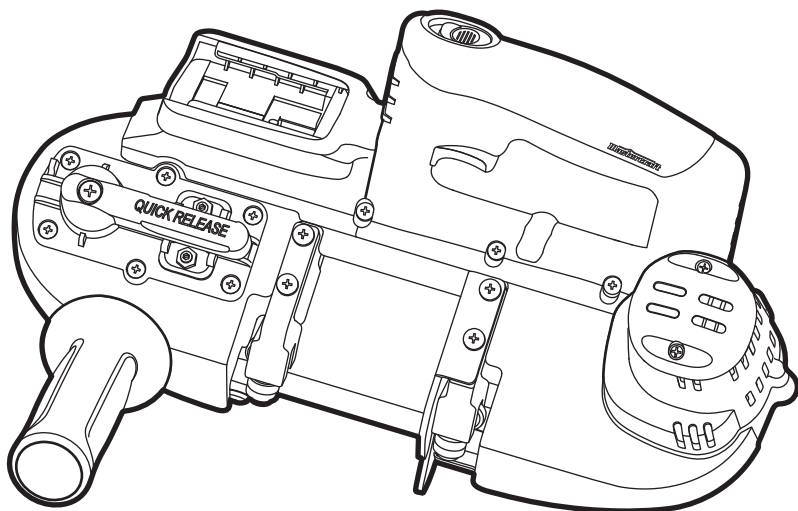


model no. 054-4281-8

**Mastercraft** © MD

## 20V max\* LITHIUM-ION CORDLESS BAND SAW



### **IMPORTANT:**

Read and understand this instruction manual thoroughly before using the product.

## **INSTRUCTION MANUAL**



**TABLE OF CONTENTS**

Technical Specifications	4
Safety Guidelines	5
Key Parts Diagram	10
Assembly Instructions	11
Operating Instructions	14
Maintenance	16
Troubleshooting	17
Parts List	18
Warranty	20

**NOTE:**

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

**SAVE THESE INSTRUCTIONS**

- This manual contains important safety and operating instructions. Read all instructions and follow them with use of this product.

**TECHNICAL SPECIFICATIONS**

Motor	20V DC
No load blade speed	550 SFPM
Blade size	Length: 28 13/16" (732 mm)
	Width: 1/2" (12.5 mm)
	Thickness: 0.02" (0.5 mm)
Blade tooth	14/18 TPI
Cutting capacity	Round piece diameter: 2 1/2" (6.4 cm)
	Rectangular piece: 2 1/2 x 2 1/2" (6.4 x 6.4 cm)
Tool weight (without battery)	6 lb 10 oz (3.0 kg)
Batteries	20V max* (1.5 Ah) Li-ion (054-3124-0; sold separately)
	20V max* (3.0 Ah) Li-ion (054-3125-8; sold separately)

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

## SAFETY GUIDELINES:



### 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 band saw before using. Keep this 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

## GENERAL POWER TOOL SAFETY WARNINGS



### 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 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 a power tool while you are 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 the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising 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 jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery 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.** Use of any other battery packs may create a risk of injury and fire.
- **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 burns or a fire.
- **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, also 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

## SAFETY GUIDELINES FOR CORDLESS BAND SAW

**DANGER!**

Keep hands away from cutting area and blade. Keep your second hand on the auxiliary handle. If both hands are holding the saw, the blade cannot cut them.

- **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, 054-3125-8

054-3126-6

- **Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring.** Cutting accessory contacting a “live” wire 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 secure and support the workpiece to a stable platform.** Holding the work by hand or against your body leaves it unstable and may lead to loss of control.
- **Secure material before cutting.** Never hold a workpiece in your hand or legs. Small or thin material may flex or vibrate with the blade, causing loss of control.
- **Do not use a damaged blade.** Before each use inspect the blade for cracks, chips or other damage. Replace a damaged blade immediately.
- **Do not apply cutting lubricants or oil to the blade of this tool.** Lubrication will cause blade to slip within tool.
- **Wipe excess oil from workpiece before cutting.** Lubrication will cause blade to slip within tool.
- **Hold the saw firmly to prevent loss of control.** Figures in this manual illustrate typical hand support of the saw.
- **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.
- **Keep hands from between the blade and material guide.** Always start cut with workpiece on the material guide. When tool starts work will be pulled to the material guide and can pinch your fingers.
- **Before starting to cut, turn tool “ON” and allow the blade to come to full speed.** Tool can chatter or vibrate if blade speed is too slow at beginning of cut.
- **Do not touch the blade or the workpiece immediately after operation.** Blade and workpiece will be hot.
- **When removing the blade from the tool avoid contact with skin and use proper protective gloves when grasping the blade or accessory.** Accessories may be hot after prolonged use.



