

SuperMax[®] BY LAGUNA

OWNERS'S MANUAL

SuperBrush 49



LAGUNA

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

Regards,
Torben Helshoj
President & Founder Laguna Tools

Dealer Machinery Warranty

New woodworking machines sold by Laguna Tools carry a two-year warranty effective from the date of dealer invoice to consumer. Machines sold through dealers must be registered with Laguna Tools within 30 days of purchase to be covered by this warranty. Laguna Tools guarantees all new machine sold to be free of manufacturers' defective workmanship, parts and materials. We will repair or replace, without charge, any parts determined by Laguna Tools, Inc. to be a manufacturer's defect. We require that the defective item/part be returned to Laguna Tools with the complaint. An RMA (return merchandise authorization) must be requested, from Laguna Tools, and included with any and all parts or machines returned to Laguna Tools for warranty consideration. Any machines returned to Laguna Tools must be returned with packaging in the same manner in which it was received. If a part or blade is being returned it must have adequate packaging to ensure no damage is received during shipping. In the event the item/part is determined to be damaged due to lack of maintenance, cleaning or misuse/abuse, the customer will be responsible for the cost to replace the item/part, plus all related shipping charges. This limited warranty does not apply to natural disasters, acts of terrorism, normal wear and tear, product failure due to lack of maintenance or cleaning, damage caused by accident, neglect, lack of or inadequate dust collection, misuse/abuse or damage caused where repair or alterations have been made or attempted by others.

This manual applies to the SuperBrush 49. Enter the model number and serial number below for quick reference when ordering accessories, supplies or parts. NOTE: The model and serial number plate can be found on the cross rail, below the conveyor, when viewed from the infeed/front of the machine.

Model: _____

Serial: _____

Laguna Tools
Huntington Beach

7291 Heil Avenue
CA 92647

800-234-1976

www.lagunatools.com

CONTENTS

Warranty:	02
Safety:	04
Important Safety Instructions	05
General Safety Rules	09
Unpacking:	12
Assembly:	13
Components:	19
Power Supply:	20
Connecting Power	20
Wiring Diagrams	23
Operation:	25
Maintenance:	29
Trouble Shooting:	29
Exploded Views:	30
Parts List	31
Specifications:	40
Supplies:	40

SAFETY

READ AND UNDERSTAND THIS MANUAL AND ALL INSTRUCTIONS BEFORE USING THIS EQUIPMENT. Failure to follow all instructions may result in electric shock, fire and/or serious personal injury or property damage! Electronic copies of this manual are available at www.lagunatools.com.

SAFETY GUIDELINES - DEFINITIONS

This manual contains information that is important for you to know and understand. This information relates to protecting YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the symbols below. Please read the manual and pay attention to these sections.



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



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



Indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury.

CAUTION

(Used without the safety alert symbol) indicates a potentially hazardous situation which, if not avoided, **may** result in property damage.

Woodworking, metalworking, composites, etc. (and similar materials) can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the machine. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, featherboards, goggles, dust masks and hearing protection can reduce the potential for injury. Even the best guard will not make up for poor judgement, carelessness or inattention.

Always use common sense and exercise caution in the workshop. If a procedure feels dangerous, do not try it. Figure out an alternative procedure that is safer. **REMEMBER:** Your personal safety is your responsibility.

IMPORTANT SAFETY INSTRUCTIONS



This machine was designed for certain applications only. We strongly recommend that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted the manufacturer to determine if it can or should be performed on the product.

If you have any questions relative to its application DO NOT use the product until you have contacted the manufacturer and we have advised you.

When using an electrical appliance/machine, basic precautions should always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING (THIS MACHINE)!



To reduce the risk of fire, electric shock, or injury:

1. Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing.
2. Do not use outdoors or on wet surfaces
3. Do not allow to be used as a toy. Close attention is necessary when used by or near children.
4. Use only as described in this manual. Use only manufacturer's recommended attachments.
5. Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.

6. Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run appliance over cord. Keep cord away from heated surfaces.
7. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
8. Do not handle plug or appliance with wet hands.
9. Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
10. Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
11. Turn off all controls before unplugging.
12. Use extra care when cleaning on stairs.
13. Do not use to pick up flammable or combustible liquids, such as gasoline, or use in areas where they may be present.
14. Connect to a properly grounded outlet only. See Grounding Instructions.

SAVE THESE INSTRUCTIONS

- 1. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.**
2. Replace the warning labels if they become obscured or removed.
3. This SuperBrush is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of this type of machine, do not use until proper training and knowledge have been obtained.
4. Do not use this machine for other than its intended use. If used for other purposes, **LAGUNA TOOLS INC.**, disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
5. Always wear approved safety glasses/face shields while using this machine.
6. Before operating this machine, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended.
7. Wear ear protectors (plugs or muffs) during extended periods of operation.
8. 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: (next page)

- 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/respirators that are specifically designed to filter out microscopic particles.

9. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
10. Make certain the switch is in the **OFF** position before connecting the machine to the power source.
11. Make certain the machine is properly grounded.
12. Make all machine adjustments or maintenance with the machine unplugged from the power source.
13. Form a habit of checking to see that all extra equipment such as adjusting keys, wrenches, scrap, stock, and cleaning rags are removed away from the machine before turning on.
14. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately when maintenance is complete.
15. Make sure the dust collector is on a flat even surface and the wheels locked in place before use.
16. Check damaged parts. Before further use of the machine, 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.
17. Provide for adequate space surrounding work area and non-glare, overhead lighting.
18. Keep the floor around the machine clean and free of scrap material, oil and grease.

- 19.Keep visitors a safe distance from the work area. **Keep children away.**
- 20.Make your workshop child proof with padlocks, master switches or by removing starter keys.
- 21.Give your work undivided attention. Looking around, carrying on a conversation and "horse-play" are careless acts that can result in serious injury.
- 22.Maintain a balanced stance at all times so that you do not fall or lean against the dust collector. Do not overreach or use excessive force to perform any machine operation.
- 23.Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and safer.
- 24.Use recommended accessories; improper accessories may be hazardous.
- 25.Maintain machinery with care. Follow instructions for lubricating and changing accessories.
- 26.Turn off the machine before cleaning. Use a brush or compressed air to remove dust or debris — do not use your hands.
- 27.Do not stand on the machine. Serious injury could occur if the machine tips over.
- 28.Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.
- 29.Never operate or run the machine without closing the drum up against the lid. Failure to do so will result in the machine amperage increasing and may trip your circuit.

Familiarize yourself with the following safety notices used in this manual:

SAFETY GUIDELINES - DEFINITIONS

This manual contains information that is important for you to know and understand. This information relates to protecting YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the symbols, described earlier. Please read the manual and pay attention to these sections.

GENERAL SAFETY RULES



FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS INJURY.

FOR YOUR OWN SAFETY, READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE. Learn the unit's application and limitations as well as the specific hazards peculiar to it.

KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.

DON'T USE IN DANGEROUS ENVIRONMENT. Don't use this unit in damp or wet locations, or expose it to rain. Keep work area well-lighted.

KEEP CHILDREN AND VISITORS AWAY. All children and visitors should be kept a safe distance from work area.

DISCONNECT UNIT before servicing.

CHECK DAMAGED PARTS. Before further use of the unit, properly repair or replace any part that is damaged.



FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS INJURY.

ADDITIONAL SAFETY INFORMATION

Intended use. This machine is intended for the applications discussed and approved by Laguna/SuperMax. Do not use this machine for non-approved applications or flammable, combustible, or hazardous materials.

Hazardous dust. Dust created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each work piece material, and always wear a NIOSH-approved respirator to reduce your risk.

Dust allergies. Dust from certain woods and other materials may cause an allergic reaction in people and animals. Make sure you know what type of dust you will be exposed to in case there is a possibility of an allergic reaction.

Wear respirator. Fine dust that is too small to be caught in the filter may be introduced into the ambient air during operation. Always wear a NIOSH-approved respirator during operation and for a short time after to reduce your risk of permanent respiratory damage.

Disconnecting power supply. Turn the switch off, disconnect from the power supply, and allow machine to come to a complete stop before leaving the machine unattended or doing any service, cleaning, maintenance, or adjustments.

Suspended dust particles and ignition sources. Do not operate in areas where explosion risks are high. Areas of high risk include, but are not limited to, areas near pilot lights, open flames, or other ignition sources.

Fire suppression. Only operate in locations that contain a fire suppression system or have a fire extinguisher nearby.

Static electricity. Plastic dust lines generate high amounts of static electricity as dust chips pass through them. Although rare, sparks caused by static electricity can cause explosions or fire. To reduce this risk, make sure all dust lines are thoroughly grounded by using a grounding wire.

Regular cleaning. Regularly check the machine for excessive dust and debris and clean. Make sure to regularly clean the surrounding area where the machine is operated—excessive dust buildup on overhead lights, heaters, electrical panels, or other heat sources will increase the risk of fire.

SAVE THESE INSTRUCTIONS.

Refer to them often and use them to instruct others.

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.



DO NOT EXPOSE THE MACHINE TO RAIN OR OPERATE THE MACHINE IN DAMP LOCATIONS.

MOTOR SPECIFICATIONS

The typical main motor is 10 HP and is wired for 208-230 Volt, Three-Phase, 60 HZ, AC current. Confirm your motor electrical configuration before connecting power! Before connecting the machine to the power source, make sure the starter and switches are in the "OFF" position. Power Cord and "plug" are NOT included. These must be installed by a qualified technician/electrician to meet all applicable codes.



Confirm electrical configuration (Voltage & Phase) of brush machine before connecting to power source!

GROUNDING INSTRUCTIONS



THIS MACHINE MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.

1. This machine must be connected to a grounded metal, permanent wiring system; or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the appliance.

The installer, such as a qualified electrician, shall cut (or bend over) and insulate the grounding conductor from a field wiring supply cable.

In the event of certain types of malfunctions or breakdowns, grounding provides a path of least resistance for electric current—in order to reduce the risk of electric shock.

