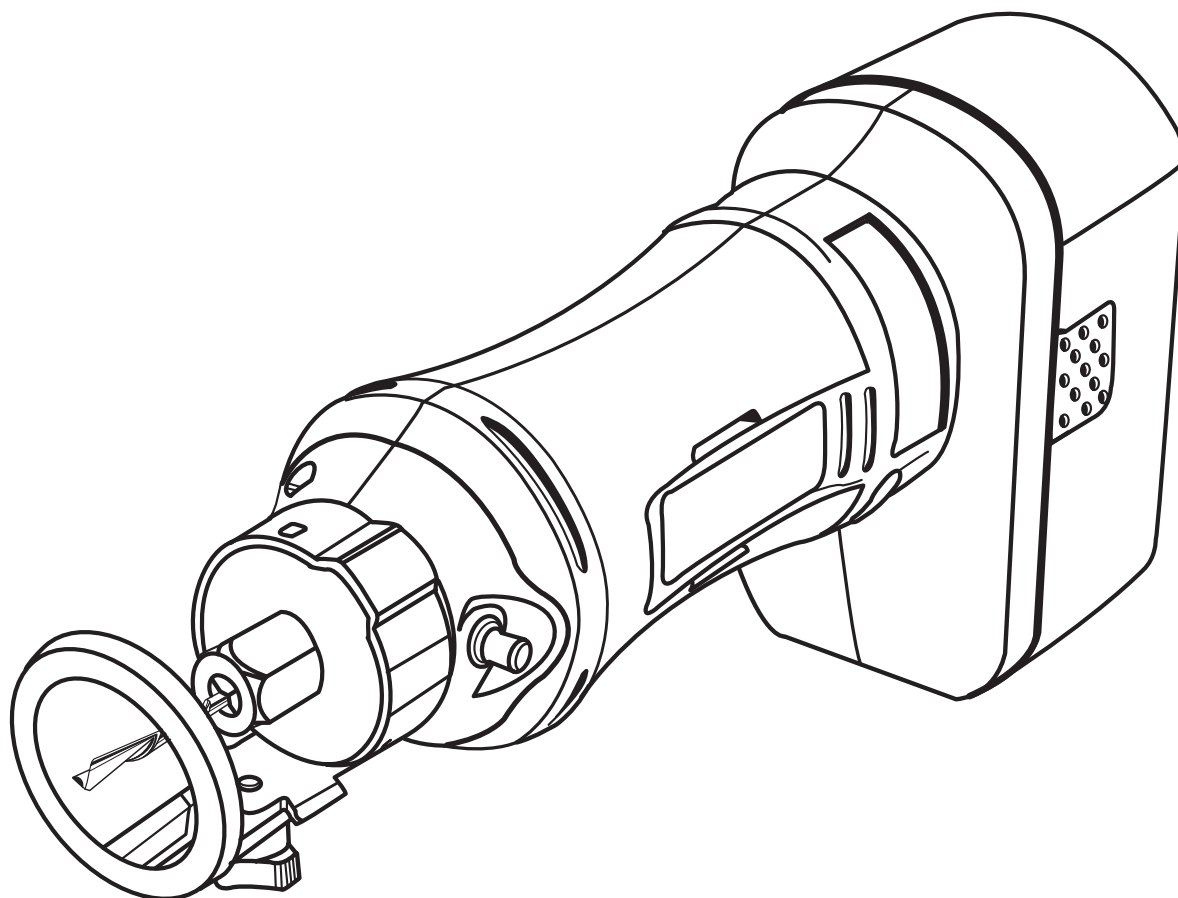




OPERATOR'S MANUAL

SPEED SAW™

SS180



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

- **Do not abuse the cord. Never use the cord to carry the charger. Keep cord away from heat, oil, sharp edges, or moving parts. Replace damaged cords immediately.** Damaged cords may create a fire.
 - **A battery operated tool with integral batteries or a separate battery pack must be recharged only with the specified charger for the battery.** A charger that may be suitable for one type of battery may create a risk of fire when used with another battery. Use battery only with charger listed.
- | MODEL | BATTERY | CHARGER |
|-------|------------------|---------|
| SS180 | 1322401, 1323303 | 1423701 |
- **Use battery operated tool only with specifically designated battery pack.** Use of any other batteries may create a risk of fire. Use only with battery pack listed.

