

# MODEL W1680 17" DRILL PRESS



## OWNER'S MANUAL

*(FOR MODELS MANUFACTURED SINCE 06/22)*

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

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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.

# Contents

<b>INTRODUCTION</b> .....	<b>2</b>	<b>ACCESSORIES</b> .....	<b>34</b>
Woodstock Technical Support .....	2	Drill Press Accessories .....	34
Controls & Components .....	6	<b>MAINTENANCE</b> .....	<b>35</b>
<b>SAFETY</b> .....	<b>8</b>	General .....	35
Standard Machinery Safety Instructions .....	8	Cleaning & Protecting .....	35
Additional Safety for Drill Presses .....	10	Inspecting/Replacing Belts .....	35
<b>ELECTRICAL</b> .....	<b>11</b>	Lubrication .....	36
Circuit Requirements .....	11	<b>SERVICE</b> .....	<b>38</b>
Grounding Requirements .....	12	General .....	38
Extension Cords .....	12	Depth Stop Calibration .....	38
<b>SETUP</b> .....	<b>13</b>	Tensioning Feed Shaft Return Spring .....	39
Unpacking .....	13	Adjusting Quill Shaft Screw .....	40
Items Needed for Setup .....	13	Troubleshooting .....	41
Hardware Recognition Chart .....	14	Electrical Safety Instructions .....	43
Inventory .....	15	Wiring Diagram .....	44
Cleaning Machine .....	16	<b>PARTS</b> .....	<b>45</b>
Machine Placement .....	17	Main .....	45
Anchoring to Floor .....	18	Labels & Cosmetics .....	48
Assembly .....	20	<b>WARRANTY</b> .....	<b>49</b>
Test Run .....	24		
<b>OPERATIONS</b> .....	<b>25</b>		
General .....	25		
Installing/Removing Arbor .....	26		
Installing/Removing Drill Bit .....	28		
Adjusting Table .....	29		
Changing Spindle Speed .....	30		
Calculating Spindle Speed for Drilling .....	32		
Adjusting Depth Stop .....	33		

USE THE QUICK GUIDE PAGE LABELS TO SEARCH OUT INFORMATION FAST!





# 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](mailto: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](mailto:manuals@woodstockint.com)

### WARNING

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.

### WARNING

Like all machinery, there is a potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.



# MACHINE SPECIFICATIONS



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## MODEL W1680 17" DRILL PRESS

### Product Dimensions

Weight..... 185 lbs.  
 Width (side-to-side) x Depth (front-to-back) x Height..... 15 x 27-1/2 x 66 in.  
 Footprint (Length x Width)..... 20-1/2 x 12-1/2 in.

### Shipping Dimensions

Type..... Cardboard Box  
 Content..... Machine  
 Weight..... 235 lbs.  
 Length x Width x Height..... 21 x 56 x 11 in.

### Electrical

Power Requirement..... 110V, Single-Phase, 60 Hz  
 Prewired Voltage..... 110V  
 Full-Load Current Rating..... 10A  
 Minimum Circuit Size..... 15A  
 Connection Type..... Cord & Plug  
 Power Cord Included..... Yes  
 Power Cord Length..... 8-1/2 ft.  
 Power Cord Gauge..... 16 AWG  
 Plug Included..... Yes  
 Included Plug Type..... 5-15  
 Switch Type..... Toggle Safety Switch w/Removable Key

### Motors

#### Main

Horsepower..... 1 HP  
 Phase..... Single-Phase  
 Amps..... 10A  
 Speed..... 1725 RPM  
 Type..... TEFC Capacitor-Start Induction  
 Power Transfer ..... V-Belt Drive  
 Bearings..... Shielded & Permanently Lubricated  
 Centrifugal Switch/Contacts Type..... Internal



**Main Specifications**

**Operation Information**

Type.....	Floor
Swing.....	17 in.
Spindle Taper.....	MT#3
Spindle Travel.....	3-1/4 in.
Max. Distance From Spindle to Column.....	8-1/2 in.
Max. Distance From Spindle to Table.....	31-1/2 in.
Number of Spindle Speeds.....	12
Range of Spindle Speeds.....	140 - 3050 RPM
Max. Head Swivel.....	360 deg.
Drilling Capacity (Mild Steel).....	1 in. in Steel
Drill Chuck Type.....	JT3 Key Chuck
Drill Chuck Size.....	1/16 - 5/8 in.

**Spindle Information**

Distance From Spindle to Base.....	49 in.
Quill Diameter.....	2.040 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.....	26 in.
Table Diameter.....	14 in.
Table Thickness.....	1-3/16 in.
Vertical Table Travel.....	Crank Handle Operation
Number of T-Slots.....	6
T-Slot Size.....	5/8 in.
Floor-To-Table Height.....	20 - 46 in.

**Construction**

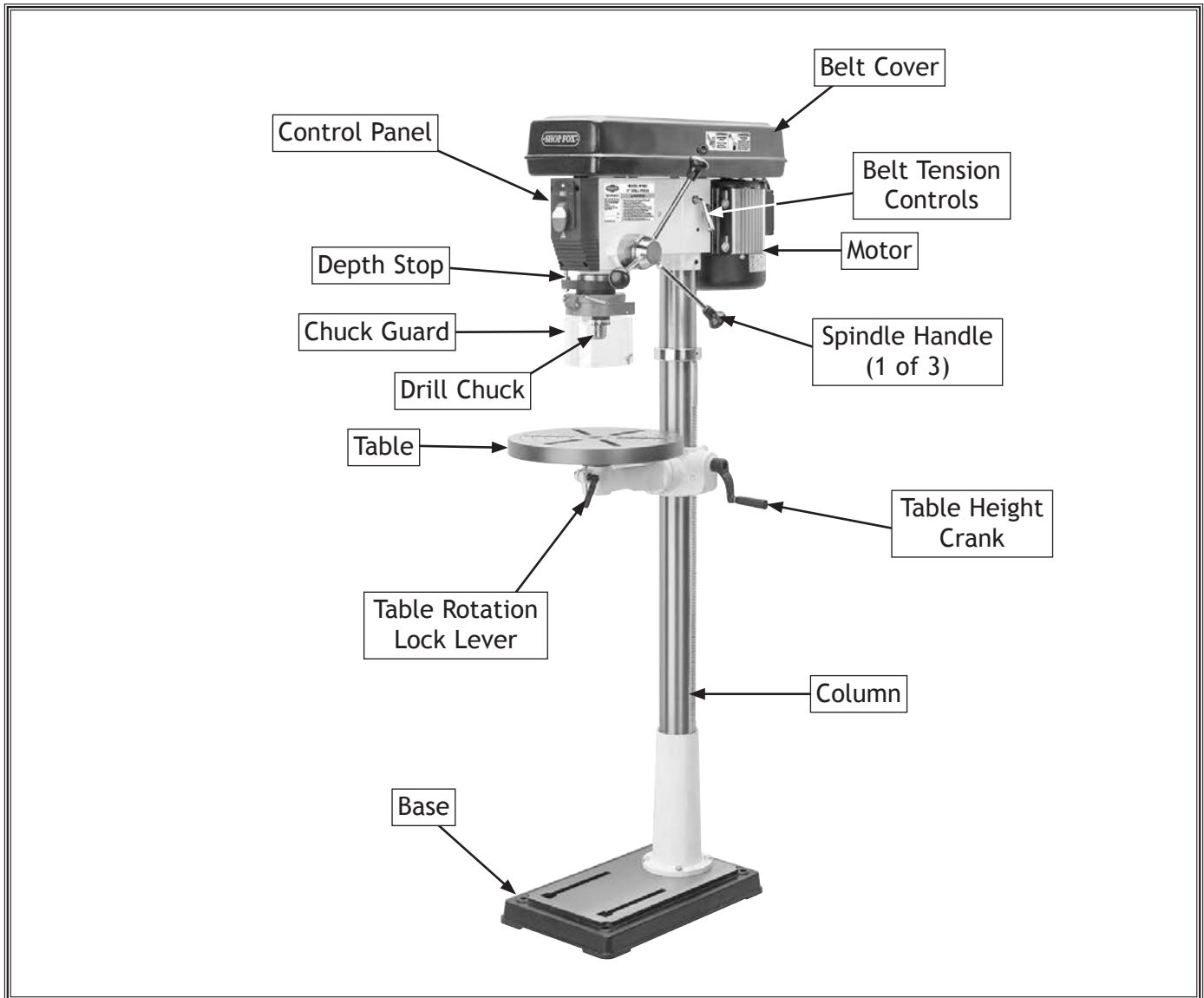
Table.....	Precision-Ground Cast Iron
Column.....	Steel
Spindle Housing.....	Cast Iron
Head.....	Cast Iron
Base.....	Cast Iron
Paint Type/Finish.....	Enamel

**Other Related Information**

Base Length.....	20-1/2 in.
Base Width.....	12-1/2 in.
Mobile Base.....	D2057A
Column Diameter.....	3.150 in.
Depth Stop Type.....	Threaded Rod with Positive Stop
Has Work Light.....	Yes
Light Socket Type.....	110V, Std Bulb
Maximum Bulb Wattage.....	60W

# 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 1-5** 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. **Light ON/OFF Switch:** Turns light *ON* and *OFF*.
- B. **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.
- C. **Spindle Return Spring:** Automatically returns quill into headstock.
- D. **Depth Stop:** Stops spindle travel at predetermined depth.

## **WARNING**



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

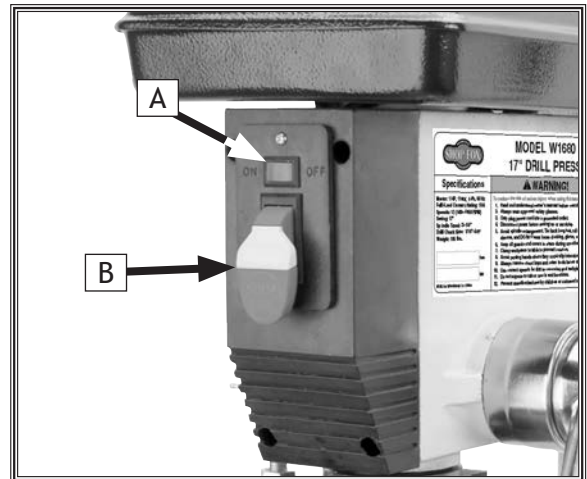


Figure 1. Control panel.

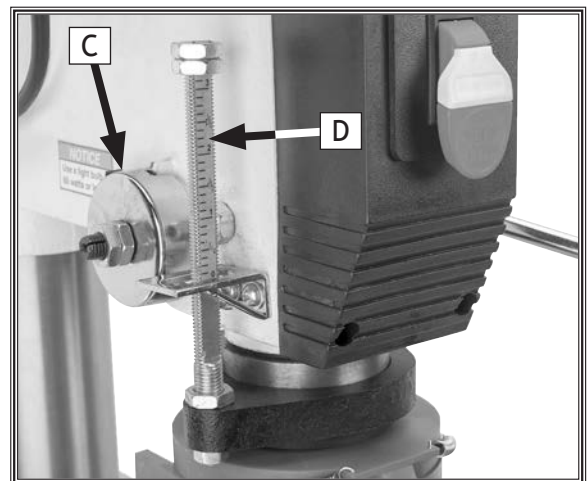


Figure 2. Left side of headstock.



- E. **Spindle Handle (1 of 3):** Moves spindle down when pulled down. Spindle automatically returns to top position when released.
- F. **Belt Tension Lock Knob (1 of 2):** Locks motor position to keep V-belts tensioned.
- G. **Belt Tension Lever:** Adjusts motor position to tension and release V-belts.



Figure 3. Right side of headstock.

- H. **Spindle Pulley:** Transfers power from idler pulley to spindle.
- I. **Idler Pulley:** Transfers power from motor to spindle.
- J. **Motor Pulley:** Transfers motor power to drive belt at different speeds.
- K. **Drive Belts:** Control spindle speed.

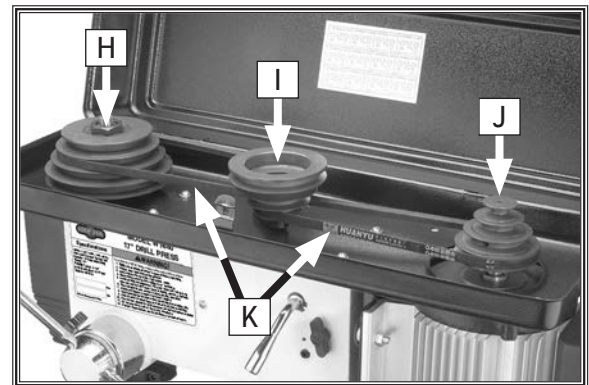


Figure 4. Power transmission components.

- L. **Table Rotation Lock Lever:** Locks table rotation.
- M. **Support Bracket Lock Lever:** Locks table height and rotation in position in relation to column.
- N. **Table Height Crank:** Raises/lowers table on column.

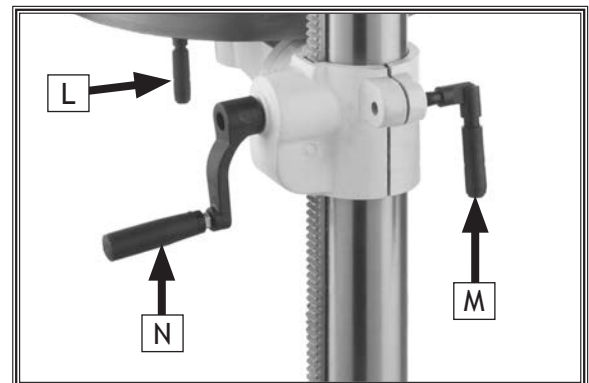


Figure 5. Location of table controls.

