

Save This Manual For  
Future Reference

**SEARS**

owners  
manual

**MODEL NO.  
113.235501**

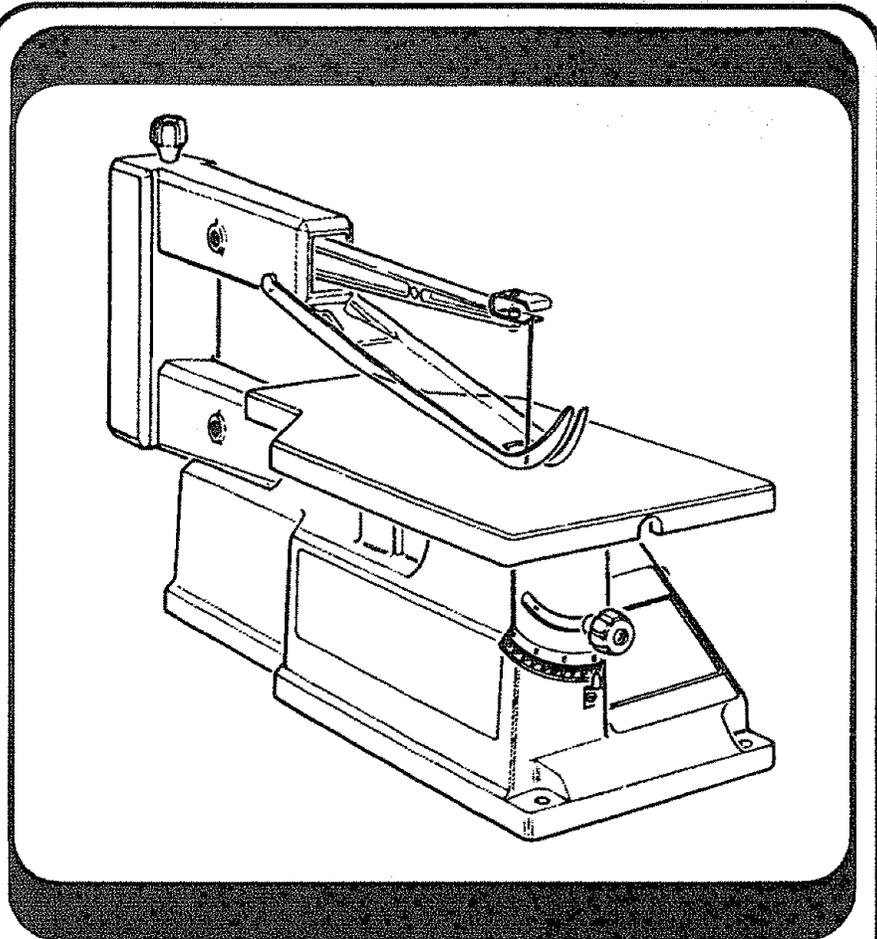
Serial \_\_\_\_\_

Number \_\_\_\_\_

Model and serial number may be  
found attached to the right side of  
housing.

You should record both model  
and serial number in a safe place  
for future use.

**FOR YOUR  
SAFETY:  
READ ALL  
INSTRUCTIONS  
CAREFULLY**



**SEARS / CRAFTSMAN**

**16 INCH SCROLL SAW**

- assembly
- operating
- repair parts

Sears, Roebuck and Co., Hoffman Estates, IL. 60179 U.S.A.

## FULL ONE YEAR WARRANTY ON CRAFTSMAN SCROLL SAW

If within one year from the date of purchase this Craftsman Scroll Saw fails due to a defect in material or workmanship, Sears will repair it free of charge.

WARRANTY SERVICE IS AVAILABLE BY SIMPLY RETURNING THE CRAFTSMAN SCROLL SAW TO THE NEAREST SEARS RETAIL/CATALOG STORE OR SERVICE CENTER/DEPARTMENT IN THE UNITED STATES.

THIS WARRANTY APPLIES ONLY WHILE THIS PRODUCT IS USED IN THE UNITED STATES.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Sears, Roebuck and Co., D817 WA Hoffman Estates, IL. 60179

## safety instructions for scroll saw

Safety is a combination of common sense, staying alert and knowing how your scroll saw works. Read this manual to understand this saw.

### Safety Signal Words

**DANGER:** means if the safety information is not followed someone **will** be seriously injured or killed.

**WARNING:** means if the safety information is not followed someone **could** be seriously injured or killed.

**CAUTION:** means if the safety information is not followed someone **might** be injured.

### BEFORE USING THE SAW

**WARNING:** To avoid mistakes that could cause serious permanent injury, do not plug the saw in until the following steps are completed.

- Assembly and alignment (See pages 7-12)
- Learn the use and function of the speed control ON-OFF knob, bevel lock knob, blade holders, blade support, hold down, tension knob, and blade guard. (See pages 13-14)
- Review and understand all safety instructions and operating procedures in this manual.
- Review of the maintenance methods for this saw. (See page 18) Read the WARNING label below, found on the base of the saw.

### WHEN INSTALLING OR MOVING THE SAW

AVOID DANGEROUS ENVIRONMENT. Use the saw in a dry indoor place, protected from rain. Keep work area well lighted.

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

- Turn saw off and unplug cord before moving the saw.
- Put the saw on a firm level surface where there is plenty of room for handling and properly supporting the workpiece.
- Support the saw so the table is level and the saw does not rock.
- Bolt the saw to the work surface if it tends to slip, walk, or slide during operations like cutting long heavy boards, or when using an auxiliary table.

- NEVER STAND ON TOOL. Serious injury could occur if the tool tips or you accidentally hit the cutting tool. Do not store anything above or near the tool where anyone might stand on the tool to reach them.

#### To avoid injury or death from electrical shock:

- GROUND THE SAW. This saw has an approved 3 conductor cord and a 3-prong grounding the plug. Use only 3-wire, grounded outlets rated 120 volts, 15 amperes (amps). The green conductor in the cord is the grounding wire. To avoid electrocution, NEVER connect the green wire to a live terminal.
- Make sure your fingers do not touch the plug's metal prongs when plugging or unplugging the saw

### BEFORE EACH USE:

#### Inspect your saw.

DISCONNECT THE SAW. To avoid injury from accidental starting, unplug the saw, turn the switch off and remove the switch key before changing the setup, removing covers, guards or blade.

MOTOR: 1725 RPM 1 PHASE  
120 VOLT AC ONLY  
60 HZ 2.0 AMPS



## WARNING

1. Read manual before using saw.
2. Wear safety goggles that meet ANSI Z87.1 Standards.
3. Be sure blade is installed with teeth pointing down.
4. Keep fingers away from the moving blade.
5. Do not remove jammed cutoff pieces until blade has stopped.
6. Maintain proper adjustment of blade tension.
7. Hold workpiece firmly against the table.
8. Turn power off and wait for blade to stop before adjusting or servicing.

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### CHECK DAMAGED PARTS. Check for:

- Alignment of moving parts.
- Binding of moving parts.
- Broken parts.
- Stable mounting.
- Any other conditions that may affect the way the saw works.

If any part is missing, bent or broken in any way, or any electrical parts don't work properly, turn the saw off and unplug the saw. REPLACE damaged, missing or failed parts before using the saw again. KEEP GUARD IN PLACE and in working order.

MAINTAIN TOOLS WITH CARE. Keep the saw clean for best and safest performance. Follow instructions for lubricating.

REMOVE ADJUSTING KEYS AND WRENCHES from tool before turning it on.

To avoid injury from jams, slips or thrown pieces:

- Choose the right size and style blade for the material and the type of cutting you plan to do.
- USE ONLY RECOMMENDED ACCESSORIES. (See page 19). Consult this owner's manual for recommended accessories. Follow the instructions that come with the accessories. The use of improper accessories may cause risk of injury to person.
- Make sure the blade teeth point downward, toward the table.
- Make sure the blade tension is properly adjusted.
- Make sure the bevel lock knob is tight and no parts have excessive play.
- To avoid accidental blade contact, minimize blade breakage and provide maximum blade support, always adjust the blade hold down and blade guard to just clear the workpiece.
- KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents. Floor must not be slippery.

To avoid burns or other fire damage, never use the saw near flammable liquids, vapors or gases.

### PLAN AHEAD TO PROTECT YOUR EYES, HANDS, FACE, EARS.

KNOW YOUR SAW. Read and understand the owner's manual and labels affixed to the tool. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.

To avoid injury from accidental contact with moving parts, don't do layout, assembly, or setup work on the saw while any parts are moving.

AVOID ACCIDENTAL STARTING. Make sure switch is "OFF" before plugging saw into a power outlet.

#### Plan your work.

- USE THE RIGHT TOOL. Don't force tool or attachment to do a job it was not designed to do.

- Use this scroll saw to cut only wood, wood-like products, plastics and non-ferrous metals.

**CAUTION:** This saw is NOT designed for cutting ferrous metals like iron or steel. When cutting non-ferrous metals (brass, copper and aluminum, etc.), metal shavings can react with wood dust and start a fire. To avoid this:

- Disconnect any type of dust collecting hose from the saw.
- Remove all traces of wood dust from on and around the saw.
- Remove all metal shavings from on or around the saw before sawing wood again.

