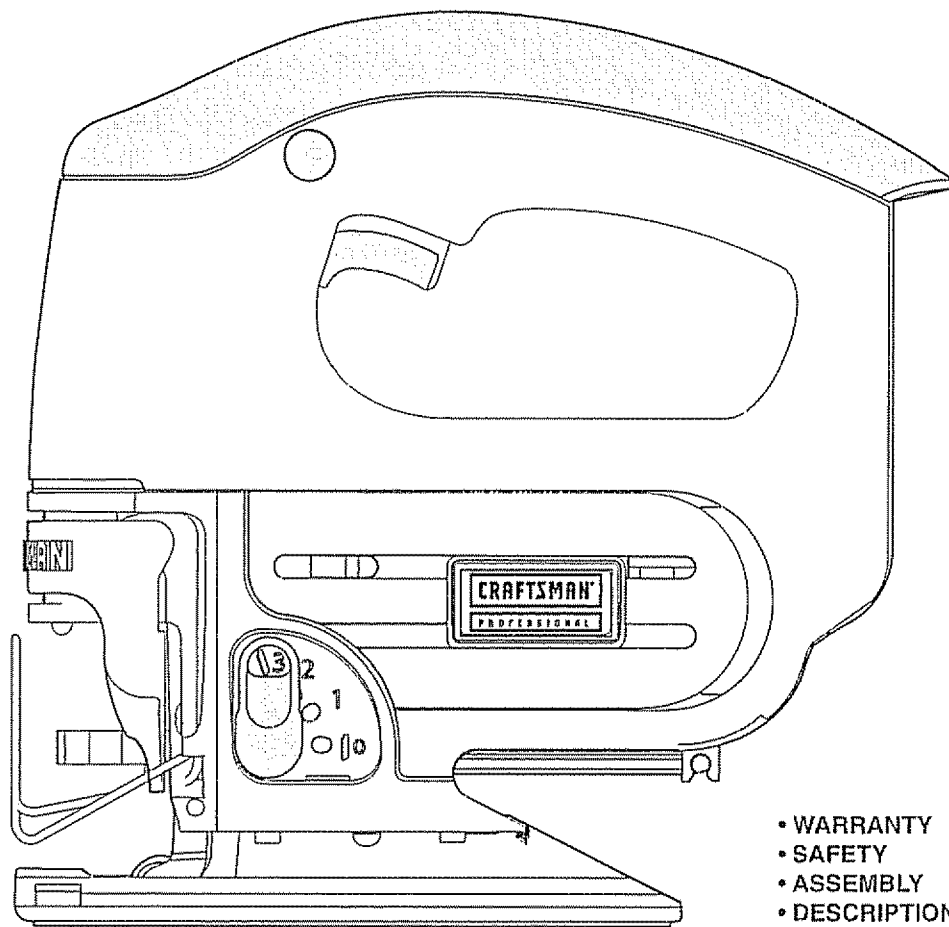


Operator's Manual



20.0-VOLT LITHIUM-ION CORDLESS Sabre Saw

Model No. 320.28127



- WARRANTY
- SAFETY
- ASSEMBLY
- DESCRIPTION
- OPERATION
- MAINTENANCE
- TROUBLESHOOTING

⚠ WARNING: To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

**CHARGE BATTERY
BEFORE FIRST USE**

Sears, Roebuck and Co., Hoffman Estates, IL 60179 USA
Visit the Craftsman web page: www.sears.com/craftsman



Save this manual for future reference

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TWO YEAR LIMITED WARRANTY ON CRAFTSMAN® PROFESSIONAL TOOL

If this Craftsman Professional Tool fails due to a defect in material or workmanship, return it to any Sears store, Sears Service Center, or other Craftsman outlet in the United States for free replacement during the first year from the date of purchase, and for free repair during the second year from the date of purchase.

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

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

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

INTRODUCTION

SAVE THESE INSTRUCTIONS!

READ ALL INSTRUCTIONS!

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

⚠ 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 alert symbols, such as "DANGER," "WARNING," and "CAUTION" BEFORE using this product. Failure to follow all instructions may result in electric shock, fire, and/or serious personal injury.

SYMBOL MEANINGS

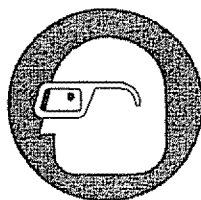
⚠ DANGER: Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.

⚠ WARNING: Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

⚠ CAUTION: Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.











CAUTION: (Without Safety Alert Symbol) Indicates a situation that may result in property damage.

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



⚠ 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 shields and a full face shield when needed. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.

Some of these following symbols may be used on this tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and more safely.

| SYMBOL | NAME | DESIGNATION / EXPLANATION |
|---|-------------------------|--|
| V | Volts | Voltage |
| A | Amperes | Current |
| Hz | Hertz | Frequency (cycles per second) |
| W | Watt | Power |
| min | Minutes | Time |
| ~ | Alternating Current | Type of current |
| — | Direct Current | Type or a characteristic of current |
| n_0 | No Load Speed | Rotational speed, at no load |
|  | Class II Construction | Double-insulated construction |
| .../min | Per Minute | Revolutions, strokes, surface speed, orbits, etc., per minute |
|  | Wet Conditions Alert | Do not expose to rain or use in damp locations. |
|  | Read the Product Manual | To reduce the risk of injury, user must read and understand product manual before using this product. |
|  | Eye Protection | Always wear safety goggles or safety glasses with side shields and a full-face shield when operating this product. |
|  | Safety Alert | Precautions that involve your safety. |
|  | No Hands Symbol | Failure to keep your hands away from the blade will result in serious personal injury. |
|  | No Hands Symbol | Failure to keep your hands away from the blade will result in serious personal injury. |
|  | No Hands Symbol | Failure to keep your hands away from the blade will result in serious personal injury. |
|  | No Hands Symbol | Failure to keep your hands away from the blade will result in serious personal injury. |
|  | Hot Surface | To reduce the risk of injury or damage, avoid contact with any hot surface. |

SAFETY INSTRUCTIONS

⚠ WARNING: READ AND UNDERSTAND ALL INSTRUCTIONS. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury. The term "power tool" in all of the warnings listed below refer to mains-operated (corded) power tools or battery-operated (cordless) power tools.

WORK AREA SAFETY

- **Keep 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 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 the risk of electric shock.
- **Avoid body contact with earthed (grounded) surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed (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.
- **Use battery only with charger listed.**

| BATTERY PACK | CHARGER |
|--------------|-----------|
| 320.25708 | 320.25709 |

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 safety equipment. Always wear eye protection.** Safety equipment such as dust masks, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.

