Busy Bee Tools

BBSDOSS

Oscillating Belt / Spindle Sander

Operator's Manual

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Introduction

It is with distinct honor and excitement that we present to you the BBSDOSS Busy Bee Tools Professional Oscillating Belt and Spindle Sander, a premier addition to our esteemed line of precision woodworking equipment. At Busy Bee Tools, we are committed to engineering excellence, and this machine exemplifies our dedication to providing craftsmen with superior tools for their trade.

This manual has been meticulously crafted to guide you through the setup, safe operation, and maintenance of your new BBSDOSS Professional Oscillating Belt and Spindle Sander. By following the detailed instructions and recommendations contained within these pages, you can anticipate many years of dependable and satisfying performance. This commitment to quality underscores Busy Bee Tools' promise of enhancing customer satisfaction through innovation and reliability.

Included within this manual are precise specifications, illustrations, and photographs that represent the BBSDOSS in its current configuration. Please note, in our pursuit of continual improvement and to exceed industry standards, Busy Bee Tools reserves the right to make enhancements to this model without prior notice.

For your convenience, we continuously update all our product manuals which are available on our website at www.busybeetools.com . We encourage you to visit this site regularly to download the latest updates and ensure that you are always informed about the best practices for operating and maintaining your machine. At Busy Bee Tools, your safety and satisfaction are our utmost priority, and we are dedicated to ensuring that your experience with the BBSDOSS is exceptional.

Welcome to the Busy Bee Tools family, where craftsmanship meets innovation.

Contact us

In case you require additional assistance or have any further questions, please do not hesitate to reach out to our dedicated Customer Service and Technical Support Department at:

Busy Bee Tools Head Office
130 Great Gulf Drive
Concord ON, L4K 5W1
Or at any of our stores across Canada.
Visit our website for the latest deals and for more information.
Call us Toll Free: 1-800-461-2879.
Email us at: cs@busybeetools.com

Our team of experts is here to provide you with the guidance and support you need to ensure the safe and efficient operation of your machine. Your satisfaction and safety are our top priorities, and we are committed to assisting you in any way we can.

Specifications

- Motor	1/32HP, 4Amp, 120V. 60Hz, 10,000RPM
- Spindle Speed (no load)	2000RPM
- Table Size (LXW)	16”X15-3/4” (405X400MM)
- Spindle Length X Diameter	4-1/2”X1/2” (115X12.7MM)
- Maximum Spindle Allowed Diameter	2”
- Sanding Belt Size	4”X24”
- Sanding Belt Speed	1565FPM
- Spindle/Belt Oscillation	58 per min.
- Dust Outlet	1-1/2” (38MM)
- Height (overall)	18-1/4” (464MM)
- Height Base to Table	13-1/8”” (333MM)
- Table Width	16” (405MM)
- Table Depth	15-3/4” (400MM)
- Table Tilt	0° to 45°
- Base Dimensions (LXW)	17-7/8”X16-3/4” (455X415MM)
- Net Weight	27.8lbs (12.6KG)
- Shipping Weight	32lbs (14.5KG)
- Shipping Dimensions (LXWXH)	20.67”X18.11”X19.49” (525X460X495MM)

NOTE: The specifications, photographs, drawings and information in this manual represent the current model when the manual was prepared. Changes and improvements may be made at any time, with no obligation on the part of Busy Bee Tools, Inc. to modify previously delivered units. Reasonable care has been taken to ensure that the information in this manual is correct, to provide you with the guidelines for the proper safety, assembly and operation of this machine.

Section 1: Safety Instructions

IMPORTANT! Safety is the single most important consideration in the operation of this equipment. **The following instructions must be followed at all times.** Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.
There are certain applications for which this tool was designed. We strongly recommend that this tool not be modified and/or used for any other application other than that for which it was designed. If you have any questions about its application, do not use the tool until you have contacted us, and we have advised you.

Safety Symbols

⚠ SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, or CAUTION. This symbol may be used in conjunction with other symbols or pictographs.

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

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

⚠ CAUTION Indicates a potentially hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE: Shown without Safety Alert Symbol indicates a situation that may result in property damage.

General Safety

KNOW YOUR POWER TOOL. Read the owner's manual carefully. Learn the tool's applications, work capabilities, and its specific potential hazards.

Before Using the Machine

To avoid serious injury and damage to the tool, read and follow all of the Safety and Operating Instructions before operating the machine.

1. **⚠ WARNING:** Some dust created by using power tools contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:
   Lead from lead-based paints.
   Crystalline silica from bricks, cement, and other masonry products.
   Arsenic and chromium from chemically treated lumber. Your risk from these exposures varies, depending on how often you do this type of work.
   To reduce your exposure to these chemicals: work in a well-ventilated area and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.
2. **READ** the entire Owner's Manual. **LEARN** how to use the tool for its intended applications.
3. **GROUND ALL TOOLS.** If the tool is supplied with a 3-prong plug, it must be plugged into a 3-contact electrical receptacle. The 3rd prong is used to ground the tool and provide protection against accidental electric shock. **DO NOT** remove the 3rd prong. See Grounding Instructions on the following pages.
4. **AVOID A DANGEROUS WORKING ENVIRONMENT.**
   DO NOT use electrical tools in a damp environment or expose them to rain.
5. **DO NOT** use electrical tools in the presence of flammable liquids or gases.
6. **ALWAYS** keep the work area clean, well

lit, and organized. **DO NOT** work in an environment with floor surfaces that are slippery from debris, grease, and wax.

8. people to be in the immediate work area, especially when the electrical tool is operating.
9. **DO NOT FORCE THE TOOL** to perform an operation for which it was not designed. It will do a safer and higher quality job by only performing operations for which the tool was intended.
10. **WEAR PROPER CLOTHING. DO NOT** wear loose clothing, gloves, neckties, or jewelry. These items can get caught in the machine during operations and pull the operator into the moving parts. The user must wear a protective cover on their hair, if the hair is long, to prevent it from contacting any moving parts.
11. **CHILDPROOF THE WORKSHOP AREA** by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.
12. **ALWAYS UNPLUG THE TOOL FROM THE ELECTRICAL RECEPTACLE** when making adjustments, changing parts or performing any maintenance.
13. **KEEP PROTECTIVE GUARDS IN PLACE AND IN WORKING ORDER.**
14. **AVOID ACCIDENTAL STARTING.** Make sure that the power switch is in the "OFF" position before plugging it in the power source.
15. **REMOVE ALL MAINTENANCE TOOLS** from the immediate area prior to turning the machine "ON".
16. **USE ONLY RECOMMENDED ACCESSORIES.** Use of the incorrect or improper accessories could cause serious injury to the operator and cause damage to the tool. If in doubt, check the instructions manual that comes with that particular accessory.
17. **NEVER LEAVE A RUNNING TOOL UNATTENDED.** Turn the power switch "OFF". DO NOT leave the machine until it comes to a complete stop.
18. **DO NOT** Stand on the Machine. Serious injury could occur in the machine tips over also the machine will be damaged.
19. **DO NOT** store anything above or near the machine where anyone might use the machine as a step to reach.
20. Maintain your Balance, **DO NOT** extend yourself over the machine. Wear oil resistant rubber safety shoes. Keep the floor clear of debris, grease, and wax.
21. **Maintain Your Tools Regularly**, always keep tools clean and in good working condition. Keep
7. **KEEP VISITORS AND CHILDREN AWAY. DO NOT** permit

all blades and bits sharp, dress grinding wheels and change abrasives when necessary.