Improper connection of the equipment-grounding wire can result in a risk of electric shock. The wire with green insulation (with or without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

Check with a qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

Full Load Amperage Draw; 208V 3 Phase29 Amps

Power Supply Circuit Requirements

The power source circuit for your machine must be grounded and rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

Circuit Size (208-230V, 3-Phase)**30 Amp.** minimum



IN ALL CASES, MAKE CERTAIN THE RECEPTACLE OR DISCONNECT IS PROPERLY GROUNDED. IF YOU ARE NOT SURE, HAVE A QUALIFIED ELECTRICIAN CHECK THE RECEPTACLE OR DISCONNECT.

UNPACKING

Your SuperBrush 49 comes packed in a single box attached to a pallet. Before attempting to assemble this machine, follow these directions:

1. Carefully cut the banding straps and remove them from the box.
2. Remove the box covering the machine.
3. Remove the plastic cover from the machine.
4. Remove the small box from the pallet.
5. Remove the four bolts securing the machine to the pallet.
6. Using the picture below, ensure that all parts are present and in good condition.



Figure 1: Inventory NOTE: Electrical cord and plug are not included.

DESCRIPTION (QUANTITY)

- A. Box (4 Casters & hardware)
- B. Owner's Manual (1)
- C. CR-2032 Batteries (2)



Figure 2: Casters & Hardware

Report any missing or damaged parts to your dealer or distributor. Prior to machine assembly and use, read this manual thoroughly to familiarize yourself with proper assembly, maintenance and safety procedures.

ASSEMBLY



This step requires a forklift. The SuperBrush 49 is heavy, be careful when lifting and handling it with a forklift! Failure to comply may cause serious injury and/or damage to the machine and/or property!

Tools/items Required:

9/16" wrench

1/2" wrench

5mm hex wrench

Power Cord and Plug (unless hard wiring into a disconnect)

To assemble your SuperBrush 49, follow these steps:

For your own safety, do not connect the machine to the power source until the machine is completely assembled. Please also make sure that you read and understand the entire manual.

1. Make sure the four locking set screws in the Table Support Casting are tight. Unbolt machine from pallet. Using a forklift, lift the SuperBrush 49 from the pallet. The forks should lift from under the conveyor support cross members. Be careful when placing the forks not to damage other areas or wiring, Fig. 3 & 5.



Figure 3: Table Support Set Screws

2. Attach the four casters to the legs of the machine by using the included bolts and washers through each hole of the caster (from the bottom-up) into the leg of the machine, Fig. 4. Start all four bolts and washers before tightening the bolts.



Figure 4: Attaching casters

3. Lower the machine to the floor.

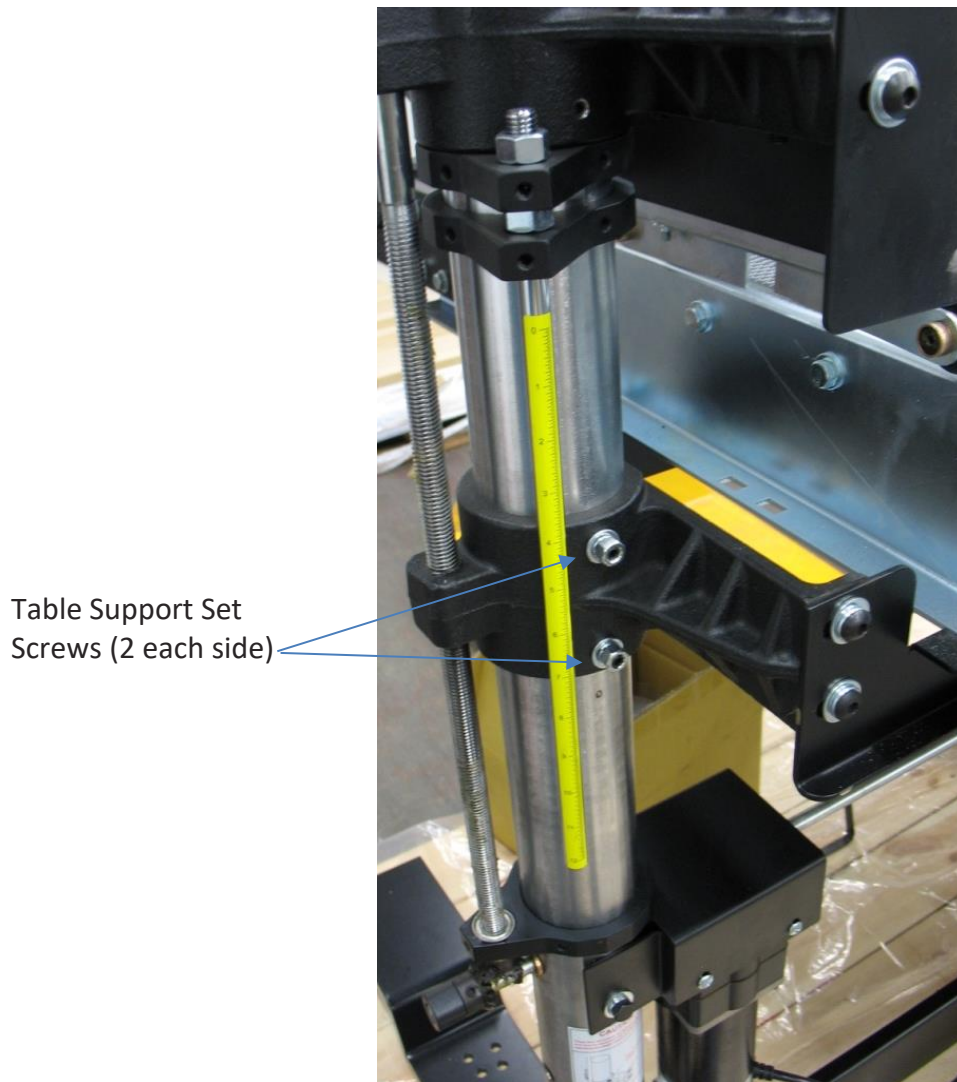


Table Support Set
Screws (2 each side)

Figure 5: Table Support Set Screws

4. Loosen the four nuts then the four set screws locking the table support casting, Fig. 5. Finger tighten these same set screws. Hold the set screw with a Hex wrench and tighten the nut. Note, these set screws are brass tipped and are designed to lightly rub on the column.

5. Loosen the two set screws in the motor support casting, Fig. 6. Important: Loosen these set screws before attempting to raise or lower motor for brush installation!

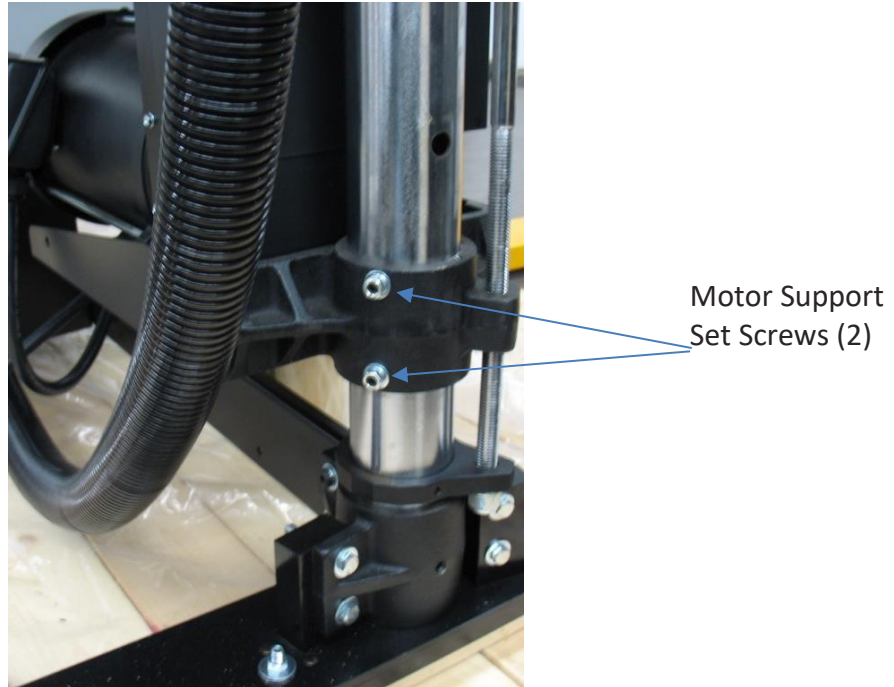


Figure 6: Motor Lock Set Screws

6. Check tightness of all hardware.

NOTE: shipping can loosen nuts, bolts and set screws.

7. Remove shipping shaft from brush machine, Fig. 7;

- A. Loosen drive belt by raising motor with motor tension handle on top of the column near drive belt.
- B. Slide drive belt off pulley.
- C. Remove two bolts from each bearing.
- D. Remove shipping shaft from brush sander.
- E. Loosen set screws in each bearing and driven pulley.
- F. Slide pulley and bearings off shaft.