- **Avoid accidental starting. Ensure the switch is in the off position before plugging in.** 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 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 these are connected and properly used.** Use of these devices can reduce dust-related hazards.
- **Use clamps or another practical way to secure and support the work-piece to a stable platform.** Holding the work by hand or against your body leaves it unstable and may lead to loss of control.
- **Do not use on a ladder or unstable support.** Stable footing on a solid surface enables better control of the power tool in unexpected situations.
- **Keep handles dry, clean and free from oil and grease.** Slippery hands can not safely control the power tool.
- **Always wear safety glasses with side shields.** Everyday glasses have only impact resistant lenses. They are NOT safety glasses. Following this rule will reduce the risk of eye injury.
- **Protect your lungs.** Wear a face or dust mask if the operation is dusty. Following this rule will reduce the risk of serious personal injury.
- **Protect your hearing.** Wear hearing protection during extended periods of operation. Following this rule will reduce the risk of serious person injury.

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 safer at the rate for which it was designated.
- **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 batter 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 and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking in 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.
- **Hold power tools by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will also make exposed metal parts of the tool "live" and shock the operator.
- **Know your power tool. Read the product manual carefully. Learn its applications and limitations, as well as the specific potential hazards related to this tool.** Following this rule will reduce the risk of electric shock, fire or serious injury.
- **Save these instructions.** Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, also loan them these instructions.

BATTERY TOOL USE AND CARE

- **Ensure the switch is in the off position before inserting battery pack.** Inserting the battery pack into power tools that have the switch on invites accidents.
- **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, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.
- **Battery tools do not have to be plugged into an electrical outlet; therefore, they are always in operating condition. Be aware of possible hazards when not using your battery tool or when changing accessories.** Following this rule will reduce the risk of electric shock, fire or serious personal injury.

- **Do not place battery tools or their batteries near fire or heat.** This will reduce the risk of explosion and possibly injury.
- **Do not crush, drop or damage battery pack. Do not use a battery pack or charger that has been dropped or received a sharp blow.** A damaged battery is subject to explosion. Properly dispose of a dropped or damaged battery immediately.
- **Batteries vent hydrogen gas and can explode in the presence of a source of ignition such as a pilot light.** To reduce the risk of serious personal injury, never use any cordless product in the presence of open flame. An exploded battery can propel debris and chemicals. If exposed, flush with water immediately.
- **Do not charge battery tool in a damp or wet location.** Following this rule will reduce the risk of electric shock.
- **Under extreme usage or temperature conditions, battery leakage may occur. If liquid comes in contact with your skin, wash immediately with soap and water, then neutralize with lemon juice or vinegar. If liquid gets in your eyes, flush them with clean water for at least 10 minutes, then seek immediate medical attention.** Following this rule will reduce the risk of serious personal injury.

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.
- **When servicing a power tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance instructions may create a risk of shock or injury.

SPECIFIC SAFETY RULES

SPECIFIC SAFETY RULES FOR SABRE SAW

- **Position your body to either side of the saw blade** and not in direct line with the saw blade.
- **Do not reach under the work piece.** The blade extends under the work piece when the saw is cutting.
- **Do not touch the blade or the work piece immediately after operation;** they may be extremely hot and could burn your skin.
- **Do not cut an oversized work piece.**
- **Check for the proper clearance** under the work piece before cutting, so that the blade will not strike the workbench or material under the work piece.
- **Make sure that the blade is not contacting the work piece before the switch is turned on.**
- **Secure material** before cutting. Never hold a work piece in your hand or across your legs. Small or thin material may flex or vibrate with the blade, causing loss of control.
- **Always use a rip fence or straightedge guide when ripping,** This improves the accuracy of the cut and reduces the chance of the blade binding.
- **Never cut more than one piece at a time.** Do not stack more than one work piece on the worktable at a time.
- **Avoid awkward operations** and hand positions where a sudden slip could cause your hand to move into the blade.
- **Never reach into the cutting path of the blade.**
- **Always use blades that have the correct size and shape.** Blades that do not match the mounting hardware of the saw will run erratically and will cause loss of control.
- **For best results,** your battery tool should be charged in a location where the temperature is more that 32° F (0° C) but less that 104°F (40°C). Do not store outside or in vehicles.

SAFETY RULES FOR CHARGER

⚠ WARNING: READ AND UNDERSTAND ALL INSTRUCTIONS. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

- **Before using battery charger,** read all instructions and cautionary markings in this manual, on battery charger, battery and product using battery to prevent misuse of the products and possible injury or damage.

⚠ CAUTION: To reduce the risk of electric shock or damage to the charger and battery, charge only lithium-ion rechargeable batteries as specifically designated on your charger. Other types of batteries may burst, causing personal injury or damage.


- **Do not use charger outdoors or expose to wet or damp conditions.** Water entering charger will increase the risk of electric shock.
- **Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock or injury to persons.** Following this rule will reduce the risk of electric shock, fire or serious personal injury.
- **Do not abuse cord or charger.** Never use the cord to carry the charger. Do not pull the charger cord rather than the plug when disconnecting from receptacle. Damage to the cord or charger could occur and create an electric shock hazard. Replace damaged cords immediately.
- **Make sure cord is located so that it will not be stepped on, tripped over, come in contact with sharp edges or moving parts or otherwise subjected to damage or stress.** This will reduce the risk of accidental falls, which could cause injury and damage to the cord, which could result in electric shock.
- **Keep cord and charger from heat to prevent damage to housing or internal parts.**
- **Do not let gasoline, oils, petroleum-based products, etc. come in contact with plastic parts.** They contain chemicals that can damage, weaken or destroy plastic.
- **An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If an extension cord must be used, make sure:**
 1. That pins on plug of extension cord are the same number, size and shape as hose of plug on charger.
 2. That extension cord is properly wired and in good electrical condition.
 3. That wire size is large enough for AC ampere rating of charger as specified below:


| | | | |
|---------------------------------|-----|-----|------|
| Cord Length (Feet) | 25' | 50' | 100' |
| Cord Size (AWG) | 16 | 16 | 16 |
| NOTE: AWG = American Wire Gauge | | | |

- **Do not operate charger with a damaged cord or plug**, which could cause shorting and electric shock. If damaged, have the charger repaired or replaced by an authorized service technician at Sears Service Center.
- **Do not operate charger if it has received a sharp blow, been dropped or otherwise damaged in any way.** Take it to an authorized service technician at Sears Service Center for an electrical check to determine if the charger is in good working order.
- **Do not disassemble charger.** Take it to an authorized service technician at Sears Service Center when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
- **Unplug charger from outlet before attempting any maintenance or cleaning to reduce the risk of electric shock.**
- **Disconnect charger from the power supply when not in use.** This will reduce the risk of electric shock or damage to the charger if metal items should fall into the opening. It will also help prevent damage to the charger during a power surge.
- **Risk of electric shock.** Do not touch uninsulated portion of output connector or uninsulated battery terminal.
- **Save these instructions.** Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, loan them these instructions also to prevent misuse of the product and possible injury.
- If the power supply cord is damaged, it must be replaced only by the manufacturer or by an authorized service center to avoid risk.

