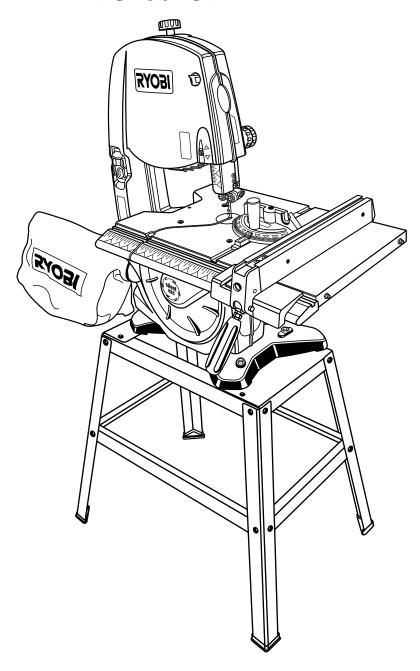


OPERATOR'S MANUAL 10 in. BAND SAW BS1001SV



Your new Band Saw has been engineered and manufactured to Ryobi's high standards for dependability, ease of operation, and operator safety. Properly cared for, it will give you years of rugged, trouble-free performance.



WARNING: To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

Thank you for buying a Ryobi product.

SAVE THIS MANUAL FOR FUTURE REFERENCE

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INTRODUCTION

This tool has many features for making the use of this product more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

GENERAL SAFETY RULES

WARNING:

Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

READ ALL INSTRUCTIONS

- KNOW YOUR POWER TOOL. Read the operator's manual carefully. Learn the applications and limitations as well as specific potential hazards related to this tool.
- **GUARD AGAINST ELECTRICAL SHOCK** by preventing body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerator enclosures.
- **KEEP GUARDS IN PLACE** and in working order. Never operate the tool with any guard or cover removed. Make sure all guards are operating properly before each use.
- REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see keys and adjusting wrenches are removed from tool before turning it on.
- **KEEP THE WORK AREA CLEAN.** Cluttered work areas and work benches invite accidents.
- **DON'T USE IN DANGEROUS ENVIRONMENTS.** Do not use power tools near gasoline or other flammable liquids, in damp or wet locations or expose them to rain. Keep work area well lighted.
- **KEEP CHILDREN AND VISITORS AWAY.** All visitors should wear safety glasses and be kept a safe distance from work area.
- MAKE WORKSHOP CHILDPROOF with padlocks, master switches, or by removing starter keys.
- **DON'T FORCE THE TOOL.** It will do the job better and safer at the rate for which it was designed.
- **USE THE RIGHT TOOL.** Do not force the tool or attachment to do a job for which it was not designed.
- USE THE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. 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. A wire gauge size (A.W.G.) of at least 14 is recommended for an extension cord 25 feet or less in length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
- WEAR PROPER APPAREL. Do not wear loose clothing, neckties, or jewelry that can get caught in the tool's moving parts and cause personal injury. Nonslip footwear is recommended when working outdoors. Wear protective hair covering to contain long hair.
- ALWAYS WEAR SAFETY GLASSES WITH SIDE SHIELDS. Everyday eyeglasses have only impact-resistant lenses; they are NOT safety glasses.
- **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.

- **DO NOT OVERREACH.** Keep proper footing and balance at all times.
- MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- **DISCONNECT ALL TOOLS.** When not in use, before servicing, or when changing attachments, blades, bits, cutters, etc., all tools should be disconnected from power source.
- **REDUCE THE RISK OF UNINTENTIONAL STARTING.**Be sure switch is off when plugging in.
- USE RECOMMENDED ACCESSORIES. Consult the operator's manual for recommended accessories. The use of improper accessories may cause risk of injury.
- **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the blade is unintentionally contacted.
- CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged must be properly repaired or replaced by an authorized service center to avoid risk of personal injury.
- **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction or rotation of the blade or cutter only.
- NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don't leave tool until it comes to a complete stop.
- **DON'T ABUSE CORD.** Never carry tool by the cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- PROTECT YOUR LUNGS. Wear a face or dust mask if the cutting operation is dusty.
- PROTECT YOUR HEARING. Wear hearing protection during extended periods of operation.
- **BLADE COASTS AFTER TURN OFF.**
- KEEP TOOL DRY, CLEAN, AND FREE FROM OIL AND GREASE. Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products, or any solvents to clean tool.
- INSPECT TOOL CORDS AND EXTENSION CORDS PERIODICALLY and, if damaged, have repaired by a qualified service technician. Stay constantly aware of cord location and keep it well away from the rotating wheel.
- **NEVER USE IN AN EXPLOSIVE ATMOSPHERE.** Normal sparking of the motor could ignite fumes.
- USE ONLY OUTDOOR EXTENSION CORDS with approved ground connection that are intended for use outdoors and so marked.

SPECIFIC SAFETY RULES

- BE SURE THE BLADE PATH IS FREE OF NAILS. Inspect for and remove nails from lumber before cutting.
- AVOID AWKWARD OPERATIONS AND HAND **POSITIONS** where a sudden slip could cause your hand to move into the blade. ALWAYS make sure you have good balance.
- ALLOW THE MOTOR TO COME UP TO FULL SPEED before starting a cut to avoid binding or stalling.
- DO NOT USE TOOL IF SWITCH DOES NOT TURN IT ON AND OFF. Have defective switches replaced by an authorized service center.
- REPLACEMENT PARTS. All repairs, whether electrical or mechanical, should be made by a qualified service technician at an authorized service center.
- WHEN SERVICING use only identical Ryobi replacement parts. Use of any other parts may create a hazard or cause product damage.
- KEEP HANDS AWAY FROM CUTTING AREA. Do not hand hold pieces so small that your fingers go under the blade guard. Do not reach underneath work or in blade cutting path with your hands and fingers for any reason.
- **NEVER CUT MORE THAN ONE PIECE AT A TIME or** stack more than one workpiece on the saw table at a
- FIRMLY CLAMP OR BOLT your saw to a stable, level workbench or table. The most comfortable table height is approximately waist height.
- DO NOT FEED THE MATERIAL TOO QUICKLY. Do not force the workpiece against the blade.
- **USE ONLY CORRECT BLADES.** Use the right blade size, style and cutting speed for the material and the type of cut. Blade teeth should point down toward the table.
- BEFORE MAKING A CUT. BE SURE ALL ADJUST-MENTS ARE SECURE.
- ALWAYS SUPPORT LARGE WORKPIECES while cutting to minimize risk of blade pinching and kickback. Saw may slip, walk or slide while cutting large or heavy boards.

- DO NOT REMOVE JAMMED CUTOFF PIECES until blade has stopped.
- NEVER START THE TOOL when the blade is in contact with the workpiece.
- **NEVER TOUCH BLADE** or other moving parts during
- BEFORE CHANGING THE SETUP, REMOVING COVERS, GUARDS OR BLADES, unplug the saw and remove the switch key.
- HOLD THE WORKPIECE firmly against the saw table.
- TO AVOID ACCIDENTAL BLADE CONTACT, minimize blade breakage, and provide maximum blade support, always adjust the blade guide assembly to just clear the workpiece.
- KEEP BLADES CLEAN, SHARP, AND WITH SUFFICIENT SET. Sharp blades minimize stalling and kickbacks.
- ALWAYS TURN OFF SAW before disconnecting it to avoid accidental starting when reconnecting to a power
- DO NOT OPERATE THIS TOOL WHILE UNDER THE INFLUENCE OF DRUGS, ALCOHOL OR ANY MEDICATION.
- STAY ALERT AND EXERCISE CONTROL. Watch what you are doing and use common sense. Do not operate tool when you are tired. Do not rush.
- MAKE SURE WORK AREA HAS AMPLE LIGHTING to see the work and that no obstructions will interfere with safe operation **BEFORE** performing any work using your saw.
- THE BLADE GUIDES HAVE BEEN PRESET AT THE FACTORY. These settings are functional for some applications. We recommend that you check and adjust blade guide settings before first use of your saw. Refer to "Adjusting thrust bearings, blade guide support, and blade guides" procedures explained in the Adjustments section of this operator's manual.
- **SAVE THESE INSTRUCTIONS.** Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, loan them these instructions also.

