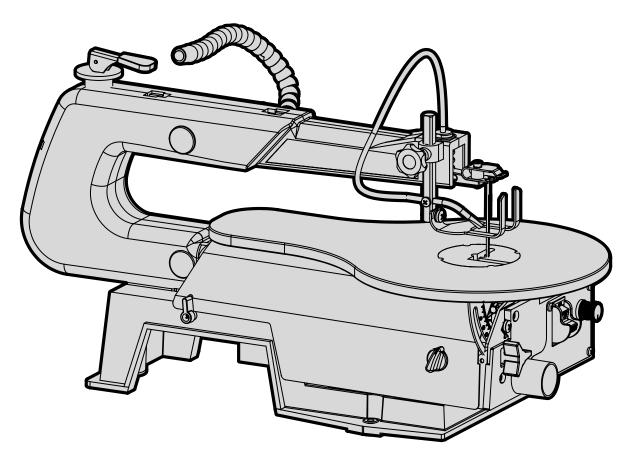
**MODEL 3923** 



# *16" VARIABLE SPEED* SCROLL SAW

**Instruction Manual** 



## **NEED HELP? CONTACT US!**

Have product questions? Need technical support? Please feel free to contact us:



1-847-429-9263 (M-F 8AM-5PM CST)



**TECHSUPPORT@WENPRODUCTS.COM** 

**IMPORTANT:** Your new tool has been engineered and manufactured to WEN's highest standards for dependability, ease of operation, and operator safety. When properly cared for, this product will supply you years of rugged. trouble-free performance. Pay close attention to the rules for safe operation, warnings, and cautions. If you use your tool properly and for its intended purpose, you will enjoy years of safe, reliable service.

## **CONTENTS**

WELCOME	3
Introduction	
Specifications	3
SAFETY	4
General Safety Rules	
Scroll Saw Safety Warnings	6
Electrical Information	7
BEFORE OPERATING	8
Unpacking & Packing List	
Know Your Scroll Saw	9
Assembly & Adjustment	10
OPERATION & MAINTENANCE	14
OPERATION & MAINTENANCE Operation	14
Maintenance	
Troubleshooting Guide	
Exploded View & Parts List	
Warranty Statement	23

## To purchase accessories for your tool, visit **WENPRODUCTS.COM**

Scroll Saw Stand (Model MSA1621)

Momentary Power Foot Pedal Switch (Model WA0392)

Replacement Scroll Saw Blades

(Models BLE-series, BLG-series, BLK-series, BLR-series, BLX-series, and 3920B-076)

## INTRODUCTION

Thanks for purchasing the WEN Scroll Saw. We know you are excited to put your tool to work, but first, please take a moment to read through the manual. Safe operation of this tool requires that you read and understand this operator's manual and all the labels affixed to the tool. This manual provides information regarding potential safety concerns, as well as helpful assembly and operating instructions for your tool.

SAFETY ALERT SYMBOL: Indicates danger, warning, or caution. The safety symbols and the explanations with them deserve your careful attention and understanding. Always follow the safety precautions to reduce the risk of fire, electric shock or personal injury. However, please note that these instructions and warnings are not substitutes for proper accident prevention measures.

**NOTE**: The following safety information is not meant to cover all possible conditions and situations that may occur. WEN reserves the right to change this product and specifications at any time without prior notice.

At WEN, we are continuously improving our products. If you find that your tool does not exactly match this manual, please visit **wenproducts.com** for the most up-to-date manual or contact our customer service at **1-847-429-9263**.

Keep this manual available to all users during the entire life of the tool and review it frequently to maximize safety for both yourself and others.

## **SPECIFICATIONS**

Model Number	3923
Motor	120V, 60 Hz, 1.2A
Speed	550 to 1600 SPM
Throat Depth	16 Inches
Blade	5 Inches, Pinned & Pinless
Blade Stroke	9/16 Inches
Cutting Capacity	2 Inches at 90°
Table Tilt	0° to 45° Left
Dust Port Inner Diameter	1.21 in. (30.85mm)
Dust Port Outer Diameter	1.40 in. (35.53 mm)
Overall Dimensions	26-3/8" x 13" x 14-3/4"
Weight	27.5 Pounds
	15 TPI Pinned Blade
Includes	18 TPI Pinned Blade
	18 TPI Pinless Blade

## **GENERAL SAFETY RULES**

**WARNING!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Safety is a combination of common sense, staying alert and knowing how your item works. The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

#### SAVE THESE SAFETY INSTRUCTIONS.

#### **WORK AREA SAFETY**

- **1. Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- 2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- 3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### **ELECTRICAL SAFETY**

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

6. If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock.

#### PERSONAL SAFETY

- 1. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- 2. Use personal protective equipment. Always wear eye protection. Protective equipment such as a respiratory mask, non-skid safety shoes and hearing protection used for appropriate conditions will reduce the risk of personal injury.
- 3. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
- **4.** Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- **5.** Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- 6. Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.

## **GENERAL SAFETY RULES**

**WARNING!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Safety is a combination of common sense, staying alert and knowing how your item works. The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

#### SAVE THESE SAFETY INSTRUCTIONS.

7. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

#### **POWER TOOL USE AND CARE**

- 1. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- 2. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- 3. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- 4. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- 5. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- **6. Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

- 7. Use the power tool, accessories and tool bits, etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
- **8.** Use clamps to secure your workpiece to a stable surface. Holding a workpiece by hand or using your body to support it may lead to loss of control.
- **9. KEEP GUARDS IN PLACE** and in working order.

#### SERVICE

1. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

#### CALIFORNIA PROPOSITION 65 WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities may contain chemicals, including lead, known to the State of California to cause cancer, birth defects, or other reproductive harm. Wash hands after handling. 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 with approved safety equipment such as dust masks specially designed to filter out microscopic particles.

## **SCROLL SAW SAFETY WARNINGS**

**WARNING!** Do not operate the power tool until you have read and understood the following instructions and the warning labels.

#### **BEFORE OPERATION**

- 1. Check for both proper assembly and proper alignment of moving parts.
- 2. Understand the proper use of the ON / OFF switch.
- 3. Know the condition of the scroll saw. If any part is missing, bent, or does not operate properly, replace the component before attempting to operate the scroll saw.
- 4. Determine the type of work you are going to be doing. Properly protect your body including your eyes, hands, face, and ears.
- 5. To avoid injury caused by pieces thrown from accessories, use only recommended accessories designed for this saw. Follow the instructions supplied with the accessory. The use of improper accessories may cause risk of injury.