# 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 110V ..... 10 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 ..... 14 AWG**
- Maximum Length (Shorter is Better) ..... 50 ft.**

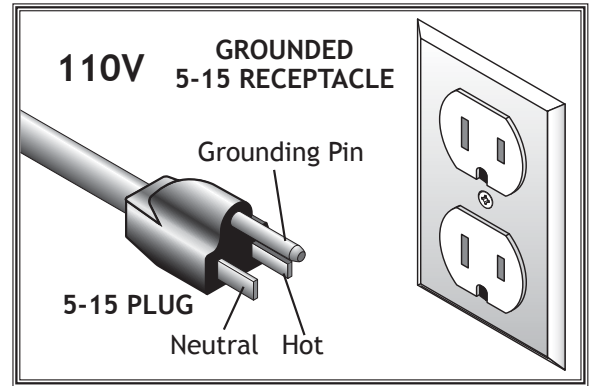


Figure 6. NEMA 5-15 plug & receptacle.

**⚠ CAUTION**

**DO NOT** modify the provided plug or use an adapter if the plug will not fit the receptacle. Instead, have an electrician install the proper receptacle on a power supply circuit that meets the requirements for this machine.

ELECTRICAL

# 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
• Cleaner/Degreaser .....	As Needed
• Paint Brush .....	1
• Disposable Rags .....	As Needed
• Disposable Gloves .....	As Needed
• Mounting Hardware .....	As Needed
• Acetone or Lacquer Thinner .....	As Needed
• Block of Wood .....	1
• Wrench or Socket 16mm .....	1
• Hex Wrench 3mm .....	1
• Assistant for Lifting .....	1
• Phillips Head Screwdriver #2 .....	1
• Plumb Bob .....	1
• Ruler 12" .....	1
• Light Bulb 60W .....	1



**! 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**  
USE helpers or power lifting equipment to lift this machine. Otherwise, serious personal injury may occur.

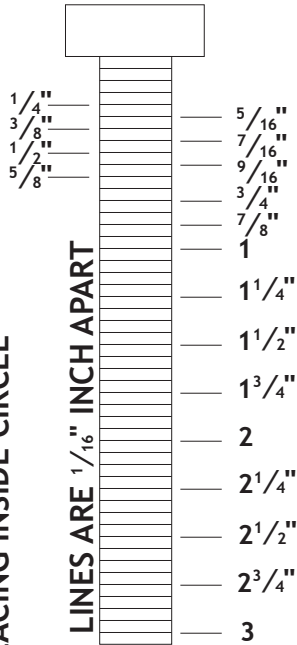
SETUP

# Hardware Recognition Chart

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

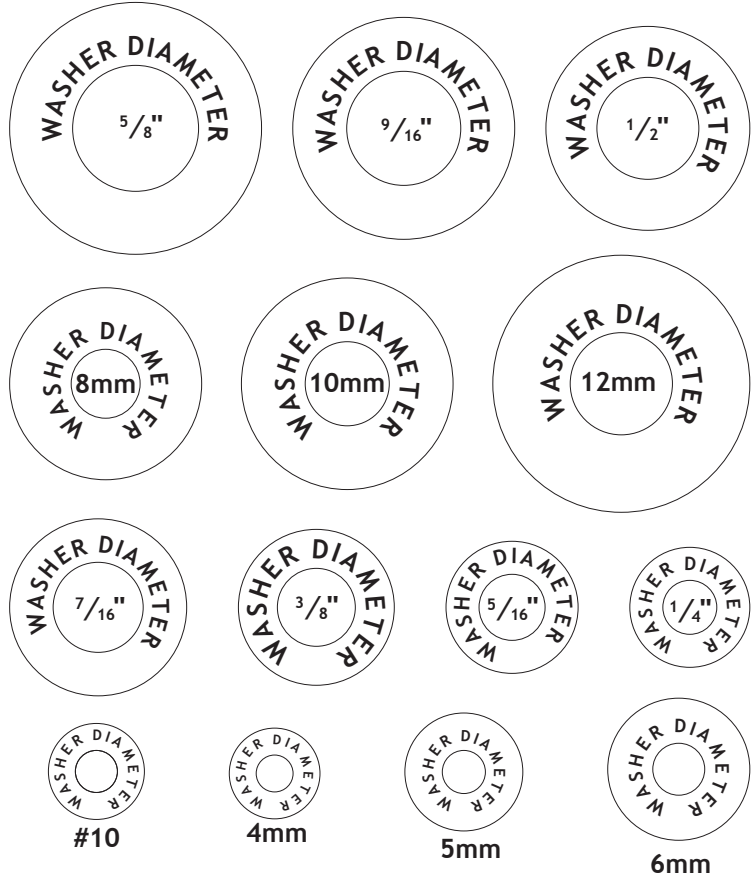
SETUP

MEASURE BOLT DIAMETER BY PLACING INSIDE CIRCLE  
LINES ARE 1MM APART

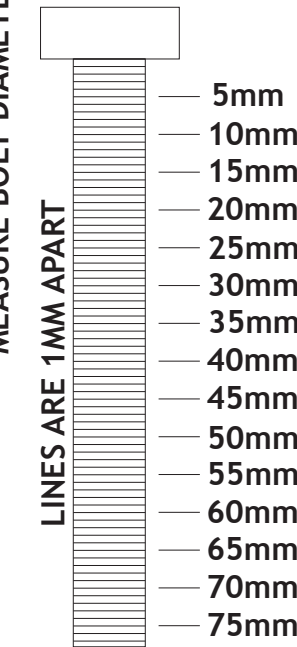


- #10
- 1/4"
- 5/16"
- 3/8"
- 7/16"
- 1/2"

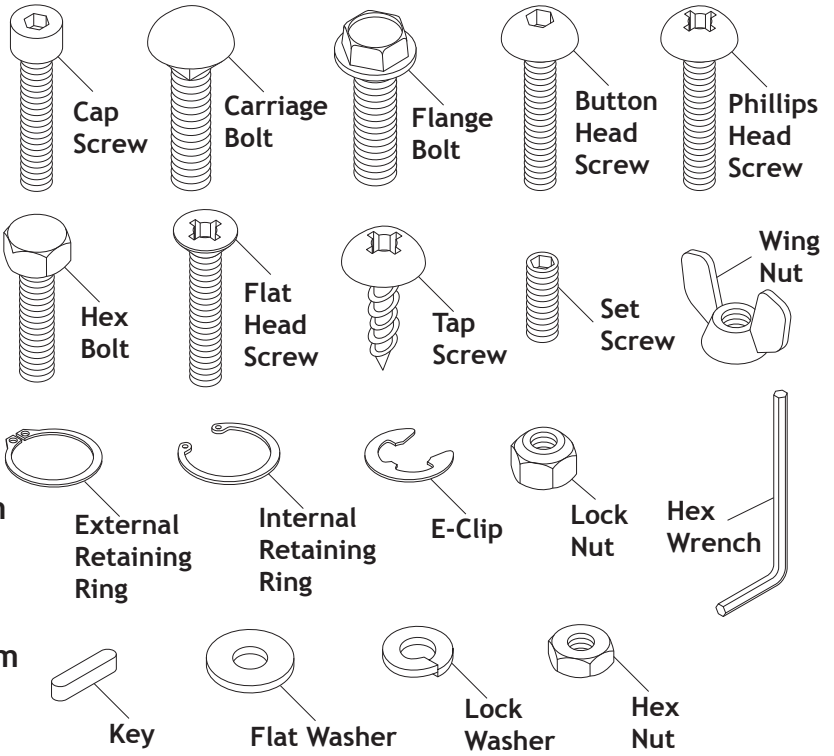
WASHERS ARE MEASURED BY THE INSIDE DIAMETER



MEASURE BOLT DIAMETER BY PLACING INSIDE CIRCLE  
LINES ARE 1MM APART



- 4mm
- 5mm
- 6mm
- 8mm
- 10mm
- 12mm
- 16mm





# 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 7)	Qty
A. Headstock Assembly.....	1
B. Drill Chuck Arbor .....	1
C. Column .....	1
D. Base.....	1
E. Crank Handle.....	1
F. Chuck Guard Assembly.....	1
G. Drill Chuck and Key .....	1
H. Spindle Handles.....	3
I. Table Support Bracket .....	1
J. Belt Cover Knob.....	1
K. Drift Key .....	1
L. Table.....	1
M. Hex Wrenches 4, 5mm.....	1 Ea.
N. Combo Wrench 7 x 24mm .....	1

Hardware (Not Shown)	Qty
• Hex Bolts M12-1.75 x 30.....	4
• Flat Washers 12mm .....	4



Figure 7. Box contents.

SETUP

# Cleaning Machine

To prevent corrosion during shipment and storage of your machine, the factory has coated the bare metal surfaces of your machine with a heavy-duty rust prevention compound.

If you are unprepared or impatient, this compound can be difficult to remove. To ensure that the removal of this coating is as easy as possible, please gather the correct cleaner, lubricant, and tools listed below:

- Cleaner/degreaser designed to remove storage wax and grease
- Safety glasses & disposable gloves
- Solvent brush or paint brush
- Disposable Rags

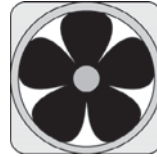
To remove rust preventative coating, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Put on safety glasses and disposable gloves.
3. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5-10 minutes.
4. Wipe off surfaces. If your cleaner/degreaser is effective, the coating will wipe off easily.

**Tip:** *An easier way to clean off thick coats of rust preventative from flat surfaces is to use a PLASTIC paint scraper to scrape off the majority of the coating before wiping it off with your rag. (Do not use a metal scraper or you may scratch your machine.)*

5. Repeat cleaning steps as necessary until all of the compound is removed.
6. To prevent rust on freshly cleaned surfaces, immediately coat with a quality metal protectant.

## ⚠ WARNING



Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. Avoid using these products to clean machinery. Many cleaning solvents are toxic if inhaled. Minimize your risk by only using these products in a well ventilated area.

## NOTICE

In a pinch, automotive degreasers, mineral spirits or WD•40 can be used to remove rust preventative coating. Before using these products, though, test them on an inconspicuous area of your paint to make sure they will not damage it.

# Machine Placement

## Weight Load

Refer to the **Machine Specifications** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest workpiece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

## Space Allocation

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. **See below for required space allocation.**

## Physical Environment

The physical environment where your machine is operated is important for safe operation and the longevity of its components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range exceeds 41°-104°F; the relative humidity range exceeds 20-95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

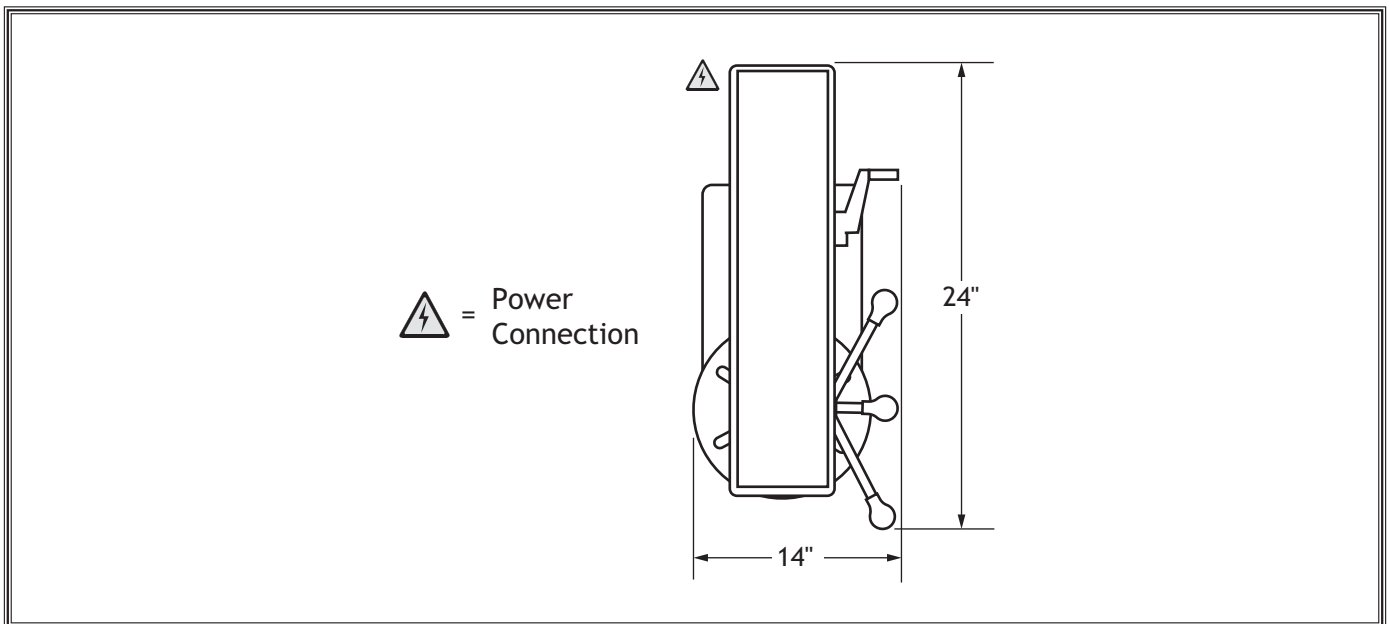
## Electrical Installation

Place this machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure to leave access to a means of disconnecting the power source or engaging a lockout/tagout device.

## Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.

	 <b>CAUTION</b> Children or untrained people may be seriously injured by this machine. Only install in an access restricted location.
---	---



**Figure 8.** Working clearances.

SETUP

# Anchoring to Floor

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

Anchoring machinery to the floor prevents tipping or shifting and reduces vibration that may occur during operation, resulting in a machine that runs slightly quieter and feels more solid.

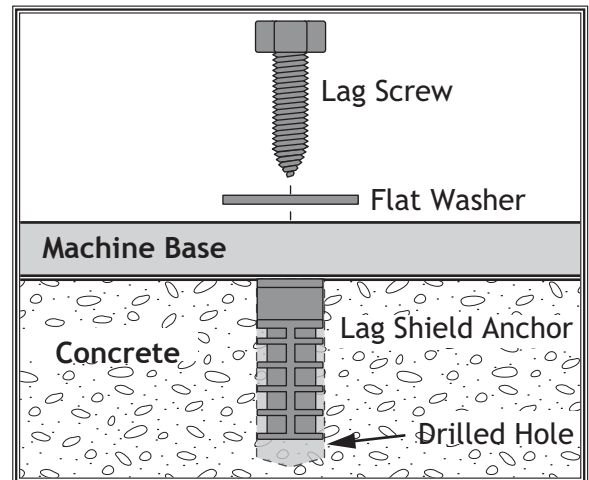
If the machine will be installed in a commercial or workplace setting, or if it is permanently connected (hardwired) to the power supply, local codes may require that it be anchored to the floor.

