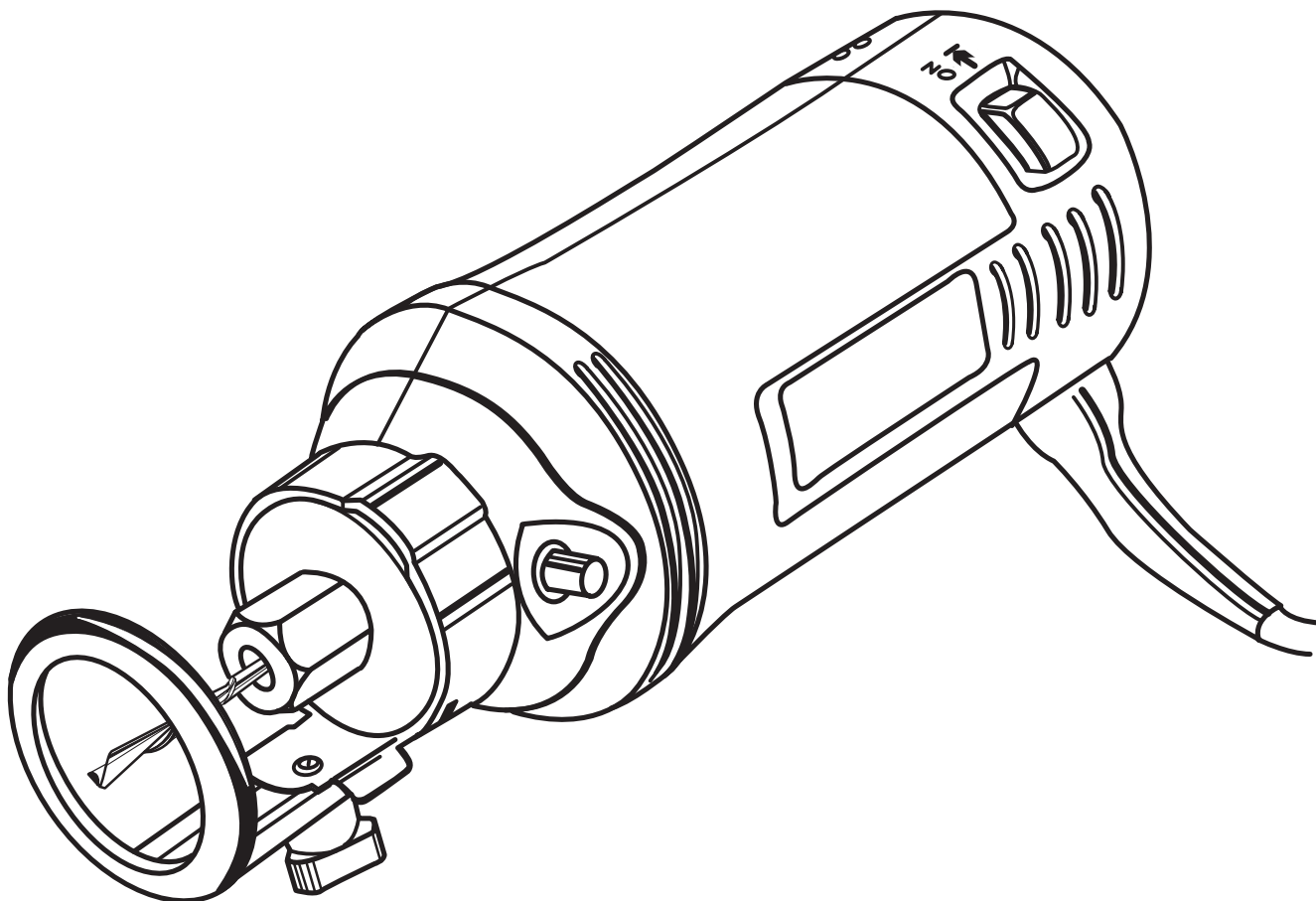


RYOBI®

OPERATOR'S MANUAL SPEED SAW™ SS50 DOUBLE INSULATED



THANK YOU FOR BUYING A RYOBI SPEED SAW.

