Operator's Manual

CRAFTSMAN

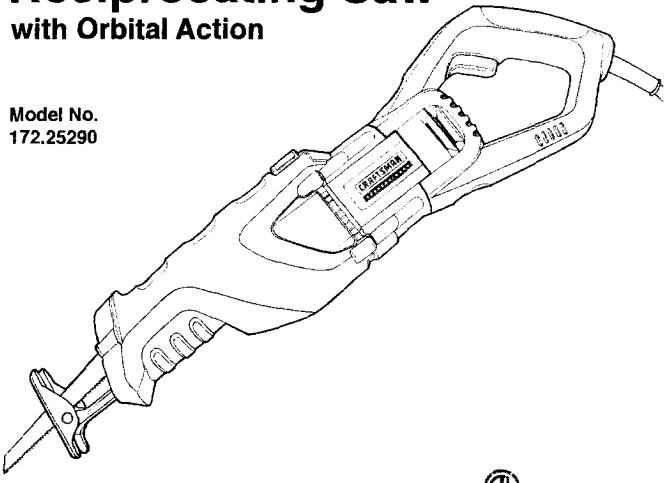
PROFESSIONAL

Variable Speed

Reciprocating Saw

with Orbital Action

Model No.
172.25290



Double Insulated

CAUTION: Read, understand and follow all Safety Rules and Operating Instructions in this manual before using this product.

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.
Visit our Craftsman® website: www.sears.com/craftsman

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ONE YEAR FULL WARRANTY ON CRAFTSMAN PROFESSIONAL TOOL

If this Craftsman Professional Tool fails due to a defect in material or workmanship within one year from the date of purchase, **RETURN IT TO ANY SEARS STORE OR PARTS AND REPAIR CENTER OR OTHER CRAFTSMAN OUTLET IN THE UNITED STATES FOR FREE REPAIR (OR REPLACEMENT IF REPAIR PROVES IMPOSSIBLE).**

This warranty does not include expendable parts such as lamps, batteries, bits or blades.

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

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

SAVE THESE INSTRUCTIONS!
READ ALL INSTRUCTIONS!

⚠ **WARNING: Some dust created by using power tools contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.**

SAFETY SYMBOLS

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 symbol warnings **DO NOT** by themselves eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

⚠ WARNING: BE SURE to read and understand all safety instructions in this manual, including all safety alert symbols such as "DANGER", "WARNING" and "CAUTION", BEFORE using this tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

SYMBOL MEANING

⚠ SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, OR CAUTION. May be used in conjunction with other symbols or pictographs.

⚠ DANGER — **Failure to obey this safety warning WILL result in death or 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 this safety warning CAN result in death or 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 this safety warning MAY result in personal injury to yourself or others or property damage. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.**

DAMAGE PREVENTION AND INFORMATION MESSAGES

These inform user of **important information and/or instructions** that could lead to equipment or other property damage if not followed. Each message is preceded by the word "NOTE:" as in the example below:

NOTE: Equipment and/or property damage may result if these instructions are not followed.

⚠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 shield and a full-face shield when needed. We recommend a Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shield, available at Sears Stores or other Craftsman Outlets.

SAFETY INSTRUCTIONS

⚠ WARNING: BE SURE to read and understand all instructions in this manual before using this power tool. Failure to follow all instructions may result in electric shock, fire and / or serious personal injury.

WORK AREA SAFETY

1. **Keep your work area clean and well lit.** Cluttered workbenches and dark areas invite accidents.
2. **DO NOT operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children and visitors away while operating a power tool.** Distractions can cause you to lose control.
4. **Make your workshop childproof** with padlocks and master switches. Lock tools away when not in use.
5. **MAKE SURE the work area has ample lighting** so you can see the work and that there are no obstructions that will interfere with safe operation **BEFORE** using your saw.

PERSONAL SAFETY

1. **KNOW your power tool.** Read the operator's manual carefully. Learn the tool's applications and limitations, as well as the specific potential hazards related to this tool.
2. **STAY ALERT,** watch what you are doing and use common sense when operating a power tool.
3. **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.
4. **DRESS properly. DO NOT** wear loose clothing or jewelry. Pull back long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothing, or long hair can be caught in moving parts. Air vents often cover moving parts and should also be avoided.
5. **AVOID** accidental starting. Be sure switch is in **"OFF"** position before plugging in. **DO NOT** carry tools with your finger on the switch. Carrying tools with your finger on the switch or plugging in tools that have the switch in the **"ON"** position invites accidents.
6. **REMOVE** adjusting keys or blade wrenches before turning the tool **"ON"**. A wrench that is left attached to a rotating part of the tool may result in personal injury.
7. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
8. **ALWAYS SECURE YOUR 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.
9. **USE SAFETY EQUIPMENT. Always** wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

SAFETY INSTRUCTIONS cont.

TOOL USE AND CARE SAFETY

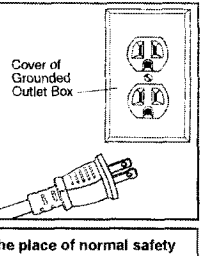
⚠ WARNING: BE SURE **to read and understand all instructions before operating this tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.**

1. **ALWAYS use clamps or other practical ways 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.
2. **DO NOT force the tool. Use the correct tool and blade for your application.** The correct tool and blade will do the job better and safer at the rate for which it is designed.
3. **DO NOT use the 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.
4. **DISCONNECT the plug from the power source before making any adjustments, changing accessories or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
5. **STORE idle tools out of the reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
6. **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.
7. **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.
8. **USE ONLY accessories that are recommended for this tool.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

ELECTRICAL SAFETY

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

1. **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.
2. Double insulation ⧈ eliminates the need for the three-wire grounded power cord and grounded power supply system. Applicable only to Class II (double-insulated) tools.
   This tool is a double insulated tool.



⚠ WARNING: Double insulation DOES NOT take the place of normal safety precautions when operating this tool.

3. **BEFORE** plugging in the tool, **BE SURE** that the outlet voltage supplied is within the voltage marked on the tool's data plate. **DO NOT** use "AC only" rated tools with a DC power supply.

ELECTRICAL SAFETY cont.

4. **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.

5. **DO NOT expose power tools to rain or wet conditions or use power tools in wet or damp locations.** Water entering a power tool will increase the risk of electric shock.

6. **INSPECT tool cords for damage.** Have damaged tool cords repaired at a **Sears Service Center. BE SURE** to stay constantly aware of the cord location and keep it well away from the moving blade.

7. **DO NOT abuse the cord. NEVER use the cord to carry the tool by or to pull the plug from the outlet.** Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.

EXTENSION CORDS

Use a proper extension cord. ONLY use cords listed by Underwriters Laboratories (UL). Other extension cords can cause a drop in line voltage, resulting in a loss of power and overheating of tool. For this tool an AWG (American Wire Gauge) size of at least 14-gauge is recommended for an extension cord of 25-ft. or less in length. Use 12-gauge for an extension cord of 50-ft. **Extension cords 100-ft. or longer are not recommended.** Remember, **a smaller wire gauge size has greater capacity than a larger number** (14-gauge wire has more capacity than 16-gauge wire; 12-gauge wire has more capacity than 14-gauge). When in doubt use the smaller number. When operating a power tool outdoors, use an outdoor extension cord marked "W-A" or "W". These cords are rated for outdoor use and reduce the risk of electric shock.

