

MODEL W1667 8-1/2" OSCILLATING DRILL PRESS



OWNER'S MANUAL

(FOR MODELS MANUFACTURED SINCE 06/22)

Phone: (360) 734-3482 • Online Technical Support: techsupport@woodstockint.com

COPYRIGHT © 2000 BY WOODSTOCK INTERNATIONAL, INC., REVISED SEPTEMBER, 2022 (CS)

WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE OR FORM WITHOUT

THE WRITTEN APPROVAL OF WOODSTOCK INTERNATIONAL, INC.



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.

Contents

INTRODUCTION	2	ACCESSORIES	31
Woodstock Technical Support	2	Drill Press Accessories	31
Controls & Components	6	MAINTENANCE	32
SAFETY	8	General	32
Standard Machinery Safety Instructions	8	Cleaning & Protecting	32
Additional Safety for Drill Presses	10	Sanding Sleeves.....	32
ELECTRICAL	11	Inspecting/Replacing Belts	33
Circuit Requirements	11	Lubrication	33
Grounding Requirements.....	12	SERVICE	35
Extension Cords	12	General	35
SETUP	13	Adjusting Quill Shaft Screw	35
Unpacking	13	Tensioning Feed Shaft Return Spring.....	36
Items Needed for Setup.....	13	Troubleshooting.....	38
Inventory	14	Electrical Safety Instructions.....	40
Machine Placement	15	Wiring Diagram	41
Cleaning Machine.....	15	PARTS	42
Bench Mounting.....	16	Main	42
Assembly.....	17	Labels & Cosmetics	44
Dust Collection	20	WARRANTY	45
Test Run.....	21		
OPERATIONS	22		
General	22		
Adjusting Table	23		
Choosing Spindle Speed	23		
Changing Spindle Speed.....	24		
Drill Press Speed Chart	26		
Changing Drill Bit/Drum.....	27		
Adjusting Depth Stop	28		
Using Oscillator.....	29		





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 Ext. 2 or send e-mail to: techsupport@woodstockint.com. Our knowledgeable staff will help you troubleshoot problems and process warranty claims.

If you need the latest edition, you can download it from <http://www.woodstockint.com/manuals>.
If you have comments about this manual, please contact us at:

Woodstock International, Inc.
Attn: Technical Documentation Manager
P.O. Box 2309
Bellingham, WA 98227
Email: manuals@woodstockint.com



MACHINE SPECIFICATIONS



© Woodstock International, Inc. • Phone #: (800) 840-8420 • Web: www.woodstockint.com

MODEL W1667 8-1/2" OSCILLATING DRILL PRESS

Product Dimensions

Weight..... 49 lbs.
 Width (side-to-side) x Depth (front-to-back) x Height..... 9 x 17 x 23 in.
 Footprint (Length x Width)..... 12-1/4 x 7-3/4 in.

Shipping Dimensions

Type..... Cardboard Box
 Content..... Machine
 Weight..... 51 lbs.
 Length x Width x Height..... 15 x 19 x 10 in.

Electrical

Power Requirement..... 110V, Single-Phase, 60 Hz
 Full-Load Current Rating..... 5A
 Minimum Circuit Size..... 15A
 Connection Type..... Cord & Plug
 Power Cord Included..... Yes
 Power Cord Length..... 10 ft.
 Power Cord Gauge..... 18 AWG
 Plug Included..... Yes
 Included Plug Type..... 5-15
 Switch Type..... Paddle Safety Switch w/Removable Key

Motors

Main

Horsepower..... 1/2 HP
 Phase..... Single-Phase
 Amps..... 5A
 Speed..... 1725 RPM
 Type..... TEFC Induction
 Power Transfer Belt
 Bearings..... Shielded & Permanently Lubricated



Main Specifications

Operation Information

Type.....	Oscillating
Swing.....	8-1/2 in.
Spindle Taper.....	JT-33
Spindle Travel.....	2 in.
Max. Distance From Spindle to Column.....	4-5/16 in.
Max. Distance From Spindle to Table.....	8 in.
Number of Spindle Speeds.....	5
Range of Spindle Speeds.....	620 - 3100 RPM
Max. Head Swivel.....	360 deg.
Drilling Capacity (Mild Steel).....	1/2 in. in Steel
Drill Chuck Type.....	JT-33 Key Chuck
Drill Chuck Size.....	1/16 - 1/2 in.
Oscillating Stroke Length.....	1/2 in.

Spindle Information

Distance From Spindle to Base.....	11 in.
Quill Diameter.....	1.50 in.

Table Information

Max. Table Tilt (Left/Right).....	90 deg.
Table Swing.....	360 deg.
Table Swivel Around Center.....	360 deg.
Table Swivel Around Column.....	360 deg.
Max. Movement of Work Table.....	10 in.
Table Length.....	7 in.
Table Width.....	7 in.
Table Thickness.....	3/4 in.
Number of T-Slots.....	4
T-Slot Size.....	5/8 in.
T-Slot Centers.....	3-7/8 in.
Floor-To-Table Height.....	5-5/16 - 11 in.

Construction

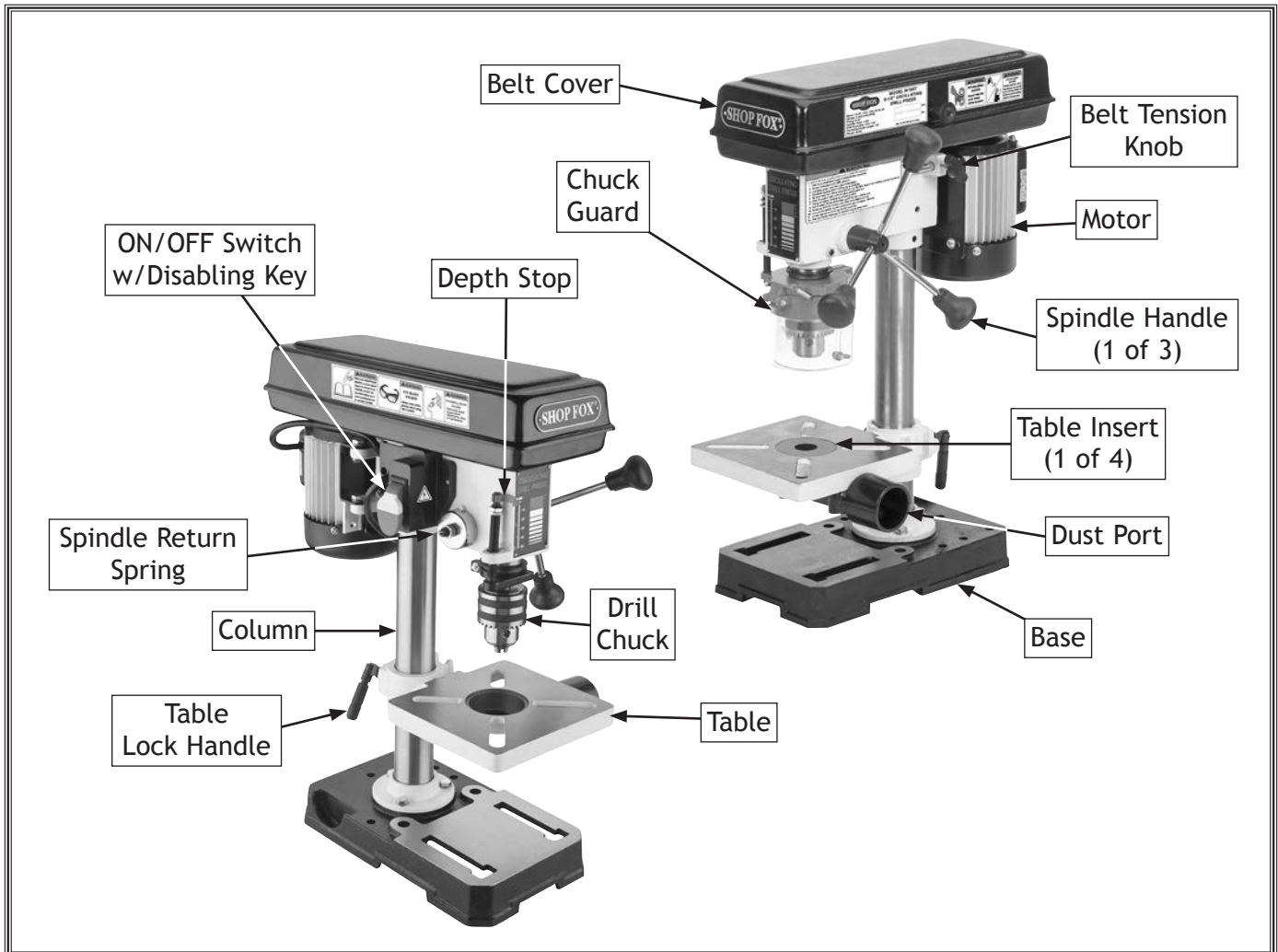
Table.....	Precision-Ground Cast Iron
Column.....	Cast Iron
Spindle Housing.....	Cast Iron
Head.....	Cast Iron
Base.....	Cast Iron
Paint Type/Finish.....	Enamel

Other Related Information

Base Length.....	12-1/4 in.
Base Width.....	7-3/4 in.
Column Diameter.....	1-13/16 in.
Depth Stop Type.....	Threaded Rod with Positive Stop
Number of Dust Ports.....	1
Dust Port Size.....	2 in.

Identification

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



WARNING

For Your Own Safety, Read Instruction Manual Before Operating Drill Press

- a) Wear eye protection.
- b) Do not wear gloves, necktie, or loose clothing.
- c) Clamp workpiece or brace against column to prevent rotation.
- d) Use recommended speed for drill accessory and workpiece material.

Controls & Components

Refer to the **Figures 1-4** and the following descriptions to become familiar with the basic controls and components of this machine. Understanding these items and how they work will help you understand the rest of the manual and stay safe when operating this machine.

- A. **ON/OFF Switch w/Disabling Key:** Turns motor **ON** when moved up; turns motor **OFF** when moved down. Removal of yellow key disables switch so motor cannot start.
- B. **Depth Stop:** Stops spindle travel at predetermined depth.
- C. **Spindle Return Spring:** Automatically returns quill into headstock.
- D. **Belt Tension Knob:** Adjusts motor position to tension and release belt.
- E. **Spindle Handle (1 of 3):** Moves spindle down when pulled down. Spindle automatically returns to top position when released.

WARNING



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

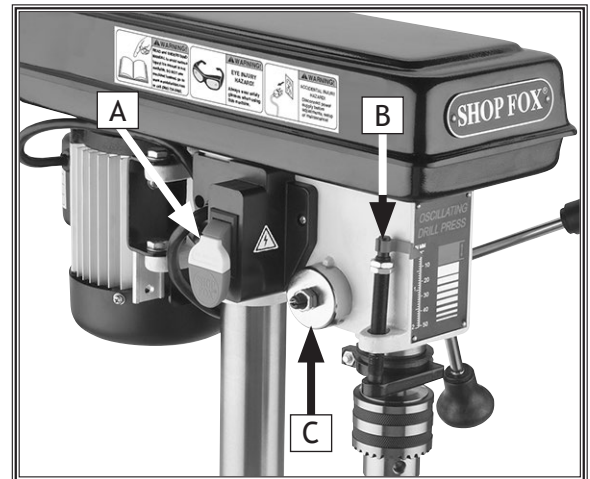


Figure 1. Left side of headstock.

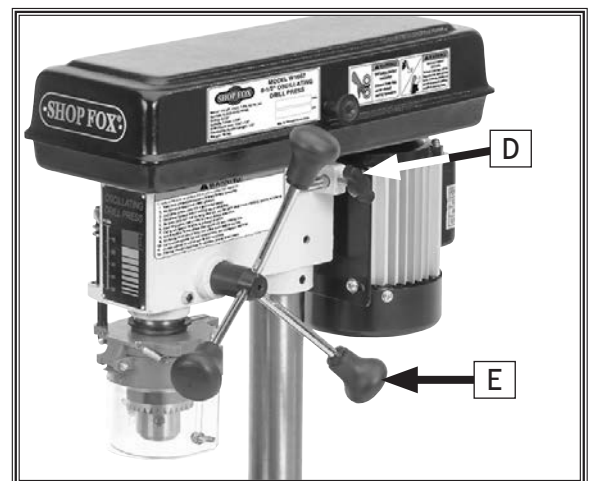


Figure 2. Right side of headstock.

- F. **Oscillation Belt & Pulley:** Oscillates spindle for sanding operations.
- G. **Motor Pulley:** Transfers motor power to drive belt at different speeds.
- H. **Drive Belt:** Controls spindle speed.
- I. **Spindle Pulley:** Holds drive belt and transfers motor power to spindle.

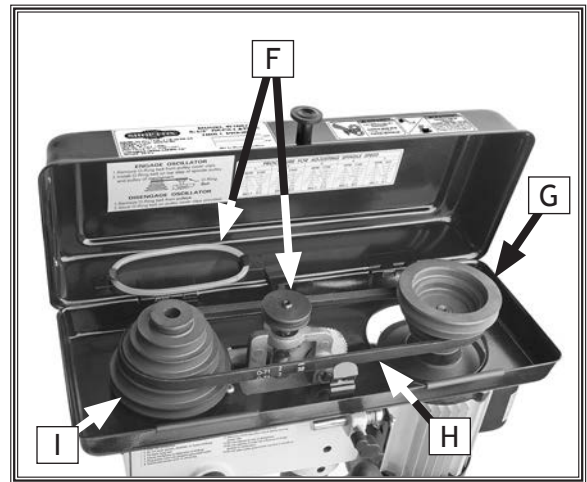


Figure 3. Inside belt cover.

