

MODEL W1846 BENCHTOP OSCILLATING SPINDLE SANDER



OWNER'S MANUAL *(FOR MODELS MANUFACTURED SINCE 6/17)*

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WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities 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.

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INTRODUCTION

Woodstock Technical Support

This machine has been specially designed to provide many years of trouble-free service. Close attention to detail, ruggedly built parts and a rigid quality control program assure safe and reliable operation.

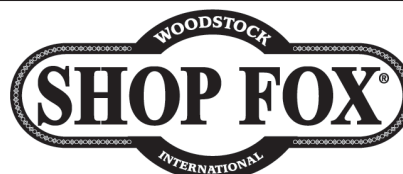
Woodstock International, Inc. is committed to customer satisfaction. Our intent with this manual is to include the basic information for safety, setup, operation, maintenance, and service of this product.

We stand behind our machines! In the event that questions arise about your machine, please contact Woodstock International Technical Support at (360) 734-3482 or send e-mail to: **tech-support@shopfox.biz**. Our knowledgeable staff will help you troubleshoot problems and process warranty claims.

If you need the latest edition of this manual, you can download it from **<http://www.shopfox.biz>**.
If you have comments about this manual, please contact us at:

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MACHINE SPECIFICATIONS



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MODEL W1846 BENCHTOP OSCILLATING SPINDLE SANDER

Product Dimensions

Weight..... 46 lbs.
Width (side-to-side) x Depth (front-to-back) x Height..... 23 x 18 x 20 in.
Footprint (Length x Width)..... 22-1/2 x 17 in.

Shipping Dimensions

Type..... Cardboard
Content..... Machine
Weight..... 56 lbs.
Length x Width x Height..... 25 x 20 x 22 in.

Electrical

Power Requirement..... 120V, Single-Phase, 60 Hz
Full-Load Current Rating..... 2.6A
Minimum Circuit Size..... 15A
Connection Type..... Cord & Plug
Power Cord Included..... Yes
Power Cord Length..... 6 ft.
Power Cord Gauge..... 18 AWG
Plug Included..... Yes
Included Plug Type..... NEMA 5-15
Switch Type..... Paddle Safety Switch w/Removable Key

Motors

Main

Horsepower..... 1/4 HP
Phase..... Single-Phase
Amps..... 2.6A
Speed..... 1725 RPM
Type..... TEFC Capacitor-Start Induction
Power Transfer Direct Drive
Bearings..... Shielded & Permanently Lubricated
Centrifugal Switch/Contacts Type..... N/A



Main Specifications

Spindle Sander Info

Sanding Drum Diameters.....	3/4, 1, 1-1/2, 2, 3 in.
Sanding Drum Length.....	4-1/2 in.
Spindle Oscillation.....	30 SPM
Stroke Length.....	1 in.
Table Length.....	18 in.
Table Width.....	18 in.
Table Thickness.....	11/16 in.
Spindle Shaft Diameter.....	1/2 in.
Number of Table Inserts.....	6

Other Related Info

Number of Dust Ports.....	1
Dust Port Size.....	2 in.

Other

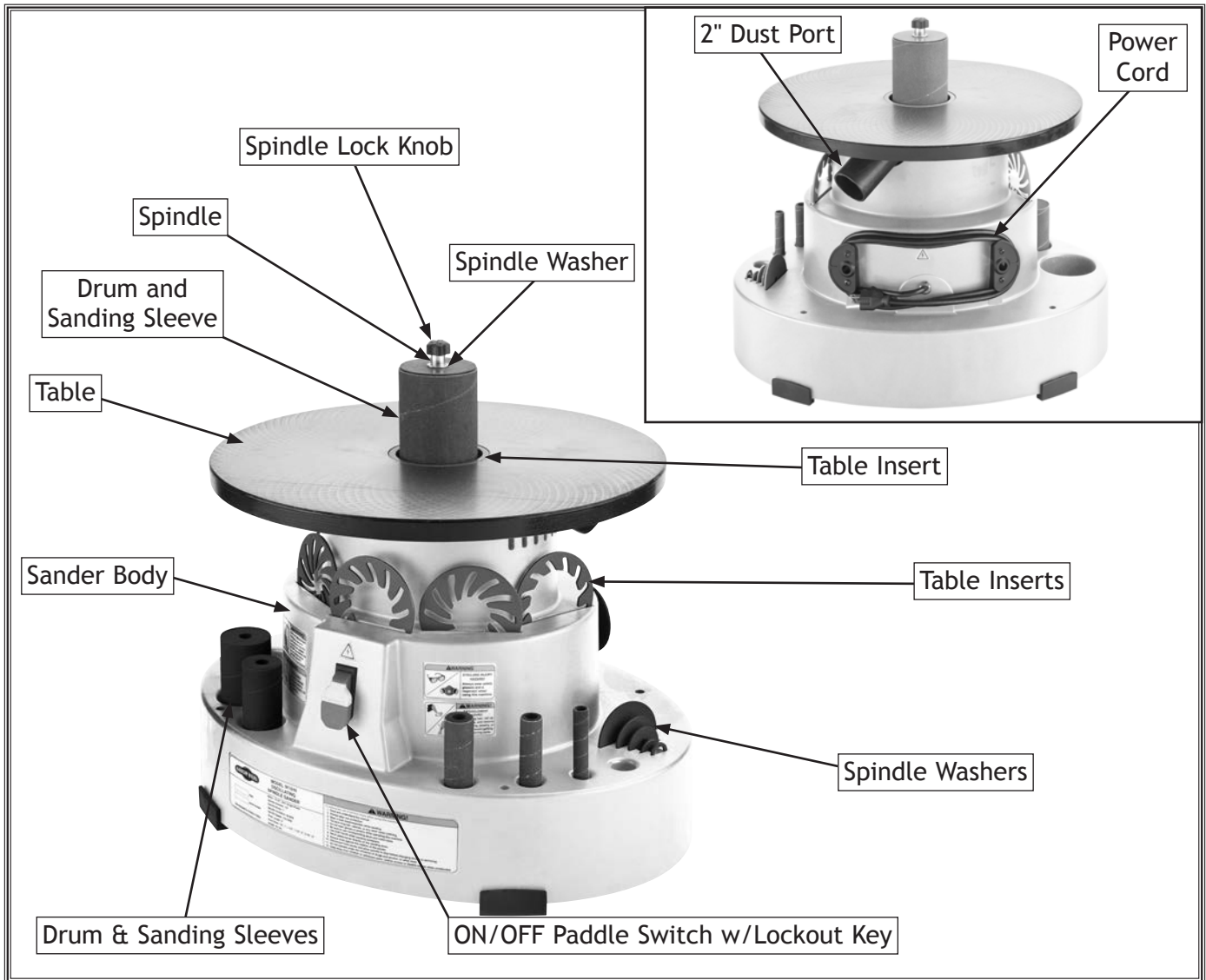
Country of Origin	China
Warranty	2 Years
Serial Number Location	Machine ID Label on Front of Machine

Features

- A Spacious 18-inch Table Leaves Plenty of Room to Navigate While Smoothing Curved Edges.
- Sanding Drums Store Neatly in the Base for Easy, Organized Access.
- Space-Saving Benchtop Style.
- ON/OFF Paddle Switch with Removable Key.
- Includes 6 Sanding Sleeves from 1/2" to 3" in Diameter.

Identification

Become familiar with the names and locations of the controls and features shown below to better understand the instructions in this manual.



⚠ WARNING



To reduce your risk of serious injury or damage to the machine, read this entire manual BEFORE using machine.

SAFETY

For Your Own Safety, Read Manual Before Operating Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures—this responsibility is ultimately up to the operator!



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.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the equipment or a situation that may cause damage to the machinery.

Standard Machinery Safety Instructions

OWNER'S MANUAL. Read and understand this owner's manual **BEFORE** using machine.

TRAINED OPERATORS ONLY. Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make workshop kid proof!

DANGEROUS ENVIRONMENTS. Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increases the risk of accidents and injury.

MENTAL ALERTNESS REQUIRED. Full mental alertness is required for safe operation of machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

ELECTRICAL EQUIPMENT INJURY RISKS. You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow an electrician or qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

DISCONNECT POWER FIRST. Always disconnect machine from power supply **BEFORE** making adjustments, changing tooling, or servicing machine. This eliminates the risk of injury from unintended startup or contact with live electrical components.

EYE PROTECTION. Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are not approved safety glasses.

WEARING PROPER APPAREL. Do not wear clothing, apparel, or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to avoid accidental slips, which could cause loss of workpiece control.

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 workpiece material, and always wear a NIOSH-approved respirator to reduce your risk.

HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

REMOVE ADJUSTING TOOLS. Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!

INTENDED USAGE. Only use machine for its intended purpose—never make modifications without prior approval from Woodstock International. Modifying machine or using it differently than intended will void the warranty and may result in malfunction or mechanical failure that leads to serious personal injury or death!

AWKWARD POSITIONS. Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.

GUARDS & COVERS. Guards and covers reduce accidental contact with moving parts or flying debris—make sure they are properly installed, undamaged, and working correctly.

FORCING MACHINERY. Do not force machine. It will do the job safer and better at the rate for which it was designed.

NEVER STAND ON MACHINE. Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.

STABLE MACHINE. Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.

USE RECOMMENDED ACCESSORIES. Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase risk of serious injury.

UNATTENDED OPERATION. To reduce the risk of accidental injury, turn machine **OFF** and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.

MAINTAIN WITH CARE. Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

CHECK DAMAGED PARTS. Regularly inspect machine for any condition that may affect safe operation. Immediately repair or replace damaged or mis-adjusted parts before operating machine.

MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside, resulting in a short. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact Technical Support at (360) 734-3482.

Additional Safety for Spindle Sanders

WARNING

Serious injury or death can occur from fingers, clothing, jewelry or hair getting entangled in rotating spindle or other moving components. Abrasion injuries can occur from touching rotating sanding drum with bare skin. Workpieces thrown by drum can strike operator or bystanders with moderate force, causing impact injuries. Long-term respiratory damage can occur from using sander without proper use of a respirator. To reduce the risk of these hazards, operator and bystanders **MUST** completely heed the hazards and warnings below.

HAND PLACEMENT. Rotating sanding drums can remove a large amount of flesh in a few seconds. Always keep hands away from drum during operation. Never touch moving drum on purpose. Use a brush to clean table of sawdust and chips.

FEEDING WORKPIECE. Forcefully jamming workpiece into sanding surface could cause workpiece to eject back at operator or damage machine. Always allow spindle to reach full speed. Firmly hold workpiece with both hands and ease it against spindle using light pressure.

DRUM DIRECTION. Feeding workpiece incorrectly can cause it to be thrown from machine, allowing your hands to slip into the rotating drum or striking yourself or bystanders. To reduce these risks, feed workpiece against direction of rotation, and never sand tapered or pointed stock with point facing feed direction.

SANDING DUST. Sanding creates large amounts of dust and flying chips that can lead to eye injury or serious respiratory illness. Reduce your risk by always wearing approved eye and respiratory protection when using sander. Never operate without adequate dust collection system in place and running. However, dust collection is not a substitute for using a respirator.

POWER DISCONNECT. An accidental startup while changing sleeves can result in entanglement or abrasion injuries. Always disconnect machine from power source before changing sanding sleeve to avoid this risk.

AVOIDING ENTANGLEMENT. DO NOT wear loose clothing, gloves, or jewelry, and tie back long hair. Keep all guards in place and secure.

SANDING SLEEVE CONDITION. Worn or damaged sanding sleeves can tear apart and become entangled in spindle, resulting in subsequent injuries from operator loss of workpiece control. Replace worn or damaged sanding sleeves promptly.

WORKPIECE INSPECTION. Nails, staples, knots, or other imperfections in workpiece can be dislodged and thrown from sander at high rate of speed into operator or bystanders, or cause damage to sanding sleeves or drum. Never sand stock that has embedded foreign objects or questionable imperfections.

TABLE INSERTS. A pinch point for fingers and workpieces exists in the gap between table and oscillating drum. Always use table insert that fits closest to diameter of installed drum to keep this gap as small as possible and reduce risk of injury.

WORKPIECE INTEGRITY. Sanding fragile workpieces can result in loss of control, resulting in entanglement, impact injuries, or damage to the sanding sleeve or drum. Only sand solid workpieces that can withstand power sanding forces. Make sure shape of workpiece is properly supported; avoid sanding workpieces without flat bottom surfaces unless some type of jig is used to maintain support and control when sanding force is applied.

ELECTRICAL

Circuit Requirements

This machine must be connected to the correct size and type of power supply circuit, or fire or electrical damage may occur. Read through this section to determine if an adequate power supply circuit is available. If a correct circuit is not available, a qualified electrician **MUST** install one before you can connect the machine to power.

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)

Full-Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or sum of all motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating at 120V 2.6 Amps

Circuit Requirements for 120V

This machine is prewired to operate on a power supply circuit that has a verified ground and meets the following requirements:

Circuit Type 110V/120V, 60 Hz, Single-Phase
Circuit Size 15 Amps
Plug/Receptacle NEMA 5-15

⚠ WARNING

The machine must be properly set up before it is safe to operate. **DO NOT** connect this machine to the power source until instructed to do so later in this manual.

⚠ WARNING



Incorrectly wiring or grounding this machine can cause electrocution, fire, or machine damage. To reduce this risk, only an electrician or qualified service personnel should do any required electrical work on this machine.

NOTICE

The circuit requirements listed in this manual apply to a dedicated circuit—where only one machine will be running at a time. If this machine will be connected to a shared circuit where multiple machines will be running at the same time, consult with an electrician to ensure that the circuit is properly sized for safe operation.

Grounding Requirements

This machine **MUST** be grounded. In the event of certain types of malfunctions or breakdowns, grounding provides a path of least resistance for electric current to travel—in order to reduce the risk of electric shock.

Improper connection of the equipment-grounding wire will increase the risk of electric shock. The wire with green insulation (with/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.

For 120V Connection

This machine is equipped with a power cord with an equipment-grounding wire and NEMA 5-15 grounding plug (see figure). The plug must only be inserted into a matching receptacle that is properly installed and grounded in accordance with local codes and ordinances.

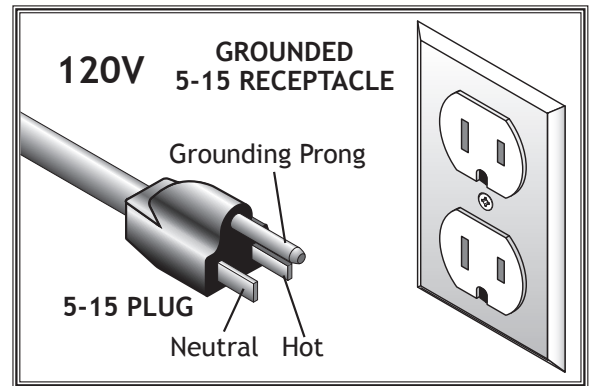
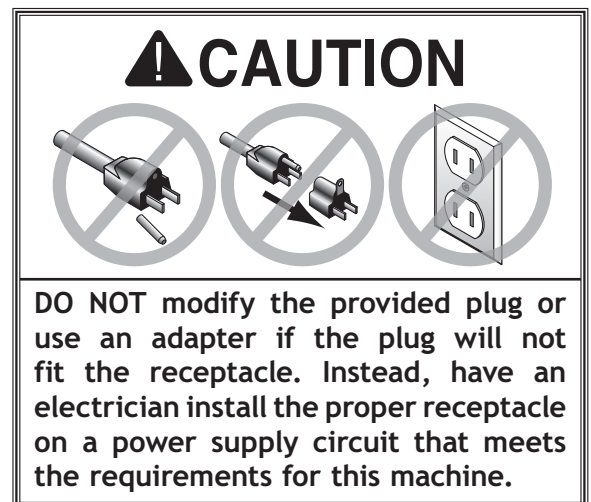


Figure 1. NEMA 5-15 plug & receptacle.



Extension Cords

We do not recommend using an extension cord with this machine. Extension cords cause voltage drop, which may damage electrical components and shorten motor life. Voltage drop increases with longer extension cords and smaller gauge sizes (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must contain a ground wire, match the required plug and receptacle, and meet the following requirements:

Minimum Gauge Size at 120V 16 AWG
Maximum Length (Shorter is Better) 50 ft.

SETUP

Unpacking

This machine has been carefully packaged for safe transportation. If you notice the machine has been damaged during shipping, please contact your authorized Shop Fox dealer immediately.

Items Needed for Setup

The following items are needed, but not included, to set up your machine.


Description	Qty
• Safety Glasses.....	1
• Cleaner/Degreaser	As Needed
• Disposable Shop Rags	As Needed
• Straightedge 4'	1
• Screwdriver Phillips #2	1
• Screwdriver Flat Head #2	1
• Dust Collection System	1
• Dust Hose 2"	1
• Hose Clamps 2"	2

Inventory

The following is a list of items shipped with your machine. Before beginning setup, lay these items out and inventory them.

Note: If you cannot find an item on this list, carefully check around/inside the machine and packaging materials. Often, these items get lost in packaging materials while unpacking or they are pre-installed at the factory.