⚠ 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.

⚠ 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.

SAFETY INSTRUCTIONS cont.

SAFETY SYMBOLS FOR YOUR TOOL

The label on your tool may include the following symbols.

V	Volts
A	Amps
Hz	Hertz
W	Watts
min	Minutes
~	Alternating current
⎓	Direct current
no	No-load speed
⧈	Class II construction, Double Insulated
.../min	Revolutions or Strokes per minute
⚠	Indicates danger, warning or caution. It means attention! Your safety is involved.

SERVICE SAFETY

1. **If any part of this tool is missing or should break, bend, or fail in any way; or should any electrical component fail to perform properly: SHUT OFF** the power switch and remove the saw's plug from the power source and have the missing, damaged or failed parts replaced **BEFORE** resuming operation.
2. **Tool service must be performed only at a Sears Service Center.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
3. **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.

SAFETY RULES FOR RECIPROCATING SAWS

⚠ DANGER **Keep hands away from cutting area and blade. Keep both hands on the saw (rear handle and front boot grip). If both hands are holding the saw, the blade cannot cut them.**

⚠ CAUTION: Blades coast after saw is switched off.

1. **Hold tool by insulated gripping surfaces, (rear handle and front boot grip), when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will make the exposed metal parts of the tool "live" and shock the operator.

⚠ CAUTION: DO NOT saw into existing walls or other blind areas where electrical wiring may exist. If the situation is unavoidable, DISCONNECT ALL ELECTRICAL POWER to the area / worksite BEFORE sawing.

SAFETY RULES FOR RECIPROCATING SAWS cont.

2. KEEP your body positioned to either side of the saw and not in direct line with the saw blade. Counter-force (a jumping or kickback action) could cause the blade to bend or break, and the saw to jump backwards causing loss of control, resulting in serious injury.
3. **ALWAYS keep your hands away from cutting area. DO NOT** reach under the material being cut because the nearness of the blade to your hand is hidden from your sight.
4. **DO NOT use dull or damaged blades.** Bent blades can break easily, or cause kickback resulting in loss of control and serious injury.
5. When starting a cut, the speed you use will be determined by the blade and material you are cutting. Fast speeds for soft materials and slow speeds for hard materials. **If the blade speed is too slow**, the saw could chatter or vibrate at the beginning of a cut, and possibly cause counter-force (a jumping or kickback action) and vibration, which can result in loss of control and serious personal injury. Use a slightly faster speed at the very beginning of your cut. It is always a good idea to practice your cuts in scrap material until you have a feel for the cutting and handling performance of the saw.
6. **NEVER hold the piece being cut in your hands or across your legs.** It is important to support the workpiece properly in order to minimize body exposure, blade binding, or loss of control.
7. **ALWAYS clamp the workpiece** securely so it will not move when making the cut.
8. **ONLY USE the designated blades for cutting the type of material for which they are recommended.** Cutting materials that are **NOT** recommended could cause blade breakage and loss of control, resulting in serious injury.
9. **ALWAYS inspect and remove all nails from lumber before sawing. Following this rule will reduce the risk of counter-force (a jumping or kickback action) that could cause loss of control that can cause serious personal injury. If this is unavoidable**, such as when performing demolition or renovation jobs, **MAKE SURE** to use bi-metal blades that are thicker with 4 to 6 teeth per inch, and specifically designed to cut wood with imbedded nails. **EXERCISE EXTREME CAUTION when performing this type of cutting operation.**

> ⚠ **WARNING: To reduce the risk of explosion, electric shock, property damage and serious bodily injury, ALWAYS check the work area for hidden gas pipes, electrical wires, water pipes, and nail and cleat imbedded 2 x 4's when making blind or plunge cuts into walls during demolition or renovation work.**

10. **Do not operate this tool for long periods of time. Vibration caused by the operating action of this tool may cause permanent injury to fingers, hands and arms. Use gloves to provide extra cushion, take frequent rest periods, and limit daily time of use.**
11. **AVOID awkward operations and hand positions where a sudden slip could cause your hand to move into the blade.**
12. **NEVER reach into the cutting path of the blade.**

SAFETY INSTRUCTIONS cont.

⚠ **WARNING**: Some dust created by using power tools contains chemicals known to the State of California to cause cancer and 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.**
- **Arsenic and chromium, from chemically treated lumber.**

Your risk from these exposures varies, depending upon how often you do this type of work. To reduce your exposure to these chemicals:

- Work in a well-ventilated area.
- Work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

Avoid prolonged contact with dust from power sanding, sawing, grinding, drilling and other construction activities. Wear protective clothing and wash exposed areas with soap and water. Allowing dust to get into your mouth, eyes, or lay on the skin may promote absorption of harmful chemicals.

⚠ **WARNING**: Use of this tool can generate and/or disburse dust, which may cause serious and permanent respiratory or other injury. Always use NIOSH/OSHA approved respiratory protection appropriate for the dust exposure. Direct particles away from face and body.

ADDITIONAL RULES FOR SAFE OPERATION

⚠ **WARNING**: BE SURE to read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire and / or serious personal injury.

1. Know your power tool. **Read operator's manual carefully.** Learn the 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.
2. **ALWAYS wear safety glasses or eye shields when using this tool.** Everyday eyeglasses have only impact-resistant lenses; they are NOT safety glasses.
3. **PROTECT your lungs.** Wear a face mask or dust mask if the operation is dusty.
4. **PROTECT your hearing.** Wear appropriate personal hearing protection during use. Under some conditions noise from this product may contribute to hearing loss.
5. **ALL VISTORS AND BYSTANDERS MUST** wear the same safety equipment that the operator of the tool wears.
6. **INSPECT the tool cords periodically and if damaged have them repaired at your nearest Sears Service Center. ALWAYS BE AWARE of the cord location.**
7. **ALWAYS check the tool for damaged parts.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine if it will operate properly and perform its intended function. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. A guard or other part that is damaged should be properly repaired or replaced at a Sears Service center.

SAFETY INSTRUCTIONS cont.

ADDITIONAL RULES FOR SAFE OPERATION cont.

8. SAVE THESE INSTRUCTIONS. Refer to them frequently and use them to instruct others who may use this tool. If someone borrows this tool, make sure they have these instructions also.

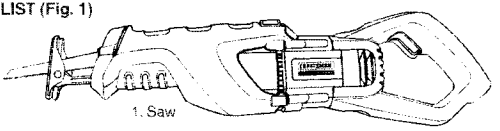
UNPACKING

⚠ WARNING: Your tool should NEVER be connected to the power source when you are assembling parts, making adjustments, installing or removing blades, cleaning or when it is not in use. Disconnecting the saw will prevent accidental starting, which could cause serious personal injury.