#### 6. To avoid contact with rotating equipment:

- Do not put your fingers in a position where they risk contacting the blade if the workpiece unexpectedly shifts or your hand unexpectedly slips.
- Do not cut a workpiece too small to be held safely.
- Do not reach under the scroll saw table when the motor is running.
- Do not wear loose clothing or jewelry. Roll long sleeves above the elbow. Tie back long hair.
- 7. To avoid injury from accidental startups of the scroll saw:
- Make sure to turn OFF the switch and unplug the power cord from the electric outlet before changing the blade, performing maintenance or making adjustments.
- Make sure the switch is OFF before plugging in the power cord to an electric outlet.
- 8. To avoid injury from a fire hazard, do not operate the scroll saw near flammable liquids, vapors or gases.

#### 9. To avoid back injury:

- Obtain help when raising the scroll saw more than 10 inches (25.4 cm). Bend your knees when lifting the scroll saw.

- Carry the scroll saw by its base. Do not move the scroll saw by pulling on the power cord. Pulling on the power cord could cause damage to the insulation or the wire connections resulting in electric shock or fire.

#### SCROLL SAW SAFETY

#### 1. To avoid injury from unexpected saw movement:

- Use the scroll saw on a firm level surface with adequate space for handling and supporting the workpiece.
- Be sure the scroll saw cannot move when operated. Secure the scroll saw to a workbench or table with wood screws or bolts, washers and nuts.
- 2. Before moving the scroll saw, unplug the power cord from the electrical outlet.

#### 3. To avoid injury from kickback:

- Hold the workpiece firmly against the tabletop.
- Do not feed the workpiece too fast while cutting. Only feed the workpiece at the rate the saw will cut.
- Install the blade with the teeth pointing downward.
- Do not start the saw with the workpiece pressing against the blade. Slowly feed the workpiece into the moving blade.
- Use caution when cutting round or irregularly shaped workpieces. Round items will roll and irregularly shaped workpieces can pinch the blade.

#### 4. To avoid injury when operating the scroll saw:

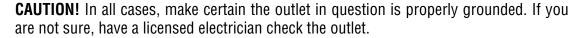
- Obtain advice from a qualified person if you're not thoroughly familiar with the operation of scroll saws.
- Before starting the saw, make sure the blade tension is correct. Recheck and adjust tension as needed.
- Make sure the table is locked into position before starting the saw.
- Do not use dull or bent blades.
- When cutting a large workpiece, make sure the material is supported at the table height.
- Turn the saw OFF and unplug the power cord if the blade jams in the workpiece. This condition is usually caused by sawdust clogging the line you are cutting. Wedge open the workpiece and back out the blade after turning off and unplugging the machine.

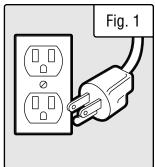
## **ELECTRICAL INFORMATION**

#### GROUNDING INSTRUCTIONS

**In the event of a malfunction or breakdown**, grounding provides the path of least resistance for an electric current and reduces the risk of electric shock. This tool is equipped with an electric cord that has an equipment grounding conductor and a grounding plug. The plug MUST be plugged into a matching outlet that is properly installed and grounded in accordance with ALL local codes and ordinances.

- **1. Do not modify the plug provided.** If it will not fit the outlet, have the proper outlet installed by a licensed electrician.
- **2. Improper connection** of the equipment grounding conductor can result in electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. If repair or replacement of the electric cord or plug is necessary, DO NOT connect the equipment grounding conductor to a live terminal.
- **3. Check** with a licensed electrician or service personnel if you do not completely understand the grounding instructions or whether the tool is properly grounded.
- **4. Use only three-wire extension cords** that have three-pronged plugs and outlets that accept the tool's plug (INSERT CR). Repair or replace a damaged or worn cord immediately.





#### **GUIDELINES AND RECOMMENDATIONS FOR EXTENSION CORDS**

When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The table below shows the correct size to be used according to cord length and ampere rating. When in doubt, use a heavier cord. The smaller the gauge number, the heavier the cord.

AMPERAGE		<b>REQUIRED GAUGE FO</b>	R EXTENSION CORDS	
AWIFERAUE	25 ft.	50 ft.	100 ft.	150 ft.
1.2A	18 gauge	16 gauge	16 gauge	14 gauge

- **1. Examine extension cord before use.** Make sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.
- **2. Do not abuse extension cord.** Do not pull on cord to disconnect from receptacle; always disconnect by pulling on plug. Disconnect the extension cord from the receptacle before disconnecting the product from the extension cord. Protect your extension cords from sharp objects, excessive heat and damp/wet areas.
- **3. Use a separate electrical circuit for your tool.** This circuit must not be less than a 12-gauge wire and should be protected with a 15A time-delayed fuse. Before connecting the motor to the power line, make sure the switch is in the OFF position and the electric current is rated the same as the current stamped on the motor nameplate. Running at a lower voltage will damage the motor.

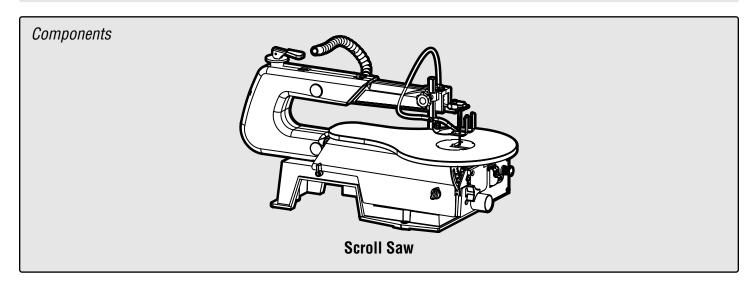
## **UNPACKING & PACKING LIST**

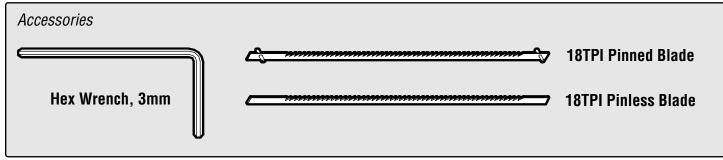
#### UNPACKING

With the help of a friend or trustworthy foe, such as one of your in-laws, carefully remove the scroll saw from the packaging and place it on a sturdy, flat surface. Make sure to take out all contents and accessories. Do not discard the packaging until everything is removed. Check the packing list below to make sure you have all of the parts and accessories. If any part is missing or broken, please contact customer service at **1-847-429-9263** (M-F 8-5 CST), or email **techsupport@wenproducts.com**.

