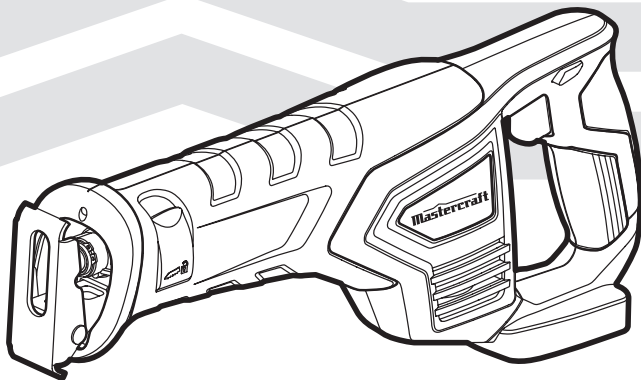


Mastercraft™



INSTRUCTION MANUAL

20V max* LITHIUM-ION CORDLESS RECIPROCATING SAW

054-8151-4

If any parts are missing or damaged, or if you have any questions, please call our toll-free helpline at 1-800-689-9928.



Read and understand this instruction manual thoroughly before using the product. It contains important information for your safety as well as operating and maintenance advice.

Keep this instruction manual for future use. Should this product be passed on to a third party, then this instruction manual must be included.

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MOTOR	20V DC
NO-LOAD SPEED	0–2800 SPM
BLADE STROKE	7/8" (22 mm)
WEIGHT (WITHOUT BATTERY)	4 lb 2 oz (1.86 kg)

*Maximum battery voltage without workload; with workload nominal voltage is 18V.



WARNING!

Safety symbols in this Instruction Manual are used to flag possible dangers. The safety symbols and their explanations require your full understanding. The safety warnings do not, by themselves, eliminate any danger, nor are they substitutes for proper accident prevention measures.



WARNING!

This Safety Alert Symbol indicates caution, warning, or danger. Failure to obey a safety warning can result in serious injury to yourself or others. To reduce the risk of injury, fire, or electric shock, always follow the safety precautions.

Know your tool

To operate this tool, carefully read this Instruction Manual and all labels affixed to the Cordless Reciprocating Saw before using it. Keep this Instruction Manual available for future reference.

Important

This tool should only be serviced by a qualified service technician. For more information, call the toll-free helpline at 1-800-689-9928.

READ ALL INSTRUCTIONS THOROUGHLY. SAVE THESE INSTRUCTIONS.

Safety guidelines for cordless power tools



WARNING!

Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference. The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

Work area safety

- **Keep the work area clean and well lit.** Cluttered or 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 create sparks, which may ignite the dust or fumes.
- **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical safety

- **Power tool plugs must match the outlet.** Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- **Do not 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 for carrying, pulling or unplugging the power tool. Keep the cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- **If operating a power tool in a damp location is unavoidable, use a ground-fault circuit interrupter (GFCI) protected supply.** Use of a GFCI reduces 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.
- **Use personal protective equipment.** Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection, used for appropriate conditions, will reduce personal injuries.
- **Prevent unintentional starting.** Ensure that the switch is in the off-position before connecting to a power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
- **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- **Do not overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- **Dress properly.** Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- **If devices are provided for the connection of dust extraction and collection facilities, ensure that these are connected and properly used.** Use of these devices can reduce dust-related hazards.

Power tool use and care

- **Do not force the power tool.** Use the correct power tool for your application. The correct power tool will do the job better and more safely at the rate for which it was designed.
- **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- **Maintain power tools.** Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- **Use the power tool, accessories, tool bits, etc., in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

Battery tool use and care

- **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- **Use power tools only with specifically designated battery packs.** The use of any other battery pack may create a risk of injury and fire.
- **When the battery pack is not in use, keep it away from other metal objects, such as 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 burns or a fire.
- **Under abusive conditions, liquid may be ejected from the battery.** Avoid contact. If contact occurs, flush with water. If liquid comes into contact with the eyes, seek medical help. Liquid ejected from the battery may cause irritation or burns.

Service

- **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

Specific safety guidelines for cordless reciprocating saws



WARNING!

To reduce the risk of electric shock or damage to the charger and battery, use only the batteries and charger listed.