IMPORTANT SAFETY INSTRUCTIONS

- **SAVE THESE INSTRUCTIONS.** This manual contains important safety and operating instructions for battery charger 320.25709 and battery pack 320.25708.
- **Before using battery charger**, read all instructions and cautionary markings on battery charger, battery and product using battery.

 **CAUTION:** To reduce the risk of injury, charge only lithium-ion rechargeable batteries. Other types of batteries may burst, causing personal injury or damage.

 **WARNING:** Use of this product can generate dust containing chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks and cement and other masonry products.
- Arsenic and chromium, from chemically treated lumber.

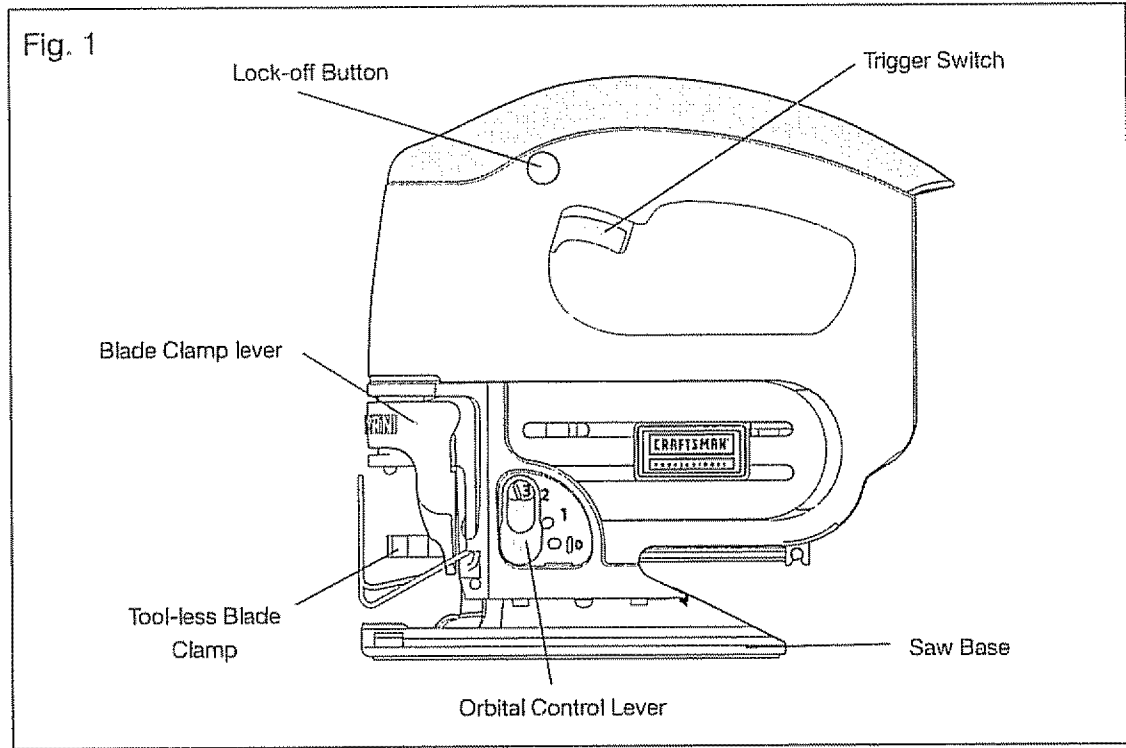
Your risk from these exposures varies, depending upon how often you do this type of work. To reduce your exposure to these chemicals:

- 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.

DESCRIPTION



| PRODUCT SPECIFICATIONS | |
|------------------------------|---------------------------|
| Motor voltage | 20 Volt DC |
| Switch | Variable Speed |
| No load Speed | 0-2200/min |
| Length of Stroke | 1 in. |
| Bevel angle | 0° to 45° left and right |
| Orbital Motion | 4 Positions |
| Saw Weight (without battery) | 5.6lbs. |
| Battery Type | Lithium-Ion |
| Battery Voltage | 20.0 Volt DC |
| Charger Input | 120-Volts, 60 Hz AC only |
| Optimum Charging Temperature | 32°F (0° C) -104°F (40°C) |

KNOW YOUR SABRE SAW (Fig. 1)

▲ WARNING: The safe use of this product requires an understanding of the information included on the tool and in this operator's manual, as well as knowledge of the project you are attempting. Before using this product, familiarize yourself with all operating features and safety rules.

TOOL-LESS BLADE CLAMP

The blade clamp design does not require the use of a tool (such as a blade wrench) when installing or removing the blade.

LOCK-OFF BUTTON

The lock-off button reduces the possibility of accidental starting. The lock-off button is located on the handle above the trigger switch. You must push the lock-off button to the left side in order to depress the trigger switch. Push the lock-off button to the right side to lock the trigger switch.

VARIABLE SPEED

The variable-speed trigger switch delivers higher speed with increased trigger pressure and lower speed with decreased trigger pressure.

ORBITAL ADJUSTMENT KNOB

Choose from four orbital adjustment positions for fine to aggressive cutting.

LED WORK LIGHT

The LED work light, located above the tool-less blade clamp, illuminates when the trigger switch is depressed. This feature provides extra light for increased visibility.

ASSEMBLY

▲ WARNING: If any parts are broken or missing, DO NOT attempt to plug in the power cord or operate the saw until the broken or missing part is replaced. Failure to do so could result in possible serious injury.

▲ WARNING: Do not attempt to modify this saw or create accessories not recommended for use with this saw. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious injury.

▲ WARNING: To prevent accidental starting that could cause serious personal injury, always disconnect the tool from the power source when assembling parts.

UNPACKING

This product has been shipped completely assembled.

1. Carefully remove the tool and accessories from the box. Make sure that all items listed in the packing list are included.

2. Inspect the tool carefully to make sure that no breakage or damage occurred during shipping.
3. Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.
4. If any parts are damaged or missing, return the product and packaging to the place of purchase.