CAUTION! Do not lift the saw by the arm that holds the blade. The saw will be damaged. Lift the saw by the table and back housing.

**WARNING!** To avoid injury from accidental startups, turn switch OFF and remove the plug from the power source before making any adjustments.

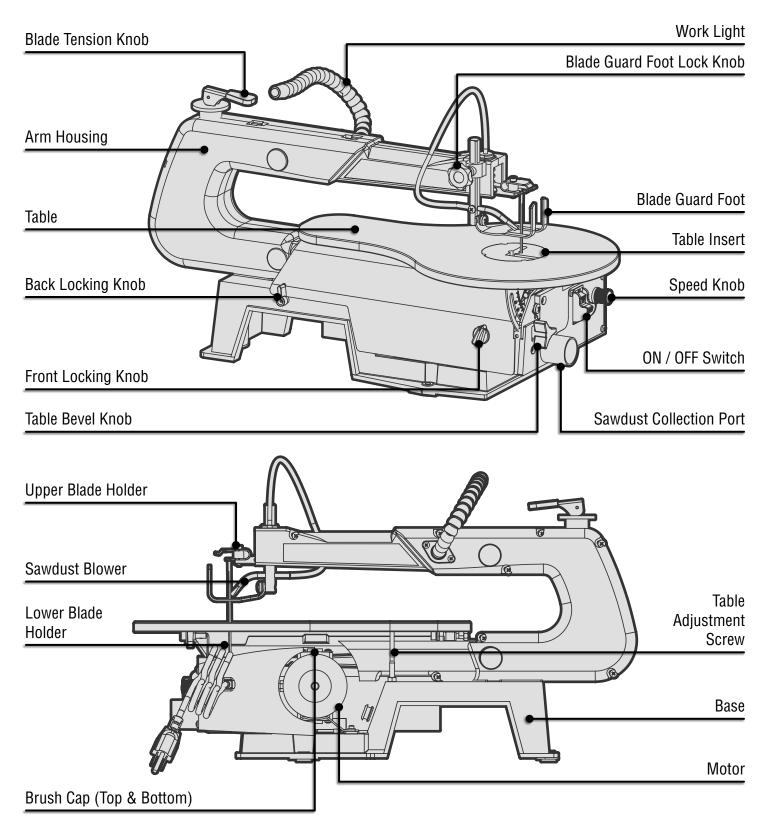




## KNOW YOUR SCROLL SAW

#### **TOOL PURPOSE**

Take on the most intricate and artful cuts with your WEN Scroll Saw. Refer to the following diagrams to become familiarized with all the parts and controls of your scroll saw. The components will be referred to later in the manual for assembly and operation instructions.



**NOTE:** Prior to making adjustments, mount the scroll saw on a stable surface. See "BENCH MOUNTING THE SAW."

#### ALIGN THE BEVEL INDICATOR

The bevel indicator has been adjusted at the factory, but should be rechecked prior to use for best operation.

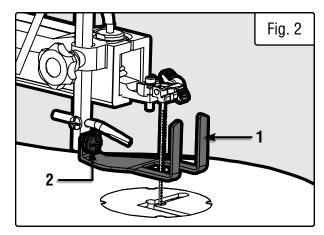
- 1. Remove the blade guard foot (Fig. 2 1), using a Phillips head screwdriver (not included) to loosen the screw (Fig. 2 2).
- 2. Loosen the table bevel lock knob (Fig. 3 1) and bevel the table until it is approximately at a right angle to the blade.
- 3. Loosen the locking nut (Fig. 4 1) on the table adjusting screw (Fig. 4 2) under the table by turning it counter-clockwise. Lower the table adjusting screw by turning it clockwise.
- 4. Use a combination square (Fig. 5 1) to set the table exactly 90° to the blade (Fig. 5 2). If there is space between the square and blade, adjust the table angle until the space is closed.
- 5. Lock the table bevel lock knob (Fig. 3 1) under the table to prevent movement.
- 6. Tighten the adjusting screw (Fig. 4 2) under the table until the head of the screw touches the table. Tighten the lock nut (Fig. 4 1).
- 7. Loosen the screw (Fig. 3 2) holding the bevel scale pointer and position pointer to 0°. Tighten the screw.
- 8. Attach the blade guard foot (Fig. 2 1) so the foot rests flat against the table. Tighten the screw (Fig. 2 2) using a Phillips head screwdriver (not included).

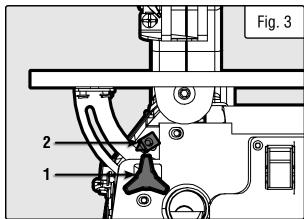
**NOTE:** Avoid setting the edge of the table against the top of the motor. This can cause excess noise when the saw is running.

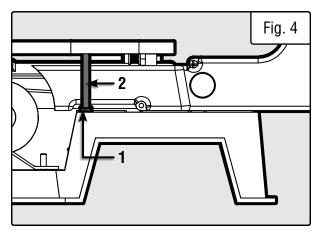
#### BENCH MOUNTING THE SAW

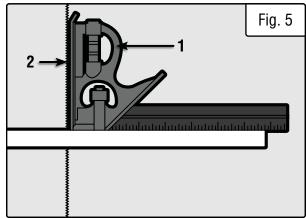
Before operating the saw, it must be firmly mounted to a work-bench or another rigid frame. Use the base of the saw to mark and pre-drill the mounting holes on the mounting surface. If the saw is to be used in one location, permanently secure it to the work surface. Use wood screws if mounting to wood. Use bolts, washers, and nuts if mounting into metal. To reduce noise and vibration, install a soft foam pad (not supplied) between the scroll saw and the workbench.