BATTERY PACK	CHARGER
054-3124-0	054-3126-6
054-3125-8	

- **Hold the power tool by its insulated gripping surfaces when performing an operation where the cutting accessory may contact hidden wiring.** If a cutting accessory contacts a “live” wire, it may make exposed metal parts of the power tool “live” and could give the operator an electric shock.
- **Use clamps or another practical way to support the workpiece and secure it to a stable platform.** Holding the work by hand or against your body leaves it unstable and may lead to loss of control.
- **Always remove the battery pack before changing the saw blade and/or adjusting the saw base.**
- **The saw blade must be securely locked in its holder.** Check that it has been securely seated before use.
- **Make certain that all adjusting levers and the blade holder are tight before making a cut.** Loose adjusting levers and holders can cause the tool or blade to slip; loss of control may result.
- **Check that the switch is “off” before attaching a battery pack.** Accidental starting could cause injury.
- **Secure material before cutting.** Never hold the workpiece in your hand or across your legs. Small or thin material may flex or vibrate with the blade, causing loss of control.
- **Never touch the saw blade immediately after use. It may be hot after prolonged use.**
- **Always wear safety goggles or eye protection when using this tool.** Use a dust mask or respirator or connect the tool to an external dust vacuum if cutting generates a great amount of dust.
- **Keep hands away from cutting area.** Do not reach under the material being cut. The proximity of the blade to your hand is hidden from your sight.
- **Do not use dull or damaged saw blades and accessories.**

Contents

Cordless Reciprocating Saw, hex wrench, 2 wood-cutting blades, instruction manual



WARNING!

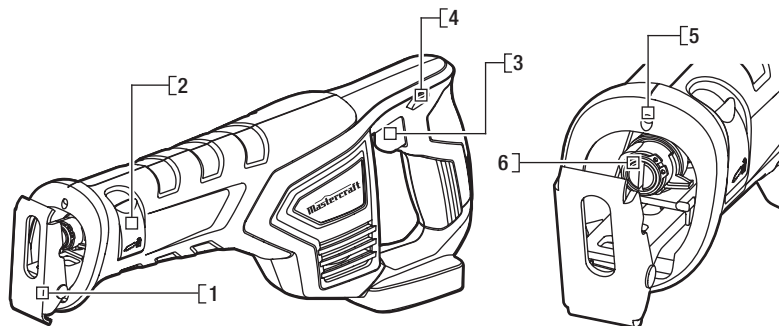
Remove the Cordless Reciprocating Saw from the package and examine it carefully. Do not discard the carton or any packaging material until all parts have been examined.



WARNING!

If any part of the Cordless Reciprocating Saw is missing or damaged, do not attach the battery pack to the tool or use the tool until the part has been repaired or replaced. Failure to heed this warning could result in serious injury.

Know your cordless reciprocating saw



No.	Description	No.	Description
1	Pivot shoe	4	Lock-off button
2	Tool-less Blade clamp lever	5	LED worklight
3	Variable-speed trigger switch	6	Tool-less Blade clamp

Before attempting to use this tool, become familiar with all of its operating features and safety requirements. For optimum performance and safety, read the following operating instructions carefully before using this product.



WARNING!

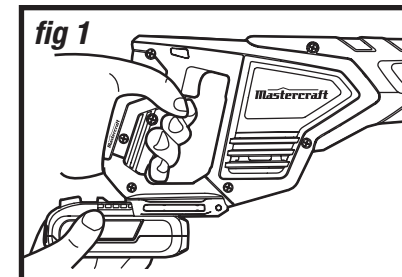
Do not allow familiarity with the Cordless Reciprocating Saw to cause a lack of alertness. A fraction of a second of carelessness is enough to cause severe injury.

To attach battery pack (fig 1)



CAUTION!

Avoid the possibility of accidental starting. Always take care not to activate the trigger switch when you are attaching the battery pack or performing other adjustments to the tool.



NOTE: When placing a battery pack on the tool, be sure that the raised rib on the battery pack aligns with the groove on the cordless Reciprocating Saw and the latches snap into place properly. Improper assembly of the battery pack can cause damage to internal components.

1. Ensure that the trigger switch is in the “off” position.
2. Align the raised rib on the battery pack with the grooves on the bottom of the saw, and then attach the battery pack to the saw.

To detach battery pack (fig 1)



CAUTION!

Avoid the possibility of accidental starting. Always take care not to activate the trigger switch when you are detaching the battery pack or performing other adjustments to the tool.

1. Ensure that the trigger switch is in the “off” position.
2. Depress the battery-release button located on the front of the battery pack to release the battery pack.
3. Pull the battery forward to remove from the tool.