PACKING LIST

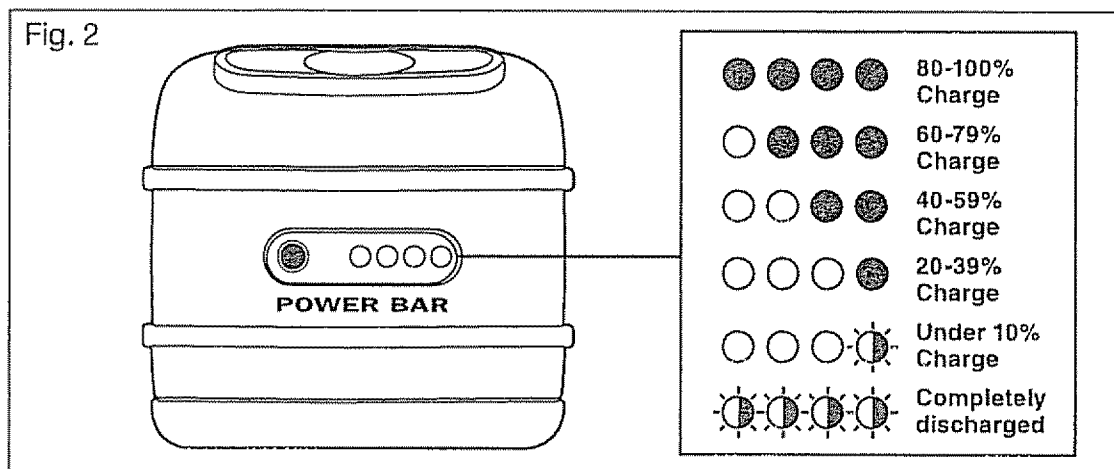
Sabre saw, three saw blades, and Operator's Manual.

OPERATION

POWER BAR

This Lithium-Ion battery pack is equipped with a POWER BAR, which is used to display the battery pack's remaining run time. Press the POWER BAR button to display the LED lights. The LED lights will stay lit for approximately 4 seconds.

NOTE: The POWER BAR can be used whether the battery is attached or re-



moved from tool.

Low capacity warning

- If one LED on the POWER BAR begins to flash, the battery pack's charge is under 10% capacity and should be recharged.
- Unlike other battery-pack types, Lithium-Ion battery packs deliver fade-free power for their entire run time. The tool will not experience a slow, gradual loss of power as you work. To signal that the battery pack is at the end of its run time and needs to be charged, power to the tool will drop quickly. The POWER BAR will begin to display four flashing LED lights when the battery is completely discharged. When this happens, remove the tool from the work piece, and charge the battery pack as needed.

NOTE: The POWER BAR may also display four flashing LED lights due to an overload or high temperature situation (see SmartChip™ Battery protection).

SmartChip™ BATTERY PROTECTION

SmartChip™ intuitive circuitry protects the battery pack from extreme temperature, over-discharge, and over-charge. To protect the battery from damage and to prolong its life, the battery pack's SmartChip™ circuitry will turn off the battery pack if it becomes overloaded or if the temperature becomes too high during use.

This may happen in extremely high torque, binding, and stalling situations. This intelligent system will shut down your battery pack if its operating temperature exceeds 176°F (80°C) and will begin normal operation when it returns to 32°F (0°C) - 104°F (40°C).

- The POWER BAR will display four flashing LED lights if the SmartChip™ circuitry detects a momentary overload. You can conveniently reset the battery pack by pressing the POWER BAR button. Press the POWER BAR button again to display the remaining charge.

NOTE: If the POWER BAR continues to flash four LED lights after being reset, place the battery pack on the charger to evaluate the battery condition (see Fig. 4).

NOTE: A significantly reduced run time after fully charging the battery pack indicates that the battery pack is near the end of its usable life and must be replaced

COLD WEATHER OPERATION

- This Lithium-Ion battery pack will provide optimal performance in temperatures between 32°F (0°C) and 104°F (40°C). When the battery pack is very cold, it may "pulse" for the first minute of use to warm itself up. Put the battery pack on a tool and use the tool in a light application. After about a minute, the battery pack will have warmed itself up and will operate normally.

WHEN TO CHARGE THE BATTERY PACK

The Lithium-Ion battery can be charged at any time and will not develop a "memory" when charged after only a partial discharge. It is not necessary to run down the battery pack charge before recharging. Remove the battery pack from the tool when convenient for you and your job.

- Use the POWER BAR to determine when you need to recharge the battery pack.
- You can add to your battery pack's charge before starting a big job or long period of use.
- Due to Lithium-Ion's fade-free properties, the only time it is necessary to charge the Lithium-Ion battery pack is when the pack has reached the end of its charge. To signal the end of charge, power to the tool will drop quickly. Charge the battery pack as needed.

HOW TO CHARGE THE BATTERY PACK

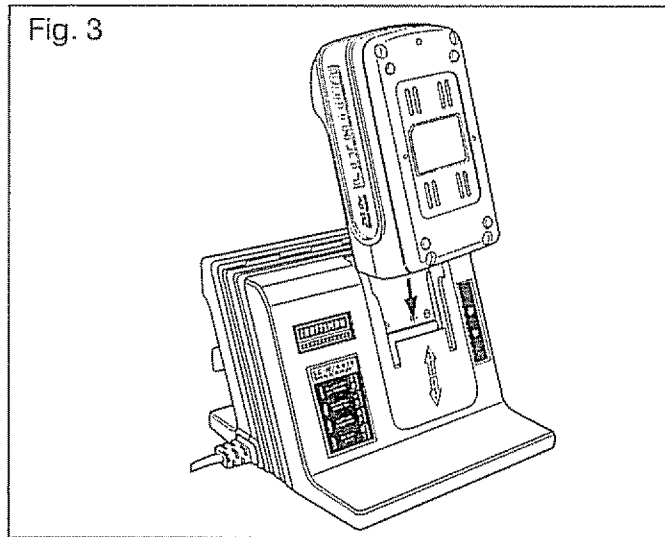
NOTE: This Lithium-Ion battery pack is shipped partially charged. Before using it the first time, fully charge the battery pack.

A fully discharged battery pack with a temperature between 32°F (0°C) and 104°F (40°C) will charge in about 50 minutes.

Charge the Lithium-Ion battery pack only with the correct charger.

1. Connect the charger to a power supply.

2. Attach the battery pack to the charger by aligning the raised ribs of the battery pack with the slot in the charger. Slide the battery pack onto the charger. (Fig. 3)
3. The charger will communicate with the battery pack's SmartChip™ circuitry to evaluate the condition of the battery pack.
4. The POWER BAR LED lights will cycle from right to left during charging.



- This is part of the normal charging operation.
5. After charging is complete, the green LED on the charger will come on and the POWER BAR LED lights will go off. The POWER BAR LED lights will not be displayed when the POWER BAR button is pressed while the battery pack is on the charger.

The battery pack will fully charge, but will not overcharge, if left on the charger.

NOTE: For your convenience, the charger can operate with most generators and inverters rated at 300 watts or higher.

LED FUNCTIONS OF CHARGER (Fig. 4)

Fig. 4

| LED INDICATOR | BATTERY PACK | RED LED | GREEN LED | ACTION |
|--------------------------|------------------|----------|-----------|---|
| HI/LO TEMP. (SEE MANUAL) | Hot/Cold battery | On | Off | Charging will begin when battery returns to 32°F (0°C) - 104°F (40°C) |
| DEFECTIVE BATTERY | Defective | Flashing | Off | Battery pack or charger is defective |
| BATTERY CHARGING | Charging | Off | Flashing | Charges in 50 minutes |
| BATTERY FULL | Fully charged | Off | On | Charging is complete Maintenance charging |

CHARGING A HOT BATTERY PACK

If the battery pack is above normal temperature range, the red LED will be lit and the green LED will be off. When the battery pack cools down to approximately 104°F (40°C), the charger will automatically begin charging.