22. **Check your machine for any damages on a daily basis,** check carefully all safety features on the machine make sure they operate properly, are not damaged, and perform their intended functions. Check for alignment, binding or breakage of moving parts, If any part is damaged it must be replaced immediately.
23. **DO NOT OPERATE TOOL WHILE TIRED, OR UNDER THE INFLUENCE OF DRUGS, MEDICATION OR ALCOHOL.**
24. **Secure all work.** Use clamps or jigs to secure the work piece. This is a safer than attempting to hold the workpiece with your hands.
25. **STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE WHEN OPERATING A POWER TOOL.** A moment of inattention while operating power tools may result in serious personal injury.
26. 25. **ALWAYS WEAR A DUST MASK TO PREVENT INHALING DANGEROUS DUST OR AIRBORNE PARTICLES,** Including wood dust, crystalline silica, and asbestos dust particles. Direct particles away from your face and body. Always operate the machine is a well-ventilated area while using proper dust collection as well as approved PPE to protect yourself from inhaling any harmful materials.
27. **Use a proper extension cord.** When using this machine it is important to use the correct extension cord making sure it is suitable and damage free ensuring that it'll withstand the current the machine draws and for your personal safety. When in doubt of the proper size, use a shorter and thicker cord. An undersized cord will cause a drop in line Voltage resulting in a loss of power and overheating.

USE ONLY A 3-WIRE EXTENSION CORD THAT HAS A 3-PRONG GROUNDING PLUG AND A 3-POLE RECEPTACLE THAT ACCEPTS THE TOOL'S PLUG.

28. **SAVE THESE INSTRUCTIONS.** Refer to this manual frequently and use it to instruct other on how to properly use this machine.

Electrical Safety

⚠ WARNING: THIS TOOL MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.

IN THE EVENT OF A MALFUNCTION OR BREAKDOWN, grounding provides the path of least resistance for electric current and reduces the risk of

electric shock. This tool is equipped with an electric cord that has a grounding conductor and requires a ground. The plug MUST be plugged in a receptacle that is properly grounded in accordance with the CSA regulations and the electrical codes.
DO NOT modify the plug in any way. If it it'll not fit the existing receptacle you must have a trained electrician Install the correct one.

1- **Power tool plugs must match the outlet. Nev- er modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce the risk of electric shock.
2- **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
3- **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
4- **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep the cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
5- **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
6- **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

Personal Safety

1- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.

Wear personal protective equipment and always safety goggles. Protective equipment such as a dust mask, non-skid safety shoes, safety helmet or hearing protection used for appropriate conditions will reduce personal injuries.

2- **Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or rechargeable battery, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
3- **Remove any adjusting tools or spanners/keys before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
4- **Avoid abnormal postures. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
5- **Wear suitable clothing. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.
6- **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust extraction can reduce dust-related hazards.
7- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

Power tool use and care

Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing pow- er tools. Such precautionary measures reduce the risk of starting the power tool accidentally.

Store idle power tools out of the reach of children and Do not allow persons **unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users. **Maintain power tools and attachments. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If dam- aged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.

7- **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
8- **Use the power tool, accessories and tool bits etc. in accordance with these instructions. Take into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
9- **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

The use of Extension Cords

⚠ WARNING: THE USE OF AN EXTENSION CORD WITH THIS MACHINE IS NOT RECOMMENDED. For best power and safety, plug the machine directly into a dedicated, grounded electrical outlet that is within the supplied cord length of the machine.

If an extension cord needs to be used, it should only be for the limited operation of the machine. The extension cord should be as short as possible in length and have a minimum gauge size of 14AWG.

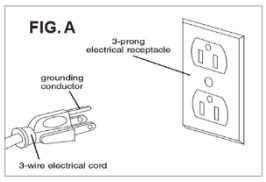
⚠ WARNING: Check extension cords before each use. If damaged replace immediately. Never use a tool with a damaged cord, since touching the damaged area could cause electrical

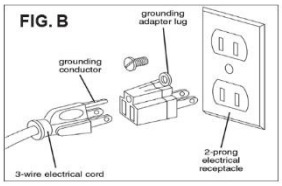
shock, resulting in serious injury.
Use a proper extension cord. A (UL) listed extension cord only. Other extension cords can cause a drop in the line voltage, resulting in a loss of power and overheating of the tool.

Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools or other obstructions while you are working with your power tool.

*** Canadian electrical codes require extension cords**

to be certified SJT type or better.





**** The use of an adapter in Canada is not acceptable.**

Specific Safety Instructions for Sanders

This machine is intended for the surfacing of natural, solid woods and composite materials. Any other use not as specified, including modification of the machine or use of parts not tested and approved by the equipment manufacturer can cause unforeseen damage, and invalidate the warranty.

ATTENTION: Use of this sander still presents risks that cannot be eliminated by the manufacturer. Therefore, the user must be aware that wood working machines are dangerous if not used with care and all safety precautions are adhered to.

1. DO NOT operate this machine until you have read all the following instructions.
2. DO NOT attempt to operate this machine until it is completely assembled.
3. DO NOT turn ON this machine if any parts are missing.
4. This machine must be grounded.
5. If you are not familiar with the operation of the machine, enlist the help of a qualified person.
6. It is highly recommended that this machine be mounted on a flat and secure work surface or a stand.
7. Always wear PPE to protect your eyes from dust and debris. Wear a dust mask at all times to prevent you from inhaling the dust it is dangerous due to the chemicals used to treat the wood.
8. DO NOT operate this machine if you are under the influence of drugs, alcohol or medication.
9. DO NOT wear loose clothing or jewelry when operating this machine. Tie back long hair.
10. DO NOT wear any gloves while operating this machine.
11. Always make sure the power is in the OFF position and the machine is unplugged when doing any cleaning, assembly, setup, or when it is not in use.
12. DO not unplug the machine before turning the switch to the OFF position.
13. DO NOT use any accessories or attachments that aren't recommended, this may cause injury and harm.
14. Check the workpiece for any nails, screws or other material that can tear or damage the machine.
15. Sanding of metals is not recommended as it may spark and ignite sawdust and wood shavings.