**NOTE:** Mounting hardware is not included.









## **MARNING!** TO REDUCE RISK OF INJURY:

- When carrying the saw, hold it close to your body to avoid injury to your back. Bend your knees when lifting the saw.
- Carry the saw by the base. Do not carry the saw by the power cord or upper arm.
- Secure the saw in a position where people cannot stand, sit, or walk behind it. Debris thrown from the saw could injure people standing, sitting, or walking behind it. Secure the saw on a firm, level surface where the saw cannot rock. Make sure there is adequate room for handling and properly supporting the workpiece.



When cutting at angles, the blade guard foot should be adjusted so it is parallel to the table and rests flat above the workpiece.

- 1. To adjust, loosen the screw (Fig. 6 1), tilt the foot (Fig. 6 2) so it is parallel to the table, and tighten the screw.
- 2. Loosen the height adjustment knob (Fig. 7 1) to raise or lower the foot until it just rests on top of the workpiece. Tighten the knob.

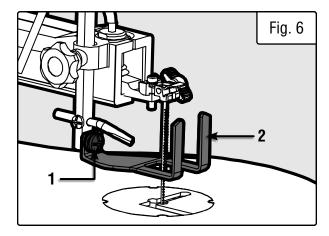
#### ADJUSTING THE DUST BLOWER

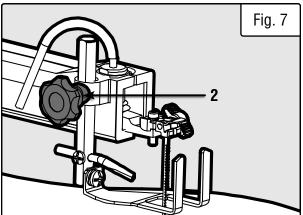
For best results, the dust blower tube (Fig. 8 - 1) should be adjusted to direct air at both the blade and the workpiece.

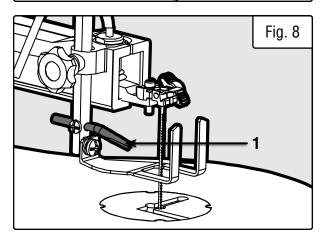
#### **DUST COLLECTION PORT**

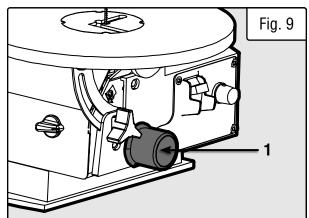
A hose or vacuum accessory (not provided) should be connected to the dust chute (Fig. 9 - 1). If excessive sawdust buildup occurs inside the base, use a wet/dry vacuum cleaner or manually remove sawdust by unlocking both side panel knobs and opening the side panel open. Once the sawdust is removed, close the side panel and re-lock both knobs to ensure safe and efficient cutting.

**Dust Port Inner Diameter:** 1.21 in. (30.85mm) **Dust Port Outer Diameter:** 1.40 in. (35.53 mm)









#### **BLADE SELECTION**

This scroll saw accepts 5" long pin-end and pinless blades, with a wide variety of blade thicknesses and widths. The type of material and intricacies of cutting operations will determine the number of teeth per inch. Always select the narrowest blades for intricate curve cutting and the widest blades for straight and large curve cutting operations. The table below represents suggestions for various materials. Use this table as an example, but with practice, personal preference will be the best selection method.

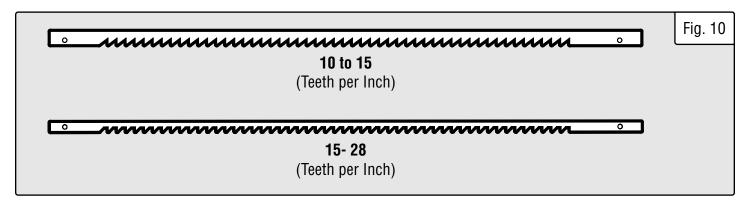
When choosing a blade, use very fine, narrow blades to scroll cut in thin wood 1/4" thick or less.

Use wider blades for thicker materials

**NOTE:** This will reduce the ability to cut tight curves. A smaller blade width can cut circles with smaller diameters.

**NOTE:** Thinner blades will tend to deflect more when making bevel cuts.

Teeth per Inch	Blade Width	Blade Thickness	Blade SPM	Material Cut
10 to 15	0.11"	0.018"	500 to 1200 SPM	Medium turns on 1/4" to 1-3/4" wood, soft metal, hardwood
15 to 28	0.055" to 0.11"	0.01" to 0.018"	800 to 1700 SPM	Small turns on 1/8" to 1-1/2" wood, soft metal, hardwood



#### **BLADE CARE**

#### To maximize the life of your scroll saw blades:

- 1. Do not bend blades when installing.
- 2. Always set proper blade tension.
- 3. Use the right blade (see instruction on replacement blade packaging for proper use).
- 4. Feed the work correctly into the blade.
- 5. Use thin blades for intricate cutting.

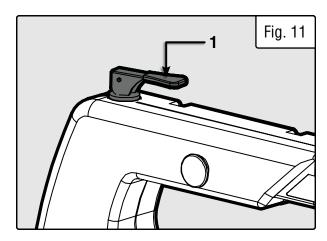
**CAUTION!** Any and all servicing should be performed by a qualified service center.

WARNING! To prevent personal injury, always turn saw OFF and disconnect the plug from the power source before changing blades or making adjustments.

This saw uses pinned and pinless blades. Pinned blades are thicker for stability and for faster assembly. They provide faster cutting on a variety of materials.

**NOTE:** When installing pinned blades, the slot on the blade holder must be slightly wider than the thickness of the blade. After the blade is installed, the blade tension mechanism will keep it in place.

**TIP:** The table insert can be removed during blade changes to provide more access to the blade holders, but this is not mandatory. The table insert should always be replaced before using the saw.



#### REMOVING THE BLADE

- 1. To remove the blade, relieve the tension on it by lifting up the blade tension lever (Fig. 11 1). If necessary, turn the lever counterclockwise to loosen the blade holder further.
- 2. Unlock both the front locking knob (Fig. 12 1) and back locking knob (Fig. 12 2) and open the side panel.
- 3. Remove the blade from the blade holders (Fig. 13 1).
- **For a pinned blade**, push down on the upper blade holder to remove the blade from the upper blade holder and then remove the blade from the lower blade holder.
- **For a pinless blade**, ensure that there is slack in the blade and it is not tensioned. Loosen the thumbscrews (Fig. 13 2) in the top and bottom blade holders and remove the blade from the holders.