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 in the locked or off position before inserting battery pack.** Carrying tools with your finger on the switch or inserting the battery pack into a tool with 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.** A tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect battery pack from tool or place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce risk of starting the tool accidentally.
- **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- **When battery pack is not in use, keep it away from other metal objects like: paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.** Shorting the battery terminals together may cause sparks, burns, or a fire.
- **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 create a risk of injury 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 shock or injury.

SPECIFIC SAFETY RULES

Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring. 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.
- **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.
- **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.

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.

CORDLESS TOOL RULES

- **Cordless tools do not have to be plugged into an electrical outlet; therefore, they are always in operating condition. Be aware of possible hazards when not using your cordless tool or when changing accessories.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Do not place cordless tools or their batteries near fire or heat.** This will reduce the risk of explosion and possibly injury.

WARNING:

Batteries vent hydrogen gas and can explode in the presence of a source of ignition, such as a pilot light. To reduce the risk of serious personal injury, never use any cordless product in the presence of open flame. An exploded battery can propel debris and chemical. If exposed, flush with water immediately.

- **Do not charge cordless tool in a damp or wet location.** Following this rule will reduce the risk of electric shock.
- **For best results, your cordless tool should be charged in a location where the temperature is more than 50°F but less than 100°F. Do not store outside or in vehicles.**
- **Under extreme usage or temperature conditions, battery leakage may occur. If liquid comes in contact with your skin, wash immediately with soap and water, then neutralize with lemon juice or vinegar. If liquid gets into your eyes, flush them with clean water for at least 10 minutes, then seek immediate medical attention.** Following this rule will reduce the risk of serious personal injury.

SPECIFIC SAFETY RULES



WARNING:

A damaged battery is subject to explosion. To avoid serious personal injury, properly dispose of a damaged battery.

CHARGER SAFETY INSTRUCTIONS

- **Save these instructions.** This manual contains important safety and operating instructions for charger. Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Before using battery charger, read all instructions and cautionary markings in this manual, on battery charger, and product using battery charger.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **To reduce risk of injury, charge only nickel-cadmium and nickel metal hydride type rechargeable batteries. Other types of batteries may burst causing personal injury and damage.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Do not expose charger to wet or damp conditions.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **To reduce risk of damage to charger body and cord, pull by charger plug rather than cord when disconnecting charger.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.** Following this rule will reduce the risk of serious personal injury.
- **An extension cord should not be used unless absolutely necessary.** Use of improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure:
 - a. That pins on plug of extension cord are the same number, size and shape as those of plug on charger.
 - b. That extension cord is properly wired and in good electrical condition; and
 - c. That wire size is large enough for AC ampere rating of charger as specified below:

Cord Length (Feet)	25'	50'	100'
Cord Size (AWG)	16	16	16

Note: AWG = American Wire Gage

- **Do not operate charger with a damaged cord or plug. If damaged, have replaced immediately by a qualified serviceman.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified serviceman.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Do not disassemble charger; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **To reduce the risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Disconnect charger from power supply when not in use.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.






DANGER:

RISK OF ELECTRIC SHOCK. DO NOT TOUCH UNINSULATED PORTION OF OUTPUT CONNECTOR OR UNINSULATED BATTERY TERMINAL.

- **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.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.

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	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
==	Direct 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

Collet	1/4 in. (6.4 mm)
Collet Adaptor	1/8 in. (3.2 mm)
No Load Speed	26,000 RPM
Charger Rating	120 VOLTS, 60 HZ, AC ONLY
Charge Time	1 hour

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
Battery Pack
Battery Charger
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

With the proper bit, 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 motor housing.