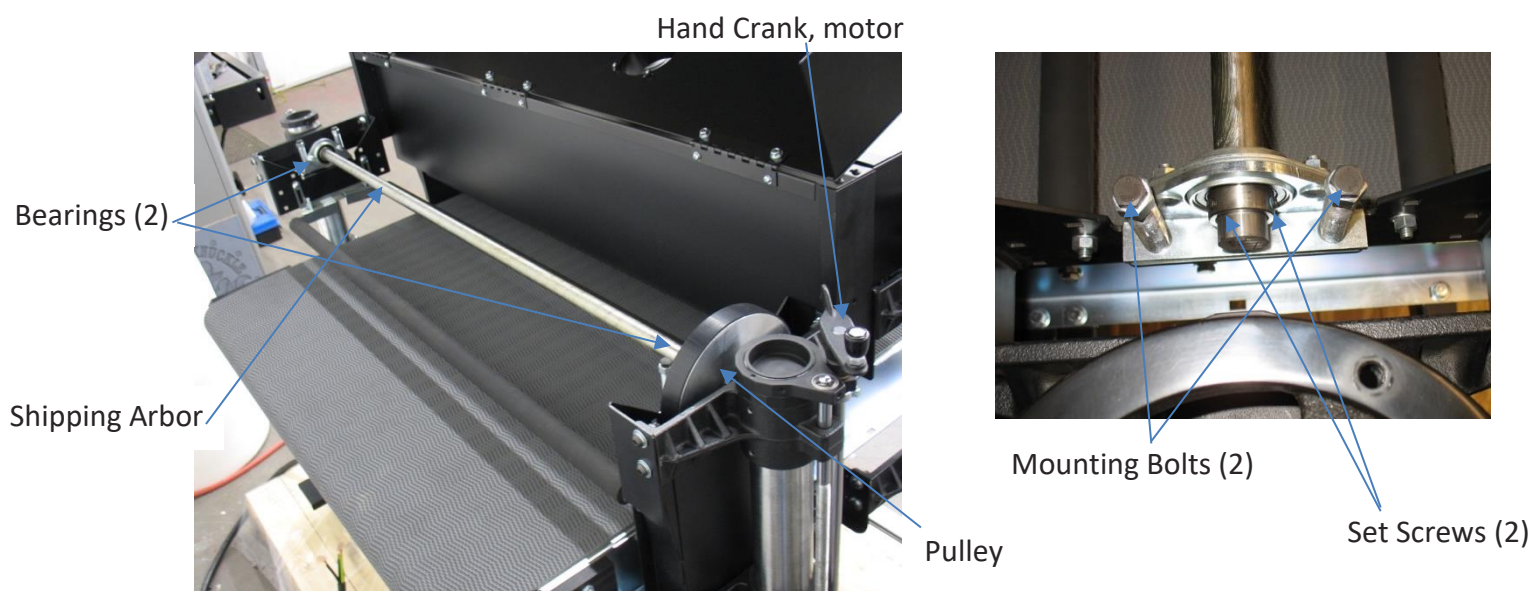


Figure 7A & B: Shipping Arbor and Bearings

8. Installing brush head;

- A. Install brush head (if not already installed) by removing brush head from shipping box.
- B. Slide one bearing (from Shipping Arbor) on each end of the brush shaft. Do not yet tighten the set screws for the bearing collar, Fig. 7B.
- C. Place the shaft key into the key slot of the drive shaft of the brush head.
- D. Slide the pulley, Fig. 7A (from Shipping Arbor) onto the drive shaft over the key.
- E. Raise the main motor by using the hand crank, Fig. 7A, at the top of the column to lift the motor.
- F. Place the brush head into the brush machine while holding the drive belt out-of-the-way.
- G. Center the brush head over the conveyor and install Mounting Bolts, Fig. 7B, from the flange of the bearing into the mating bracket of the brush machine. Tighten the bearing mounting bolts.
- H. Tighten the two set screws, Fig. 7B, in each bearing collar to secure the brush head shaft to the bearings.
- I. Align the pulley of the brush head with the drive pulley of the main motor. Secure by tightening the set screw(s) in the driven pulley.
- J. Lower the main motor for proper tension of the drive belt. Proper tension is slight deflection of the drive belt when pressed from the side.
- K. Make sure all bolts and set screws are tight.

9. **Check alignment (parallelism)** of the brush head to the conveyor. Measure from the bottom of the brush bristles to the top of the conveyor belt on the right and left side. If the brush head is not parallel;

- A. loosen the two bearing bolts (that secure the bearing to the machine) on the lower side of the brush, Fig. 8.
- B. Raise the bearing on the low side by using a hex wrench in the center of the bearing stud and rotate both equally until the brush head is parallel.
- C. Tighten the bolts attaching the bearing to the machine bracket.

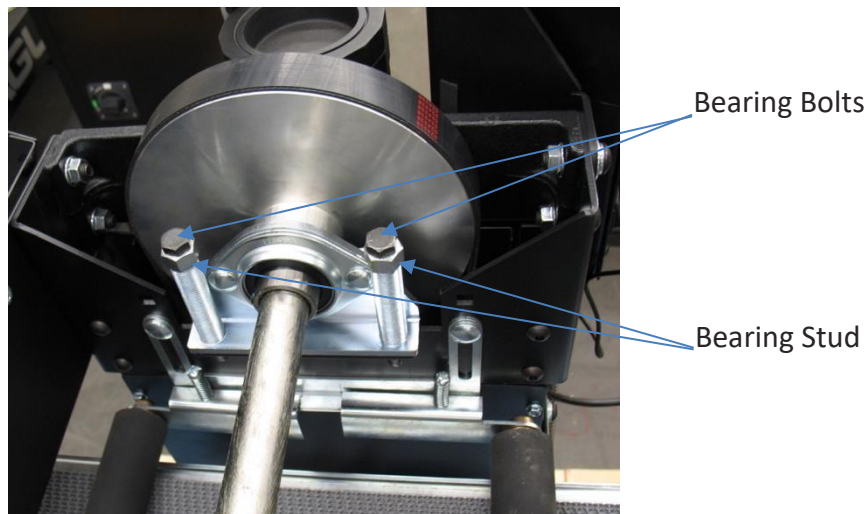


Figure 8: Aligning Brush Head

Dust Collection, Connection/Assembly

1. Connect dust collection hose to each 4" port on machine. Minimum of *600 CFM per port.

*NOTE: The CFM requirement can vary depending on brush head, application(s) and material.



Figure 9: Dust Ports

COMPONENTS



Figure 10: Main Components of SuperBrush 49

NOTE: Assembly is continued in next section "Power Supply"

POWER SUPPLY

Power Supply Circuit Requirements

The power source circuit for your machine must be grounded and rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

Circuit Size (208-230V, 3-Phase)**30 Amp** minimum



IN ALL CASES, MAKE CERTAIN THE RECEPTACLE IN QUESTION IS PROPERLY GROUNDED. IF YOU ARE NOT SURE, HAVE A QUALIFIED ELECTRICIAN CHECK THE RECEPTACLE.

MOTOR SPECIFICATIONS

The typical main motor is 10 HP and is typically wired for 208-230 Volt, Three Phase, 60 HZ, AC current. Confirm your motor electrical configuration before connecting power! Before connecting the machine to the power source, make sure the starter and switches are in the "OFF" position. Cord and "plug" are NOT included. These must be installed by a qualified technician/electrician to local codes.



Figure 11: Electrical Connection Box

NOTE: A “plug” and cord are NOT included and must be installed by a qualified technician/electrician or the power cable connected (hard wired) to an appropriate disconnect according to local codes.

WARNING

A qualified electrician should do the connection. When completed, the machine must conform to the National Electric Code and all local codes and ordinances.

FUNCTION, Control Panel (Front)



Figure 12: Control Panel Components

FUNCTION, Control Panel *Back*

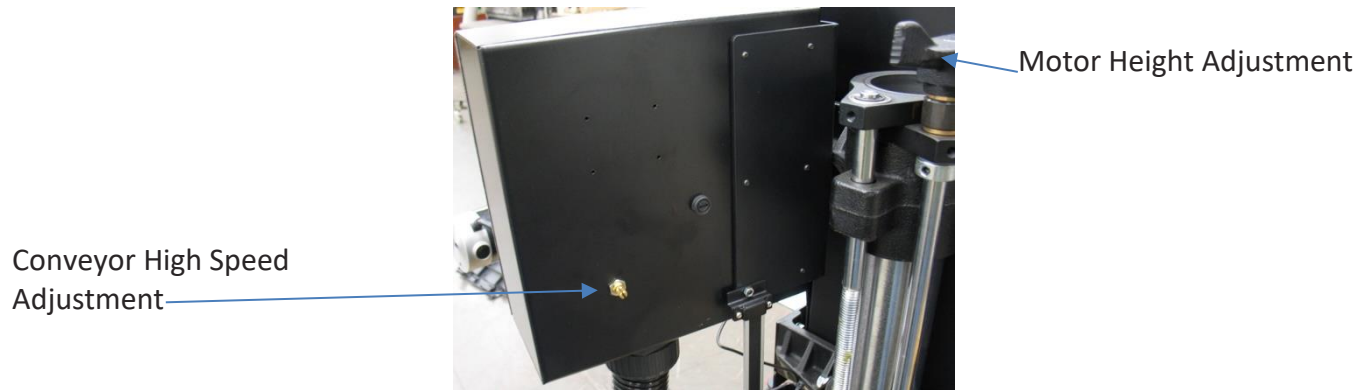


Figure 13: Control Panel Components (*Back*)

NOTE: The speed of “High Speed” Conveyor lifting can be adjusted on the back of the control panel with a rotating stud.