Box Contents (Figure 2):	Qty
A. Spindle Sander Assembly	1
B. Table Inserts 1/2", 3/4", 1", 1 1/2", 2", 3"	6
C. Sanding Sleeves 1/2", 3/4", 1", 1 1/2", 2", 3"	6
D. Sanding Drums 3/4", 1", 1 1/2", 2", 3"	5
E. Spindle Lock Knob	1
F. Drum Washers 3/4", 1", 1 1/2", 2", 3"	5



!WARNING
This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



!WARNING
Wear safety glasses during entire setup process!



!WARNING
SUFFOCATION HAZARD!
Immediately discard all plastic bags and packing materials to eliminate choking/suffocation hazards for children and animals.

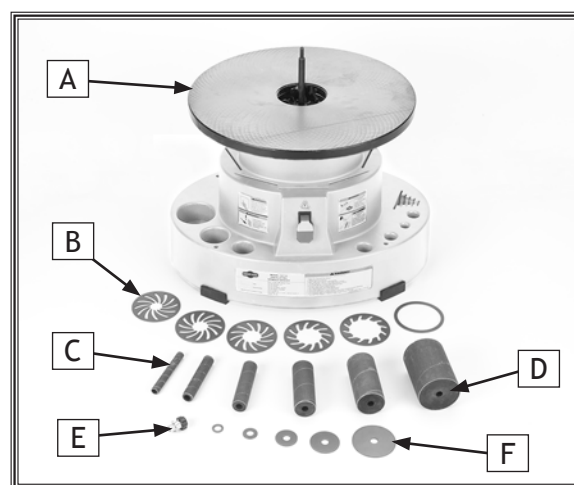
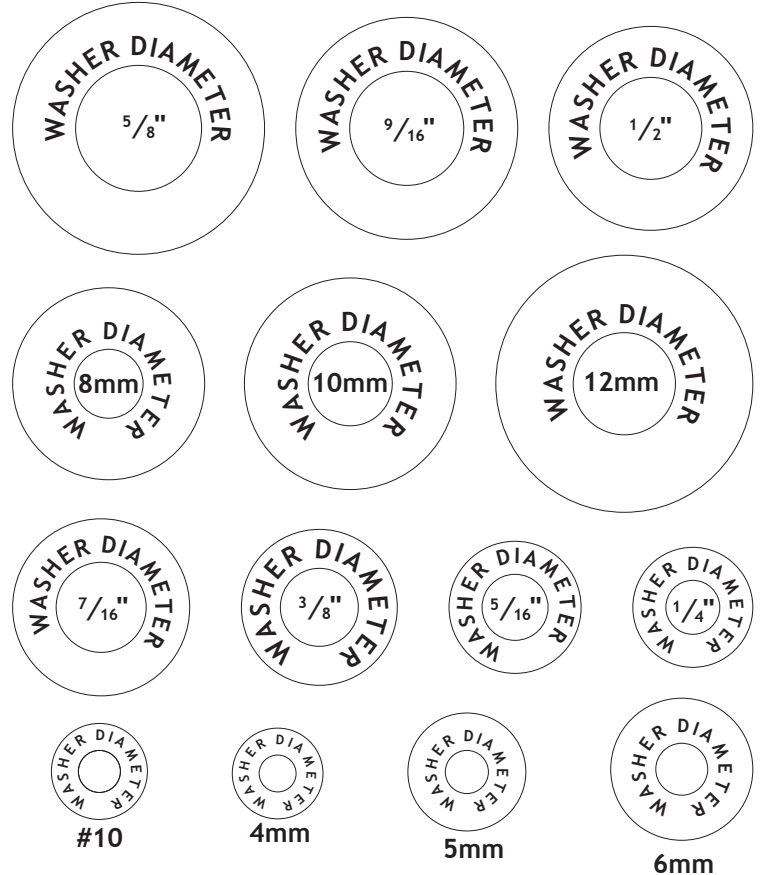
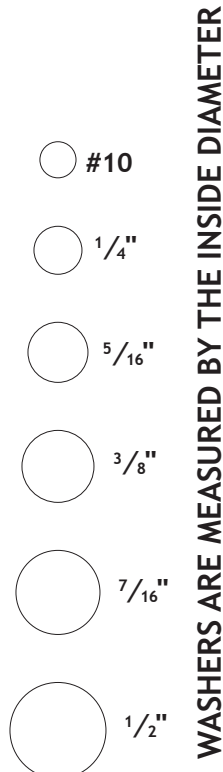
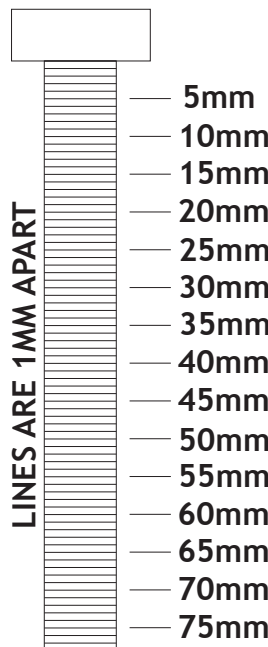
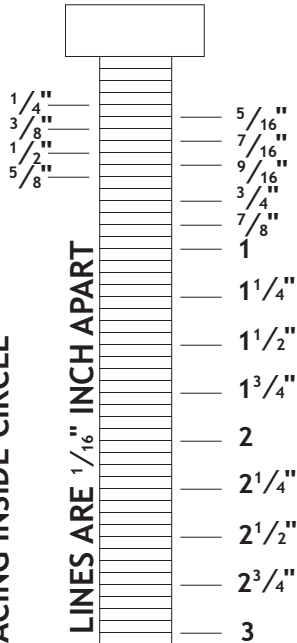


Figure 2. Spindle sander inventory.

Hardware Recognition Chart

USE THIS CHART TO IDENTIFY
HARDWARE DURING THE
INVENTORY/ASSEMBLY
PROCESS.



Machine Placement

Workbench Load

Refer to the **Machine Specifications** for the weight and footprint specifications of your machine. Some workbenches may require additional reinforcement to support the weight of the machine and workpiece materials.

Placement Location

Consider anticipated workpiece sizes and additional space needed for auxiliary stands, work tables, or other machinery when establishing a location for this machine in the shop. Below is the minimum amount of space needed for the machine.

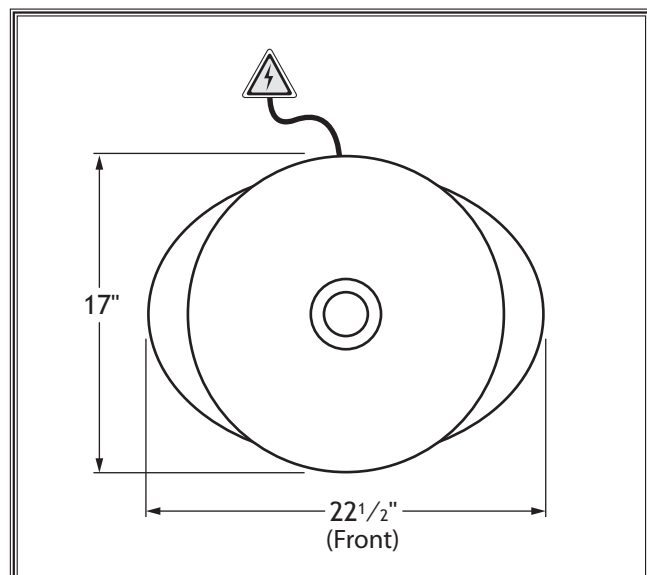


Figure 3. Machine clearances.

Cleaning Machine

The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage. This rust preventative works extremely well, but it will take a little time to clean.

Be patient and do a thorough job cleaning your machine. The time you spend doing this now will give you a better appreciation for the proper care of your machine's unpainted surfaces.

There are many ways to remove this rust preventative, but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

Before cleaning, gather the following:

- Disposable rags
- Cleaner/degreaser (WD•40 works well)
- Safety glasses & disposable gloves
- Plastic paint scraper (optional)

Basic steps for removing rust preventative:

1. Put on safety glasses.
2. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5-10 minutes.
3. Wipe off the surfaces. If your cleaner/degreaser is effective, the rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with the rag.
4. Repeat **Steps 2-3** as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.

NOTICE

Avoid chlorine-based solvents, such as acetone or brake parts cleaner, that may damage painted surfaces.

Bench Mounting

Number of Mounting Holes..... 4
Diameter of Mounting Hardware Needed..... 1/2"

The base of this machine has mounting holes that allow it to be fastened to a workbench or other mounting surface to prevent it from moving during operation and causing accidental injury or damage.