FEATURES

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.

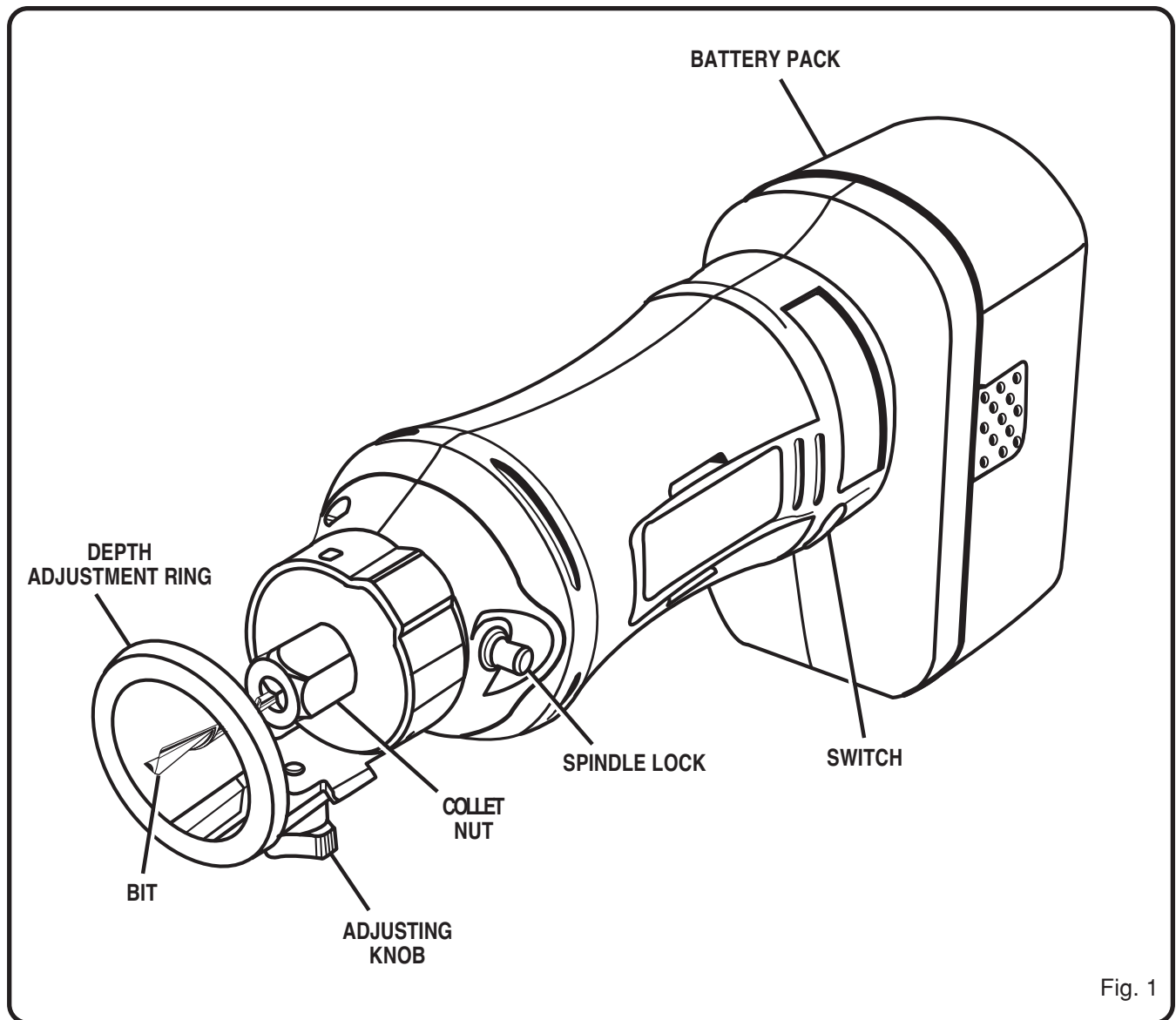


Fig. 1



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.

