4 X 0.7	4
105	71632-1105	HEX NUT	#10-32	2
106	71632-1106	COVER, BASE-CONTROL HOUSING		1
107	71632-1107	LCD MONITOR		1
108	71632-1108	DIGITAL READOUT ASSEMBLY		1
109	72550-197	PHILLIPS PAN HEAD SCREW	M4 X 0.7 X 12	2
110	71632-1110	BATTERY		2
111	71632-1111	ABRASIVE	#80 GRIT	1
112	71632-1112	NYLON WASHER	M3	1

16-32 - HEAD ASSEMBLY



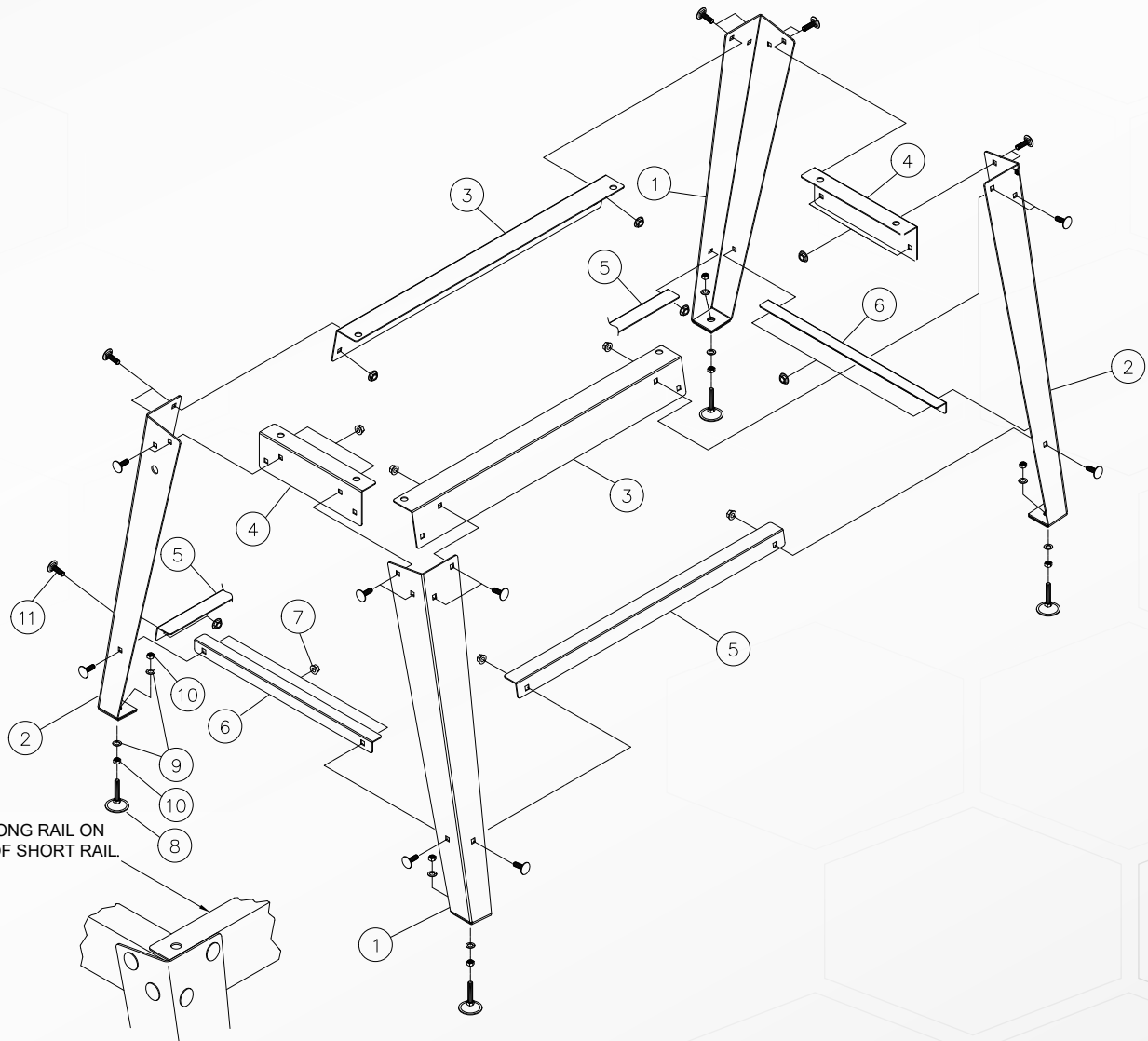
16-32 - CONVEYOR AND MOTOR

#	PART NO.	DESCRIPTION	SIZE	QTY
1	71632-201	CONVEYOR MOTOR	90 VDC	1
2	480BS-204	FLAT WASHER	5/16"	4
3	480BS-205	SOCKET HEAD CAP SCREW	#10-32 X 1/2"	4
4	480BS-206	TRACKER KIT		2
5	71632-205	MOTOR MOUNTING PLATE		1
6	480BS-113	SET SCREW	1/4"-20 X 1/4"	2
7	480BS-224	HEX CAP SCREW	1/4"-20 X 3/4"	5
8	480BS-154	OILITE BUSHING		3
9	71632-209	ROLLER, DRIVEN		1
10	480BS-167	LOCK WASHER	5/16"	4
11	71632-211	ROLLER, DRIVE		1
12	480BS-237	DRIVE ROLLER SUPPORT BRACKET		1
13	71632-213	CONVEYOR BED		1
14	480BS-239	SOCKET HEAD CAP SCREW	1/4"-20 X 3/4"	4
15	71632-215	CONVEYOR BELT (NOT SHOWN)		1
16	480BS-245	HEX NUT	5/16"-18	2
17	71632-217	FLAT HEAD PHILLIPS SCREW	1/4"-20 X 3/4"	1
18	480BS-227	TAKE UP SLIDE BRACKET		2
19	480BS-234	TAKE UP BASE BRACKET		2
20	480BS-225	WAVE WASHER	1/4"	4
21	480BS-145	FLAT WASHER	1/4"	2
22	480BS-233	ROUND HEAD SLOTTED SCREW	1/4"-20 X 1-3/4"	2
23	480BS-232	INT. TOOTH LOCK WASHER	1/4"	2
24	480BS-230	WRENCH		2
25	480BS-231	HEX NUT	1/4"-20	2
26	480BS-247	HEX CAP SCREW W/ WASHER	1/4"-20X1/2"	6



16-32 - OPEN STAND ASSEMBLY

#	PART NO.	DESCRIPTION	SIZE	QTY
1	480BS-501	LEG, LEFT		2
2	480BS-502	LEG, RIGHT (WITH TOOL HOLDER)		2
3	71632-303	TOP CROSS BRACE, LONG		2
4	71632-304	TOP CROSS BRACE, SHORT		2
5	71632-305	LOWER CROSS BRACE RAIL, LONG		2
6	71632-306	LOWER CROSS BRACE RAIL, SHORT		2
7	480BS-507	FLANGE NUT	5/16"	8
8	480BS-508	LEVELING FOOT		4
9	480BS-129	FLAT WASHER	3/8"	8
10	480BS-509	HEX NUT	3/8"-16	8
11	480BS-506	CARRIAGE BOLT	5/16"-18 X 5/8"	24





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