WARNING:

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- · lead from lead-based paints,
- · crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

SYMBOLS

Some of the following symbols may be used on this tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION	
V	Volts	Voltage	
А	Amperes	Current	
Hz	Hertz	Frequency (cycles per second)	
W	Watt	Power	
min	Minutes	Time	
\sim	Alternating Current	Type of current	
	Direct Current	Type or a characteristic of current	
n _o	No Load Speed	Rotational speed, at no load	
	Class II Construction	Double-insulated construction	
/min	Per Minute	Revolutions, strokes, surface speed, orbits etc., per minute	
	Wet Conditions Alert	Do not expose to rain or use in damp locations.	
**	Read The Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.	
	Eye Protection	Always wear safety goggles or safety glasses with side shields and a full face shield when operating this product.	
A	Safety Alert	Precautions that involve your safety.	
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.	
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.	
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.	
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.	
	Hot Surface	To reduce the risk of injury or damage, avoid contact with any hot surface.	

SYMBOLS

The following sign	The following signal words and meanings are intended to explain the levels of risk associated with this product.			
SYMBOL	OL SIGNAL MEANING			
A	DANGER:	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.		
A	WARNING:	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.		
A	CAUTION: Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.			
CAUTION: (Without Safety Alert Symbol) Indicates a situation that may result in property damage.				

SERVICE

Servicing requires extreme care and knowledge and should be performed only by a qualified service technician. For service we suggest you return the product to your nearest AUTHORIZED SERVICE CENTER for repair. When servicing, use only identical replacement parts.



WARNING:

To avoid serious personal injury, do not attempt to use this product until you read thoroughly and understand completely the operator's manual. Save this operator's manual and review frequently for continuing safe operation and instructing others who may use this product.



WARNING:



The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and a full face shield when needed. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.

SAVE THESE INSTRUCTIONS

GLOSSARY OF TERMS

Bevel Cut

A cutting operation made with the saw table at any angle other than 90° to the blade.

Compound Cut

A compound cut is a cut made using a miter angle and a bevel angle at the same time.

Crosscut

A cutting or shaping operation made across the grain or the width of the workpiece.

FPM

3,000 surface feet per minute, used in reference to surface speed of blade.

Freehand (for band saw)

Performing a cut without the workpiece properly supported on the saw table.

Gum

A sticky, sap-based residue from wood products.

Kerf

The material removed by the blade in a through cut or the slot produced by the blade in a non-through cut or partial cut.

Kickback

A hazard that can occur when the blade binds or stalls, throwing the workpiece back toward operator.

Leading End

The end of the workpiece pushed into the cutting tool first.

Miter Cut

A cutting operation made with the workpiece at any angle to the blade other than 90° .

Push Stick

A device used to feed the workpiece through the saw blade during narrow cutting operations. It helps keep the operator's hands well away from the blade.

Resaw

A cutting operation to reduce the thickness of the workpiece to make thinner pieces.

Resin

A sticky, sap-based substance that has hardened.

Ripping

A cutting operation along the length of the workpiece.

Saw Blade Path

The area directly in line — over, under, behind or in front of the blade. As it applies to the workpiece, that area which will be or has been cut by the blade.

Set

The distance that the tip of the saw blade tooth is bent (or set) outward from the face of the blade.

Throw-Back

Saw throwing back a workpiece in a manner similar to a kickback. Usually associated with a cause other than the kerf closing, such as a workpiece being dropped into the blade or being placed inadvertently in contact with the blade.

Through Sawing

Any cutting operation where the blade extends completely through the thickness of the workpiece.

Workpiece

The item on which the cutting operation is being done. The surfaces of a workpiece are commonly referred to as faces, ends, and edges.

Worktable

The surface on which the workpiece rests while performing a cutting or sanding operation.

ELECTRICAL

EXTENSION CORDS

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug. When using a power tool at a considerable distance from the power source, use an extension cord heavy enough to carry the current that the tool will draw. An undersized extension cord will cause a drop in line voltage, resulting in a loss of power and causing the motor to overheat. Use the chart provided below to determine the minimum wire size required in an extension cord. Only round jacketed cords listed by Underwriter's Laboratories (UL) should be used.

**Ampere rating (on tool faceplate)

	0-2.0	2.1-3.4	3.5-5.0	5.1-7.0	7.1-12.0	12.1-16.0	
Cord Le	ngth	W	ire Size	(A.W.G	.)		
25'	16	16	16	16	14	14	
50'	16	16	16	14	14	12	
100'	16	16	14	12	10	_	_

Used on 12 gauge - 20 amp circuit. **NOTE: AWG = American Wire Gauge

When working with the tool outdoors, use an extension cord that is designed for outside use. This is indicated by the letters "WA" on the cord's jacket.

Before using an extension cord, inspect it for loose or exposed wires and cut or worn insulation.

WARNING:

Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools or other obstructions while you are working with a power tool. Failure to do so can result in serious personal injury.



WARNING:

Check extension cords before each use. If damaged replace immediately. Never use tool with a damaged cord since touching the damaged area could cause electrical shock resulting in serious injury.

ELECTRICAL CONNECTION

This tool is powered by a precision built electric motor. It should be connected to a power supply that is 120 volts, 60 Hz, AC only (normal household current). Do not operate this tool on direct current (DC). A substantial voltage drop will cause a loss of power and the motor will overheat. If the saw does not operate when plugged into an outlet, double check the power supply.

SPEED AND WIRING

The no-load speed of this tool is approximately 3,000 FPM. This speed is not constant and decreases under a load or with lower voltage. For voltage, the wiring in a shop is as important as the motor's horsepower rating. A line intended only for lights cannot properly carry a power tool motor. Wire that is heavy enough for a short distance will be too light for a greater distance. A line that can support one power tool may not be able to support two or three tools.

GROUNDING INSTRUCTIONS

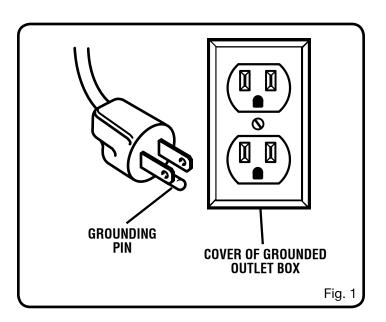
In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet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

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician. Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green 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.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Repair or replace a damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet like the one shown in figure 1. It also has a grounding pin like the one shown.

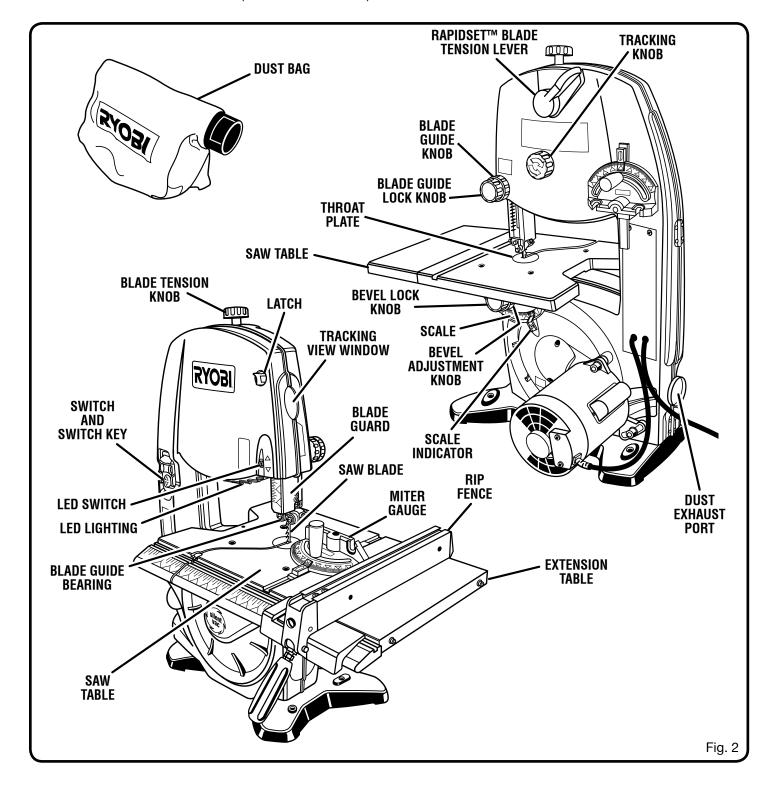


FEATURES

PRODUCT SPECIFICATIONS

Blade Width	. 1/8 in. to 1/2 in. (3 mm to 13 mm)
Blade Length	67 in. (1702 mm)
Frame to Blade Capaci	ty10 in. (254 mm)
Cutting Thickness Capa	acity4 in. (101.6 mm)
Table Size (extended)	13 in. x 26-1/2 in.
	(330 mm x 673 1 mm)

Input	120 Volt, 60Hz, AC Only, 8 Amps
No Load Speed	3,000 FPM
Dust Port	2-1/4 in. (57.15 mm)
Net Weight	82 lbs. (37.2 kg)



FEATURES

KNOW YOUR BAND SAW

See Figure 2.