If not required by any local codes, fastening the machine to the floor is an optional step. If you choose not to do this with your machine, we recommend placing it on machine mounts, as these provide an easy method for leveling and they have vibration-absorbing pads.

SETUP

## Anchoring to Concrete Floors

Lag shield anchors with lag screws (see **Figure**) are a popular way to anchor machinery to a concrete floor, because the anchors sit flush with the floor surface, making it easy to unbolt and move the machine later, if needed. However, anytime local codes apply, you **MUST** follow the anchoring methodology specified by the code.



**Figure 9.** Popular method for anchoring machinery to a concrete floor.

## Joining Drill Chuck & Arbor

An arbor is included for the drill chuck that comes with this machine. The following procedure describes how to install the arbor in the chuck.

After the arbor is installed in the drill chuck, it is very difficult to separate the assembly. If you would like to use a different chuck in the future, we recommend obtaining a new arbor.

**Important:** *DO NOT install the drill chuck and arbor assembly into the spindle until AFTER the test run.*

To join drill chuck and arbor, do these steps:

1. Use acetone or lacquer thinner to clean drill chuck and arbor mating surfaces, especially the bore.
2. Retract chuck jaws completely into chuck.
3. Insert small end of arbor into chuck.
4. Hold assembly by the arbor and tap chuck onto a block of wood with medium force, as illustrated.
5. Attempt to separate the drill chuck and arbor by hand—if they separate, repeat **Steps 3–5**.

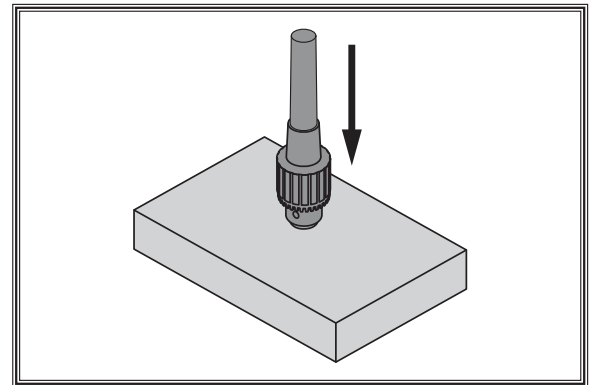


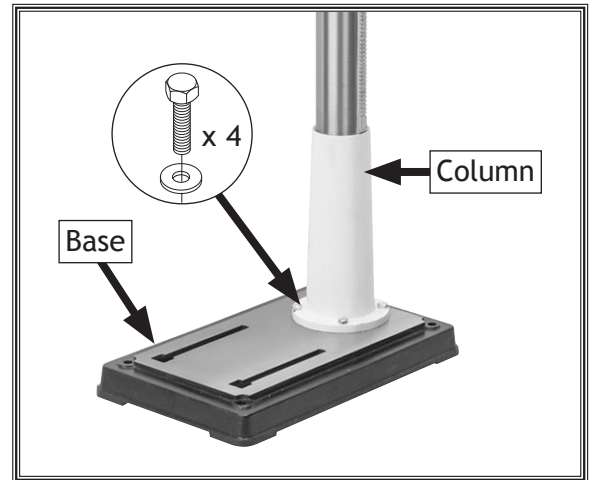
Figure 10. Joining drill chuck and arbor.

# 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.

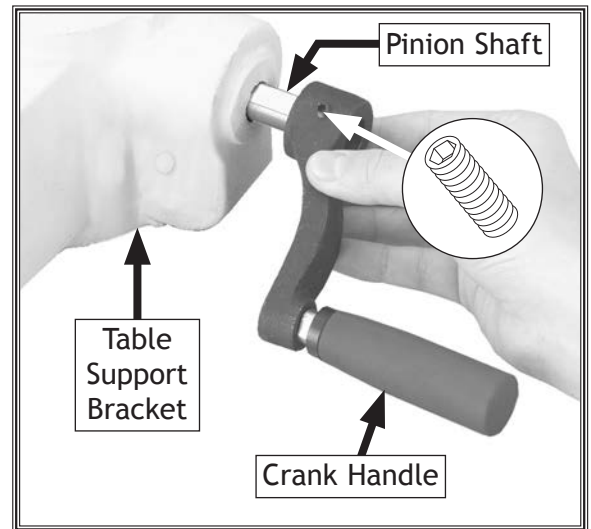
To assemble machine, do these steps:

1. Place column on base and line up mounting holes, then secure with (4) M12-1.75 x 30 hex bolts and 12mm flat washers (see **Figure 11**).



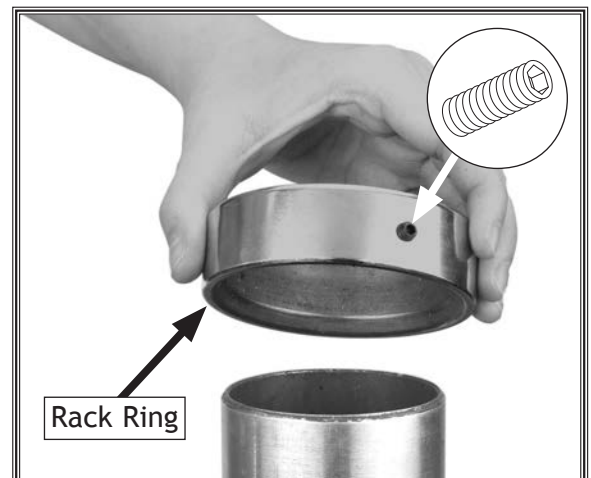
**Figure 11.** Column attached to base.

2. Align set screw in crank handle with flat of pinion shaft in table support bracket, then secure crank handle with set screw (see **Figure 12**).



**Figure 12.** Aligning crank handle set screw with flat on pinion shaft.

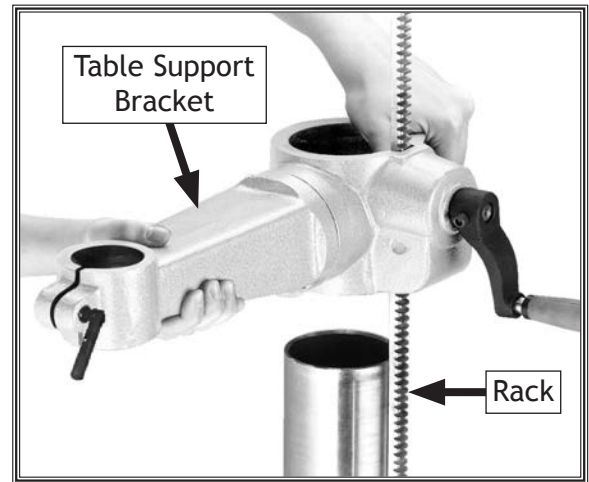
3. Loosen set screw on rack ring and remove rack ring and rack from column (see **Figure 13**).



**Figure 13.** Removing rack ring from column.

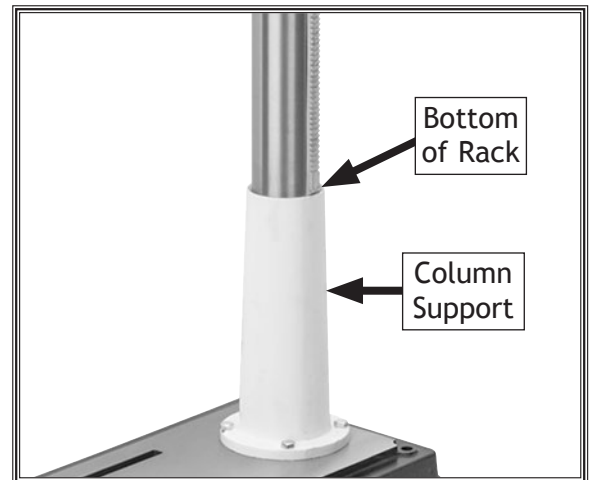
SETUP

4. Position rack so end with gear teeth closest to end are facing downward (see **Figure 14**).
5. Insert rack into table support bracket so teeth face out and mesh with pinion (see **Figure 14**).
6. While holding rack in place, slide table support bracket onto column.



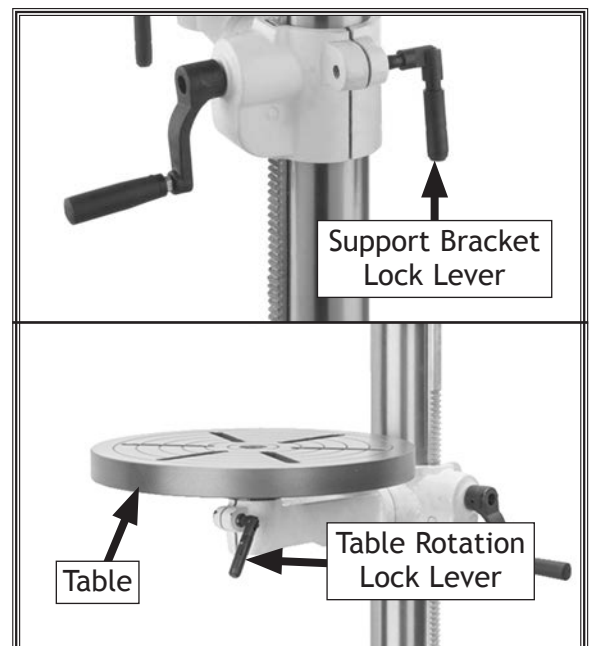
**Figure 14.** Inserting rack into column rack.

7. Allow table support bracket and rack to slide down until bottom of rack bevel slips into tapered shoulder on column support (see **Figure 15**).



**Figure 15.** Bottom of rack inside tapered shoulder of column support.

8. Secure table support bracket on column with support bracket lock lever (see **Figure 16**).
9. Insert table shaft into table support bracket, then tighten table rotation lever to secure (see **Figure 16**).



**Figure 16.** Location of table components.

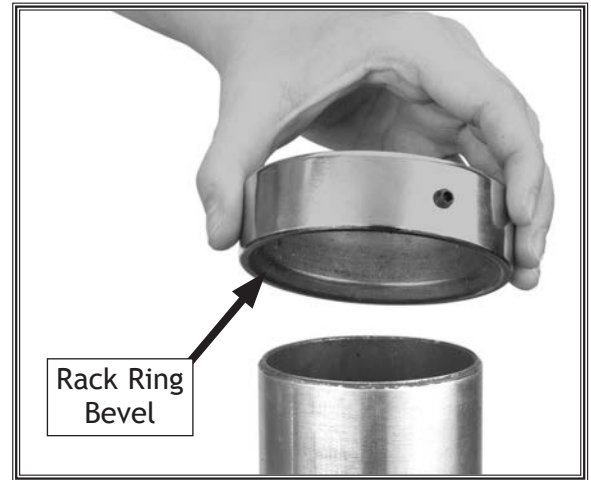
SETUP



10. Slide rack ring onto column with inside bevel in down position (see **Figure 17**).
11. Adjust ring until tip of rack fits inside bevel, and rack rotates freely when you rotate table support bracket around column.
12. Carefully tighten set screw on rack ring.

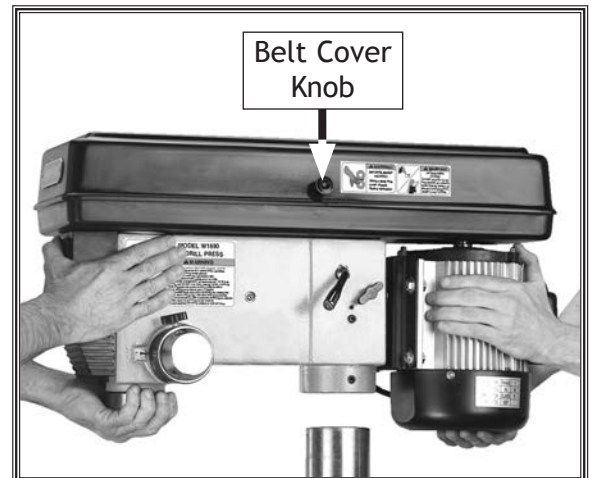
## **NOTICE**

Use caution when tightening set screw. Over tightening will damage column components.



**Figure 17.** Column ring bevel positioning.

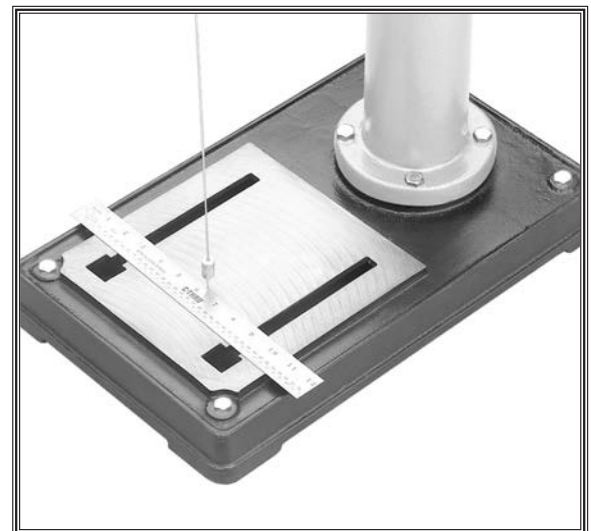
13. With lifting assistant, position headstock pocket over column (see **Figure 18**) and allow headstock to slide down until column fully seats up and into headstock (approximately 4").
14. Install belt cover knob with (1) pre-installed M5-.8 x 10 Phillips head screw and 5mm flat washer (see **Figure 18**).



**Figure 18.** Installing headstock on column.

15. Align headstock directly over foot of base as viewed from front of drill press and center it using plumb bob and ruler (see **Figure 19**).