- J. **Table Lock Handle:** Locks table height and rotation in position in relation to column.

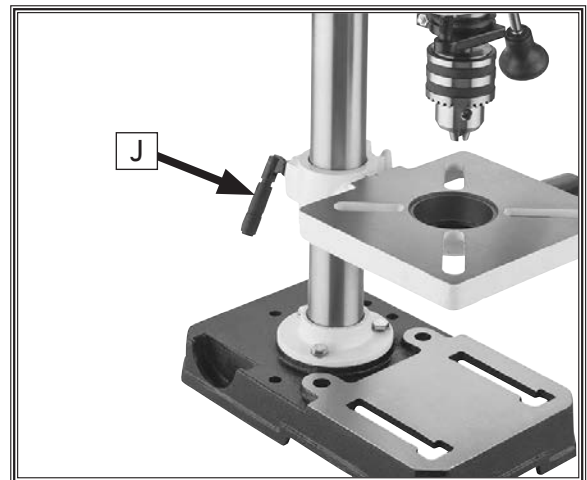


Figure 4. Table controls.

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 Drill Presses

Serious injury or death can occur from getting clothing, jewelry, or long hair entangled in rotating spindle or bit/cutting tool. Contact with rotating bit/cutting tool can result in severe cuts or amputation of fingers. Flying metal chips can cause blindness or eye injuries. Broken bits/cutting tools, unsecured workpieces, chuck keys, or other adjustment tools thrown from rotating spindle can strike nearby operator or bystanders with great force. To reduce the risk of these hazards, operator and bystanders **MUST** completely heed hazards and warnings below.

WEARING PROPER PPE. Flying chips created by drilling can cause eye injuries or blindness. Always wear a face shield in addition to safety glasses. Always keep hands and fingers away from drill bit/cutting tool. Avoid awkward hand positions, where a sudden slip could cause hand to move into bit/cutting tool.

AVOIDING ENTANGLEMENT. DO NOT wear loose clothing, gloves, or jewelry, and tie back long hair. Keep all guards in place and secure. Always allow spindle to stop on its own. DO NOT stop spindle using your hand or any other object.

REMOVING ADJUSTMENT TOOLS. Chuck key, drawbar wrench, and other tools left on machine can become deadly projectiles when spindle is started. Remove all loose items or tools used on spindle immediately after use.

SECURING BIT/CUTTING TOOL. Firmly secure bit/cutting tool so it does not fly out of spindle during operation or startup.

SECURING TABLE AND HEADSTOCK. To avoid accidental contact with tool/bit, tighten all table and headstock locks before operating drill.

CORRECT SPINDLE SPEED. Using wrong spindle speed can cause bits/cutting tools to break and strike operator or bystanders. Follow recommended speeds and feeds for each size/type of bit/cutting tool and workpiece material.

WORKPIECE PREPARATION. To avoid loss of workpiece control, DO NOT drill material with an uneven surface on the table, unless a suitable support is used. To avoid impact injuries, make sure workpiece is free of nails or foreign objects in area to be drilled.

WORKPIECE CONTROL. An unsecured workpiece may unexpectedly shift, spin out of control, or be thrown if bit/cutting tool “grabs” during operation. Clamp workpiece to table or in table-mounted vise, or brace against column to prevent rotation. NEVER hold workpiece by hand during operation. NEVER start machine with bit/cutting tool touching workpiece; allow spindle to gain full speed before drilling.

INSPECTING BIT/CUTTING TOOL. Damaged bits/cutting tools may break apart during operation and hit operator or bystanders. Dull bits/cutting tools increase cutting resistance and are more likely to grab and spin/throw workpiece. Always inspect bits/cutting tools for sharpness, chips, or cracks before each use. Replace dull, chipped, or cracked bits/cutting tools immediately.

MAINTAINING MACHINE. Keep machine in proper working condition to help ensure that it functions safely and all guards and other components work as intended. Perform routine inspections and all necessary maintenance. Never operate machine with damaged or worn parts that can break or result in unexpected movement during operation.

CLEANING MACHINE SAFELY. To avoid contact with tool/bit, never clear chips while spindle is turning. To avoid cuts and eye injuries, DO NOT clear chips by hand or with compressed air—use a brush or vacuum instead.

DISCONNECT POWER FIRST. To reduce risk of electrocution or injury from unexpected startup, make sure drill is turned OFF, disconnected from power, and all moving parts have come to a complete stop before changing bits/cutting tools or starting any inspection, adjustment, or maintenance procedure.

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 110V5 Amps


Circuit Requirements for 110V

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.

ELECTRICAL

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 110V 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.

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 110V 16 AWG**
- Maximum Length (Shorter is Better) 50 ft.**

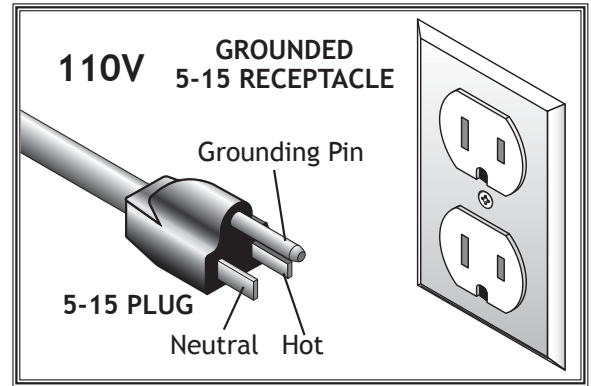
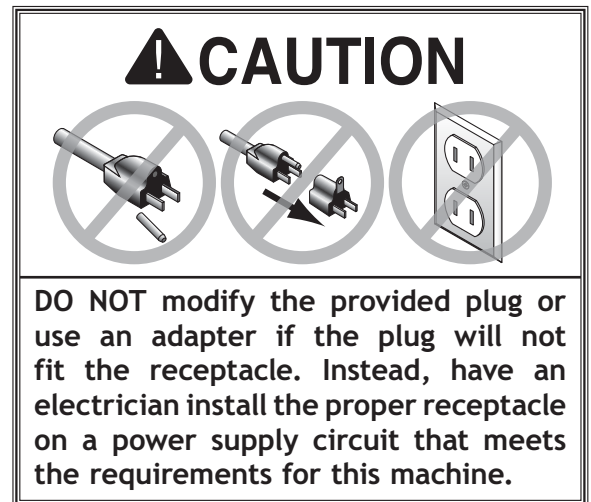


Figure 5. NEMA 5-15 plug & receptacle.



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 for Each Person	1 Pr.
• Cleaner/Degreaser	As Needed
• Disposable Rags	As Needed
• Disposable Gloves	As Needed
• Mounting Hardware	As Needed
• Phillips Head Screwdrivers #1, #2	1 Ea.
• Assistant for Lifting	1
• Mineral Spirits.....	As Needed
• Dust Collection System	1
• Dust Hose 2"	1
• Hose Clamps 2"	2

	<p>!WARNING</p> <p>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!</p>
--	---

	<p>!WARNING</p> <p>Wear safety glasses during entire setup process!</p>
--	--

SETUP

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 Inventory (Figure 6)	Qty
A. Headstock (Not Shown).....	1
B. Column	1
C. Dust Port Halves	2
D. Table Inserts $\frac{5}{8}$ " , 1" , $1\frac{5}{8}$ " , $1\frac{7}{8}$ "	1 Ea.
E. Lock Shoe	1
F. Sanding Mandrel	1
G. Open-End Wrench 13 x 14mm	1
H. Combo Wrench 7 x 18mm	1
I. Hex Wrenches 3, 4mm.....	1 Ea.
J. Drill Chuck & Key.....	1
K. Table.....	1
L. Chuck Guard.....	1
M. Table Lock Handle.....	1
N. Belt Cover Knob.....	1
O. Base.....	1
P. Spindle Handles.....	3

Hardware (Not Shown)	
– Hex Bolts M8-1.25 x 20.....	3
– Flat Washers 8mm.....	3
– Cap Screw M5-.8 x 20	1
– Phillips Head Screws M4-.7 x 22	4
– Mandrel Washers $\frac{5}{8}$ " , $\frac{7}{8}$ ".....	1 Ea.
– Mandrel Washers $1\frac{3}{4}$ "	2
– Tap Screws M2.2 x 4.5	4

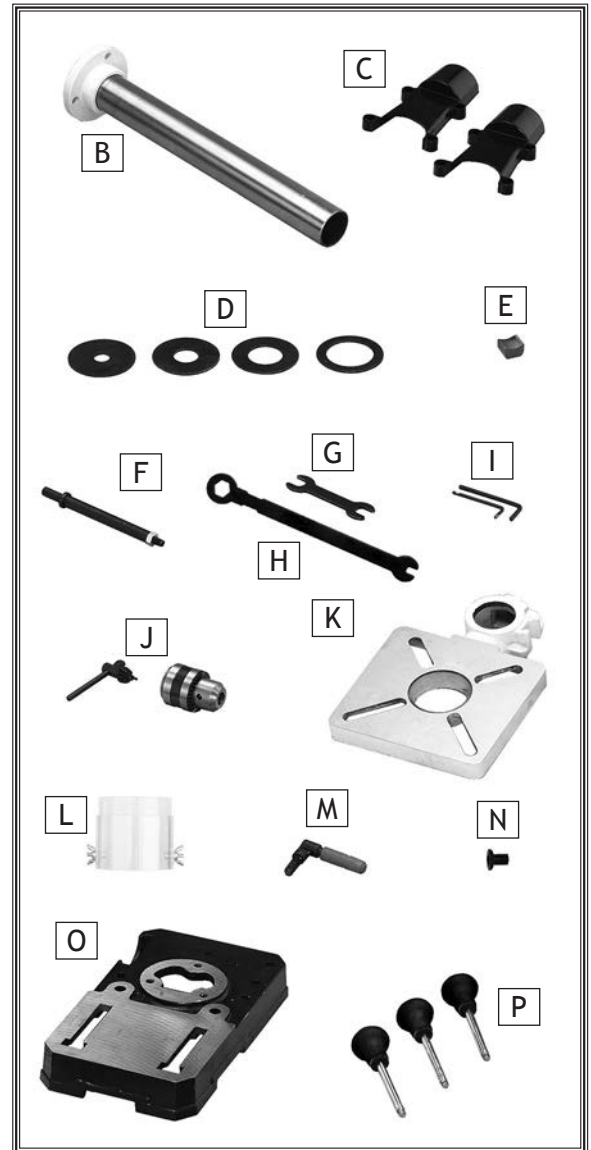


Figure 6. Inventory.

SETUP

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.



CAUTION
INJURY HAZARD! Untrained users can injure themselves with this machine. Restrict access to machine when you are away, especially if it is installed where children are present.

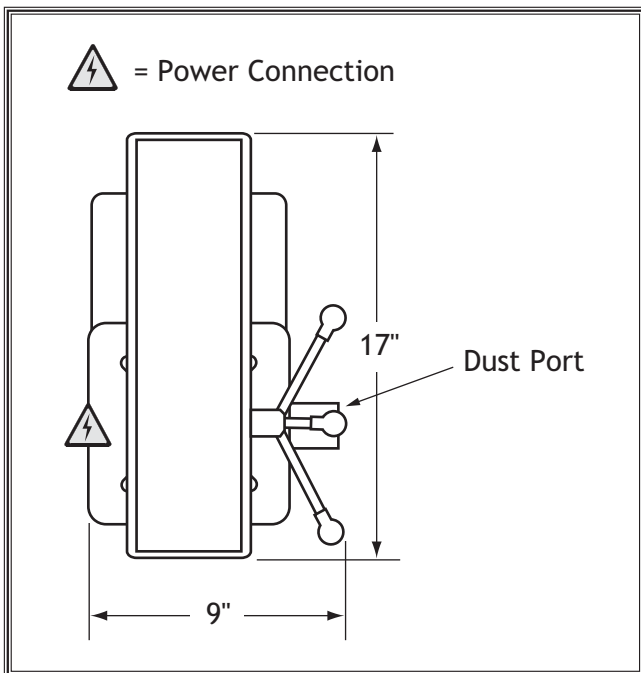


Figure 7. Working clearances.

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.

SETUP

Bench Mounting

Number of Mounting Holes..... 5
 Diameter of Mounting Hardware Needed.....⁵/₁₆"

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 example) 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.

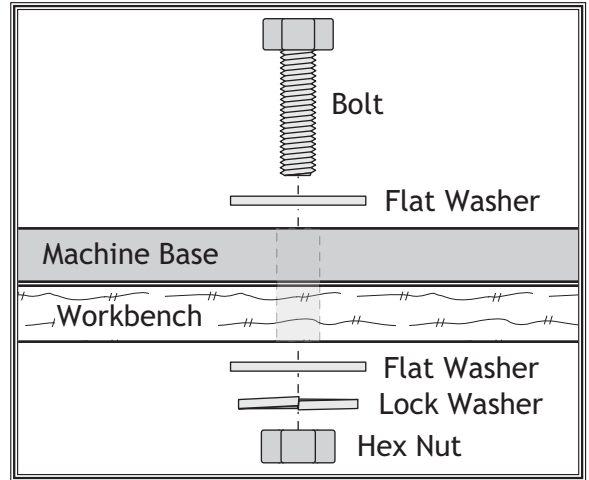


Figure 8. Typical "Through Mount" setup.