WIRING DIAGRAMS

POWER CONNECTIONS

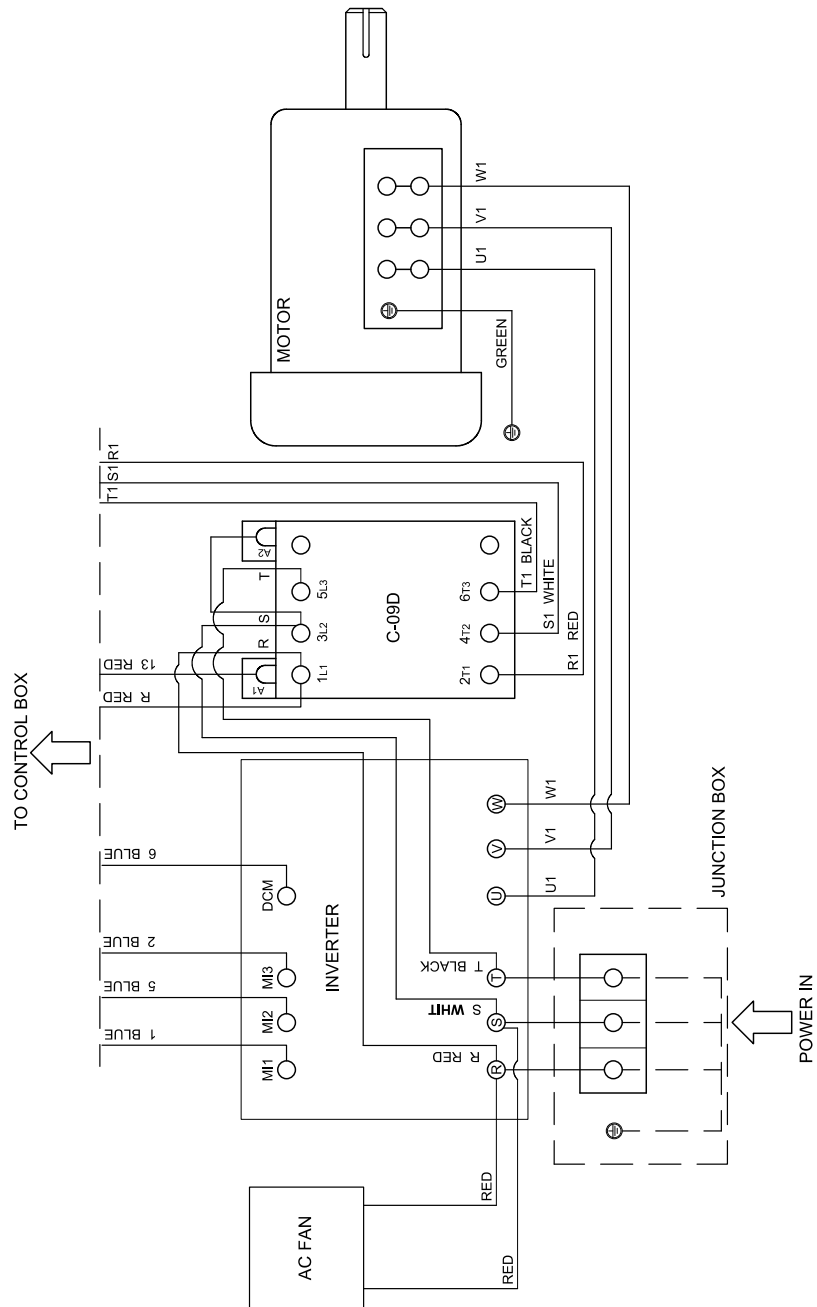


Figure 14: Power Connections & Wiring

INTERNAL WIRING

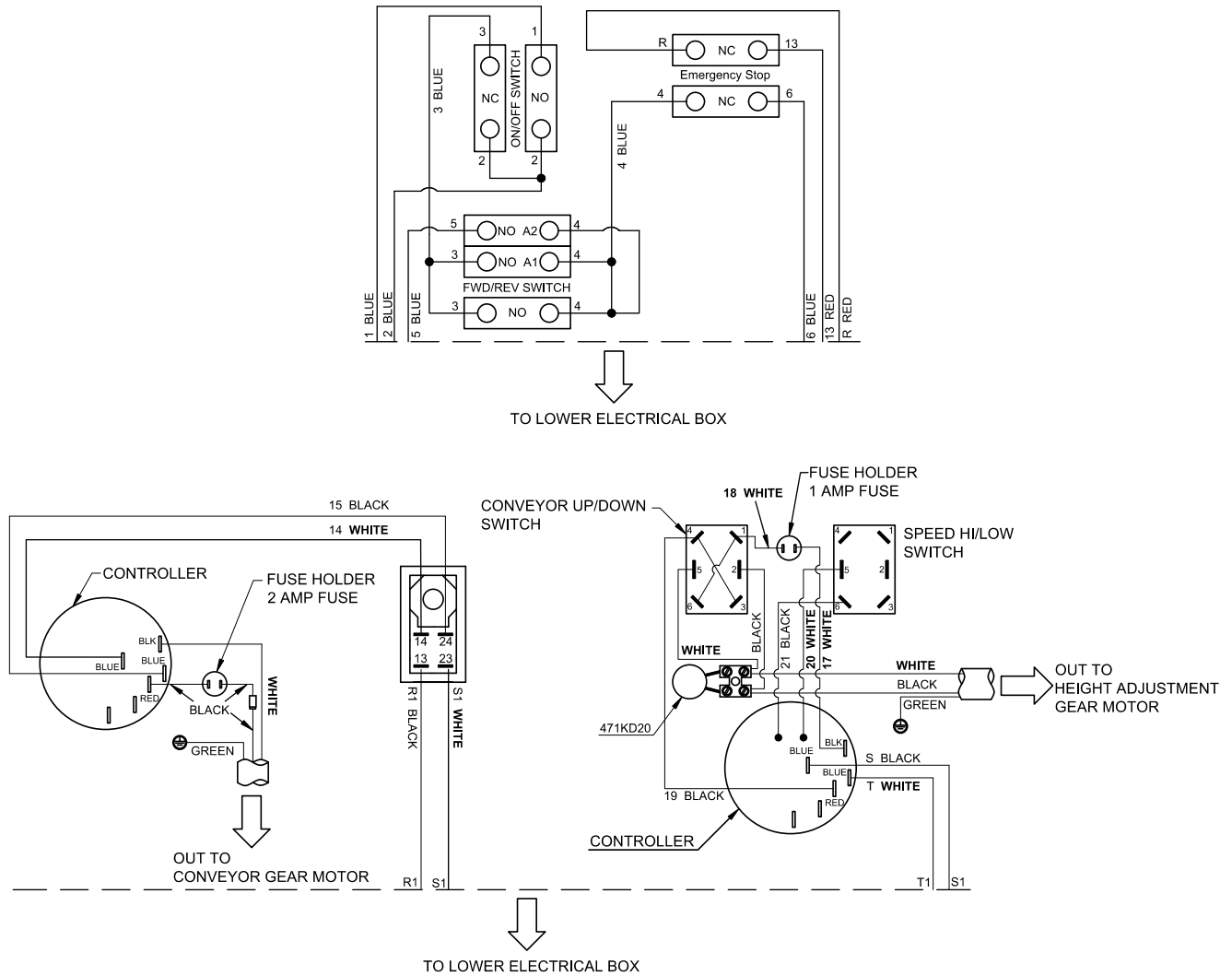


Figure 15: Internal Wiring

OPERATION

1. Confirm brush head is parallel to conveyor bed. See Page 17, "Checking Parallelism" to adjust if necessary.
2. Confirm the electrical supply is correct and connected to machine.
3. Make sure no one is working on or doing maintenance to machine.
4. Adjust contact of brush head onto material to be processed by either turning the height adjustment handle (1 revolution equals 1/32"), or by pressing the UP/DOWN switch on the control panel. NOTE: brush contact will vary with application(s), material and brush head configuration. Confirm correct contact with sample testing information or your salesperson.

Manual
Height Adj.



Electronic
Height Adj.

Figure 16: Height Control Adjustments

Electronic Height
Adjustment



Figure 17: Height Control Adjustment, electronic

5. Confirm correct contact of hold-down (pressure) rollers. Adjust contact by loosening the roller bracket in each corner and raising or lowering to provide proper tension. Correct tension is achieved when material feeds through brush properly without slipping on the conveyor belt.

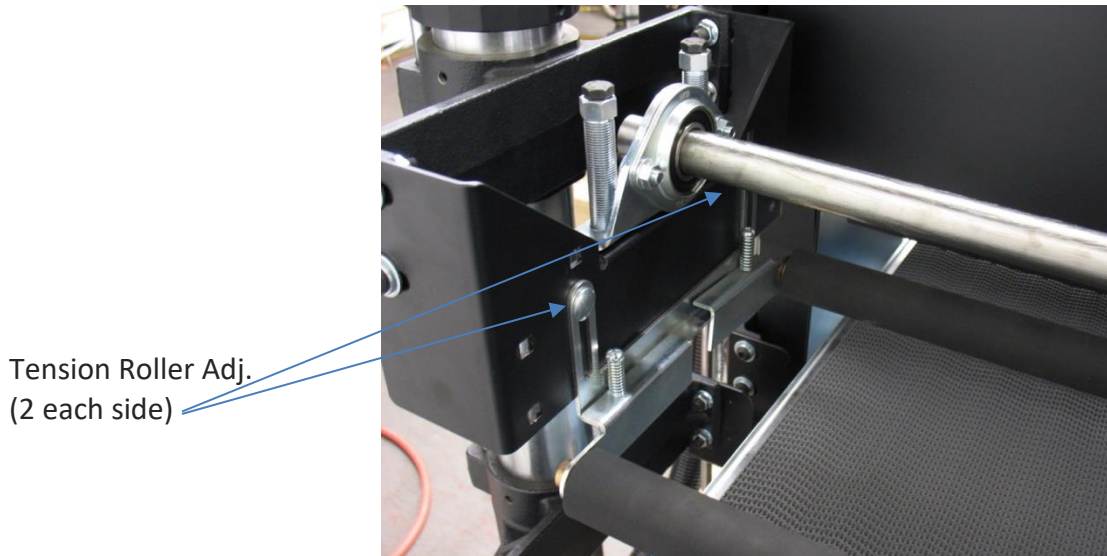


Figure 18: Tension (Hold-Down) Roller Adjustment

6. DRO;
Install two CR-2032 batteries (included) by pulling the DRO from the Control Box and removing the battery cover from the back and installing the batteries.

DRO Calibration; the typical method to use the DRO is to read the bristle penetration into stock being processed.

- A. With machine "OFF", place stock under the brush head.
- B. Adjust conveyor table (up or down) until the tip of the longest bristles are just about touching the material.
- C. Press "ON" to turn the DRO on, Fig. 19.
- D. Press "ZERO" to zero out the DRO, Fig. 19.
- E. Press "in/mm" to select desired inch or millimeter setting, Fig. 19.
- F. Remove material from under brush.
- G. Raise conveyor to desired setting/bristle penetration. See sample letter or confirm appropriate bristle penetration with salesperson.

NOTE: Appropriate bristle penetration will change with various applications, materials and brush wear. Adjust accordingly.

CAUTION

Excessive bristle penetration will prematurely shorten brush life!



Figure 19: DRO calibration

7. To start brush, press the "FRONT BRUSH" "ON" button on the front of the Control Panel, (Fig. 19 & 39). Confirm brush rotation is correct for application and material. If not correct, press OFF button, wait for machine to stop. Change rotation with rotation switch with "Front Brush". Turn ON brush.