- REMOVE BATTERY PACK FROM SPEED SAW.

⚠ WARNING:

Failure to remove battery pack 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.

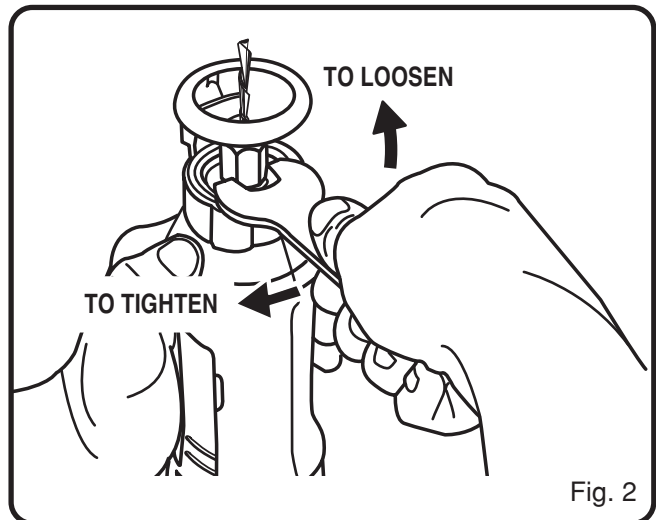
NOTE: The collet is machined to precision tolerances to fit bits with 1/4 in. (6.35 mm) diameter shanks. To use bits with 1/8 in. (3.16 mm) shank bits, insert the 1/8 in. (3.16 mm) adaptor into the 1/4 in. (6.35 mm) collet.

- 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.

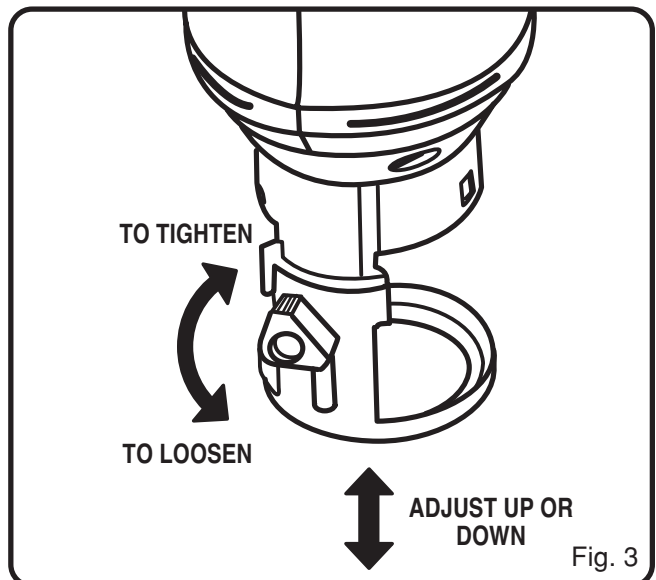
Follow these directions when adjusting depth of cut.

- REMOVE BATTERY PACK FROM SPEED SAW.

⚠ WARNING:

Failure to remove battery pack 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.

- REMOVE BATTERY PACK FROM SPEED SAW.

WARNING:

Failure to remove battery pack 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.