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

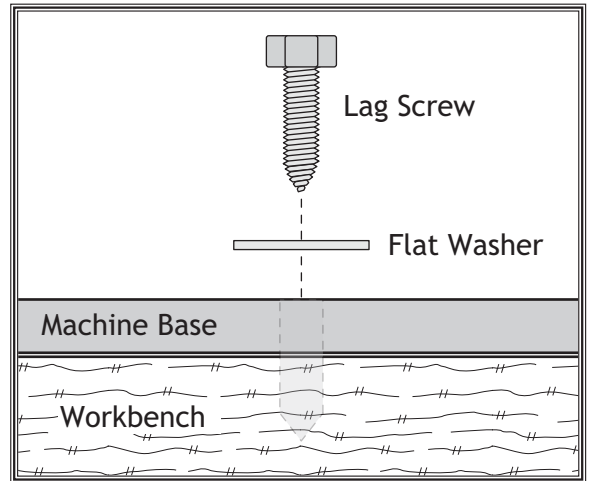


Figure 9. Typical "Direct Mount" setup.

Assembly

Before beginning the assembly process, refer to **Items Needed for Setup** and gather everything you need. Ensure all parts have been properly cleaned of any heavy-duty rust-preventative applied at the factory (if applicable). Be sure to complete all steps in the assembly procedure prior to performing the **Test Run** or connecting the machine to power.

To assemble machine, do these steps:

1. Place column on base and align mounting holes.
2. Secure column to base with (3) M8-1.25 x 20 hex bolts and 8mm flat washers (see **Figure 10**).
3. Position (2) dust port halves together, then attach dust port to bottom of table with (4) M4-.7 x 22 Phillips head screws (see **Figure 11**).

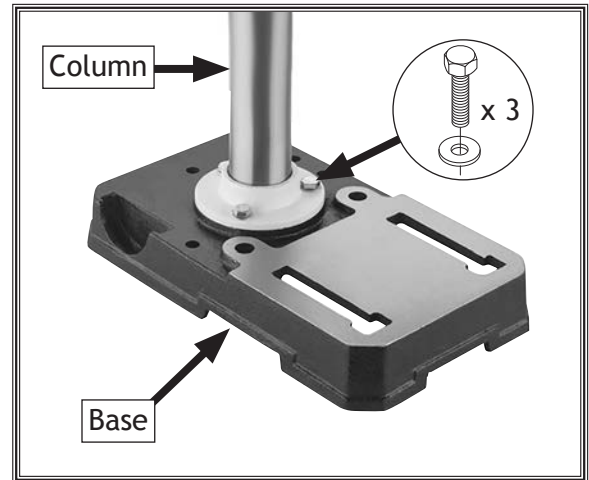


Figure 10. Column secured to base.

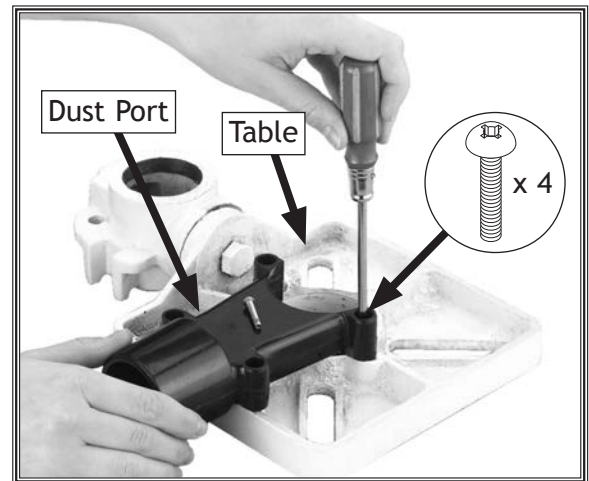


Figure 11. Attaching dust port to table.

4. Thread table lock handle into table support bracket 3 turns (see **Figure 12**).
5. Insert lock shoe into pocket shown in **Figure 12**.



Figure 12. Table lock handle and lock shoe installed in table support bracket.

SETUP

- Place table on column, then secure with table lock handle (see Figure 13).



Figure 13. Table installed on column.

- With lifting assistant, place headstock on column and allow headstock to slide down until column fully seats in headstock (see Figure 14).

- Align headstock directly over base, then tighten (2) set screws shown in Figure 14 to secure.

Note: *DO NOT* overtighten; set screws may strip or bend column.

- Clean drill chuck and spindle with mineral spirits.
- Use chuck key to adjust jaws of chuck until they are inside chuck body.



Figure 14. Example of securing headstock to column.

- Place drill chuck on spindle, then secure with M5-.8 x 20 cap screw (see Figure 15).

Note: *If chuck is loose on spindle, repeat Steps 9-11 until it is secure.*

NOTICE

DO NOT use hammer to seat drill chuck on spindle. This will damage oscillating mechanism.

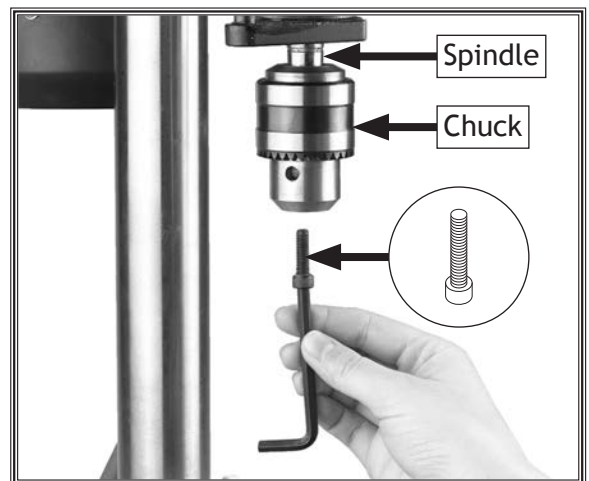


Figure 15. Installing chuck on spindle (chuck guard seat removed for clarity).

SETUP

12. Thread (3) spindle handles into hub, as shown in Figure 16.

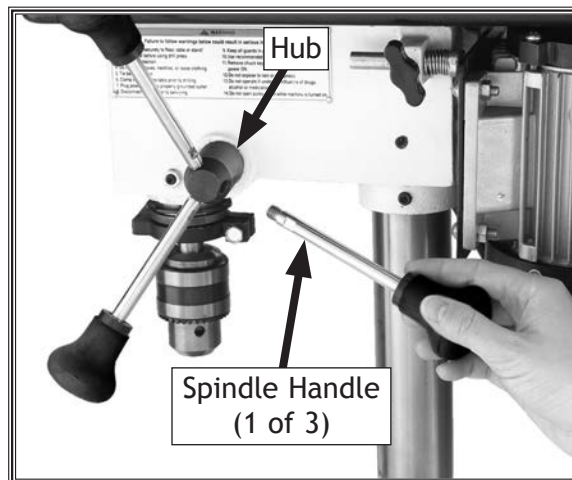


Figure 16. Example of installing spindle handles.

13. Attach chuck guard to chuck guard seat with (3) M2.2 x 4.5 tap screws (see Figure 17).

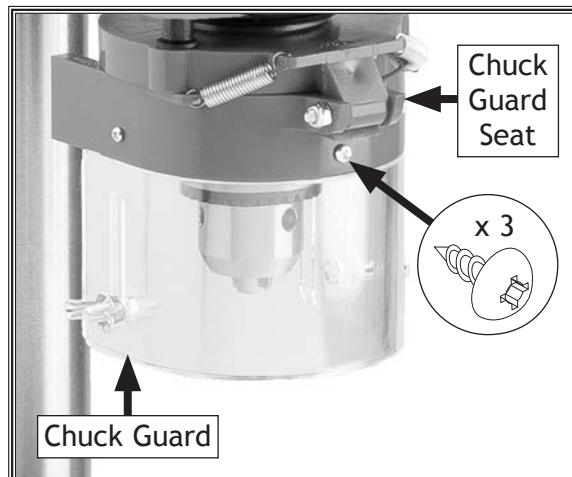


Figure 17. Chuck guard attached to chuck guard seat.

14. Remove Phillips head screw and flat washer from belt cover knob, then use fasteners to attach belt cover knob to belt cover (see Figure 18).



Figure 18. Belt cover knob installed.

SETUP

Dust Collection

Recommended CFM at Dust Port: 100 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.

SETUP

Tools Needed	Qty
Dust Collection System	1
Dust Hose 2"	1
Hose Clamps 2"	2

To connect dust collection system, do these steps:

1. Fit 2" dust hose over dust port, as shown in **Figure 19**, and secure it in place with hose clamp.
2. Tug hose to make sure it does not come off.

Note: A tight fit is necessary for proper performance.

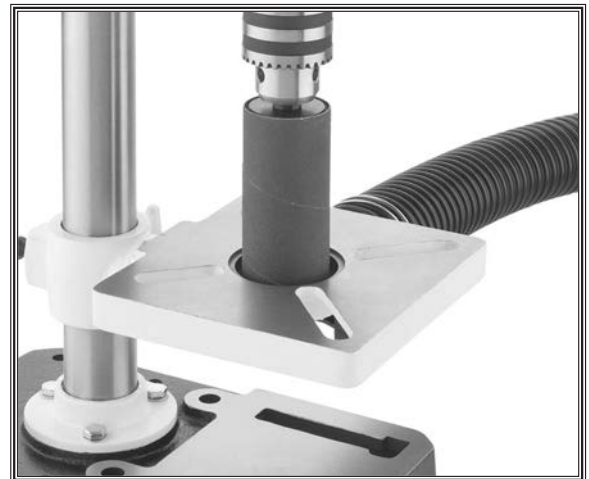


Figure 19. Dust port connected to dust collection system for sanding operation.

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.

The Test Run consists of verifying the following: 1) The motor powers up and runs correctly, 2) the switch disabling key disables the switch properly, and 3) the belt cover limit switch is working correctly.

To test run 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. Open belt cover, then try to start machine.
 - If machine *does not* start, belt cover limit switch is working correctly.
 - If machine *does* start, immediately stop machine. Belt cover limit switch is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.
5. Close belt cover and remove switch disabling key (see example).
6. Try to start machine. Machine should not start.
 - If machine *does not* start, switch disabling feature is working as designed.
 - If machine *does* start, immediately stop machine. 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.

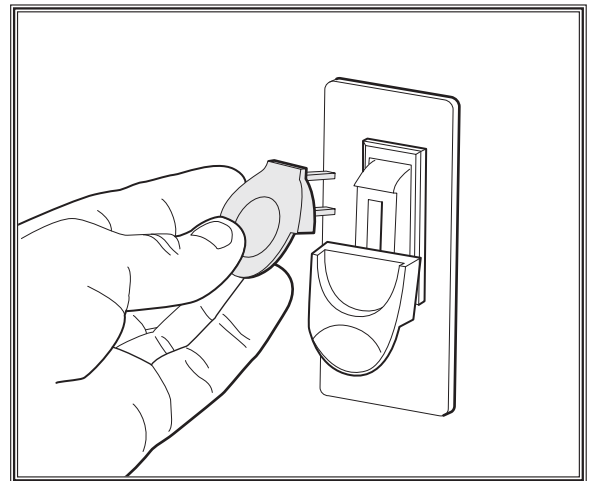


Figure 20. Removing switch key from paddle switch.

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.

To complete a typical operation, the operator does the following:

1. Examines workpiece to make sure it is suitable for drilling.
2. Puts on required safety glasses and face shield.
3. Firmly secures workpiece to table using a vise or T-slot clamps.
4. Installs correct cutting tool for operation.
5. Adjusts table to correct height, then locks it in place.
6. Selects appropriate spindle speed according to V-belt configuration chart located inside belt cover.
7. Connects machine to power, and starts machine.
8. Begins drilling.
9. When finished, turns machine **OFF** and disconnects it from power.

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, always wear safety glasses and a face shield while operating 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!

Adjusting Table

You can adjust the table height and tilt to accommodate the workpiece height or achieve special drilling/sanding angles. You can also move the table out of the way and use the drill press base as a table for drilling/sanding.

To adjust table, do these steps:

1. While supporting table, loosen table lock handle (see Figure 21).
2. Adjust table up or down on column, then position table so opening in table or installed table insert is centered to drill bit or sanding drum.

Note: *If table is not needed, pivot table to back side of column so you can support workpiece on base.*

3. Tighten table lock handle.
4. Loosen table tilt lock bolt and use tilt scale to tilt table to desired drilling or sanding angle (see Figure 22).
5. Tighten table tilt lock bolt.

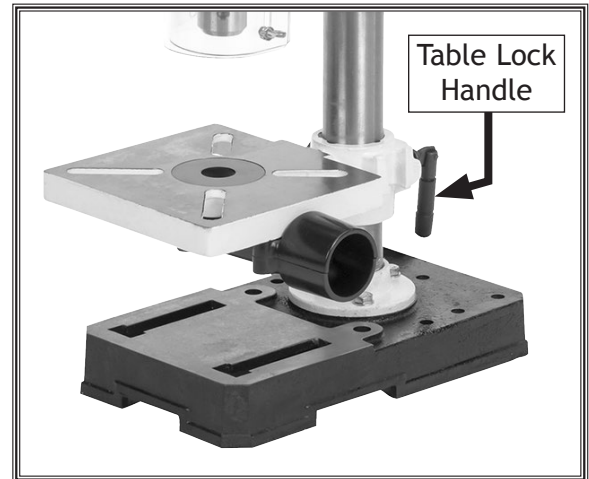


Figure 21. Location of table lock handle.