1. Remove the saw from the **carrying / storage case** and inspect it carefully to make sure that no breakage or damage has occurred during shipping.
2. Do not discard any of the packing materials until all parts are accounted for.
3. **Three blades** are included: wood cutting, ferrous metal cutting, and general purpose cutting (plastic, fiberglass, soft metal). Blades are located inside the carrying / storage case.
4. If any of the parts are damaged or missing (refer to PARTS LIST below), return this saw to your nearest Sears store or Craftsman dealer to have the saw replaced.

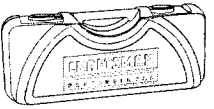
⚠ WARNING: If any parts are missing, DO NOT operate this saw until the missing parts are replaced. Failure to do so could result in possible serious personal injury.

PARTS LIST (Fig. 1)



1. Saw

2. Wood Cutting Blade
3. General Purpose Blade
4. Metal Cutting Blade



5. Carrying / Storage Case
6. Operator's Manual

DESCRIPTION

KNOW YOUR CRAFTSMAN PROFESSIONAL RECIPROCATING SAW

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

Your professional reciprocating saw has a precision-built electric motor and it should be connected to a 120-volt, 60-Hz AC ONLY power supply (normal household current). **DO NOT** operate on direct current (DC). The large voltage drop will cause a loss of power and the motor will overheat. If the saw does not operate when plugged into correct 120-volt, 60-Hz AC ONLY outlet, check the power supply. This saw has a 10-ft., 2-wire power cord (no adapter needed).

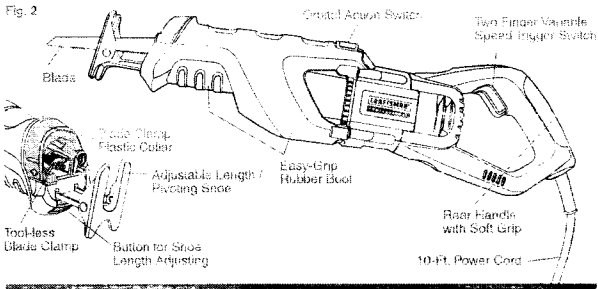
This Professional Reciprocating Saw has the following features:

1. **Powerful motor 12 Amp and 0-3000 SPM (strokes per minute) no-load speed** provide sure cuts in wood, woodbase building materials, plastics, fiberglass, ferrous and non-ferrous metal, pipe, tubing and nails, with 3 different blades included.
2. **Four Position Orbital Action**
   The control switch regulates the 4 cutting modes of the saw.
   0. **SMOOTH** minimal splintering, normal up and down blade motion, NO orbital action.
   1. **LOW** for cutting most metals, **low orbital action.**
   2. **MEDIUM** for cutting plastics, hardwood, **medium orbital action.**
   3. **FAST** for **maximum orbital action.** use for fast cutting in plywood, softwoods
3. **Variable speed** allows matching cutting speed to blade and material
4. **Two finger variable speed trigger switch** controls blade speed by the amount of pressure you apply to the trigger switch.
5. **Full 1¼-inch blade stroke** for fast cutting and extended blade life.
6. **Tool-less blade clamp** features lever action collar for easy, fast blade change changes. Uses universal 1/2-in shank blades.
7. **Adjustable length / pivoting shoe** for maximum control on workpiece in a variety of cuts. Adjusts by pressing in on yellow button below pivoting shoe.
8. **LED** worklight comes on when trigger switch is turned on, illuminates cutting area for better visibility.
9. **Easy-to-grip front boot** and **rear handle design with soft-grip** provide maximum control, balance and comfort.
10. **Permanently lubricated 100% ball bearings** for smooth operation and long life.
11. **Counter-weighted gearing** reduces vibration.
12. **Includes 3 blades:** 1 blade for fast wood cutting, 1 for smooth cuts in ferrous metal, pipe, and tubing, and 1 for cutting soft metal, plastics and fiberglass.
13. **Includes rugged storage / carry case.**

DESCRIPTION cont.

This Craftsman Professional Reciprocating Saw has the following features cont.:

Fig. 2



PRODUCT SPECIFICATIONS	
Rating	12.0 Amps
No-Load Speeds	0 to 3000 SPM
Blade Stroke	1 1/4-inch
Orbital Action	4 Position
Blade Type	1/2 in. Universal Shank
Input	120 volt, 60Hz AC

OPERATION

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

⚠ WARNING: Do not let familiarity with your tool make you careless. **Remember that a careless fraction of a second is sufficient to cause severe injury.**

⚠ WARNING: ONLY USE the saw blades designated for use with this saw. Using any other blade could result in an accident causing serious injury. See page 25 for designated blades and recommended uses.

SELECTING THE BLADE

For the best blade performance and longer blade life, **ALWAYS select the proper blade** for your sawing application.

There are many types of 1/2-in. universal shank blades available for your reciprocating saw:

Blades for cutting all types of wood, nail-embedded wood, woodbase building materials, non-ferrous and ferrous metal, plastics and fiberglass.

SELECTING THE BLADE cont.

Blades for scroll cutting, roughing-in, and cutting contours. Many blade lengths are also available.

ALWAYS choose a blade length long enough to extend beyond the shoe and your workpiece, throughout the cutting stroke (see page 18).

SAW BLADES

All saw blades need to be kept clean, sharp and properly set in order to cut efficiently. Using a dull blade places a heavy load on the saw and increases the danger of counter-force (a jumping or kickback action). Keep extra blades on hand, so sharp blades are always available. Gum and wood pitch hardened on the blade slows the saw down. Use gum and pitch remover, hot water or kerosene to remove them.
DO NOT use gasoline.

BLADE INSTALLATION AND REMOVAL

This saw is designed to use all 1/2-in. universal shank blades.

⚠ WARNING: BE SURE to wear protective work gloves while handling a saw blade. The blade can injure unprotected hands.

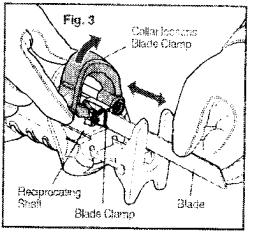
TO INSTALL BLADE (Figure 3)

1. Unplug the saw.

⚠ WARNING: To prevent personal injury, ALWAYS disconnect the plug from power source BEFORE [illegible] moving parts, making adjustments or changing blades.

2. When installing the blade, extend the adjustable length / pivoting shoe away from the blade clamp.
3. Locate indent with arrow on side of lever action collar (see Fig. 3).
4. Pull up on collar at indent and hold it up. This loosens the blade clamp and enables you to place blade in clamp.
5. Insert the blade into the saw's blade clamp and make sure that blade's teeth are facing AWAY from the collar and inwards towards the middle of the pivoting shoe.
6. Release blade clamp lever by releasing collar. Use your hands to carefully pull on blade. You may hear it click as it seats itself in the blade clamp. Ensure that it is securely locked in place.

Fig. 3



TO REMOVE BLADE (Figure 3)

1. Unplug the saw.

⚠ WARNING: Never touch blade immediately after use as it may be extremely hot.