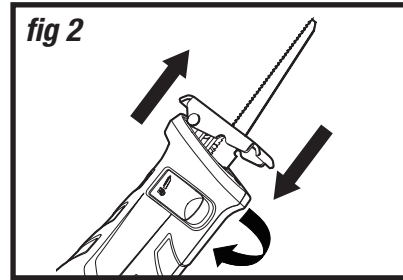
Blade selection

To obtain the best performance from the saw, it is important to select the correct blade for the particular application and type of material to be cut.

Blades with fewer teeth, e.g., 10 teeth per inch (TPI), are typically used for cutting wood; blades with more teeth are better for cutting metal or plastic. We recommend 14 TPI blades for plastics and soft metals and 18 TPI blades for hard metals.

Installing a saw blade (fig 2)

1. Remove the battery pack from the saw.
2. Pivot the blade-clamp lever to open the blade clamp.
3. Insert the saw blade into the blade clamp as far as possible, then release the blade-clamp lever to lock the blade in position.
4. Check that the blade is securely attached.



Removing the saw blade (fig 2)

1. Remove the battery pack from the saw.
2. Pivot the blade-clamp lever to open the blade clamp.
3. Remove the saw blade from the blade clamp.



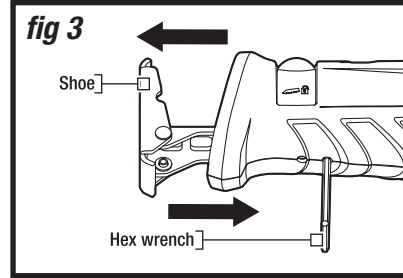
WARNING!

Never touch the saw blade immediately after use. It may be hot after prolonged use.

Base shoe adjustment (fig 3)

For maximum control and longer blade life, the base assembly slides in and out to adjust the effective stroke length.

1. Remove the battery pack from the saw.
2. Use the hex key (included) to loosen the two screws on the bottom of saw housing.
3. Adjust pivot to the desired position, and retighten both screws.



Pivoting the shoe (fig 4)

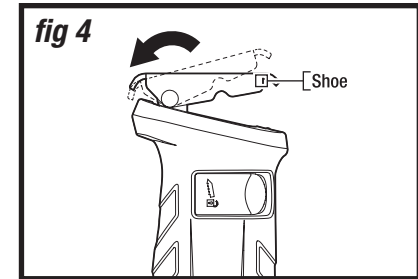
The shoe pivots to provide maximum contact with the surface being cut.

1. Remove the battery pack from the saw.
2. Hold the saw securely, and then pivot the shoe to the desired angle.



WARNING!

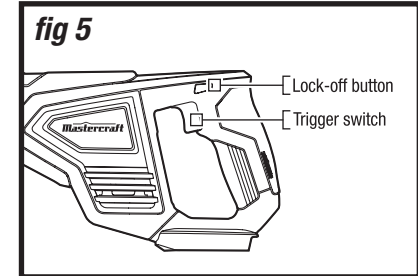
To avoid injury and damage, do not operate the saw without the pivoting shoe in place. The spindle may strike against the workpiece and damage the reciprocating mechanism.



Variable-speed trigger switch (fig 5)

Your reciprocating saw is equipped with a trigger switch to turn the saw on and off, and to control the speed.

1. To start the saw, depress the lock-off button and then squeeze the trigger switch.
2. To stop the saw, release the trigger switch and allow it to return to the "OFF" position.
3. To vary the speed, simply increase or decrease the pressure on the trigger switch. The more tightly the trigger switch is squeezed, the higher the speed.



Electric brake

To stop the tool, release the trigger switch and allow the blade to come to a complete stop. The electric brake quickly stops the motion. This feature engages automatically when you release the trigger switch.

LED Worklight (fig 6)

The LED worklight, located on the front of the saw, provides additional light on the surface of the worklight for operation in lower-light areas.

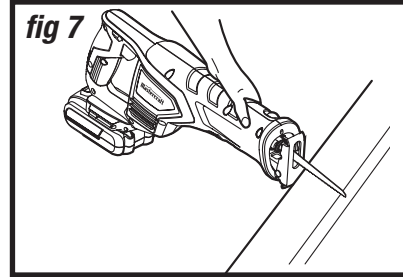
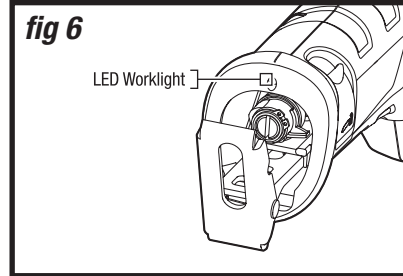
The LED worklight will come on when the trigger switch is depressed. The LED worklight will turn off when the trigger switch is released.