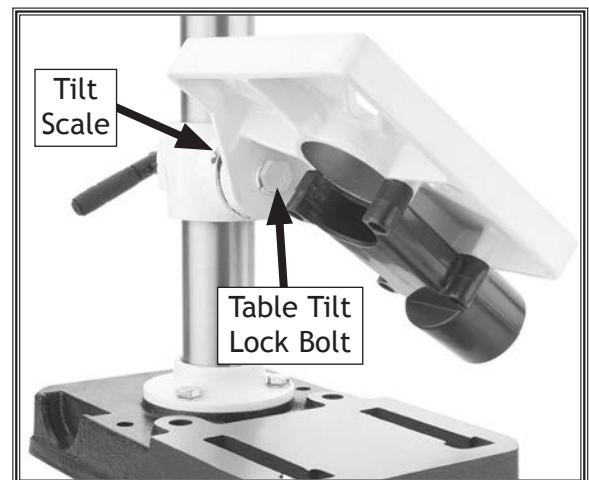


Figure 22. Location of table tilt lock bolt and tilt scale.

Choosing Spindle Speed

The Drill, Cutter, & Hole Saw Suggested RPM Chart shown on Page 25-26 is intended as a guide only. Always follow the manufacturer's speed recommendations if provided with your drill bits, cutters, hole saws, or sanding drums. Exceeding the recommended speeds may be dangerous.

The speeds shown are intended to get you started. The optimum speed will always depend on various factors, including tool diameter, drilling pressure, material hardness, material quality, and desired finish.

Changing Spindle Speed

The Model W1667 has 5 speeds, ranging from 620 to 3100 RPM. Refer to the speed charts location under the belt cover while following the instructions below.

To change spindle speed, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Open belt cover.
3. Refer to speed chart located under belt cover or refer to **Drill Press Speed Chart on Page 26** and choose desired speed.
4. Loosen belt tension knob (see **Figure 23**).
5. Pull motor toward front of drill press to release tension from V-belt.
 - If V-belt is worn or damaged, replace it (see **Inspecting/Replacing Belts on Page 33**).
6. Move V-belt to desired V-grooves on motor and spindle pulleys (see **Figure 24**).
7. Push motor toward back of drill press until there is about 1½" between belt when it is pinched together with moderate force (see **Figure 25**), then tighten belt tension knob to secure.
8. Close belt cover.



Figure 23. Location of belt tension knob.

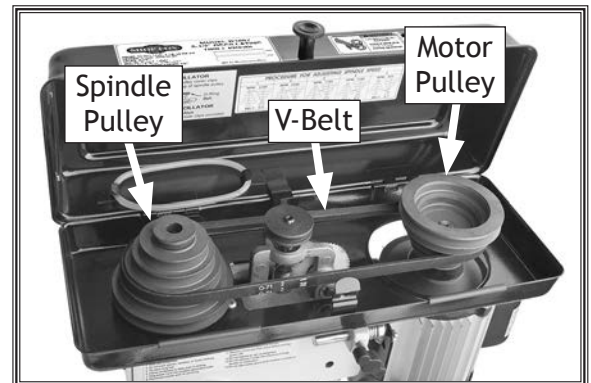


Figure 24. Location of speed components.

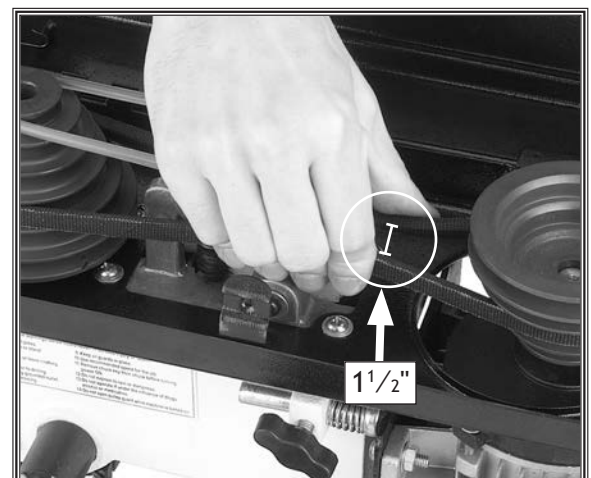


Figure 25. Measuring belt deflection.

Drill, Cutter, & Hole Saw Suggested RPM Chart

ALWAYS follow the drill, saw, or cutter manufacturer's recommended RPM specifications. ALWAYS wear safety glasses. DO NOT use your drill press to exceed the drilling, cutting, or sawing RPM or the feed rate of your bit or cutter. Otherwise serious personal injury can occur.

The RPMs listed below are merely suggestions to help you use your drill press in the event that you cannot find a basic starting RPM point. The final RPMs may differ based on the material drilled, the pressure you apply, and the cut-quality needed. Remember, even if the RPM and all other settings are correct, cooling the tool with a lubricant and drilling a pilot hole may also be required. Refer to WARNINGS and TIPS, trade journals, training manuals, and other educational resources for in-depth instructions and safety knowledge.

For current product line, refer to: <http://www.woodstockint.com>.

Sanding Sleeves or Grinding Bits	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
1", 1-1/2", 2"	2000	1725	1000	3100	3100	3100
Twist Type Drill Bits: (Wood, Plastic, and Metal)						
1/16" to 3/16"	3000	3000	2500	3000	3000	3000
1/4" to 3/8"	3000	1500	2000	1200	2500	1000
7/16" to 5/8"	1500	750	1500	750	1500	600
11/16" to 1"	750	500	-	400	1000	350
Spade Drill Bits: (Wood)						
1/4" to 1/2"	2000	1500	-	-	-	-
5/8" to 1"	1750	1500	-	-	-	-
1-1/8" to 1-1/2"	1500	1000	-	-	-	-
Spade with Spur Drill Bits: (Wood and Plastic)						
3/8" to 1"	2000	1800	500	-	-	-
Brad Point Drill Bits: (Wood and Plastic)						
1/8"	1800	1200	1500	-	-	-
1/4"	1800	1000	1500	-	-	-
3/8"	1800	750	1500	-	-	-
1/2"	1800	750	1000	-	-	-
5/8"	1800	500	750	-	-	-
3/4"	1400	250	750	-	-	-
7/8"	1200	250	500	-	-	-
1"	1000	250	250	-	-	-
Forstner Drill Bits: (Wood and Plastic)						
1/4" to 11/16"	2400	1600	250	-	-	-
3/4" to 1-1/16"	1800	1200	250	-	-	-
1-1/8" to 1-7/16"	1200	800	250	-	-	-
1-1/2" to 2-1/8"	600	450	-	-	-	-
2-1/4" to 3-1/8"	480	250	-	-	-	-
Multi-Spur Drill Bits: (Wood)						
2-1/8" to 4"	250	250	-	-	-	-
Countersink Cutters: (Wood, Plastic, and Metal)						
2-Flute Cutter	1400	1400	-	-	-	-
5-Flute Cutter	1000	750	750	250	250	250
Plug Cutters: (Wood)						
3/8" to 1/2"	1200	1000	-	-	-	-
5/8" to 1"	800	600	-	-	-	-
Carbide Rosette Cutters: One-Piece Shear Type (Wood)						
2-1/2" to 3"	1800	500	-	-	-	-
Rosette Cutters: Replaceable Carbide-Knife Type (Wood)						
2-1/4" to 3-1/8"	350	250	-	-	-	-

WARNINGS and TIPS

- **WARNING:** The larger the drill bit or hole saw and the slower the RPM, the greater the chance the tool could aggressively grab the workpiece, damage the tool and workpiece and cause injury. High RPMs can melt plastic, burn wood, and dull the tool.
- **WARNING:** Use a 5-Flute cutter when cutting into plastics, brass, aluminum, and mild steel. A 2-Flute cutter can aggressively grab the workpiece and damage the tool.
- **TIP:** To increase the life of drill bits, cutters, hole saws, and improve cut quality, use a lubricant equivalent to these:
 - Plastics:** use a soapy-water lubricant
 - Brass:** use a water-based lubricant
 - Mild Steel:** use an oil-based lubricant
 - Aluminum:** use a paraffin-based lubricant
 - Cast Iron:** use a pipe-thread cutting lubricant
 - Wood:** use no lubricant.
- **TIP:** Raise the drill bit, cutter, or hole saw often to clear chips and cool the tool.
- **TIP:** When drilling plastics with spade bits, use a spade bit with spurs.
- **TIP:** Plug cutters and rosette cutters are for wood only; however, carbide-tipped bits and cutters cut at a higher RPM, and can cut materials other than wood depending on cutter type. Carbide makes better cuts and lasts longer than HSS steel.
- **TIP:** When using hole saws, apply firm and even pressure, so the saw teeth contact the surface all at the same time-not at an angle. You can also flip the workpiece and finish drilling from the other side.
- **TIP:** To prevent drill bit wandering, use a center punch to start the drill bit.

OPERATIONS

Saws: Bi-Metal Hole Saws (Most Materials)															
Hole Saw Diameter	Soft Wood	Hard Wood	Plastic	Mild Steel	Cast Iron	Brass	Aluminum	Hole Saw Diameter	Soft Wood	Hard Wood	Plastic	Mild Steel	Cast Iron	Brass	Aluminum
9/16"	1150	870	1320	580	400	790	900	2-7/8"	240	180	275	120	80	160	180
5/8"	1100	825	1250	550	365	730	825	3"	230	170	260	115	75	150	170
11/16"	1000	750	1140	500	330	665	750	3-1/16"	220	165	250	110	75	150	170
3/4"	920	690	1050	460	300	600	690	3-1/8"	220	165	250	110	70	140	165
13/16"	850	635	970	425	280	560	635	3-3/16"	210	155	240	105	70	140	165
7/8"	780	585	890	390	260	520	585	3-1/4"	210	155	240	105	70	140	155
15/16"	740	555	845	370	245	495	555	3-5/16"	200	150	225	100	70	130	155
1"	700	525	800	350	235	470	525	3-3/8"	200	150	225	100	65	130	150
1-1/16"	650	480	740	325	215	435	480	3-7/16"	200	150	225	100	65	130	150
1-1/8"	600	450	685	300	200	400	450	3-1/2"	190	140	215	95	65	130	145
1-3/16"	570	430	650	285	190	380	425	3-9/16"	190	140	215	95	65	120	145
1-1/4"	550	410	625	275	180	360	410	3-5/8"	190	140	215	95	60	120	140
1-5/16"	520	390	595	260	175	345	390	3-11/16"	180	135	205	90	60	120	140
1-3/8"	500	375	570	250	165	330	375	3-3/4"	180	135	205	90	60	120	135
1-7/16"	480	360	545	240	160	315	360	3-13/16"	180	135	205	90	60	120	135
1-1/2"	460	345	525	230	150	300	345	3-7/8"	180	135	205	90	60	120	135
1-9/16"	440	330	500	220	145	290	330	4"	170	130	195	85	55	110	130
1-5/8"	420	315	475	210	140	280	315	4-1/16"	170	130	195	85	55	110	120
1-11/16"	410	310	465	205	130	260	295	4-1/8"	160	120	180	80	55	110	120
1-3/4"	390	290	445	195	130	260	295	4-3/16"	160	120	180	80	55	110	120
1-13/16"	380	285	435	190	125	250	285	4-1/4"	160	120	180	80	55	100	120
1-7/8"	360	270	400	180	120	240	270	4-5/16"	160	120	180	80	55	100	120
2"	340	255	385	170	115	230	255	4-3/8"	160	120	180	80	50	100	120
2-1/16"	330	245	375	165	110	220	245	4-7/16"	150	110	170	75	50	100	105
2-1/8"	320	240	365	160	105	210	240	4-1/2"	150	110	170	75	50	100	105
2-3/16"	310	230	355	155	105	205	240	4-9/16"	150	110	170	75	50	95	100
2-1/4"	300	225	340	150	100	200	225	4-5/8"	150	110	170	75	50	95	100
2-5/16"	290	215	330	145	100	195	225	4-11/16"	150	110	170	75	50	95	100
2-3/8"	280	210	320	140	95	190	220	4-3/4"	150	110	170	75	50	95	95
2-7/16"	280	210	320	140	95	185	210	4-13/16"	130	100	150	65	45	90	95
2-1/2"	270	200	310	135	90	180	205	4-7/8"	130	100	150	65	45	90	90
2-9/16"	270	200	310	135	85	175	200	5"	130	100	150	65	45	90	90
2-5/8"	260	195	295	130	85	170	195	5-1/4"	120	90	135	60	40	85	85
2-11/16"	260	195	295	130	85	165	190	5-1/2"	120	90	135	60	40	85	85
2-3/4"	250	185	285	125	80	160	185	5-3/4"	110	80	125	55	35	75	75
2-13/16"	250	185	285	125	80	160	185	6"	110	80	125	55	35	75	75

OPERATIONS

Drill Press Speed Chart

Use Figure 26 to select the optimum motor-to-spindle pulley ratio for your operations.

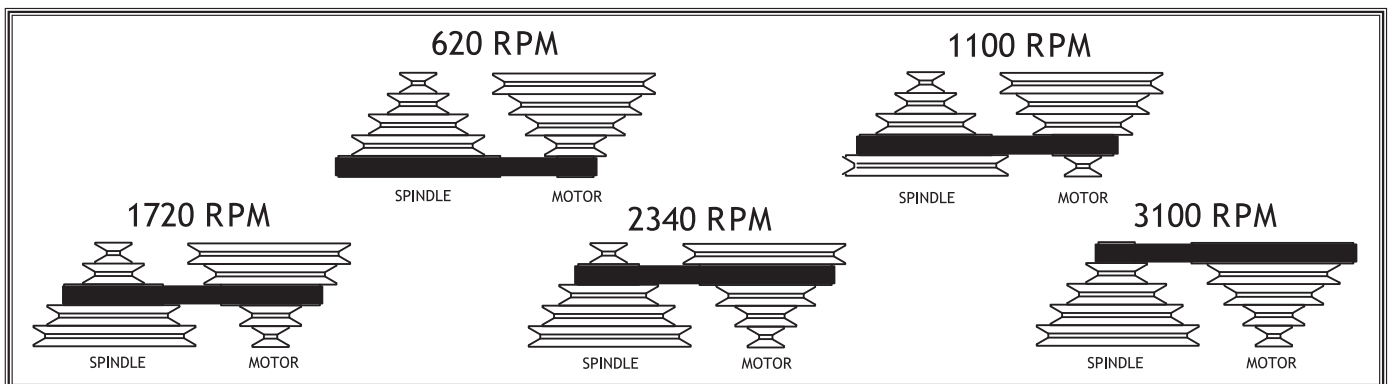


Figure 26. Drill press RPM chart.