- **Do not “jam” the blade or apply excessive pressure to the tool when cutting.**  
Overstressing the blade increases the loading and susceptibility to twisting or binding of the blade in the cut and the possibility of blade breakage.

- **The label on your tool may include the following symbols. The symbols and their definitions are as follows:**

V ..... Volts

A ..... Amperes

Hz ..... Hertz

W ..... Watts

min ..... Minutes

~ ..... Alternating current

— — — ..... Direct current

$n_0$  ..... No-load speed

 ..... Class II Construction

.../min ..... Revolutions or reciprocation per minute

 ..... Grounding terminal

BPM ..... Beats per minute

SFPM ..... Surface feet per minute

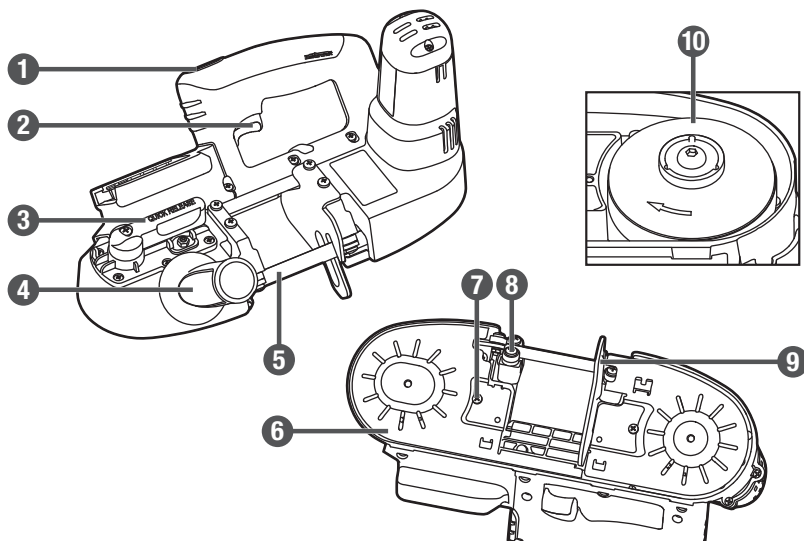
 ..... WARNING – To reduce the risk of injury, user must read instruction manual.

 ..... WARNING – To reduce the risk of injury always wear eye protection.

 ..... WARNING – To reduce the risk of injury always wear ear protection.

**PACKAGE CONTENTS:**

Cordless band saw, 1 band saw blade, side handle, and instruction manual.

**KEY PARTS DIAGRAM**

No.	Description
1	Lock-off button
2	Trigger switch
3	Quick-release knob
4	Auxiliary handle
5	Saw blade

No.	Description
6	Cover
7	Cover screw
8	Guide rollers
9	Material guide
10	Pulley

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.

**WARNING!**

- Remove the cordless band saw from the package and examine it carefully. Do not discard the carton or any packaging material until all parts have been examined.
- If any part of the bandsaw 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.
- Do not allow familiarity with the cordless band saw to cause a lack of alertness. A fraction of a second of carelessness is enough to cause severe injury.

## ASSEMBLY INSTRUCTIONS

### BLADES

This cordless band saw is to be used only with 0.02" (0.5 mm) thick, 1/2" (12.5 mm) wide and 28 13/16" (732 mm) long blades.

### BLADES SELECTION

In general, consider the size and shape of the work and the type of material to be cut. The coarser the tooth on the blade, the faster the cut will be. In selecting the appropriate number of teeth per inch of the band saw blade, at least two teeth should contact the work surface when the blade is rested against the workpiece. As a rule of thumb, soft materials usually require coarse tooth blades, while hard materials require fine tooth blades. Where a smoother finish is important, select one of the finer tooth blades.