General cutting (fig 7)**WARNING!**

Before attaching the battery pack to the tool, always check to determine that the switch performs properly and returns to the "OFF" position when released.

**WARNING!**

Hold the tool only by the plastic handle and the insulated grip area to help prevent electrical shock. You may encounter electrical wiring when sawing into walls or floors. Sawing into a "live" wire will cause electric shock.



1. Remove the battery pack from the saw.
2. Make sure that the workpiece is firmly clamped in place.
3. Use the appropriate type and size of blade for the workpiece material and size.
4. Adjust the pivoting shoe as necessary to make sure that the blade will extend beyond the shoe and the workpiece at all times.
5. Adjust the pivoting shoe as necessary to expose unworn blade teeth for longer blade life.
6. Check for clearance behind the workpiece so that the blade will not impact another surface.
7. Mark the line of cut clearly. If cutting metal, apply cutting oil to the line.
8. Attach the battery pack to the saw.
9. Hold the saw firmly with both hands. Make sure to keep your hands on the insulated gripping areas only.

10. Depress the lock-off button and trigger switch to start the saw and bring it to the maximum desired cutting speed before applying the blade to the workpiece.
11. Place the flat surface of the shoe firmly on the workpiece while cutting. Use only enough steady pressure on the blade to keep the saw cutting; do not force the tool.
12. Reduce pressure as the blade comes to the end of the cut.
13. Allow the saw to come to a complete stop before removing the blade from the workpiece.
14. If sawing fiberglass, plaster, wallboard, or spackling compound, clean the motor vents frequently with a vacuum or compressed air. These materials are highly abrasive and may accelerate the wear on motor bearings and brushes.

**WARNING!**

Always wear safety goggles when cleaning tools with compressed air.

**WARNING!**

Do not allow familiarity with the saw to make you careless. One careless fraction of a second is enough to inflict serious injury.

NOTE: Cutting speeds should vary with the workpiece. Hard materials, such as metals, require lower speeds; use higher speeds for softer materials.

Plunge cutting (fig 8)

Your reciprocating saw is ideal for plunge cutting directly into surfaces that cannot be cut from an edge, such as walls or floors. Plunge cutting may be performed two ways, depending on how the blade is inserted.

Column A shows how to plunge cut with the teeth of the blade facing down. Column B shows how to plunge cut with the teeth of the blade facing up.



WARNING!

Do not plunge cut into metal surfaces.

1. Remove the battery pack from the saw.
2. Make sure that the workpiece is firmly clamped in place.
3. Use the appropriate type and size of blade for the workpiece material and size.
4. Insert the blade into the tool.
5. Adjust the pivoting shoe as necessary to make sure that the blade will extend beyond the shoe and the workpiece at all times.
6. Adjust the pivoting shoe as necessary to expose unworn blade teeth for longer blade life.
7. Check for clearance behind the workpiece so that the blade will not impact another surface.
8. Attach the battery pack to the saw.
9. If the blade is inserted with the teeth facing downward, hold the tool as shown in column A, resting the edge of the shoe on the workpiece.
10. With the blade just above the workpiece, depress the lock-off button and trigger the switch to start the saw and bring it to the maximum desired cutting speed. Then, using the edge of the shoe as a pivot, lower the blade into the workpiece.
11. As the blade starts cutting, raise the handle of the tool slowly, until the flat surface of the shoe rests firmly on the workpiece.
12. After the blade has penetrated through the workpiece, continue sawing along the marked cutting line.

NOTE: To make plunge cutting easier, use a heavy gauge blade and install the blade with the teeth facing upward as show in Column B.

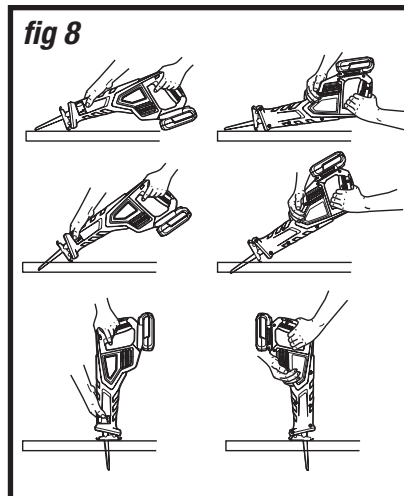


fig 8



WARNING!

To reduce the risk of explosion, electric shock and property damage, always check the work area for hidden gas pipes, electrical wires or water pipes when making blind or plunge cuts.