The strongest mounting option is a "Through Mount" (see **Figure 4**) where holes are drilled all the way through the workbench—and hex bolts, washers, and hex nuts are used to secure the machine in place.

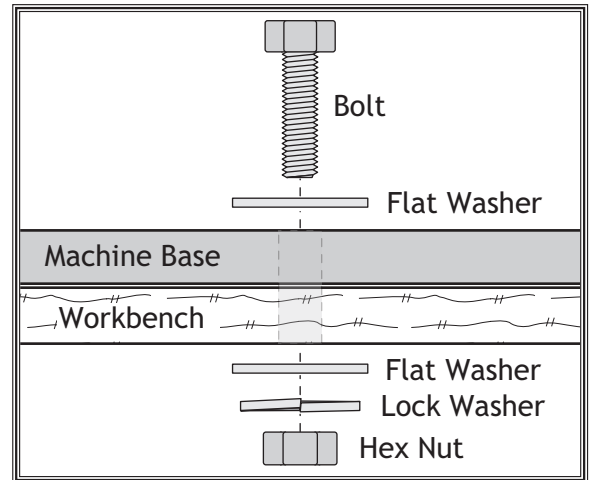


Figure 4. Typical "Through Mount" setup.

Another option is a "Direct Mount" (see **Figure 5**) where the machine is secured directly to the workbench with lag screws and washers.

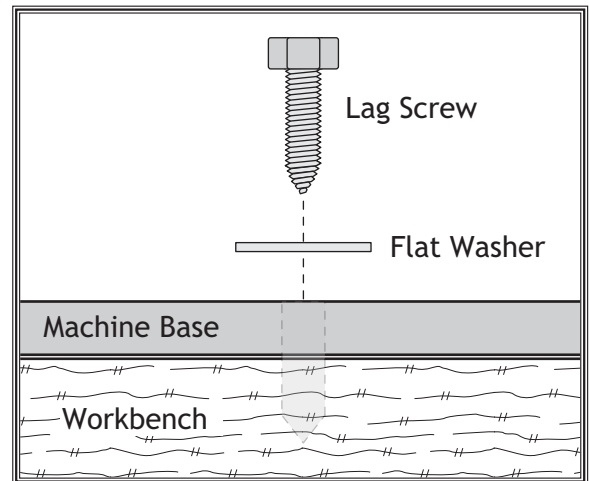


Figure 5. Typical "Direct Mount" setup.

Assembly

Place the lock knob, table inserts, sanding drums and sleeves, and drum washers in their designated accessory slots beneath the table (see **Figure 6**).



Figure 6. W1846 fully assembled.

Dust Collection

Recommended CFM at Dust Port: 400 CFM

Do not confuse this CFM recommendation with the rating of the dust collector. To determine the CFM at the dust port, you must consider these variables: (1) CFM rating of the dust collector, (2) hose type and length between the dust collector and the machine, (3) number of branches or wyes, and (4) amount of other open lines throughout the system. Explaining how to calculate these variables is beyond the scope of this manual. Consult an expert or purchase a good dust collection “how-to” book.

⚠ CAUTION

This machine creates substantial amounts of dust during operation. Breathing airborne dust on a regular basis can result in permanent respiratory illness. Reduce your risk by wearing a respirator and capturing the dust with a dust collection system.

Tools Needed	Qty
Shop Vacuum or Dust Collection System	1
Dust Hose 2"	1
Hose Clamps 2"	2

To connect a dust collection hose, do these steps:

1. Fit a 2" dust hose over the dust port shown in **Figure 7**, and secure in place with a hose clamp.
2. Tug the hose to ensure it does not come off.

Note: A tight fit is necessary for proper performance.

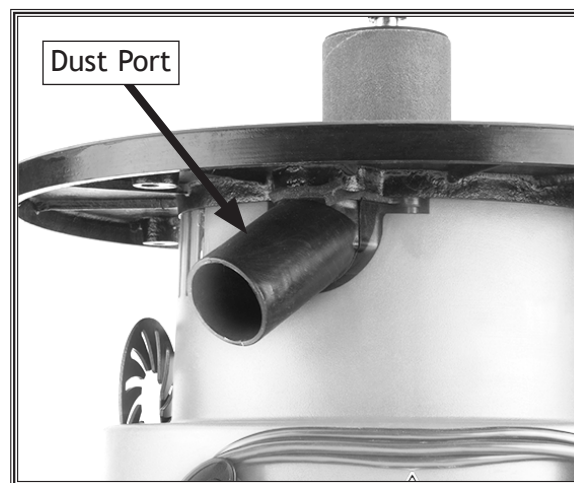


Figure 7. Location to install dust hose.

Test Run

Once assembly is complete, test run the machine to ensure it is properly connected to power and safety components are functioning properly.

If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem **BEFORE** operating the machine again. The **Troubleshooting** table in the **SERVICE** section of this manual can help.

To test run the machine, do these steps:

1. Clear all setup tools away from machine.
2. Connect machine to power supply.
3. Turn machine **ON**, verify motor operation, then turn machine **OFF**.

The motor should run smoothly and without unusual noises.

4. Remove switch disabling key (see **Figure 8**).
5. Try to start machine with paddle switch. The machine should not start.
 - If machine *does not* start, the switch disabling feature is working as designed.
 - If machine *does* start, immediately stop the machine. The switch disabling feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

WARNING

Serious injury or death can result from using this machine **BEFORE** understanding its controls and related safety information. **DO NOT** operate, or allow others to operate, machine until the information is understood.

WARNING

DO NOT start machine until all preceding setup instructions have been performed. Operating an improperly set up machine may result in malfunction or unexpected results that can lead to serious injury, death, or machine/property damage.

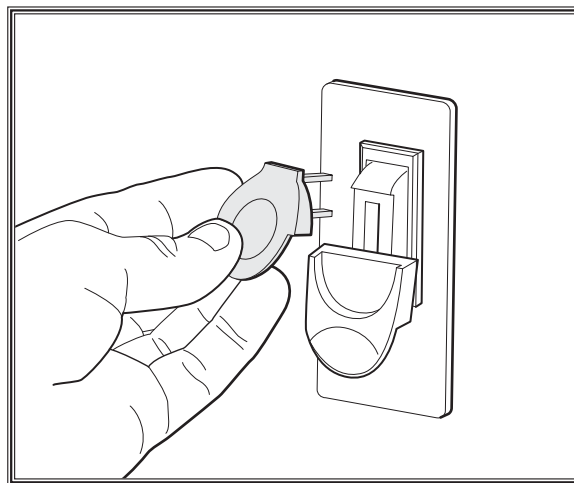


Figure 8. Removing switch key from paddle switch.

OPERATIONS

General

This machine will perform many types of operations that are beyond the scope of this manual. Many of these operations can be dangerous or deadly if performed incorrectly.

The instructions in this section are written with the understanding that the operator has the necessary knowledge and skills to operate this machine. If at any time you are experiencing difficulties performing any operation, stop using the machine!

The overview below provides the novice machine operator with a basic understanding of how the machine is used during operation, so the machine controls/components discussed later in this manual are easier to understand. Due to its generic nature, this overview is **NOT** intended to be an instructional guide.

WARNING



To reduce your risk of serious injury or damage to the machine, read this entire manual **BEFORE** using machine.

WARNING



To reduce the risk of eye injury and long-term respiratory damage, always wear safety glasses and a respirator while operating this machine.

NOTICE

If you are an inexperienced operator, we strongly recommend that you read books or trade articles, or seek training from an experienced operator of this type of machinery before performing unfamiliar operations. Above all, safety must come first!

Disabling Switch

The switch can be disabled by removing the key, as shown below. Disabling the switch in this manner can prevent unauthorized operation of the machine, which is important if it is not kept inside an access-restricted building or in a location where children may be present.

IMPORTANT: Disabling the switch only restricts its function. It is **NOT** a substitute for disconnecting machine from power when adjusting or servicing.

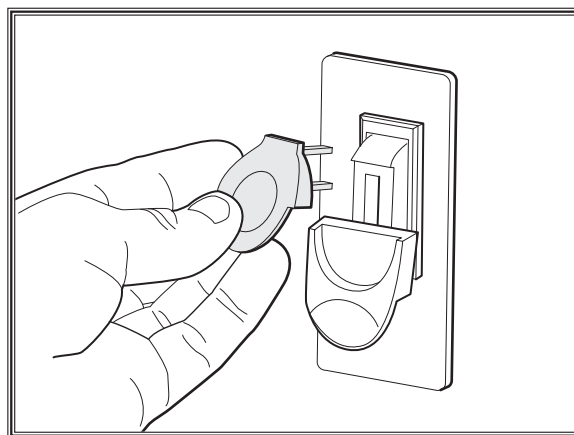


Figure 9. Disable switch by removing key.