#### Dress for safety.



Any power saw can throw foreign objects into the eyes. This can cause permanent eye damage. Wear safety goggles (not glasses) that comply with ANSI Z87.1 (shown on package). Everyday eyeglasses have only impact resistant lenses. They are not safety glasses. Safety goggles are available at Sears Retail or Catalog Stores. Glasses or goggles not in compliance with ANSI Z87.1 could seriously hurt you when they break.

- Do not wear loose clothing, gloves, neckties or jewelry (rings, wristwatches). They can get caught and draw you into moving parts.
- Wear nonslip footwear.
- Tie back long hair.
- Roll long sleeves above the elbow.
- Noise levels vary widely. To avoid possible hearing damage, wear ear plugs or muffs when using saw for hours at a time.
- For dusty operations, wear a dust mask along with the safety goggles.

#### Inspect your workpiece.

Make sure there are no nails or foreign objects in the part of the workpiece to be cut.

Use extra caution with large, very small or awkward workpieces:

- Never use this tool to finish pieces too small to hold by hand.
- Use extra supports (tables, saw horses, blocks, etc.) for any workpieces large enough to tip when not held down to the table top.
- NEVER use another person as a substitute for a table extension, or as additional support for a workpiece or to help feed, support or pull the workpiece.

# safety instructions for scroll saw

- When cutting irregularly shaped workpieces, plan your work so it will not pinch the blade. A piece of molding, for example, must lay flat or be held by a fixture or jig that will not let it twist, rock or slop while being cut.
- Properly support round material such as dowel rods or tubing. They have a tendency to roll during a cut, causing the blade to "bite".
- Cut only one workpiece at a time.
- Clear everything except the workpiece and related support devices off the table before turning the saw on.

## **Plan the way you will hold the workpiece from start to finish.**

Do not hand hold pieces so small that your fingers will go under the blade guard. Use jigs or fixtures to hold the work and keep your hands away from the blade.

**SECURE WORK.** Use clamps to hold work when practical. It's often safer than using your hand and frees both hands to operate the tool.

Avoid awkward operations and hand positions where a sudden slip could cause fingers or hand to move into the blade.

**DON'T OVERREACH.** Keep good footing and balance.

Keep your face and body to one side of the blade, out of line with a possible thrown piece if the blade should break.

## **WHENEVER SAW IS RUNNING:**

**WARNING: Don't let familiarity (gained from frequent use of your scroll saw) cause a careless mistake. A careless fraction of a second is enough to cause a severe injury.**

Before starting your cut, watch the saw while it runs. If it makes an unfamiliar noise or vibrates a little, stop immediately. Turn the saw off. Unplug the saw. Do not restart until finding and correcting the problem.

**KEEP CHILDREN AWAY.** Keep all visitors a safe distance from the saw. Make sure bystanders are clear of the saw and workpiece.

**DON'T FORCE TOOL.** It will do the job better and safer at its designed rate. Feed the workpiece into the saw blade only fast enough to let it cut without bogging down or binding.

## **Before freeing any jammed material.**

- Turn switch "OFF"
- Remove switch key.
- Unplug the saw.
- Wait for all moving parts to stop.

**When backing up the workpiece, the blade may bind in the kerf (cut). This is usually caused by sawdust clogging up the kerf. If this happens:**

- Turn switch "OFF".
- Remove switch key.
- Unplug the saw.
- Wait for all moving parts to stop.
- With a flat blade screwdriver, turn motor shaft by hand, by inserting into the slotted end of motor shaft located at the center of the motor housing. Do this while backing up the workpiece.

**Before removing loose pieces from the table, turn saw off and wait for all moving parts to stop.**

## **BEFORE LEAVING THE SAW:**

Wait for all moving parts to stop.

**MAKE WORKSHOP CHILD-PROOF.** Unplug the saw. Lock the shop or ON/OFF knob. Store the key away from children and others not qualified to use the tool.

# motor specifications and electrical requirements

This machine is equipped with, a 1725 RPM motor. It is wired for operation on 120V, 60Hz, alternating current.

For replacement motor, refer to parts list in this manual.

## CONNECTING TO POWER SUPPLY OUTLET

If power cord is worn or cut, or damaged in any way, have it replaced immediately.

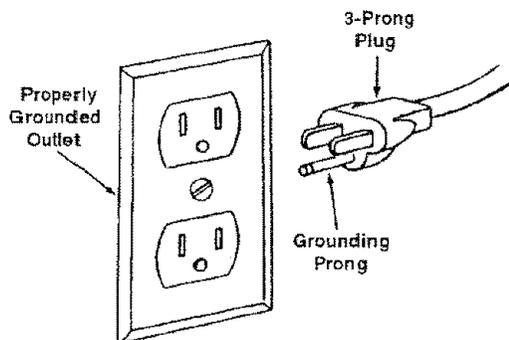
**WARNING: If not properly grounded, this power tool can cause an electrical shock, particularly when used in damp locations close to plumbing. If an electrical shock occurs there is potential of a secondary hazard, such as your hands contacting the saw blade.**

If you are not sure that you outlet, as pictured below, is properly grounded, have it checked by a qualified electrician.

Your unit is for use on 120 volts and has a plug that looks like the illustration below.

This power tool is equipped with a 3-conductor cord and grounding type plug which has a grounding prong approved by Underwriters' Laboratories. The ground conductor has a green jacket and is attached to the tool housing at one end and to the ground prong in the attachment plug at the other end.

This plug requires a mating 3-conductor grounded type outlet as shown.

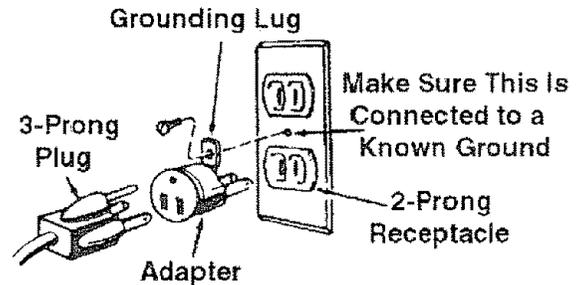


**WARNING: Do not permit fingers to touch the terminals of plug when installing or removing the plug to or from the outlet.**

Plug power cord into a 120V properly grounded type outlet.

If the outlet you are planning to use for the power tool is of the 2-prong type, DO NOT REMOVE OR ALTER THE GROUNDING PRONG IN ANY MANNER. Use an adapter as shown below and always connect the grounding lug to known ground.

It is recommended that you have a qualified electrician replace the TWO prong outlet with a properly grounded THREE prong outlet.



An adapter, as illustrated, is available for connecting plugs to 2-prong receptacles.

**WARNING: The green grounding lug extending from the adapter must be connected to a permanent ground such as to a properly grounded outlet box. Not all outlet boxes are properly grounded.**

If you are not sure that your outlet box is properly grounded, have it checked by a qualified electrician.

**NOTE:** The adapter illustrated is for use only if you already have a properly grounded 2-prong receptacle.

**NOTE:** Make sure the proper extension cord is used and in good condition.

The use of any extension cord will cause some loss of power.

To keep this to a minimum and to prevent overheating and motor burn-out, use the table below to determine the minimum wire size (A.W.G.) extension cord.

Use only 3-wire extension cords which have 3-prong grounding type plugs and 3-prong receptacles which accept the tools plug.

Extension Cord Length	Wire Size A.W.G.
0-26 Ft.	18
26-50 Ft.	16

# glossary of terms for woodworking

1. **Kerf** - the slot cut by the blade.
2. **Leading Edge** - the edge of the workpiece which is pushed into the blade first.
3. **Sawblade Path** - the area of the workpiece directly in line with and moving toward the sawblade edge.
4. **Bevel** - the ability to slant the table to make angle cuts. An angle cutting operation through the face of the board.
5. **Blade Tooth Set** - the distance that the edge of the sawblade tooth is bent (or set) outward from the side of the blade.
6. **Trailing Edge** - the workpiece edge last cut by the sawblade.
7. **Workpiece** - the item on which the cutting operation is being performed.

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## unpacking and checking contents

### TOOLS NEEDED



**WARNING:** For your own safety never connect plug to power source outlet until all assembly steps are complete and you have read and understand the safety and operational instructions.

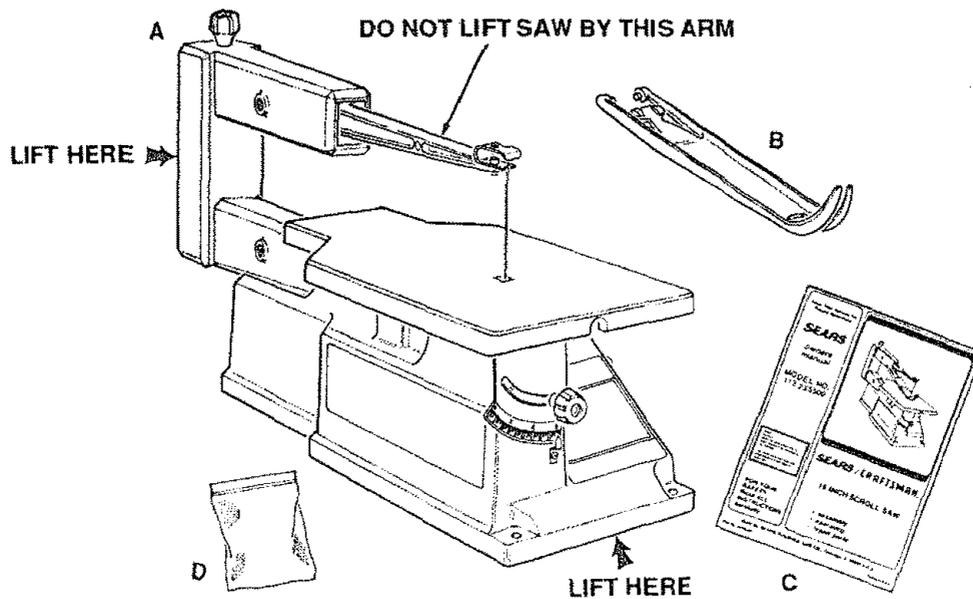
If any parts are missing, do not attempt to assemble the Scroll Saw, plug in the power cord or turn the switch on until the missing parts are obtained and installed correctly.