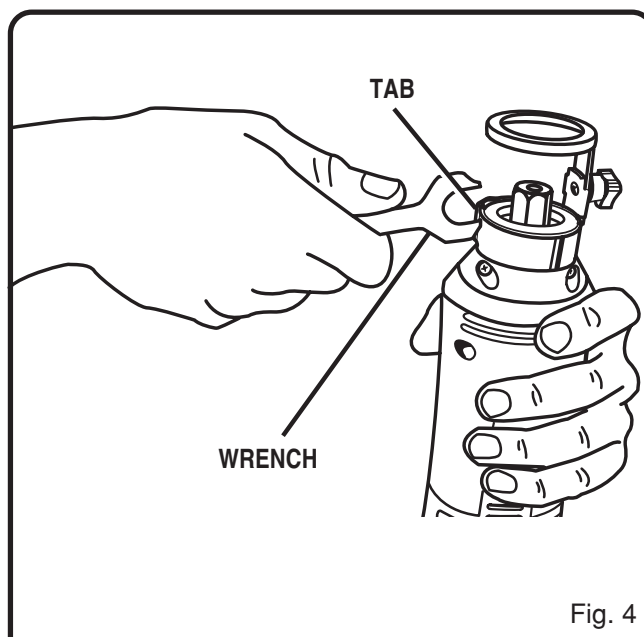


Fig. 4

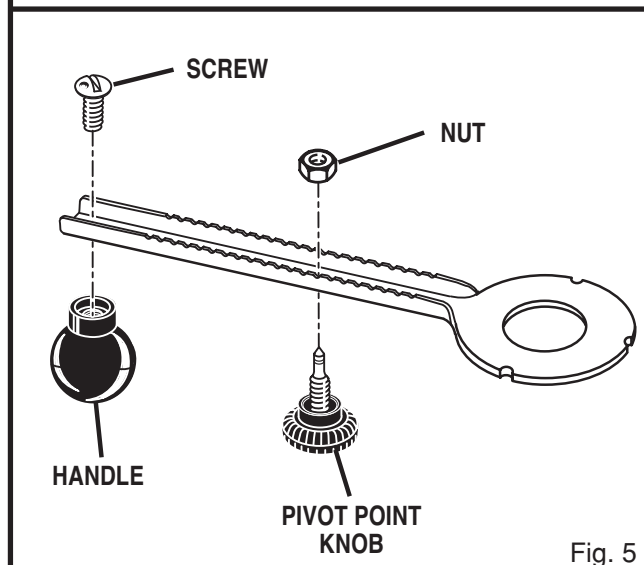


Fig. 5

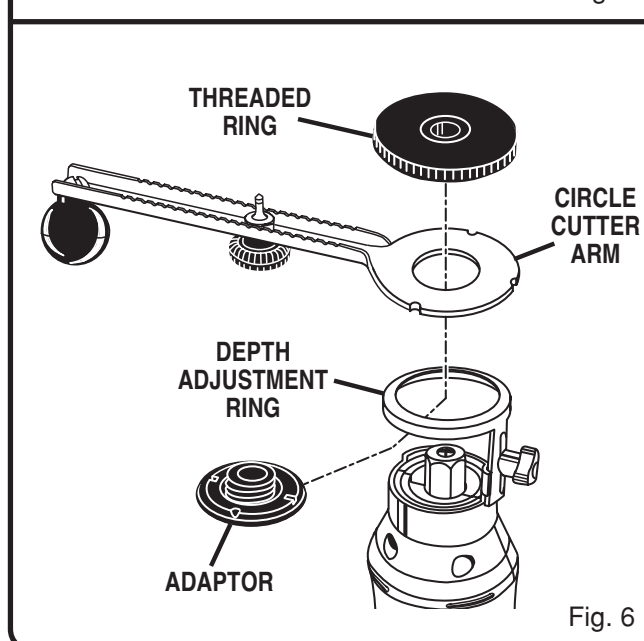


Fig. 6

OPERATION

INSTALLING BATTERY PACK

See Figure 7.

Follow these directions when installing the battery pack.

- Place battery pack on the Speed Saw.
- Align raised rib on battery pack with groove in saw's battery port.
- Make sure the latches on each side of the battery pack snap in place and that battery pack is secured on the tool before beginning operation.

REMOVING BATTERY PACK

See Figure 7.

Follow these directions when removing the battery pack.

- Locate latches on side of battery pack and depress both sides to release battery pack from the Speed Saw.
- Remove battery pack from the Speed Saw.