Changing Drill Bit/Drum

Any drill bit or sanding drum you install in the chuck must be tight enough that it will not come loose during operation.

To change drill bit or drum, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Use chuck key to open chuck wide enough to remove installed bit or drum, then open it enough to accept new bit or sanding drum mandrel (see Figure 27).
3. Install bit or mandrel so chuck jaws grab as much of bit or shank as it can.
 - If you are installing small drill bit, make sure it is held between three jaws instead of only two, and NEVER allow chuck to grab fluted body of drill bits.
 - If you are installing sanding drum, install paper and drum before installing mandrel into drill chuck (see Accessories on Page 31 for some Shop Fox options).
4. Tighten chuck with chuck key (see Figure 28).
5. For drilling: Install table insert with smallest opening.

For sanding: Install table insert that has opening approximately $\frac{1}{4}$ " bigger than sanding drum (see Figure 29).

Note: Table insert is not needed when using 2" sanding drum.



Figure 27. Installing bit (chuck guard removed for clarity).



Figure 28. Chuck key engaged (chuck guard removed for clarity).



Figure 29. Table insert $\frac{1}{4}$ " bigger than sanding drum.

Adjusting Depth Stop

Your new drill press is fitted with a depth stop that allows drilling holes at a preset depth.

Tools Needed	Qty
Open-End Wrenches 17mm.....	2
Scrap Stock	As Needed

To adjust depth stop, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Open belt cover.
3. Rotate oscillator pulley (see Figure 30) until depth stop reads "0" (see Figure 31), then close belt cover.

NOTICE

BACK OFF depth stop completely and secure stop nuts before using oscillating feature. If depth stop is left adjusted for a shallow hole, or a nut rattles down stop while in operation, depth stop will bottom out and break oscillator.

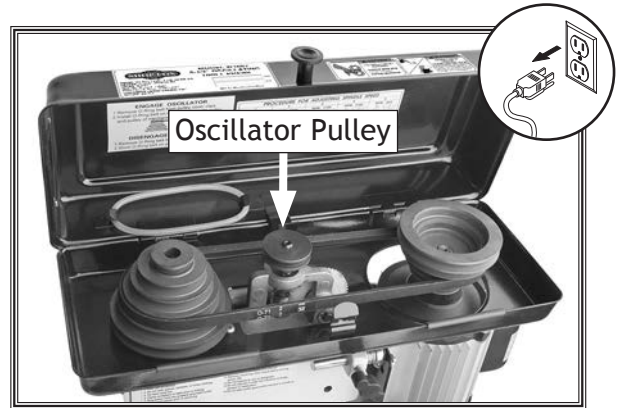


Figure 30. Location of oscillator pulley.

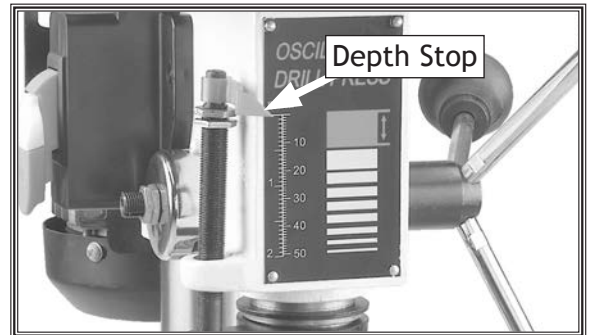


Figure 31. Depth stop pointing to "0".

4. Loosen jam nut on depth stop rod (see Figure 32).
5. Use spindle handles to move spindle down while watching pointer-to-scale relationship, stopping spindle at desired depth.
6. With spindle at desired depth, adjust stop nut until it contacts stop flange (see Figure 32), then release spindle handles.
7. Without moving stop nut, tighten jam nut against stop nut to secure position.
8. Drill test hole into scrap stock before drilling into workpiece, and re-adjust depth stop if necessary.

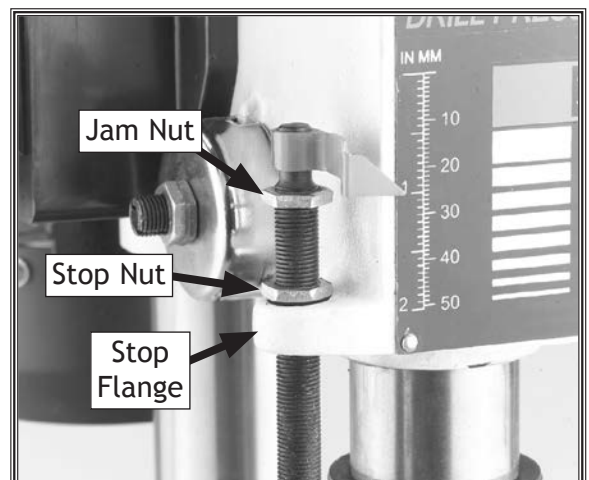


Figure 32. Location of jam and stop nuts.

Using Oscillator

One of the great features of the Model W1667 Oscillating Drill Press is its sanding capability. The drill press can be converted from drilling operations to sanding operations in just a few steps.

To use oscillator, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Remove spindle handles.
3. Open belt cover and remove oscillator belt from storage bracket (see Figure 33).
4. Stretch oscillator belt onto top groove of spindle and oscillating pulleys (see Figure 34).
5. Close belt cover.
6. Loosen depth stop jam and stop nuts until they are positioned at top of depth rod (see Figure 35), then tighten jam nut against stop nut to secure.

⚠ WARNING

Remove all three spindle handles before using oscillating feature. Handles will swing when drill press is turned ON and create impact hazard.

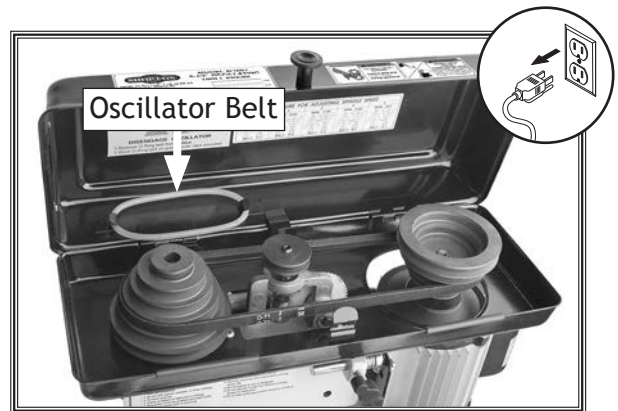


Figure 33. Location of oscillator belt.

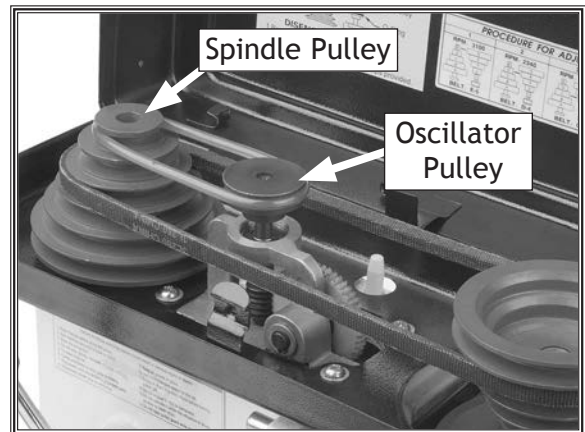


Figure 34. Oscillator belt around spindle and oscillating pulleys.

NOTICE

ALWAYS back off depth stop completely and secure depth stop nuts before using oscillating feature. If depth stop is left adjusted for shallow hole, or nuts rattle down to stop flange while in operation, depth stop will bottom out and break oscillator.

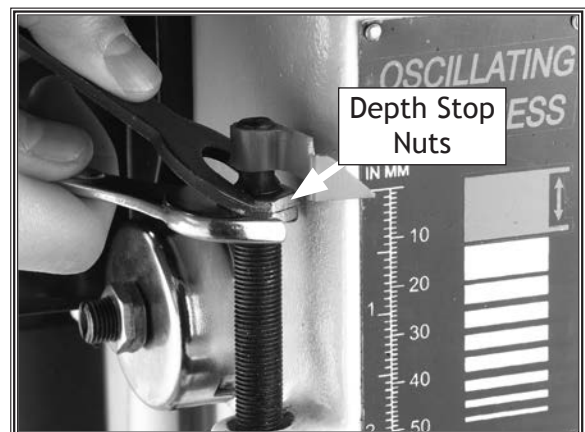


Figure 35. Backing off depth stop nuts.

7. Refer to **Changing Drill Bit/Drum on Page 27** to install desired sanding drum and table insert.
 - For general drill bits, small reamers, and miscellaneous small cutting and sanding bits, use the $\frac{5}{8}$ " and the 1" table inserts.
 - For the 1" sanding drum, use the $1\frac{5}{8}$ " table insert.
 - For the $1\frac{1}{2}$ " sanding drum, use the $1\frac{7}{8}$ " table insert.
 - For the 2" sanding drum, use no table insert.

8. Adjust table so table insert opening is centered to sanding drum, and table height will allow you to use entire length of sanding drum (see **Figure 36**).
 - If thickness of workpiece does not allow much table movement and sanding drum paper is partially worn on one end, remove drum from sanding mandrel, turn it end for end, and replace it on sanding mandrel to use newer part of sandpaper.



Figure 36. Sanding drum installed and table adjusted.

⚠ CAUTION

NEVER sand or drill without table in position to support workpiece and workpiece secured. Serious personal injury may occur.

9. Connect machine to power, then turn machine **ON** and perform sanding operation.

ACCESSORIES

Drill Press Accessories

The following drill press 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.

The **D2677 Shop Fox Spindle Sander Drum Kit** includes three rubber sanding drums 4¹/₄" in length to accommodate 1", 1¹/₂", and 2" diameter sanding sleeves. This kit also includes one 80-grit sleeve for each drum to get things started.



Note: Drum diameter sizes indicate OD of compatible sanding sleeves, not diameter of rubber drums.

The **D2722 Mandrel** has a 3/8" shank and is required to use the D2677 Spindle Sander Drum Kit with any machine. This mandrel is included with the Model W1667.

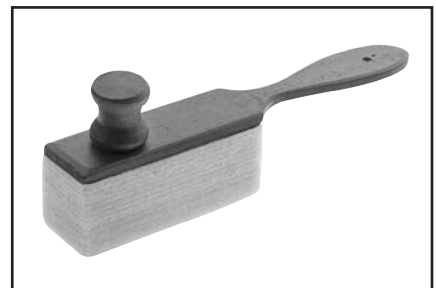


These Shop Fox **Sanding Sleeves** are sized to fit the **D2677 Spindle Sander Drum Kit**. These hard sanding sleeves are available in 60, 80, 100, 120, and 150 grits. Keep plenty of these consumable sleeves on hand.



Size (Dia. x Ht.)	60 Grit	80 Grit	100 Grit	120 Grit	150 Grit
1" x 4 ¹ / ₄ "	D2683	D2684	D2685	D2686	D2687
1 ¹ / ₂ " x 4 ¹ / ₄ "	D2688	D2689	D2690	D2691	D2692
2" x 4 ¹ / ₄ "	D2693	D2694	D2695	D2696	D2697

The **W1308 PRO-STIK® 4" Abrasive Belt/Disk Cleaner with Handle** is the easiest solution for increasing the life of sanding sleeves by removing pitch and sawdust particles from abrasive pores, which later harden in place if not removed. Simply press the cleaner lightly against the moving abrasive surface to remove clogged-up pitch and sawdust. PRO-STIK® cleaners are available in other sizes for any cleaning application that would need cleaners with handles, as blocks, or as flat pads.



OPERATIONS

MAINTENANCE

General

For optimum performance from this machine, this maintenance schedule must be strictly followed.

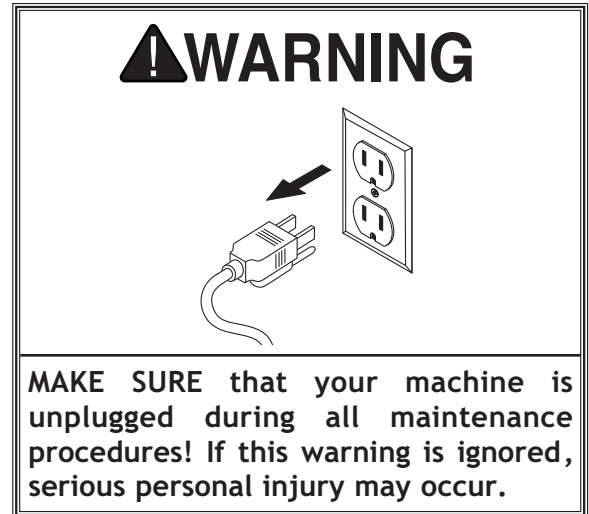
Ongoing

To minimize your risk of injury and maintain proper machine operation, shut down the machine immediately if you ever observe any of the items below, and fix the problem before continuing operations:

- Loose mounting bolts.
- Worn or damaged wires.
- Any other unsafe condition.