MINIMUM RECOMMENDED GAUGE FOR EXTENSION CORDS (AWG)				
120 VOLT OPERATION ONLY				
	25' LONG	**50' LONG**	**100' LONG**	**150' LONG**
0 to 6 Amps	18 AWG	16 AWG	16 AWG	14 AWG
6 to 10 Amps	18 AWG	16 AWG	14 AWG	12 AWG
10 to 12 Amps	16 AWG	16 AWG	14 AWG	12 AWG

16. Fiberglass or similar materials are not recommended with the use of this machine, permanent damage to the machine's bearing will occur.
17. Only recommended diameter abrasive sanding drums should be used.
18. Replace worn, frayed or torn abrasives immediately to prevent injury.
19. Always keep face and hands away from any moving parts such as the belts and sanding drums.
20. Keep the power supply cord free of any moving parts or sharp edges.
21. Always support the workpiece with the table.
22. Remove material debris from the work area immediately and keep the surrounding area clean.

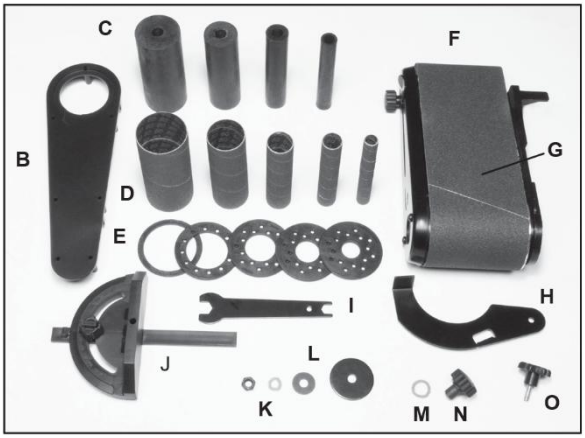
SAVE THESE INSTRUCTIONS.

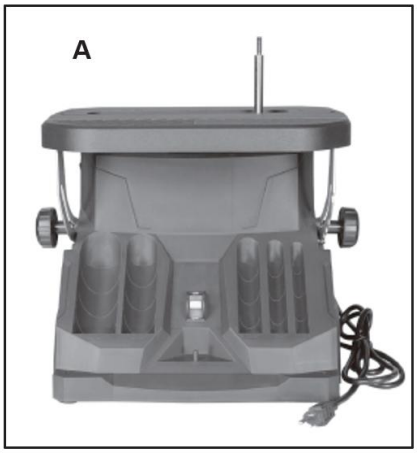
Refer to them often.

This owner's manual is not a teaching aid and is intended to show assembly, adjustments, and general use.

Section 2: Machine Unpacking and Setup

Package Content





A- Sanding Base.
B- Table Bracket.
C- Rubber Sanding Drums.
D- Sanding Sleeves(5) ¾", 1", 1-1/2", 2"
E- Table Insert (5) ¾", 1", 1-1/2", 2"
F- Sanding Belt Attachment.
G- Sanding Belt 4"X24"
H- Limiting Plate.
I- Wrench 10MM & 13MM
J- Miter Gauge.
K- Spindle Nut & Washer M8.
L- Sanding Drum Washers (2) 24MM, 45MM
M- Sanding Belt Attachment Knob Washer.
N- Sanding Belt Attachment Knob.
O- Limiting Plate Knob.

Unpacking and Initial Cleanup

1. Carefully remove all contents from the shipping carton. Compare the contents with the list of contents to make sure that all of the items are accounted for, before discarding any packing material. Place parts on a protected surface for easy identification and assembly. If any parts are missing or broken, please call Busy Bee Customer Service (1-800-461-2879) as soon as possible for replacements. DO NOT turn your machine ON if any of these items are missing. You may cause injury to yourself or damage to the machine.

2. Report any shipping damage to your local distributor. Take photographs for any possible insurance claims.

3. Clean all rust protected surfaces with ordinary household type grease or spot remover. Do not use gasoline, paint thinner, mineral spirits, etc. These may damage painted surfaces.

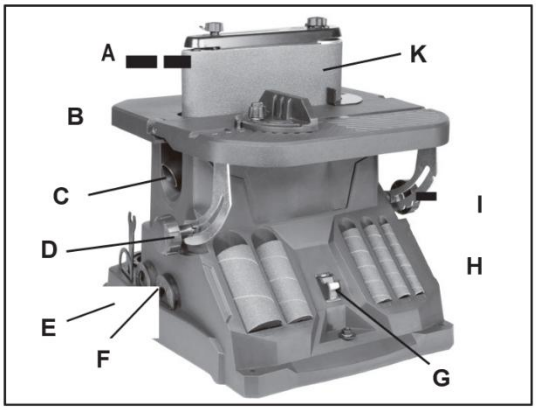
4. Apply a coat of paste wax to the table to prevent rust. Wipe all parts thoroughly with a clean dry cloth.

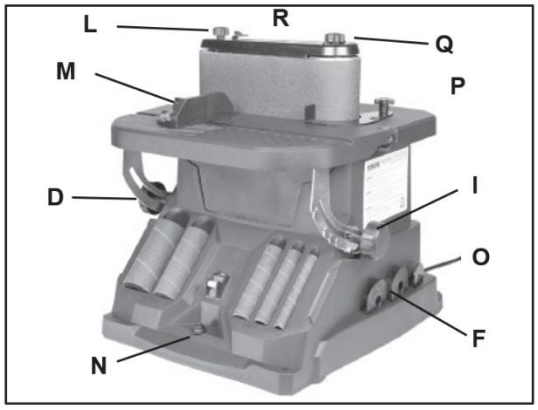
5. Set packing material and shipping carton aside. Do not discard it until the machine has been set up and is running properly.

Machine Identification

Please refer to the figures above.

A- Belt Sanding Attachment.
B- Worktable.
C- Dust Port
D- Table Angle Locking Knob
E- Rubber Feet.
F- Table Insert & Tool Storage





G- ON/OFF Lockout Switch.
H- Drum & Spindle Storage.
I- Table Angle Scale & Locking Handle
J- Tilting Worktable
K- Sanding Belt 4”X24”
L- Belt Tracking Knob
M- Miter Gauge
N- Spindle Nut & Washer
O- Power Cord
P- Limiting Plate & Locking Knob
Q- Sanding Belt Attachment
R- Belt Tension Lever

Installation

Moving the Machine

When moving the sander, lift the machine with your hands positioned under the base. DO NOT carry or move it using the attached worktable.

1. The machine should be firmly bolted to a stand or solid, level workbench to avoid any movement of the machine during use. The sander's base has holes for this purpose (mounting hardware is not included).

For portability and secure clamping of the sander to a workbench, the machine can be first permanently bolted to a piece of plywood. Then the sander can be positioned on your workbench, or other solid surface, and the plywood can be clamped in place to secure the sander for use. After use, the plywood can be unclamped and the sander stored for future use.