⚠ CAUTION:

When placing battery pack on your Speed Saw, be sure raised rib on battery pack aligns with groove in saw's battery port and latches snap in place properly. Improper assembly of battery pack can cause damage to internal components.

STARTING/STOPPING SPEED SAW

See Figure 8.

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 9.

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.

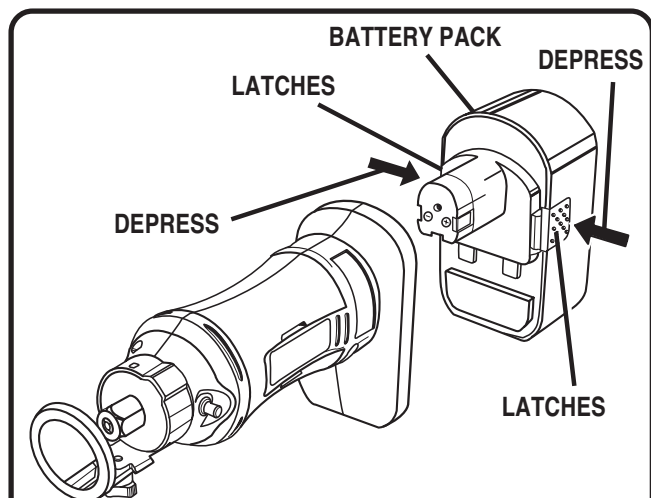


Fig. 7

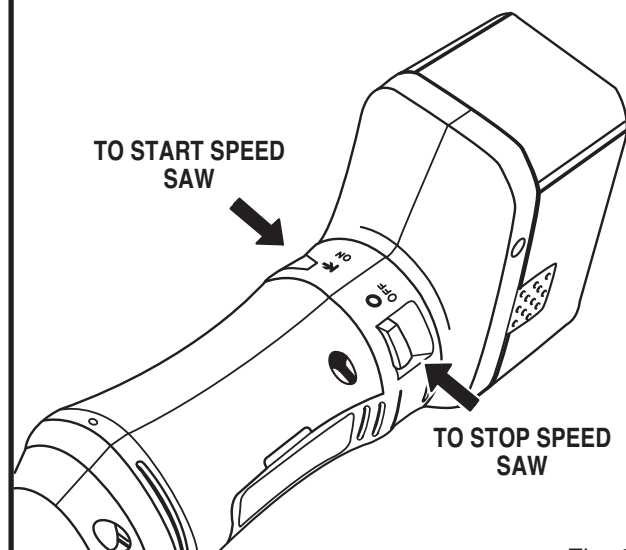


Fig. 8

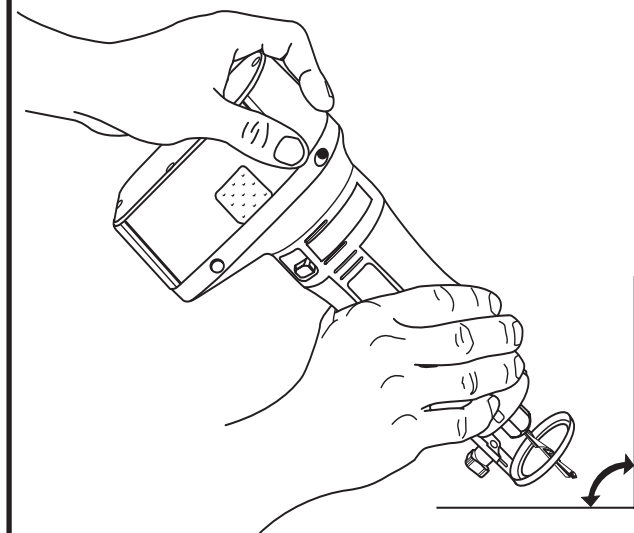


Fig. 9

OPERATION

USING CIRCLE CUTTER

See Figure 10.

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.