Before attempting to use, familiarize yourself with all the operating features and safety requirements of your saw.

BLADE GUIDE BEARINGS

Upper and lower blade guides bearings help keep the blade from twisting during operation.

BEVEL ADJUSTMENT KNOB

Tilts the saw table for bevel cutting.

BEVEL LOCK KNOB

Loosening the bevel lock knob allows the saw table to be tilted at different angles. Tightening the bevel lock knob locks the saw table in place.

BLADE GUIDE KNOB WITH BLADE GUIDE LOCK KNOB

Use the blade guide knob and blade guide lock knob to adjust the blade guide assembly to keep the blade from twisting or breaking. Always lock the blade guide assembly in place before turning on the band saw.

BLADE GUARD

Protects the operator from coming in contact with the blade.

BLADE TENSION KNOB

Controls blade tension when changing blades and making adjustments for various sawing applications.

DUST EXHAUST PORT

A 2-1/4 in. (57.15 mm) dust exhaust port makes dustless cutting possible by blowing the dust away from the user. Attach the dust bag or a shop vac to the dust exhaust port.

LATCH

Easy open latches allow front cover to be opened for making adjustments.

LED LIGHTING

Your band saw comes equipped with LED lighting that lights the work area for safer, more accurate cuts.

MITER GAUGE

This gauge aligns the wood for a crosscut. The easy-to-read indicator shows the exact angle for a miter cut.

RIP FENCE

A sturdy metal fence guides the workpiece and is secured with the rip fence handle.

SAW BLADE

Saw comes with a standard 1/4 in. (6 mm) blade and a 3/8 in. (10 mm) blade.

SAW TABLE WITH THROAT PLATE

Your band saw has an aluminum saw table with tilt control for maximum accuracy. The throat plate, installed in the saw table at the factory, allows for blade clearance.

SCALE AND SCALE INDICATOR

The scale and scale indicator show the angle or degree the saw table is tilted for bevel cutting.

SWITCH AND SWITCH KEY

Your band saw has an easy access power switch. To lock in the OFF position, remove the yellow switch key. Place the key in a location inaccessible to children and others not qualified to use the tool.

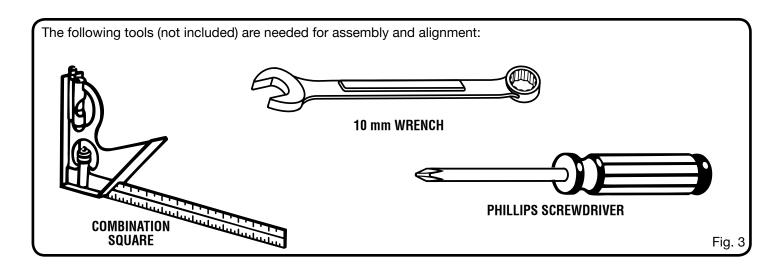
TRACKING KNOB

Adjusts tracking to keep blade centered on the wheels.

TRACKING VIEW WINDOW

The tracking view window is equipped with a light that makes tracking adjustments easier to see.

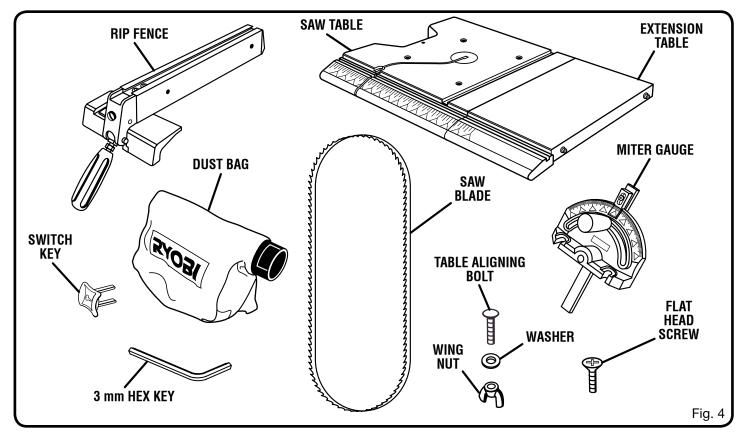
TOOLS NEEDED



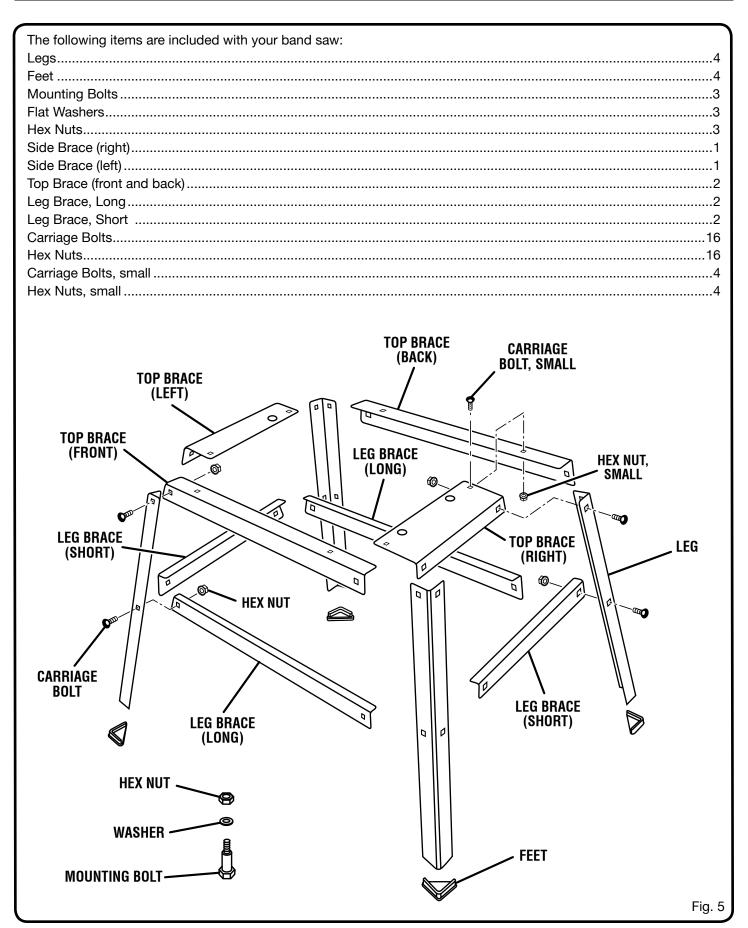
LOOSE PARTS LIST

The following items are included with your band saw:

Hex Key, 3 mm1	Dust Bag1
Rip Fence1	Table Aligning Bolt
Miter Gauge1	Screw, Flat Head
Saw Table1	
Extension Table1	•
Wing Nut1	
	Operator's Manual (not shown)



LOOSE PARTS LIST



UNPACKING

This product requires assembly.

- Carefully remove the tool and any accessories from the box. Place it on a level work surface.
 - NOTE: This tool is heavy. To avoid back injury, lift with your legs, not your back, and get help when needed.
- Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected the tool, identified all loose parts. and satisfactorily operated the tool.
- If any parts are damaged or missing, please call 1-800-525-2579 for assistance.