Sleeve Selection

The Model W1846 comes with six different sizes of sanding drums and sleeves. Refer to the **Part Diameter Table** (see **Figure 10**) when determining the appropriate table insert, sanding drum, and drum washer size for a particular sleeve.

Sleeve Installation

To install or replace a sanding sleeve, do these steps:

1. Remove spindle lock knob, drum washer, sanding sleeve, sanding drum and table insert.
2. Clean table insert and spindle areas as necessary.
3. Replace table insert.
4. Reference **Part Diameter Table** (see **Figure 10**), install the table insert that corresponds to your desired sanding drum.
5. Install sanding drum on the spindle shaft, then install the corresponding sanding sleeve on the drum, as shown in **Figure 11**.
6. Secure sanding drum with the appropriate spindle washer and spindle lock knob, then lock until the rubber sanding drum places slight pressure on the sanding sleeve. DO NOT overtighten the lock knob.

Part Diameter Table

Table Insert	Sanding Drum	Sanding Sleeve	Drum Washer
1/2"	N/A	1/2"	N/A
3/4"	3/4"	3/4"	3/4"
1"	1"	1"	1"
1 1/2"	1 1/2"	1 1/2"	1 1/2"
2"	2"	2"	2"
3"	3"	3"	3"

Figure 10. Part diameter table.

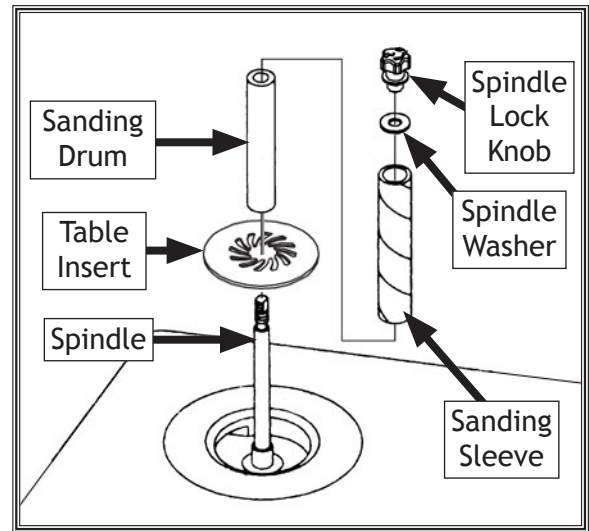


Figure 11. Sleeve installation order.

Sanding

To sand a workpiece, do these steps:

1. Ensure spindle lock knob is secured tightly and that the work area is free of obstructions and obstacles.
2. Turn the spindle sander **ON** and allow it to reach full speed.
3. Using both hands, guide the workpiece against the sanding sleeve in a right-to-left manner, as shown in **Figure 12**. DO NOT force the workpiece against the sanding sleeve.

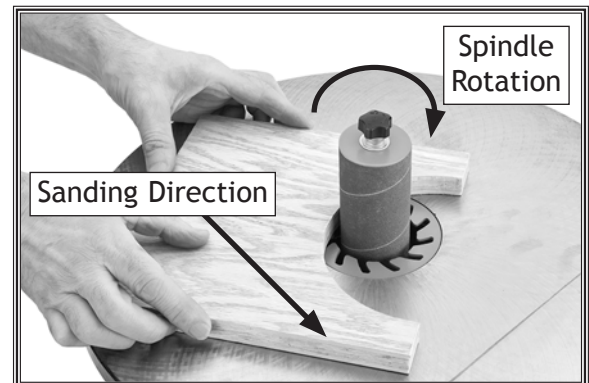


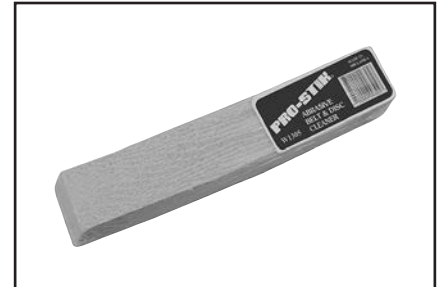
Figure 12. Sanding workpiece against spindle rotation.

ACCESSORIES

Spindle Sander Accessories

The following spindle sander accessories may be available through your local Woodstock International Inc. dealer. If you do not have a dealer in your area, these products are also available through online dealers. Please call or e-mail Woodstock International Inc. Customer Service to get a current listing of dealers at: 1-800-840-8420 or at sales@woodstockint.com.

Our **W1305 PRO-STIK® Abrasive Cleaners** are the easiest solution for unloading abrasives and extending the life of new sanding sleeves. Simply press the cleaner lightly against moving sanding sleeve to remove clogged-up pitch and sawdust. Available in four sizes for any cleaning application.



The Shop Fox **Deluxe Ceiling-Mounted 3-Speed Air Cleaner, Model W1690**, is an essential machine for any shop creating dust. This machine filters out tiny dust particles that can raise big health concerns. Includes remote control.



We offer a huge selection of aluminum-oxide sanding sleeves that are perfect for use with the W1846. Keep plenty of these consumable sanding sleeves on-hand! Sold in 3-packs.

1/2" x 4 1/2" Sleeves

- D4759 1/2" x 4 1/2" 60-Grit
- D4760 1/2" x 4 1/2" 80-Grit
- D4761 1/2" x 4 1/2" 100-Grit
- D4762 1/2" x 4 1/2" 120-Grit
- D4763 1/2" x 4 1/2" 150-Grit

2" x 4 1/2" Sleeves

- D3365 2" x 4 1/2" 60-Grit
- D3366 2" x 4 1/2" 80-Grit
- D3367 2" x 4 1/2" 100-Grit
- D3368 2" x 4 1/2" 120-Grit
- D3369 2" x 4 1/2" 150-Grit

3/4" x 4 1/2" Sleeves

- D4764 3/4" x 4 1/2" 60-Grit
- D4765 3/4" x 4 1/2" 80-Grit
- D4766 3/4" x 4 1/2" 100-Grit
- D4767 3/4" x 4 1/2" 120-Grit
- D4768 3/4" x 4 1/2" 150-Grit

3" x 4 1/2" Sleeves

- D3370 3" x 4 1/2" 60-Grit
- D3371 3" x 4 1/2" 80-Grit
- D3372 3" x 4 1/2" 100-Grit
- D3373 3" x 4 1/2" 120-Grit
- D3374 3" x 4 1/2" 150-Grit

1" x 4 1/2" Sleeves

- D4769 1" x 4 1/2" 60-Grit
- D4770 1" x 4 1/2" 80-Grit
- D4771 1" x 4 1/2" 100-Grit
- D4772 1" x 4 1/2" 120-Grit
- D4773 1" x 4 1/2" 150-Grit



MAINTENANCE

General

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

Before Each Use

- Inspect the sanding drums and sleeves for wear or damage.
- Check for worn or damaged wires.
- Check for any other unsafe condition that could hamper operation of this machine or cause potential injury.

After Each Use

- Clean up any sawdust or particle residue from the machine.
- Protect table.

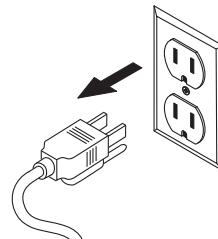
Weekly Maintenance

- Thoroughly clean the spindle area and beneath the table insert.

Monthly Maintenance

- Clean/vacuum dust buildup from inside the sander body and off of the motor.

! WARNING



MAKE SURE that your machine is unplugged during all maintenance procedures! If this warning is ignored, serious personal injury may occur.

Cleaning & Protecting

Cleaning the Model W1846 is relatively easy. Follow the **Sleeve Installation** instructions on **Page 18**, taking special care to clean every area thoroughly. Sawdust and other particles can also work their way under the table insert, so this area also needs to be cleaned.

To clean the table, do these steps:

1. Remove spindle lock knob, drum washer, sanding sleeve, sanding drum and table insert.
2. Wipe or vacuum out any dust or particles that have accumulated beneath the table insert area, shown in **Figure 13**.
3. Follow **Steps 3-6** of the instructions on **Page 18** to re-install the sleeve.
4. To protect the table from rust, coat the table surface with a quality metal protectant.



Figure 13. Table insert area.

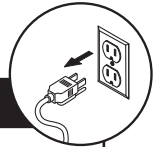
SERVICE

Troubleshooting

The following troubleshooting tables cover common problems that may occur with this machine. If you need replacement parts or additional troubleshooting help, contact our Technical Support.