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



CAUTION: Carefully read through this entire operator's manual before using your new Speed Saw.

Pay close attention to the Rules for Safe Operation, Warnings, and Cautions. If you use your Speed Saw properly and only for what it is intended, you will enjoy years of safe, reliable service.

Thank you again for buying Ryobi tools.

SAVE THIS MANUAL FOR FUTURE REFERENCE

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INTRODUCTION

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

WARNING:

Do not attempt to operate this tool until you have read thoroughly and understand completely all instructions, safety rules, etc. contained in this manual. Failure to comply can result in accidents involving fire, electric shock, or serious personal injury. Save the operator's manual and review it frequently for continuing safe operation and instructing others who may use this tool.



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 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 wear eye protection which is marked to comply with ANSI Z87.1.



Look for this symbol to point out important safety precautions. It means attention!!! Your safety is involved.

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.

SAVE THESE INSTRUCTIONS

WORK AREA

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

ELECTRICAL SAFETY

- **Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation  eliminates the need for the three-wire grounded power cord and grounded power supply system.
- **Avoid body contact with grounded surfaces, such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- **Don't expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges, or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.
- **When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W".** These cords are rated for outdoor use and reduce the risk of electric shock.

PERSONAL SAFETY

- **Stay alert, watch what you are doing, and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.

- **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
- **Avoid accidental starting. Be sure switch is off before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch on, invites accidents.
- **Remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations. Do not use on a ladder or unstable support.
- **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

TOOL USE AND CARE

- **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
- **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect the plug from power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
- **Store idle tools out of the reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.
- **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
- **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may become hazardous when used on another tool.

GENERAL SAFETY RULES

SERVICE

- **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
- **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES

Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its cord. Contact with a “live” wire will make exposed metal parts of the tool “live” and shock the operator.

ADDITIONAL SAFETY RULES

- **Know your power tool. Read operator’s manual carefully. Learn its applications and limitations, as well as the specific potential hazards related to this tool.** Following this rule will reduce the risk of electric shock, fire, or serious injury.
- **Always wear safety glasses. Everyday eyeglasses have only impact-resistant lenses; they are NOT safety glasses.** Following this rule will reduce the risk of serious personal injury.
- **Protect your lungs. Wear a face or dust mask if the operation is dusty.** Following this rule will reduce the risk of serious personal injury.
- **Protect your hearing. Wear hearing protection during extended periods of operation.** Following this rule will reduce the risk of serious personal injury.
- **Inspect tool cords periodically and, if damaged, have repaired at your nearest Factory Service Center or other Authorized Service Organization. Constantly stay aware of cord location.** Following this rule will reduce the risk of electric shock or fire.
- **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 should be properly repaired or replaced by an authorized service center.** Following this rule will reduce the risk of shock, fire, or serious injury.
- **Secure work.** Use clamps or a vise to hold work when practical. It is safer than using your hand and frees both hands to operate tool.
- **Do not abuse cord. Never carry the tool by the cord or yank it to disconnect it from the receptacle. Keep cord away from heat, oil, and sharp edges.** Following this rule will reduce the risk of electric shock or fire.
- **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. A wire gage size (A.W.G.) of at least 16 is recommended for an extension cord 100 feet or less in length. A cord exceeding 100 feet is not recommended. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.** An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.
- **Inspect for and remove all nails from lumber before sawing.** Following this rule will reduce the risk of serious personal injury.
- **Drugs, alcohol, medication. Do not operate tool while under the influence of drugs, alcohol, or any medication.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **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

Important: Some of the following symbols may be used on your 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
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watt	Power
min	Minutes	Time
~	Alternating Current	Type or a characteristic of current
n_0	No Load Speed	Rotational speed, at no load
	Class II Construction	Designates double-insulated construction tools
.../min	Revolutions or Reciprocation Per Minute	Revolutions, strokes, surface speed, orbits etc. per minute
	Safety Alert	Indicates danger, warning or caution. It means attention!!! Your safety is involved.
	Wet Conditions Alert	Do not expose to rain or use in damp locations.

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and the explanations with them, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

SYMBOL MEANING



DANGER: Failure to obey a safety warning will result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.