2. When positioning the machine for work, locate it in an area that has ample space around the sander for the moving of projects to be sanded. Align the machine so that it will not face aisles, doorways, or other work areas that bystanders may be in. Do not locate or use the machine in damp or wet conditions. Use a Dust Collector to capture the fine dust that is created when sanding. See the safety instructions.

Section 3: Assembly

The BBSDOSS Oscillating Sander is unique as it is really also used for some curved project sanding! 2-Sanders-in-1.

- Use the various diameter vertical spindles for sanding those hard-to-reach curves and holes that are in your projects design.
- With the special sanding attachment, the BBSDOSS coverts to a 4" x 24" Belt Sander! Perfect for sanding straight edges and flats. Plus, the two end drums can.

The BBSDOSS Sander's table can be tilted from 0° to 45° for bevel sanding with the spindle or belt.

The following instructions show the assemblies of the two sanding options and the changes required to switch between the machine's setups.

Installing the Spindle Sander's Drum

The sander is supplied with one universal spindle (drive shaft) that the four rubber sanding drums slide onto and the hold the sandpaper sleeves of various grits for sanding.

Note: the ½" sanding sleeve installs directly onto the machines ½" universal spindle without a rubber drum.

The four rubber sanding drums include ¾", 1", 1-1/2", and 2" diameters. At the top of the universal spindle, a nut, lock washer and a flat washer will be installed to secure the drums in place. **NOTE:** Do not over-tighten the top nut as it'll over distort the rubber body and sanding sleeve and may damage the spindle's shaft and threading. Please see figures 4 for further explanation.

To install the drums and sanding sleeves follow the instructions:

1- Unplug the machine from the power source.
2- Install the table bracket into the table Figure 1.
3- Install the appropriate size table insert for the drum size to be used Figure 2.

Note: ALWAYS use a table insert when sanding it is important to use the correct size to reduce the risk of injury.

4- Slide the desired rubber drum over the shaft Figure 2. Then install the sanding sleeve onto the drum Figure 3.
5- Install the right washer, lock washer and the top nut onto the spindle's top threaded end. Tighten the nut to expand the rubber body, this will secure the sanding sleeve in place figure 4.

Tor remove a sandpaper sleeve from the spindle:

1- Take off the top nut, washer and the lock washer, and slide the sleeve off of the rubber drum.
2- To replace it simply slide the new sleeve over the drum and

follow the previous steps 1 to 5.

Note: If the lower portion of the sanding sleeve is worn from extensive sanding, remove and turn it over to use the unused part of the sleeve before replacing it.

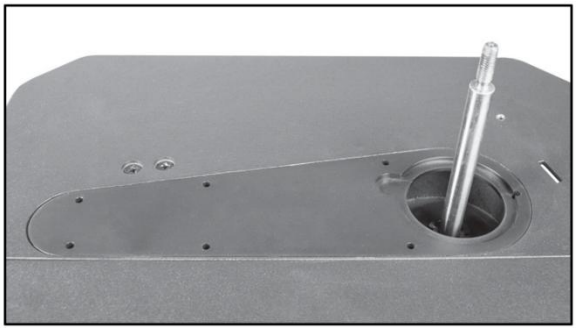


Figure 1: installing the spindle Cover.

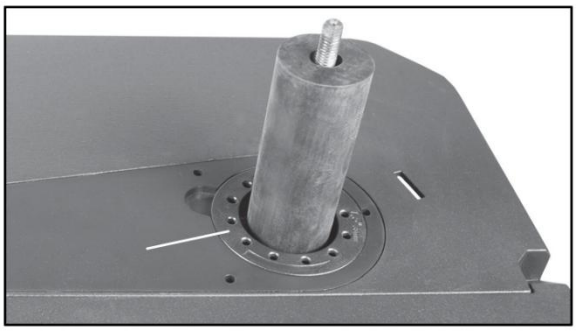


Figure 2: Installing the Rubber drum.

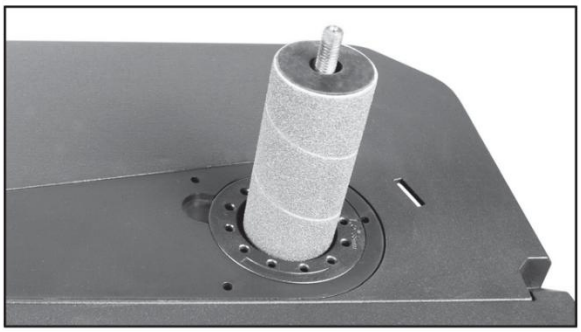


Figure 3: Installing the abrasive Sleeve.

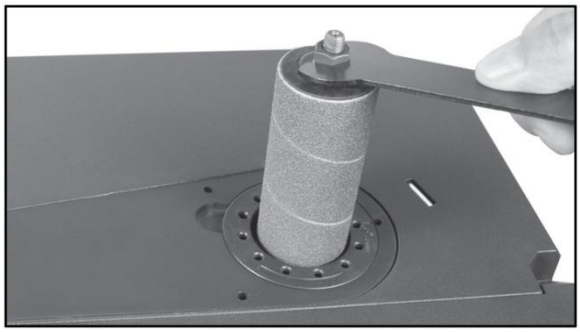


Figure 4: Tightening the Washer and Nut.

Installing the Belt sander

To configure the machine for Belt sanding, you must first remove any installed Spindle sanding components as referenced in the directions on page 9 and below.

1- Unplug the machine from the power.
2- Remove the spindle nut, lock washer and washer to remove the sanding drum and sleeve from the drive shaft.
3- Remove the table insert and worktable bracket from the table.

To Install the belt attachment:

4- Install the sanding belt attachment by sliding the unit over the drive spindle Figure 5 A, and insert its lower T slot into the table's T groove Figure 5 B.

Make sure that the 4 notches on the base of the attachment large drum fit into the holes of the factory installed plastic connector plate Figure 6 A. If the recesses do not engage, turn the abrasive belt (large drum) by hand until they line up.

5- Secure the sanding belt attachment in place with the washer and belt sanding attachment knob Figure 7.
6- If not previously installed by the factory, install the limiting plate with the locking knob figure 8.

The upturned end of this plate will act as a stop for your work when sanding. It can be removed if needed for sanding longer workpieces Figure 9.

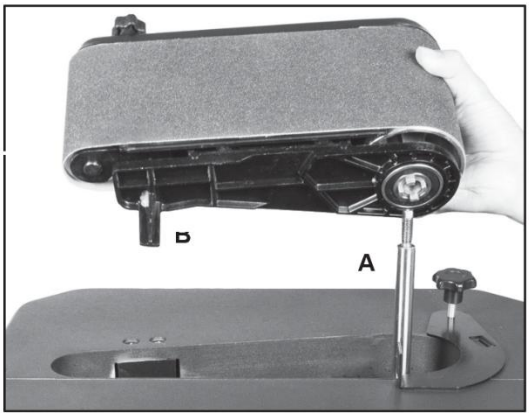


Figure 5: Installing the Belt Assembly.