**IMPORTANT:** Never lift this saw by the arm which holds the blade or damage will occur to your saw.

Table of Loose Parts	Qty.
A 16" Scroll Saw.....	1
B Blade Guard.....	1
C Owner's Manual .....	1
D Loose Parts Bag containing:	
Blade.....	1
Switch Key.....	1

Separate all parts from packaging materials and check each item with illustration and "Table of Loose Parts". Make certain all items are accounted for before discarding any packaging material.

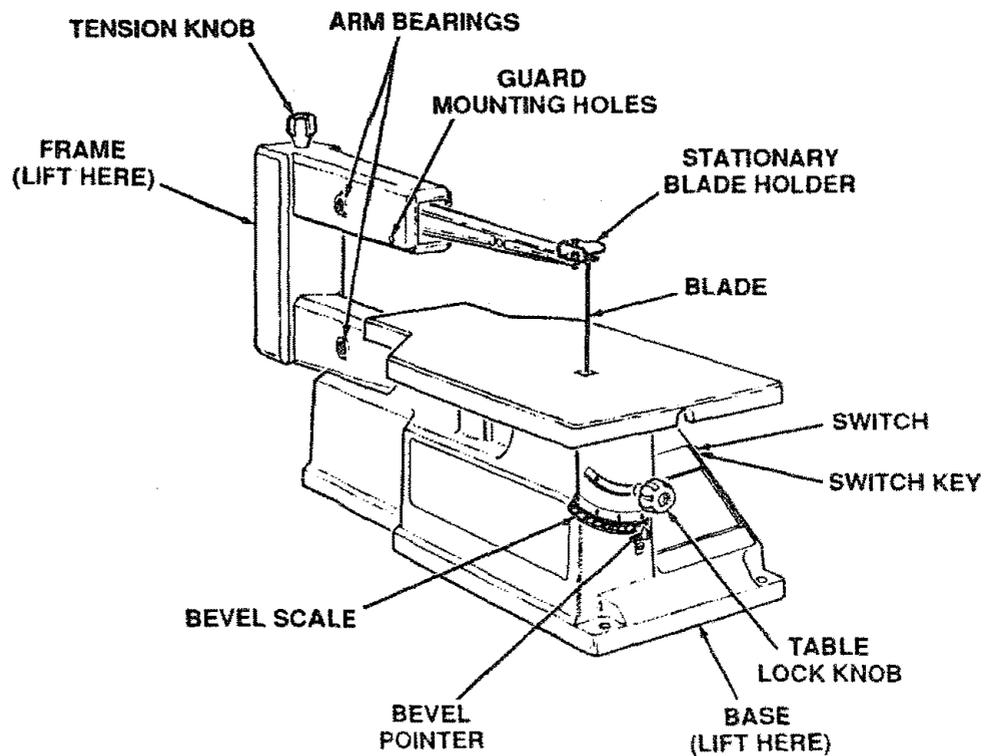
**NOTE:** Hardware to mount this scroll saw to a bench or leg set is NOT supplied. See mounting instructions for recommended hardware size.



## assembly

**WARNING:** For your own safety, never connect plug to power source outlet until all assembly steps are complete, and you have read and understand the safety and operating instructions.

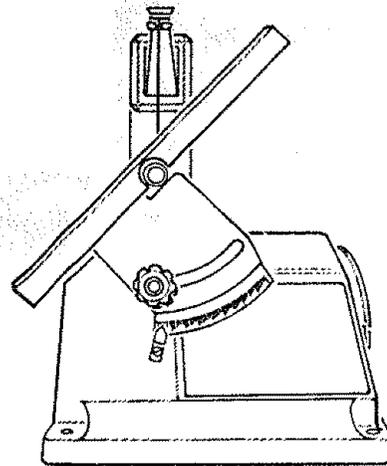
1. Lift the saw by the frame and base and place scroll saw on work bench
2. Familiarize yourself with the controls and features of this scroll saw indicated in the illustration.



# assembly

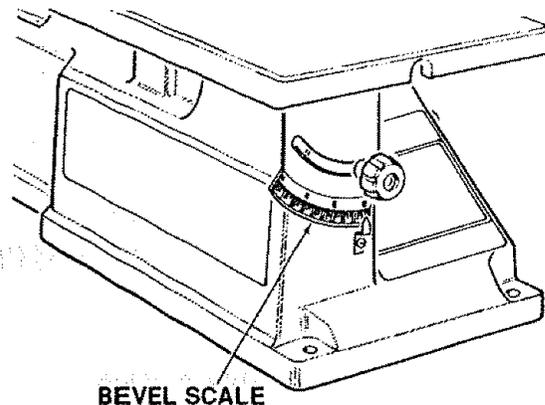
## SETTING THE TABLE FOR HORIZONTAL OR BEVEL CUTTING

1. The scroll saw work table can be tilted to the left for bevel cutting up to 45° from the 0° or horizontal cutting position.



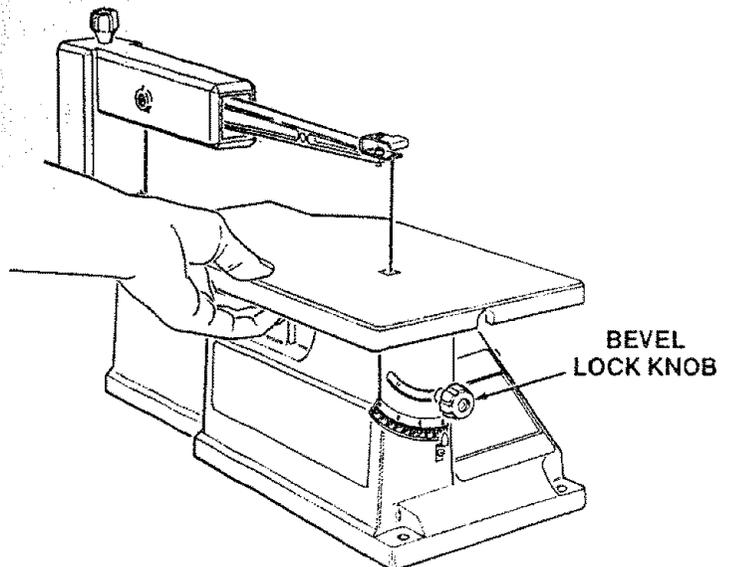
2. A bevel scale is provided under the work table as a convenient reference for setting the approximate table angle for bevel cutting.

When greater precision is required, make practice cuts and adjust the table as necessary for your requirements.

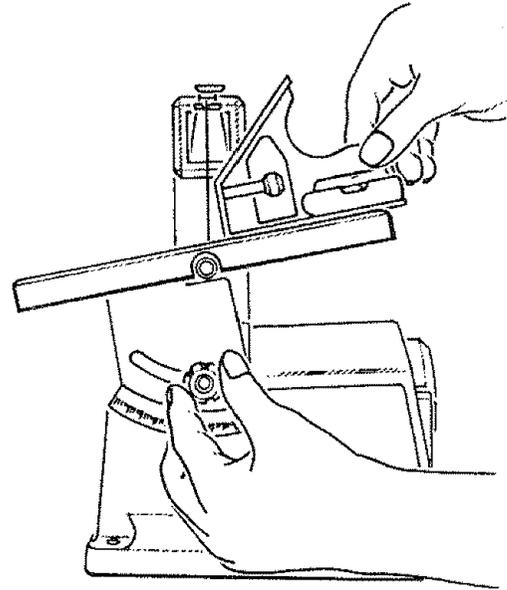


## TO ALIGN THE BEVEL INDICATOR

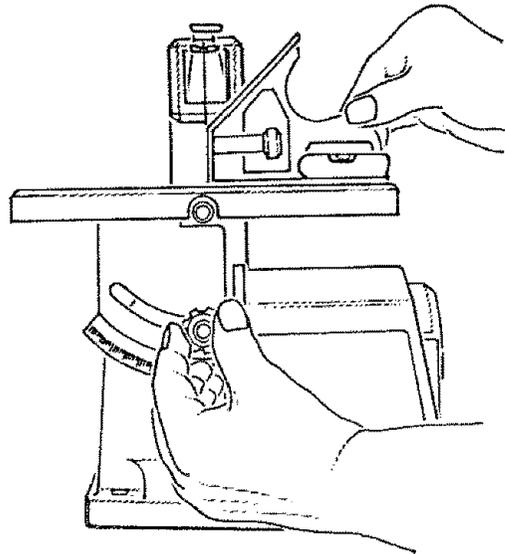
1. Loosen the table bevel lock knob and move the table until it is approximately perpendicular, or at a right angle, to the blade.