Note: Before contacting Tech Support, find the machine serial number and manufacture date, and if available, your original purchase receipt. This information is required to properly assist you.

Motor and Electrical



PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Motor will not start.	<ol style="list-style-type: none"> 1. Switch disabling key removed. 2. Low voltage. 3. Open circuit in motor or loose connections. 	<ol style="list-style-type: none"> 1. Insert key to enable power. 2. Check power line voltage and correct if necessary. 3. Inspect all motor connections for loose or open connections.
Motor will not start; fuses or circuit breakers blow.	<ol style="list-style-type: none"> 1. Short circuit in line cord or plug. 2. Short circuit in motor or loose connections. 3. Incorrect fuses or circuit breakers in power line. 	<ol style="list-style-type: none"> 1. Inspect cord and plug for damaged insulation or shorted wires. 2. Inspect all motor connections for loose or shorted terminals or worn insulation. 3. Install correct fuses or circuit breakers.
Motor overheats.	<ol style="list-style-type: none"> 1. Motor overloaded. 	<ol style="list-style-type: none"> 1. Allow motor to cool; reduce load on motor.
Motor stalls; fuses or tripped circuit breaker trips.	<ol style="list-style-type: none"> 1. Motor overloaded. 2. Short circuit in motor or loose connections. 3. Low voltage. 4. Incorrect fuses or circuit breakers in power line. 	<ol style="list-style-type: none"> 1. Reduce load on motor. 2. Inspect connections on motor for loose or shorted terminals or worn insulation. 3. Check power line voltage and correct if necessary. 4. Install correct fuses or circuit breakers.
Machine slows when operating.	<ol style="list-style-type: none"> 1. Workpiece pressure is too great. 	<ol style="list-style-type: none"> 1. Reduce workpiece pressure on spindle.
Machine vibrates excessively.	<ol style="list-style-type: none"> 1. Machine not secured to workbench. 2. Incorrect motor mounting. 	<ol style="list-style-type: none"> 1. Secure machine to workbench. 2. Check/adjust motor mounting.
Deep sanding grooves or scars in workpiece.	<ol style="list-style-type: none"> 1. Sanding sleeve too coarse for the desired finish. 2. Workpiece sanded across the grain. 3. Too much sanding force on workpiece. 	<ol style="list-style-type: none"> 1. Use a finer grit sanding sleeve. 2. Sand with the grain. 3. Reduce pressure on workpiece while sanding.
Grains rub off the sanding sleeve.	<ol style="list-style-type: none"> 1. Sanding sleeve has been stored in an incorrect environment. 2. Sanding sleeve has been folded or smashed. 	<ol style="list-style-type: none"> 1. Store sanding sleeve away from extremely dry or hot temperatures. 2. Store sanding sleeves separately and not folded or flat.
Sanding surfaces clog quickly or burn.	<ol style="list-style-type: none"> 1. Too much pressure against sleeve. 2. Sanding softwood. 	<ol style="list-style-type: none"> 1. Reduce pressure on workpiece while sanding. 2. Either use different stock or accept the characteristics of the stock and plan on cleaning/replacing sleeves frequently.
Burn marks on workpiece.	<ol style="list-style-type: none"> 1. Using too fine of sanding grit. 2. Using too much pressure. 3. Work held still for too long. 	<ol style="list-style-type: none"> 1. Use a coarser grit sanding sleeve. 2. Reduce pressure on workpiece while sanding. 3. Do not keep workpiece in one place for too long.

Electrical Safety Instructions

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

If there are differences between your machine and what is shown in this section, call Technical Support at (360) 734-3482 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.

⚠ WARNING

SHOCK HAZARD. Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!

QUALIFIED ELECTRICIAN. Due to the inherent hazards of electricity, only a qualified electrician should perform wiring tasks on this machine. If you are not a qualified electrician, get help from one before attempting any kind of wiring job.

WIRE CONNECTIONS. All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.

WIRE/COMPONENT DAMAGE. Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components before completing the task.

MODIFICATIONS. Using aftermarket parts or modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire.

MOTOR WIRING. The motor wiring shown in these diagrams is current at the time of printing, but it may not match your machine. Always use the wiring diagram inside the motor junction box.

CAPACITORS/INVERTERS. Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

CIRCUIT REQUIREMENTS. You MUST follow the requirements at the beginning of this manual when connecting your machine to a power source.

EXPERIENCING DIFFICULTIES. If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (360) 734-3482.

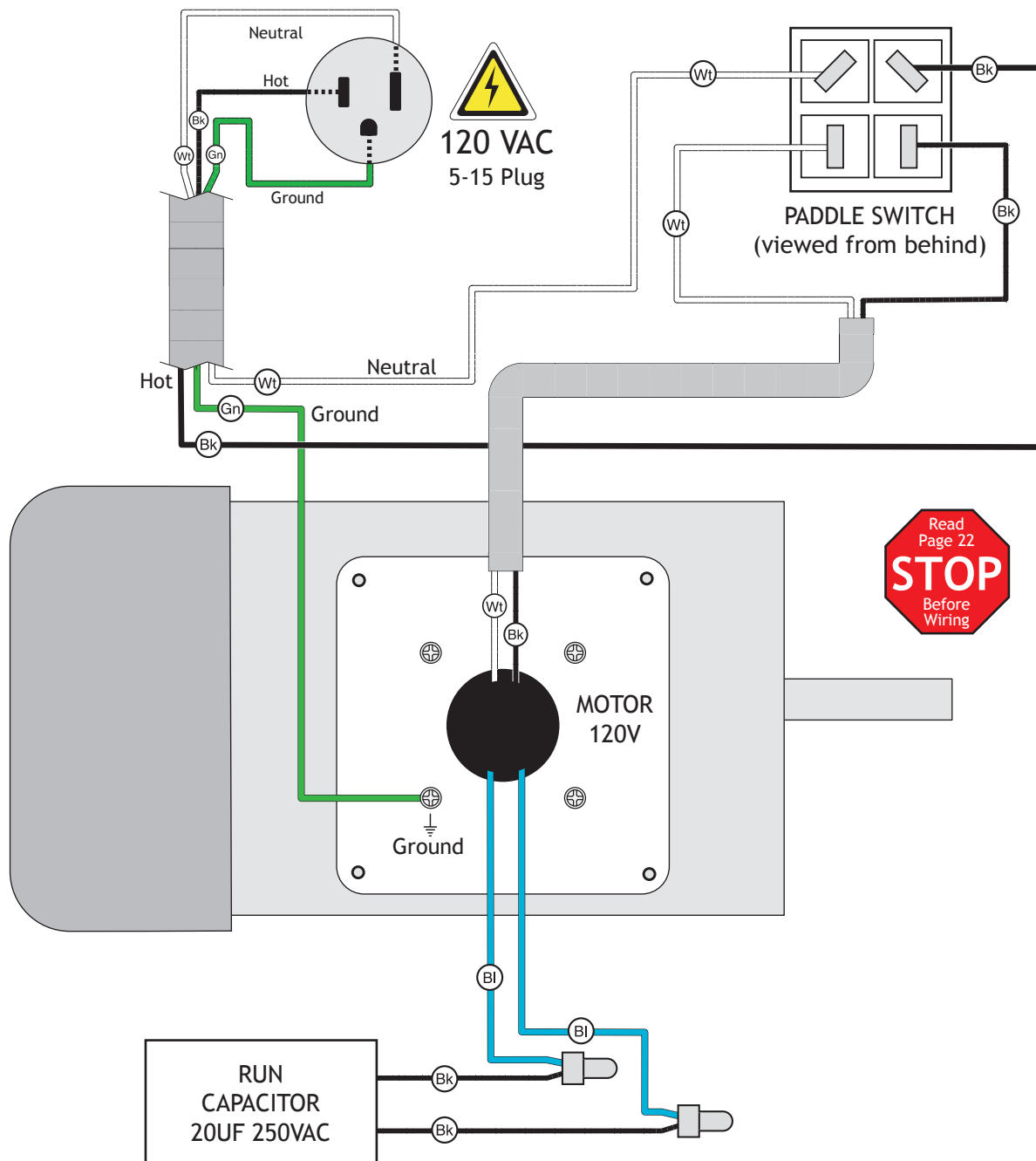
NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at www.shopfox.biz.