8. Starting Conveyor;

A. To start conveyor, press "CONVEYOR" "ON" button, Fig 20:

B. Adjust speed of conveyor with "CONVEYOR SPEED" dial, 0-100%.



Figure 20: Brush & Conveyor controls

NOTE: Conveyor belt will require (periodic) adjustment to maintain proper tracking on conveyor bed. Adjust by tightening the adjustment stud, Fig. 21, with a **5mm Hex Wrench**) on the side the belt is drifting toward and loosen the opposite side an equal rotation.

NOTE: Make adjustments before conveyor belt rubs on side of conveyor bed.

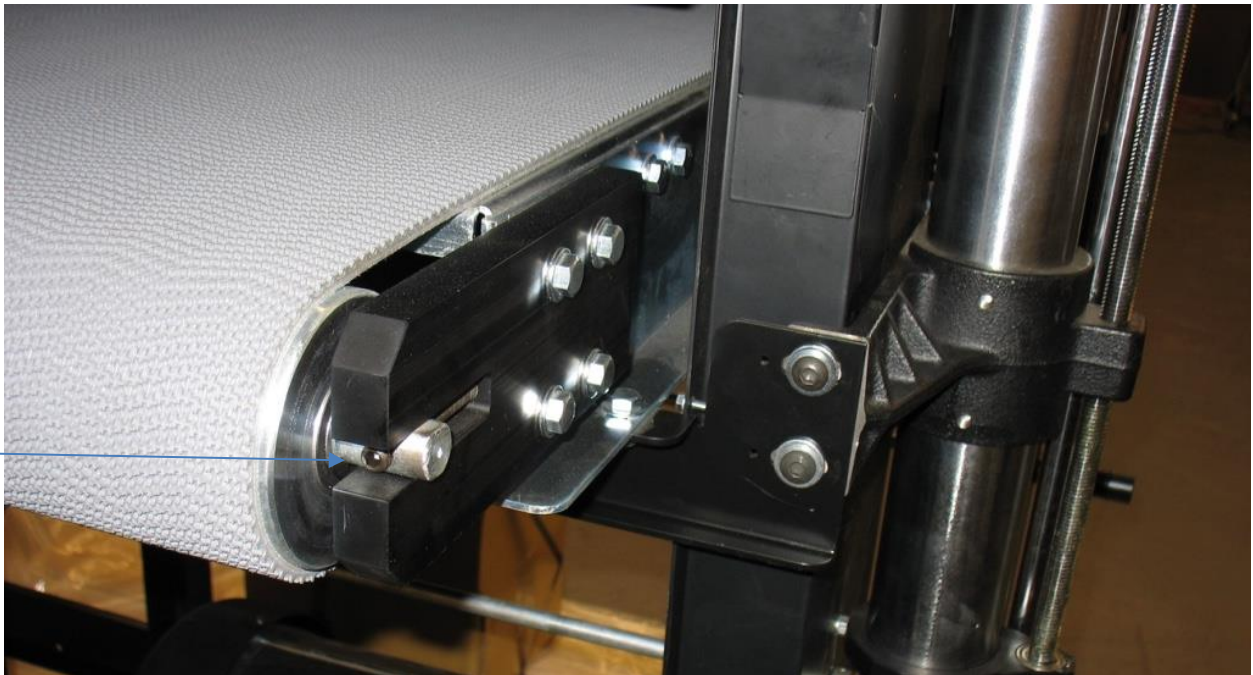


Figure 21: Conveyor Tracking

9. Adjust RPM of brush head by rotating knob on "VFD", Fig. 12 (Variable Frequency Display) adjustment panel on top of main control panel. Confirm correct RPM with sample testing information or your salesperson. RPM reads out on display.

CAUTION

Excessive RPM will prematurely shorten brush life!

10. Start dust collector (open blast gates if so equipped).
11. Place material on conveyor and maintain control of stock until the tension roller is holding stock properly.
12. To stop, press the "OFF" buttons for the brush and conveyor, Fig. 20. Press the "E-STOP" button if there is an Emergency, Fig. 20! To reset the E-STOP button, twist and pull back on the button.



The EMERGENCY STOP button should only be used for an Emergency! It disconnects all power to the machine during an Emergency. It should not be used as the normal shut down procedure and it should not be used when conducting maintenance. Power should be positively disconnected to the machine for maintenance or repairs.

MAINTENANCE

Conveyor Belt

Keep conveyor belt centered on conveyor bed. Adjust tracking stud as needed.

Keep conveyor belt clean to help prevent slippage of material.

Dust Collection

To ensure proper operation and longest brush life of the SuperBrush it is important to maintain full air flow of your dust collection system. Make sure the filter media is clean and there are no obstructions in the ducting.

TROUBLESHOOTING

Symptom	Possible Cause	Possible Solution
Machine does not start or a breaker trips.	Power supply switched OFF or is faulty.	Ensure power supply is ON and has the correct voltage.
	Wall fuse/circuit breaker is blown/tripped.	Ensure adequate circuit size; install inlet restrictor, replace weak breaker.
	Faulty power switch.	Replace switch.
	Motor is at fault.	Test/repair/replace.