2. Use a small square to set the table at 90° to the blade. If there is too much space between the square and the blade, the table must be adjusted.



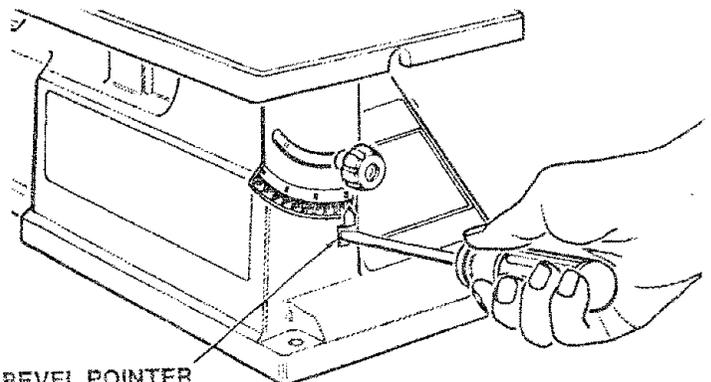
3. When the space between the square and the blade is minimal, tighten the bevel lock knob. The table should now be approximately 90° to the blade.



4. Loosen the screw holding the bevel scale pointer and adjust to 0°. Tighten screw.

Remember, the bevel scale is a convenient guide but should not be relied upon for precision.

Make practice cuts in scrap wood to determine if your angle settings are correct. Adjust the table as required.

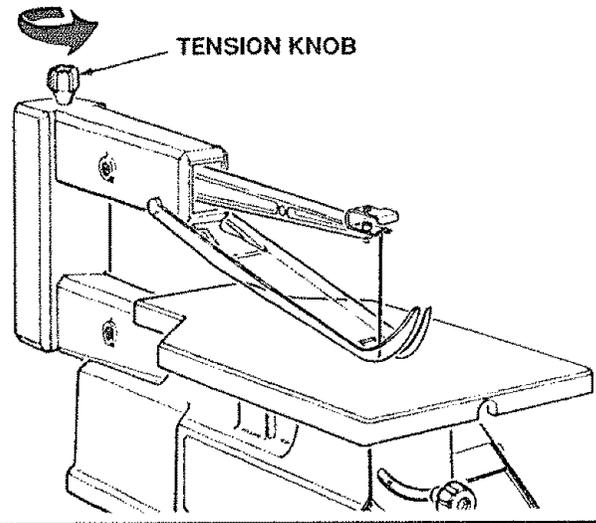


BEVEL POINTER

# removing and installing blades

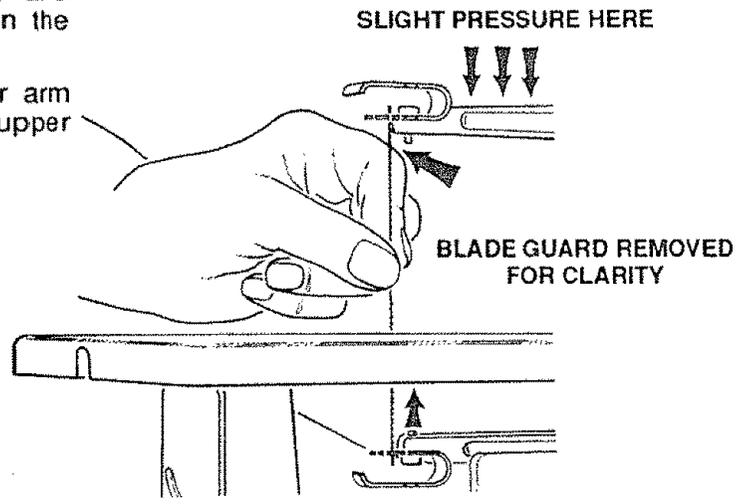
**WARNING:** To avoid injury from accidental starting, always turn switch "OFF" and remove switch key before removing or replacing the blade.

1. Loosen tension on blade by turning tension knob counterclockwise (  ) about three full turns.



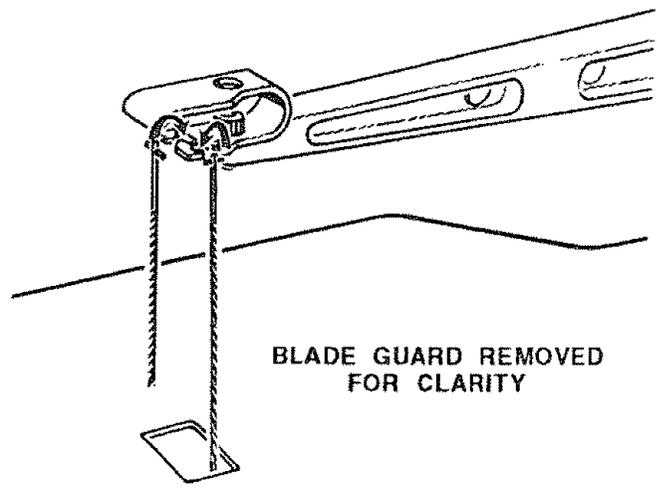
2. Remove blade by pulling forward on blade and then lifting the blade through the access hole in the table.

Slight downward pressure against the upper arm may be helpful when removing blade from upper holder.



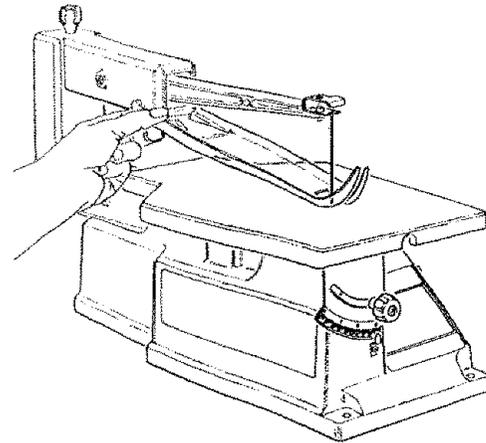
3. Look at the blade holders closely and notice the blade slots and pin recesses in the blade holder. The blade holder is made so you can position the blade for cutting from the front or one side of the saw.

Cutting from the side of the saw will be necessary when your workpiece exceeds 16 inches in length. For 0° bevel angle only.



4. Locate the blade guard and carefully install it onto the saw as shown.

Lightly spread apart the blade guard so pins will go into holes in frame.



5. In order to cut, and to avoid uncontrollable lifting of the workpiece, the teeth of the blades used on the scroll saw should always point downward when installed on the scroll saw.

6. Install the blade by inserting one end of the blade through the slot in the blade guard, then the access hole in the table, until you can hook the blade pin in the pin recess in the bottom blade holder. Slide the top blade pin into the pin recess of the top blade holder. You may need to press down lightly on the arm to install the blade.

**NOTE:** Use 5 inch long, pin end type blades only.

7. Carefully tighten the blade tension by turning the tension knob clockwise (  ) just until you feel the slack in the blade is removed.

Double check to see that pins are properly located in the slots.

Then turn the tension knob an additional two full turns clockwise.

This amount of blade tension should do well for most cutting operations and blades.

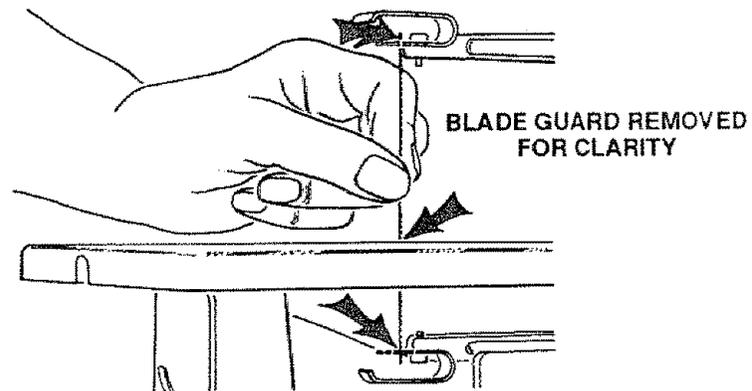
Before applying power, use screwdriver in slot at end of motor shaft to turn mechanism while checking that the blade is properly installed.

**OVER TENSIONING OR UNDER TENSIONING** of the blade will cause blades to break rapidly.

The thicker, harder and more abrasive the wood you are cutting, the more blades you will have to use.

Blade breakage is caused by the following:

- Over tension or under tension.
- Overworking the blade by going too fast.
- Twisting or bending the blade.
- Over use - blade life exhausted.
- **OVER AGGRESSIVE FEEDING** of the workpiece into the blade.