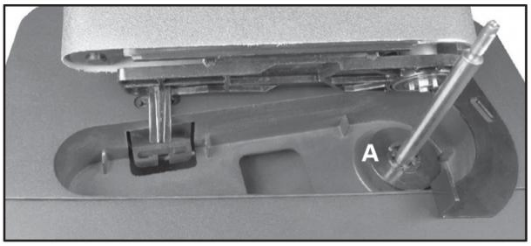


Figure 7: Aligning the assembly with the shaft.

Figure 6: Tightening the Knob.

Figure 8: Installing the Limit Plate.

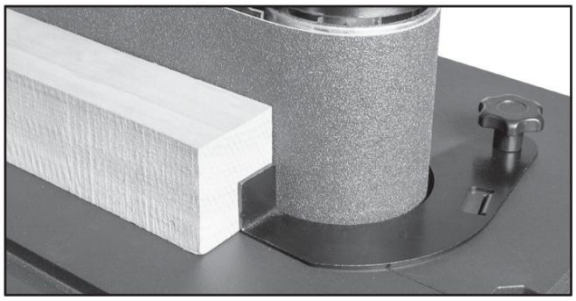


Figure 9: the Limit Plate in Action.

Section 4:Operations

ON/OFF Switch

CAUTION: Make sure that the On/Off locking switch is in the **'OFF'** position before plugging the dust collector into a power source.
The On/Off Locking Switch has a center key that can be used to prevent unauthorized use of the sander. The switch needs to have the center key inserted before the machine can be used. FIG. 10.
CAUTION: Never walk away from sander when machine is running. Always lock the switch in the Off position and unplug from the power supply when not in use.

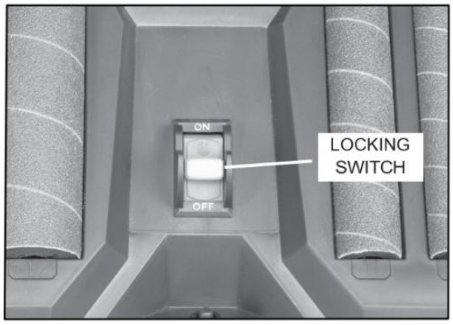


Figure 10: ON/OFF Switch with Lockout.

Before turning on the machine, review the safety

⚠ WARNING precautions listed on pages 3 to 6

Make sure that you fully understand the features, adjustments and capabilities of the machine that are outlined throughout this manual. THE MACHINE MUST NOT BE PLUGGED IN AND THE POWER SWITCH MUST BE IN THE OFF POSITION UNTIL ALL ADJUSTMENTS ARE
COMPLETE.

Using the Oscillating Spindle Sander

1. Start the machine and wait until the motor has built up to full speed. The Sander features a spindle that automatically oscillates (moves up and down) 16mm (5/8”). This movement ensures that the spindle’s sandpaper gets maximum sanding use along the sleeve and not wear in just one area.

NOTE: If the lower portion of the sanding sleeve is used, turn the sleeve over to use the upper section.

⚠ CAUTION NEVER START THE MACHINE WITH WORK IN CONTACT WITH THE SPINDLE.

3- Looking from the front of the machine, the motor turns in a counterclockwise direction. Feed the work across and with the direction of the spindle rotation. FIG. 11.
4- NEVER feed the work into the machine and stand with your body directly behind it. The machine could force the work into the operator and cause serious injury.

See Page 18 for replacement Sanding Sleeves and Sanding Belts.

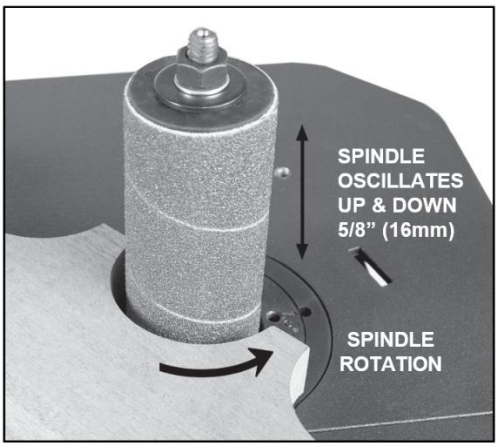


Figure 11 :Drum Oscillation limit.

Mounting the sander to the workbench

CAUTION: If during operation there is any tendency for the sander to tip over, slide or walk on the supporting surface, the sander should be properly mounted to a workbench or stand, and at a suitable, safe height for your sanding work to be carried out.

Using the Oscillating Belt Sander

1. Start the machine and wait until the motor has built up to full speed. The BBSDOSS Sander features a 2" x 4" Sanding Belt that automatically oscillates (moves up and down) 16mm (5/8"). This movement ensures that the Belt's sandpaper gets maximum sanding use along the belt and not wear in just one area. FIG. 12.
2. Use both hands to securely hold a workpiece against the belt. For straight line sanding you can use the Limiting Plate as a guide. The upturned end of this plate will act as a 'stop' for your work when sanding. It can be removed if needed for sanding long work pieces. FIG. 13.
3. When sanding inside curves, the ends of the Belt Sander Attachment can be used like a spindle sander.

NOTE: Always use both hands to control the workpiece. Never force the piece into the sanding belt which puts excessive pressure and wear on the sandpaper and may affect the machine's operation.

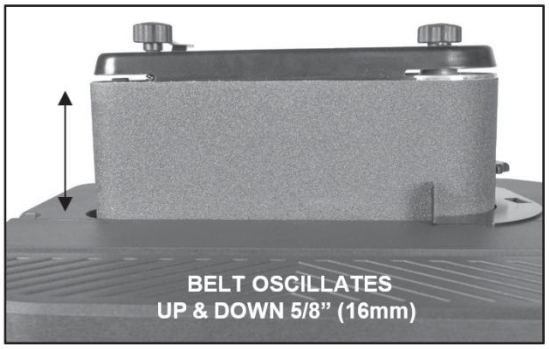


Figure 12: Belt Oscillation Limit.

Changing the Sanding Belt

1- UNPLUG THE MACHINE
2- To release the tension on the sanding belt, slide the Belt Tension Lever to the right, towards the embossed direction arrow and the large belt driving drum. FIG. 14.
3- To remove the sanding belt, slide the belt up over the Belt Sanding Attachment.
4- To install a new sanding belt, slide the

belt down into position on the Belt Sanding Attachment. Match the running direction marked on the belt with the sanders rotation.

5- Apply tension to the new belt by sliding the Belt Tension Lever back to the left.

