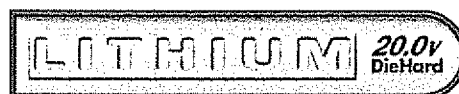
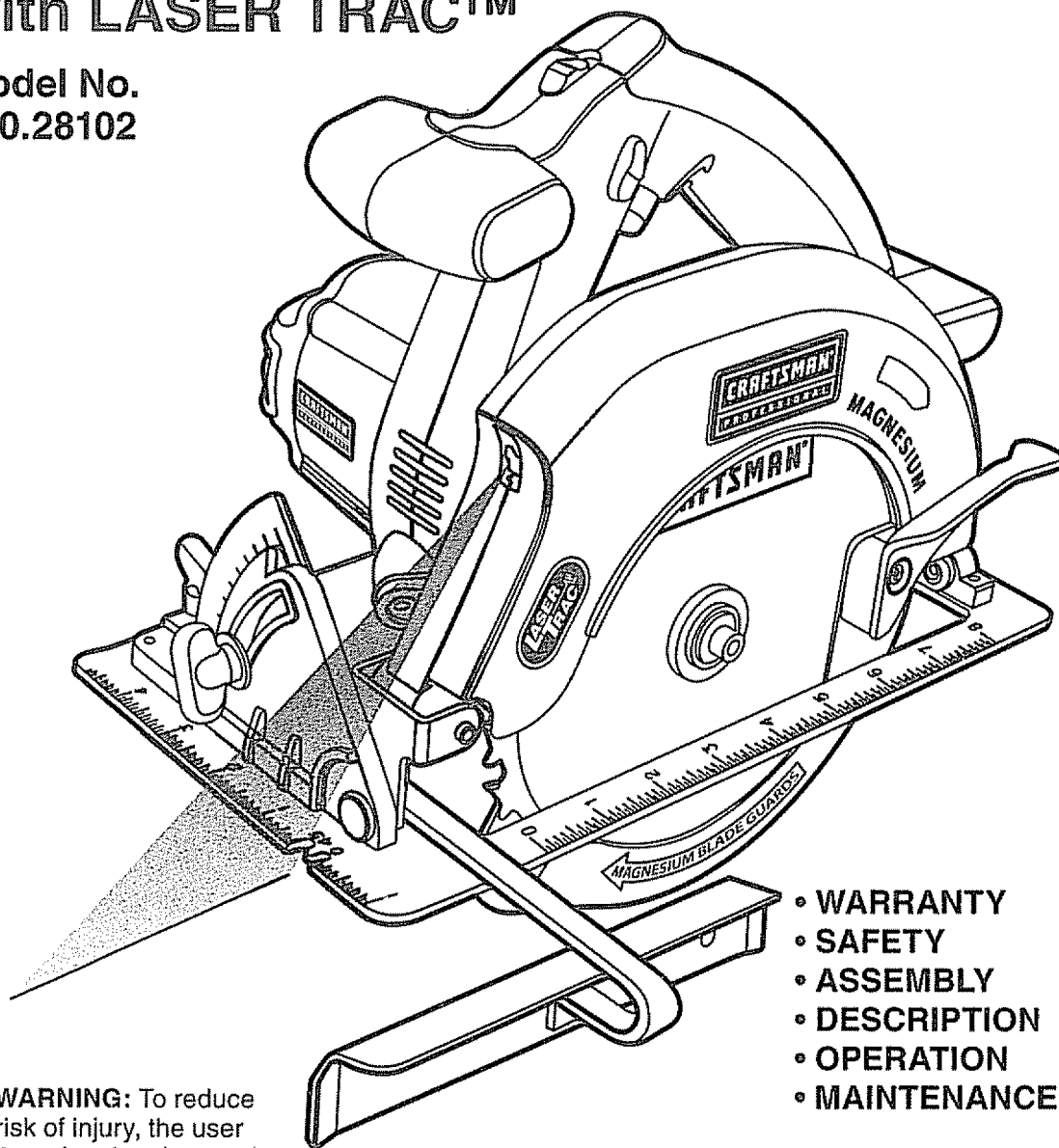


Operator's Manual



20.0-VOLT LITHIUM-ION CORDLESS 7 1/4-in. CIRCULAR SAW with LASER TRAC™

Model No.
320.28102



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

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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WARRANTY

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 THE NEAREST SEARS STORE 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 Circular Saw 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.

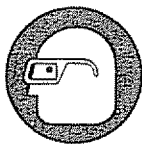
SAFETY SYMBOLS

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	SIGNAL	MEANING
	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.

SAVE THESE INSTRUCTIONS

SAFETY SYMBOLS

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 safer.

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 Operator's Manual	To reduce the risk of injury, user must read and understand operator's 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.