Select the appropriate band saw blade according to the material type, dimensions, and number of teeth. See **Blade Description** chart.

The following table is intended as a general guide only. Determine the type of material and dimension of the workpiece and select the most appropriate band saw blade.

#### Blade Description:

Teeth per inch	Work condition
10	For tough stock 3/16" (4.8 mm) up to 2 1/2" (6.4 cm) in diameter or width.
14	For tough stock 5/32" (4 mm) up to 3/4" (19 mm) in diameter or width.
18	For thin-wall tubing and thin sheets heavier than 21 gauge.
24	For thin-wall tubing and thin sheets heavier than 21 gauge.

### NOTICE:

- The use of any other blade or accessory might be hazardous. DO NOT use any other type of accessory with your band saw. Blades used on stationary band saws are of different thickness. Do not attempt to use them on your portable unit.
- Never use the band saw to cut resin materials, which are subject to melting. Melting of resin material caused by high heat generated during cutting may cause the band saw blade to become bound to the material, possibly resulting in overload and burn-out of the motor.

**TO ATTACH THE BATTERY PACK (fig 1)**

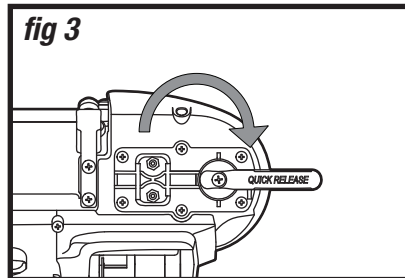
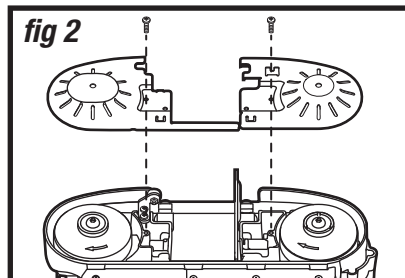
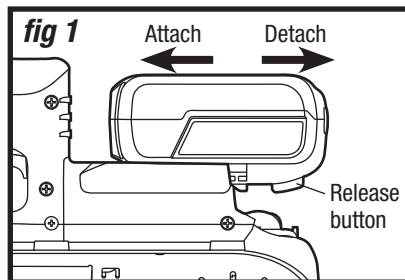
1. Align the raised rib on the battery pack with the grooves of the saw, and then attach the battery pack to the saw.
2. Make sure that the battery latches securely into place.

**TO DETACH THE BATTERY PACK (fig 1)**

1. Depress the battery release button located on the front of the battery pack to release the battery pack.
2. Pull the battery pack out and remove it from the tool.

**REMOVING AND INSTALLING SAW BLADES****To remove the saw blade (fig 2 & 3)**

1. Detach the battery pack from the saw.
2. Unscrew the screws on the cover, and then remove the cover, as shown in Figure 2.
3. Rotate the quick-release knob clockwise until it stops; this will release the tension on the blade.
4. Turn the saw over and place it on a workbench or table with the motor housing to the right.
5. Carefully remove the blade from the saw.



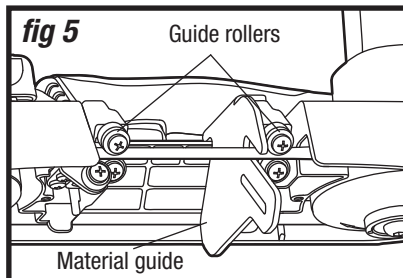
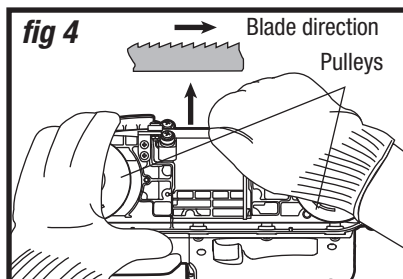
**NOTICE:** When attaching the battery pack to the tool, make sure that the raised platform on the pack aligns with the grooves on the tool and that the latches snap properly into place. Improper assembly of the battery pack can cause damage to internal components.