WARNING:

If any parts are missing do not operate this tool until the missing parts are replaced. Failure to do so could result in possible serious personal injury.



WARNING:

Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.



WARNING:

Do not connect to power supply until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.

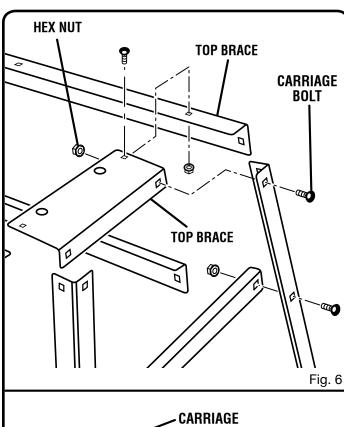
Assembly is best done in the area where the saw will be used. When you remove the table saw base, loose parts, and hardware from the packing materials, check all items with the loose parts list and drawing. If you are unsure about the description of any part, refer to the drawing. If any parts are missing, delay assembling until you have obtained the missing part(s).

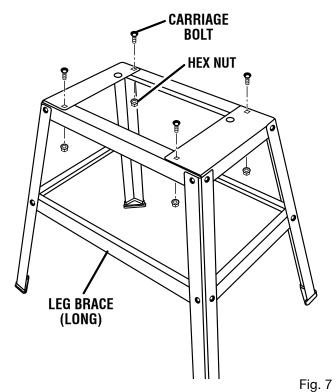
ASSEMBLING LEG STAND

See Figures 6 and 7.

- Locate the following hardware:
 - 16 carriage bolts
 - 4 carriage bolts, small
 - 16 hex nuts
 - 4 hex nuts, small
 - 4 feet
- Take 4 legs and 8 braces from loose parts.
- Place top braces inside legs.

- Align the holes on the brace and the legs. Insert two carriage bolts and hand tighten using hex nuts. These are the front and back sets.
- For the side sets, install a side brace on two legs. Add hardware and finger tighten. Repeat for the other side brace. See Figure 7.





- Use the same steps to install the lower braces. Tighten all hex nuts with a wrench.
- Place a carriage bolt in each of the four holes on the top of the leg stand and secure with a hex nut.
- Tighten securely.
- Place one foot on the bottom of each of the legs.
- Move the leg set to desired location.

TO MOUNT THE BAND SAW TO THE LEG STAND

See Figure 8.

- Take the following from a small hardware bag:
 - 3 hex bolts
 - 3 hex nuts
 - 3 flat washers

NOTE: This hardware was in the bag with hardware for assembling the leg stand.



WARNING:

The saw base is heavy. Do not lift the saw without help. When lifting, lift close to your body. Keep your knees bent and lift with your legs, not your back. Ignoring these precautions can result in back injury.

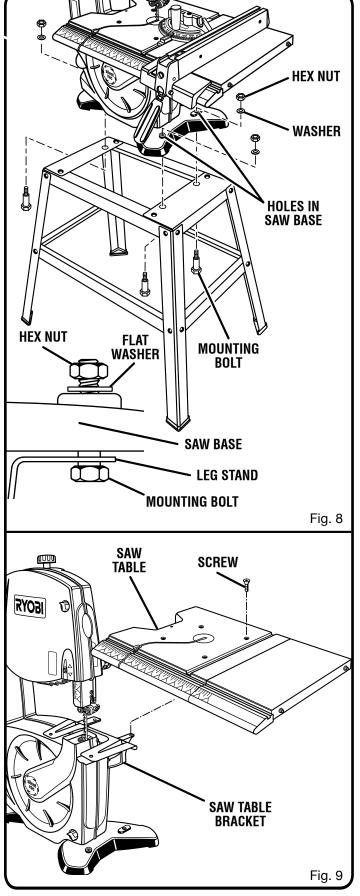
- Place the band saw on the leg stand. Align the holes in the saw base with the holes in the upper braces.
- Place a flat washer on a hex bolt and insert through hole. Add a hex nut. Hand tighten. See Figure 9.
- Repeat for remaining holes. Tighten all hardware with a wrench. You may find it helpful to use one wrench to hold the head of the hex bolt and one to tighten the hex nut.

TO MOUNT THE SAW TABLE

See Figures 9 - 10.

- Standing at the front of the band saw, slide the saw table (past the blade) through the slot moving from the left side of the saw table to the right.
- Align the screw holes in the saw table with the holes in the saw table bracket.
- Using the screws, attach the saw table to the saw table bracket. Tighten phillips screws securely.
- Attach the table aligning bolt, washer, and wing nut to the saw table.

NOTE: The wing nut and washer goes below the saw table.



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TO SQUARE THE SAW TABLE TO THE BLADE See Figure 11.

- Turn the blade guide lock knob counterclockwise to unlock the blade guide assembly. Turning the blade guide knob clockwise, raise the blade guide assembly as far as it will go. Turn the lock knob clockwise to retighten.
- Place a small combination square on the saw table beside the blade.
- Loosen the bevel lock knob and rotate the bevel adjustment knob to tilt the saw table up or down to align table 90° to blade (0° position). Retighten the bevel lock knob.
- Using a hex key, adjust the zero stop set screw until the set screw just touches the saw housing.
- Check squareness of the saw table to the blade. Make readjustments if necessary.
- Loosen screw on scale indicator with a phillips screwdriver and align scale indicator to zero.
- Tighten all screws securely.

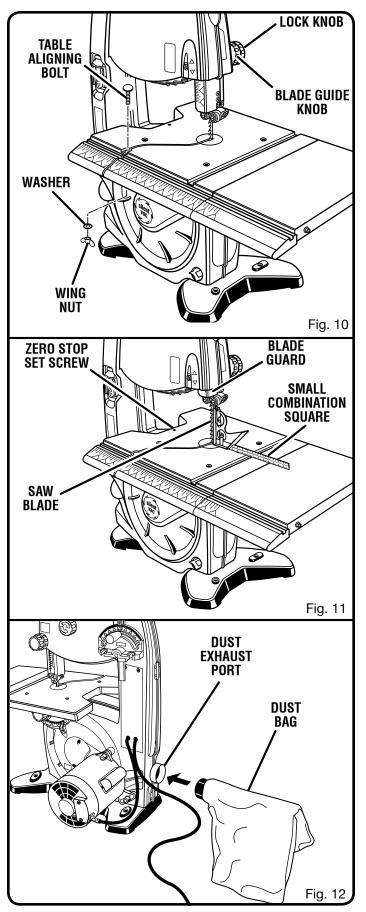
TO INSTALL DUST BAG

See Figure 12.

This tool comes with a dust bag for dustless cutting. To install the dust bag:

- Position the nozzle of the dust bag in line with the dust exhaust port on the back of the band saw.
- Push the dust bag nozzle firmly into the exhaust port.

NOTE: For more efficient operation, empty dust bag when no more than half full. Turn bag inside-out and shake vigorously to remove dust. This will permit better air flow through the bag.



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TO ADJUST BLADE TENSION

See Figures 13 - 14.

- Unplug the saw and remove the switch key.
- Make sure RapidSet[™] Blade Tension Lever is in the locked position. *See Figure 14*.
- Before using the band saw, turn the blade tension knob on the top of the saw clockwise to engage tension.

Check blade tension by the sound the blade makes (similar to plucking a guitar string).

- Pluck the back straight edge on the coasting side opposite the blade guides while turning the tension knob. Sound should be a musical note. Sound becomes higher pitched as tension increases.
- Never increase blade tension so tight as to completely compress the spring. When completely compressed, the spring can no longer act as a shock absorber.

NOTE: Too much tension may cause the blade to break. Too little tension may cause the blade to slip on the wheels or not track properly. The wider the blade, the more tension must be used.

TO TRACK THE BLADE

See Figure 14.

NOTE: Adjust blade tension properly before making tracking adjustments. Check that the blade guides are not interfering with the blade.