**Note:** Loosen the table lock knob to rotate the table around the column and out of the way.



**Figure 19.** Aligning headstock with base.



16. Tighten (2) set screws shown in Figure 20 to secure headstock to column.

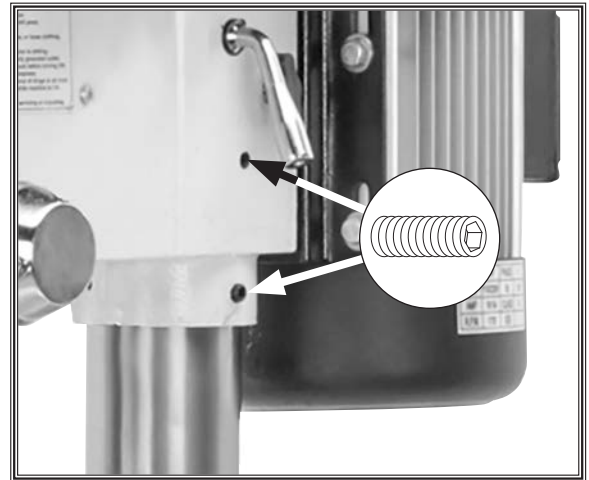


Figure 20. Location of set screws.

17. Thread (3) spindle handles into hub, as shown in Figure 21.
18. Turn socket dust plug in light bulb socket behind spindle on headstock counterclockwise to remove, then thread light bulb into socket (see Figure 21).

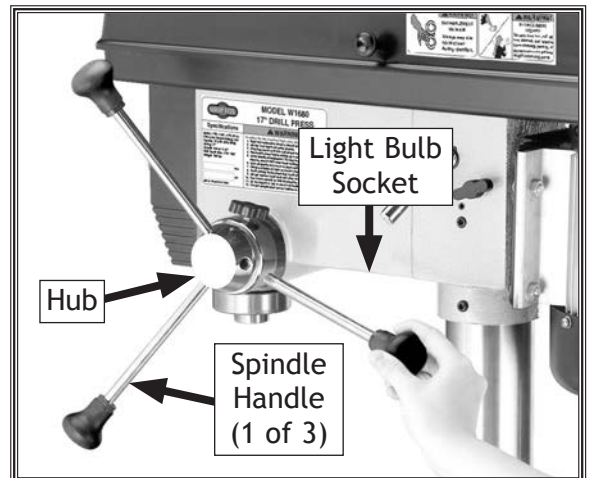


Figure 21. Installing spindle handles and location of light bulb socket.

**⚠ WARNING**  
Only use bulbs with safety coating that are shatter resistant, otherwise impact with bulb may cause it to shatter. Shattered glass is sharp and bare electrical filaments could shock you.

19. Place chuck guard assembly over bottom flange of pre-installed depth stop bracket, then tighten Phillips head screw and hex nut shown in Figure 22 to secure.

*Tip: Adjust table up to keep chuck guard in place while you attach it.*

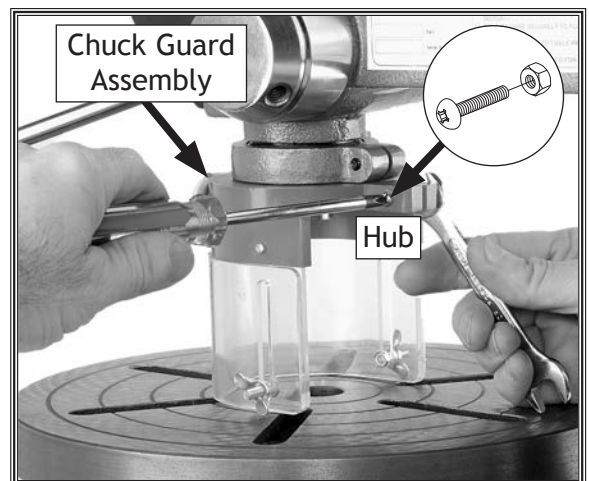


Figure 22. Example of installing chuck guard assembly.

SETUP

# 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, and 2) the switch disabling key disables the switch properly.

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**.

Motor should run smoothly and without unusual noises.

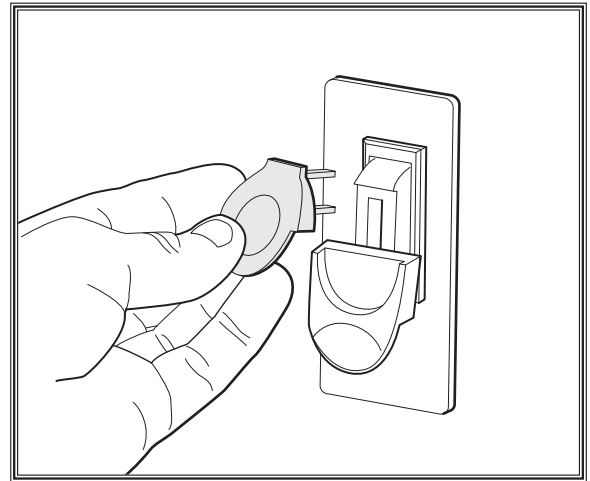
4. Remove switch disabling key (see **Figure 23**).
5. Try to start machine with ON/OFF switch. Machine should not start.
  - If machine *does not* start, switch disabling feature is working as designed.
  - If machine *does* start, immediately stop machine and disconnect it from power. Switch disabling 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 23.** 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 machine 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!

# Installing/Removing Arbor

Usually, once the chuck and arbor have been properly mounted together, they are considered semi-permanent connections. If you would like to install a different chuck, we recommend getting a new arbor for that chuck.

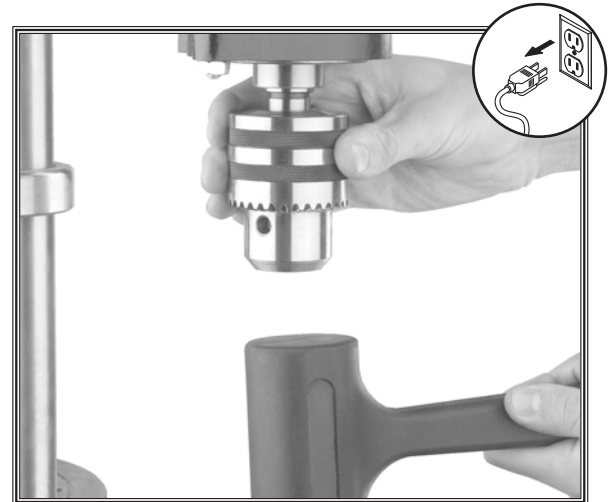
## Installing Arbor in Spindle

Items Needed	Qty
Acetone or Lacquer Thinner .....	As Needed
Chuck Key .....	1
Rubber Mallet.....	1

To install arbor in spindle, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Join chuck and arbor (refer to **Joining Drill Chuck & Arbor** on **Page 19**).
3. Rotate chuck on arbor until chuck jaws retract into drill chuck body.
4. Use acetone or lacquer thinner to clean mating surfaces of arbor and spindle socket.
5. Slide arbor into spindle socket (see **Figure 24**) while slowly rotating chuck. Tang of arbor is seated in rectangular pocket of spindle when chuck will not rotate without turning spindle.
6. Strike face of chuck from below with rubber mallet to seat arbor in spindle (see **Figure 24**).
7. Check seat by gently pulling down on chuck.

OPERATIONS



**Figure 24.** Seating arbor into spindle (chuck guard removed for clarity).

## Removing Arbor from Spindle

Items Needed	Qty
Towel or Cloth.....	1
Metal Hammer.....	1
Drift Key.....	1

To remove arbor from spindle, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Rotate spindle handles until drift key slot is exposed in side of quill (see **Figure 25**).
3. Rotate spindle until inner drift key slot is aligned with outer slot (see **Figure 25**). You will see through spindle when slots are properly aligned.
4. Move table up until it is 1/4" below bottom of chuck, and place towel or cloth under chuck.
5. Insert drift key into drift key slot (see **Figure 26**), and allow quill to rise, trapping drift key.
6. Tap drift key with metal hammer (see **Figure 26**) until arbor releases.

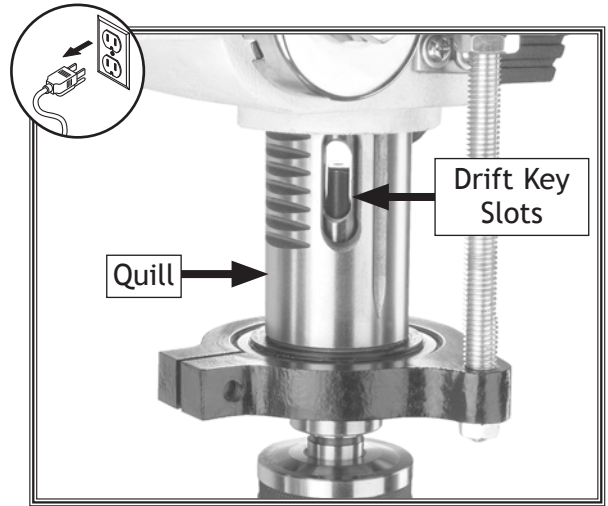


Figure 25. Example of inner and outer drift key slots aligned.



Figure 26. Example of using drift key to remove arbor from spindle.

# Installing/Removing Drill Bit

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

## Installing Drill Bit

Tool Needed	Qty
Chuck Key .....	1

To install drill bit, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Open drill chuck wide enough to accept shank of bit.
3. Insert drill bit as far as possible into chuck WITHOUT allowing chuck jaws to touch fluted portion of bit, then hand-tighten chuck.

*Note: Make sure small bits are not trapped between edges of two jaws; if they are, reinstall drill bit or it will not be secure enough to use for drilling.*

4. Tighten chuck firmly with chuck key (see Figure 27), then remove chuck key from chuck.



Figure 27. Example of tightening chuck with chuck key.

## Removing Drill Bit

1. DISCONNECT MACHINE FROM POWER!
2. Use chuck key to open drill chuck, and catch drill bit with cloth to protect hands.

# Adjusting Table

You can adjust the table height, tilt, and rotation to accommodate for workpiece height or achieve special angles.

If the table is not needed, loosen the support bracket lock lever to pivot the table to the back side of the column so you can support the workpiece on the base.

## Table Height

1. Loosen support bracket lock lever (see **Figure 28**).
2. Turn crank handle to raise or lower table (see **Figure 28**).
3. Lock support bracket lock lever to secure.

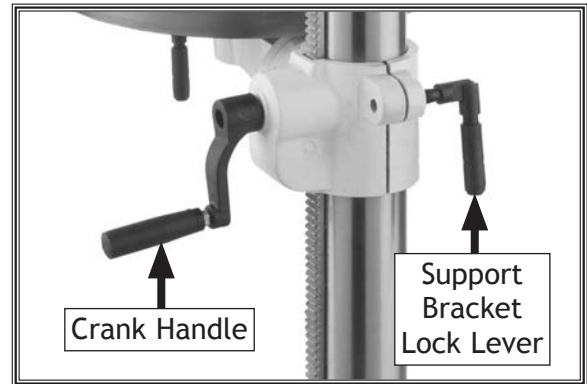
## Table Tilt

1. Turn 0° nut shown in **Figure 29** clockwise until you can remove 0° pin and nut.
2. Loosen table tilt hex bolt (see **Figure 29**).
3. Use scale on side of table support bracket to tilt table to desired angle (see **Figure 29**), then tighten table tilt hex bolt to secure.

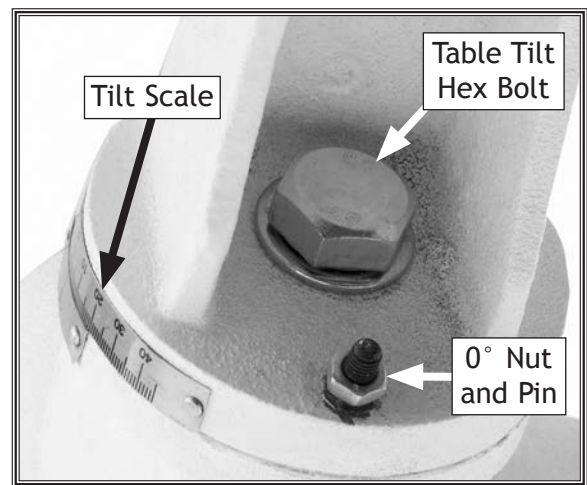
**NOTE:** To index table back to 0° position, tilt table to 0°, tap 0° pin back into casting, and snug 0° nut.

## Table Rotation

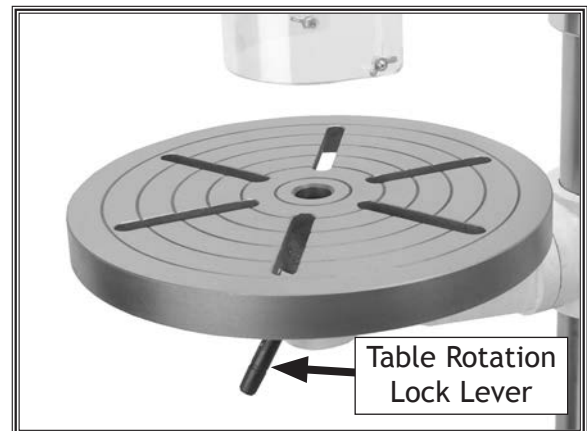
1. Loosen table rotation lock lever (see **Figure 30**).
2. Rotate table as desired, then tighten table rotation lock lever to secure.



**Figure 28.** Location of height controls.



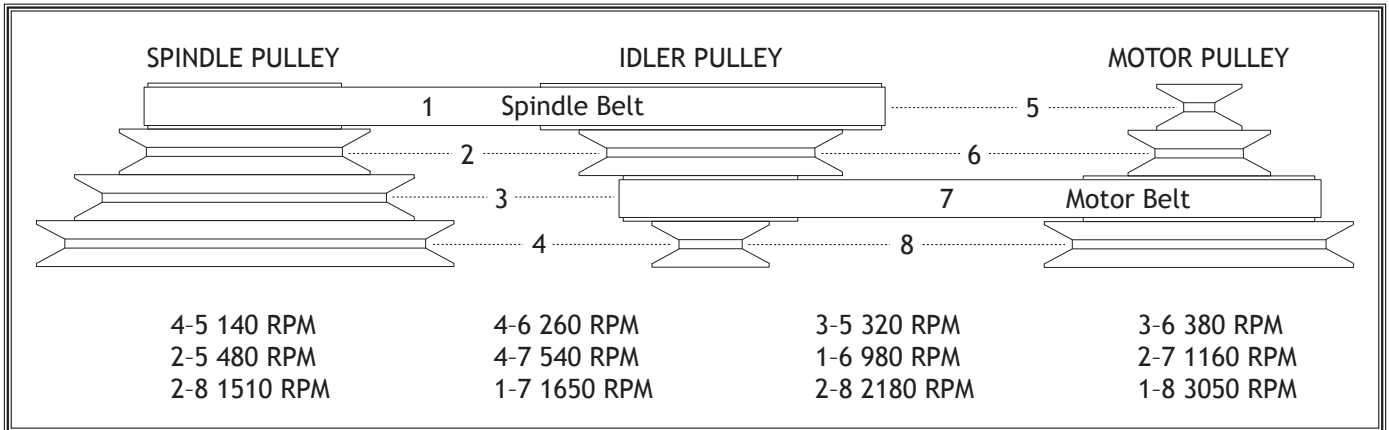
**Figure 29.** Location of tilt controls.