CHARGING A COLD BATTERY PACK

If the battery pack is below the normal temperature range, the red LED will be lit

and the green LED will be off. When the battery warms to a temperature of more than 32°F (0°C), the charger will automatically begin charging.

DEFECTIVE BATTERY

If the charger detects a problem, the red LED will begin flashing and the green LED will be off.

1. If defective, remove and reinsert the battery pack in the charger. If the LED status reads “defective” a second time, try charging a different battery pack.
2. If a different battery pack charges normally, dispose of the defective battery pack (see Maintenance section).
3. If a different battery pack also indicates “defective,” the charger may be defective.


BATTERY CHARGING


If the battery pack is within normal temperature range, the green LED will begin flashing and the red LED will be off. The battery pack will reach a full charge in 50 minutes. The POWER BAR LED lights will cycle right to left during charging. This is part of the normal charging operation. The POWER BAR LED lights will not be displayed when the POWER BAR button is pressed while the battery pack is on the charger.

BATTERY FULL

If the battery pack is within normal temperature range, the green LED will be lit and the red LED will be off. The battery pack is fully charged and ready to use. The battery pack will fully charge, but will not overcharge, if left on the charger. The POWER BAR LED lights will not be displayed when the POWER BAR button is pressed while the battery pack is on the charger.

NOTE: Charger may warm up with several continuous charge cycles. This is part of the normal operation of the charger. Always charge in a well ventilated area.

 **CAUTION:** When placing the battery pack in the tool, be sure that the raised rib on the battery pack aligns with the bottom of the saw and that it latches into place properly. Improper installation of the battery pack can cause damage to internal components.

 **WARNING:** Do not attempt to modify this saw or create accessories not recommended for use with this saw. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious injury.

TO ATTACH BATTERY PACK (Fig. 5)

1. Align the raised portion on the battery pack with the grooves on the rear of the sabre saw, then attach the battery pack to the tool as shown.
2. Make sure the latch on the battery pack snaps into place and that the battery pack is secured to the saw before beginning operation.

TO DETACH BATTERY PACK (Fig. 5)

1. Press the latch located on the front of the battery pack to release battery pack.
2. Pull forward on the battery pack to remove it from the saw.

⚠ WARNING: Battery tools are always in operating condition. Therefore, the trigger switch should always be locked when not in use or when carrying the tool at your side.

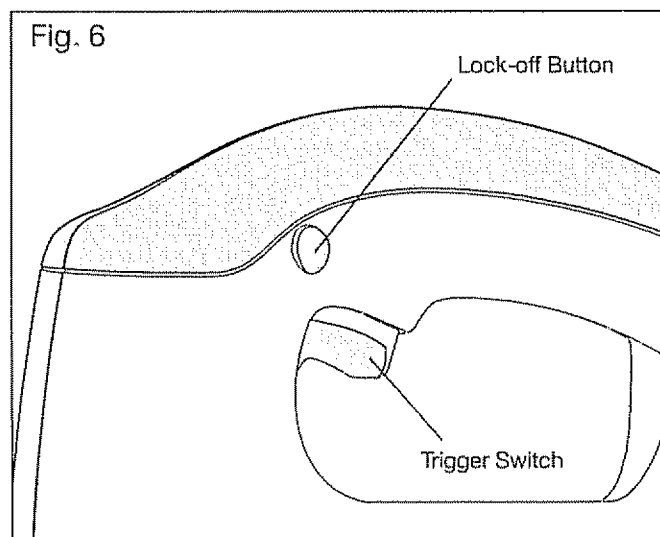
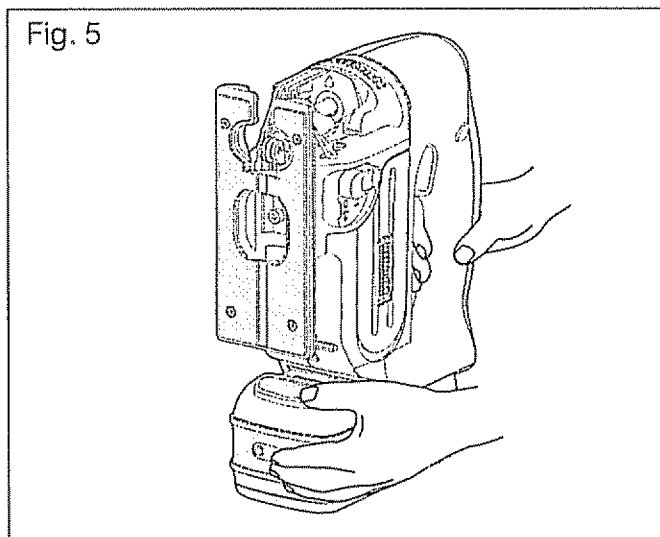
TRIGGER SWITCH (Fig. 6)

1. To turn the saw ON, push the lock-off button to left side then depress trigger switch.
2. To turn it OFF, release the trigger switch and push the lock-off button to right side to lock the trigger switch.

NOTE: The lock-off button can be activated when the trigger is released.

VARIABLE SPEED (Fig. 6)

The variable speed trigger switch delivers higher speed with increased trigger pressure and lower speed with decreased trigger pressure.