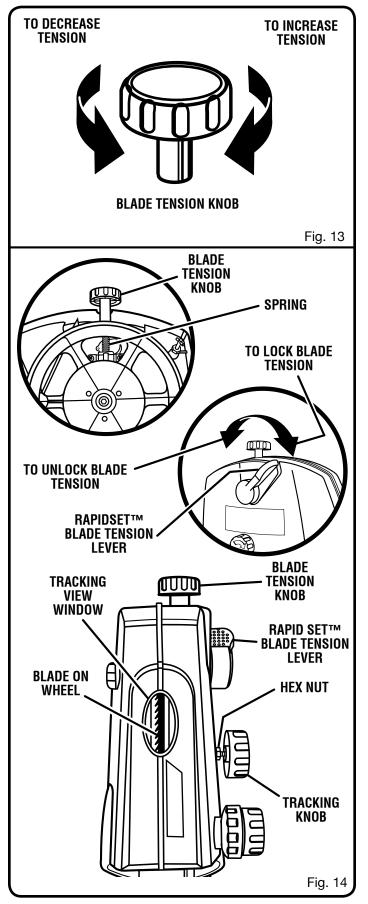
To Adjust:

Open the front cover by releasing the upper and lower latches. Watch the blade's position on the upper tire as you slowly turn the upper wheel clockwise by hand. If the blade moves away from the center of the tire, the tracking must be adjusted.

If the blade has moved left or right of center:

NOTE: It may be necessary to loosen the hex nut for a larger range of adjustments. Be sure to retighten after adjusting.

- Loosen hex nut. Turn the tracking knob (clockwise if blade has moved left and counterclockwise if blade has moved right) while turning the wheel by hand until the blade moves back and rides in the center of the tire. Retighten hex nut.
- Check the position of the blade on the lower tire. The blade should be completely on the tire. If not, adjust the tracking until the blade is on both tires.
- Rotate the upper wheel by hand in a clockwise direction for a few more turns. Make sure the blade stays in the same location on the tires. Readjust, if necessary, until blade is tracking properly.
- Close front cover and relatch.





WARNING:

Do not allow familiarity with tools to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.



WARNING:

Always wear safety goggles or safety glasses with side shields when operating power tools. Failure to do so could result in objects being thrown into your eyes resulting in possible serious injury.



WARNING:

To avoid blade contact, adjust the blade guide assembly to just clear the workpiece. Failure to do so could result in serious personal injury.

APPLICATIONS

You may use this tool for the purposes listed below:

- Scroll cutting and circle cutting of wood and wood composition products
- Relief cutting of wood and wood composition products

BASIC OPERATION OF THE BAND SAW

A band saw is basically a "curve cutting" machine that can also be used for straight-line cutting operations like cross cutting, ripping, mitering, beveling, compound cutting, and resawing. It is not capable of making inside or non-through

This band saw is designed to cut wood and wood composition products only.

Before starting a cut, watch the saw run. If you experience excessive vibration or unusual noise, stop immediately. Turn the saw off, remove the switch key, and unplug the saw. Do not restart until locating and correcting the problem.

CUTTING PROCEDURES

- Hold the workpiece firmly against the saw table.
- Use gentle pressure and both hands when feeding the work into the blade. Do not force the work: allow the blade to cut.
- The smallest diameter circle that can be cut is determined by blade width. A 1/4 in. (6 mm) wide blade will cut a minimum radius of 3/4 in. (19 mm); a 1/8 in. (3 mm) wide blade will cut a minimum radius of 1/4 in. (6 mm).
- Keep your hands away from the blade. Do not hand hold pieces so small your fingers will go under the blade guard.

- Avoid awkward operations and hand positions where a sudden slip could cause serious injury from contact with the blade. Never place hands in blade path.
- Use extra supports (tables, saw horses, blocks, etc.) when cutting large, small or awkward workpieces.
- Never use a person as a substitute for a table extension or as additional support for a workpiece that is longer or wider than the basic saw table.
- When cutting irregularly shaped workpieces, plan your work so it will not pinch the blade. For example, a piece of molding must lay flat on the saw table. Workpieces must not twist, rock or slip while being cut.

When backing up the workpiece, the blade may bind in the kerf (cut). This is usually caused by sawdust clogging the kerf or when the blade comes out of the guides. If this happens:

- Wait until the saw has come to a full and complete stop.
- Place the switch in the **OFF** (**O**) position then remove the switch key from the switch assembly. Store key in a safe place.
- Unplug the saw from the power source.
- Wedge the kerf open with a flat screwdriver or wooden wedge.
- Open front cover and turn the upper wheel by hand while backing up the workpiece.

RELIEF CUTS

Relief cuts are made when an intricate curve (too small a radius for the blade) is to be cut. Cut through a scrap section of the workpiece to curve in pattern line then carefully back the blade out. Several relief cuts should be made for intricate curves before following the pattern line as sections are cutoff of curve "relieving" blade pressure.

SCROLL CUTTING

For general type scroll cutting, follow the pattern lines by pushing and turning the workpiece at the same time. Do not try to turn the workpiece while engaged in the blade without pushing it – the workpiece could bind or twist the blade.

REMOVING JAMMED MATERIAL

Never remove jammed cutoff pieces until the blade has come to a full and complete stop.

- Place the switch in the **OFF (O)** position, remove the switch key from the switch assembly.
- Unplug the saw from the power source before removing jammed material.

AVOIDING INJURY

- Make sure saw is level and does not rock. Saw should always be on a firm, level surface with plenty of room for handling and properly supporting the workpiece.
- Bolt saw to the support surface to prevent slipping, walking or sliding during operations like cutting long, heavy boards.
- Turn saw off, remove switch key, and unplug cord from the power source before moving the saw.
- Do not remove jammed cutoff pieces until blade has come to a full and complete stop.
- Choose the right size and style blade for the material and type of cut you plan to do.
- Make sure that the blade teeth point down toward the saw table, that the blade guides, thrust bearings, and blade tension are properly adjusted, that the blade guide knob is tight, and that no parts have excessive play.
- To avoid accidental blade contact, minimize blade breakage, and provide maximum blade support, always adjust the blade guide assembly to just clear the workpiece.
- Use only recommended accessories.
- With the exception of the workpiece and related support devices, clear everything off the saw table before turning the saw on.
- Properly support round materials such as dowel rods or tubing because they have a tendency to roll during a cut causing the blade to "bite". To avoid this, always use a "V" block or clamp workpiece to a miter gauge.
- Before removing loose pieces from the saw table, turn saw off and wait for all moving parts to stop.

LOCKING THE SWITCH

See Figure 15.

- Place the switch in the **OFF (O)** position. Wait until the saw has come to a full and complete stop.
- Remove the switch key from the switch assembly. Store key in safe place.

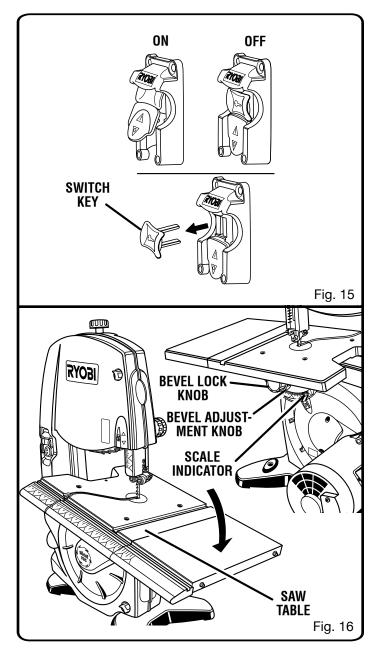
BEFORE LEAVING THE SAW

- Place the switch in the **OFF (O)** position. Wait until the saw has come to a full and complete stop.
- Remove the switch key from the switch assembly. Store key in safe place.
- Unplug the saw from the power source.
- Make workshop childproof.
- Lock the shop.

TILTING THE TABLE

See Figure 16.

- Loosen the bevel lock handle slightly.
- Turn the bevel adjustment knob, tilting the saw table toward the front of the saw housing until it reaches the desired angle.
- Using the scale indicator, check angle markings.
- Retighten the bevel lock knob to hold saw table securely in place.