#### INSTALLING THE BLADE

4. Install the blade on the blade holders (Fig. 13 - 1).

#### For Pinned Blade:

**CAUTION:** Install the blade with the teeth pointing downward.

- Hook the blade pins in the recess of the lower blade holder.
- While pushing down on the upper blade holder (Fig. 13 - 1), insert the blade pins into the recess of the upper blade holder.

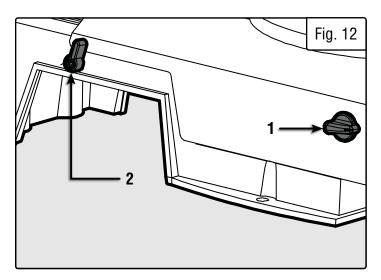
#### For Pinless Blade:

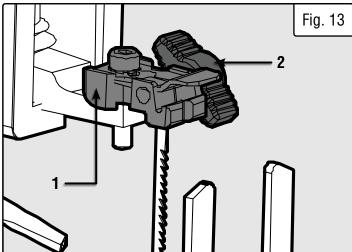
**CAUTION:** Install the blade with the teeth pointing downward.

- Ensure the thumbscrew (Fig. 13 2) on the lower blade holder is loose and insert the blade into the opening of the lower blade holder.
- Secure the blade in the lower blade holder by tightening the thumb screw.

**TIP:** Thread the workpiece through the pilot hole of the workpiece if making an interior cut.

- Ensure the thumbscrew (Fig. 13 2) on the upper blade holder (Fig. 13 1) is loose and insert the blade into the opening of the upper blade holder.
- Secure the blade in the upper blade holder (Fig. 13 1) by tightening the thumb screw.
- 5. Push the tension lever down and make sure the blade is properly positioned.
- 6. Turn the tension lever clockwise until the desired tension in the blade is achieved. **TIP:** A properly-tensioned blade will make a high-C sound (C6, 1047 Hz) when plucked with a finger. A brand-new blade will stretch when first tensioned, and may require adjustment.
- 7. Close the side panel and secure it by locking both the front (Fig. 12 1) and back (Fig. 12 2) locking knobs.





### **OPERATION**

#### RECOMMENDATIONS FOR CUTTING

A scroll saw is basically a curve-cutting machine. It can also be used for straight cutting and beveling or angle cutting operations. Please read and understand the following directions before attempting to use the saw.

- 1. When feeding the workpiece into the blade, do not force it against the blade. This could cause blade deflection and poor cutting performance. Let the tool do the work.
- 2. The blade teeth cut material ONLY on the down stroke. Ensure the blade teeth point downwards.
- 3. Guide the wood into the blade slowly. Again, let the tool do the work.
- 4. There is a learning curve for each person using this saw. During that period, expect some blades to break as you get the hang of using the saw.
- 5. Best results are achieved when cutting wood one inch thick or less.
- 6. When cutting wood thicker than one inch, guide the wood slowly into the blade and take extra care not to bend or twist the blade while cutting, in order to maximize blade life.
- 7. Teeth on scroll saw blades wear out, and the blades must be replaced frequently for best cutting results. Scroll saw blades generally stay sharp for 1/2 hour to 2 hours of cutting, depending on the type of cut, wood species, etc.
- 8. To get accurate cuts, be prepared to compensate for the blade's tendency to follow the wood grain.
- 9. This scroll saw is primarily designed to cut wood or wood products. For cutting precious and non-ferrous metals, the variable control switch must be set at very slow speeds.
- 10. When choosing a blade, use very fine, narrow blades to scroll cut in thin wood 1/4" thick or less. Use wider blades for thicker materials. This, however, will reduce the ability to cut tight curves.
- 11. Blades wear down faster when cutting plywood or very abrasive particle board. Angle cutting in hardwoods also wears blades down faster.

### **OPERATION**

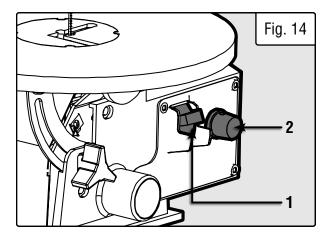
#### **ON/OFF & SPEED CONTROL SWITCH**

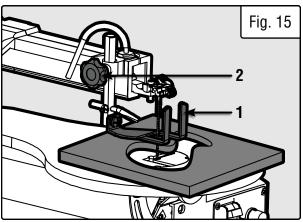
Always wait for the saw to come to a complete stop before restarting.

- 1. To turn the saw on, flip the ON/OFF switch (Fig. 14 1) to ON. When first starting the saw, it is best to move the speed control knob (Fig. 14 2) to the middle speed position.
- 2. Adjust the blade speed to the desired setting between 400 to 1600 strokes per minute (SPM). Turning the control knob clockwise increases speed; turning it counterclockwise reduces speed.
- 3. To turn the saw off, flip the ON/OFF switch back to OFF.
- 4. To lock the switch in the OFF position, remove the yellow safety key from the switch. This will prevent accidental operation. Store the safety key in a safe place.

**WARNING!** Remove the safety key whenever the drill is not in use. Place the key in a safe place and out of the reach of children.

**WARNING!** To avoid injury from accidental start-ups, always turn the switch OFF and unplug the scroll saw before moving the tool, replacing the blade, or making adjustments.





#### FREEHAND CUTTING

- 1. Lay out desired design, or secure design to the workpiece.
- 2. Raise the blade guard foot (Fig. 15 1) by loosening the height adjustment knob (Fig. 15 2).
- 3. Position the workpiece against the blade and place the blade guard foot against the top surface of the workpiece.
- 4. Secure the blade guard foot (Fig. 15 1) by tightening the height adjustment knob (Fig. 15 2).
- 5. Remove the workpiece from the blade prior to turning the scroll saw ON.