**Figure 30.** Location of table rotation lock lever.



# Changing Spindle Speed



The Model W1680 has 12 spindle speeds that operate between 140-3050 RPM. Refer to the speed chart located under the belt cover.

The speed chart above is included to help illustrate the necessary belt changes to produce a desired speed. Select the proper speed for the job at hand and find it on the speed chart above. Move the V-belts to the indicated locations on the chart. The belt setting in the example above shows the spindle belt in the #1 position and the motor belt in the #7 position, which will produce a speed of 1650 RPM.

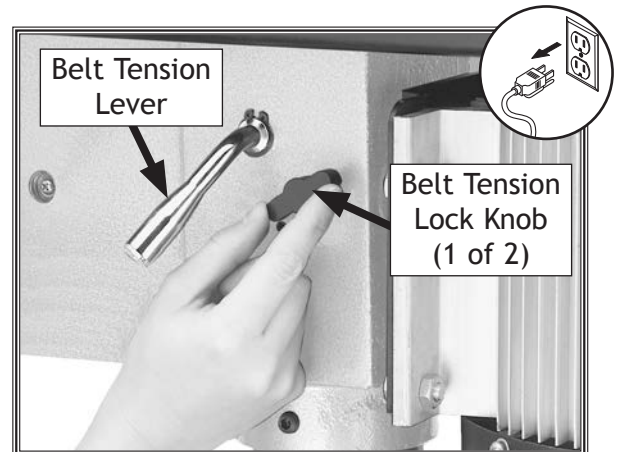
**⚠ CAUTION**

Use care when changing V-belts as they could pinch your fingers. They may also be hot after extended use so wait to change speeds if drill has been in use.

To change spindle speed, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Open belt cover.
3. Determine correct spindle speed for operation (see **Calculating Spindle Speed for Drilling on Page 32**).
4. Loosen belt tension lock knobs, then rotate belt tension lever to take tension off V-belts (see **Figure 31**).

OPERATIONS



**Figure 31.** Location of belt tension controls.



5. Use spindle speed chart under belt cover to move V-belts onto desired sheaves of pulleys (see Figure 32).
  - If V-belt is cracked, torn, excessively worn, or damaged, replace it.

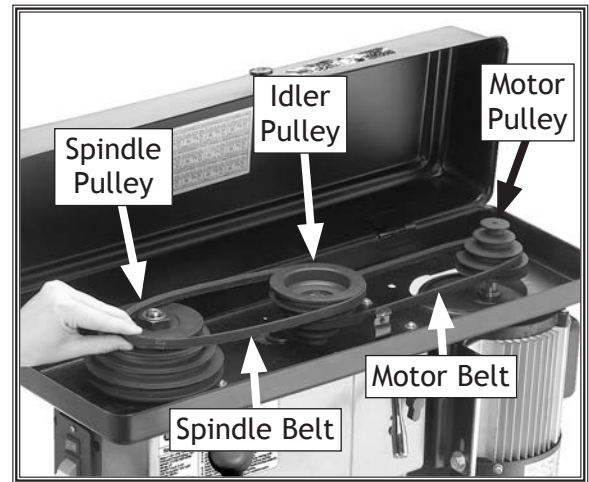


Figure 32. Adjusting belts to desired speed.

6. Rotate belt tension lever until V-belts have 1/4" of deflection when pressure is applied at midpoint of belt between pulleys (see Figure 33).
7. Tighten belt tension lock knobs.
8. Close belt cover.

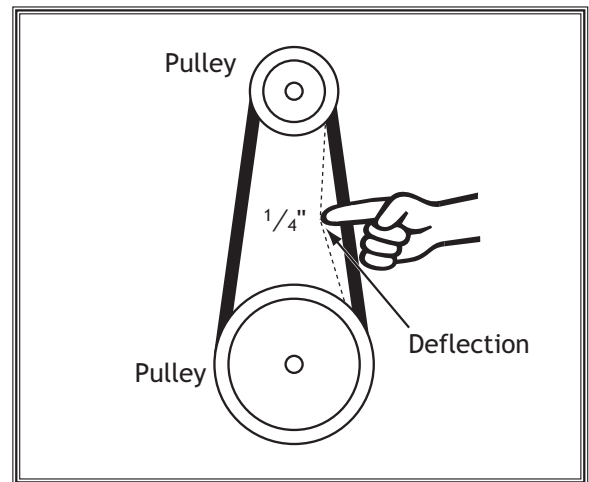


Figure 33. Checking belt tension.

# Calculating Spindle Speed for Drilling

The chart shown in Figure 34 is intended as a guide only. Always follow the manufacturer's speed recommendations if provided with your drill bits, cutters, or hole saws. Exceeding the recommended speeds may be dangerous to the operator or cause damage to the tooling.

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

Often, when drilling materials other than wood, some type of lubrication is necessary.

## Lubrication Suggestions

Wood ..... None  
 Plastics ..... Soapy Water  
 Brass ..... Water-Based Lubricant  
 Aluminum ..... Paraffin-Based Lubricant  
 Mild Steel ..... Oil-Based Lubricant

**CAUTION**

Larger bit turning at slower speeds tend to grab workpiece aggressively. Hands can be pulled into bit or workpiece thrown with great force. Always clamp workpiece to table to prevent injuries.

**OPERATIONS**

Twist/Brad Point Drill Bits	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
1/16" - 3/16"	3000	2500	2500	2500	3000	2500
13/64" - 3/8"	2000	1500	2000	1250	2500	1250
25/64" - 5/8"	1500	750	1500	750	1500	600
11/16" - 1"	750	500	1000	400	1000	350
Spade/Forstner Bits	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
1/4" - 1/2"	2000	15000				
9/16" - 1"	1500	1250				
1 1/8" - 1 7/8"	1000	750				
2" - 3"	500	350				
Hole Saws	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
1/2" - 7/8"	500	500	600	600	600	500
1" - 1 7/8"	400	400	500	500	500	400
2" - 2 7/8"	300	300	400	400	400	300
3" - 3 7/8"	200	200	300	300	300	200
4" - 5"	100	100	200	200	200	100
Rosette Cutters	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
Carbide Insert Type	350	250				
One-Piece Type	1800	500				
Tenon/Plug Cutters	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
3/8" - 1/2"	1200	1000				
5/8" - 1"	800	600				

Figure 34. Drilling speed chart.

# Adjusting Depth Stop

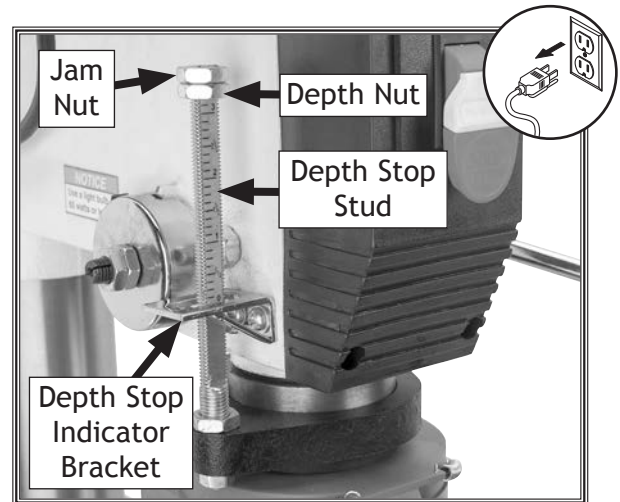
The Model W1680 has a depth stop that allows you to drill repeat non-through holes to the same depth every time. The scale and indicator shows the depth in inches.

The depth stop consists of a stud attached to the quill with a depth nut that can be lowered or raised against a stop bracket indicator to control drilling depth. **Figure 35** shows the various components of the depth stop.

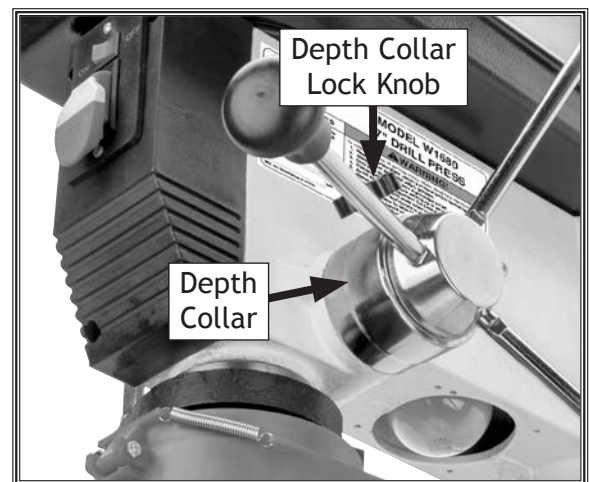
Items Needed	Qty
Open-End Wrenches 18mm .....	2
Scrap Stock .....	As Needed

To adjust depth stop, do these steps:

1. DISCONNECT MACHINE FROM POWER!
  
2. Loosen depth collar lock knob (see **Figure 36**).
3. Use spindle handles to lower drill bit to desired depth.
4. Turn depth collar all the way clockwise (see **Figure 36**), then tighten depth collar lock knob to keep spindle in lowered position.
5. Thread depth nut down against indicator bracket.
6. Adjust jam nut down against depth nut to secure position.
7. Loosen depth collar lock knob to release spindle.
8. Drill hole in scrap stock to check adjustment before drilling into workpiece.



**Figure 35.** Depth stop components.



**Figure 36.** Location of depth collar lock knob.

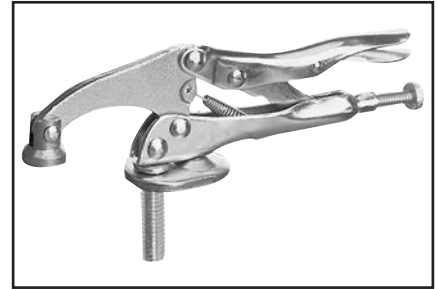
# ACCESSORIES

## 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](mailto:sales@woodstockint.com).

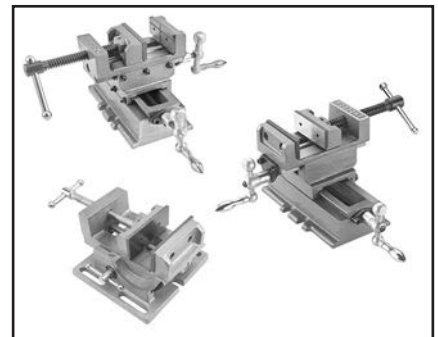
**Drill Press Clamps** adjust quickly and easily to lock your workpiece in any position. The clamping pad pivots to conform to any workpiece, ensuring uniform pressure.

- W1301 6" Drill Press Clamp (1½" Capacity)
- D2192 10" Drill Press Clamp (3" Capacity)
- D2493 12" Drill Press Clamp (5" Capacity)



**Drill Press Vises** use precision ground steel guide rods, smooth-action Acme threads, ground steel jaws, with fixed jaw V-grooves for holding round stock, and dovetailed ways where applicable.

- D2933 4" Angle Vise (3¾" Capacity)
- D2730 3" Cross Sliding Vise (2¾" Capacity)
- D2731 4" Cross Sliding Vise (3¾" Capacity)



The **D2056 Shop Fox Tool Table** is great for bench-top tools like chop saws, drill presses, planers, scroll saws, and bandsaws. Support cross braces on top provide incredible strength and capacity. Flared legs and adjustable rubber feet ensure stability and reduce machine vibration. The particle-board table top (with faux butcher block laminated finish) measures 13" x 23" and is 30½" tall. Bottom measures 21" x 32". 700 lb. capacity.



Woodstock offers a full line of **Brad Point Bits**, **Tenon/Plug Cutters**, **Countersink Bits**, and **Forstner Bits** to satisfy every need. Whether for do-it-yourselfers or professional woodworkers, you can depend on Woodstock International, Inc. to manufacture a useful selection of drilling and cutting tools. Refer to <https://www.woodstockint.com/products/category/drilling-and-boring> for a complete product line available through your dealer.



# 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:

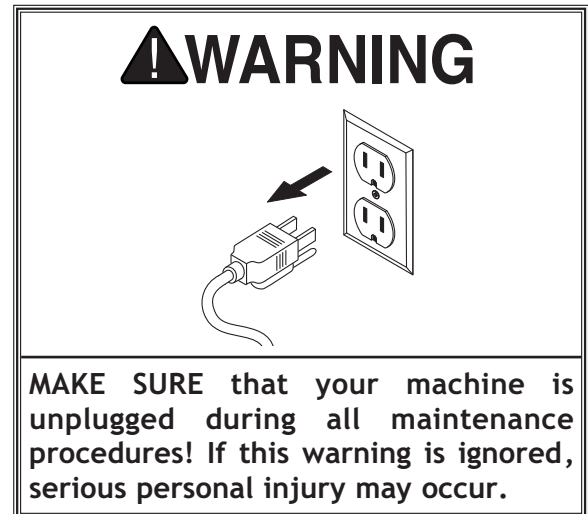
- Loose mounting bolts.
- Worn or damaged wires.
- Any other unsafe condition.

### Monthly Check

- V-belt tension, damage, or wear.

### Every 90 Days

- Lubricate quill and column racks.