WARNING: Failure to obey a safety warning can result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.



CAUTION: Failure to obey a safety warning may result in property damage or personal injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.

NOTE: Advises you of information or instructions vital to the operation or maintenance of the equipment.

SAVE THESE INSTRUCTIONS

SPECIFICATIONS

Rating	120 VOLTS, 60 HZ, AC ONLY
Collet	1/4 in. (6.4 mm)
Collet Adaptor	1/8 in. (3.2 mm)
No Load Speed	30,000 RPM
Amps	5
Net Weight	3.08 lbs. (1.4 kg)

UNPACKING

INSTRUCTIONS

Your Speed Saw has been shipped completely assembled.

- Carefully remove the Speed Saw and accessories from the box. Make sure that all items listed in the packing list are included.
- Inspect the Speed Saw carefully to make sure no breakage or damage has occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.

PACKING LIST

Speed Saw with Depth Adjustment Ring
Case
Bits (2)
Collet
Collet Adaptor
Circle Cutter
Wrench
Operator's Manual



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.

APPLICATIONS

You may use your Speed Saw for the purposes listed below:

- Cutting electrical outlet openings in drywall or wood paneling.
- Creating decorative wood accents.
- Cutting tile.

NOTE: Most of these applications require different types of bits. Be sure to use the right-sized bit for your tool.



DANGER:

Do not cut electrical outlet openings with live electrical wires. Do not cut walls that may have live electrical wiring behind them. Shut off breakers or remove fuses to disconnect the circuit. Always hold the tool by its **thermo**plastic housing.

FEATURES

DOUBLE INSULATION

Your Ryobi power tool is double insulated. This means you are separated from the tool's electrical system by two complete sets of electrical insulation. This extra layer of insulation is intended to protect the user from electrical shock due to a break in the wiring insulation. All exposed metal parts are isolated from the internal metal motor components with protecting insulation. Double insulated tools do not need to be grounded.



WARNING:

The double insulated system is intended to protect the user from shock resulting from a break in the tool's internal wiring. Observe all normal safety precautions related to avoiding electrical shock.

Important: Servicing of a tool with double insulation requires extreme care and knowledge of the system and should be performed only by a qualified service technician. For service we suggest you return the tool to your nearest **RYOBI AUTHORIZED SERVICE CENTER** for repair. When servicing use only identical Ryobi replacement parts.

ELECTRIC MOTOR

Your Speed Saw has 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 voltage drop of more than 10 percent will cause a loss of power and the motor will overheat. If your tool does not operate when plugged into an outlet, double-check the power supply.

SWITCH

Your Speed Saw has a conveniently located slide switch.

SPINDLE LOCK

A spindle lock secures the spindle and allows you to easily loosen the collet nut and change bits.

NOTE: Do not run Speed Saw with spindle lock engaged.

DEPTH ADJUSTMENT RING

Your Speed Saw is equipped with a depth adjustment ring that allows you to adjust the depth of cut up to 1 in. (2.5 cm).

CIRCLE CUTTER

The circle cutter enables you to quickly cut circles from 3.5 in. (8.9 cm) in diameter to 12 in. (30.5 cm) in diameter.

ERGONOMIC DESIGN

The design of your Speed Saw provides for easy handling and maintaining proper control when cutting. It has been designed to be comfortable and easy to grasp when operating in different positions or at different angles.