**CAUTION!** Always make sure the blade is not in contact with the workpiece before turning the saw ON.

6. Slowly feed the workpiece into the blade while holding the workpiece securely against the table.

CAUTION! Do not force the leading edge of the workpiece into the blade. The blade will deflect, reducing accuracy of cut, and may break

7. When cutting is complete, move trailing edge of the workpiece beyond the blade guard foot. Turn the switch OFF.

### **OPERATION**

## **ANGLE CUTTING (BEVELING)**

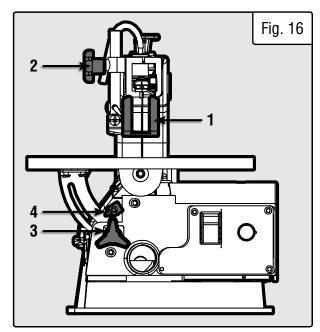
- 1. Layout or secure design to workpiece.
- 2. Move the blade guard foot (Fig. 16 1) to the highest position by loosening the height adjustment knob (Fig. 16 2) and retighten.
- 3. Tilt the table to the desired angle by loosening the table bevel lock knob (Fig. 16 3). Move the table to the proper angle using the degree scale and the pointer (Fig. 16 4).
- 4. Tighten the table bevel lock knob (Fig. 16 3).
- 5. Loosen the blade guard screw (Fig. 16 2), and tilt the blade guard (Fig. 16 1) to the same angle as the table. Retighten the blade guard screw.
- 6. Position the workpiece on the right side of the blade. Lower the blade guard foot against the surface by loosening the height adjustment knob. Retighten.
- 7. Follow steps 5 to 7 under Freehand cutting.

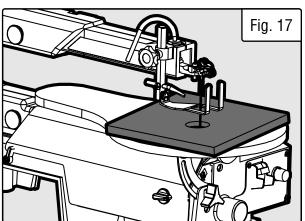
## INTERIOR CUTTING & FRETWORK (FIG. 17)

- 1. Lay out the design on the workpiece. Drill a 1/4" pilot hole in the workpiece.
- 2. Remove the blade. See "BLADE REMOVAL AND INSTALLATION" on p. 13.

**NOTE:** If you are not changing blades, only remove the blade from the upper blade holder. Leave it installed in the lower blade holder. If you are changing blades, install the new blade in the lower blade holder. Do not secure it in the upper blade holder yet.

- 3. Place the workpiece on the saw table, threading the blade through the hole in the workpiece. Secure the blade in the upper blade holder, as directed in "BLADE REMOVAL AND INSTALLATION" on p. 13.
- 4. Follow steps 3-7 under "FREEHAND CUTTING" on p. 15.
- 5. When finished making the interior scroll cuts, simply turn the scroll saw OFF. Unplug the saw and relieve blade tension before removing the blade from the upper blade holder. Remove the workpiece from the table.





### **OPERATION**

#### RIP OR STRAIGHT LINE CUTTING

- 1. Raise the blade guard foot (Fig. 16 1) by loosening the height adjustment knob (Fig. 16 2).
- 2. Measure from the tip of the blade to the desired distance. Position the straight edge parallel to the blade at that distance.
- 3. Clamp the straight edge to the table.
- 4. Recheck your measurements using the workpiece to be cut and make sure the straight edge is secure.
- 5. Position the workpiece against the blade and place the blade guard foot against the top surface of the workpiece.
- 6. Secure the blade guard foot in place by tightening the height adjustment knob.
- 7. Remove the workpiece from the blade prior to turning the scroll saw ON.

CAUTION! In order to avoid uncontrollable lifting of the workpiece and reduce blade breakage, do not turn the switch on while the workpiece is against the blade.

- 8. Position the workpiece against the straight edge prior to touching the leading edge of the workpiece against the blade.
- 9. Slowly feed the workpiece into the blade, guiding the workpiece against the straight edge and pressing the workpiece down against the table.

CAUTION! Do not force the leading edge of the workpiece into the blade. The blade will deflect, reducing the accuracy of the cut, and may even break.

10. When the cut is complete, move trailing edge of the workpiece beyond the blade guard foot. Turn the switch OFF.

### MAINTENANCE

**WARNING!** Always turn the switch OFF and unplug the power cord from the outlet before maintaining or lubricating the scroll saw.

To ensure that the wood glides smoothly across the work surface, periodically apply a coat of paste wax (sold separately) to the surface of the worktable. If the power cord is worn out or damaged in any way, replace it immediately. Do not attempt to oil the motor bearings or service the motor's internal parts.

#### CARBON BRUSH REPLACEMENT

The wear on the carbon brushes depends on how frequently and how heavily the tool is used. To maintain maximum efficiency of the motor, we recommend inspecting the two carbon brushes every 60 hours of operation or when the tool stops working. The carbon brushes can be found on the top and bottom of the motor.

- 1. Unplug the saw. To access the carbon brushes, remove the carbon brush cover with a flat-head screwdriver (not included). Turn the saw on its side to access the carbon brush cap on the bottom of the motor.
- 2. Carefully remove the old carbon brushes using pliers. Keep track of which orientation the old carbon brushes were in to prevent needless wear if they will be reinstalled.
- 3. Measure the length of the brushes. Install the new set of carbon brushes if either carbon brush length is worn down to 3/16" or less. Reinstall the old carbon brushes (in their original orientation) if your brushes are not worn down to 3/16" or less. Both carbon brushes should be replaced at the same time. Replacement carbon brushes (part 3920B-071-2) can be purchased from wenproducts.com.
- 4. Replace the carbon brush cover.

**NOTE:** New carbon brushes tend to spark for a few minutes during the first use as they wear down.

#### LUBRICATION

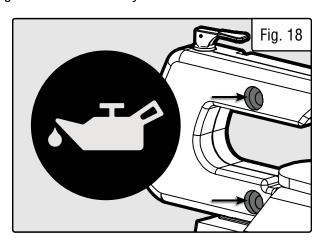
Lubricate the arm bearings every 50 hours of use.

- 1. Turn the saw on its side and remove the cover.
- 2. Squirt a generous amount of SAE 20 oil (lightweight motor oil, sold separately) around the shaft and bearing.
- 3. Let the oil soak in overnight.
- 4. Repeat the above procedure for the opposite side of the saw.
- 5. The other bearings on your saw are permanently sealed and require no additional lubrication.