## Cleaning & Protecting

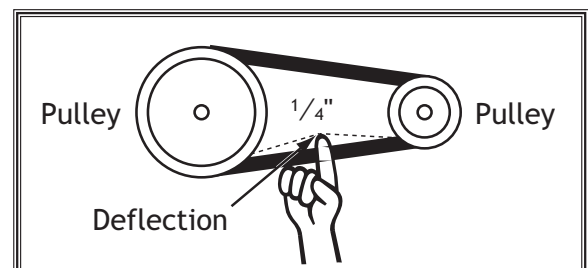
Cleaning the Model W1680 is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it.

Protect the unpainted cast iron table and base by wiping it 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.

## Inspecting/Replacing Belts

Inspect the V-belts regularly for tension and wear. Refer to **Figure 37** for proper belt tension of the V-belts. Each belt should have  $\frac{1}{4}$ " of deflection when moderate pressure is applied at the midpoint between the pulleys.

To replace the V-belts, refer to **Changing Spindle Speed** on **Page 30** to release belt tension.



**Figure 37.** Checking belt tension.

MAINTENANCE

# 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!**

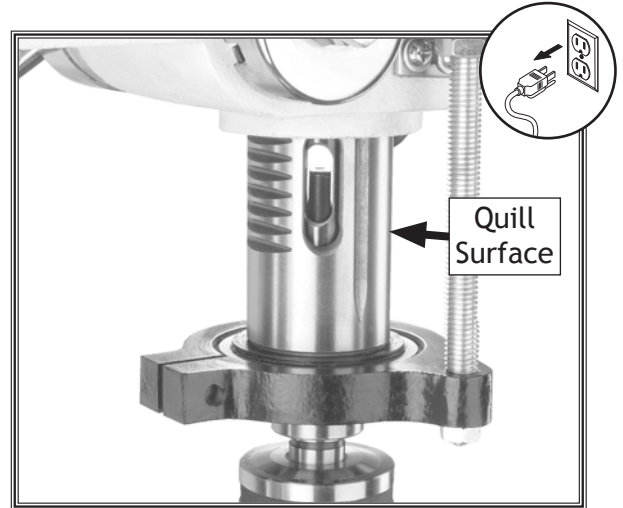
## Quill & Column Surfaces

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

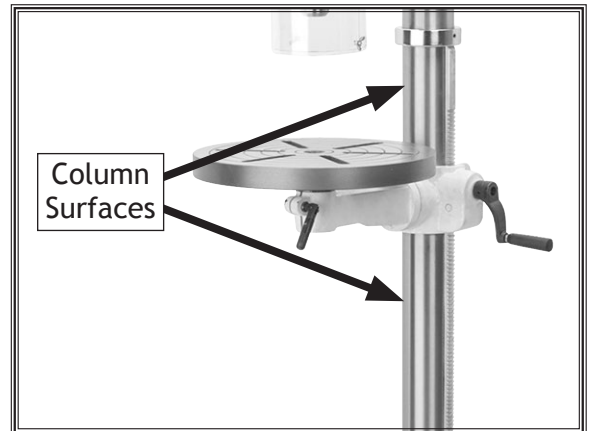
Move the spindle all the way down to access the smooth surfaces of the quill (see **Figure 38**). Adjust table height as necessary to access entire length of column (see **Figure 39**). Clean both with mineral spirits and shop rags.

**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.** Location of quill surface.



**Figure 39.** Location of column surfaces.

## Quill & Column Racks

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.

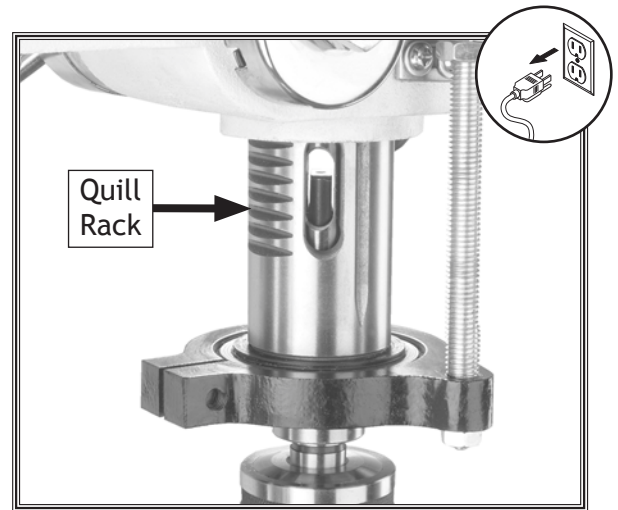


Figure 40. Example of quill rack exposed.

Next, clean the column rack teeth (see **Figure 41**) using the same method. When racks are dry, use a clean brush to apply a thin coat of grease to the rack teeth, then fully raise/lower the quill and table to distribute the grease.

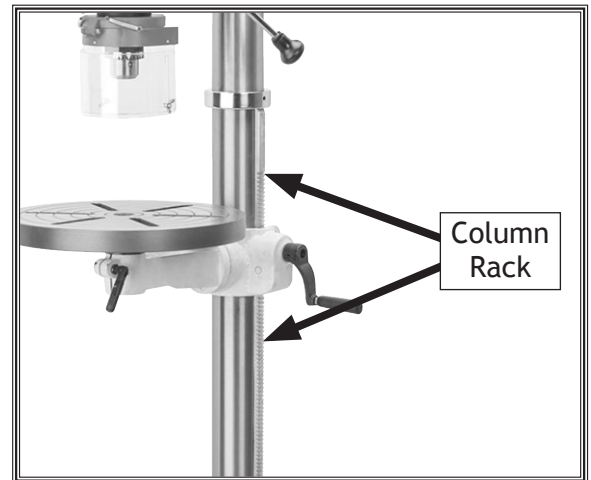


Figure 41. Location of column rack.

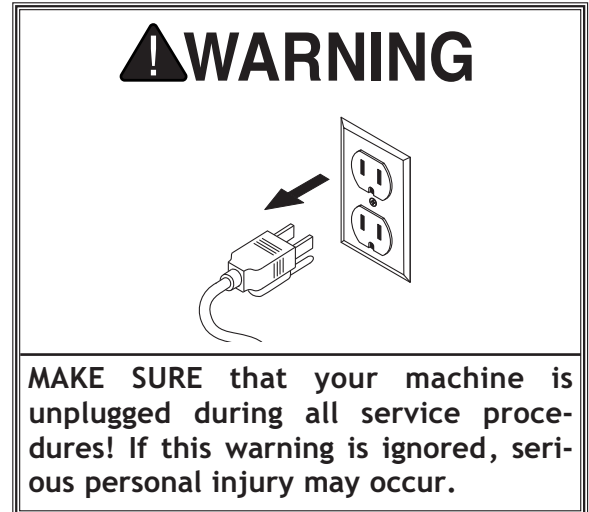


# SERVICE

## 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](mailto:techsupport@woodstockint.com).



## Depth Stop Calibration

The drill press comes fitted with a depth stop to use when drilling multiple holes at the same depth. The scale on this depth stop can be calibrated if it ever becomes incorrect.

Tools Needed	Qty
Open-End Wrench 13, 18mm.....	1 Ea.

To calibrate depth stop, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Loosen lower jam nut and calibration nut shown in Figure 42.
3. Use calibration nut to zero depth stop scale with depth stop indicator bracket.
4. Hold depth stop at zero, and tighten lower jam nut to hold depth stop in position.
5. Test depth stop by measuring how far spindle actually moves with respect to where you set depth stop.

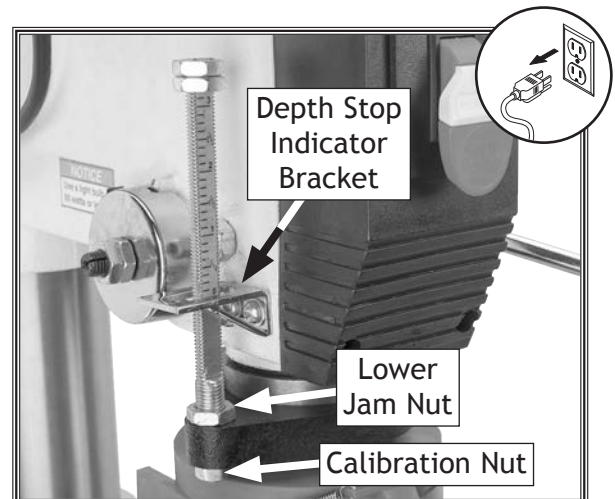


Figure 42. Depth stop calibration.



# 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 to a stronger return pressure.

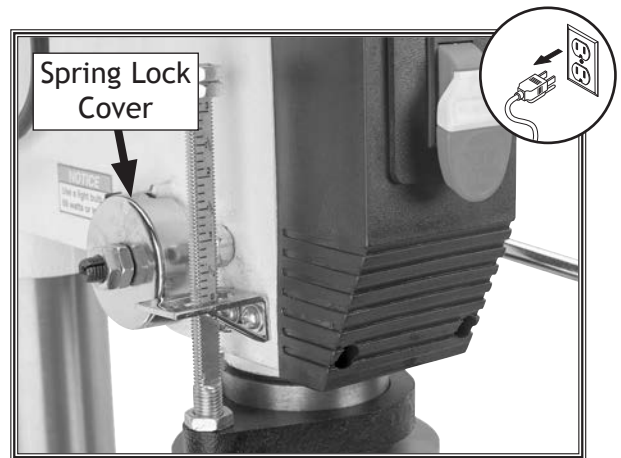
Tools Needed	Qty
Safety Glasses .....	1 Pr.
Shop Rags .....	As Needed
Heavy Leather Gloves .....	1 Pr.
Open-End Wrenches 18mm .....	2

To tension feed shaft return spring, do these steps:

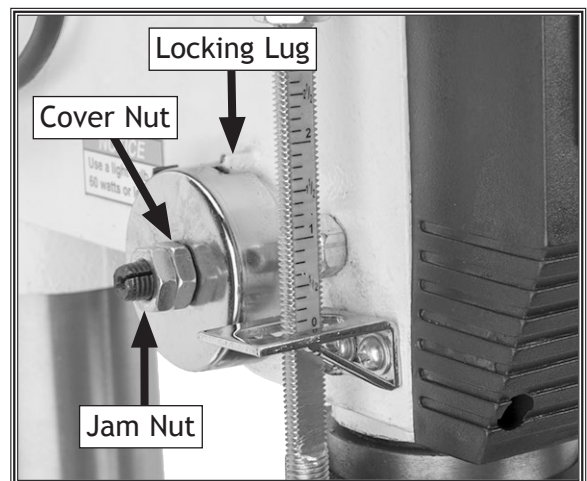
1. DISCONNECT MACHINE FROM POWER!
2. Wipe off any oil on spring lock cover so it will not slip in fingers when you hold cover from spinning (see **Figure 43**).
3. Put on thick leather gloves and hold spring cover against side of headstock, so cover stays splined with locking lug, and loosen jam nut and cover nut approximately 1/4" (6.4mm) (see **Figure 44**).



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



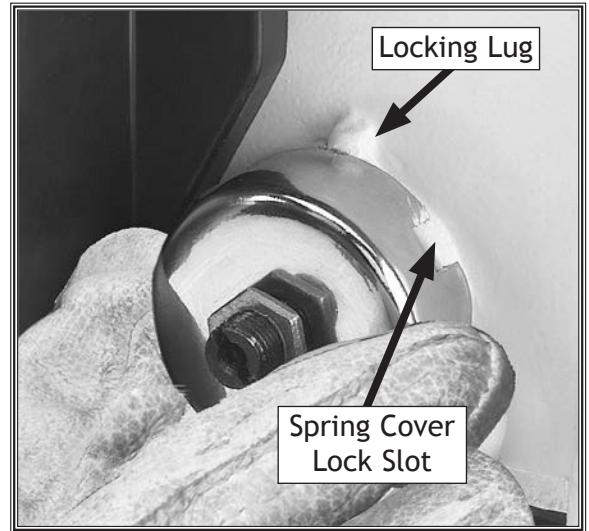
**Figure 43.** Location of spring lock cover.



**Figure 44.** Return spring adjustment components.

**SERVICE**

4. Pull cover outward just enough to disengage spring cover lock slot from locking lug (see **Figure 45**).
5. Rotate cover counterclockwise to increase spring tension, or let cover slowly unwind in clockwise direction to reduce spring tension.
6. Engage next available spring-cover lock slot with locking lug, and hold spring lock cover tightly against side of headstock.
7. Snug cover nut against spring cover just until nut stops, and then back-off the nut approximately  $\frac{1}{3}$  turn, or just enough so there is no binding anywhere along complete spindle travel.
8. Hold cover nut and tighten jam nut against cover nut (see **Figure 43**).



**Figure 45.** Typical spring cover lock slot and locking lug.

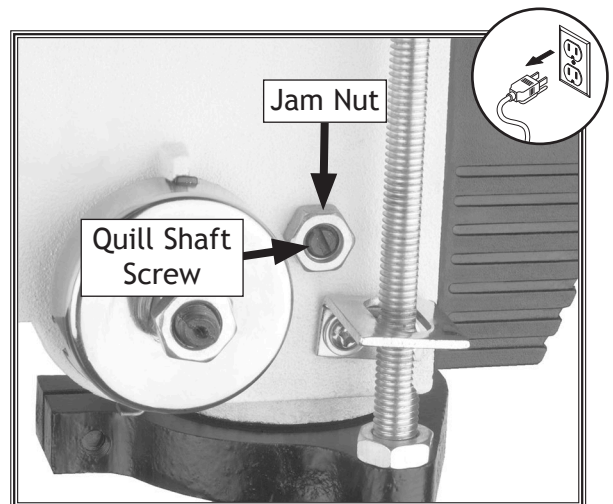
## Adjusting Quill Shaft Screw

While you may never have 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 operations, and if adjusted incorrectly, the quill may have lash or bind.

Tools Needed	Qty
Open-End Wrench 16mm.....	1
Hex Wrench 5mm .....	1

To adjust quill shaft screw, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Clean and lubricate quill as described in **Lubrication** on **Page 37**. Quill should travel freely.
3. Loosen jam nut shown in **Figure 46**.
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.
5. When quill shaft screw is screwed inward against quill as far as screw can go without binding quill, hold screw and tighten jam nut.
6. Recheck for quill binding and looseness while moving quill up and down through its entire range of travel and readjust as required.