**WARNING!**

- To prevent personal injury, always remove the battery pack from the tool before installing or removing the saw blade.
- To prevent personal injury, always wear gloves when installing or removing the saw blade.
- When removing the blade, tension may be released and the blade may spring free. Saws blades are sharp. Use care in handling them.

**To install the saw blade (fig 4 & 5)**

1. Detach the battery pack from the saw.
2. Rotate the quick-release knob clockwise until it stops; this will release the drive wheel.
3. Match the direction of the arrow on the blade with to the arrow on the pulleys, and then slip the blade into the guide rollers, as shown in Figure 4.
4. Holding the blade in the guide rollers, place it around both pulleys and through the material guide, as shown in Figure 5.
5. Make sure that the blade is fully inserted into the guide rollers and positioned squarely against the pulleys.
6. Rotate the quick-release knob counter-clockwise until it stops to lock the blade in place. Make sure that the teeth face away from the band saw.
7. Position the cover on the plate. Replace and tighten the screws.
8. Make sure that the blade is properly seated on the pulleys before starting the tool.

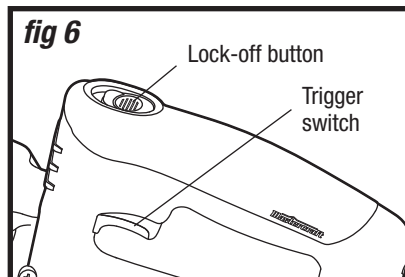
**WARNING!**

- While making sure that the blade runs on the wheels properly, keep your body away from the blade area.

## OPERATION INSTRUCTIONS

### TRIGGER SWITCH (fig 6)

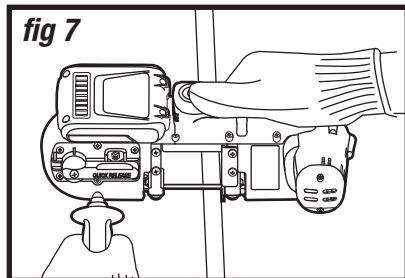
1. To turn the band saw ON, push the lock-off button forward and depress the trigger switch.
2. To turn it OFF, release the trigger switch.



### CUTTING

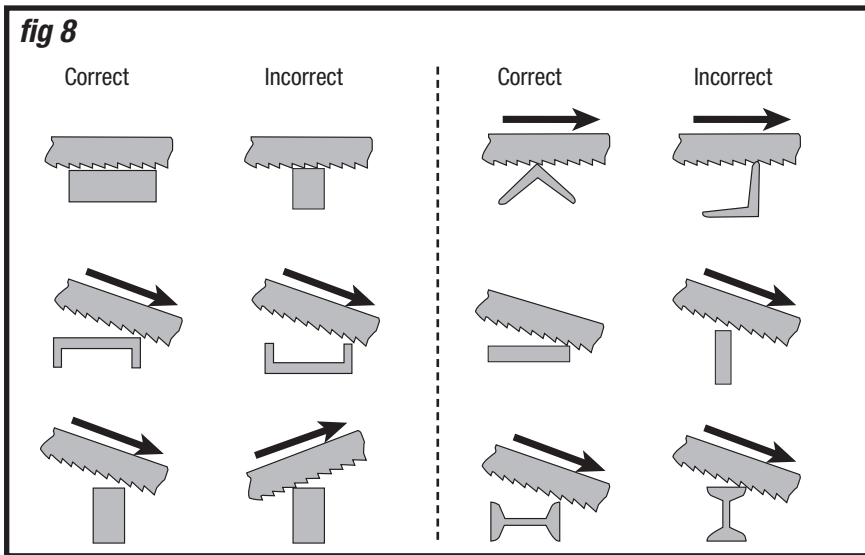
Always hold the band saw handle with one hand and the auxiliary handle with another on the motor housing (fig 7).