Exploded Views

STAND ASSEMBLY

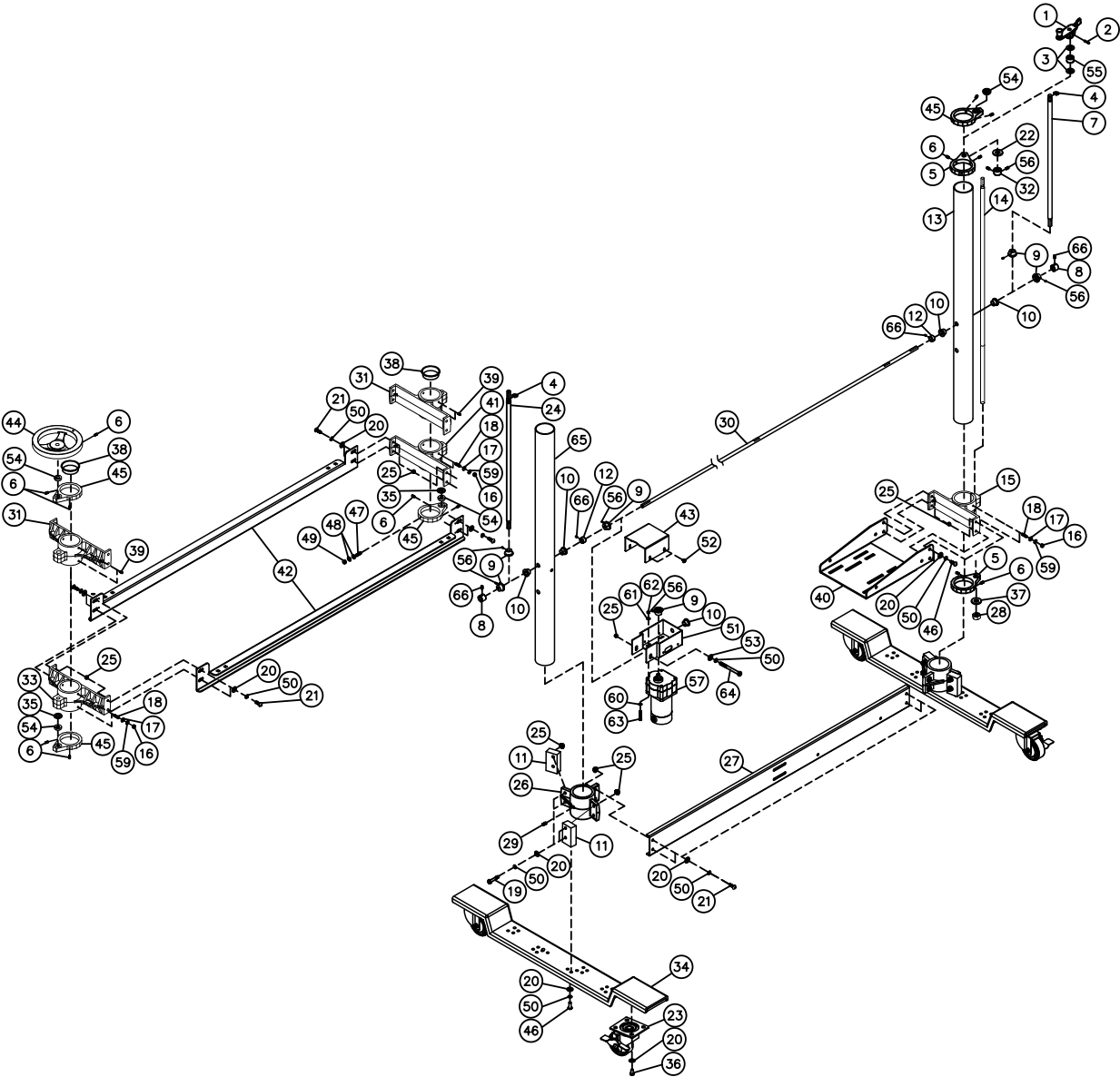


Figure 22: Stand Assembly

Stand Assembly Parts List

Ref.	Part			
No.	No.	Description	Size	Qty.
1.....	31-0020	HANDLE, SWIVEL ASSY		1
2.....	20-0772	ROLL PIN	3/16"X1"	1
3.....	50-3080	OILITE WASHER	5/8" I.D.	2
4.....	635DS-139	E-RING	E-10	2
5.....	30-1112	SUPPORT, ADJUSTING SCREW		2
6.....	10-2804	SET SCREW	1/4"-20X1/2"	18
7.....	30-1240	SCREW, INBOARD HEIGHT ADJ. FOLLOW		1
8.....	93497-2-108	SPACER		2
9.....	20-1101-1	GEAR, MITER HEAVY DUTY		6
10.....	50-3107	OILITE ROUND BUSHING	1/2" I.D.	5
11.....	93497-2-111	SUPPORT BLOCK		4
12.....	20-1103	SHAFT COLLAR	1/2" I.D.	2
13.....	30-3044	TUBE, COLUMN		1
14.....	30-1209B	SCREW, RPM, MOTOR		1
15.....	30-5103	MOUNT, MOTOR		1
16.....	12-0003	HEX NUT	5/16"-18	6
17.....	11-0206	FLAT WASHER	5/16"X18X2t	6
18.....	10-9906	SET SCREW, BRASS TIPPED	5/16"-18X3/4"	6
19.....	93497-2-119	HEX CAP SCREW	3/8"-16x2-1/4"	8
20.....	11-9103	FLAT WASHER	3/8"X23X2t	48
21.....	913002-121	SOCKET HEAD BUTTON SCREW	3/8"-16X1-1/4"	12
22.....	80-2324	NYLON WASHER		1
23.....	93497-2-123	CASTER	4PUKB	4
24.....	30-1241	SCREW, OUTBOARD HEIGHT ADJ. MAIN		1
25.....	12-0209	FLANGE LOCK NUT	3/8"-16	25
26.....	30-1101-1	BASE, COLUMN		2
27.....	93497-2-127	BASE SUPPORT BRACKET		1
28.....	12-8015	NYLON INSERT LOCK NUT	5/8"-11	1
29.....	10-8905	SET SCREW	1/2"-13X1/2"	2
30.....	93497-2-130	ROD, TRANSFER		1
31.....	30-5206	SUPPORT BRUSH		2
32.....	20-1180-02	SPACER		1
33.....	30-5204	SUPPORT, OUTBOARD TABLE		1
34.....	93497-2-134	BASE		2
35.....	93267-2-135	WASHER, OILITE		2
36.....	93497-2-136	HEX CAP SCREW	3/8"-16X5/8"	16
37.....	91267-146	FLAT WASHER	5/8"X30X3t	1
38.....	80-4015	CAP, PLASTIC COLUMN TUBE		2
39.....	10-2903	SET SCREW	5/16"-18X3/8"	8
40.....	40-0106	MOTOR MOUNT		1
41.....	30-5205	SUPPORT, INBOARD TABLE		1
42.....	40-0049	BRACKET, TABLE MOUNT		2
43.....	93497-143	COVER		1
44.....	31-0027	HANDLE, SWIVEL, LARGE		1
45.....	30-1112-0	SUPPORT, ADJUSTING SCREW, W/BEARING		4
46.....	93497-2-146	SOCKET HEAD BUTTON SCREW	3/8"-16X1"	12
47.....	93267-2-147	SET SCREW, BRASS TIPPED	1/4"-20X1"	1
48.....	480BS-145	FLAT WASHER	1/4"X16X2t	2
49.....	12-0001	HEX NUT	1/4"-20	2
50.....	480BS-111	LOCK WASHER	3/8"	33
51.....	93497-151	SUPPORT BRACKET		1
52.....	93497-152	SCREW	1/4"-20X3/8"	4
53.....	93497-153	FLAT WASHER	D27xd10x3t	1

Ref.	Part			
<u>No.</u>	<u>No.</u>	<u>Description</u>	<u>Size</u>	<u>Qty.</u>
54.....	BB-R8ZZ.....	BEARING.....	R8ZZ.....	4
55.....	93267-2-155.....	SPACER.....		1
56.....	10-8802.....	SET SCREW.....	5/16"-18X1/4".....	14
57.....	93497-157.....	DC GEAR MOTOR.....	180VDC.....	1
59.....	480BS-167.....	LOCK WASHER.....	5/16".....	6
60.....	635DS-343.....	FLAT WASHER.....	M6.....	4
61.....	93267-2-413.....	LOCK WASHER.....	M6.....	4
62.....	635DS-344.....	HEX NUT.....	M6X1.0.....	4
63.....	93267-2-409.....	SOCKET HEAD CAP SCREW.....	M6X1.0X80.....	4
64.....	91267-242.....	HEX CAP SCREW.....	3/8"-16X4".....	1
65.....	93497-165.....	TUBE, COLUMN.....		1
66.....	93267-2-158.....	SET SCREW.....	1/4"-20X1/4".....	4

HEAD ASSEMBLY

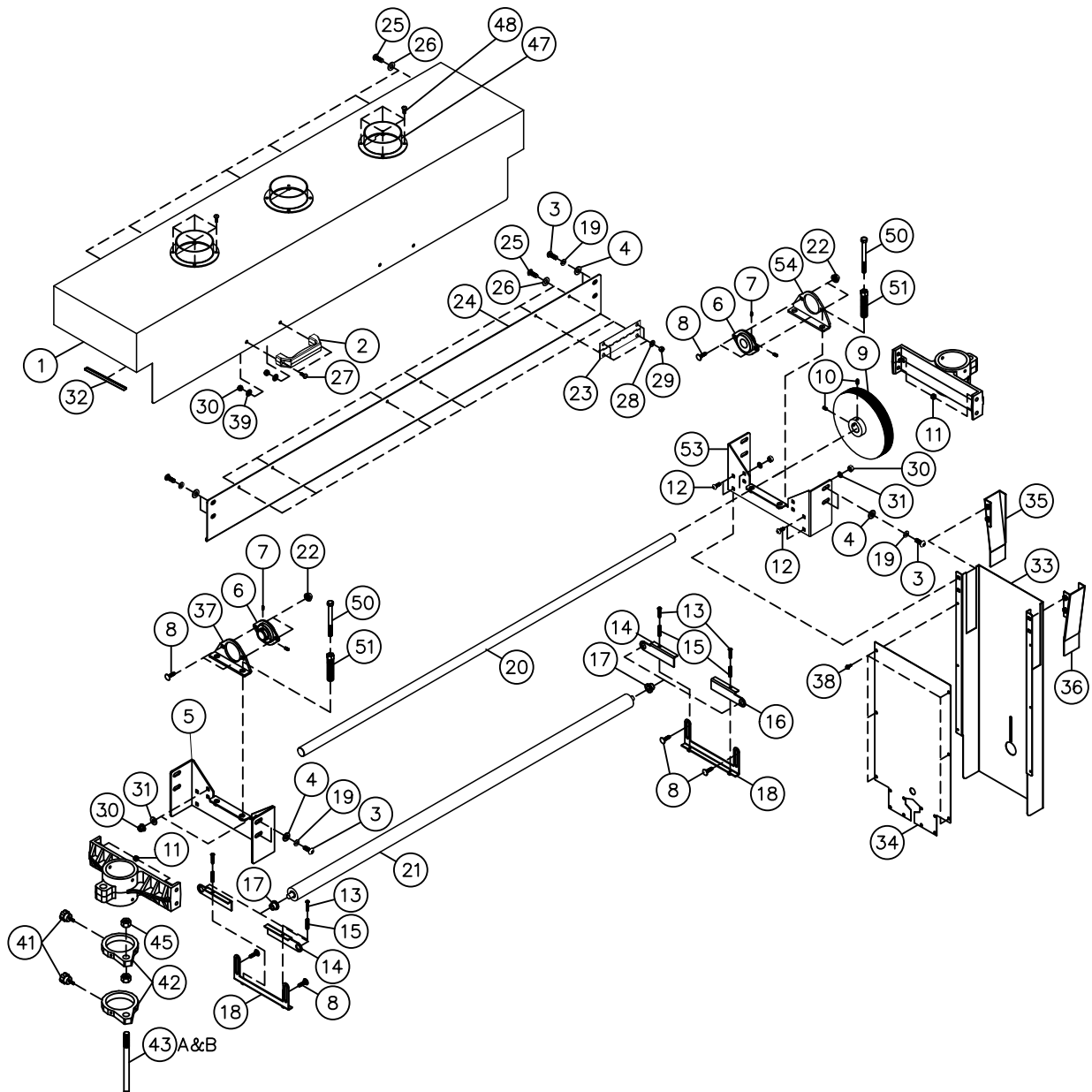


Figure 23: Head Assembly (without brush)

Head Assembly Parts List

Ref.	Part			
No.	No.	Description	Size	Qty.
1	40-3250	DUST COVER		1
2	80-2841	HANDLE, DUST COVER		2
3	913002-121	SOCKET HEAD BUTTON SCREW	3/8"-16X1-1/4"	8
4	11-0104	FLAT WASHER	3/8"X20X2t	8
5	40-0613	BRACKET, BEARING MOUNTING		1
6	50-3067	BEARING		2
7	10-8802	SET SCREW	1/4"-20X1/4"	4
8	10-1203	CARRIAGE BOLT	5/16"-18X3/4"	8
9	93497-2-209	PULLEY		1
10	10-8903	SET SCREW	5/16"-18X3/8"	2
11	12-0209	FLANGE LOCK NUT	3/8"-16	8
12	91267-212	SOCKET HEAD BUTTON SCREW	5/16"-18X3/8"	4
13	10-3213	SCREW	1/4"-20X1-3/4"	4
14	40-0323	BRACKET, LEFT SUSPENSION		2
15	20-3284	SPRING, TENSION ROLLER		4
16	40-0326	BRACKET, RIGHT SUSPENSION		2
17	50-3107	OILITE ROUND BUSHING	1/2" I.D.	4
18	40-0322	BRACKET, SUSPENSION BASE		2
19	480BS-111	LOCK WASHER	3/8"	8
20	93497-2-220	ROD		1
21	30-5218	ROLLER TENSION		2
22	12-0207	FLANGE LOCK NUT	5/16"-18	4
23	40-0225	HINGE		3
24	40-4048	BRACKET, DUST COVER MOUNTING		1
25	10-3205	SCREW	1/4"-20X1/2"	12
26	11-0504	INTERNAL TOOTH LOCK WASHER	1/4"	12
27	913022-203	SCREW	5/16"-18X5/8"	4
28	11-0205	FLAT WASHER	1/4"X16X2t	12
29	12-0001	HEX NUT	1/4"-20	12
30	12-0003	HEX NUT	5/16"-18	8
31	11-0505	INTERNAL TOOTH LOCK WASHER	5/16"	4
33	40-0009	GUARD, BELT COVER		1
34	40-0010	GUARD, BELT, PLATE		1
35	91267-235	GUARD, RIGHT BELT COVER		1
36	91267-236	GUARD, LEFT BELT COVER		1
37	93267-2-237	BEARING SET		1
38	10-3803	SLOTTED HEX HEAD SCREW	#10-24X3/8"	6
39	635DS-207	FLAT WASHER	5/16"	4
41	81-3132W	KNOB, LOCKING W/SET SCREW		2
42	30-1112	SUPPORT, ADJUSTING SCREW		2
43A	30-1260HR	DEPTH GAUGE ROD		1
43B	94-1654	DECAL, SCALE		1
45	925002-109	HEX NUT	1/2"-13	2
47	635DS-210	DUST PORT		3
48	635DS-135	SCREW	1/4"-20X3/8"	12
50	91267-242	HEX CAP SCREW	3/8"-16X4"	4
51	93267-2-251	ADJUSTMENT NUT		4
53	93497-2-253	BRACKET, BEARING MOUNTING		1
54	93497-2-254	BEARING SET		1