TO EXTEND THE SAW TABLE

See Figure 17.

The saw table can be extended to increase the work surface. To lengthen the saw table:

- Loosen the table lock knob underneath the saw table by turning counterclockwise.
- Using the extension scale on the saw table, extend the saw table to the desired position.
- Lock the saw table in place by turning the table lock knob clockwise.

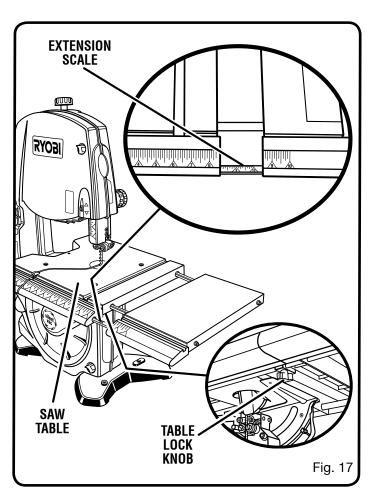
USING THE MITER GAUGE

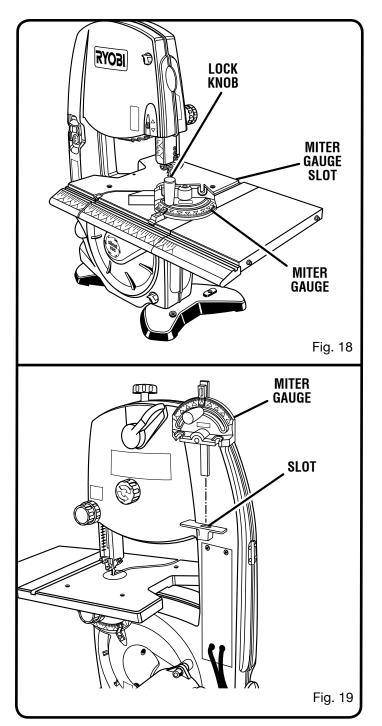
See Figures 18 - 19.

The miter gauge can be turned 60° to the right or left.

- Loosen the lock knob on the miter gauge.
- With the miter gauge in the miter gauge slot, rotate the gauge until the desired angle is reached on the index scale.
- Retighten the lock knob.

NOTE: For convenience, store the miter gauge in the slot on the back of the band saw.





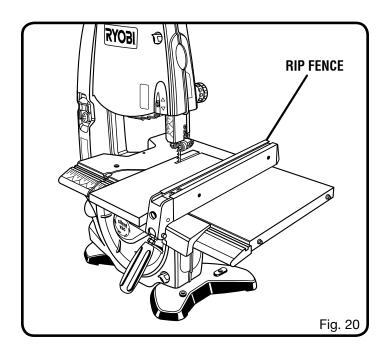
USING THE RIP FENCE

See Figure 20.

- Unplug the saw.
- From either side of the saw blade, slide the rip fence onto the saw table. Check for a smooth, gliding action.
- Push the locking handle down to automatically align and secure the fence.

NOTE: Rip fence may be used on either side of the saw blade.

NOTE: For wider rip cuts, lock the rip fence at 10 in. then unlock the table lock knob. Using the side of the saw table as an indicator, extend the extension table to the desired position. Retighten the table lock knob.



ADJUSTMENTS



WARNING:

Before performing any adjustment, make sure the tool is unplugged from the power supply and the switch is in the OFF (O) position. Failure to heed this warning could result in serious personal injury.

INSTALLING AND ADJUSTING THE BLADE See Figures 21 - 22.



WARNING:

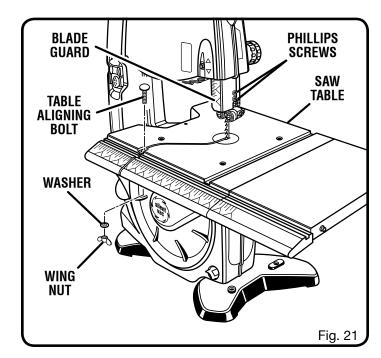
Failure to turn the saw off, remove the switch key, and unplug the saw could result in accidental starting causing possible serious personal injury.



WARNING:

Always wear safety goggles or safety glasses with side shields to protect your eyes while uncoiling band saw blades. Failure to heed this warning could result in a serious eye injury.

- Unplug the saw.
- Loosen and remove the wing nut, washer, and table aligning bolt from the saw table.
- Open the front cover by releasing the upper and lower latches.
- Loosen the two screws that hold the blade guard in place then remove the blade guard.



- Turn the blade guide lock knob counterclockwise to unlock the blade guide assembly. Turning the blade guide knob (clockwise raises the blade guide assembly; counterclockwise lowers it), position the blade guide assembly about halfway between the saw table and saw housing. Retighten the lock knob.
- Turn the blade tension knob counterclockwise two full turns to release some of the blade tension. Release blade tension by pushing the RapidSet™ blade tension lever to the left.

ADJUSTMENTS

- Carefully remove the old blade.
- Wearing gloves, carefully uncoil the blade at arms length. If the new blade was oiled to prevent rusting, it may need to be wiped to keep the oil from your workpiece. Carefully wipe in the same direction the teeth are pointing so the rag does not catch on the teeth of the saw blade.

NOTE: The blade may need to be turned inside out if the teeth are pointing in the wrong direction. Hold the blade with both hands and rotate it inward.

NOTE: It may be necessary to release more tension with the blade tension knob for the new blade to fit.

- Thread the blade through the saw table.
- With the teeth of the blade toward the front of the saw and facing downward, place the blade through the lower blade guides and around the lower wheel.
- Slowly turn the upper wheel to the right or clockwise by hand to center the blade on the rubber tires.
- Reengage the RapidSet[™] blade tension lever then adjust the blade tension. Check blade tracking and adjust if needed.
- Adjust both upper and lower blade guides and thrust bearings.
- Reattach the aligning bolt, washer, and wing nut. Tighten securely.
- Reattach the blade guard.
- Close front cover.

ADJUSTING BLADE GUIDE ASSEMBLY

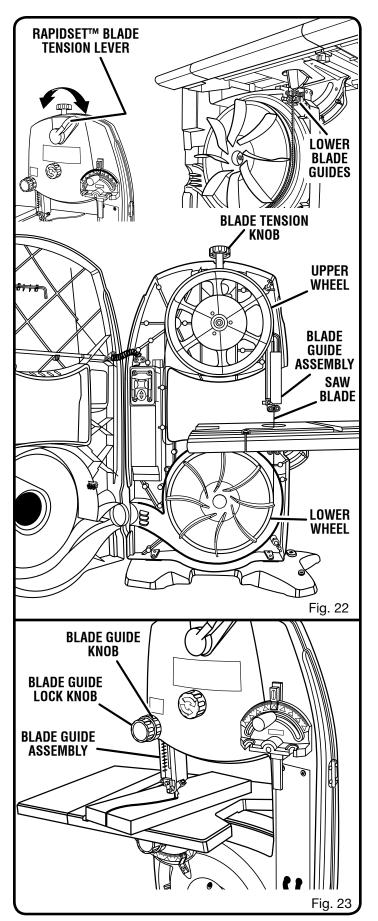
See Figures 23 - 24.

WARNING:

The blade guides have been preset at the factory. These settings are functional for some applications. We recommend that you check and adjust blade guide settings before first use of your saw. Refer to "Adjusting thrust bearings, blade guide support, and blade guides" procedures explained in the adjustments section of this operator's manual.

To prevent the blade from twisting or breaking, the blade guide assembly should always be set approximately 1/8 in. (3 mm) above the workpiece.

- Turn the blade guide lock knob counterclockwise to unlock the blade guide assembly.
- As a guide, use a scrap piece of the same wood you are about to cut to set the height of the blade guide assembly. Adjust the blade guide assembly by turning the blade auide knob.
- Lock blade guide assembly in place by turning the blade guide lock knob clockwise.
- Always lock the blade guide assembly in place before turning on the band saw.



ADJUSTMENTS



▲ WARNING:

To avoid personal injury, maintain proper adjustment of blade tension, blade guides, and thrust bearings.