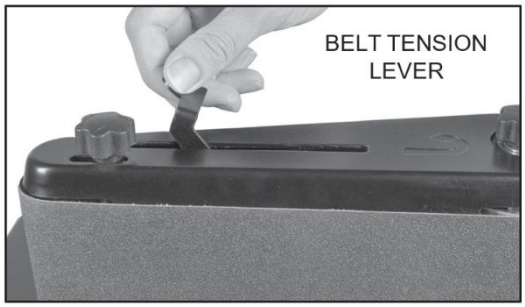


Figure 13: Tensioning Lever for the Belt.

6- Make sure your belt tracks correctly. Plug the machine in and turn it on. Do not attempt to sand any material. By turning the Belt Adjusting Knob on the top left, you can move the position of the belt up or down.

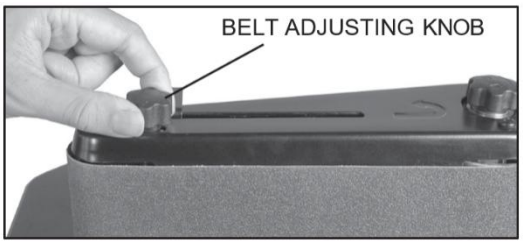


Figure 14: Belt Tracking Adjustment Knob.

NOTE: Make sure the bottom of the belt does not oscillate above the top of the work surface.

Tilting the Table for Bevel Sanding

The worktable on the BBSDOSS can tilt from O to 45 degrees. The curved Table Adjustment Support has detents at 0, 15, 22.5, 30 and 45 degrees. This allows you to sand or add bevels to your work. FIG. 16.
To tilt the worktable:

1- Loosen the 2 large side Knobs, Fig. 16, A, that secure the curved table brackets (B) in position.
2- Push down the Spring Block that is under the right support, Fig. 16, B, with the angle detents. Fig. 16
3- Move the front hinged, movable Table to your desired angle. Use the notched

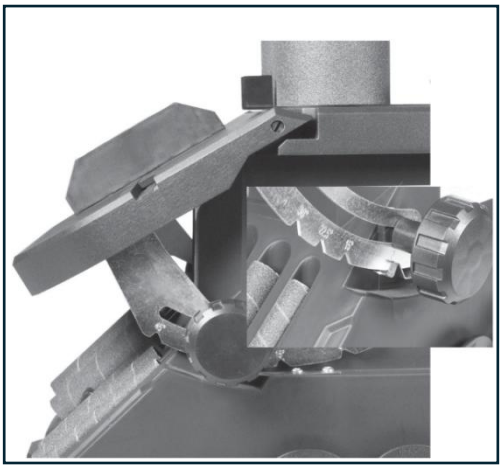


Figure 15: Tilting Mechanism.

detents for the preset table angles or any other angles needed.

4- Release the Spring Block and re-tighten the two side knobs to fix the tilted table in place.

Using the Miter Gauge

A Miter Gauge is supplied with your sander, and can be used on the table, which has a slot in its design to fit the miter gauge's bar. The miter gauge head can be set anywhere up to 60° (right or left) by loosening the lock-knob, setting the miter gauge head to the desired angle and
re-tightening the lock-knob. FIG. 17.

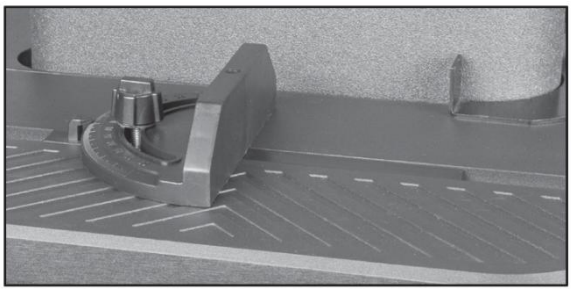


Figure 16: The Miter Gauge.

Dust Extraction

Sanding operations are inherently dusty. To help minimize the amount of dust that escapes into the surrounding air, this sander is equipped with a 38mm diameter Dust Port that can be easily connected to a dust-collection system. This is located on the left side of the machine directly under the table. FIG. 18.
Attach your shop's dust collector hose to this dust port to collect the dust produced while sanding.

DO NOT operate the sander without a dust collector and wear a protective dust mask. Sanding creates substantial amounts of dust which can be harmful to your respiratory system!

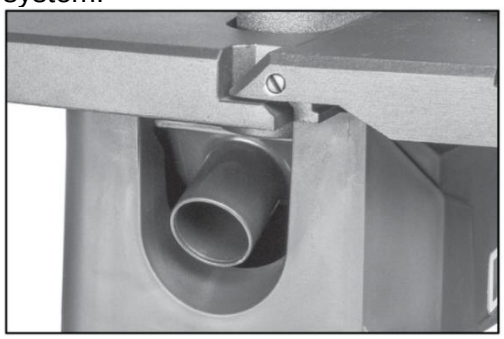


Figure 17: Dust Port.

For Busy bee Dust Collectors and Accessories contact your local Busy Bee Tool Branch or visit www.Busybeetools.com for more information.

Section 5: Maintenance

Turn the power switch OFF and disconnect the plug from the power source prior to adjusting or maintaining the sander. DO NOT attempt to repair or maintain the electrical components of the motor. Take the sander to one of Busy Bee Tools branches for warranty inspection and repairs.

Required Maintenance

1- Check the power cord for any damage daily.
2- Check sanding spindles and sleeves for damage or ware daily.
3- Check all the guards and hardware to make sure they are secure daily.
4- Check all moving parts for alignment and binding issues as needed.
5- Clean the sanding surfaces for the best results as needed.
6- Replace sanding sleeves and belt when signs of wear are visible as needed.
7- Clean and vacuum dust from the motor housing and other parts of the sander as often as necessary.

Note: Lubrication of the bearings is not necessary, as they are sealed and permanently lubricated. Just replace the bearing if it fails. Do not use compressed air near bearings. Simply wipe the exposed bearing surfaces with a dry clean cloth.