CONVEYOR ASSEMBLY

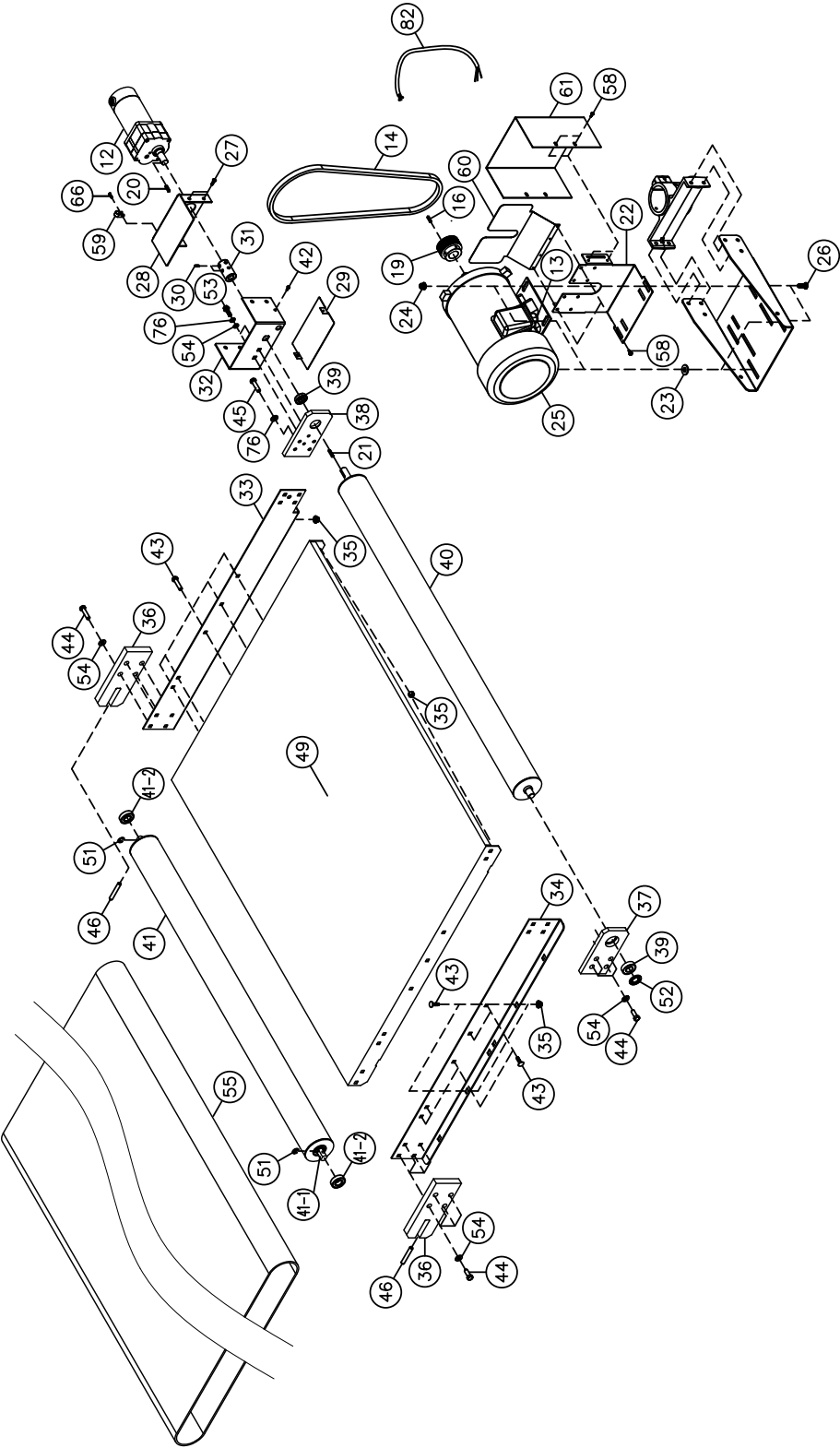


Figure 24: Conveyor Assembly

CONTROL PANEL ASSEMBLY *(Incl. w/Conveyor Parts)*

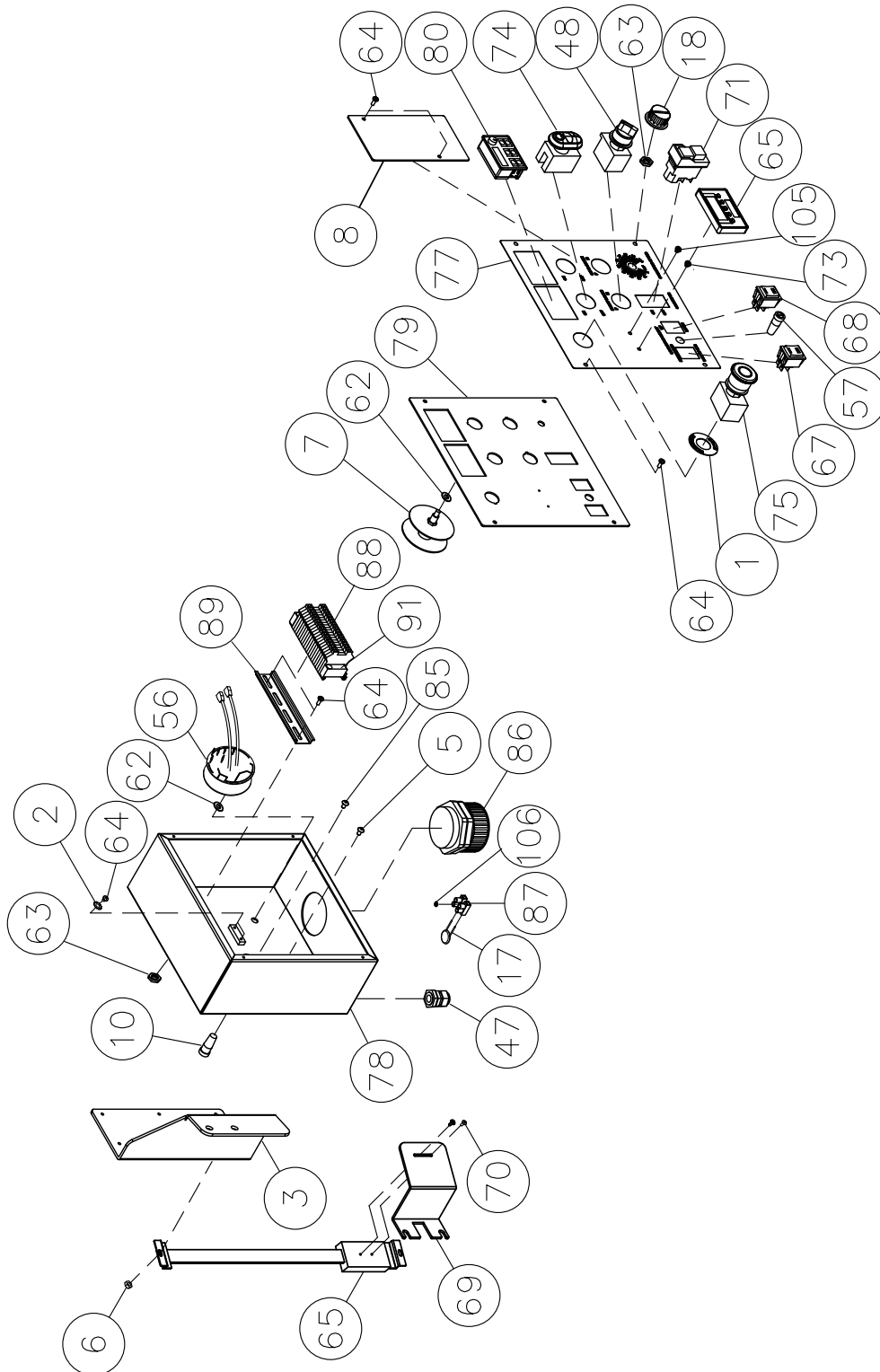


Figure 25: Control Panel Assembly (Included with Conveyor parts list)