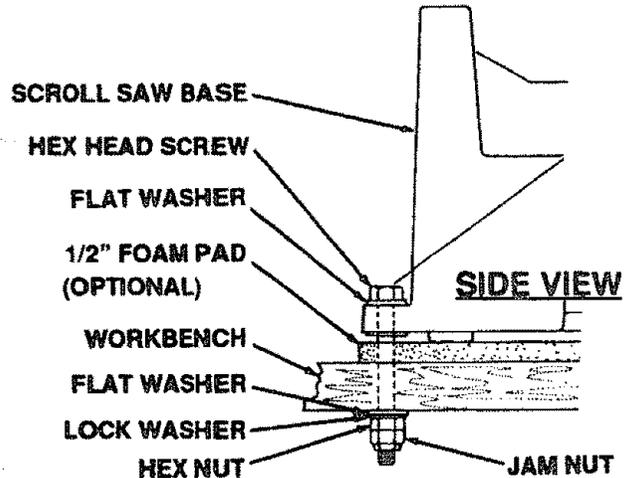
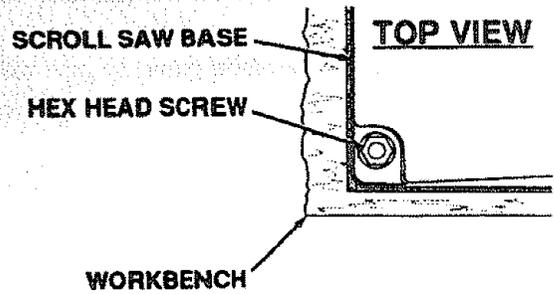
## mounting the scroll saw to a bench

1. When mounting this saw to a workbench a solid wood bench is preferred over a plywood bench where noise and vibration will be more noticeable.
2. Hardware to mount this saw to a workbench is NOT supplied with the saw. However, we recommend the hardware used be not smaller than the following.

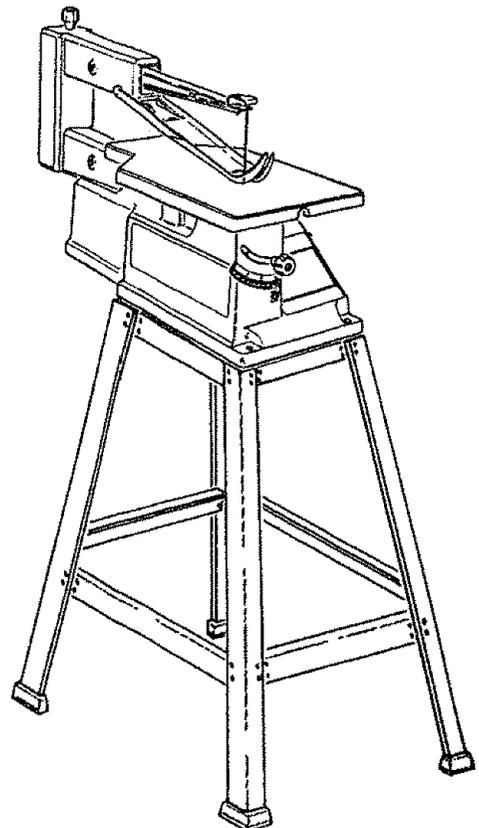
Description	Qty.
Hex Head Screw, 1/4-20 x length required .....	3
Flat Washers, 1/4 I.D. ....	6
Lock Washers, 1/4 I.D. ....	3
Hex Nuts, 1/4-20 .....	6

3. A soft foam pad to place between your scroll saw and workbench is NOT supplied with the saw. However, we highly recommend the use of such a pad to reduce noise and vibration.

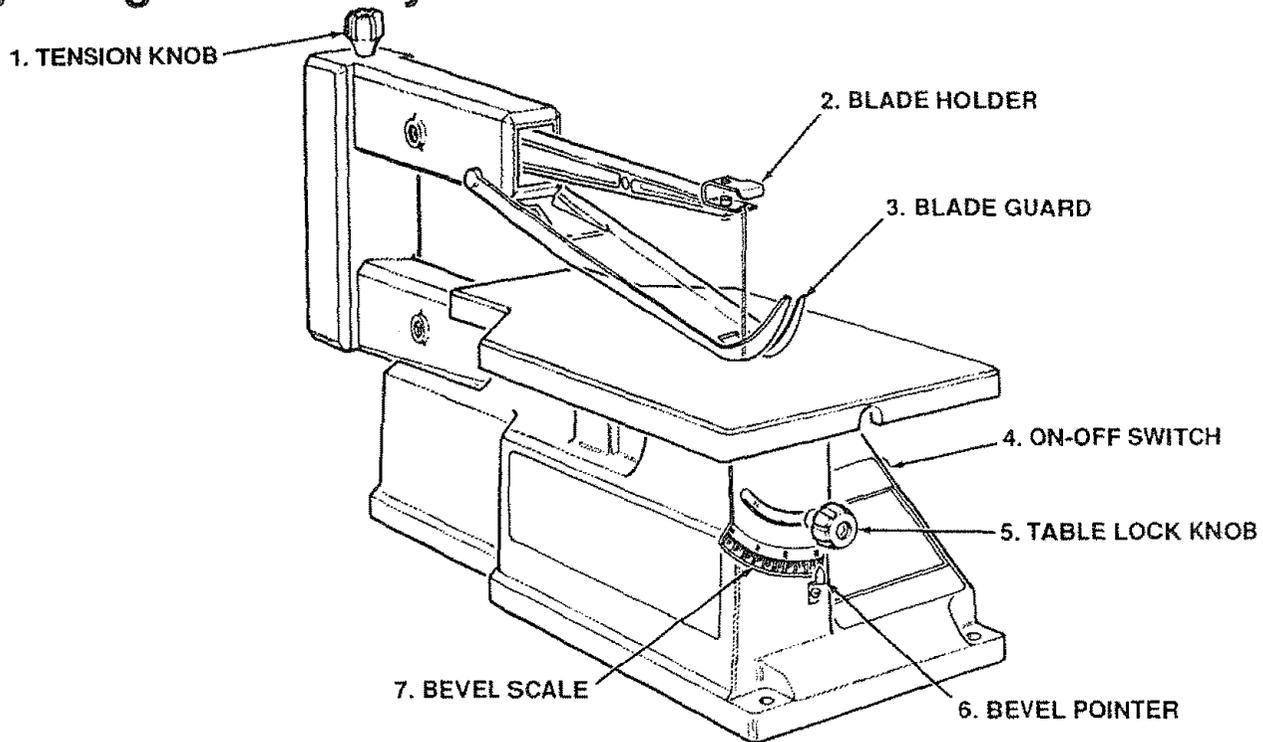
Description	Qty.
Soft foam pad such as carpet padding, 24" x 12" x 1/2" .....	1
Do NOT over tighten mounting bolts - leave some cushion in the foam pad for absorbing noise and vibration.	



4. If you prefer to mount your saw to a leg set, we recommend the leg set for bench top tools which is available through Sears Retail Stores. The number of this leg set is 9-22244. This leg set is an optional accessory and instructions to mount the scroll saw to this leg set are included in the leg set package.



# Getting to know your scroll saw



1. **TENSION KNOB** ... Tightening the knob (clockwise) will increase the tension of the blade. Loosening it (counterclockwise) will decrease the tension.

2. **BLADE HOLDER** ... Retain and position the blade.

3. **BLADE GUARD** ... Provides added control of workpiece by bearing directly against thickness of material. Helps protect hands from blade contact.

4. **ON - OFF SWITCH** ... The On-Off Switch has a locking feature. **THIS FEATURE IS**

**INTENDED TO HELP PREVENT UNAUTHORIZED AND POSSIBLY HAZARDOUS USE BY CHILDREN AND OTHERS.**

5. **TABLE LOCK KNOB** ... Loosening the knob allows table to be tilted up to 45° for bevel cutting. Tightening the knob locks the table in the position you have selected.

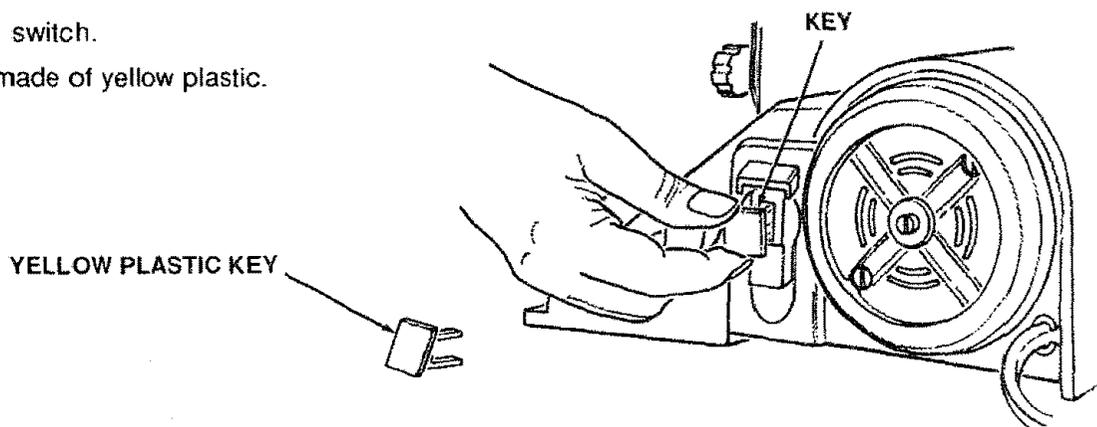
6. **BEVEL POINTER** ... Indicates what angle you have selected on the bevel scale.

7. **BEVEL SCALE** ... Use to set the approximate table angle for bevel cutting.