FEATURES

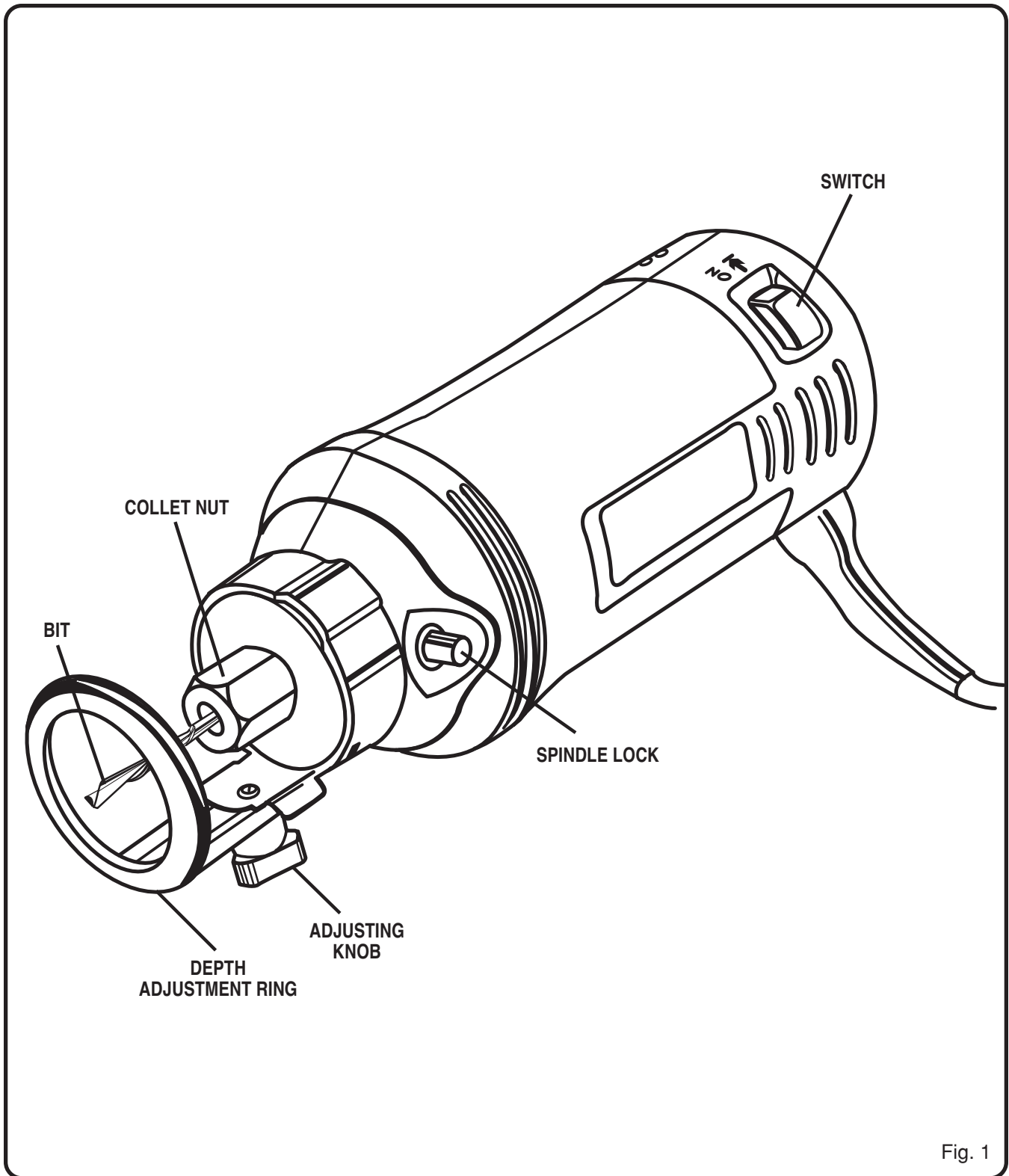


Fig. 1

⚠ 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.

ADJUSTMENTS

⚠ WARNING:

Your Speed Saw should never be connected to power supply when you are assembling parts, making adjustments, cleaning, performing maintenance, or when not in use. Disconnecting your Speed Saw will prevent accidental starting that could cause serious injury.

INSERTING/REMOVING BITS

See Figure 2.

Follow these directions when inserting and removing bits.

- UNPLUG YOUR SPEED SAW.

⚠ WARNING:

Failure to unplug your Speed Saw could result in accidental starting causing serious injury.

⚠ CAUTION:

To prevent damage to the spindle or spindle lock, always allow motor to come to a complete stop before engaging spindle lock.

- Depress spindle lock.
- Loosen collet nut by turning counterclockwise with the wrench provided.

⚠ WARNING:

If you are changing a bit immediately after use, be careful not to touch the bit or collet with your hands or fingers. They will get burned because of the heat buildup from cutting. Always use the wrench provided.