- To check tension, raise the blade guide assembly all the way up to expose the blade.
- Push the blade to the side with moderate force; the blade should flex approximately 1/8 in. (3 mm).

ADJUSTING THRUST BEARINGS, BLADE **GUIDE SUPPORT. AND BLADE GUIDES**

See Figures 24 - 26.

The upper and lower blade guides and thrust bearings support the band saw blade during cutting operations. The adjustment of the guides and bearings should be checked whenever a different blade is installed.



WARNING:

Failure to turn the saw off, remove the switch key, and unplug the saw could result in accidental starting causing possible serious personal injury.

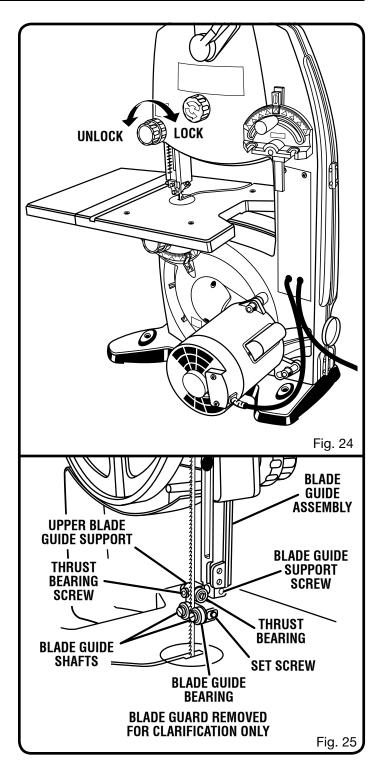
To Adjust Thrust Bearings:

The thrust bearings support the back edge of the blade during cutting. The blade should not contact the thrust bearings when you stop cutting. It is important that both upper and lower thrust bearings be adjusted equally and that both upper and lower blade guides be made simultaneously.

Adjust blade tracking and tension appropriate to the size blade being used. Wide blades will require more tension than narrow ones. Excessive tension may cause breakage of very narrow blades while too little tension may cause wide blades to track improperly and give poor cutting control.

NOTE: The thrust bearing screw is the set screw located on the front of the blade guide support. It is the set screw on the front of the saw housing below the saw table for the lower bearing.

- Remove the blade guard by loosening the two screws.
- Turn the blade guide lock knob counterclockwise to unlock the blade guide assembly. Turning the blade guide knob clockwise, raise the blade guide assembly as far as it will go. Turn the blade guide lock knob clockwise to retighten.
- Loosen the thrust bearing and blade guide support screws. Adjust the thrust bearing and blade guide support in or out so that the thrust bearing is centered on the blade and is approximately 1/64 in. (.4 mm) away from the back edge of the blade. Retighten the screws.
- Loosen the set screw and move the blade guide bearings in and out. Rotating the blade guide shafts with a small screwdriver, adjust the blade guide bearings so that



they are just barely touching the sides of the blade and positioned just far enough forward as to not interfere with the blade's teeth.

NOTE: Do not allow blade guide bearings to contact the blade's teeth when the blade is pushed against the thrust bearing. Contact with teeth will damage the blade, bearings, and cause noisy operation.

■ Retighten all screws and replace the blade guard if no additional adjustments are to be made.

ADJUSTMENTS

To Adjust Blade Guide Support:

- Remove the blade guard by removing the two phillips screws that secure it in place.
- Adjust the position of the blade guide assembly. Loosen the bottom screw on the right side of the blade guide assembly using the 3 mm hex key.
- Slide the upper blade guide support on the shaft until the front edge of the blade guides are about 1/64 in. (0.4 mm) behind the gullet of the blade. Tighten the screw securely. Repeat this procedure for the lower blade guide support.
- Replace the blade guard if no additional adjustments are to be made.

To Adjust Blade Guides:

The blade guides help keep the blade from twisting and binding. The blade will be ruined if the blade teeth hit the blade guides while using the band saw. The set of teeth and the sharpened edge of teeth will be damaged by hitting the blade guides. Proper adjustment of the upper and lower blade guides will prevent this from happening.

- Remove the blade guard by loosening the two phillips screws.
- Loosen the two blade guide support screws that lock the upper blade guides. Rotate the blade guide shafts with a screwdriver to move the bearings closer or away from the blade. The blade guide shafts should just barely touch the blade. Do not pinch the blade. Make sure one guide is not further away from the blade than the other. Retighten the two blade guide support screws securely.
- Replace the blade guard if no additional adjustments are to be made.
- Repeat this procedure on the lower blade guides located under the saw table.

NOTE: The lower blade guide support screw is the top screw located on the right of the saw housing under the table.



WARNING:

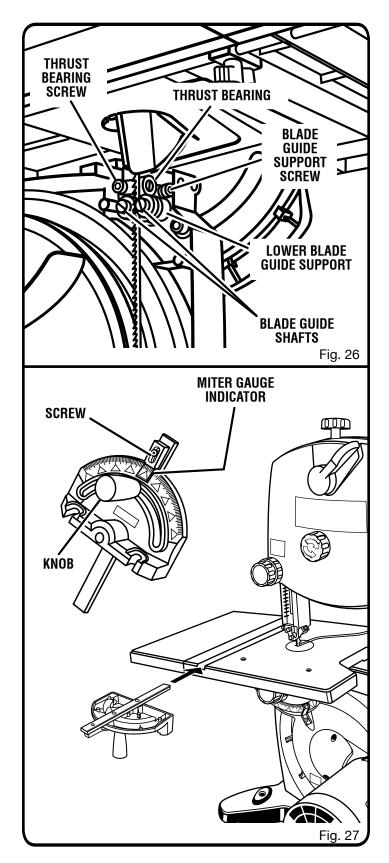
Never operate saw without blade guard secured in place. To do so could result in possible serious personal injury.

TO ADJUST MITER GAUGE INDICATOR

See Figure 27.

If the miter gauge indicator is not set at 0°:

- Open the extension table to its full capacity.
- Loosen the miter gauge knob. Place the miter gauge upside down in the slot on the table.
- Push the miter gauge against the saw table and retighten the miter gauge knob.
- If adjustment is needed, loosen the screw on the miter gauge indicator.



- Turn the miter gauge indicator to 0°.
- Retighten the screw.

MAINTENANCE



WARNING:

When servicing, use only identical Ryobi replacement parts. Use of any other parts may create a hazard or cause product damage.



WARNING:

Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.

GENERAL MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.



WARNING:

Do not at any time let brake fluids, gasoline, petroleumbased products, penetrating oils, etc., come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

- Keep your band saw clean.
- Remove sawdust from the inside frequently.
- Do not allow pitch to accumulate on the saw table, blade guides, or thrust bearings. Clean them with gum and pitch remover.
- Apply a thin coat of automobile type wax to the saw table's top so the wood slides easily while cutting.

LUBRICATION

All of the bearings in this tool are lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions. Therefore, no further lubrication is required.

MOTOR/ELECTRICAL

■ Frequently vacuum or blow out sawdust from the motor.



WARNING:

If the power cord is worn, cut or damaged in any way, have it replaced immediately by a qualified service technician. Failure to do so could result in serious personal injury.



WARNING:

To avoid fire or electrocution, reassemble electric parts with only identical replacement parts. Reassemble exactly as originally assembled.

TIRES

Cleaning tires:

■ Pitch and sawdust accumulates on tires and needs to be removed with a fine wire brush or a piece of wood. Do not use a sharp knife or any kind of solvent.

Replacing tires:

- Open front cover and remove saw blade. See section on Installing and Adjusting the Blade, page 20.
- Pry the worn tire away from the wheel carefully.
- Stretch the new tire around the wheel.
- Replace the saw blade and close the front cover.

MAINTENANCE

BRUSHES

See Figure 28.



WARNING:

To prevent accidental starting that could cause possible serious personal injury, turn off the saw, remove the switch key, and unplug the saw before working on the band saw.

The brushes located inside the saw housing on the door help protect the tire and wheel by brushing off saw dust. As the brushes become worn, it will be necessary to adjust or replace them.