2. When removing the blade, extend the adjustable / pivoting shoe away from the blade clamp.
3. Locate indent with arrow on side of lever action collar (see Fig. 3).
4. Pull up on collar at indent and hold up. This loosens the blade clamp and enables you to pull the blade out of the clamp.

OPERATION cont.

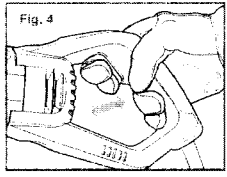
VARIABLE SPEED CONTROLLED TRIGGER SWITCH (Fig. 4)

Your saw is equipped with a two-finger trigger switch that controls the variable speed.

The saw is turned "ON" or "OFF" by squeezing or releasing the trigger.

To vary the speed of the blade:

1. To **increase** blade speed, apply **more** pressure to trigger switch.
2. To **decrease** blade speed, apply **less** pressure.
3. To **STOP** the saw release the trigger.



⚠ CAUTION: Use a slow speed at the very beginning of a cut. Then increase speed once the cut is started. Prolonged use at a very slow speed may damage your saw.

NOTE: ALWAYS allow the blade to come to a complete stop before removing it from the workpiece or laying the saw down.

CHOOSING THE CORRECT SPEED

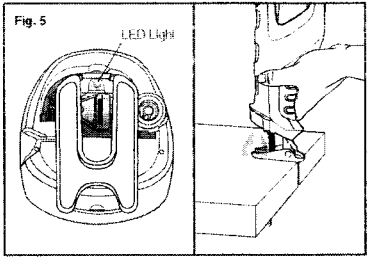
The speed you use will depend on the type of material you are cutting.

1. Use high speeds for cutting wood and woodbase materials.
2. Medium speed is best for cutting non-ferrous metals, plastics and fiberglass.
3. Low speed is recommended for cutting ferrous metals, iron pipe and angle iron.

NOTE: Material thickness and blade selection will also affect your speed selection. As a general rule, use FASTER SPEEDS and blades with less teeth per inch for softer materials. Use SLOWER SPEEDS and blades with more teeth per inch for thicker, more dense materials.

LED WORKLIGHT (Fig. 5)

Your reciprocating saw has a built-in worklight for better visibility when cutting. To turn on the LED worklight, the saw must be plugged in. The LED worklight comes on when the two-finger trigger switch is squeezed to turn the saw "ON". When the trigger is released and the saw is turned "OFF", the worklight goes out.



THE ADJUSTABLE LENGTH / PIVOTING SHOE (Figs. 6, and 6a)

The saw's shoe slides in or out to adjust the blade's depth-of-cut into the workpiece.

The shoe also pivots in order to keep as much of the shoe's surface in contact with the workpiece (see Page 14, Fig. 5).

These adjustments are important in that they provide maximum control against the surface being cut, optimizing blade life and reducing the blade's protrusion beyond the end of the shoe, such as when cutting into large diameter pipe or into walls (see Page 20, Fig. 9).

⚠ WARNING: DO NOT operate the saw without the shoe in place. If the shoe is not in place the spindle shaft (reciprocating mechanism) could strike the workpiece and damage the saw, causing loss of control resulting in possible serious personal injury.

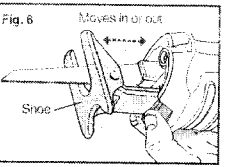
ADJUSTING THE LENGTH OF THE SHOE (Fig. 6)

1. Unplug the saw.

⚠ WARNING: ALWAYS hold the saw by the insulated boot on the front housing. If you saw into a blind area where live wiring exists, you may be shocked or electrocuted. It is always recommended to shut power off to blind areas you are sawing into.

2. Locate the yellow button on the saw just below the pivoting shoe.
3. Press in on button while either pulling or pushing the adjustable shoe.
4. As soon as shoe is positioned to length, let go of button and shoe will be locked in position.
5. Plug in saw and slowly squeeze the trigger to be sure the blade ALWAYS extends beyond the shoe and the workpiece during the cutting stroke.

Fig. 6



⚠ WARNING: To reduce the risk of injury, be sure the BLADE EXTENDS BEYOND the shoe and all the way through the workpiece throughout the stroke. (see Figs. 7a and 7b). Blades may shatter, bend or break if the blade hits the shoe or hits the workpiece at an angle that is nearly head on (see Figs. 7a and 7b).

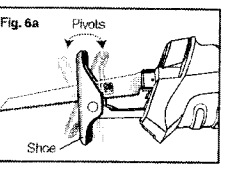
ADJUSTING THE PIVOT OF THE SHOE (Fig. 6a)

1. Unplug the saw.

⚠ WARNING: To prevent personal injury, ALWAYS disconnect the plug from power source BEFORE assembling parts, making adjustments or changing blades.

2. Firmly hold saw and "pivot" the shoe, keeping as much of the shoe's surface up against the workpiece as possible when cutting.

Fig. 6a



4 POSITION ORBITAL ACTION

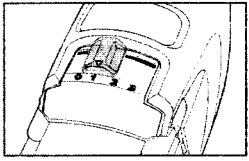
The Orbital Action feature on this saw thrusts the blade up and forward on the cutting stroke to greatly increase the cutting speed over the normal back and forth action of the standard reciprocating action.

The **0** position on the Orbital Action Switch produces no orbital action, only the normal back and forth (reciprocating) action, for the smoothest cuts in wood with least splintering. Good for all cuts in metal or plastic, or nail embedded wood.

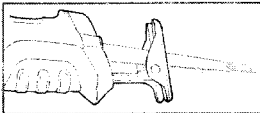
The **1** position produces a small amount of orbital blade action, with controlled splintering. Use to cut vent holes in flooring or holes in drywall.

The **2** position produces more orbital action than the number 1 position. Use where cuts in wood with some splintering is okay. Use for door and window cutouts and holes in sub-flooring.

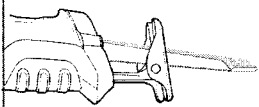
The **3** position produces the most orbital action, but leaves a very rough, splintered finish. Use this speed when you need the fastest cutting. Ideal for demolition and tear out jobs.



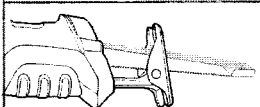
The 4 Position Orbital Action Switch regulates the 4 cutting modes of the saw.



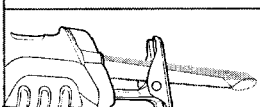
Position 0
NO ORBITAL ACTION. For minimal splintering, smoothest cutting. Normal back and forth blade motion. Use fine wood blade, 20 teeth per inch, or smooth metal blade, 36 teeth per inch.



Position 1
LOW ORBITAL ACTION. Ideal for cutting most metals. Use wood and metal cutting blades with 10-12 teeth per inch.



Position 2
MEDIUM ORBITAL ACTION. Ideal for cutting most plastics and hardwoods. Use wood and metal cutting blades with 10-12 teeth per inch.