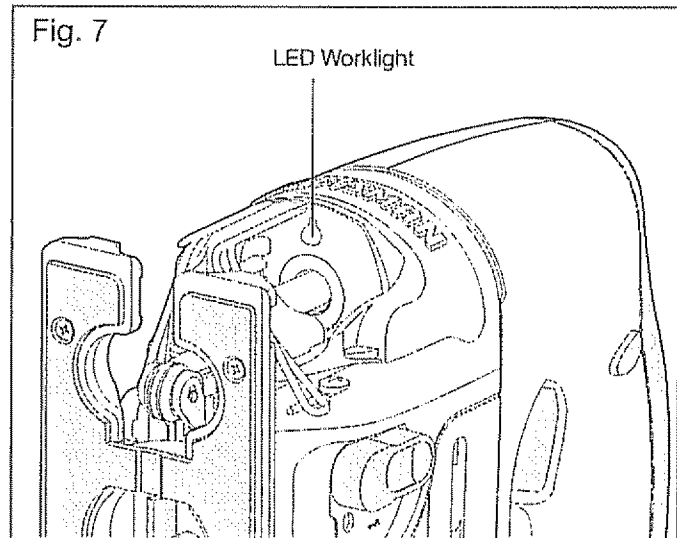


ELECTRIC BRAKE

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

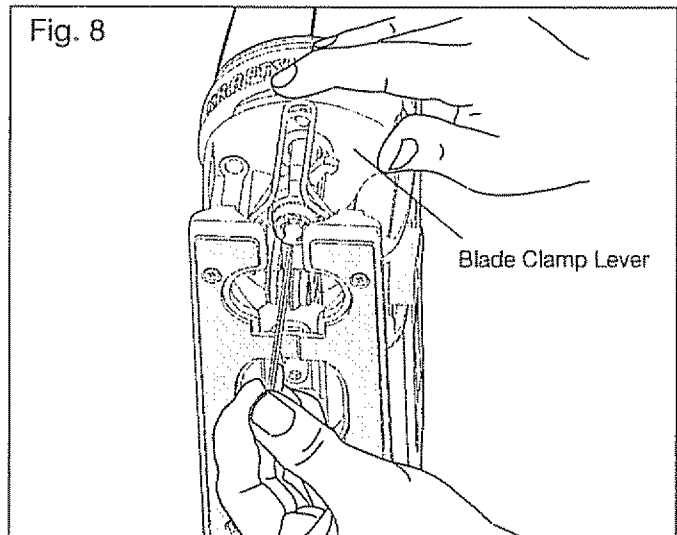
LED WORK LIGHT (Fig. 7)

The LED work light, located above the tool-less blade clamp, provides additional lighting on the surface of the work piece for operation in lower-light areas. The LED work light will come on when the trigger switch is depressed. The LED work light will turn off when the trigger switch is released.



INSTALLING SAW BLADE (Fig. 8)

1. Remove the battery pack.
2. Turn the blade clamp lever clockwise.
3. Insert the blade into the slot of tool-less blade clamp.
4. Release the blade clamp lever to lock the blade.
5. Replace battery pack.



REMOVING SAW BLADE (Fig. 8)

1. Remove battery pack.
2. Turn the blade clamp lever clockwise and the saw blade will be released automatically.

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 you wish to cut. By doing this, you will get a smoother, faster cut and prolong blade life. Additional blades for this saw are available from your nearest Craftsman retailer. You must use a T-shank blade.

HEX KEY STORAGE (Fig. 9)

1. Secure the supplied hex key at the bottom of the saw base. Push it into place.
2. Remove the hex key by pulling it free.

ORBITAL MOTION (Fig. 10)

The blade of the saw cuts in an orbital motion. This feature is adjustable and provides faster, more efficient cutting. The blade cuts through your work on the upstroke, but does not drag across your work on the down stroke. The higher settings should be used when fast cutting in soft material is desired. The lower settings should be used when cutting material with more resistance.

SAWDUST REMOVAL (Fig. 11)

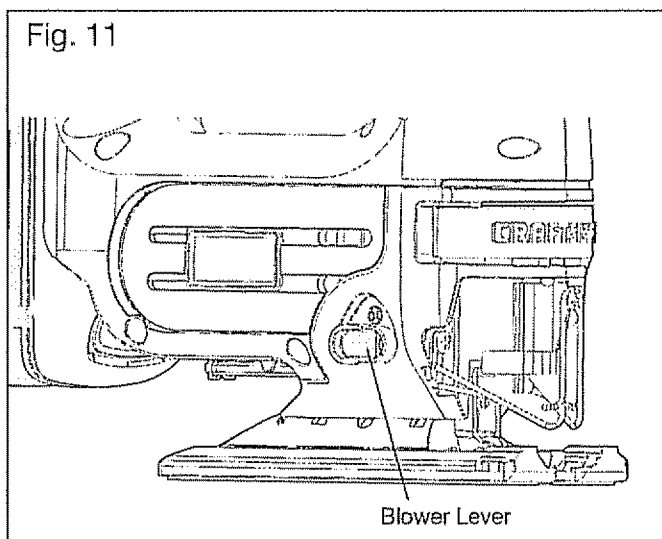
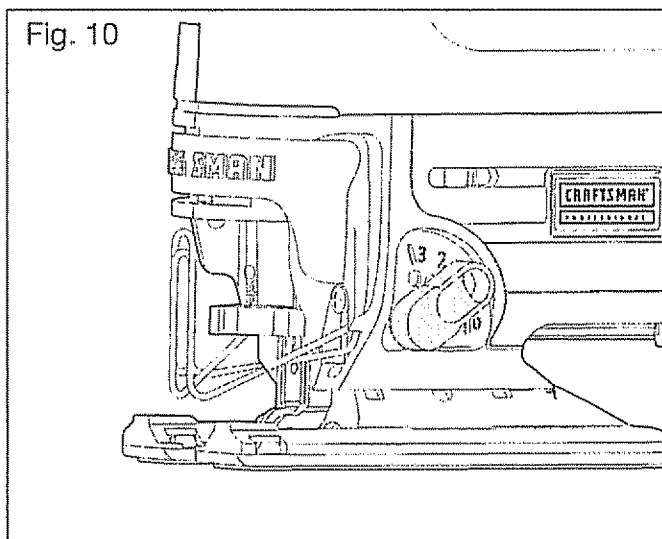
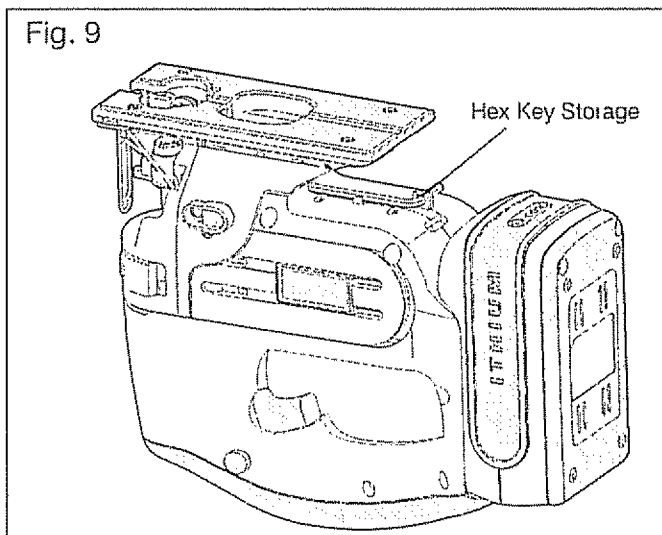
The saw has a blower feature. Turn the blower lever to the "O" position to blow away dust and chips from the immediate work space to help keep the cutting area clear.

STRAIGHT CUTTING

A straight cut can be made by clamping a piece of wood or a straightedge to the work piece and guiding the edge of the saw against it. Make the cut from one direction only. NEVER cut halfway and then complete the cut from the opposite end.