- To insert bit: Insert shank end of bit into collet.
- To remove bit: Remove bit once collet nut is loose.

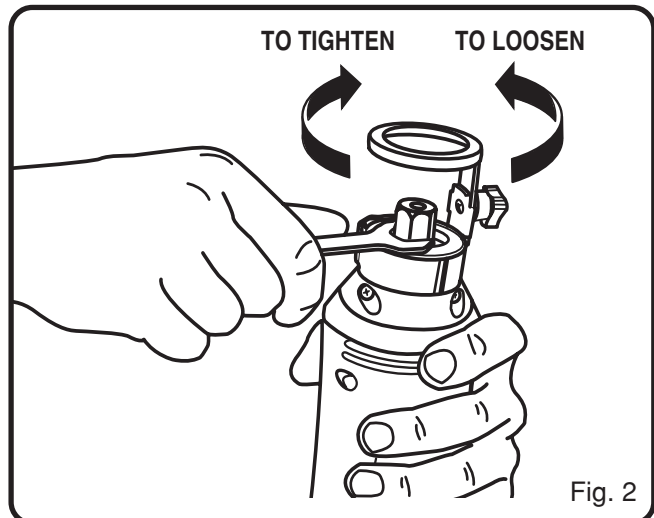
NOTE: The collet is machined to precision tolerances to fit bits with 1/4 in. (6.35 mm) diameter shanks. To use bits with 1/8 in. (3.16 mm) shank bits, insert the 1/8 in. (3.16 mm) adaptor into the 1/4 in. (6.35 mm) collet.

- Tighten collet nut securely by turning clockwise with the wrench provided.

⚠ WARNING:

If the collet nut is not securely tightened, the bit may detach during use causing serious personal injury.

- Release spindle lock.



⚠ WARNING:

Do not use bits with undersized shanks. Undersized shanks will not tighten properly and could be thrown from the tool causing injury.

ADJUSTING DEPTH OF CUT

See Figure 3.

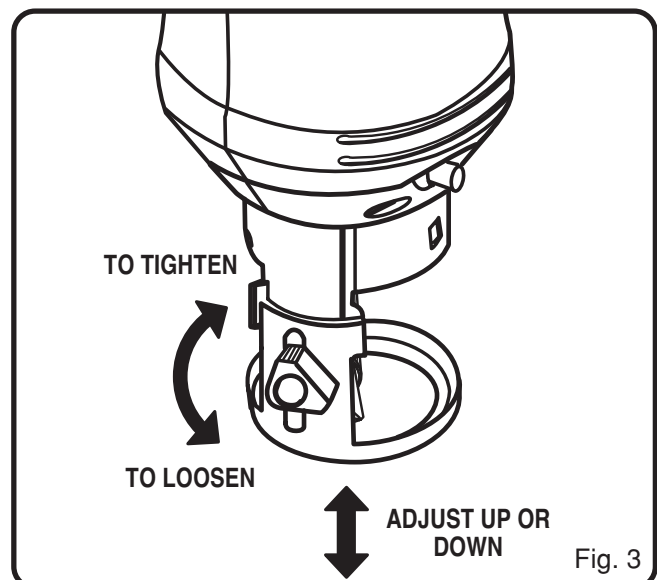
Follow these directions when adjusting depth of cut.

- UNPLUG YOUR SPEED SAW.

⚠ WARNING:

Failure to unplug your Speed Saw could result in accidental starting causing serious injury.

- Loosen adjusting knob by turning counterclockwise.
- Move depth adjustment ring to desired position .
- Tighten adjusting knob by turning clockwise.



ADJUSTMENTS

REMOVING DEPTH ADJUSTMENT RING

See Figure 4.

Follow these directions when removing the depth adjustment ring.

- Place wrench in tab on depth adjustment ring.
- Depress spring-loaded tab.
- Lift depth adjustment ring off of tool.

ASSEMBLING CIRCLE CUTTER

See Figure 5.

Follow these directions when assembling the circle cutter.

- Attach handle with screw provided.
- Attach pivot point knob with nut provided.

ATTACHING CIRCLE CUTTER

See Figure 6.

Follow these directions when attaching the circle cutter.