- Slide the brushes off the tab that holds them in place.
- Slide the new brush on the tab.

DRIVE BELT

See Figure 29.

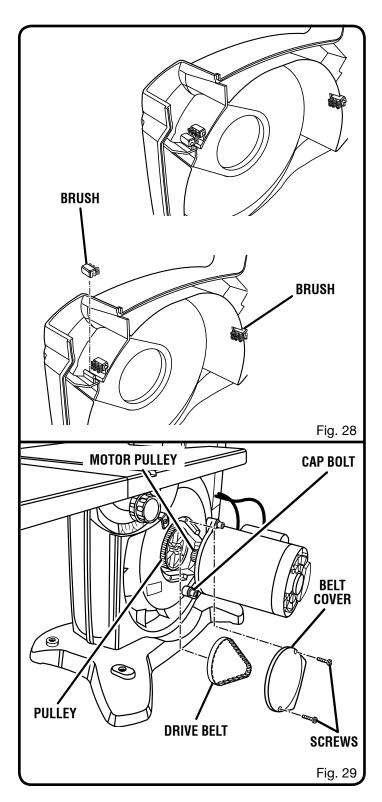


WARNING:

To prevent accidental starting that could cause possible serious personal injury, turn off the saw, remove the switch key, and unplug the saw before working on the band saw.

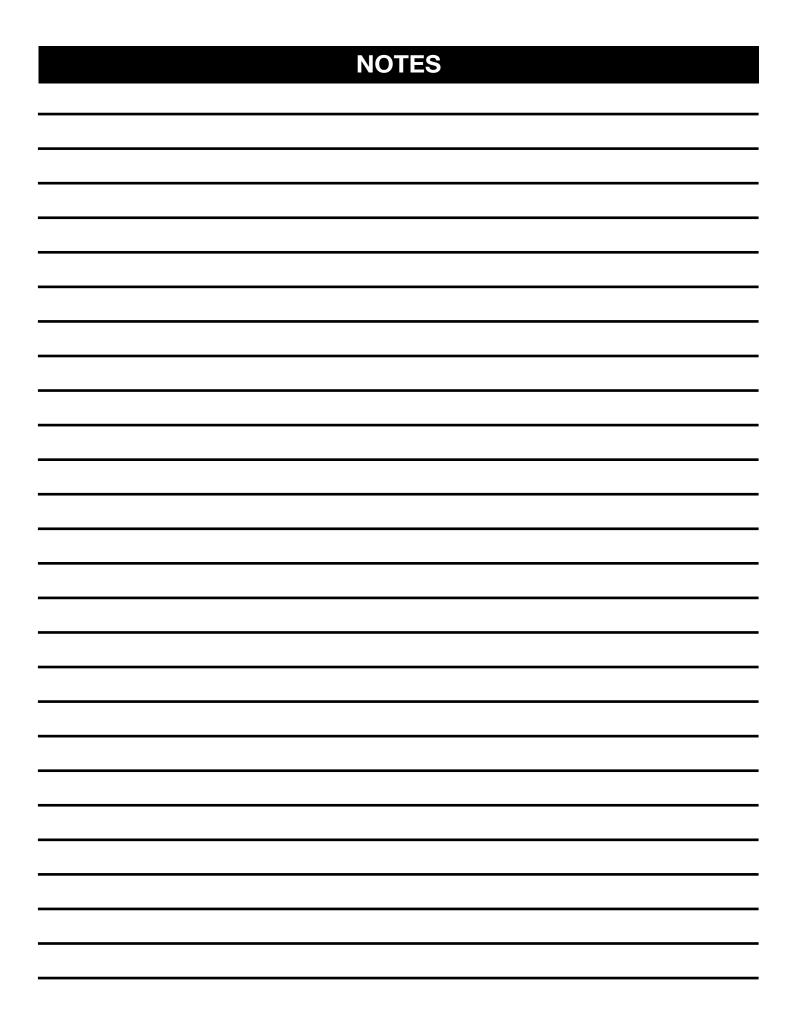
Due to wear or breakage, the drive belt may need to be replaced. The drive belt is located behind the lower wheel of the band saw.

- Remove the phillips head screws from the belt cover and remove belt cover. Set it aside.
- Remove the cap bolts from the bottom of the motor housing using a hex key wrench.
- Remove the top motor cap bolt while supporting the motor.
- Pull the motor away from the band saw and slide the worn drive belt off of the pulley and discard.
- Place new drive belt on motor pulley and slide drive belt over pulley while mounting the motor.
- Insert top cap bolt through motor housing and thread into band saw. Finger tighten.
- Insert the remaining cap bolts into the adjusting slots and thread into band saw.
- Rotate the motor counterclockwise to tension the new drive belt and tighten the cap bolts.
- Replace the belt cover and attach with two philips head screws.



TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Motor will not run.	 Problem with On-Off switch or power cord. Motor defective. 	 Have worn parts replaced before using band saw again. Do not attempt any repair. Have tool repaired by a qualified service technician.
Blade does not run in the approximate center of the upper wheel.	Not tracking properly.	 Adjust tracking, See Adjustments section, Tracking the Blade.
Blade slows down when cutting.	1. Cutting too small a radius.	 Stop feeding and back up the material slightly until the band saw speeds up.
	2. Dull blade.	2. Replace blade.
Blade breaking.	1. Too much blade tension.	Adjust tension. See <i>Adjustments</i> section, Adjusting Blade Tension.
	Kink in blade caused by cutting too small radius or turning the material too fast when cutting.	Use correct cutting technique. See section, <i>Operation</i>.
	Thrust bearings scarred or not rotating.	3. Replace the thrust bearings.
Saw is noisy when running.	1. Too much blade tension.	 Adjust tension. See Adjustments section, Adjusting Blade Tension.
	Blade guides and bearings are in contact with the blade.	 Adjust upper and lower blade guides and bearings. See Adjust- ments sections, Adjusting Thrust Bearings, Blade Guide Support, and Blade Guides.
Blade will not cut straight.	Blade guides and bearings not properly adjusted.	 Adjust upper and lower blade guides and bearings. See Adjust- ments sections, Adjusting Thrust Bearings, Blade Guide Support, and Blade Guides.
	2. Worn or defective blade.	2. Replace blade.
Blade guides will not stay in position.	Blade guide screws have loosened.	Tighten blade guide screws securely.





OPERATOR'S MANUAL 10 in. BAND SAW

BS1001SV

EXTENSION CORD CAUTION

When using a power tool at a considerable distance from a power source, be sure to use an extension cord that has the capacity to handle the current the tool will draw. An undersized cord will cause a drop in line voltage, resulting in overheating and loss of power. Use the chart to determine the minimum wire size required in an extension cord. Only round jacketed cords should be used.

When working with a tool outdoors, use an extension cord that is designed for outside use. This is indicated by the letters "WA" on the cord's jacket.

Before using any extension cord, inspect it for loose or exposed wires and cut or worn insulation.

Cord Length			Wire Siz	e (A.W.G	i.)
(on tool data plate)	0-2.0	2.1-3.4	3.5-5.0	5.1-7.0	7.1-12.0 12.1-16.0
Ampere rating					

Cord Leng	th	Wire Size (A.W.G.)					
25'	16	16	16	16	14	14	
50'	16	16	16	14	14	12	
100'	16	16	14	12	10	_	

CAUTION: Keep the extension cord clear of the working area. Position the cord so that it will not get caught on workpiece, tools, or other obstructions while you are working with a power tool.

**Used on 12 gauge - 20 amp circuit.

SERVICE

Now that you have purchased your tool, should a need ever exist for repair parts or service, simply contact your nearest Ryobi Authorized Service Center. Be sure to provide all pertinent facts when you call or visit. Please call 1-800-525-2579 for your nearest Ryobi Authorized Service Center. You can also check our web site at www.ryobitools.com for a complete list of Authorized Service Centers.

MODEL NO.

The model and serial numbers of your tool will be found on a plate on the back of the saw. Please record the serial number in the space provided below.

•	MODEL NUMBER	BS1001SV
•	SERIAL NUMBER	

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