WARNING!

To avoid loss of control and serious injury, make sure that the blade reaches maximum speed before touching it to the workpiece.



WARNING!

Do not make plunge cuts in metal materials.

Metal cutting

The saw can be used to cut metals, such as sheet steel, pipe, steel rods, aluminum, brass, and copper. Be careful not to twist or bend the saw blade. Do not force the tool.

The use of cutting oil is recommended when cutting soft metals and steel. Cutting oil will keep the blade cool, increase cutting action, and prolong blade life.



WARNING!

Never use gasoline, because normal sparking could ignite the fumes.

1. Securely clamp the workpiece in position, and make the cut close to the clamping point to minimize vibration.
2. When cutting conduit pipe or angle iron, clamp the work in a vise, if possible, and cut close to the vise.
3. To cut thin sheet material, "sandwich" the material between pieces of hardboard or plywood, and clamp the layers together to reduce vibration and tearing of the material.

General maintenance

**WARNING!**

To avoid personal injury, always remove the battery pack from the tool when cleaning or performing any maintenance.

**WARNING!**

Do not let brake fluids, gasoline, petroleum-based products, penetrating oil, etc. come into contact with plastic parts. These substances contain chemicals that can damage, weaken, or destroy plastic.

The tool may be cleaned most effectively with compressed dry air. Always wear safety goggles when cleaning tools with compressed air. Before each use:

- Inspect the cordless tool and the trigger switch for damage.
- Check for damaged, missing, or worn parts.
- Check for loose screws, misalignment or binding of moving parts, or any other condition that may affect the operation.
- If abnormal vibration or noise occurs, turn the cordless tool off immediately, and have the problem corrected before further use.

**WARNING!**

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

**WARNING!**

Use only accessories that are recommended for this Reciprocating Saw by the manufacturer. Accessories that may be suitable for one tool may become hazardous when used with another tool.

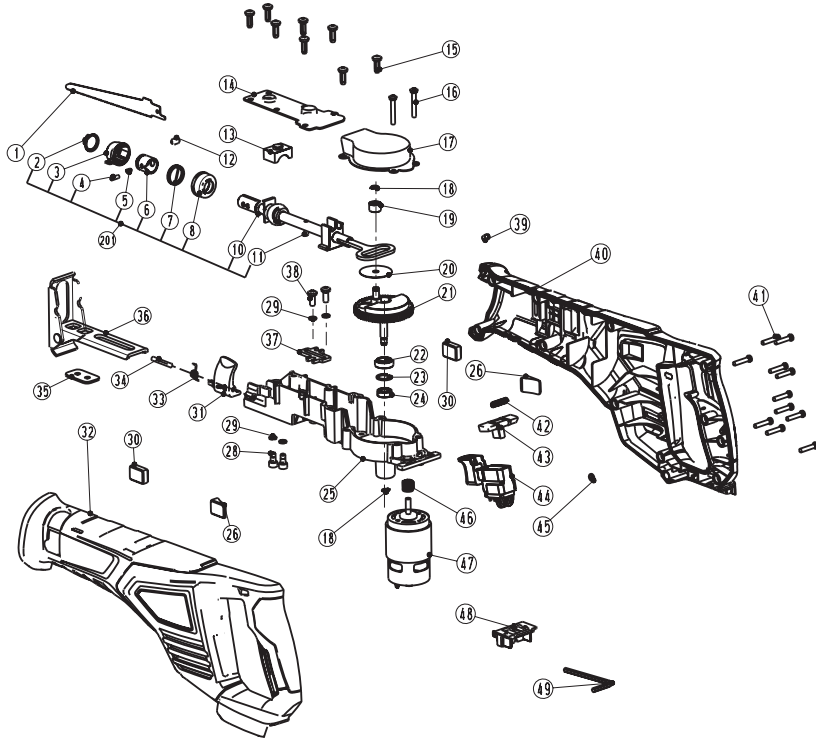
**WARNING!**

To ensure safety and reliability, all repairs should be performed by a qualified service technician.

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
The motor does not start.	The battery is depleted.	Charge the battery pack.
The blade binds, jams, or burns the wood.	The blade is dull.	Replace the blade.
	An improper blade is being used.	Replace the blade.
	The blade is warped.	Replace the blade.
The saw vibrates or shakes.	The blade is damaged.	Replace the blade.
	The blade is loose.	Remove the blade and reinstall it.

If the problem remains unsolved after performing the checks described above, call the toll-free helpline at 1-800-689-9928.