WIRING DIAGRAM COLOR KEY

BLACK — Bk	BLUE — Bl	YELLOW — Yl	LIGHT BLUE — Lb
WHITE — Wt	BROWN — Br	YELLOW GREEN — Yg	BLUE WHITE — Bw
GREEN — Gn	GRAY — Gy	PURPLE — Pu	TURQUOISE — Tu
RED — Rd	ORANGE — Or	PINK — Pk	

Wiring Diagram

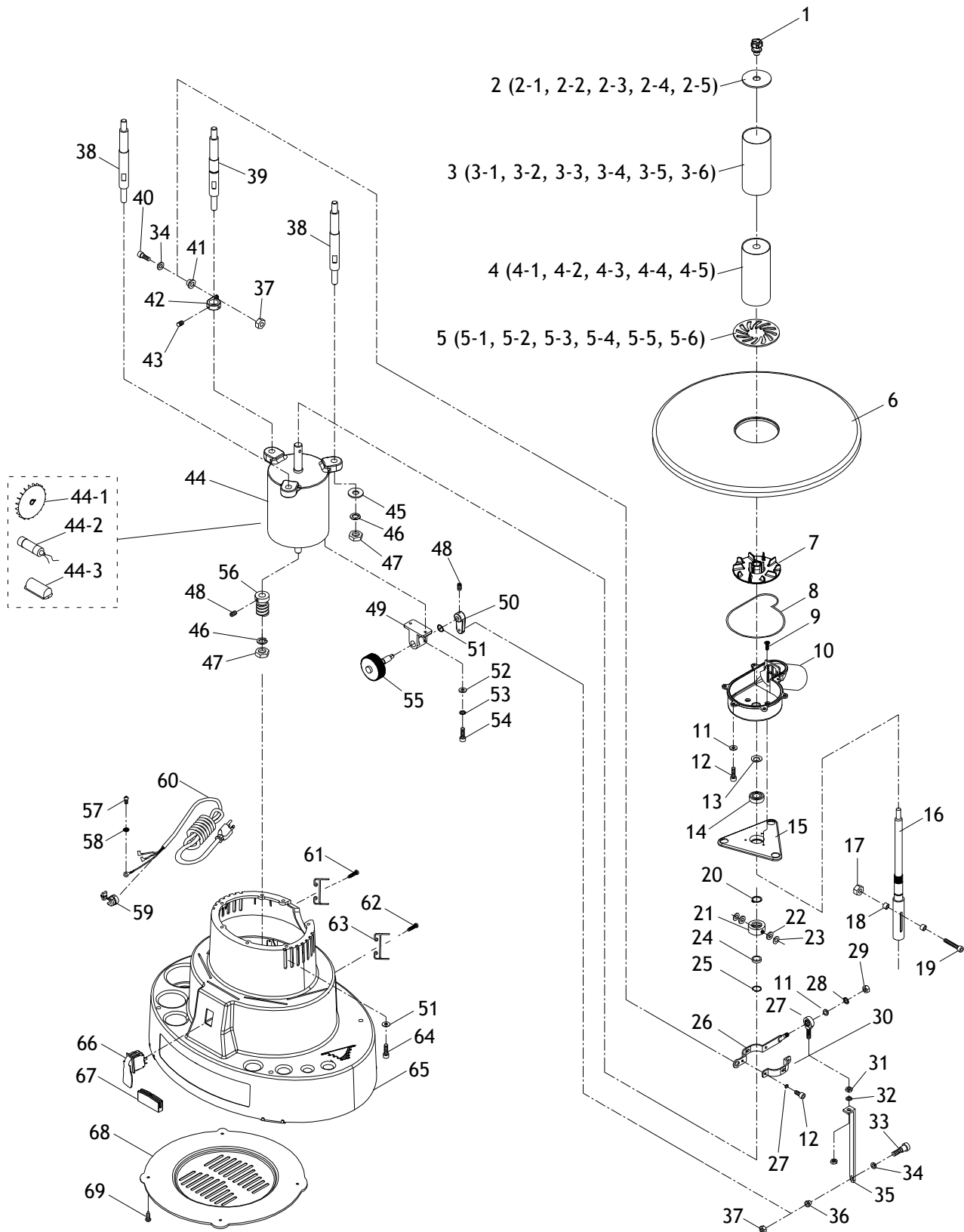


NOTICE

This motor wiring diagram is current at the time of printing; however, always use the diagram on the inside of the junction box cover when rewiring your motor!

PARTS

Main



Main Parts List

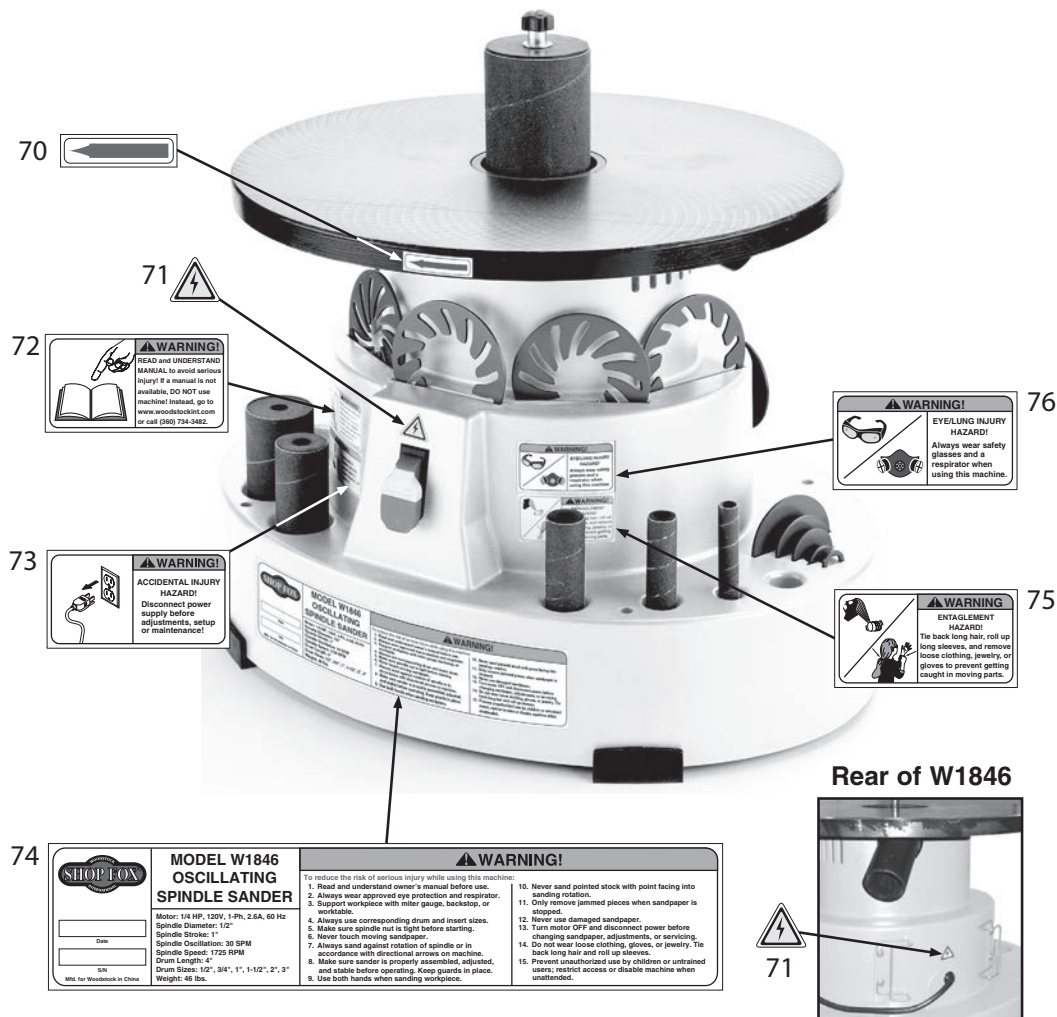
REF	PART #	DESCRIPTION
1	X1846001	KNOB M8-1.25 LH
2	X1846002	DRUM WASHER (SET OF 5)
2-1	X1846002-1	DRUM WASHER 3/4"
2-2	X1846002-2	DRUM WASHER 1"
2-3	X1846002-3	DRUM WASHER 1-1/2"
2-4	X1846002-4	DRUM WASHER 2"
2-5	X1846002-5	DRUM WASHER 3"
3	X1846003	ABRASIVE SLEEVE (SET OF 6)
3-1	X1846003-1	ABRASIVE SLEEVE 1/2"
3-2	X1846003-2	ABRASIVE SLEEVE 3/4"
3-3	X1846003-3	ABRASIVE SLEEVE 1"
3-4	X1846003-4	ABRASIVE SLEEVE 1-1/2"
3-5	X1846003-5	ABRASIVE SLEEVE 2"
3-6	X1846003-6	ABRASIVE SLEEVE 3"
4	X1846004	RUBBER DRUM (SET OF 5)
4-1	X1846004-1	RUBBER DRUM 3/4"
4-2	X1846004-2	RUBBER DRUM 1"
4-3	X1846004-3	RUBBER DRUM 1-1/2"
4-4	X1846004-4	RUBBER DRUM 2"
4-5	X1846004-5	RUBBER DRUM 3"
5	X1846005	TABLE INSERT (SET OF 6)
5-1	X1846005-1	TABLE INSERT 1/2"
5-2	X1846005-2	TABLE INSERT 3/4"
5-3	X1846005-3	TABLE INSERT 1"
5-4	X1846005-4	TABLE INSERT 1-1/2"
5-5	X1846005-5	TABLE INSERT 2"
5-6	X1846005-6	TABLE INSERT 3"
6	X1846006	TABLE
7	X1846007	FAN
8	X1846008	GASKET 10 X 10 X 500MM
9	X1846009	FLAT HD CAP SCR M5-.8 X 10
10	X1846010	FAN HOUSING
11	X1846011	FLAT WASHER 5MM
12	X1846012	CAP SCREW M5-.8 X 12
13	X1846013	SEAL 16 X 30 X 2.5
14	X1846014	BALL BEARING 6003ZZ
15	X1846015	MOTOR PLATE
16	X1846016	SPINDLE
17	X1846017	HEX NUT M5-.8
18	X1846018	BUSHING 5MM
19	X1846019	CAP SCREW M5-.8 X 40
20	X1846020	EXT RETAINING RING 17MM
21	X1846021	COLLAR
22	X1846022	RING 7 X 16 X 2
23	X1846023	WAVY WASHER 8 X 14 X 0.4MM
24	X1846024	BALL BEARING 6903ZZ
25	X1846025	INT RETAINING RING 30MM