Monthly Check

- V-belt tension, damage, or wear.
- Apply light machine oil to table, column, and quill.



Cleaning & Protecting

Cleaning the Model W1667 is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it.

Protect the unpainted cast iron table and base by wiping them clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces. Keep your table and base rust-free with regular applications of quality lubricants.

Sanding Sleeves

As sanding drums are used, the abrasive sleeve will quickly become "loaded" with sawdust. If not removed, this sawdust will harden on the abrasive surface, rendering the sleeve useless. Routinely clean the sanding sleeve with a rubber gum abrasive cleaner like the PRO-STIK® cleaner shown on Page 31.

Always discard worn sanding sleeves. As abrasive sleeves begin to wear, grit will begin to fall off and cause gouges in the workpiece. Glue used to hold the grit to the paper will rub off onto the workpiece interfering with the final finish.



Inspecting/Replacing Belts

Inspect the belts regularly for tension and wear. The oscillator belt tension is not adjustable. If the oscillator belt shows cracks or is slipping on the pulleys, replace the belt with a new one. Refer to **Figure 37** for proper belt tension of the V-belt. When the V-belt is pinched together with moderate force, there should be about 1½" between the belt.

To replace the V-belt, refer to **Changing Spindle Speed** on **Page 24** to release belt tension.

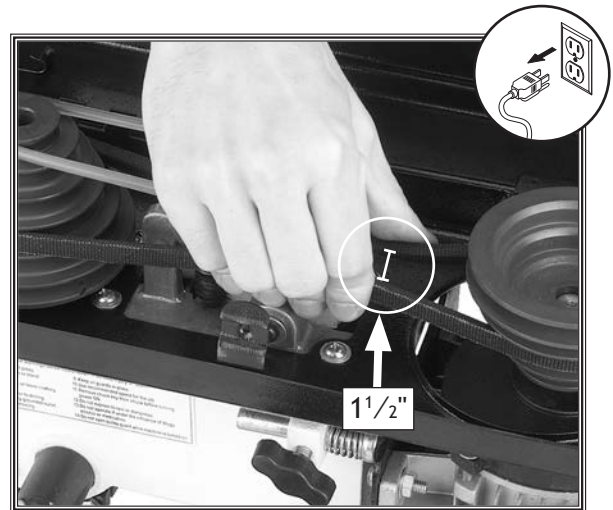


Figure 37. Measuring belt deflection.

Lubrication

Since all bearings are shielded and permanently lubricated, simply leave them alone until they need to be replaced. Do not lubricate them.

An essential part of lubrication is cleaning the components before lubricating them.

This step is critical because grime, chips, and dust build up on lubricated components, which makes them hard to move. Simply adding more lubricant will not result in smooth moving parts.

DISCONNECT MACHINE FROM POWER BEFORE PERFORMING LUBRICATION!

Quill & Column Surfaces

Lubrication Type ISO 68 Way Oil
 Lubrication Amount..... Thin Coat
 Lubrication Frequency 8 Hrs. of Operation

Move the spindle all the way down to access the smooth surfaces of the quill (see **Figure 38**). Adjust table height as necessary to access entire length of column (see **Figure 39**). Clean both with mineral spirits and shop rags.

Note: Avoid removing the grease from the column and quill racks during cleaning.

After cleaning, allow mineral spirits to dry, then apply a thin coat of oil to the surfaces.



Figure 38. Cleaning quill surfaces.

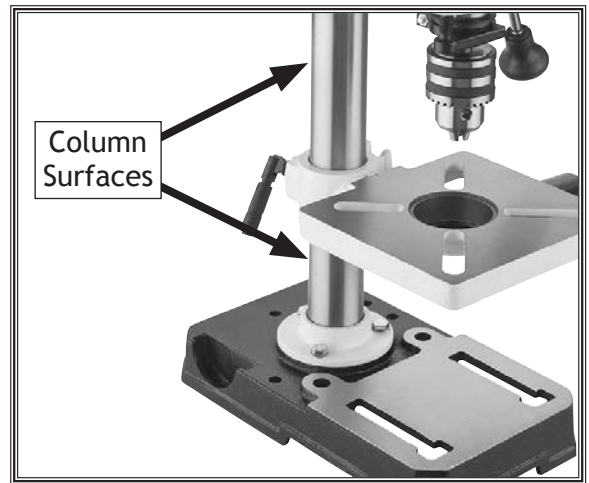


Figure 39. Location of column surfaces.

Quill Rack & Pinion

Lubrication Type NLGI#2 Grease
 Lubrication Amount..... Thin Coat
 Lubrication Frequency 90 Hrs. of Operation

Move spindle all the way down to gain full access to the quill rack (see **Figure 40**), then clean teeth with mineral spirits, shop rags, and a brush.

After cleaning, allow mineral spirits to dry, then use a clean brush to apply a thin coat of grease to the rack teeth, then fully raise/lower quill to distribute the grease.

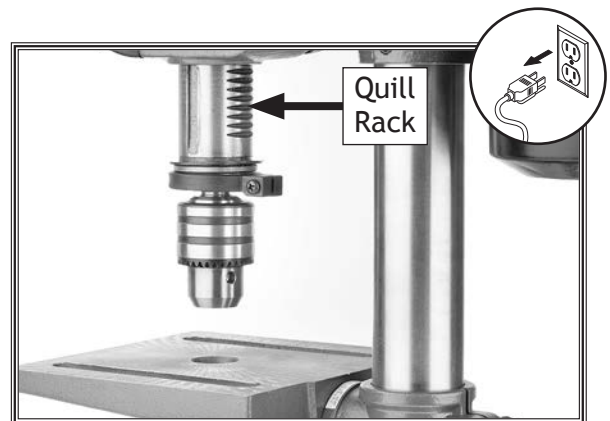


Figure 40. Example of quill rack exposed.

SERVICE

General

This section covers the most common service adjustments or procedures that may need to be made during the life of your machine.

If you require additional machine service not included in this section, please contact Woodstock International Technical Support at (360) 734-3482 or send e-mail to: techsupport@woodstockint.com.

Adjusting Quill Shaft Screw

While you may never need to adjust the quill shaft screw, you should understand its function and know how to adjust it should you ever need to remove the quill for cleaning. This screw prevents the quill from rotating during drilling and sanding procedures, and if adjusted incorrectly, the quill may lash or bind.

Tools Needed	Qty
Open-End Wrench 10mm.....	1
Hex Wrench 3mm	1

To adjust quill shaft screw, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Clean and lubricate quill (see **Figure 41**) as described in **Lubrication** on **Page 34**. Quill should travel freely.
3. Loosen jam nut shown in **Figure 42**.
4. Turn quill shaft screw clockwise or counterclockwise to establish free, unbinding travel while moving quill up and down through its entire range of travel (see **Figure 42**).
5. When quill shaft screw is adjusted inward against quill as far as screw can go without binding quill, hold screw in place while you tighten jam nut.
6. Re-check quill for binding and looseness while moving quill up and down through its entire range of travel and re-adjust as required.

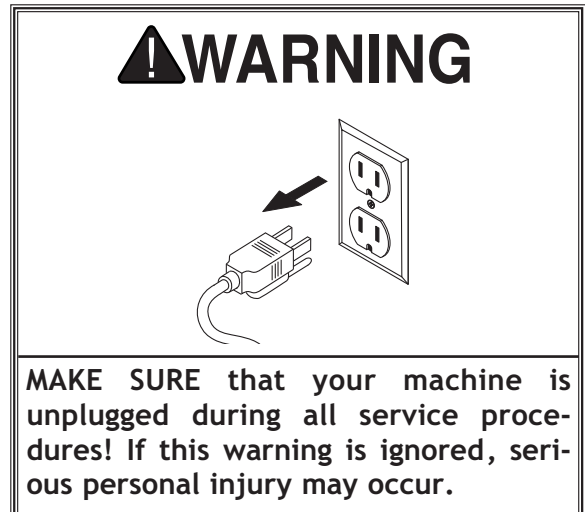


Figure 41. Cleaning quill.

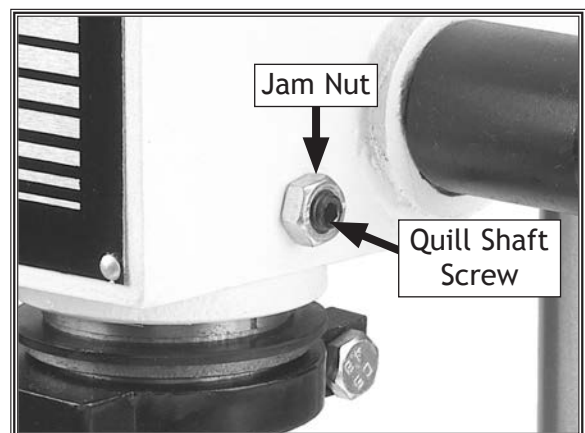


Figure 42. Location of quill shaft screw and jam nut.

SERVICE

Tensioning Feed Shaft Return Spring


The feed shaft return spring is adjusted at the factory; however, during the life of the drill press you may want to adjust the feed shaft return spring at a stronger return pressure.

Tools Needed	Qty
Safety Glasses	1 Pr.
Shop Rags	As Needed
Heavy Leather Gloves	1 Pr.
Open-End Wrench 10mm.....	1
Hex Wrench 3mm	1

To tension feed shaft return spring, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Wipe off any oil on spring lock cover so it will not slip when you hold cover to keep it from spinning (see Figure 43).

3. Make sure quill is completely seated in headstock and depth stop reads "0" (see Figure 44).



!WARNING
If the return spring should come loose from the spring cap and rapidly unwind, laceration or impact injury could occur. Always wear heavy leather gloves and safety glasses when adjusting the return spring tension.



Figure 43. Location of spring lock cover.

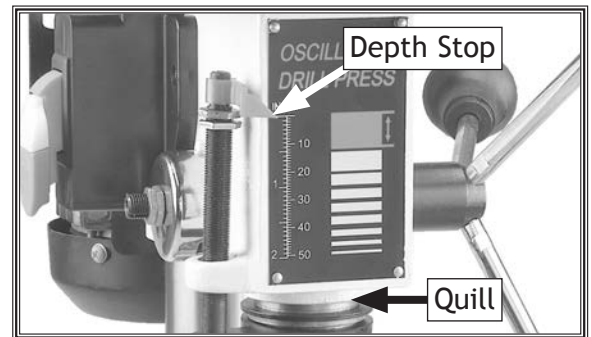


Figure 44. Quill fully seated and depth stop adjusted to "0".

- Put on thick leather gloves and hold spring cover against side of headstock so cover stays splined with locking lug, remove jam nut, then loosen cover nut approximately $\frac{1}{4}$ " (6.4mm) (see **Figure 45**).

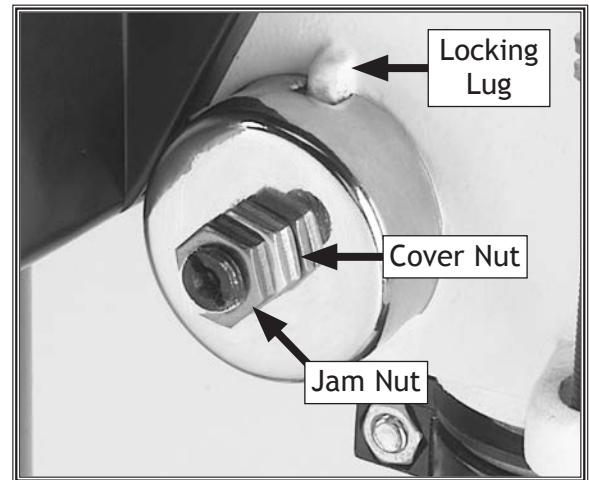


Figure 45. Return spring adjustment components.

- Pull cover outward just enough to disengage spring cover lock slot from locking lug (see **Figure 46**).
- Rotate cover counterclockwise to increase spring tension, or let cover slowly unwind in clockwise direction to reduce spring tension.
- Engage next available spring cover lock slot with locking lug, and hold spring lock cover tightly against side of headstock.
- Snug cover nut against spring cover just until nut stops, then back-off nut approximately $\frac{1}{3}$ turn, or just enough so there is no binding anywhere along complete spindle travel.
- Hold cover nut in place, then tighten jam nut against cover nut to secure.

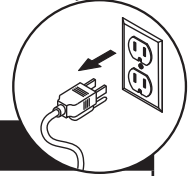


Figure 46. Location of spring cover lock slot.