Position 3
FAST / MAXIMUM ORBITAL ACTION. Use for fastest cutting in plywood, soft woods and wallboard. Use wood, metal and wallboard cutting blades with 6, 8,12 teeth per inch.

USING THE SAW (Fig. 7)

⚠ CAUTION: ALWAYS wear eye protection while operating this power tool.

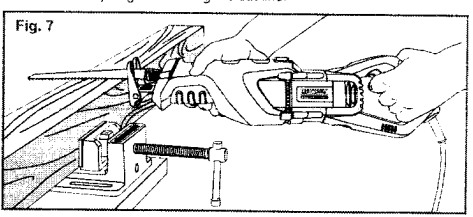
NOTE: Before cutting any type of material, BE SURE it is firmly anchored or clamped to prevent slipping.

1. Mark the line of cut on the workpiece.
2. Hold the saw firmly in front of you and clearly away from you. Make sure the blade is clear of any foreign material.

⚠ WARNING: ALWAYS hold the saw by the insulated boot on the front housing. If you saw into a blind area where live wiring exists, you may be shocked or electrocuted. It is always recommended to shut power off to blind areas you are sawing into.

3. Keep the saw's pivot shoe firmly against the workpiece to minimize counter-force (jumping) and vibration (see Fig. 7).
4. Place the blade lightly against the workpiece.
5. Plug in the saw.
6. Squeeze the trigger to start the tool. Let the saw reach the desired full speed (depending on blade type and material) before starting the cut.
7. Choose from Four Position orbital action.
8. When starting a cut, the speed you use will be determined by the blade and material you are cutting. Fast speeds for soft materials and slow speeds for hard materials. If the blade speed is too slow, the saw could chatter or vibrate at the beginning of a cut, and possibly cause counter-force (a jumping or kickback action). Use a slightly faster speed at the very beginning of your cut. It is always a good idea to practice your cuts in scrap material until you have a feel for the cutting and handling performance of the saw.
9. Firmly hold the saw as you guide it along the cut line.

Fig. 7



NOTE: DO NOT FORCE the saw or blade in the workpiece. Use only enough pressure to keep the saw cutting. Let the blade and saw do the work.

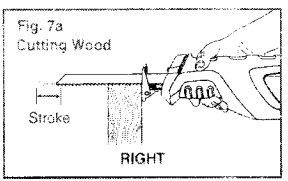
⚠ WARNING: Use of excessive pressure can bend and twist the blade, resulting in broken blades and loss of control, causing damage to workpiece and serious personal injury.

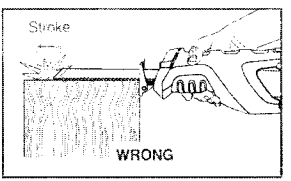
SAWING TIPS (Figs. 7a and 7b)

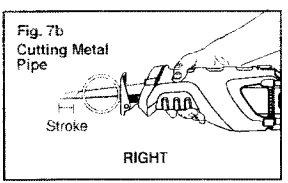
Following a few simple tips will help reduce wear on the saw, the blade, the workpiece and the operator.

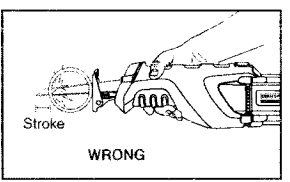
1. Blades cut on the draw, or back stroke. On fine work such as paneling or fiberglass, place the good side of the workpiece facing down.
2. Cut only with sharp blades; they cut cleaner, faster and put less strain on the motor.
3. Always use the correct blade for the material being cut and always keep extra blades on hand to use when blades become dull. Replace dull, cracked or bent blades immediately.
4. Always select the proper cutting speed.
5. Always select the proper Orbital Position.
6. When cutting, always make sure that the shoe plate is resting firmly against the workpiece. This will improve operator control and minimize vibration.

⚠ WARNING: Blade breakage and damage to the workpiece may occur if the blade does not extend past the shoe and the workpiece throughout the cut. Loss of control and damage to the shoe can result, increasing risk of serious personal injury (see Fig. 7a and 7b).





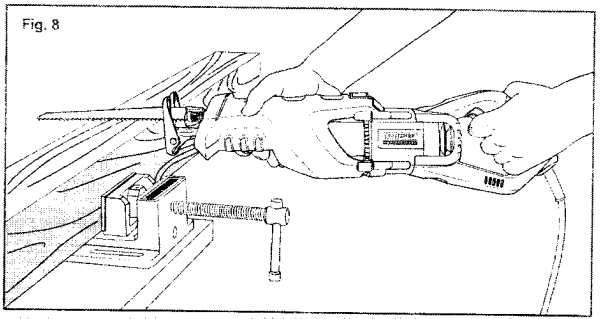




WOOD CUTTING (Fig. 8)

1. **ALWAYS** clamp the workpiece down to prevent it from slipping.
2. Select the proper blade.
3. Select the proper Orbital Position
4. Plug in saw.
5. Place the saw's pivot shoe firmly against the workpiece with the blade lightly touching the surface to be cut.
6. Squeeze trigger switch, bringing the blade up to a fast speed (when cutting softer materials) before applying pressure to blade and workpiece.
7. Do not force the saw or blade in the workpiece, use only enough pressure to keep saw cutting. Let the blade and saw do the work.
8. **ALWAYS** hold the saw firmly with both hands while cutting. Whenever possible, hold saw with the adjustable shoe firmly against the material to be cut. This will prevent the saw from jumping or vibrating and help minimize blade breakage.

Fig. 8



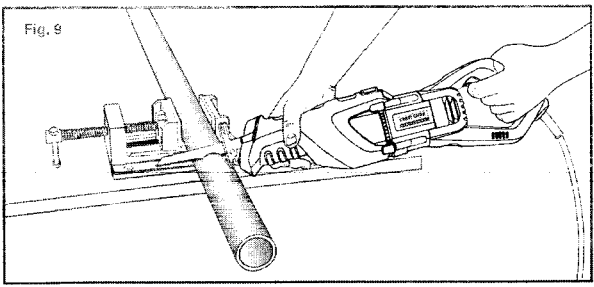
NOTE: Wear gloves if cutting for long periods.

⚠WARNING: To reduce the risk of injury, BE SURE THE BLADE EXTENDS BEYOND the shoe and all the way through the workpiece throughout the stroke (see Page 18, Figs. 7a and 7b). Blades may shatter, bend or break if the blade hits the shoe or hits the workpiece at an angle that is nearly head on.

METAL CUTTING (Fig. 9)

1. **ALWAYS** clamp the work down to prevent it from slipping.
2. Select the proper blade.
3. Select the proper Orbital Position
4. Plug in saw.
5. Place the saw's pivot shoe firmly against the workpiece with the blade lightly touching the surface to be cut.
6. Squeeze trigger switch, using a slow speed (when cutting hard materials) before applying pressure to blade and workpiece.
7. Do not force the saw or blade in the workpiece, use only enough pressure to keep saw cutting. Let the blade and saw do the work.
8. **ALWAYS** hold the saw firmly with both hands while cutting. Whenever possible, hold saw with the adjustable shoe firmly against the material to be cut. This will prevent the saw from jumping or vibrating and help minimize blade breakage.
9. Use a finer blade for ferrous metals and a coarse blade for non-ferrous metals.
10. When cutting thin gauge sheet metals, **ALWAYS** clamp wood on both sides of the sheet. This will give you a clean cut without excess vibration or tearing of the metal.
11. **DO NOT** force the cutting blade. Forcing the blade will reduce blade life and could cause the blade to break.