Exploded view



No.	Part No.	Description	No.	Part No.	Description
01	3810008000	Reciprocating Saw Blade	34	5670244000	Pin
201	2822578000	Plunger Assembly	35	3704168000	Clamp
02	5660145000	Circlips For Shaft	36	2822287000	Pivot Shoe
03	3421211000	Rotate Bush	37	3704272000	Slip Bush
04	5670194000	Pin	38	5620050000	Screw
05	5670199000	Pin	39	4360001000	LED
06	3551279000	Bush	40	3321455000	Right Housing
07	3660386000	Torsion Spring	41	5610106000	Tapping Screw
08	3125769000	Sleeve	42	3660075000	Spring
10	2823422000	Plunger Assembly	43	3126627000	Button
11	5670247000	Pin	44	4870391000	Switch
12	5670303000	Pin	45	5690192000	O Ring
13	3520428000	Clamp Block	46	3520429000	Pinion
14	3704263000	Plate	47	2730193000	Motor
15	5610057000	Thread Forming Screw	48	3402627000	Contact Receptacle Assembly
16	5620489000	Screw With Washer	49	5680031000	Hexagon Wrench
17	3704262000	Gear Case Cover			
18	5660027000	Circlips For Shaft			
19	3520431000	Crank Roller			
20	5650302000	Washer			
21	2822591000	Gear Set			
22	5700006000	Ball Bearing			
23	5660164000	Circlips for Hole			
24	5700199000	Ball Bearing			
25	3420844000	Gear Case			
26	3124566000	Clamp Block			
28	5620213000	Hexagon Socket Screw			
29	5650015000	Spring Washer			
30	3124565000	Clamp Block			
31	3402364000	Lever			
32	3321456000	Left Housing			
33	3660260000	Torsion Spring			



This Mastercraft product is guaranteed three (3) years from the date of original retail purchase against defects in materials and workmanship, except for the following components:

- a) Component A: Batteries, chargers and carrying case, which are guaranteed for a period of 2 years from the date of original retail purchase against defects in workmanship and materials;
- b) Component B: Accessories, which are guaranteed for a period of 1-year from the date of original retail purchase against defects in workmanship and materials.

Subject to the conditions and limitations described below, this product, if returned to us with proof of purchase within the stated warranty period and if covered under this warranty, will be repaired or replaced (with the same model, or one of equal value or specification), at our option. We will bear the cost of any repair or replacement and any costs of labour relating there to.

These warranties are subject to the following conditions and limitations:

- a) a bill of sale verifying the purchase and purchase date must be provided;
- b) this warranty will not apply to any product or part thereof which is worn or broken or which has become inoperative due to abuse, misuse, accidental damage, neglect or lack of proper installation, operation or maintenance (as outlined in the applicable owner's manual or operating instructions) or which is being used for industrial, professional, commercial or rental purposes;
- c) this warranty will not apply to normal wear and tear or to expendable parts or accessories that may be supplied with the product which are expected to become inoperative or unusable after a reasonable period of use;
- d) this warranty will not apply to routine maintenance and consumable items such as, but not limited to, fuel, lubricants, vacuum bags, blades, belts, sandpaper, bits, fluids, tune-ups or adjustments;
- e) this warranty will not apply where damage is caused by repairs made or attempted by others (i.e. persons not authorized by the manufacturer);
- f) this warranty will not apply to any product that was sold to the original purchaser as a reconditioned or refurbished product (unless otherwise specified in writing);
- g) this warranty will not apply to any product or part thereof if any part from another manufacturer is installed therein or any repairs or alterations have been made or attempted by unauthorized persons;
- h) this warranty will not apply to normal deterioration of the exterior finish, such as, but not limited to, scratches, dents, paint chips, or to any corrosion or discolouring by heat, abrasive and chemical cleaners; and

- i) this warranty will not apply to component parts sold by and identified as the product of another company, which shall be covered under the product manufacturer's warranty, if any.

Additional Limitations

This warranty applies only to the original purchaser and may not be transferred. Neither the retailer nor the manufacturer shall be liable for any other expense, loss or damage, including, without limitation, any indirect, incidental, consequential or exemplary damages arising in connection with the sale, use or inability to use this product.

Notice to Consumer

This warranty gives you specific legal rights, and you may have other rights, which may vary from province to province. The provisions contained in this warranty are not intended to limit, modify, take away from, disclaim or exclude any statutory warranties set forth in any applicable provincial or federal legislation. Imported by Mastercraft Canada Toronto, Canada M4S 2B8

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