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
Machine does not start, or power supply breaker trips immediately after startup.	<ol style="list-style-type: none"> 1. Switch disabling key removed. 2. Belt cover open. 3. Incorrect power supply voltage or circuit size. 4. Power supply circuit breaker tripped or fuse blown. 5. Motor wires connected incorrectly. 6. Wiring broken, disconnected, or corroded. 7. ON/OFF switch at fault. 8. Belt cover limit switch at fault. 9. Motor or motor bearings at fault. 	<ol style="list-style-type: none"> 1. Install switch disabling key. 2. Close cover. 3. Ensure correct power supply voltage and circuit size (Page 11). 4. Ensure circuit is free of shorts. Reset circuit breaker or replace fuse. 5. Correct motor wiring connection (Page 41). 6. Fix broken wires or disconnected/corroded connections (Page 41). 7. Replace switch. 8. Replace switch. 9. Replace motor.
Machine stalls or is underpowered.	<ol style="list-style-type: none"> 1. Wood workpiece material unsuitable for drilling/sanding. 2. Metal workpiece material unsuitable for drilling. 3. Feed rate/cutting speed too fast. 4. Belt(s) slipping/pulleys misaligned. 5. Motor wires connected incorrectly. 6. Pulley slipping on shaft. 7. Machine undersized for task. 8. Motor overheated. 9. Run capacitor at fault. 10. Extension cord too long. 11. Motor or motor bearings at fault. 	<ol style="list-style-type: none"> 1. Only cut/sand wood/ensure wood is below 20%. 2. Use correct size/type of metal. 3. Decrease feed rate/cutting speed (Page 24). 4. Clean/tension/replace belts (Page 33); ensure pulleys are aligned. 5. Correct motor wiring connection (Page 41). 6. Tighten/replace loose pulley. 7. For drilling: Use sharp bits/reduce feed rate/reduce spindle RPM (Page 24). For sanding: Clean/replace sandpaper; reduce feed rate/sanding depth. 8. Clean motor, let cool, and reduce workload. 9. Test/repair/replace. 10. Move machine closer to power supply; user shorter extension cord. 11. Replace motor.
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> 1. Motor or component loose. 2. Belts worn, loose, pulleys misaligned or belt slapping cover. 3. Pulley loose. 4. Incorrectly mounted to workbench. 5. Motor mount loose/broken. 6. Workpiece loose. 7. Motor fan rubbing on fan cover. 8. Spindle bearings at fault. 9. Motor bearings at fault. 10. Chuck or cutter at fault. 	<ol style="list-style-type: none"> 1. Replace damaged or missing bolts/nuts or tighten if loose. 2. Inspect/replace belts. Realign pulleys if necessary. 3. Secure pulley on shaft. 4. Shim or tighten mounting hardware. 5. Tighten/replace. 6. Use correct holding fixture and reclamp workpiece. 7. Fix/replace fan cover; replace loose/damaged fan. 8. Test by rotating spindle; rotational grinding/loose shaft requires bearing replacement 9. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement. 10. Replace unbalanced chuck; sharpen/replace cutter; use correct feed rate.

Operation

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Tool falls out or loose in chuck.	<ol style="list-style-type: none"> 1. Chuck jaws loose. 2. Debris on tool. 3. Excessive feed pressure. 	<ol style="list-style-type: none"> 1. Tighten chuck jaws. 2. Clean tool, then re-install. 3. Decrease feed pressure and allow chips to clear.
Breaking tools or cutters.	<ol style="list-style-type: none"> 1. Spindle speed/feed rate too fast. 2. Taking too big of a cut at one time. 3. Improper cutting technique or type of cut for tool/machine. 4. Cutting tool too small. 5. Cutting tool getting too hot. 6. Spindle extended too far down during or at beginning of operation. 	<ol style="list-style-type: none"> 1. Reduce spindle speed (Page 24); reduce feed rate. 2. Decrease feed pressure and allow chips to clear. 3. Use right technique, tool, or machine for job. 4. Use larger cutting tool and slower feed rate. 5. Use coolant or oil for appropriate application; reduce cutting speed. 6. Fully retract spindle and raise table to increase rigidity.
Workpiece or tool vibrates or chatters during operation.	<ol style="list-style-type: none"> 1. Spindle extended too far down during or at beginning of operation. 2. Table lock not tight. 3. Workpiece not secure. 4. Spindle speed/feed rate too fast. 5. Quill shaft lock screw not adjusted correctly. 	<ol style="list-style-type: none"> 1. Fully retract spindle and raise table to increase rigidity. 2. Tighten table lock (Page 23). 3. Properly clamp workpiece on table or in vise. 4. Reduce spindle speed (Page 24); reduce feed rate. 5. Adjust quill shaft screw (Page 35).
Table hard to move.	<ol style="list-style-type: none"> 1. Table locked. 	<ol style="list-style-type: none"> 1. Disengage table lock (Page 23).
Bad surface finish.	<ol style="list-style-type: none"> 1. Spindle speed/feed rate too fast. 2. Dull or incorrect cutting tool/bit. 3. Workpiece not secure. 4. Spindle extended too far down during or at beginning of operation. 	<ol style="list-style-type: none"> 1. Reduce spindle speed (Page 24); reduce feed rate. 2. Sharpen cutting tool or select one that better suits the operation. 3. Properly clamp workpiece on table or in vise. 4. Fully retract spindle and raise table to increase rigidity.
Spindle overheats.	<ol style="list-style-type: none"> 1. Machine operated at high speeds for extended period. 	<ol style="list-style-type: none"> 1. Allow drill to cool.
Spindle does not fully retract.	<ol style="list-style-type: none"> 1. Poorly adjusted return spring. 2. Debris on spindle/quill rack. 3. Worn return spring. 4. Oscillator not in parked position. 	<ol style="list-style-type: none"> 1. Increase return spring tension (Page 36). 2. Clean and lubricate spindle/quill rack (Page 34). 3. Replace return spring. 4. Rotate oscillator pulley until quill is fully seated in headstock.
Drill bit drifts.	<ol style="list-style-type: none"> 1. Dull/incorrectly sharpened drill bit. 2. Tool/bit/chuck incorrectly installed. 	<ol style="list-style-type: none"> 1. Correctly sharpen drill bit. 2. Correctly re-install tool/bit (Page 27)/chuck (Page 18).
Drill bit stuck in workpiece.	<ol style="list-style-type: none"> 1. Workpiece squeezing drill bit, or feed rate too fast. 2. Spindle speed/feed rate too slow. 	<ol style="list-style-type: none"> 1. Properly clamp workpiece on table or in vise; decrease feed rate. 2. Increase spindle speed (Page 24); increase feed rate.
Workpiece thrown from table.	<ol style="list-style-type: none"> 1. Workpiece not secure. 2. Tool/bit too large for feed speed. 	<ol style="list-style-type: none"> 1. Properly clamp workpiece on table or in vise. 2. Decrease feed speed.
Excessive runout or wobbling in chuck/drill bit.	<ol style="list-style-type: none"> 1. Tool/bit bent. 2. Tool/bit installed incorrectly. 3. Spindle bearings worn. 	<ol style="list-style-type: none"> 1. Replace with straight tool/bit. 2. Install tool/bit correctly (Page 27). 3. Replace spindle bearings.
Back side of workpiece splinters.	<ol style="list-style-type: none"> 1. Scrap board not installed between table and workpiece. 	<ol style="list-style-type: none"> 1. Install scrap board between table and workpiece.
Drum wobbling in chuck.	<ol style="list-style-type: none"> 1. Mandrel bent or installed incorrectly. 2. Spindle bearings worn. 	<ol style="list-style-type: none"> 1. Replace/install mandrel correctly (Page 27). 2. Replace spindle bearings.
Drill press does not oscillate.	<ol style="list-style-type: none"> 1. Oscillator belt broken. 2. Oscillation mechanism at fault. 	<ol style="list-style-type: none"> 1. Replace oscillator belt (Page 33). 2. Remove oscillation mechanism and replace broken parts.

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

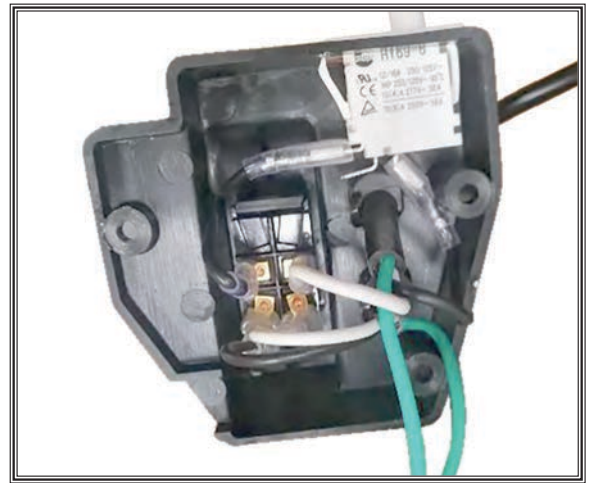
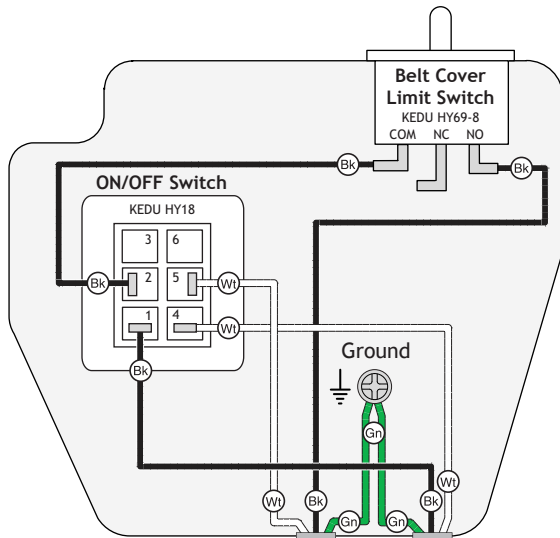
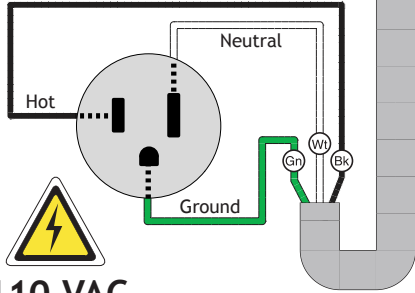


Figure 48. ON/OFF and limit switch wiring.



110 VAC
 5-15 Plug

Read Page 40
STOP
 Before Wiring

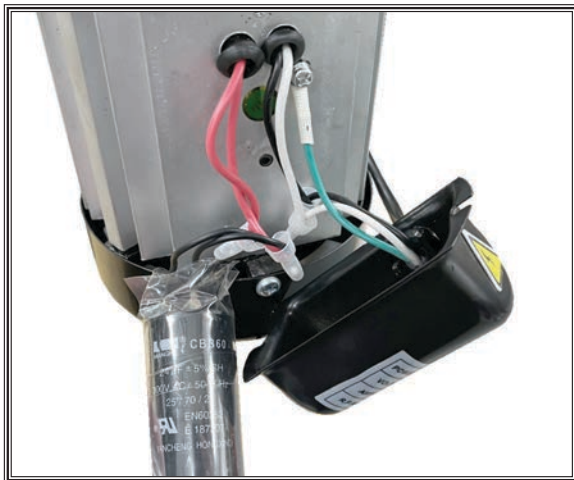
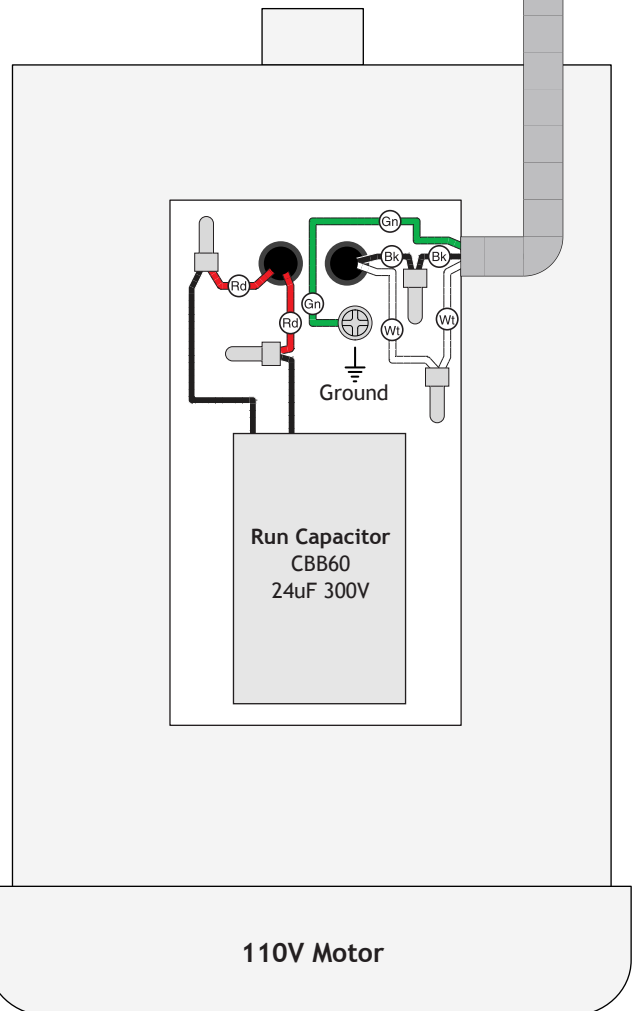