Fig. 9



NOTE: We recommend that you spread a thin film of oil or other coolant along the line of cut ahead of the saw. This will allow easier operation and help extend blade life. When cutting aluminum, use kerosene.

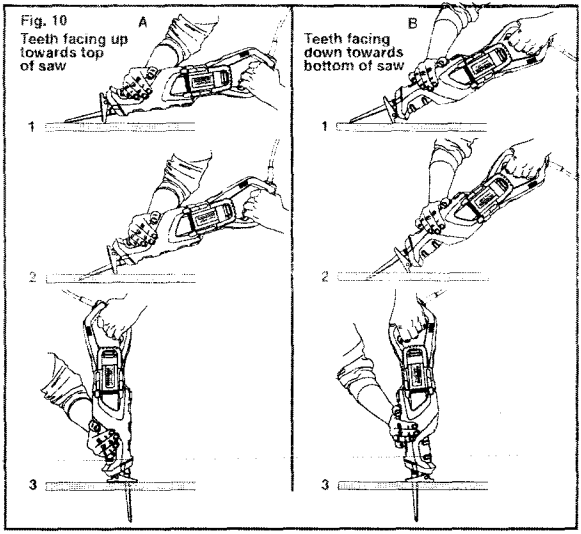
POCKET CUTTING IN WOOD ONLY (Fig. 10)

This saw is ideal for plunge cutting directly into surfaces that cannot be cut from an edge such as floors and walls. Plunge cutting can be done two different ways, depending on how the blade is inserted into the saw's blade clamp.

Fig. 10 column A shows how to plunge cut with the teeth of the blade facing **up.**

Fig. 10 column B shows plunge cutting with the teeth of the blade facing **down.**

DO NOT plunge cut into metal surfaces.



1. Measure the surface to be cut and mark clearly with a pencil, scriber or chalk.
2. Insert proper blade in blade clamp and tighten securely.
3. Set the tool with one edge of the footplate firmly against the material (see A – B, 1).
4. Place the tip of the blade (not running) on the line to be cut.
5. Tilt the saw so the blade clears the workpiece (Fig. 10).
6. Squeeze the trigger and carefully lower the moving saw blade into the workpiece (see A – B, 2).
7. After the blade penetrates through the workpiece, continue sawing along the cut line (see A – B, 3).

POCKET CUTTING IN WOOD ONLY (Fig. 10) cont.

NOTE: To make plunge cutting easier, use a heavy gauge blade.

In thick or very hard materials, plunge cutting should not be attempted. Pocket cutting in such materials should only be done by starting the cut from a hole drilled all the way through the material that is large enough to fit the saw blade.

⚠ **WARNING: Use extreme caution if you use this saw for light tree pruning. Follow all safety instructions regarding use of shoe, blade type and blade stroke. Make sure branch is firmly anchored or attached before you start and while cutting.**

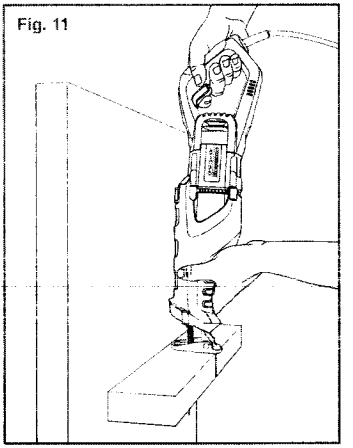
⚠ **WARNING: DO NOT CUT overhead. Anticipate path of falling branches and debris ahead of time. Pay particular attention to overhead wires.**

FLUSH CUTTING (Fig. 11)

The compact design of the motor housing and the adjustable length pivoting shoe on this saw allow you to make extremely close cuts in floors, corners and other extremely tight areas. To obtain the maximum flush cutting capacity of this saw:

1. Install the blade **with the teeth facing up (towards top of saw).**
2. Make sure the shoe is in its closest position to the saw housing, and the teeth of the blade are facing as close as possible to the work surface (Fig. 11).

Fig. 11



⚠ **WARNING: Blade breakage and damage to the workpiece may occur if the blade does not extend past the shoe and the workpiece throughout the cut. Loss of control and damage to the shoe can result, increasing risk of serious personal injury (see Page 18, Figs. 7a and 7b).**

MAINTENANCE

⚠ WARNING: To ensure safety and reliability, repairs, maintenance and adjustments MUST be performed by a qualified service technician at a Sears Service Center.

⚠ WARNING: For your safety, ALWAYS turn off switch and unplug saw from the power source before performing any maintenance or cleaning.

It has been found that electric tools are subject to accelerated wear and possible premature failure when they are used to work on fiber glass boats and sports cars, wallboard, spackling compounds or plaster. The chips and grindings from these materials are highly abrasive to electrical tool parts, such as bearings, brushes, commutators, etc. Consequently, it is not recommended that this tool be used for extended work on any fiberglass material, wallboard, spackling compound or plaster. During any use on 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 operations, or when blowing dust. If operation is dusty, also wear a dust mask.

TO CHANGE BRUSHES (Figs. 12 and 12a) REPLACEMENT OF CARBON BRUSHES

Replacement brush sets are available through Sears Parts and Repair Centers.

1. Unplug the reciprocating saw before inspecting or replacing brushes.
2. Replace both carbon brushes when either has less than 1/4-in. length of carbon remaining, or if the spring or wire is damaged or burned.
3. Using a slotted screwdriver, remove the black plastic cap on each side of the reciprocating saw (Fig. 12) and carefully withdraw the spring-loaded brush assemblies. Keep brushes clean and sliding freely in their guide channels.

Fig. 12

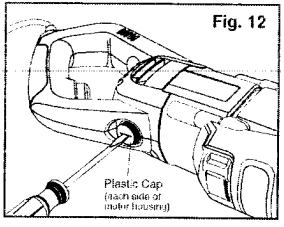
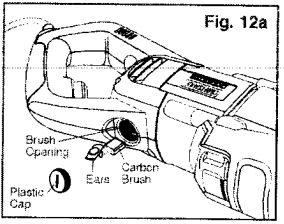


Fig. 12a



NOTE: To reinstall the same brushes, make sure the brushes go back in the same way they came out. This will avoid a break-in period.

MAINTENANCE cont.

TO CHANGE BRUSHES (Figs. 12 and 12a) REPLACEMENT OF CARBON BRUSHES cont.

4. Insert new brush assemblies into guide channels, with the carbon part going in first being certain to fit the two metal "ears" into their slots in the channel (Fig. 12a).
5. Remember to replace both end caps after inspecting or servicing brushes. Tighten the caps snugly, but do not over-tighten. The reciprocating saw should be allowed to "RUN IN" (run at no load without a blade) for 5 minutes before use, to seat the new brushes properly.