- UNPLUG YOUR SPEED SAW.

⚠ WARNING:

Failure to unplug your Speed Saw could result in accidental starting causing serious injury.

- Assemble circle cutter if necessary. Refer to “ASSEMBLING CIRCLE CUTTER” previously.
- Remove bit if necessary. Refer to “INSERTING/REMOVING BITS” earlier in this manual.
- Place adaptor under depth adjustment ring.

NOTE: Make sure the adaptor fits snugly.

- Place circle cutter arm on top of depth adjustment ring.
- Screw threaded ring onto adaptor, securing circle cutter arm.
- Insert bit. Refer to “INSERTING/REMOVING BITS” earlier in this manual.

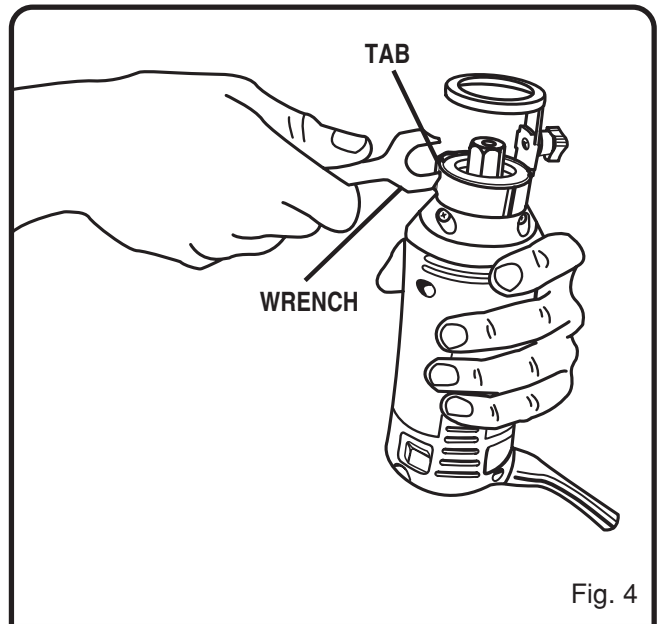


Fig. 4

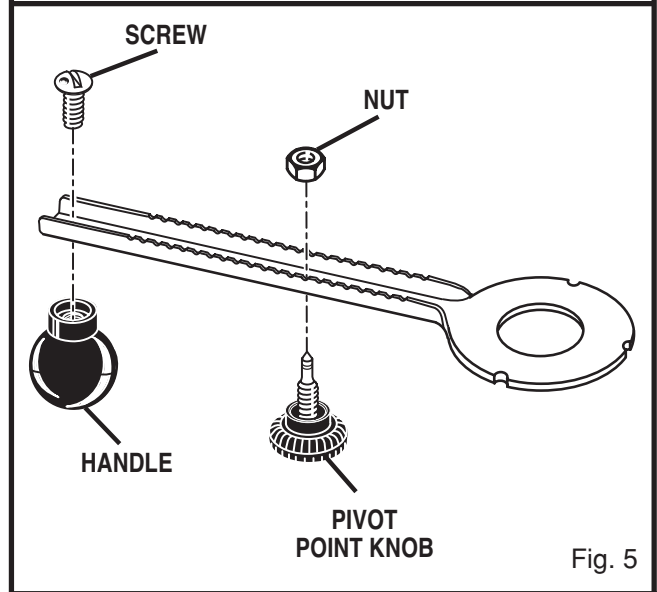


Fig. 5

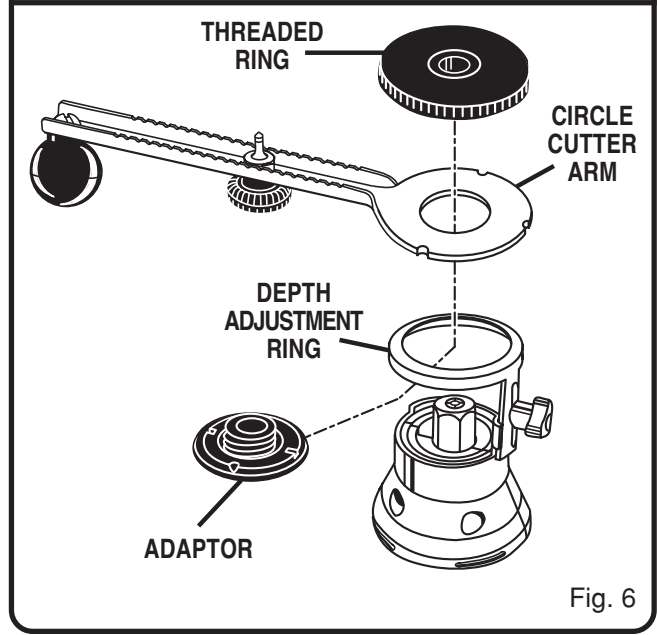


Fig. 6

OPERATION

STARTING/STOPPING SPEED SAW

See Figure 7.

Follow these directions when starting and stopping the Speed Saw.

To start Speed Saw: Depress the switch to the **I** position.

To stop Speed Saw: Depress the switch to the **O** position.

CAUTION:

We suggest that you practice with your Speed Saw before installing a bit and making cuts.

OPERATING SPEED SAW

See Figure 8.

Follow these directions when operating the Speed Saw.

- Hold Speed Saw firmly with both hands.
- Start Speed Saw.
- Tilt Speed Saw at a 45° angle.
- Plunge bit into material using guide ring as a pivot.
- Raise Speed Saw slowly to a 90° angle.
- Begin cutting.

USING CIRCLE CUTTER

See Figure 9.

Follow these directions when using the circle cutter.

- Assemble circle cutter if necessary. Refer to “ASSEMBLING CIRCLE CUTTER” earlier in this manual.
- Attach circle cutter to Speed Saw if necessary. Refer to “ATTACHING CIRCLE CUTTER” earlier in this manual.
- Adjust depth of cut if necessary. Refer to “ADJUSTING DEPTH OF CUT” earlier in this manual.
- Loosen pivot point knob.
- Move pivot point knob to desired diameter dimension.
- Tighten pivot point knob.
- Start Speed Saw.
- Cut a pilot hole in the center of the intended circle.
- Line up pivot point knob with the lead hole.
- Begin cut, applying moderate, steady pressure.
- Hold the Speed Saw firmly with one hand and the handle with the other.

CAUTION:

Too much force causes heat build up, which can shorten the life of the bit.

- Work in a clockwise direction, continuing back to the starting position.
- Stop Speed Saw.