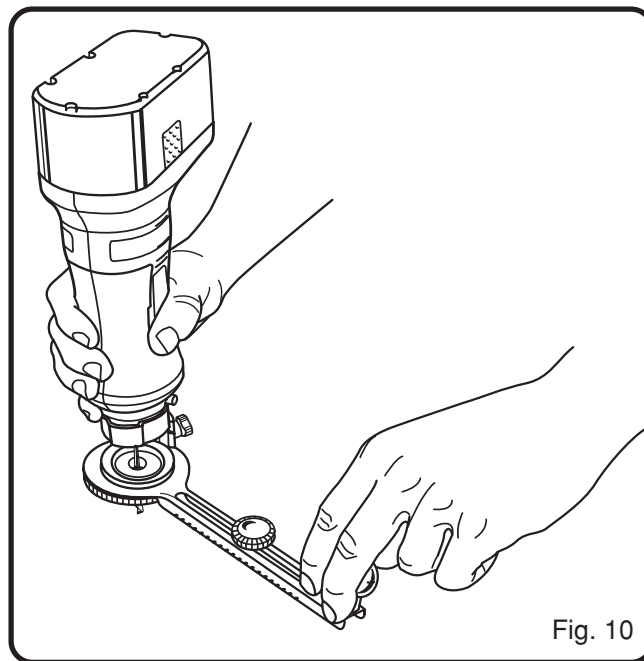


Fig. 10

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.

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.

BATTERIES

Your Speed Saw is equipped with Nickel-Cadmium rechargeable batteries. Length of service from each charging will depend on the type of work you are doing.

The batteries in this tool have been designed to provide maximum trouble-free life. However, like all batteries, they will eventually wear out. **DO NOT** disassemble battery pack and attempt to replace the batteries. Handling of these batteries, especially when wearing rings and jewelry, could result in serious burn.

To obtain the longest possible battery life, we suggest the following:

- Store and charge your batteries in a cool area. Temperatures above or below normal room temperature will shorten battery life.
- Never store batteries in a discharged condition. Wait for battery to cool and charge immediately.
- All batteries gradually lose their charge. The higher the temperature, the quicker they lose their charge. If you store your tool for long periods of time without using it, recharge the batteries every month or two. This practice will prolong battery life.

BATTERY DISPOSAL

To preserve natural resources, please recycle or dispose of the battery properly. **Local, state, or federal laws may prohibit disposal of Nickel-Cadmium batteries in ordinary trash.**

Consult your local waste authority for information regarding available recycling and/or disposal options.

For more information on battery recycling call 1-800-8BATTERY.

WARNING:

Do not attempt to disassemble the battery pack. Fire or injury can result.

WARNING:

Upon removal, cover the battery pack's terminals with heavy duty adhesive tape. Do not attempt to destroy or disassemble battery pack or remove any of its components. Also, never touch both terminals with metal objects and/or body parts, as short circuit can result. Keep away from children. Failure to comply with these warnings could result in fire and/or serious injury.

MAINTENANCE

CHARGING BATTERIES

See Figures 11 and 12.

The battery pack for this tool has been shipped in a low charge condition to prevent possible problems. Therefore, you should charge it prior to use.

NOTE: Batteries will not reach full charge the first time they are charged. Allow several cycles (cutting followed by recharging) for them to fully charge.

Follow these directions when charging batteries.

- Charge battery pack only with the charger provided.
- **Make sure power supply is normal house voltage, 120 volts, 60 Hz, AC only.**
- Connect charger to power supply.
- Place battery pack in charger. Align raised rib on battery pack with groove in charger.
- Press down on battery pack to be sure contacts on battery pack engage properly with contacts in charger. When properly connected, red light will turn on. When your battery pack becomes fully charged, the red light will turn off and the green light will turn on.