ROUTINE MAINTENANCE

⚠ WARNING: DO NOT at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic, which may result in serious personal injury.

Periodic maintenance allows for long life and trouble-free operation. A cleaning, lubrication and maintenance schedule should be maintained. As a common preventative maintenance practice, follow these recommended steps:

⚠ WARNING: For your safety, ALWAYS turn off switch and unplug saw from the power source before performing any maintenance or cleaning.

1. When work has been completed, clean the tool to allow smooth functioning of the tool over time.
2. Use clean damp cloths to wipe the tool.
3. Check the state of all power cords.
4. Keep the motor air vent openings free from oil, grease and sawdust or woodchips, and store tool in a dry place.
5. Be certain that all moving parts are well lubricated, particularly after lengthy exposure to damp and/or dirty conditions.

LUBRICATION

Your Craftsman® Professional Reciprocating Saw has been properly lubricated and is ready to use. No further lubrication is needed under normal operating conditions. All bearings in the saw are lubricated for the life of the tool.

ACCESSORIES

⚠ WARNING: The use of attachments or accessories that are not recommended for this tool might be dangerous and could result in serious injury.

Sears and other Craftsman outlets have a large selection of reciprocating saw blades in a variety of blade lengths and teeth per inch that are ideal for a wide variety of cutting applications.

ALWAYS use the shortest blade suitable for your job, but long enough to keep the blade cutting through the material.

⚠ CAUTION: Longer blades are more likely to bend and become damaged during use. During operation, longer blades may vibrate or shake, causing loss of control, damage to workpiece and possible serious personal injury.

The material you are cutting determines the type of blade to use.

Generally, less teeth on the blade removes more material quicker, cut produces a rough finished cut.

More teeth cut slower but smoother.

Use a blade that is slightly larger (longer) that the depth of the material you are cutting.

Wider (thicker) blades are more durable and ideal for tougher jobs like demolition.

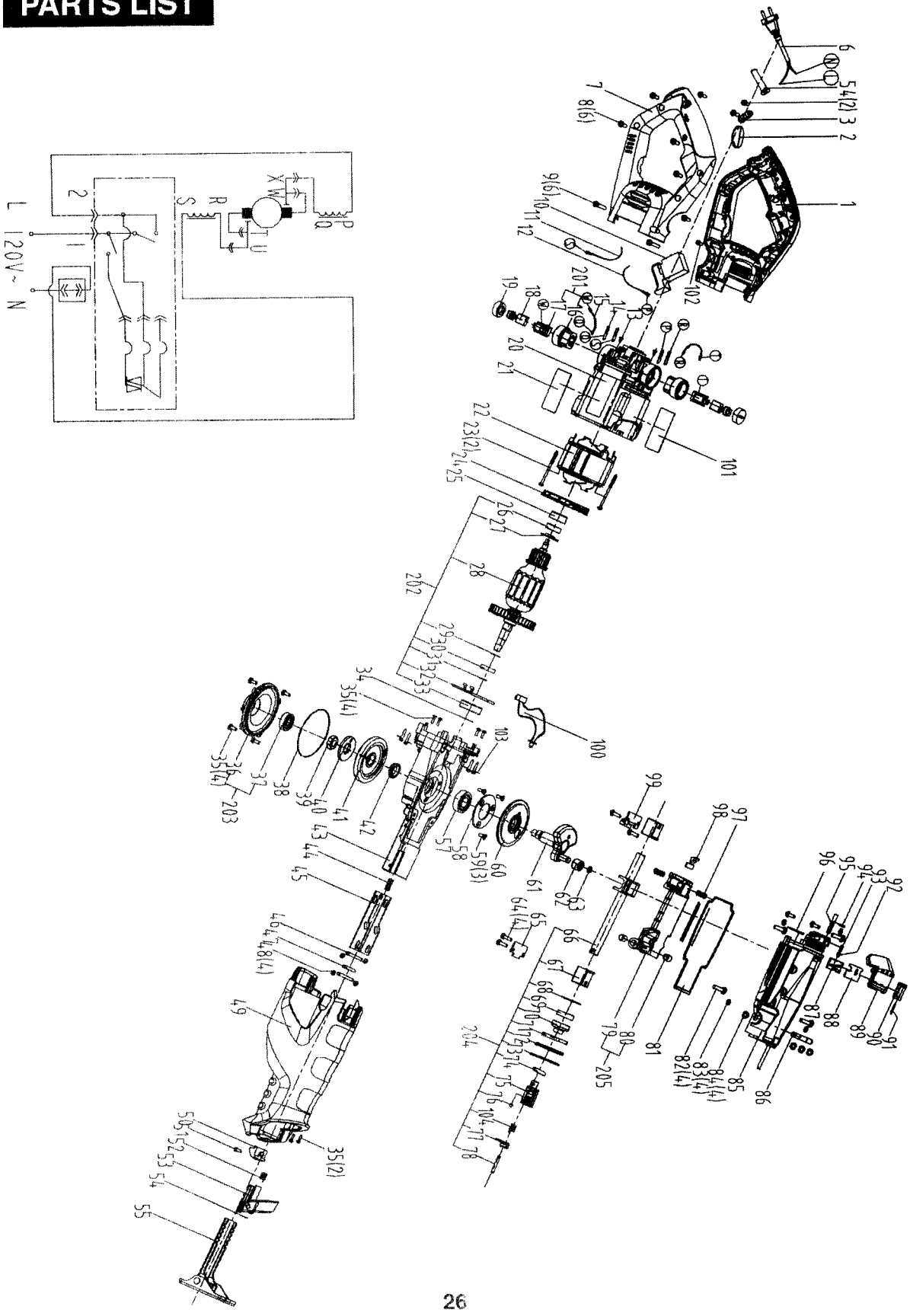
When cutting wood that has embedded nails, use bi-metal blades that are specifically marked on the blade or packaging that they are suited for this purpose.

Sears and other Craftsman outlets also have a large assortment of clamps, sawhorses, safety equipment, gloves, extension cords and other equipment to help you with all your sawing needs.

Visit your local Sears store or other Craftsman outlets or shop sears.com/craftsman.

⚠ WARNING: Blade breakage and damage to the workpiece may occur if the blade does not extend past the shoe and the workpiece throughout the cut. Loss of control and damage to the shoe can result, increasing risk of serious personal injury (see Page 18, Figs. 7a and 7b).

PARTS LIST



PARTS LIST cont.