REF	PART #	DESCRIPTION
26	X1846026	SPINDLE BRACKET (LONG)
27	X1846027	ROD END BEARING M8-1.25 x 60
28	X1846028	LOCK WASHER 5MM
29	X1846029	HEX NUT M5-.8
30	X1846030	SPINDLE BRACKET (SHORT)
31	X1846031	HEX NUT M8-1.25
32	X1846032	LOCK WASHER 8MM
33	X1846033	SHOULDER SCREW M6-1 X 16, 8 X 10
34	X1846034	FLAT WASHER 8MM
35	X1846035	LINK
36	X1846036	BUSHING 6MM
37	X1846037	HEX NUT M6-1
38	X1846038	MOTOR STANDOFF
39	X1846039	MOTOR STANDOFF W/GROOVE
40	X1846040	SHOULDER SCREW
41	X1846041	BUSHING 8MM
42	X1846042	PIVOT
43	X1846043	SET SCREW M6-1 X 8
44	X1846044	MOTOR 1/4HP 120V
44-1	X1846044-1	MOTOR FAN
44-2	X1846044-2	R CAPACITOR 20UF 250V 1-3/8 X 2-3/4
44-3	X1846044-3	CAPACITOR COVER
45	X1846045	FLAT WASHER 10MM
46	X1846046	LOCK WASHER 10MM
47	X1846047	HEX NUT M10-1.5
48	X1846048	SET SCREW M5-.8 X 6
49	X1846049	BLOCK
50	X1846050	CAM
51	X1846051	EXT RETAINING RING 15MM
52	X1846052	FLAT WASHER 6MM
53	X1846053	LOCK WASHER 6MM
54	X1846054	CAP SCREW M6-1 X 16
55	X1846055	WORM GEAR W/SPINDLE
56	X1846056	WORM
57	X1846057	PHLP HD SCR M5-.8 X 10
58	X1846058	EXT TOOTH WASHER 5MM
59	X1846059	STRAIN RELIEF 3/8" TYPE 1
60	X1846060	POWER CORD 18G 3W 72" 5-15
61	X1846061	TAP SCREW M4.8 X 25
62	X1846062	TAP SCREW M4.8 X 32
63	X1846063	CORD WRAP BRACKET
64	X1846064	CAP SCREW M6-1 X 12
65	X1846065	BASE
66	X1846066	PADDLE SWITCH KEDU HY18 20A/12A 125/250V
67	X1846067	RUBBER FOOT
68	X1846068	BASE COVER
69	X1846069	TAP SCREW M5 X 10

Labels & Cosmetics

! WARNING

Safety labels warn about machine hazards and how to prevent serious personal injury. The owner of this machine **MUST** maintain the original location and readability of all labels on this machine. If any label is removed or becomes unreadable, **REPLACE** that label before allowing machine to be operated again. Contact us at (360) 734-3482 or www.woodstockint.com to order new labels.



REF	PART #	DESCRIPTION
70	X1846070	DIRECTION ARROW LABEL
71	X1846071	ELECTRICITY LABEL
72	X1846072	READ MANUAL LABEL
73	X1846073	DISCONNECT POWER LABEL

REF	PART #	DESCRIPTION
74	X1846074	MACHINE ID LABEL
75	X1846075	ENTANGLEMENT HAZARD LABELS
76	X1846076	GLASSES/RESPIRATOR LABEL

Warranty Registration

Name _____
 Street _____
 City _____ State _____ Zip _____
 Phone # _____ Email _____ Invoice # _____
 Model # _____ Serial # _____ Dealer Name _____ Purchase Date _____

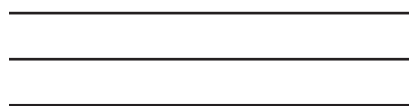
The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. Of course, all information is strictly confidential.

1. How did you learn about us?
 _____ Advertisement _____ Friend _____ Local Store
 _____ Mail Order Catalog _____ Website _____ Other:
2. How long have you been a woodworker/metalworker?
 _____ 0-2 Years _____ 2-8 Years _____ 8-20 Years _____ 20+ Years
3. How many of your machines or tools are Shop Fox?
 _____ 0-2 _____ 3-5 _____ 6-9 _____ 10+
4. Do you think your machine represents a good value? _____ Yes _____ No
5. Would you recommend Shop Fox products to a friend? _____ Yes _____ No
6. What is your age group?
 _____ 20-29 _____ 30-39 _____ 40-49
 _____ 50-59 _____ 60-69 _____ 70+
7. What is your annual household income?
 _____ \$20,000-\$29,000 _____ \$30,000-\$39,000 _____ \$40,000-\$49,000
 _____ \$50,000-\$59,000 _____ \$60,000-\$69,000 _____ \$70,000+
8. Which of the following magazines do you subscribe to?

_____ Cabinet Maker	_____ Popular Mechanics	_____ Today's Homeowner
_____ Family Handyman	_____ Popular Science	_____ Wood
_____ Hand Loader	_____ Popular Woodworking	_____ Wooden Boat
_____ Handy	_____ Practical Homeowner	_____ Woodshop News
_____ Home Shop Machinist	_____ Precision Shooter	_____ Woodsmith
_____ Journal of Light Cont.	_____ Projects in Metal	_____ Woodwork
_____ Live Steam	_____ RC Modeler	_____ Woodworker West
_____ Model Airplane News	_____ Rifle	_____ Woodworker's Journal
_____ Modeltec	_____ Shop Notes	_____ Other:
_____ Old House Journal	_____ Shotgun News	

9. Comments: _____

FOLD ALONG DOTTED LINE



Place
Stamp
Here



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FOLD ALONG DOTTED LINE

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

WARRANTY

Woodstock International, Inc. warrants all Shop Fox machinery to be free of defects from workmanship and materials for a period of two years from the date of original purchase by the original owner. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, lack of maintenance, or reimbursement of third party expenses incurred.

Woodstock International, Inc. will repair, replace, or arrange for a dealer refund, at its expense and option, the Shop Fox machine or machine part proven to be defective for its designed and intended use, provided that the original owner returns the product prepaid to an authorized warranty or repair facility as designated by our Bellingham, Washington office with proof of their purchase of the product within two years, and provides Woodstock International, Inc. reasonable opportunity to verify the alleged defect through inspection. If it is determined there is no defect, or that the defect resulted from causes not within the scope of Woodstock International Inc.'s warranty, then the original owner must bear the cost of storing and returning the product.

This is Woodstock International, Inc.'s sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant that Shop Fox machinery complies with the provisions of any law, acts or electrical codes. We do not reimburse for third party repairs. In no event shall Woodstock International, Inc.'s liability under this limited warranty exceed the purchase price paid for the product, and any legal actions brought against Woodstock International, Inc. shall be tried in the State of Washington, County of Whatcom. We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special or consequential damages arising from the use of our products.

Every effort has been made to ensure that all Shop Fox machinery meets high quality and durability standards. We are committed to continuously improving the quality of our products, and reserve the right to change specifications at any time.



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