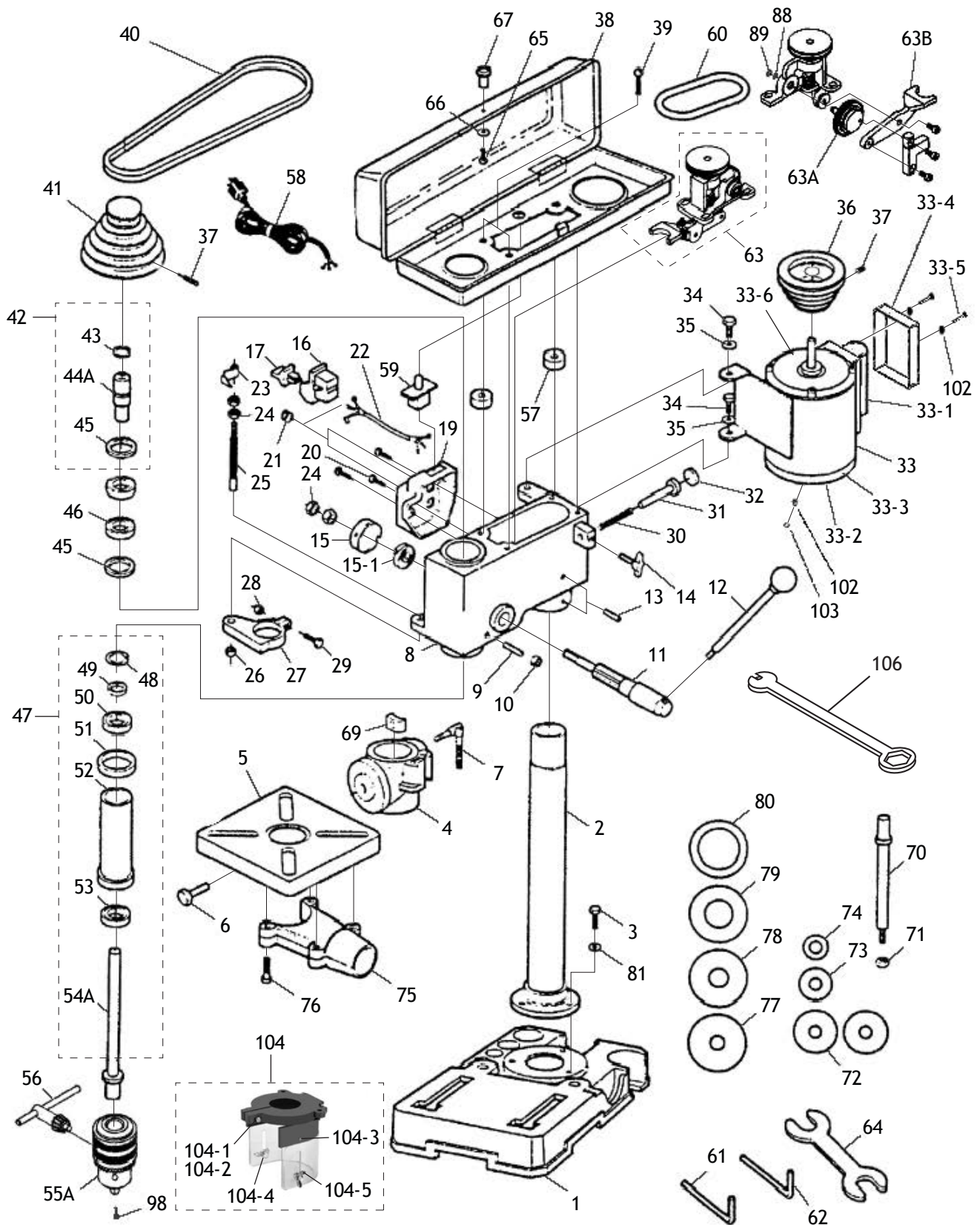
Figure 47. Motor and capacitor wiring.



SERVICE

PARTS

Main

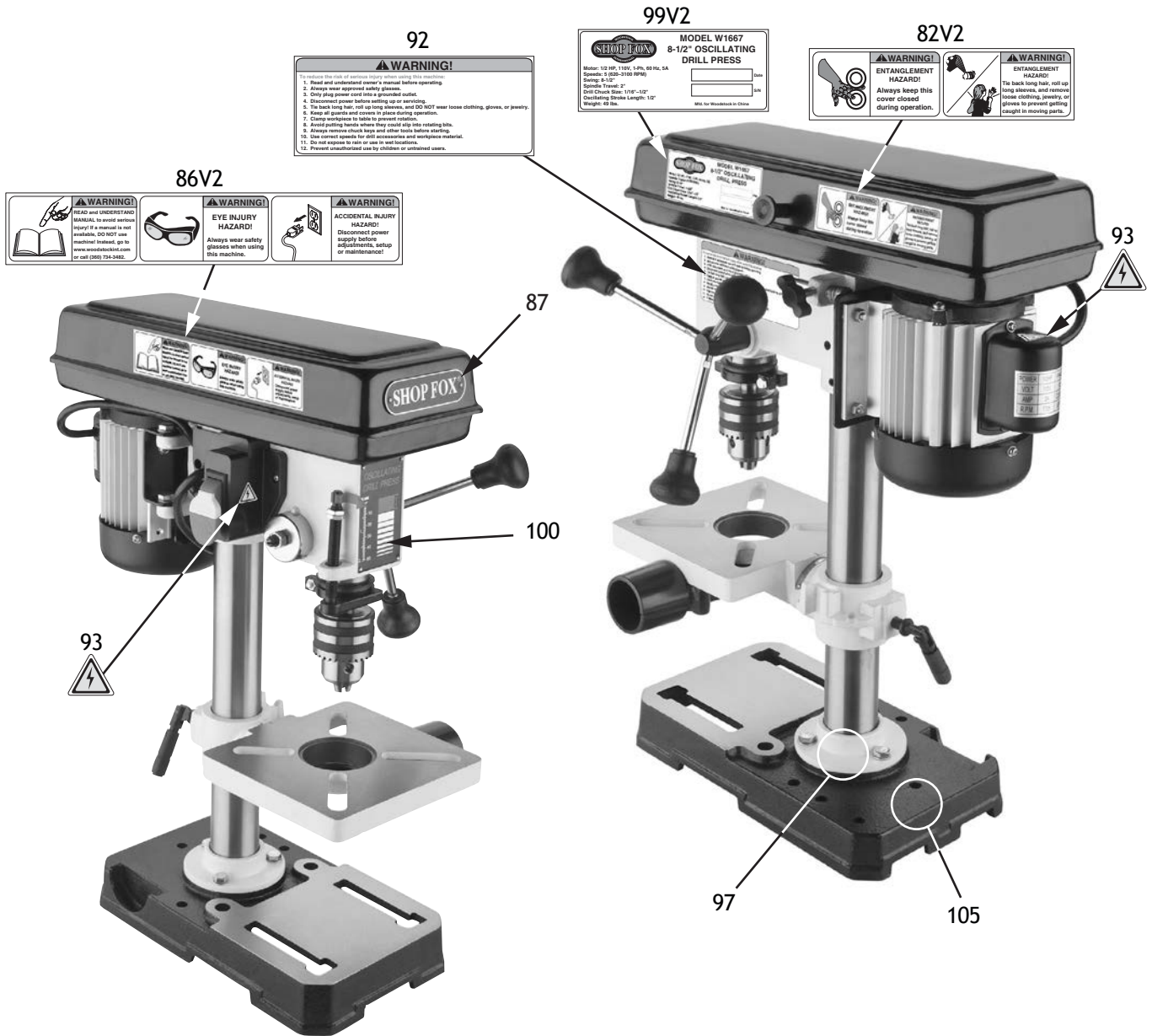


PARTS

Main Parts List

REF	PART #	DESCRIPTION	REF	PART #	DESCRIPTION
1	X1667001	BASE	45	X1667045	INT RETAINING RING 40MM
2	X1667002	COLUMN	46	X1667046	BALL BEARING 6203-2RS
3	X1667003	HEX BOLT M8-1.25 X 20	47	X1667047	QUILL ASSEMBLY
4	X1667004	TABLE BRACKET	48	X1667048	RETAINING RING
5	X1667005	TABLE	49	X1667049	COLLAR
6	X1667006	HEX BOLT M12-1.75 X 25	50	X1667050	BALL BEARING 6201-2RS
7	X1667007	LOCK HANDLE	51	X1667051	COLLAR
8	X1667008	HEAD CASTING	52	X1667052	QUILL
9	X1667009	SET SCREW M6-1 X 18	53	X1667053	BALL BEARING 6201-2RS
10	X1667010	HEX NUT M6-1	54A	X1667054A	SPINDLE SHAFT V2.08.02
11	X1667011	FEED SHAFT	55A	X1667055A	CHUCK 1-13 MM JT33 V2.06.02
12	X1667012	HANDLE BAR	56	X1667056	DRL CHK KEY 6MM TH-SE 12T SD-14.2MM
13	X1667013	SET SCREW M8-1.25 X 8	57	X1667057	COVER SPACER
14	X1667014	LOCK SCREW	58	X1667058	POWER CORD
15	X1667015	RETURN SPRING ASSY	59	X1667059	LIMIT SWITCH
15-1	X1667015-1	RETURN SPRING	60	X1667060	OSCILLATOR BELT
16	X1667016	JAM NUT M10-1.0	61	X1667061	HEX WRENCH 3MM
17	X1667017	PADDLE SWITCH KEY	62	X1667062	HEX WRENCH 4MM
19	X1667019	SWITCH COVER	63	X1667063	OSCILLATING MECHANISM ASSY
20	X1667020	MACHINE SCREW M4 X 8MM	63A	X1667063A	PLASTIC GEAR
21	X1667021	STRAIN RELIEF	63B	X1667063B	OSCILLATING MECH. ARM
22	X1667022	SWITCH CORD	64	X1667064	WRENCH 13 X 14MM
23	X1667023	DEPTH STOP POINTER	65	X1667065	MACHINE SCREW M5 X 14MM
24	X1667024	HEX JAM NUT M10	66	X1667066	FLAT WASHER 5MM
25	X1667025	DEPTH STOP ROD	67	X1667067	COVER KNOB
26	X1667026	HEX NUT M8-1.25	69	X1667069	LOCK SHOE
27	X1667027	DEPTH ROD BRACKET	70	X1667070	MANDREL
28	X1667028	HEX NUT M6-1	71	X1667071	HEX NUT M8-1.25
29	X1667029	HEX BOLT M6-1 X 22	72	X1667072	FLAT WASHER 14MM
30	X1667030	SPRING	73	X1667073	FLAT WASHER 8MM BLACK
31	X1667031	PUSH ROD	74	X1667074	MANDREL WASHER 5/8"
32	X1667032	RUBBER PAD	75	X1667075	DUST HOOD 2PC
33	X1667033	MOTOR 1/2HP 110V 1-PH	76	X1667076	MACHINE SCREW M4 X 22MM
33-1	X1667033-1	R CAPACITOR 24M 300V 1-1/2 X 2-3/4	77	X1667077	TABLE INSERT 5/8"
33-2	X1667033-2	MOTOR FAN	78	X1667078	TABLE INSERT 1"
33-3	X1667033-3	MOTOR FAN COVER	79	X1667079	TABLE INSERT 1-5/8"
33-4	X1667033-4	MOTOR BOX COVER	80	X1667080	TABLE INSERT 1-7/8"
33-5	X1667033-5	MOTOR BOX COVER SCREW M4 X 6	81	X1667081	FLAT WASHER 8MM
33-6	X1667033-6	CAST IRON MOTOR END PLATE	88	X1667088	FLAT WASHER 8MM
34	X1667034	HEX BOLT M8-1.25 X 16	89	X1667089	EXT RETAINING RING 7MM
35	X1667035	FLAT WASHER 8MM	98	X1667098	CAP SCREW M5-.8 X 20
36	X1667036	MOTOR PULLEY	102	X1667102	FLAT WASHER 4MM
37	X1667037	SET SCREW M6-1 X 10	103	X1667103	PHLP HD SCR M4-.7 X 18
38	X1667038	PULLEY COVER	104	X1667104	CHUCK GUARD ASSEMBLY
39	X1667039	MACHINE SCREW M6 X 20MM	104-1	X1667104-1	PHLP HD SCR M4-.7 X 30
40	X1667040	V-BELT M28 3L280	104-2	X1667104-2	HEX NUT M4-.7
41	X1667041	SPINDLE PULLEY	104-3	X1667104-3	TAP SCREW M2.2 X 4.5
42	X1667042	DRIVE SLEEVE ASSY	104-4	X1667104-4	HEX BOLT M5-.8 X 12
43	X1667043	RETAINING RING	104-5	X1667104-5	WING NUT M5-.8
44A	X1667044A	INT SPINE SLV FOR RND SPLINE V2.03	106	X1667106	COMBO WRENCH 7 X 18MM

Labels & Cosmetics



REF	PART #	DESCRIPTION
82V2	X1667082V2	LONG HAIR SAFETY LABEL V2.06.22
86V2	X1667086V2	COMBO WARNING LABEL V2.06.22
87	X1667087	SHOP FOX NAMEPLATE
92	X1667092	WARNING LABEL
93	X1667093	ELECTRICITY LABEL

REF	PART #	DESCRIPTION
97	X1667097	TOUCH-UP PAINT, SHOP FOX BEIGE
99V2	X1667099V2	MACHINE ID LABEL V2.06.22
100	X1667100	DEPTH CHART LABEL
105	X1667105	TOUCH-UP PAINT, SHOP FOX BLACK

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.

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.

To register the warranty, go to <https://www.woodstockint.com/warranty>, or scan the QR code below. You will be directed to the Warranty Registration page on www.woodstockint.com. Enter all applicable production information.



High Quality Machines and Tools

Woodstock International, Inc. carries thousands of products designed to meet the needs of today's woodworkers and metalworkers. Ask your dealer about these fine products:



PRO-STIK®
ABRASIVE BELT & DISC CLEANER

BROSNA®
PRECISION STOP BLOCK

PARROT VISE®

THE REBEL®

Aluma-Classic®

STEELEX®
FINE TOOLS

PLANER PAL®

JOINTER PAL®

STEELEX®
PLUS

Rotacator®

slickplane®

ACCU-SHARP®
BOARD BUDDIES®

WHOLESALE ONLY

WOODSTOCK®
INTERNATIONAL INC.

Phone: (360) 734-3482

Fax: (360) 671-3053

Toll Free Fax: (800) 647-8801

P.O. Box 2309, Bellingham, WA 98227

woodstockint.com