## ON-OFF SWITCH

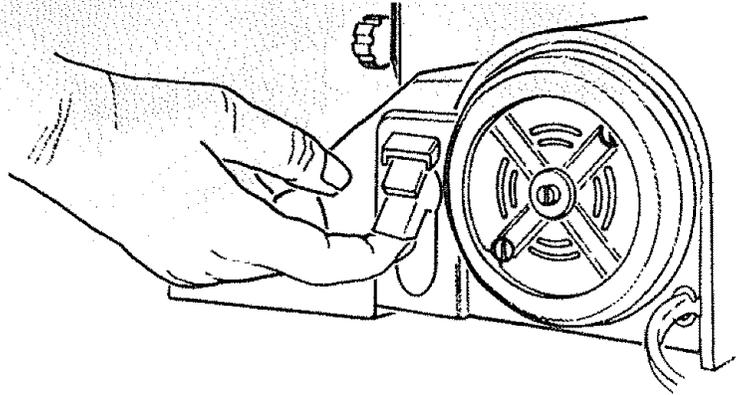
1. Insert Key into switch.

**NOTE:** Key is made of yellow plastic.



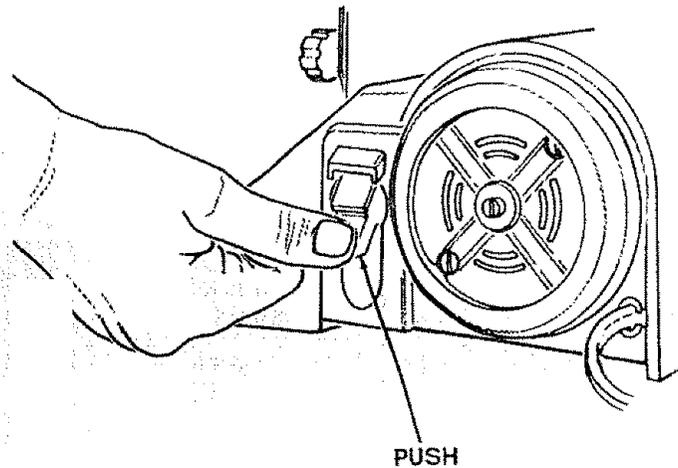
## getting to know your scroll saw

2. To turn machine "ON", place finger under switch lever and PULL end of switch out.



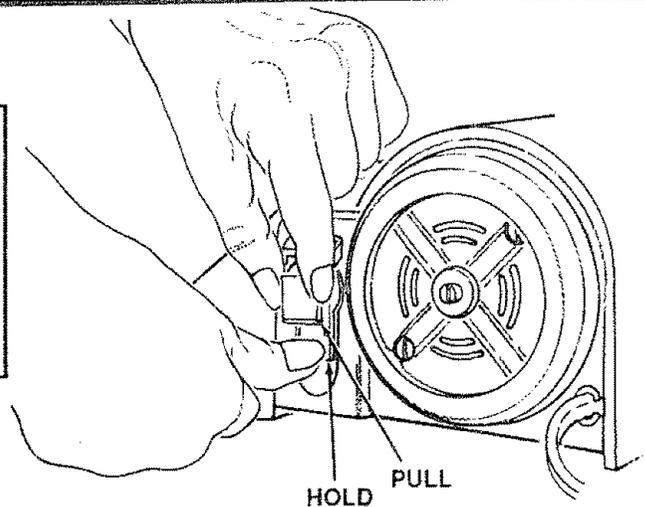
3. To turn machine "OFF", PUSH lever in.

Never leave the machine unattended until it has come to a stop.



4. To lock switch in "OFF" position, hold switch IN with one hand, REMOVE key with other hand.

**WARNING:** For your own safety, always lock the switch "OFF" when machine is not in use. Remove key and keep it in a safe place. Also, in the event of a power failure (all of your lights go out) turn switch off, remove the key and store it remote from the scroll saw. This will prevent the machine from starting up again when the power comes back on.



## operation of your scroll saw

PLEASE, read and understand the following items about your scroll saw before attempting to use the saw.

1. The saw does not cut wood by itself. You allow the saw to cut wood by guiding the wood into the blade as it moves.
2. The blade teeth cut wood ONLY on the down stroke.
3. You must guide the wood into the blade slowly because the teeth of the blade are very small and they can only remove wood when they are on the down stroke.
4. There is a learning curve for each person who wants to use this saw. During that period of time it is expected that some blades will break until you learn how to use the saw and receive the greatest benefit from the blades.
5. Best results are achieved when cutting wood less than one inch thick.
6. When cutting wood thicker than one inch the user must guide the wood very, very 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 as such must be replaced frequently for best cutting results. Scroll saw blades generally stay sharp for 1/2 hour to 2 hours of cutting.
8. To get accurate cuts, be prepared to compensate for blades, tendency to follow the wood grain as you are cutting.
9. This scroll saw is intended to cut wood or wood products only.
10. When choosing a blade to use with your scroll saw, consider the following carefully.
  - Very fine, narrow blades should be used to scroll cut in thin wood 1/4 inch thick or less.
  - To cut wood over 1/4 inch thick, use wider blades.
  - Most blade packages state the size or thickness of wood which that blade is intended to cut, and the radius, size of curve, which can be cut with that blade.
  - Wider blades can't cut curves as tight or small as thinner blades.
  - Narrower blades work well only on thinner wood material.
11. This saw uses 5 inch long, pin end type, blades only. See your Sears Retail Store for accessory blades.
12. Blades wear faster when cutting plywood, which is very abrasive; when sawing wood which is thicker than the 7/8 inch blade stroke; and when sawing hardwood, or when side pressure is placed on the blade.

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## basic saw operations

### BEFORE EACH USE:

#### Inspect your saw.

**DISCONNECT THE SAW.** To avoid injury from accidental starting, unplug the saw, turn the switch "OFF" and remove the switch key before changing the setup, removing covers, guards or blade.

#### CHECK DAMAGED PARTS. Check for:

- Alignment of moving parts.
- Binding of moving parts.
- Broken parts.
- Stable mounting.
- Any other conditions that may affect the way the saw works.

If any part is missing, bent or broken in any way, or any electrical parts don't work properly, turn the saw off and unplug the saw. REPLACE damaged, missing or failed parts before using the saw again. KEEP GUARD IN PLACE and in working order

### MAINTAIN TOOLS WITH CARE

Keep the saw clean for best and safest performance. Follow instructions for lubricating.

REMOVE ADJUSTING KEYS AND WRENCHES from tool before turning it on.

#### To avoid injury from jams, slips or thrown pieces:

- Choose the right size and style blade for the material and the type of cutting you plan to do.
- USE ONLY RECOMMENDED ACCESSORIES. (See page 19). Consult this Owner's manual for recommended accessories. Follow the instructions that come with the accessories. The use of improper accessories may cause risk of injury to persons.
- Make sure the blade teeth point downward, toward the table.
- Make sure the blade tension is properly adjusted.

## basic saw operations

- Make sure the bevel lock knob is tight and no parts have excessive play.
- To avoid accidental blade contact, minimize blade breakage and provide maximum blade support, always adjust the blade hold down and blade guard to just clear the workpiece.
- **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents. Floor must not be slippery.

To avoid burns or other fire damage, never use the saw near flammable liquids, vapors or gases.

### PLAN AHEAD TO PROTECT YOUR EYES, HANDS, FACE, EARS

**KNOW YOUR SAW** Read and understand the owner's manual and labels affixed to the tool. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.

To avoid injury from accidental contact with moving parts, don't do layout, assembly or setup work on the saw while any parts are moving.

**AVOID ACCIDENTAL STARTING.** Make sure switch is "OFF" before plugging saw into a power outlet.

#### Plan your work.

- **USE THE RIGHT TOOL.** Don't force tool or attachment to do a job it was not designed to do.
- Use this scroll saw to cut only wood, wood-like products, plastics and non-ferrous metals.

**CAUTION: This saw is NOT designed for cutting ferrous metals like iron or steel. When cutting non-ferrous metals (brass, copper and aluminum, etc.), metal shavings can react with wood dust and start a fire. To avoid this:**

- **Disconnect any dust collecting hose from the saw.**
- **Remove all traces of wood dust from inside the saw.**
- **Remove all traces of metal dust from on or around the saw before sawing wood again.**

#### Dress for safety.

Any power saw can throw foreign objects into the eyes. This can cause permanent eye damage. Wear safety goggles (not glasses) that comply with ANSI Z87.1 (shown on package). Everyday eyeglasses have only impact resistant lenses. They are not safety glasses. Safety goggles are available at Sears Retail or Catalog Stores. Glasses or goggles not in compliance with ANSI Z87.1 could seriously hurt you when they break.

- Do not wear loose clothing, gloves, neckties or jewelry (rings, wristwatches). They can get caught and draw you into moving parts.
- Wear non-slip footwear.
- Tie back long hair.
- Roll long sleeves above the elbow.
- Noise levels vary widely. To avoid possible hearing damage, wear ear plugs or muffs when using saw for hours at a time.
- For dusty operations, wear a dust mask along with the safety goggles.

#### Inspect your workpiece

Make sure there are no nails or foreign objects in the part of the workpiece to be cut.