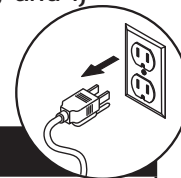


**Figure 46.** Typical quill-shaft screw and jam nut.

# 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"> <li>1. Switch disabling key removed.</li> <li>2. Incorrect power supply voltage or circuit size.</li> <li>3. Power supply circuit breaker tripped or fuse blown.</li> <li>4. Motor wires connected incorrectly.</li> <li>5. Start capacitor at fault.</li> <li>6. Centrifugal switch adjustment/contact points at fault.</li> <li>7. Wiring broken, disconnected, or corroded.</li> <li>8. ON/OFF switch at fault.</li> <li>9. Motor or motor bearings at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install switch disabling key.</li> <li>2. Ensure correct power supply voltage and circuit size (Page 11).</li> <li>3. Ensure circuit is free of shorts. Reset circuit breaker or replace fuse.</li> <li>4. Correct motor wiring connections (Page 43).</li> <li>5. Test/replace if at fault.</li> <li>6. Adjust centrifugal switch/clean contact points. Replace either if at fault.</li> <li>7. Fix broken wires or disconnected/corroded connections (Page 43).</li> <li>8. Replace switch.</li> <li>9. Replace motor.</li> </ol>
Machine stalls or is underpowered.	<ol style="list-style-type: none"> <li>1. Workpiece material unsuitable for machine.</li> <li>2. Feed rate/cutting speed too fast.</li> <li>3. Belt(s) slipping/pulleys misaligned.</li> <li>4. Motor wires connected incorrectly.</li> <li>5. Pulley slipping on shaft.</li> <li>6. Machine undersized for task.</li> <li>7. Motor overheated.</li> <li>8. Extension cord too long.</li> <li>9. Centrifugal switch/contact points at fault.</li> <li>10. Motor or motor bearings at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Only cut wood with moisture below 20% and correct type/size of metal.</li> <li>2. Decrease feed rate/cutting speed (Page 30).</li> <li>3. Clean/tension/replace belt(s) (Page 35); ensure pulleys are aligned.</li> <li>4. Correct motor wiring connections (Page 43).</li> <li>5. Tighten/replace loose pulley/shaft.</li> <li>6. Use correct cutter/bit; reduce feed rate; reduce spindle RPM (Page 30); use cutting fluid if possible.</li> <li>7. Clean motor, let cool, and reduce workload.</li> <li>8. Move machine closer to power supply; use shorter extension cord.</li> <li>9. Adjust centrifugal switch/clean contact points. Replace either if at fault.</li> <li>10. Replace motor.</li> </ol>
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> <li>1. Motor or component loose.</li> <li>2. V-belt(s) worn, loose, pulleys misaligned or belt slapping cover.</li> <li>3. Pulley loose.</li> <li>4. Motor mount loose/broken.</li> <li>5. Spindle loose, improperly installed or damaged.</li> <li>6. Workpiece loose.</li> <li>7. Motor fan rubbing on fan cover.</li> <li>8. Chuck or cutter at fault.</li> <li>9. Spindle bearings at fault.</li> <li>10. Centrifugal switch needs adjustment/at fault.</li> <li>11. Motor bearings at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace damaged or missing bolts/nuts or tighten if loose.</li> <li>2. Inspect/replace belts with a new matched set (Page 35). Realign pulleys if necessary.</li> <li>3. Secure pulley on shaft.</li> <li>4. Tighten/replace.</li> <li>5. Tighten loose spindle, re-install spindle ensuring mating surfaces are clean, replace spindle if damaged.</li> <li>6. Use correct holding fixture and reclamp workpiece.</li> <li>7. Fix/replace fan cover; replace loose/damaged fan.</li> <li>8. Replace out-of-round chuck, dull, or bent cutter.</li> <li>9. Test by rotating spindle; rotational grinding/loose shaft requires bearing replacement.</li> <li>10. Adjust/replace if at fault.</li> <li>11. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.</li> </ol>
Light bulb does not illuminate.	<ol style="list-style-type: none"> <li>1. Bulb burnt out.</li> <li>2. Wiring broken, disconnected, or corroded.</li> <li>3. Light ON/OFF switch at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace light bulb.</li> <li>2. Fix broken wires or disconnected/corroded connections (Page 43).</li> <li>3. Replace switch.</li> </ol>

SERVICE

## Operation

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Tool falls out or loose in chuck.	<ol style="list-style-type: none"> <li>1. Chuck jaws loose.</li> <li>2. Excessive feed pressure.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten chuck jaws.</li> <li>2. Decrease feed pressure and allow chips to clear.</li> </ol>
Chuck and arbor fall out or loose in spindle.	<ol style="list-style-type: none"> <li>1. Debris on chuck, arbor, or in spindle taper.</li> <li>2. Excessive feed pressure.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean chuck, arbor, and spindle taper, then re-install (Pages 19 and 26).</li> <li>2. Decrease feed pressure and allow chips to clear.</li> </ol>
Breaking tools or cutters.	<ol style="list-style-type: none"> <li>1. Spindle speed/feed rate too fast.</li> <li>2. Taking too big of cut at one time.</li> <li>3. Improper cutting technique or type of cut for tool/machine.</li> <li>4. Cutting tool too small.</li> <li>5. Cutting tool getting too hot.</li> <li>6. Spindle extended too far down during or at beginning of operation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce spindle speed (Page 30); reduce feed rate.</li> <li>2. Decrease feed pressure and allow chips to clear.</li> <li>3. Use right technique or machine for job.</li> <li>4. Use larger cutting tool and slower feed rate.</li> <li>5. Use coolant or oil for appropriate application; reduce cutting speed (Page 30).</li> <li>6. Fully retract spindle and raise table to increase rigidity.</li> </ol>
Workpiece or tool vibrates or chatters during operation.	<ol style="list-style-type: none"> <li>1. Spindle extended too far down during or at beginning of operation.</li> <li>2. Table locks not tight.</li> <li>3. Workpiece not secure.</li> <li>4. Spindle speed/feed rate too fast.</li> <li>5. Quill shaft lock screw not adjusted correctly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fully retract spindle and raise table to increase rigidity.</li> <li>2. Tighten table locks (Page 29).</li> <li>3. Properly clamp workpiece on table or in vise.</li> <li>4. Reduce spindle speed (Page 30); reduce feed rate.</li> <li>5. Adjust quill shaft screw (Page 40).</li> </ol>
Table hard to move.	<ol style="list-style-type: none"> <li>1. Table locked.</li> <li>2. Dirty or dry rack and pinion.</li> </ol>	<ol style="list-style-type: none"> <li>1. Disengage table locks (Page 29).</li> <li>2. Clean away chips/debris. Lubricate rack and pinion (Page 37).</li> </ol>
Bad surface finish.	<ol style="list-style-type: none"> <li>1. Spindle speed/feed rate too fast.</li> <li>2. Dull or incorrect cutting tool/bit.</li> <li>3. Workpiece not secure.</li> <li>4. Spindle extended too far down during or at beginning of operation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce spindle speed (Page 30); reduce feed rate.</li> <li>2. Sharpen cutting tool or select one that better suits the operation.</li> <li>3. Properly clamp workpiece on table or in vise.</li> <li>4. Fully retract spindle and raise table to increase rigidity.</li> </ol>
Spindle overheats.	<ol style="list-style-type: none"> <li>1. Machine operated at high speeds for extended period.</li> </ol>	<ol style="list-style-type: none"> <li>1. Allow drill to cool.</li> </ol>
Spindle does not fully retract.	<ol style="list-style-type: none"> <li>1. Poorly adjusted return spring.</li> <li>2. Debris on spindle/quill rack.</li> <li>3. Worn return spring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Increase return spring tension (Page 39).</li> <li>2. Clean and lubricate spindle/quill rack (Page 37).</li> <li>3. Replace return spring.</li> </ol>
Drill bit drifts.	<ol style="list-style-type: none"> <li>1. Dull/incorrectly sharpened drill bit.</li> <li>2. Tool/bit/chuck incorrectly installed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Correctly sharpen drill bit.</li> <li>2. Correctly re-install tool/bit (Page 28)/chuck (Page 19).</li> </ol>
Drill bit slips in chuck or stuck in workpiece.	<ol style="list-style-type: none"> <li>1. Chuck jaws loose.</li> <li>2. Workpiece squeezing drill bit, or feed rate too fast.</li> <li>3. Spindle speed/feed rate too slow.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten chuck jaws.</li> <li>2. Properly clamp workpiece on table or in vise; decrease feed rate.</li> <li>3. Increase spindle speed (Page 30); increase feed rate.</li> </ol>
Workpiece thrown from table.	<ol style="list-style-type: none"> <li>1. Workpiece not secure; tool/bit too large for feed speed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Properly clamp workpiece on table or in vise.</li> </ol>
Excessive runout or wobbling in chuck/drill bit.	<ol style="list-style-type: none"> <li>1. Debris between chuck-to-arbor mating surface.</li> <li>2. Tool/bit bent.</li> <li>3. Tool/bit installed incorrectly.</li> <li>4. Spindle bearings worn.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove chuck, clean, deburr tapered chuck and arbor mating surfaces, reassemble (Pages 26).</li> <li>2. Replace with straight tool/bit.</li> <li>3. Install tool/bit correctly (Page 28) or replace.</li> <li>4. Replace spindle bearings.</li> </ol>
Backside of workpiece splinters.	<ol style="list-style-type: none"> <li>1. Scrap board not installed between table and workpiece.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install scrap board between table and workpiece.</li> </ol>