1. Mount the material to be cut solidly in a vise or other clamping device.
2. Bring the material guide into contact with the workpiece. Turn the saw ON.
3. When saw reaches full speed, slowly and gently tilt the main body of the tool to bring the band saw blade into contact with the workpiece. It is important to keep at least two teeth in the cut. Do not apply additional pressure in excess of the weight of the main body of the tool. Carefully avoid bringing the band saw blade suddenly and heavily into contact with the upper surface of the workpiece. This will cause serious damage to the band saw blade. To obtain maximum service life of the band saw blade, ensure there is no sudden impact at the beginning of the cutting operation.
4. End pieces which would be heavy enough to cause injury when they drop, after cut-off, should be supported. Safety shoes are strongly recommended. End pieces may be hot.
5. Hold the saw firmly in both hands so that the saw does not fall against clamped or supported material when the cut is completed.
6. It is important to keep at least two teeth in the cut. Select the proper cutting position for your workpiece by referring to the figure 8.



### WARNING!

- Never attempt to use this tool by resting it upside down on a work surface and bringing the material to the tool. Always securely clamp the workpiece and bring the tool to the workpiece, securely holding the tool with two hands.

**fig 8****TIPS FOR BETTER CUTTING**

- Never twist the band saw blade during cutting operation.
- Never use liquid coolants with portable band saws. Use of liquid coolants will cause buildup on blades and reduce performance.
- If excessive vibration occurs during the cut, turn the band saw off. Ensure that the material being cut is securely clamped down. If vibration continues, change the band saw blade.

## MAINTENANCE

### BEFORE EACH USE:

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

### CLEANING

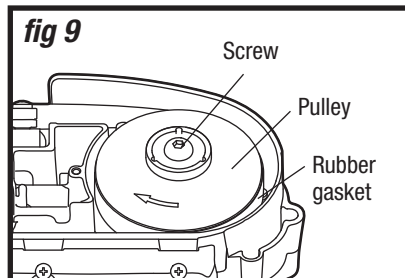
Remove the battery from the power tool before cleaning or performing any maintenance.

Using compressed air may be the most effective cleaning method. Always wear safety goggles when cleaning tools using compressed air.

### PULLEY RUBBER GASKET REPLACEMENT (fig 9)

The rubber gasket on the pulley may wear out and crack with age. If you find that the gasket is wearing out, exchange the rubber gasket as follows:

1. Detach the battery pack from the saw.
2. Remove the saw blade. Refer to the section "To remove the saw blade".
3. Unscrew the screw on the pulley with a hex key (M8).
4. Take out the pulley from the tool.
5. Take off the gasket on the pulley and replace it with a new one.
6. Replace the pulley, and then tighten the screw with a hex key (M8).



**NOTICE:** To obtain a new rubber gasket, please call our toll-free helpline at 1-800-689-9928.



### WARNING!

- Do not allow 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.
- When servicing, use only identical replacement parts. The use of any other parts may create a hazard or cause damage to the product.
- Use only accessories that are recommended for this cordless band saw by the manufacturer. Accessories that may be suitable for one tool may become hazardous when used with another tool.
- 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.
- To ensure safety and reliability, all repairs should be performed by a qualified service technician.