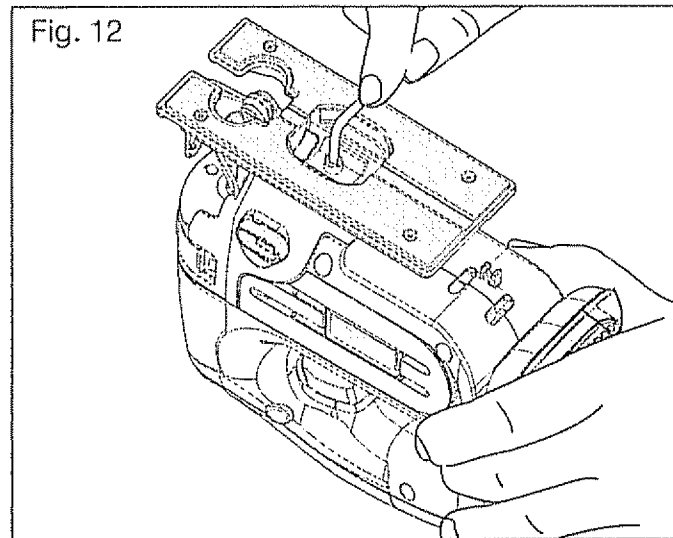
CUTTING CURVES

Curved cuts can be made with the sabre saw by guiding the direction of the cut with applied pressure on the handle.



BEVEL CUTTING

Bevel-cutting angles may be adjusted from 0° to 45° right or left. Angles for cuts from 0° to 45° in 15° increments are marked on a scale on both the left and the right sides of the base. Notches on the rear of the base provide positive stops at each of the marked 15° increments. Use of a protractor is recommended when accurate cuts are required.



1. Using the hex key provided, loosen the base pivot screw until the base can be moved (Fig. 12).
2. Slide the base forward until the base pivot screw can move freely in the slots in base.
3. Align the mark corresponding to the desired angle on the base with the edge of the motor housing.
4. Securely tighten the base pivot screw.
5. Return hex key to the storage structure.

PLUNGE CUTTING

⚠ WARNING: To avoid loss of control, broken blades, or damage to the material being cut, always use extreme caution when making plunge cuts. We do not recommend making plunge cuts in materials other than wood.

TO MAKE A PLUNGE CUT

1. Use only a blade with 7 teeth per inch to make a plunge cut.
2. Clearly mark the line of cut on the work piece.
3. Set the cutting angle to 0° and the orbital adjustment knob to 0.
4. Tilt the saw forward so that it rests on the front edge of the base and the blade will not come in contact with the work piece when the saw is turned on.
5. Make sure that, when the blade is lowered onto the work piece, it will be inside the area to be cut.
6. Using high speed, start the saw and slowly lower blade into the work piece until the blade cuts through the wood.
7. Do not move the base forward until the blade has cut entirely through the work piece and the base is in complete contact with the work piece.
8. Move the saw forward to complete the cut.

MAINTENANCE

GENERAL MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc

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

⚠ WARNING: To avoid serious personal injury, always remove the battery pack from the tool and unplug the charger when cleaning or performing any maintenance.

BATTERIES

The battery pack is equipped with Lithium-Ion rechargeable batteries. The duration of use from each charge will depend on the type of work performed.

The batteries for this tool have been designed to provide maximum trouble-free life. Like all batteries, they will eventually wear out. Do not disassemble the battery pack or attempt to replace the batteries. Handling of the batteries, especially when wearing rings and jewelry, could result in a serious burn.

To obtain the longest possible battery life, read and understand the operators manual.

It is good practice to unplug the charger and remove the Lithium-Ion battery pack when not in use. For Lithium-Ion battery pack storage longer than 30 days:

- Store the Lithium-Ion battery pack where the temperature is below 80°F (26°C) and free of moisture.
- Store Lithium-Ion battery packs in a 30%-50% charged condition.
- Every six months of storage, fully charge the Lithium-Ion battery pack.
- Exterior may be cleaned with a cloth or soft non-metallic brush.

BATTERY PACK REMOVAL AND PREPARATION FOR RECYCLING

To preserve natural resources, please recycle or dispose of batteries properly. This product contains lithium-ion batteries. Local, state or federal laws may prohibit disposal of lithium-ion batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.



⚠ WARNING: Upon removal, cover the battery pack's terminals with heavy-duty adhesive tape. Do not attempt to destroy or disassemble the battery pack or remove any of its components. Lithium-Ion batteries must be recycled or disposed of properly. Also, never touch the terminals with metal objects and/or body parts as a short circuit may result. Keep away from children. Failure to comply with these warnings could result in fire and/or serious injury.

TROUBLESHOOTING

| PROBLEM | CAUSE | SOLUTION |
|---------------------------------|----------------------------------|---|
| Blade cannot be installed | Blade is incorrect | Use "T" shank blade only |
| The trigger cannot be depressed | The "LOCK-OFF" switch is engaged | Release the lock-off switch |
| The Saw does not work | Battery is depleted | Charge the battery |
| | Battery is protected | Reset the battery by depressing the "Power Bar" |

PARTS LIST

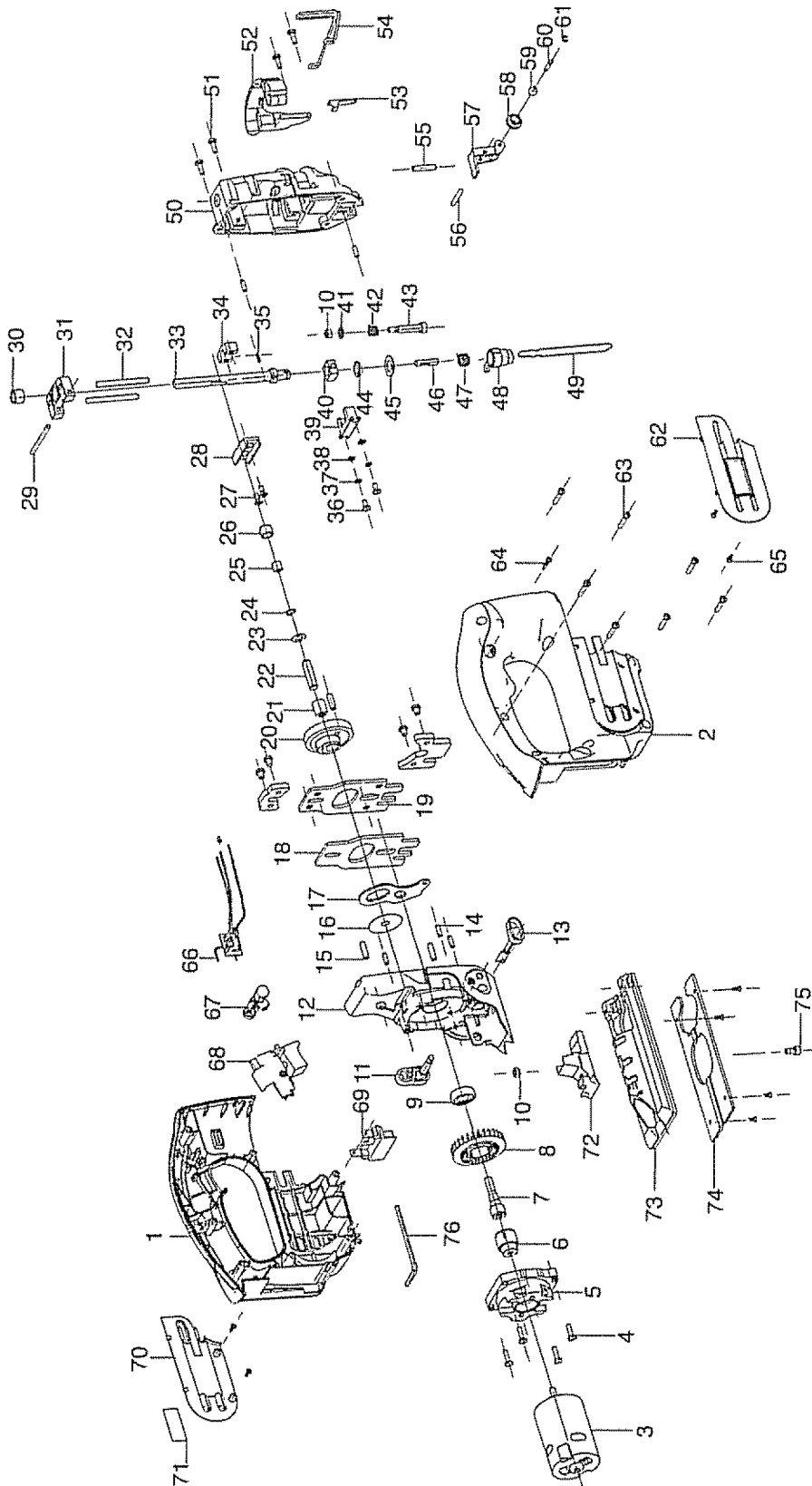
20.0-Volt Lithium-Ion Cordless Sabre Saw. Model number 320.28127. The model number is also found on the tool's nameplate. Always mention the tool's model number when ordering parts.