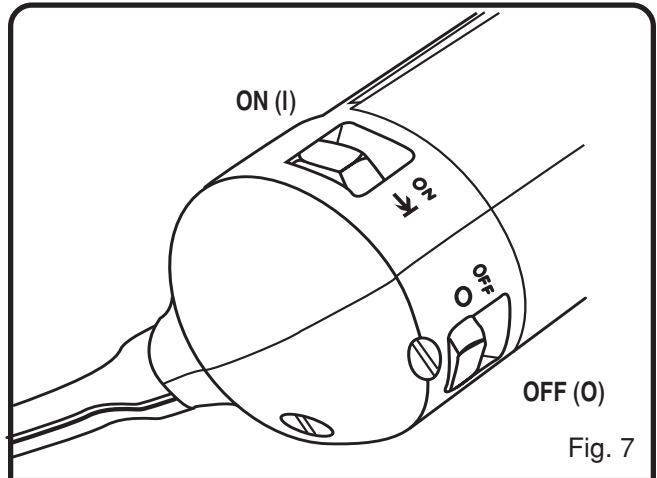


Fig. 7

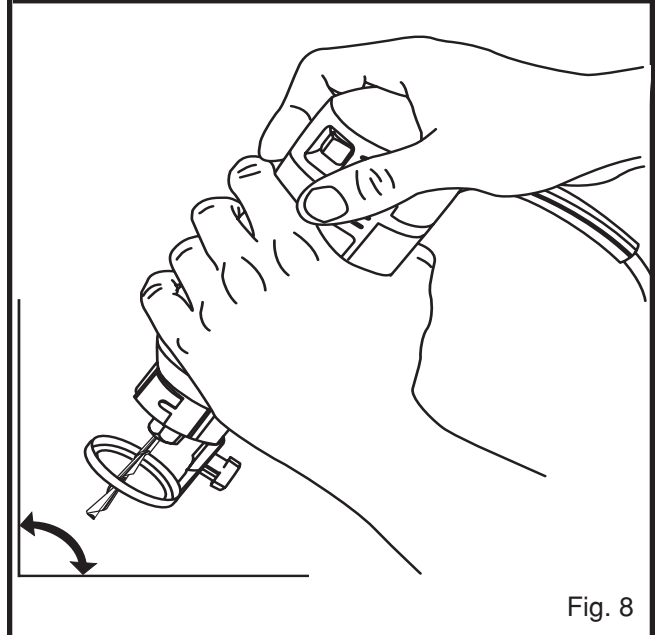


Fig. 8

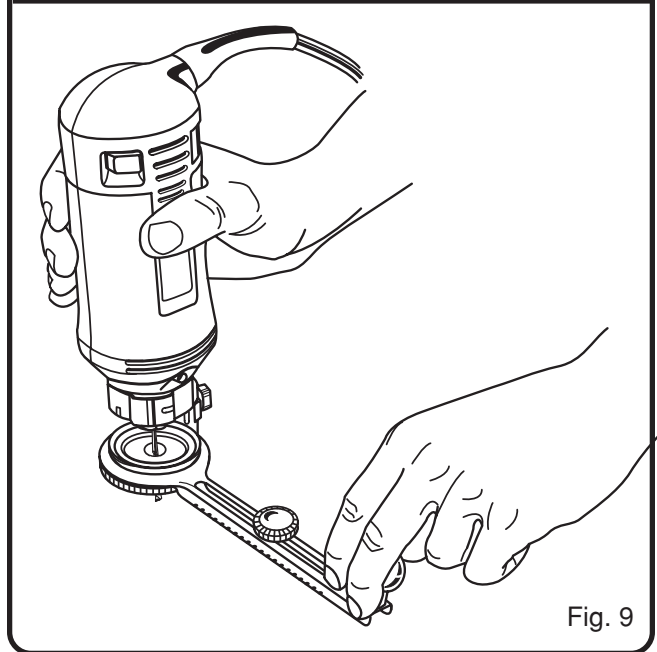


Fig. 9

MAINTENANCE

WARNING:

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

GENERAL

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, carbon dust, etc.

WARNING:

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. come in contact with plastic parts. They contain chemicals that can damage, weaken, or destroy plastic.

When electric tools are used on fiberglass boats, sports cars, wallboard, spackling compounds, or plaster, it has been found that they are subject to accelerated wear and possible premature failure, as the fiberglass chips and grindings are highly abrasive to bearings, brushes, commutators, etc. Consequently, it is not recommended that this tool be used for extended work on any fiberglass material, wallboard, spackling compounds, or plaster. If, however, you do work with any of these materials, it is extremely important that the tool is cleaned frequently by blowing with an air jet.

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.

BITS

Get faster and more accurate cutting results by keeping bits clean. Remove all accumulated build-up from bits after each use. Replace bits when they become dull.

WARNING:

The bit flutes are sharp and should be handled with caution.

COLLET

From time to time, it also becomes necessary to clean your collet and collet nut. To do so, simply remove collet nut and collet from the shaft and clean the dust and chips that have collected. Then return collet nut to its original position. Tighten collet nut on collet without a bit installed.

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.



OPERATOR'S MANUAL

SPEED SAW

SS50

DOUBLE INSULATED

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 Size (A.W.G.)					
	0-2.0	2.1-3.4	3.5-5.0	5.1-7.0	7.1-12.0	12.1-16.0
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 lumber, 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. AND SERIAL NO.

The model number of this tool will be found on a plate attached to the motor housing. Please record the model number and serial number in the space provided below.

• HOW TO ORDER REPAIR PARTS

WHEN ORDERING REPAIR PARTS,
ALWAYS GIVE THE FOLLOWING INFORMATION:

- MODEL NUMBER SS50
- SERIAL NUMBER _____

RYOBI TECHNOLOGIES INC.

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