#### Use extra caution with large, very small or awkward workpieces:

- Never use this tool to finish pieces too small to hold by hand.
- Use extra supports (tables, saw horses, blocks, etc.) for any workpiece large enough to tip when not held down to the table top.
- **NEVER** use another person as a substitute for table extension, or as additional support for a workpiece or to help feed, support or pull the workpiece.
- When cutting irregularly shaped workpieces, plan your work so it will not pinch the blade. A piece of molding, for example, must lay flat or be held by a fixture or jig that will not let it twist, rock or slip while being cut.
- Properly support round material such as dowel rods or tubing. They have a tendency to roll during a cut, causing the blade to "bite".
- Cut only one workpiece at a time.
- Clear everything except the workpiece and related support devices off the table before turning the saw on.

#### Plan the way you will hold the workpiece from start to finish.

Do not hand hold pieces so small that your fingers will go under the blade guard. Use jigs or fixtures to hold the work and keep your hands away from the blade.

**SECURE WORK.** Use clamps to hold work when practical. It's often safer than using your hand and both hands to operate the tool.

Avoid awkward operations and hand positions where a sudden slip could cause fingers or hand to move into the blade.

**DON'T OVERREACH.** Keep good footing and balance.

Keep your face and body to one side of blade, out of line with a possible thrown piece if the blade should break.

## WHENEVER SAW IS RUNNING

**WARNING:** Don't let familiarity (gained from frequent use of your saw) cause a careless mistake. A careless fraction of a second is enough to cause a severe injury.

Before starting your cut, watch the saw while it runs. If it makes an unfamiliar noise or vibrates a lot, stop immediately. Turn the saw off. Unplug the saw. Do not restart until finding and correcting the problem.

**KEEP CHILDREN AWAY.** Keep all visitors a safe distance from the saw. Make sure bystanders are clear of the saw and workpiece.

**DON'T FORCE TOOL.** It will do the job better and safer at its designed rate. Feed the workpiece into the saw blade only fast enough to let it cut without bogging down or binding.

**Before freeing any jammed material:**

- Turn switch "OFF".
- Remove switch key.

- Unplug saw.
- Wait for all moving parts to stop.

**When backing up the workpiece, the blade may bind in the kerf (cut). This is usually caused by sawdust clogging up the kerf. If this happens:**

- Turn switch "OFF".
- Remove switch key.
- Unplug the saw.
- Wait for all moving parts to stop.
- With a flat blade screwdriver, turn motor shaft by hand, by inserting into the slotted end of motor shaft located at the center of the motor housing. Do this while backing up the workpiece.

**Before removing loose pieces from the table, turn saw off and wait for all moving parts to stop.**

## BEFORE LEAVING THE SAW:

Wait for all moving parts to stop.

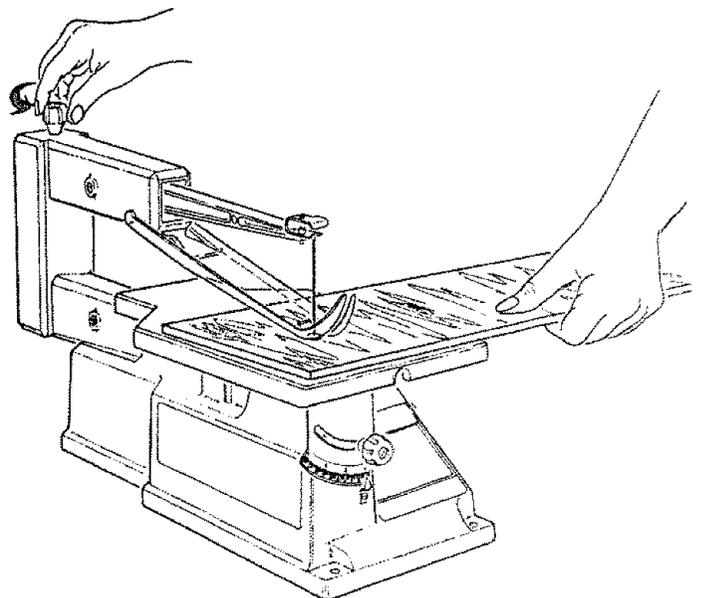
**MAKE WORKSHOP CHILD-PROOF.** Unplug the saw. Lock the shop or ON/OFF knob. Store the key away from children and others not qualified to use the tool.

## MAKING INTERIOR SCROLL CUTS

1. One of the features of this saw is that it can be used to make scroll cuts on the interior of a board without breaking or cutting into the outline or perimeter of the board.

**WARNING:** To avoid injury from accidental starting, always turn switch "OFF" and remove switch key before removing or replacing the blade.

2. To make interior cuts in a board, remove the scroll saw blade as explained in the Assembly section.
3. Drill a 1/4" hole in the board you will use to make interior cuts.
4. Place the board on the saw table with the hole in the board over the access hole in the table.
5. Install blade through hole in board and adjust blade tension.
6. When finished making the interior scroll cuts, simply remove the blade from the blade holders, as described in the Assembly section, and remove the board from the table.



## maintenance

**WARNING:** for your own safety, turn switch "OFF", remove key and remove plug from power source outlet before maintaining or lubricating your saw.

### GENERAL

An occasional coat of paste wax on the work table will allow the wood being cut to glide smoothly across the work surface.

### MOTOR

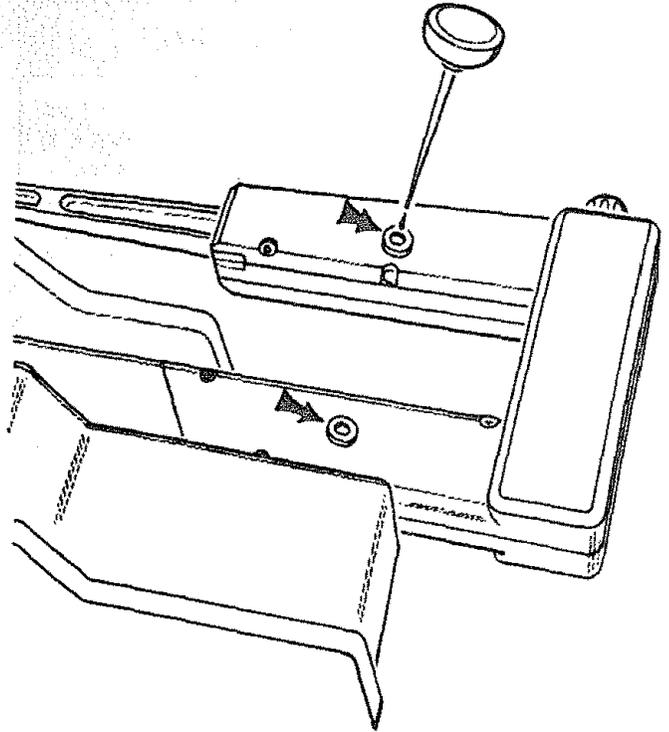
If the power cord is worn, cut or damaged in any way, have it replaced immediately.

Do not attempt to oil the motor bearings or service the motor internal parts.

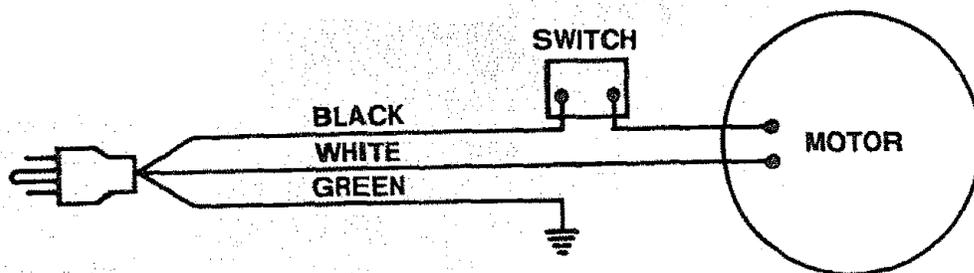
### ARM BEARINGS

Lubricate the arm bearings after 10 hours of use. Re-oil after every 50 hours of use or whenever there is a squeak coming from the bearings.

1. Turn saw on its side.
2. Squirt a generous amount of SAE 30 oil around the shaft end and bronze bearing.
3. Let the oil soak in overnight in this position.
4. Next day repeat the above procedure for the opposite side of the saw.



## wiring diagram



**WARNING:** To avoid fire or shock, use only recommended service parts and reassemble exactly as originally assembled.

## Sears recommends the following accessories

Item	Sears Number
Leg Set .....	9-22244
Blades ... See Catalog - For 5" long, Pin end type blades	
Plain End Blade Adaptor .....	9-22257

Sears may recommend other accessories not listed in manual. See your nearest Sears store for other accessories.

Do not use any accessory unless you have received and read complete instructions for its use.