| No. | Part No. | Description | Quantity |
|-----|------------|--------------------|----------|
| 1 | 3320433000 | Left Housing Assy | 1 |
| 2 | 3320434000 | Right Housing Assy | 1 |
| 3 | 2730127000 | DC Motor | 1 |
| 4 | 5620041000 | Screw | 4 |
| 5 | 3420529000 | Located Block | 1 |
| 6 | 3520239000 | Spline Gear | 1 |
| 7 | 3550810000 | Pinion | 1 |
| 8 | 3123122000 | Fan | 1 |
| 9 | 5700011000 | Ball Bearing | 1 |
| 10 | 5630003000 | Hexagon Nut | 2 |
| 11 | 3402174000 | Pendulum Lever | 1 |
| 12 | 3420533000 | Gear Case | 1 |
| 13 | 3123123000 | Blowing Knob | 1 |
| 14 | 3550165000 | Located Pin | 5 |

| No. | Part No. | Description | Quantity |
|-----|------------|-------------------------|----------|
| 15 | 5670175000 | Pin | 2 |
| 16 | 3700184000 | Washer D | 1 |
| 17 | 3703717000 | Pendulum Plate | 1 |
| 18 | 3520244000 | Counterweight | 1 |
| 19 | 2822262000 | Counterweight Set | 1 |
| 20 | 2822159000 | Gear Set | 1 |
| 21 | 5700029000 | Needle Bearing | 1 |
| 22 | 3550186000 | Gear Shaft | 1 |
| 23 | 3700183000 | Washer C | 1 |
| 24 | 5660007000 | Circlips For Shaft | 1 |
| 25 | 5700022000 | Needle Bearing | 1 |
| 26 | 3550214000 | Crank Roller | 1 |
| 27 | 5620068000 | Screw | 2 |
| 28 | 3550172000 | Drive Bracket | 1 |
| 29 | 3550813000 | Support Bar | 1 |
| 30 | 3520240000 | Upper Sliding Bearing | 1 |
| 31 | 3520241000 | Support | 1 |
| 32 | 3550812000 | Guiding Rod | 2 |
| 33 | 3550792000 | Plunger | 1 |
| 34 | 3520046000 | Drive Bracket Clamp | 1 |
| 35 | 5670160000 | Pin | 1 |
| 36 | 5620038000 | Screw | 2 |
| 37 | 5650008000 | Spring Washer | 2 |
| 38 | 5650006000 | Plain Washer | 2 |
| 39 | 3520242000 | Sliding Bearing Support | 1 |
| 40 | 3520243000 | Lower Sliding Bearing | 1 |
| 41 | 5650168000 | Spring Washer | 1 |
| 42 | 3660281000 | Torsion Spring | 1 |
| 43 | 5620368000 | Screw | 1 |
| 44 | 3120444000 | Dust Seal | 1 |
| 45 | 3700165000 | Gasket | 1 |
| 46 | 5670159000 | Pin | 1 |
| 47 | 3660275000 | Torsion Spring | 1 |
| 48 | 3550793000 | Rotate Bush | 1 |

| No. | Part No. | Description | Quantity |
|-----|------------|----------------------------|----------|
| 49 | 3810006000 | Sabre saw Blade | 1 |
| 50 | 3420534000 | Gear Case Cover | 1 |
| 51 | 5620040000 | Screw | 4 |
| 52 | 3123125000 | Wrench | 1 |
| 53 | 3123413000 | LED Cover | 1 |
| 54 | 3650082000 | Wire Guard | 1 |
| 55 | 3550814000 | Pendulum pin | 1 |
| 56 | 3550883000 | Guiding Roller Support Pin | 1 |
| 57 | 3703719000 | Guiding Roller Support | 1 |
| 58 | 3550811000 | Guiding Roller | 1 |
| 59 | 5700021000 | Needle Bearing | 1 |
| 60 | 3550878000 | Guiding Roller Pin | 1 |
| 61 | 5690125000 | E RING | 1 |
| 62 | 3420532000 | Right Alum Cover | 1 |
| 63 | 5610106000 | Tapping Screw | 7 |
| 64 | 5610013000 | Tapping Screw | 1 |
| 65 | 5610079000 | Thread Forming Screw | 8 |
| 66 | 4890363000 | PCB Assembly | 1 |
| 67 | 3123126000 | Lock Button | 1 |
| 68 | 4870303000 | Switch | 1 |
| 69 | 3402164000 | Receptacle | 1 |
| 70 | 3420531000 | Left Alum Cover | 1 |
| 71 | 3700973000 | Name Plate | 1 |
| 72 | 3123124000 | Fan Baffle | 1 |
| 73 | 3420530000 | Base Plate | 1 |
| 74 | 3703718000 | Base Plate Cover | 1 |
| 75 | 5620213000 | Hexagon Socket Screw | 1 |
| 76 | 5680031000 | Hexagon Wrench | 1 |

PARTS LIST



NOTES

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