RECIPROCATING SAW – MODEL NUMBER 172.25290

Item No.	Parts No.	Part Description	Qty.
1	2PSR17P0001000A-00	LEFT HANDLE	1
2	2PSR17P0006000A-00	ORNAMENT COVER	1
3	200T0200005000A-00	Cord Clamp	1
4	200W4000032000A-00	Screw ST4.2x13	2
5	200T0065003000A-00	Cable protector	1
6	200W0212613000A-00	Cord and plug	1
7	2PSR17P0002000A-00	RIGHT HANDLE	1
8	200W4000035000A-00	Screw ST4.2x16	6
9	200W4000044000A-00	Screw ST4.2x35	6
10	200W0020237000A-00	SWITCH(125V/14A)	1
11	200T0280224000A-00	INNER WIRE 270	1
12	2PSR06C0040000A-00	INNER WIRE	1
13	200W4000002000A-00	Screw ST3.3x6	2
14	200T0150004000A-00	TERMINAL	4
15	200T0280407000A-00	INNER WIRE	2
201	200T0040175000A-00	BRUSH HOLDER ASSEMBLY	2
16	200T0040173000A-00	BRUSH HOLDER	2
17	200T0040174000A-00	BRUSH RACK	2
18	200T0030133000A-00	CARBON BRUSH	2
19	200T0040156000A-00	BRUSH COVER	2
20	2PSR17P1001000A-00	HOUSING	1
21	2PSR17Q0008000A-00	RATED LABLE	1
22	20TB9500119000A-00	STATOR	1
23	200W4000052000A-00	SCREW 4.2X55	2
24	2PSR17P1002000A-00	BAFFLE	1
25	200T0070012000A-00	BEARING SLEEVE 22X24X11	1
202	2PSR17Q3000000A-00	ROTOR	1
26	200W8000011000A-00	BALL BEARING 608-2Z/P63	1
27	2PSR15A0303000A-00	DUST PROOF	1
28	20TB9520102000A-00	ARMATURE	1
29	200W7000016000A-00	RETAINING RING13-A	1
30	200T0220015000A-00	FERRI RING 13x22.2x5	1
31	200W7000015000A-00	RETAINING RING 12-A	1
32	2PSR17P3003000A-00	BEARING COVER	1
33	200W8000033000A-00	BALL BEARING 6201-RS	1
34	200T0240086000A-00	WASHER 12.5x31.6x0.5	1
35	200W3200010000A-00	SCREW ASSEMBLY M4X10	8
203	2PSR17P2400000A-00	BASE PLATE	1
36	2PSR17P2401000A-00	BOTTOM COVER	1
37	200W8000020000A-00	BALL BEARING 629-2RS	1
38	2PSR17P2004000A-00	AIRPROOF RING	1
39	200W2400067001A-00	NUT M12-LH	1
40	2PSR17P2003000A-00	SPRING WASHER	1
41	20TB90100160000-00	GEAR	1
42	2PSR17P2002000A-00	CUSHION	1
43	2PSR17P2101000A-00	GEAR CASE	1

RECIPROCATING SAW – MODEL NUMBER 172.25290

Item No.	Parts No.	Part Description	Qty.
44	200T0050096000A-00	COMPRESSION SPRING	1
45	2PSR17P2006000A-00	SUPPORT	1
46	2PSR17P2007000A-00	PIN	2
47	200W5300004000A-00	CYLINDRICAL PIN 4X35	1
48	200W7000044000A-00	E_RING 3	4
49	2PSR17P0003000A-00	RUBBER SLEEVE	1
50	2PSR17P0005000A-00	PUSH BOTTON	1
51	200W4100004000A-00	SCREW ST3.3X8	1
52	200T0050241000A-00	TORSIONAL SPRING 1x6.5x7	1
53	2PSR17P0004000A-00	SPANNER	1
54	200W7000060001A-00	RETAINING RING 4-A	1
55	2PSR17P5000000A-00	SUPPORT BRACKET ASSEMBLY	1
57	200W8000043000A-00	BALL BEARING 6002-2RS	1
58	2PSR17P2102000A-00	BEARING COVER	1
59	200W3000055000A-00	SCREW 4X10	3
60	2PSR17P2001000A-00	TRANSFOMATION RING	1
61	2PSR17P2200000A-00	RING GEAR	1
62	2PSR15A0440000A-00	NEEDLE BEARING COMPONENT	1
63	200W7000011000A-00	RETAINING RING 8-A	1
64	200W3200015000A-00	SCREW WASHER ASSEMBLY 4X16	4
65	2PSR17P4102000A-00	PRESS PLATE	1
204	2PSR17P4300000A-00	RECIPROCATOR SET	1
66	2PSR17P4400000A-00	RECIPROCATING SHAFT	1
67	200T0270045000A-00	OIL SEAL BEARING 12.7X19X24	2
68	2PSR17P4301000A-00	SEAL GASKET	1
69	2PSR17P4302000A-00	FELT SEAL	1
70	2PSR17P4303000A-00	SEAL RING	1
71	2PSR17P4304000A-00	FELT SEAL	1
72	2PSR17P4305000A-00	IRPROOF PATCH	1
73	2PSR17P4307000A-00	AIRPROOF_RING	1
74	200W5200085001A-00	SPRING PIN 4x16	1
75	20TB9130013000A-00	CARRIER2 BASE	1
76	200W8400003000A-00	STEEL BALL 5	1
77	20TB9130014000A-00	CARRIER CAM	1
78	20TB9130010000A-00	PIN4	1
205	2PSR17P4200000A-00	ANGLE BRACKET	1
79	2PSR17P4201000A-00	ROLLER GUIDE ASSEMBLY	1
80	2PSR17P4202000A-00	COPPER CAP	2
81	2PSR17P4008000A-00	AIRPROOF RING	1
82	200W3000040000A-00	SCREW ASSEMBLY 5X14	4
83	200W6000037001A-00	WASHER 5	4
84	200W7000047000A-00	E_RING 5	4
85	2PSR17P4500000A-00	TOP COVER	1
86	2PSR17P4002000A-00	REVOLVE PIN	1
87	2PSR17P4003000A-00	PENDULUM PLATE	1
88	2PSR17P4004000A-00	OUTER FLANGE	1

RECIPROCATING SAW – MODEL NUMBER 172.25290

Item No.	Parts No.	Part Description	Qty.
89	2PSR17P4005000A-00	COVER	1
90	2PSR17P4006000A-00	CLAMP LEVER	1
91	200W8300002000A-00	PIN 2X7.8	1
92	200W5300001000A-00	HOLLOW PIN	1
93	200T0050055000A-00	COMPRESSION SPRING 0.6x2.6x9.5	1
94	200W5200103001A-00	CYLINDRICAL PIN 2.5X8	1
95	2PSR17P4601000A-00	SPINDLE SHAFT	1
96	2PSR17P4001000A-00	AIRPROOF RING	1
97	200T0050190000A-00	COMPRESSION SPRING	2
98	2PSR17P4103000A-00	PRESS BLOCK	1
99	2PSR17P4800000A-00	PRESS PLATE	1
100	2PSR17Q6000000A-00	POWER SUPPLY BOARD	1
101	2PSR17Q0007000A-00	BRAND LABEL	1
102	200W4100004000A-00	SCREW ST3.3X8	1
103	200T0240007000A-00	WASHER 4	4
104	200T0050242000A-00	TORSIONAL SPRING 1x6.5x7.75	1

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