**WARNING: Use only accessories recommended for this saw. Using other accessories may be dangerous.**

## troubleshooting

**WARNING: For your own safety, turn switch "OFF", remove key and remove plug from power source outlet before troubleshooting your scroll saw.**

PROBLEM	PROBABLE CAUSE	REMEDY SUGGESTED
<b>Breaking Blades.</b>	<ol style="list-style-type: none"> <li>1. Wrong tension.</li> <li>2. Over working blade.</li> <li>3. Wrong blade application.</li> <li>4. Twisting blade in wood.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust blade tension.</li> <li>2. Reduce feed rate.</li> <li>3. Use narrow blades for cutting thin wood, wide blades for thicker wood.</li> <li>4. Avoid side pressure on blade.</li> </ol>
<b>Motor will not run</b>	<ol style="list-style-type: none"> <li>1. Damaged cord or plug.</li> <li>2. Damaged motor</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace damaged parts before using saw again.</li> <li>2. Consult Sears Service. Any attempt to repair this motor may create a HAZARD unless repair is done by a qualified service technician. Repair service is available at your nearest Sears Store.</li> </ol>
<b>Vibration</b> <b>NOTE: There will always be some vibration present when the saw is running because of the reciprocating motion of the blade.</b>	<ol style="list-style-type: none"> <li>1. Improper mounting of the saw               <ol style="list-style-type: none"> <li>1. Unsuitable mounting surface.</li> </ol> </li> <li>3. Loose table.</li> <li>4. Loose motor mounting.</li> <li>5. Loose eccentric coupling (See Repair Parts List, Key No. 35).</li> </ol>	<ol style="list-style-type: none"> <li>1. See mounting instructions in this manual for proper mounting technique.</li> <li>2. The heavier your workbench is, the less vibration will occur. A plywood workbench will not be as good a work surface as the same size solid lumber. Use common sense in choosing a mounting surface.</li> <li>3. Tighten table lock knob.</li> <li>4. Tighten motor mounting screws.</li> <li>5. Tighten set screw on eccentric coupling.</li> </ol>
<b>Blade Runout - Blade not in-line with arm motion.</b>	<ol style="list-style-type: none"> <li>1. Blade holders not aligned.</li> </ol>	<ol style="list-style-type: none"> <li>1. Loose screws holding blade holders to arms. Adjust position of blade holders. Retighten holders.</li> </ol>

# repair parts

## PARTS LIST FOR CRAFTSMAN 16-INCH MOTORIZED SCROLL SAW MODEL NO. 113.235501

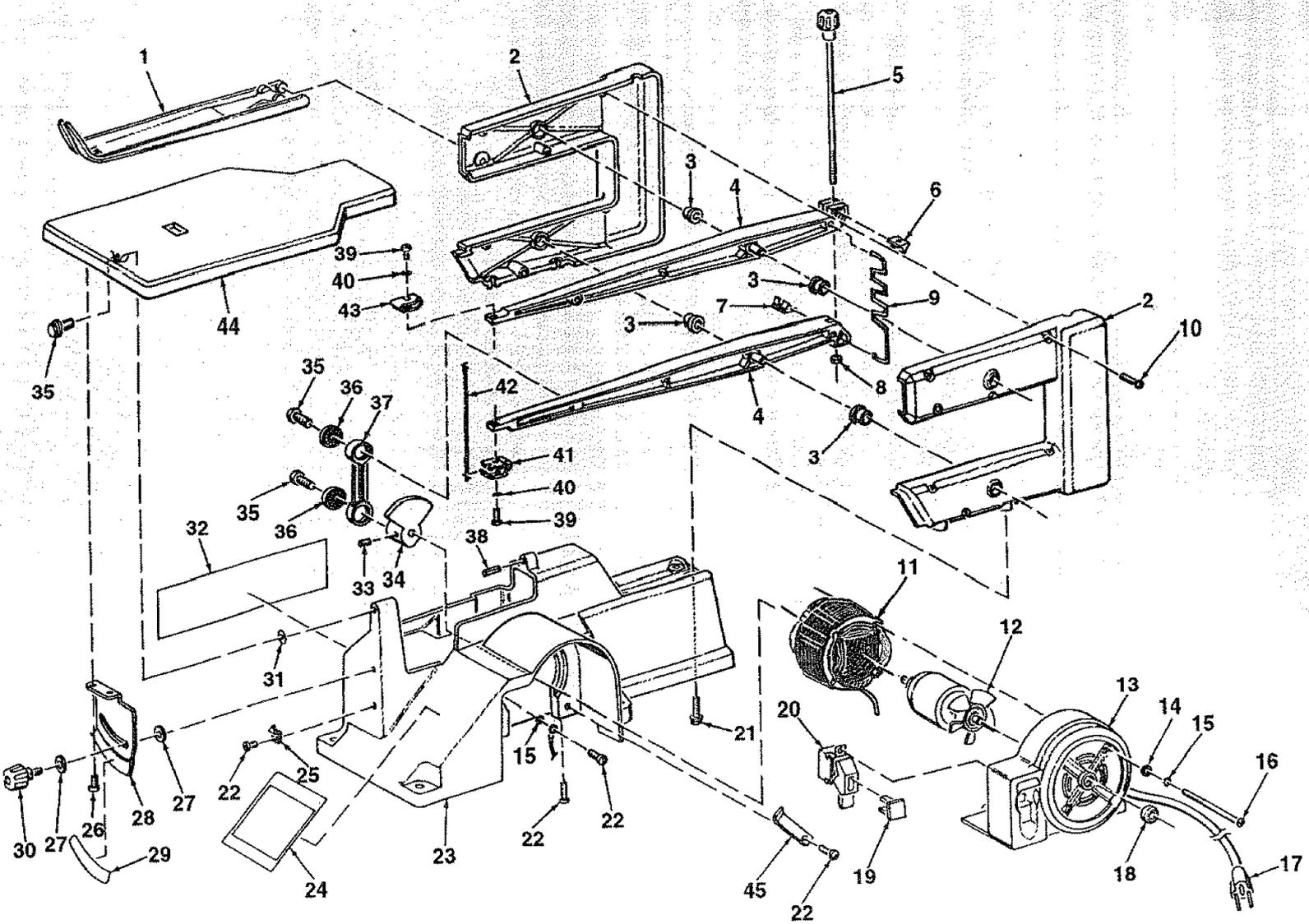


Figure 1

# PARTS LIST FOR CRAFTSMAN 16-INCH MOTORIZED SCROLL SAW MODEL NO. 113.235501

## FIGURE 1

**Always Order By Part Number-Not By Key Number**

Key No.	Part No.	Description
1	821526	Guard, Blade
2	821447-1	+ Housing (Includes Key #3)
3	821416	Bearing, Flanged
4	821517	Arm
5	508855	Knob, With Bolt Tension
6	821529	Nut, Tension
7	821530	Wedge, Tension
8	STD541411	* Nut, Lock
9	821531	Spring, Tension
10	66071	* Screw, Pan Hd. 8-32x1-1/8
11	822033-1	Stator
12	821451	Rotor, Fan
13	821463	Housing, Motor
14	STD551010	Washer, 13/64x3/8x1/16
15	STD551210	* Lockwasher, External No. 10
16	808277-13	* Screw, Stator 10-32x4-1/2
17	822220	Cord With Plug
18	821511	Bearing, Spherical
19	9-22256	† Key, Switch
20	816113	▲ Switch, Locking
21	159572-186	* Screw, Hex Hd. Ty "T" 1/4-20x1
22	822016	* Screw, Hex Slotted Ty "T" 10-32x3/4
23	821464	Base
24	821523	Label, Warning
25	66052	Indicator, Tilt

\* Standard hardware item - may be purchased locally.

† Stock item - may be secured through the Hardware department of most Sears Retail Stores

Key No.	Part No.	Description
26	STD601103	* Screw, Pan Hd. 10-32 x 3/8
27	STD551025	* Washer, 17/64x3/4x7/64
28	821522	Scale, Bevel
29	821510	Label, Bevel Scale
30	821520	Knob, Bevel
31	821532	Washer, Curved, Spring
32	821524	Label, Trim
33	102570	* Screw, Set Socket Hd. 1/4-20x3/8
34	821512	Coupling, Eccentric
35	821521	Screw, Hex, Washer, Shoulder TY "T" 1/4-20x3/4
36	STD315485	* Bearing Ball
37	66036	Link (Includes Key #36)
38	60326	* Pin, Roll. 219x3/4
39	STD600803	* Screw, Pan Hd. 8-32x3/8
40	STD551208	* Lockwasher, External No.8
41	821546	Holder, Blade Lower
42	9-26879	† Blade
43	821418	Holder, Blade Upper
44	821448	Table
45	821889	Retainer, Bearing
-	SP5693	Owner's Manual (Not Illustrated)

+ **NOTE:** When ordering either the right or left housing, both housings will be shipped. Because of the precision drilling required, they must be replaced as matched parts.



**WARNING:** This part is important to the safety of this tool. Do not replace with common parts.

# SEARS

owner's  
manual

MODEL NO.  
113.235501

The model number of your scroll saw will be found attached to the right side of arm housing.

When requesting service or ordering parts, always provide the following information:

- Product Type
- Model Number
- Part Number
- Part Description

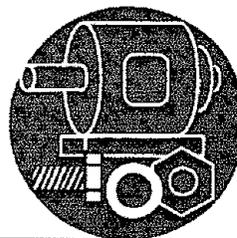
## 16 INCH SCROLL SAW

For the repair or replacement parts you need

Call 7 am - 7 pm, 7 days a week

**1-800-366-PART**

(1-800-366-7278)



For in-home major brand repair service

Call 24 hours a day, 7 days a week

**1-800-4-REPAIR**

(1-800-473-7247)



For the location of a  
Sears Repair Service Center in your area

Call 24 hours a day, 7 days a week

**1-800-488-1222**



For information on purchasing a Sears  
Maintenance Agreement or to inquire  
about an existing Agreement

Call 9 am - 5 pm, Monday-Saturday

**1-800-827-6655**



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