VFD & POWER IN ASSEMBLY *(Incl. w/Conveyor Parts)*

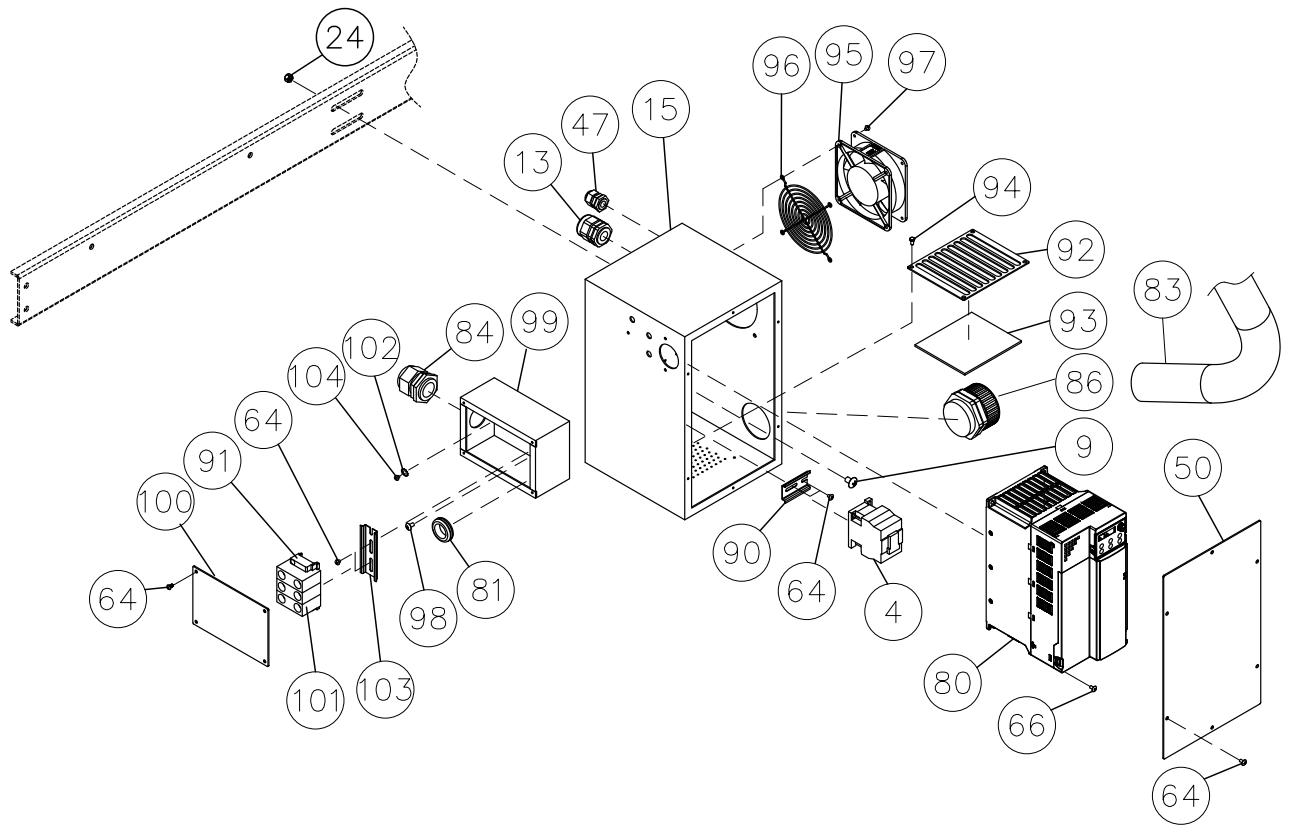


Figure 26: VFD & Power-In Assembly (included with Conveyor parts list)

Conveyor Assembly Parts List, includes Control Box & VFD

Ref.	Part			
No.	No.	Description	Size	Qty.
1	635DS-361	EMERGENCY STOP LABEL		1
2	93267-2-302	EXTERNAL TOOTH LOCK WASHER	M4	2
3	93497-2-303	CONTROL BOX SUPPORT BRACKET		1
4	93497-2-304	CONTACTOR		1
5	93267-2-305	SOCKET HEAD BUTTON SCREW	M5X0.8X8	5
6	93267-2-306	HEX NUT	M5X0.8	1
7	72-1260	CONTROLLER, 180 VDC, VARIABLE SPEED, CONVEYOR		1
8	93497-308	PLATE		1
9	93497-2-309	SCREW	5/16"-18X5/8"	2
10	93267-2-310	FUSE HOLDER		1
12	93497-2-312	DC GEAR MOTOR	180VDC	1
13	93497-2-313	STRAIN RELIEF	PG-21	2
14	93497-2-314	POLY-V BELT		1
15	93497-315	LOWER CONTROL BOX		1
16	93497-2-316	KEY	8x7x60	1
17	93267-2-317	ZINC OXIDE VARISTOR		1
18	72-6106-01A	KNOB		1
19	93497-2-319	PULLEY, DRIVE		1
20	20-0763	KEY	3/16"X3/16"X3/4"	1
21	93267-2-321	KEY	3/16"x3/16"x1-1/4"	1
22	40-1000	LOWER, INNER BELT GUARD		1
23	93267-2-323	FLAT WASHER	5/16"X18X2t	2
24	12-0207	FLANGE LOCK NUT	5/16"-18	6
25	93497-2-325	MOTOR, TEFC, 3 Phase	10 HP	1
26	635DS-234	CARRIAGE BOLT	5/16"-18X1"	4
27	10-9101	HEX CAP SCREW	5/16"-18X1/2"	4
28	93497-2-328	CONTROL HOUSING		1
29	40-4116	CONTROL BOX BOTTOM COVER		1
30	10-8902	SET SCREW	5/16"-18X3/8"	4
31	93497-2-331	COUPLER		1
32	93497-2-332	BRACKET, CONTROL HOUSING		1
33	93497-2-333	RAIL, BED RH		1
34	93497-2-334	RAIL, BED LH		1
35	12-0209	FLANGE LOCK NUT	3/8"-16	30
36	40-4153	BRACKET, DRIVEN ROLLER SUPPORT		2
37	40-4155A	BRACKET, DRIVE ROLLER SUPPORT LH		1
38	40-4154	BRACKET, DRIVE ROLLER SUPPORT RH		1
39	13-1015	BEARING, DRIVE ROLLER		2
40	30-3112-1	ROLLER, DRIVE		1
41	30-3113	ROLLER, DRIVEN		1
42	93267-2-375	SCREW	1/4"-20X3/8"	2
43	10-1302	CARRIAGE BOLT	3/8"-16X3/4"	14
44	10-9207	HEX CAP SCREW	3/8"-16X1-1/2"	12
45	10-9205	HEX CAP SCREW	3/8"-16X1"	4
46	10-9215	SET SCREW	3/8"-16X3"	2
47	PG-11	STRAIN RELIEF	PG-11	2
48	93497-2-348	FWD/REV SWITCH		1
49	40-4202	CONVEYOR BED		1
50	93497-350	LOWER CONTROL BOX COVER		1
51	20-0753	E-RING	E-15	2
52	93497-2-352	STARKLOCK	3/4"	1
53	480BS-177	HEX CAP SCREW	3/8"-16X3/4"	2

Ref.	Part			
No.	No.	Description	Size	Qty.
54	11-0104	FLAT WASHER	3/8"X20X2t	14
55	61-1017	BELT, CONVEYOR POLYURETHANE		1
56	93267-2-356	CONTROLLER, 180 VDC, VARIABLE SPEED, CONVEYOR		1
57	72-6202-1	FUSE HOLDER		1
58	10-3803	SLOTTED HEX HEAD SCREW	#10-24X3/8"	6
59	93267-2-359	CORD HOLDER		1
60	40-0012	GUARD, BELT ANGLED		1
61	40-0011	GUARD, BELT LOWER		1
62	72-1270-3	FLAT WASHER	5/16" I.D. THIN	2
63	72-1270-4	JAM NUT	5/16"-32	2
64	PLAREVO1836-1152	SCREW	M4X0.7X6	21
65	93267-2-365	LCD MONITOR		1
66	913002-169	SCREW	M4X0.7X8	5
67	72-2051	SIWTCH, HIGH/LOW		1
68	72-2050	SWITCH, UP/DOWN		1
69	93497-2-369	DRO MOUNTING PLATE		1
70	93267-2-370	SCREW	M3X0.5X8	2
71	72-2004E	ON/OFF SWITCH, CONVEYOR		1
72	93497-2-372	EXTENSION CORD (NOT SHOWN) , INVERTER		1
73	93267-2-373	SCREW	M3X0.5X6	1
74	PLAREVO1836-170	ON/OFF SWITCH, DRUM		1
75	PLAREVO1836-171	EMERGENCY STOP		1
76	480BS-111	LOCK WASHER	3/8"	6
77	93497-2-377	CONTROL PANEL LABEL		1
78	93497-2-378	UPPER CONTROL BOX		1
79	93497-2-379	UPPER CONTROL BOX COVER		1
80	93497-2-380	INVERTER		1
81	PLAREVO1216-205	RUBBER BUSHING	D25	1
82	93497-2-382	MOTOR CORD, FRONT MOTOR		1
83	93497-2-383	POYFLEX-CORRUGATED PIPES		1
84	93497-384	STRAIN RELIEF	PG-29	1
85	93497-2-385	SOCKET HEAD BUTTON SCREW	M5X0.8X16	1
86	93497-2-386	FIEXIBLE CONDUIT ADAPTOR	PF2"	2
87	93267-2-387	TERMINAL BLOCK		1
88	93497-2-388	FEED-THROUGH TERMINALS		15
89	93497-2-389	DIN RAIL		1
90	93497-2-390	DIN RAIL		1
91	93497-2-391	END BRACKET		4
92	93497-2-392	FILTER SPONGE PLATE		1
93	93497-2-393	FILTER SPONGE		1
94	93497-2-394	HEX CAP SCREW	M5X0.8X8	4
95	93497-2-395	AC FAN		1
96	93497-2-396	METAL FAN GUARDS		1
97	93497-2-397	SCREW	M5X0.8X10	4
98	93497-2-398	SCREW	M5X0.8X8	4
99	93497-399	JUNCTION BOX		1
100	93497-3100	JUNCTION BOX COVER		1
101	93497-3101	RAIL-MOUNT TERMINAL BLOCKS		3
102	93497-2-3102	EXTERNAL TOOTH LOCK WASHER	M5	1
103	93497-2-3103	DIN RAIL		1
105	93497-2-3105	SCREW	M3X0.5X20	1
106	93497-2-3106	HEX NUT	M3X0.5	1

Specifications: SuperBrush 49

Main Motor:	10 HP / 1750 RPM
Electrical:	208V - 230V / 60Hz / 3PH
Circuit:	30 Amp (min.) at 208V, 3PH
Air Volume:	600 CFM per port (min.)
Inlet:	Three 4" ports
Switch:	ON/OFF for main motor, Conveyor & Lift, E-STOP
Packing Size: (L x W x H)	72" x 44" x 56" (1829 x 1118 x 1422 mm)
Machine weight:	754 lbs. (342 kg.)
Shipping weight:	1135 lbs. (515 kg.)

SUPPLIES:

Conveyor Belt	# 61-1017
Various brush heads	# varies

Contact Laguna Tools for supplies :

Ph: 800.234.1976

www.lagunatools.com

NOTES

LAGUNA TOOLS

7291 Heil Avenue
Huntington Beach, CA 92647
Ph: 800.234.1976
www.lagunatools.com