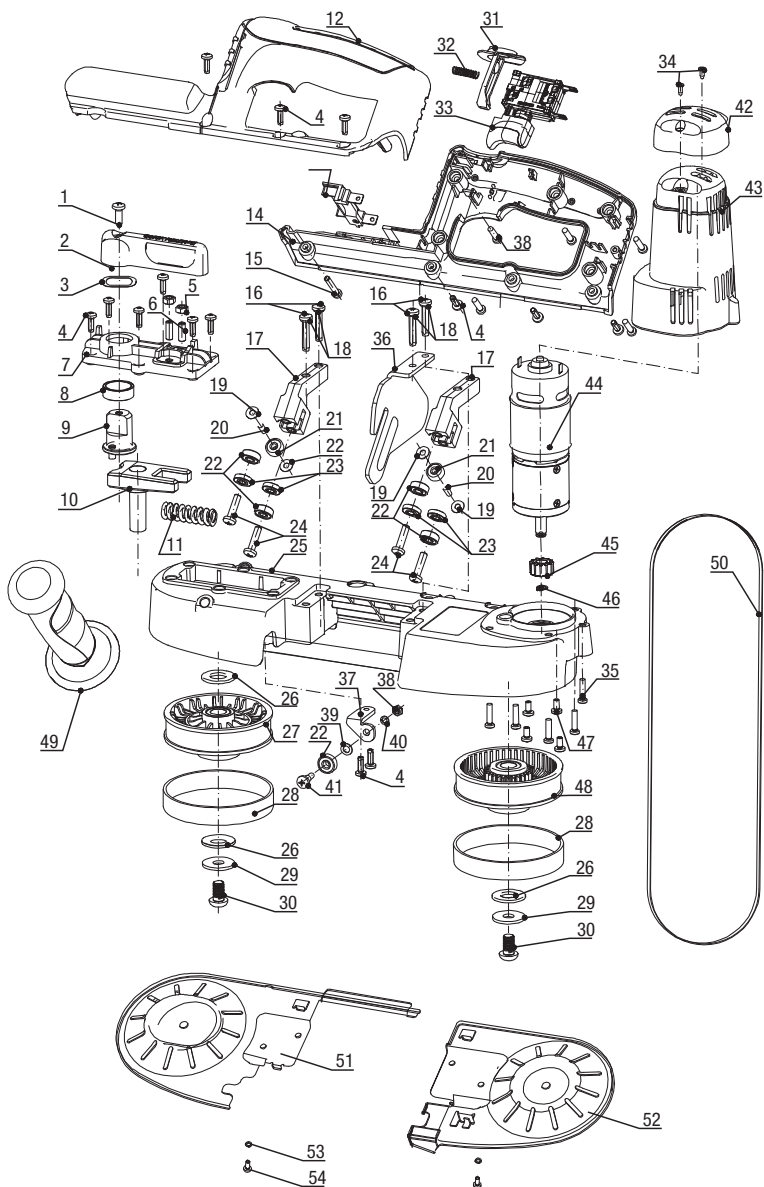
**TROUBLESHOOTING**

Problem	Possible Causes	Solution
The band saw does not work.	The battery is depleted.	Charge the battery.

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

## EXPLODED VIEW

## PARTS LIST



No.	Part No.	Description
1	5620050000	Screw
2	3124564000	Lever
3	5650288000	Wave washer
4	5610030000	Thread Forming Screw
5	5630003000	Hexagon Nut
6	5620417000	Hexagon Socket Screw
7	3402340000	Cover
8	3520460000	Bushing
9	2822632000	Eccentric shaft Assembly
10	2822652000	Slide Block Assembly
11	3660388000	Spring
12	3321618000	Left Handle
13	3402627000	Contact Receptacle Assembly
14	3321615000	Right Handle
15	5610034000	Tapping Screw
16	5610220000	Thread Forming Screw
17	3420917000	Guide
18	5650015000	Spring Washer
19	3700182000	Washer B
20	5670201000	Torque Pin
21	5700198000	Ball Bearing
22	5700197000	Ball Bearing
23	3520462000	Roller
24	5620408000	Thread Forming Screw
25	3420912000	Mounting
26	5650287000	Washer
27	282349900 0	Follower Wheel

No.	Part No.	Description
28	3124563000	Rubber Ring
29	5650024000	Plain Washer
30	5620409000	Hexagon Socket Screw
31	3124590000	Switch Lock
32	3660075000	Spring
33	4870429000	Switch
34	5610076000	Tapping Screw
35	5610103000	Tapping Screw
36	3704404000	Fence
37	3704413000	Lower Blade Guard
38	5630001000	Hexagon Nut
39	5650014000	Plain Washer
40	5650007000	Spring Washer
41	5620411000	Screw
42	3124568000	Decorate Cover
43	3124505000	Motor Housing
44	2822633000	Motor and Gear case Assembly
45	3520454000	Transmitting Gear
46	5660144000	Circlips For Shaft
47	5620038000	Screw
48	2823500000	Driving Wheel
49	3402299000	Handle
50	3810441000	Blade
51	3704542000	Guard
52	3704543000	Guard
53	5650007000	Spring Washer
54	5620039000	Screw

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



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.

Made in China

Imported by

Mastercraft Canada Toronto, Canada M4S 2B8