# 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](http://www.shopfox.biz).

### WIRING DIAGRAM COLOR KEY

BLACK	BLUE	YELLOW	LIGHT BLUE
WHITE	BROWN	YELLOW GREEN	BLUE WHITE
GREEN	GRAY	PURPLE	TURQUOISE
RED	ORANGE	PINK	



# Wiring Diagram

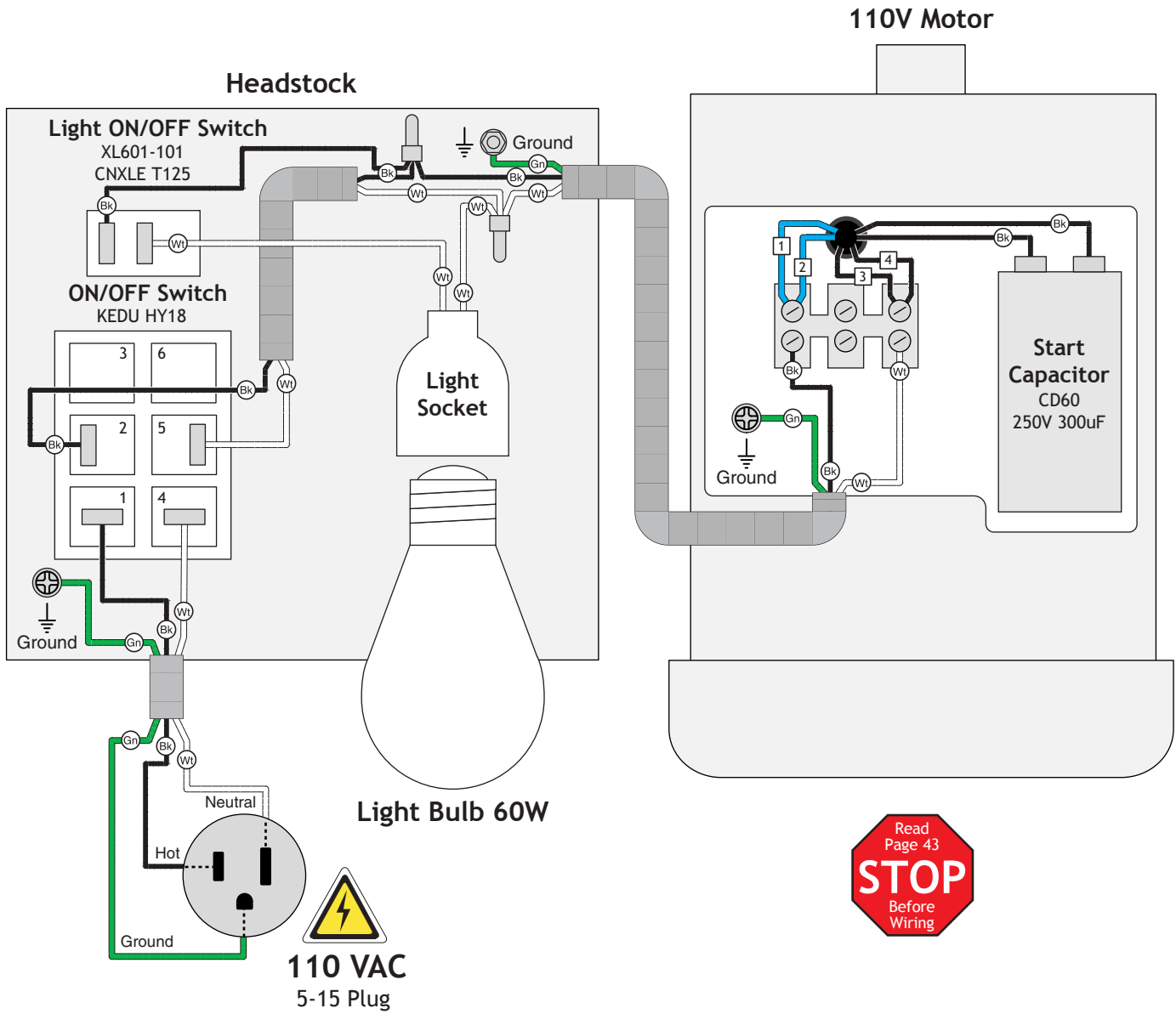


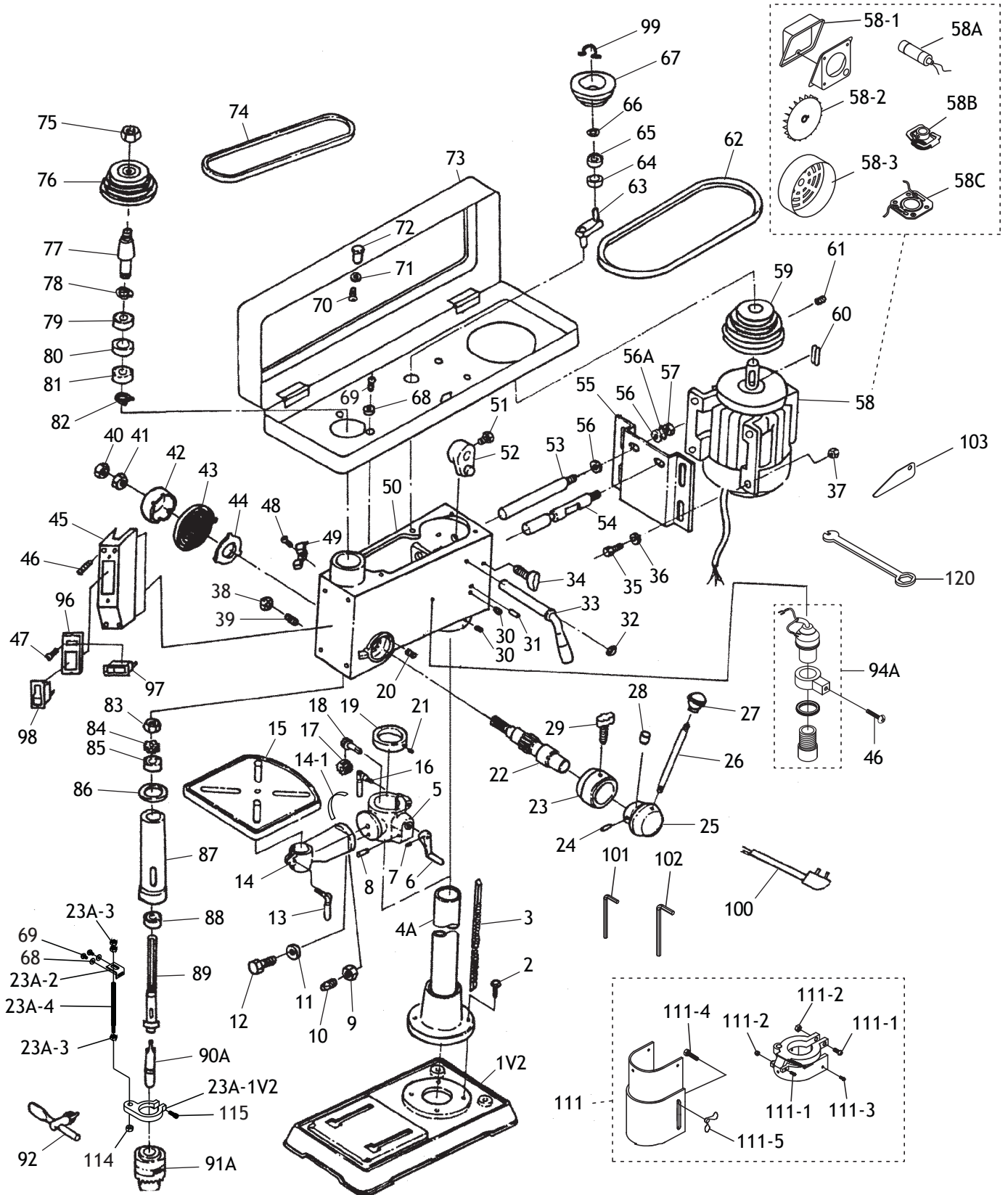
Figure 47. Control panel wiring.



Figure 48. Motor junction box wiring.

# PARTS

## Main





# Main Parts List

REF	PART #	DESCRIPTION
1V2	X1680001V2	BASE V2.04.03
2	X1680002	HEX BOLT M10-1.5 X 35
3	X1680003	RACK 31-15/16"
4A	X1680004A	COLUMN V2.04.03
5	X1680005	TABLE BRACKET
6	X1680006	CRANK HANDLE ASSEMBLY
7	X1680007	SET SCREW
8	X1680008	SHAFT
9	X1680009	HEX NUT M6-1
10	X1680010	PIN
11	X1680011	FLAT WASHER 16MM
12	X1680012	BOLT M16 X 40
13	X1680013	TABLE BOLT M10 X 30
14	X1680014	TABLE ARM BRACKET
14-1	X1680014-1	TABLE SCALE
15	X1680015	TABLE
16	X1680016	CLAMP BOLT M12 X 40
17	X1680017	GEAR
18	X1680018	WORM GEAR
19	X1680019	RACK RING
20	X1680020	PIN STOP
21	X1680021	SET SCREW M6-1 X 10
22	X1680022	FEED SHAFT
23	X1680023	SCALE RING
23A-1V2	X1680023A-1V2	DEPTH STOP BRACKET V2.12.12
23A-2	X1680023A-2	DEPTH STOP POINTER
23A-3	X1680023A-3	HEX NUT M12-1.5 THIN
23A-4	X1680023A-4	DEPTH STOP ROD
24	X1680024	ROLL PIN 5 X 40
25	X1680025	HANDLE BODY
26	X1680026	HANDLE
27	X1680027	KNOB
28	X1680028	ROLL PIN 5 X 40
29	X1680029	LOCK KNOB
30	X1680030	SET SCREW M10-1.5 X 10
31	X1680031	ROLL PIN 6 X 25
32	X1680032	SNAP RING
33	X1680033	SHIFTER BAR
34	X1680034	LOCK KNOB
35	X1680035	HEX BOLT M8-1.25 X 25
36	X1680036	FLAT WASHER 8MM
37	X1680037	HEX NUT M8-1.25
38	X1680038	HEX NUT M10-1.5
39	X1680039	SET SCREW M10-1.5 X 30 CONE-PT
40	X1680040	HEX NUT M12-1.75
41	X1680041	HEX NUT M12-1.75
42	X1680042	SPRING CAP
43	X1680043	SPRING TORSION
44	X1680044	SPRING COVER
45	X1680045	SWITCH BOX
46	X1680046	SCREW M5 X 12
47	X1680047	PHLP HD SCR M4-.7 X 10
48	X1680048	SCREW M5 X 10
49	X1680049	CORD CLAMP
50	X1680050	HEAD CASTING

REF	PART #	DESCRIPTION
51	X1680051	HEX BOLT M8-1.25 X 16
52	X1680052	SHIFTER
53	X1680053	SLIDE BAR
54	X1680054	SLIDE BAR
55	X1680055	MOTOR BASE
56	X1680056	FLAT WASHER 12MM
56A	X1680056A	LOCK WASHER 12MM
57	X1680057	HEX NUT M12-1.75
58	X1680058	MOTOR 1HP 110V 1-PH
58-1	X1680058-1	WIRE CONNECTION BOX
58-2	X1680058-2	MOTOR FAN
58-3	X1680058-3	MOTOR FAN COVER
58A	X1680058A	S CAPACITOR 300M 250V
58B	X1680058B	CENTRIFUGAL SWITCH
58C	X1680058C	CONTACT PLATE
59	X1680059	MOTOR PULLEY
60	X1680060	KEY 5 X 5 X 12
61	X1680061	SET SCREW M6-1 X 10
62	X1680062	V-BELT M28 3L280
63	X1680063	CENTER SHAFT
64	X1680064	BALL BEARING 6202ZZ
65	X1680065	BALL BEARING 6202ZZ
66	X1680066	INTERNAL RETAINING RING
67	X1680067	CENTER PULLEY
68	X1680068	FLAT WASHER 6MM
69	X1680069	PHLP HD SCR M6-1 X 10
70	X1680070	SET SCREW M6-1 X 10
71	X1680071	FLAT WASHER 5MM
72	X1680072	KNOB
73	X1680073	PULLEY COVER
74	X1680074	V-BELT
75	X1680075	PULLEY NUT
76	X1680076	SPINDLE PULLEY
77	X1680077	INSERT PULLEY
78	X1680078	INTERNAL RETAINING RING
79	X1680079	BALL BEARING 6207ZZ
80	X1680080	SPACER
81	X1680081	BALL BEARING 6207ZZ
82	X1680082	INTERNAL RETAINING RING
83	X1680083	ROUND NUT
84	X1680084	EXT TOOTH WASHER 16MM
85	X1680085	BALL BEARING 6206ZZ
86	X1680086	RUBBER WASHER 52
87	X1680087	SPINDLE SLEEVE
88	X1680088	BALL BEARING 6207ZZ
89	X1680089	SPINDLE
90A	X1680090A	ARBOR JT 1-16MM V2.03.03
91A	X1680091A	CHUCK 1-16MM JT3 V2.06.02
92	X1680092	DRL CHK KEY 7.83MM TH-SE 11T SD-16.37MM
94A	X1680094A	LIGHT SOCKET ASSY.
96	X1680096	SWITCH BASE
97	X1680097	LIGHT SWITCH XL601-101 CNXLE T125
98	X1680098	ON/OFF SWITCH KEDU HY18
99	X1680099	SNAP RING
100	X1680100	POWER CORD 16G 3W 102" 5-15P

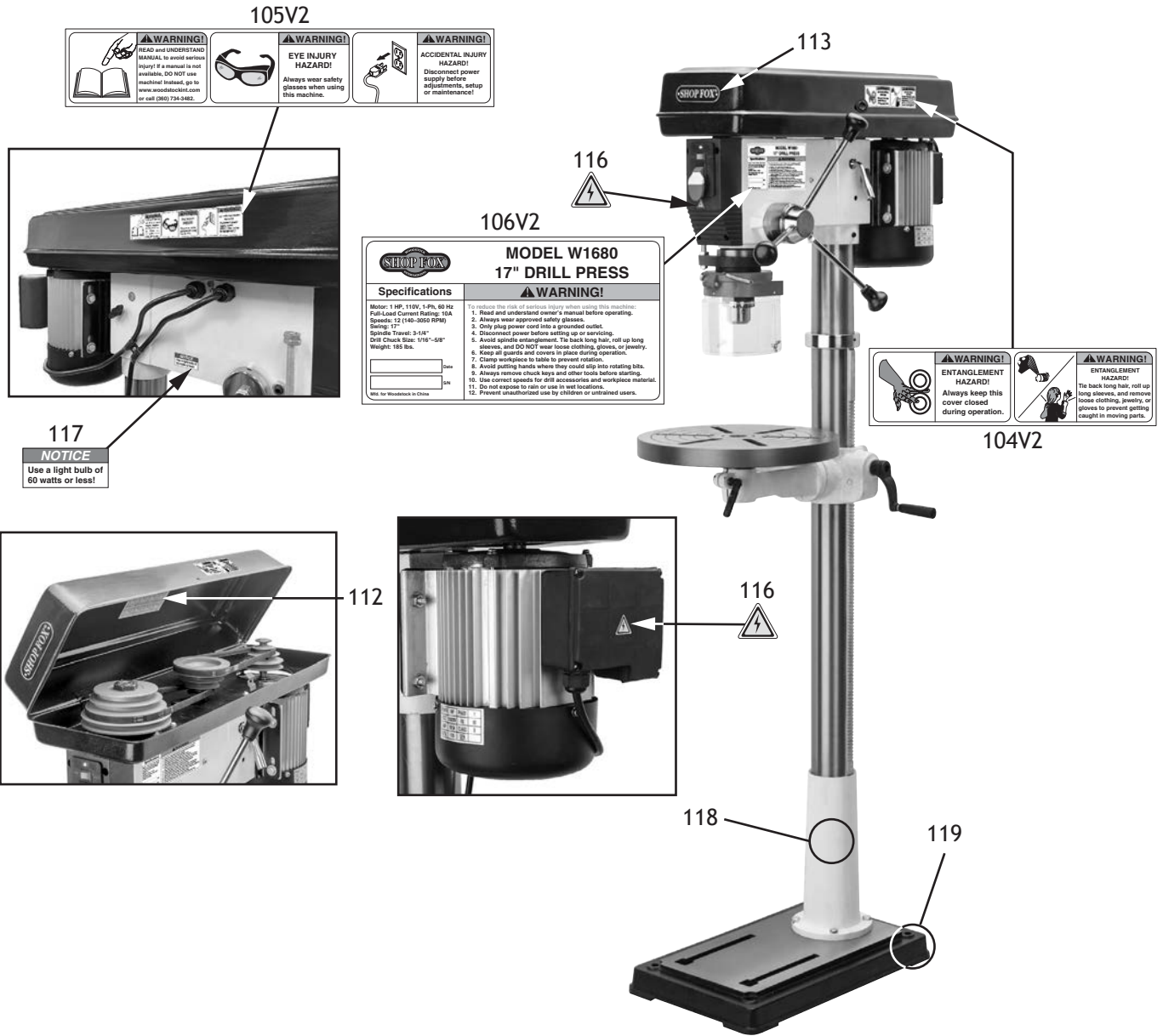


## Main Parts List (Cont.)

REF	PART #	DESCRIPTION
101	X1680101	HEX WRENCH 4MM
102	X1680102	HEX WRENCH 5MM
103	X1680103	DRIFT KEY
111	X1680111	CHUCK GUARD ASSEMBLY
111-1	X1680111-1	PHLP HD SCR M4-.7 X 30
111-2	X1680111-2	HEX NUT M4-.7

REF	PART #	DESCRIPTION
111-3	X1680111-3	TAP SCREW M2.2 X 4.5
111-4	X1680111-4	HEX BOLT M5-.8 X 12
111-5	X1680111-5	WING NUT M5-.8
114	X1680114	HEX NUT M8-1.25
115	X1680115	CAP SCREW M8-1.25 X 20
120	X1680120	WRENCH 7 X 24MM COMBO

# Labels & Cosmetics



REF	PART #	DESCRIPTION
104V2	X1680104V2	ENTANGLEMENT SAFETY LABEL V2.06.22
105V2	X1680105V2	COMBO WARNING LABEL V2.06.22
106V2	X1680106V2	MACHINE ID LABEL V2.06.22
112	X1680112	SPEED CHART
113	X1680113	SHOP FOX NAMEPLATE

REF	PART #	DESCRIPTION
116	X1680116	ELECTRICITY LABEL
117	X1680117	60W BULB LABEL
118	X1680118	TOUCH-UP PAINT, SHOP FOX WHITE
119	X1680119	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](http://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](http://www.woodstockint.com). Enter all applicable production information.



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