#### **BLADES**

To maximize the life of your scroll saw blades:

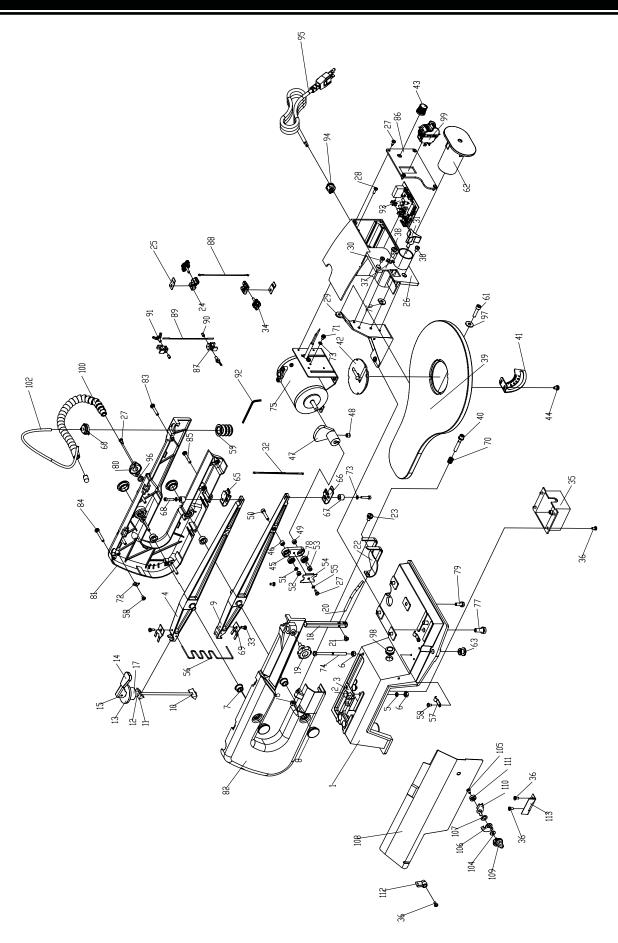
- 1. Do not bend blades when installing.
- 2. Always set proper blade tension.
- 3. Use the right blade (see instructions on replacement blade packaging for proper use).
- 4. Feed the work correctly into the blade.
- 5. Use thin blades for intricate cutting.



## TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SOLUTION
	1. Machine not plugged in.	1. Plug unit into power source.
	2. Incorrect size of extension cord.	2. Choose the proper size and length of extension cord.
	3. Worn carbon brushes.	3. Replace carbon brushes; see p. 18.
Motor will not start.	4. Blown fuse on main PCB.	4. Replace fuse (T5AL250V, 5mm x 20mm). Contact customer service at 1-847-429-9263 for assistance.
	5. Defective power switch, PCB, or motor.	5. Contact customer service at 1-847-429-9263.
Variable speed does not work.	1. Defective potentiometer (3920B-075).	1. Contact customer service at 1-847- 429-9263
variable speed does not work.	2. Defective PCB (3920B-049).	2. Contact customer service at 1-847- 429-9263
	1. Side panel open.	Make sure side panel is closed for optimum dust collection.
Dust collection ineffective.	2. Dust collection system not strong enough.	2. Use a stronger system, or reduce the length of the dust collection hose.
	3. Broken/blocked blower bellows or line.	3. Contact customer service at 1-847-429-9263.
	1. Machine speed set at a harmonic frequency of the saw.	1. Adjust speed up or down to see if issue is resolved.
	2. Machine not secured to work surface.	2. Secure machine to work surface.
Excessive vibration.	3. Incorrect blade tension.	3. Adjust blade tension (see p. 13).
LAGGSSIVE VIDIATION.	4. Hold-down foot not being used.	4. Adjust hold-down foot to slightly clear workpiece surface when cutting.
	5. Loose fastener.	5. Check machine for loose fasteners.
	6. Defective bearing.	6. Contact customer service at 1-847-429-9263.
	1. Blade tension set too high.	1. Reduce blade tension; see p. 13.
	2. Incorrect blade size.	2. Use a larger (thicker) blade more suitable for the job at hand.
Blades keep breaking.	3. Incorrect blade tooth pitch.	3. Choose a blade with more or fewer teeth per inch (TPI); a minimum of 3 teeth should contact workpiece at all times.
	4. Excessive pressure on blade.	4. Reduce pressure on blade. Let the tool do the work.
Blade drift, or otherwise poor cuts.	1. Excessive pressure on blade.	Reduce pressure on blade. Let the tool do the work.
blade utilit, of otherwise poor cuts.	2. Blade mounted upside-down.	2. Mount blade with teeth pointing down (towards work table).
Tension mechanism does not work.	Broken tension mechanism spring.	Contact customer service at 1-847-429-9263.

## **EXPLODED VIEW & PARTS LIST**



## EXPLODED VIEW & PARTS LIST

No.	Model No.	Description	Qty.
1	3920B-006	Base	1
2	3920B-030	Screw M6×20	4
3	3920B-029	Fixing Plate	2
4	3920C-015	Upper Arm	1
5	3920B-005	Spring Washer	4
6	3920B-004	Hex Nut M6	6
7	3920C-016	Oil bearing	4
8	3920B-007	Oil Cover	4
9	3920C-014	Lower Arm	1
10	3923-010	Fixed Block	1
11	3923-011	Movable Block	1
12	3923-012	Spacer Tube	2
13	3923-013	Flat Washer	1
14	3923-014	Tension Lever	1
15	3923-015	Pin	1
16	3923-016	Coupling sleeve	1
17	3923-017	Bushing	1
18	3920B-047	Drop Foot Fixing Pole	1
19	3920B-046	Drop Foot Lock Knob	1
20	3920B-017	Air Tube	1
21	3923-021	Screw M5×6	1
22	3923-022	Drop Foot	1
23	3923-023	Screw M6×12	1
24	3920B-031	Upper Blade Support	2
25	3920B-034	Clamping Board	2
26	3920B-072	Switch Box	1
27	3920B-002	Screw	7
28	3923-028	Screw M4×12	4
29	3920B-060	Work Table Bracket	1
30	3923-030	Screw M5×8	2
31	3920B-025	Table Lock Knob	1
32	3920B-035	Blade	1
33	3923-033	Screw M4×10	2
34	3923-034	Blade Clamping Handle	2
35	3920B-084	Transformer Box	1
36	3923-036	Screw M4×8	8
37	3920B-061	Pointer	1
38	3923-038	Screw M6×10	1
39	3923-039	Worktable	1