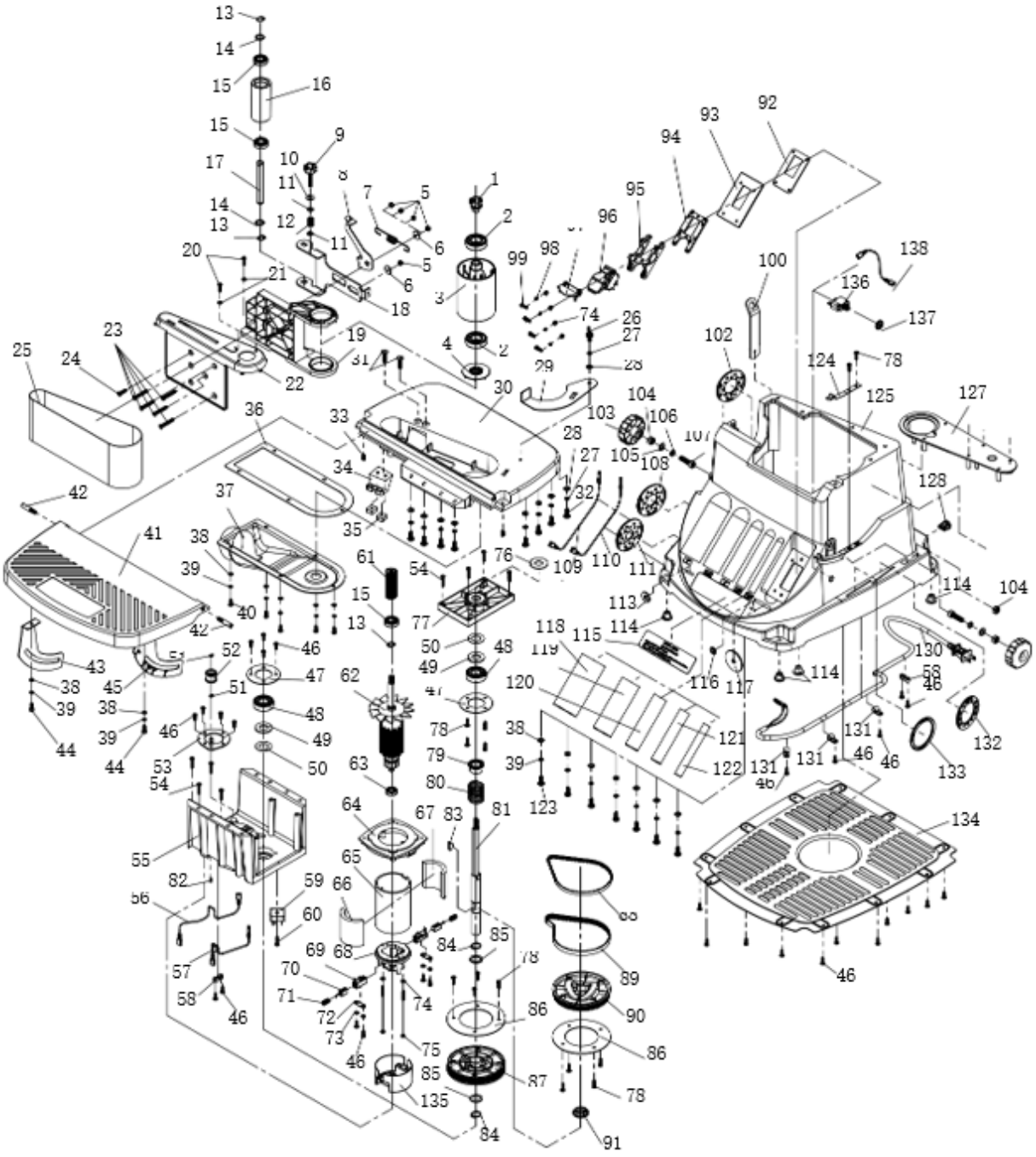
⚠ WARNING: If sawdust is blowing, wear proper eye protection to prevent debris from blowing dust into your eye. Respiratory protection is a must due to the danger of inhaling saw dust.

⚠ WARNING:

Section 6: Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
Sander will not start	1. Sander unplugged from wall 2. Fuse blown or circuit breaker tripped 3. Cord is damaged 4. Safety Lock is removed, or the ON/OFF switch is damaged 5. Motor capacitor has failed	1. Check all plug connections 2. Replace fuse or reset circuit breaker 3. Replace the cord 4. Insert the safety lock or replace the damaged switch 5. Replace capacitor
Sander does not come up to speed	1. Extension cord is too light or too long 2. Low current 3. Too much pressure sanding	1. Replace with adequate size and length of cord 2. Contact a qualified electrician 3. Reduce pressure against sandpaper
Machine vibrates excessively	1. Worktable or base is on an uneven surface	1. Adjust the table or base so that it rests evenly 2. Bolt down the machine
Sanding marks or burns on the wood	1. Workpiece is still too long 2. Wrong grit of sanding sleeve/belt 3. Feed pressure is too great 4. Sanding against the wood grain 5. Sanding sleeve or belt is covered with residue or grease	1. Keep the workpiece moving 2. Use coarser grit for stock removal, fine grit for finish sanding 3. Never force the workpiece 4. Sand with the grain 5. Replace sanding sleeve or belt
Sanding belt comes off of the drive pulleys	1. Belt does not run straight	1. Reset the belt tracking

Section 7: Diagram and Parts List



Parts List

Item No.	Part Number	Description	Qty.
1	PBBSDOSS001	Base	1
2	PBBSDOSS002	Baseplate	1
3	PBBSDOSS003	Fixed Worktable	1
4	PBBSDOSS004	Movable Worktable	1
5	PBBSDOSS005	Pin shaft	2
6	PBBSDOSS006	Phillips screw, spring washer, flat washer assembly M5-0.80x12MM	12
7	PBBSDOSS007	Rubber Washer 282x110x1.5mm	1
8	PBBSDOSS008	Dust Port	1
9	PBBSDOS009	Switch HY	1
10	BBSDOSSMOT	DC Motor	1
11	ZBRG6203ZZ	Bearing 6203 ZZ	2
12	PBBSDOSS012	Press Plate	2
13	ZSTSST42012	Self-Tapping Screw ST4.2X12	32
14	PBBSDOSS014	Rubber Pad	2
15	PBBSDOSS015	Felt Pad	2
16	PBBSDOSS016	Shaft Sleeve 2	1
17	PBBSDOSS017	Main Shaft	1
18	PBBSDOSS018	69 Teeth Cog Wheel	1
19	PBBSDOSS019	Pressure Plate with Wheel	2
20	PBBSDOSS020	Retaining Ring 17MM	2
21	PBBSDOSS021	70 Teeth Wheel	1
22	PBBSDOSS022	Spring Cushion	2
23	PBBSDOSS023	Support Board	1
24	ZSTS42025	Self-Tapping Screw ST4.2-25	4
25	PBBSDOSS025	Motor Pulley	1
26	PBBSDOSS026	Cog Belt 160X1X6MM	1
27	PBBSDOSS027	Cog Belt 160X1X10MM	1
28	PBBSDOSS028	Tightening Bracket Assembly	1
29	PBBSDOSS029	Tightening Wheel Assembly	1
30	PBBSDOSS030	Non-Metalic Nut MS	1
31	PBBSDOSS031	Connector	1
32	PBBSDOSS032	Drum Plate	1
33	PBBSDOSS033	2" Drum	1
34	PBBSDOSS034	Philips Screw, Spring Washer, Flat Washer Assembly M6-1.00X16MM	8
35	PBBSDOSS035	Foot	4
36	PBBSDOSS036	Cord Joint	1
37	PBBSDOSS037	Semicircular Key 5X6.5 MM	1
38	PBBSDOSS038	Nylon Cable Clamp UL-1/4	2
39	PBBSDOSS039	Power Cord Clip 6P4	1