NOTE: Normally, the yellow and green lights on the charger will come on. This indicates charger is in control charge mode and should switch to fast charge mode within 5 minutes. When charger is in fast charge mode the red light will come on. If after a period of 15 minutes the yellow and green lights remain on, remove the battery pack, wait 1 minute and reinsert battery pack in charger. If the yellow and green lights continue to remain on an additional 15 minutes, the battery pack is damaged and will not accept charge. See Table 1.

After normal usage, 1 hour of charge time is required to be fully charged. A minimum charge time of 1 to 1-1/2 hours is required to recharge a completely discharged tool.

The battery pack will become slightly warm to the touch while charging. This is normal and does not indicate a problem.

Do not place charger in an area of extreme heat or cold. It will work best at normal room temperature.

COLOR	STATUS
Red	Fast Charging Mode
Green	Fully Charged
Yellow and Green	Control Charge or Defective Battery Pack

Table 1

RECHARGING HOT BATTERIES

When using your Speed Saw continuously, the batteries in your battery pack become hot. You should let a hot battery pack cool down for approximately 30 minutes before attempting to recharge.

NOTE: This situation occurs when continuous use of your Speed Saw causes the batteries to become hot. It does not occur under normal circumstances. Refer to "CHARGING BATTERIES" for normal recharging of batteries. If the charger does not charge your battery pack under normal circumstances, return **both** the battery pack and charger/charging assembly to your nearest **Ryobi Authorized Service Center** for electrical check.

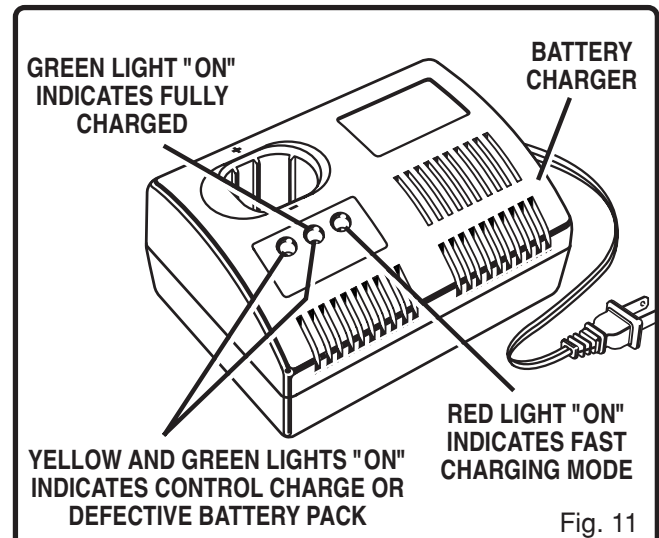


Fig. 11

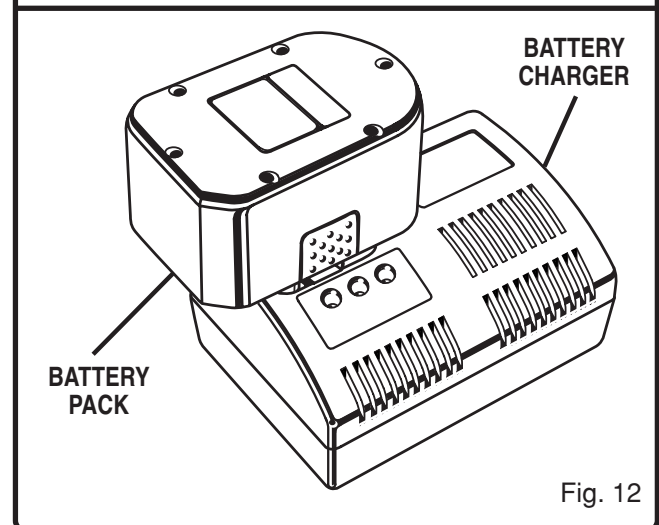


Fig. 12

NOTES

[illegible]



OPERATOR'S MANUAL

SPEED SAW™

SS180

- **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 SS180
- SERIAL NUMBER _____

RYOBI TECHNOLOGIES INC.

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