No.	Model No.	Description	Otv
		Description	Qty.
40	3923-040	Screw M6×40	1
41	3920B-062	Bevel Scale	1
42	3920B-064	Work Table Insert	1
43	3920B-065	Speed Adjusting Knob	1
44	3923-044	Screw M5×8	2
45	3920B-038	Eccentricity Connector	1
46	3920B-037	Big Cushion	1
47	3920B-070	Eccentric Wheel	1
48	3920B-069	Screw M8×8	1
49	3920B-043	Small Cushion	1
50	3923-050	Screw M5×25	1
51	3920B-020	Spring Washer	1
52	3920B-040	Nut M5	1
53	3923-053	Screw M5×16	1
54	3920B-041	Clamping Board	1
55	3920B-012	Spring Washer	1
56	3920B-010	Extension Spring	1
57	3920B-082	Cord Clamp	2
58	3923-058	Screw M4×6	7
59	3920B-028	Bellows	1
60	3920B-023	Bellows cover	1
61	3923-061	Screw M6×25	1
62	3923-062	Packaging Support	1
63	3923-063	Foot	3
64	3920B-053	Pipe	1
65	3920C-030	Blade Upper Support	1
66	3920C-044	Blade Lower Support	1
67	3920C-034	Support cushion sleeve	2
68	3923-068	Screw M4×20	2
69	3920B-011	Pressure Plate	2
70	3920B-058	Spring	1
71	3923-071	Screw M4×8	2
72	3920B-081	Crimping Plate	5
73	3923-073	Washer	4
74	3923-074	Screw M6×80	1
75	3920B-071	Motor	1
76	3923-076	PVC Flat Pad	1
77	3923-077	Screw M8×20	2
78	3920B-039	Deep groove ball bearing	2

## **EXPLODED VIEW & PARTS LIST**

No.	Model No.	Description	Qty.
79	3923-079	Screw M6×16	4
80	3923-080	LED Seat	1
81	3923-081	Right Arm Housing	1
82	3923-082	Left Arm Housing	1
83	3923-083	Screw M5×28	1
84	3923-084	Screw M5×35	5
85	3923-085	Screw M5×30	2
86	3920B-026	Circuit Box Cover	1
87	3920C-097	Blade holder	2
88	3920B-076-1	Blade	1
89	3920B-076-2	Blade	1
90	3923-090	Screw M5×8	2
91	3920C-098	Butterfly bolt	2
92	3920B-094	Hex Wrench	1
93	3920B-049	PCB	1
94	3920B-073	Cord Clamp	1
95	3920B-067	Power Cord	1
96	3920B-087	Lead Sheath	1

No.	Model No.	Description	Qty.
97	3923-097	Washer	1
98	3920B-087	Lead sheath	1
99	3920B-027	Switch	1
100	3920B-019	LED	1
101	3920B-089	LED	1
102	3920B-053	Pipe	1
103	3923-103	Screw	1
104	3923-104	Washer	1
105	3920B-068	Screw M4X8	1
106	3923-106	Limit Plate	1
107	3923-107	Wave Washer	1
108	3923-108	Side Cover	1
109	3923-109	Side Cover Locking Handle	1
110	3923-110	Locking Plate	1
111	3923-111	Guide Sleeve	1
112	3923-112	Rear Locking Handle	1
113	3923-113	Hinge	1

**NOTE:** Not all parts may be available for purchase. Parts and accessories that wear down over the course of normal use are not covered under the warranty.

## WARRANTY STATEMENT

WEN Products is committed to building tools that are dependable for years. Our warranties are consistent with this commitment and our dedication to quality.

#### LIMITED WARRANTY OF WEN PRODUCTS FOR HOME USE

GREAT LAKES TECHNOLOGIES, LLC ("Seller") warrants to the original purchaser only, that all WEN consumer power tools will be free from defects in material or workmanship during personal use for a period of two (2) years from date of purchase or 500 hours of use; whichever comes first. Ninety days for all WEN products if the tool is used for professional or commercial use. Purchaser has 30 days from the date of purchase to report missing or damaged parts.

SELLER'S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the replacement of parts, without charge, which are defective in material or workmanship and which have not been subjected to misuse, alteration, careless handling, misrepair, abuse, neglect, normal wear and tear, improper maintenance, or other conditions adversely affecting the Product or the component of the Product, whether by accident or intentionally, by persons other than Seller. To make a claim under this Limited Warranty, you must make sure to keep a copy of your proof of purchase that clearly defines the Date of Purchase (month and year) and the Place of Purchase. Place of Purchase must be a direct vendor of Great Lakes Technologies, LLC. Purchasing through third party vendors, including but not limited to garage sales, pawn shops, resale shops, or any other secondhand merchant, voids the warranty included with this product. Contact techsupport@wenproducts.com or 1-847-429-9263 with the following information to make arrangements: your shipping address, phone number, serial number, required part numbers, and proof of purchase. Damaged or defective parts and products may need to be sent to WEN before the replacements can be shipped out.

Upon the confirmation of a WEN representative, your product may qualify for repairs and service work. When returning a product for warranty service, the shipping charges must be prepaid by the purchaser. The product must be shipped in its original container (or an equivalent), properly packed to withstand the hazards of shipment. The product must be fully insured with a copy of the proof of purchase enclosed. There must also be a description of the problem in order to help our repairs department diagnose and fix the issue. Repairs will be made and the product will be returned and shipped back to the purchaser at no charge for addresses within the contiguous United States.

THIS LIMITED WARRANTY DOES NOT APPLY TO ITEMS THAT WEAR OUT FROM REGULAR USAGE OVER TIME, INCLUDING BELTS, BRUSHES, BLADES, BATTERIES, ETC. ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO TWO (2) YEARS FROM DATE OF PURCHASE. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO LIABILITY FOR LOSS OF PROFITS) ARISING FROM THE SALE OR USE OF THIS PRODUCT. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE IN THE U.S., PROVINCE TO PROVINCE IN CANADA AND FROM COUNTRY TO COUNTRY.

THIS LIMITED WARRANTY APPLIES ONLY TO ITEMS SOLD WITHIN THE UNITED STATES OF AMERICA, CANADA AND THE COMMONWEALTH OF PUERTO RICO. FOR WARRANTY COVERAGE WITHIN OTHER COUNTRIES, CONTACT THE WEN CUSTOMER SUPPORT LINE. FOR WARRANTY PARTS OR PRODUCTS REPAIRED UNDER WARRANTY SHIPPING TO ADDRESSES OUTSIDE OF THE CONTIGUOUS UNITED STATES, ADDITIONAL SHIPPING CHARGES MAY APPLY.