Item No.	Part Number	Description	Qty.
40	PBBSDOSS040	1-1/2" Drum	1
41	PBBSDOSS041	1" Drum	1
42	PBBSDOSS042	3/4" Drum	1
43	PBBSDOSS043	1/2" Table Insert	1
44	PBBSDOSS044	1-1/2" Table Insert	1
45	PBBSDOSS045	1" Table Insert	1
46	PBBSDOSS046	3/4" Table Insert	1
47	PBBSDOSS047	2" Table Insert	1
48	PBBSDOSS048	2" Sanding Drum #80	1
49	PBBSDOSS049	1-1/2" Sanding Drum #80	1
50	PBBSDOSS050	1/2" Sanding Sleeve #80	1
51	PBBSDOSS051	3/4" Sanding Sleeve #80	1
52	PBBSDOSS052	1" Sanding Sleeve #80	1
53	PBBSDOSS053	Flat Washer M8	1
54	PBBSDOSS054	Hex Nut M8-1.25	1
55	PBBSDOSS055	Wrench	1
56	PBBSDOSS056	Power Cord with Plug 3X18X1.8M	1
57	PBBSDOSS057	Spring Cushion	1
58	PBBSDOSS058	Shaft Sleeve 1	1
59	PBBSDOSS059	Left Worktable Support	1
60	PBBSDOSS060	Right Worktable Support	1
61	PBBSDOSS061	Sanding Belt Worktable Cover Plate	1
62	PBBSDOSS062	Hex Nut M8-1.25	2
63	PBBSDOSS063	Hex Screw M8-1.25X25MM	2
64	PBBSDOSS064	Table Locking Knob	1
65	PBBSDOSS065	Spring Block	2
66	PBBSDOSS066	Philips Screw, Spring Washer, Flat Washer Assembly M5-0.80X8MM	1
67	PBBSDOSS067	Fixed Slider	2
68	PBBSDOSS068	Screw M6-1.00X14MM	1
69	PBBSDOSS069	Limiting Plate	1
70	PBBSDOSS070	Limiting Plate Locking Knob	1
71	PBBSDOSS071	Sanding Belt Support	1
72	PBBSDOSS072	Support Cover Plate	1
73	PBBSDOSS073	Guide Support	1
74	PBBSDOSS074	Sanding Belt Tensioning Lever	1
75	PBBSDOSS075	Driven Shat	1
76	PBBSDOSS076	Drive Drum	1
77	PBBSDOSS077	Driven Drum	1
78	PBBSDOSS078	Sanding Belt Adjusting Knob	1
79	PBBSDOSS079	Washer Flat M13	3

Item No.	Part Number	Description	Qty.
80	PBBSDOSS080	Belt Locking Knob	1
81	PBBSDOSS081	Bearing 6001 ZZ	2
82	PBBSDOSS082	Circlip EXT 12MM	1
83	PBBSDOSS083	Bearing 6004 ZZ	2
84	PBBSDOSS084	Screw M5-0.80X35MM	5
85	PBBSDOSS085	Non Metalic Nut M5-0.80	5
86	PBBSDOSS086	Washer Flat (Large) M5	2
87	PBBSDOSS087	Screw M5-0.80X16MM	1
88	PBBSDOSS088	Adjustble Spring	1
89	PBBSDOSS089	Tensioning Spring	1
90	PBBSDOSS090	Washer Flat M5	2
91	PBBSDOSS091	Screw M5-0.80X16MM	1
92	PBBSDOSS092	Screw Philips M5-0.80X8mm	2
93	PBBSDOSS093	Dive Belt	1
94	PBBSDOSS094	Miter Gauge Bar	1
95	PBBSDOSS095	Miter Gauge Bar	1
96	PBBSDOSS096	Washer Flat (Large) M6	1
97	PBBSDOSS097	Miter Gauge Knob	1
98	PBBSDOSS098	Washer Flat M8	1
99	PBBSDOSS099	Washer Lock (External Teeth) M8	2
100	PBBSDOSS100	Fuse Housing 5X20MM 10A Glass Fuse 250-Volt	1
101	PBBSDOSS101	Rectifier Bridge	1

Busy Bee Tools

BUSY BEE TOOLS 2 YEARS LIMITED WARRANTY

Busy Bee Tools warrants every product to be free from defects in materials and agrees to correct such defects where applicable. This warranty covers ***two years*** for parts and 90 days for labor (unless specified otherwise), to the original purchaser from the date of purchase but does not apply to malfunctions arising directly or indirectly from misuse, abuse, improper installation or assembly, negligence, accidents, repairs or alterations or lack of maintenance.

Proof of purchase is necessary.

All warranty claims are subject to inspection of such products or part thereof and Busy Bee Tools reserves the right to inspect any returned item before a refund or replacement may be issued.

This warranty shall not apply to consumable products such as blades, bits, belts, cutters, chisels, punches etc.
Busy Bee Tools shall in no event be liable for injuries, accidental or otherwise, death to persons or damage to property or for incidental contingent, special or consequential damages arising from the use of our products.

IF THE MACHINE IS ALTERED IN ANY WAY, THE WARRANTY SHALL BE NULL AND VOID.

RETURNS, REPAIRS AND REPLACEMENTS

To return, repair, or replace a Busy Bee Tools product, you must visit the appropriate Busy Bee Tools showroom or call 1-800-461-BUSY.
For replacement parts directly from Busy Bee Tools, for this machine, please call 1-800-461-BUSY (2879), and have your model number and part number & payment option ready.

- All returned merchandise will be subject to a minimum charge of 15% for re-stocking and handling the following qualifications.
- Returns must be pre-authorized by us in writing.
- We do not accept shipments.
- Items returned for warranty purposes must be insured and shipped pre-paid to the nearest warehouse
- Returns must be accompanied by a copy of your original invoice as proof of purchase. Returns must be in an unused condition and shipped in their original packaging a letter explaining your reason for the return. Incurred shipping and handling charges are not refundable.
- Busy Bee will repair or replace the item at our discretion and subject to our inspection.
- Repaired or replaced items will be returned to you pre-paid by our choice of carriers.
- Busy Bee reserves the right to refuse reimbursement or repairs or replacement if a third party without our prior authorization has carried out repairs to the item.
- Repairs made by Busy Bee Tools are warranted for 30 days on parts and labour.
- Any unforeseen repair charges will be reported to you for acceptance prior to making the repairs.
- The Busy Bee Parts & Service Departments are fully equipped to do repairs on all products purchased from us with the exception of some products that require the return to their authorized repair depots. A Busy Bee representative will provide you with the necessary information to have this done.
- For faster service it is advisable to contact the nearest Busy Bee location for parts availability prior to bringing your product in for repairs.