GENERAL SAFETY RULES

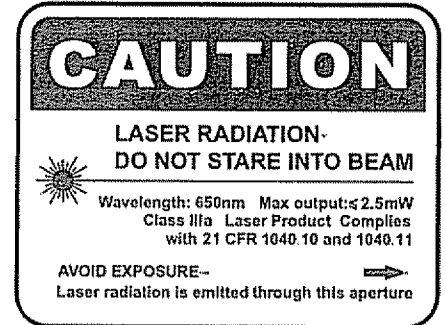
⚠ WARNING: READ AND UNDERSTAND ALL INSTRUCTIONS. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury. The term "power tool" in all of the warnings listed below refer to mains-operated (corded) power tools or battery-operated (cordless) power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

SAFETY PRECAUTIONS FOR LASERS

The circular saw has a built-in laser light. The laser is Class IIIa and emits out power of a maximum 2.5mW and 650nm wavelengths. These lasers do not normally present an optical hazard, however, do not stare at the beam as this can cause flash blindness.

The following label is on your saw. It indicates where the saw emits the laser light. Be aware of the laser light location when using. Always make sure that any bystanders in the vicinity of use are made aware of the dangers of looking directly into the laser.

⚠ WARNING: LASER LIGHT. LASER RADIATION. Avoid direct eye exposure. Do not stare into beam. Only turn laser beam on when the saw is on the workpiece. Class IIIa Laser.



⚠ WARNING: Use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

⚠ WARNING: The use of optical instruments such as, but not limited to, telescopes or transits to view the laser beam will increase eye hazard.

- Do not remove or deface any product labels. Removing product labels increases the risk of exposure to laser radiation.
- The laser beam can be harmful to eyes. Always avoid direct eye exposure. Do not look directly into the laser beam output aperture during operation. Do not project the laser beam directly into the eyes of bystanders. Turn laser on only when making cuts.
- The laser on the circular saw is not a toy. Always keep out of the reach of children. The laser light emitted from this device should never be directed towards any person for any reason.
- Be sure the laser beam is aimed at a workpiece such as wood or rough coated surfaces that do not have a reflective surface. Reflective surfaces can reflect the laser light into your eyes causing flash blindness.
- Do not use on surfaces such as sheet steel that have a shiny, reflective surface. The shiny surface could reflect the beam back at the operator. Be aware that laser light reflected off of a mirror or any other reflective surfaces can be dangerous.
- Always turn the laser beam off when not in use. Leaving the tool on increases the risk of someone inadvertently staring into the laser beam.

⚠ CAUTION: Always follow the instructions contained in this manual only when using the laser. Use of this feature in any manner other than what appears in this manual may result in a hazardous radiation exposure.

- Do not attempt to modify the performance of this laser device. This may result in a dangerous exposure to laser radiation.
- Use only accessories that are recommended by Sears. Use of other accessories that have been designed for use with other laser tools could result in serious injury.
- For further information regarding lasers, refer to ANSI-Z136.1 the standard for the safe use of lasers, available from the Laser Institute of America (407) 380-1553.

GENERAL SAFETY RULES

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

SAVE THESE INSTRUCTIONS

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.

GENERAL SAFETY RULES

- **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.
- **Do not wear loose clothing or jewelry. Contain long hair.** Loose clothes, jewelry or long hair can be drawn into air vents.
- **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.

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 or 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.

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 batter 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.

 **WARNING:** To reduce the risk of injury, user must read instruction manual

GENERAL SAFETY RULES

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

- **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.
- **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.
- **Know your power tool. Read operator's manual carefully. Learn its applications and limitations, as well as the specific potential hazards related to this tool.** Following this rule will reduce the risk of electric shock, fire or serious injury.
- **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.
- **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.
- **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.**
- **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.
- **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.
- **If the power supply cord is damaged, it must be replaced only by the manufacturer or by an authorized service center to avoid risk.**

SPECIFIC SAFETY RULES

- **DANGER! Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle or motor housing.** If both hands are holding the saw, they cannot be cut by the blade.
- **Do not reach underneath the workpiece.** The guard cannot protect you from the blade below the workpiece.
- **Adjust the cutting depth to the thickness of the workpiece.** Less than a full tooth of the blade teeth should be visible below the workpiece.
- **Never hold piece being cut in your hands or across your leg. Secure the workpiece to a stable platform.** It is important to support the work properly to minimize body exposure, blade binding or loss of control.
- **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.
- **When ripping, always use a rip fence or straight edge guide.** This improves the accuracy of cut and reduces the chance of blade binding.
- **Always use blades with the correct size and shape (diamond versus round) of arbor holes.** Blades that do not match the mounting hardware of the saw will run erratically, causing loss of control.
- **Never use damaged or incorrect blade washers or bolt.** The blade washers and bolt were specially designed for your saw for optimum performance and safety of operation.
- **If the power supply cord is damaged,** it must be replaced only by the manufacturer or by an authorized service center to avoid risk.

CAUSES AND OPERATOR PREVENTION OF KICKBACK:

Kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator. When the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator. If the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator. Kickback is the result of misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions, as given below:

- **Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade.** Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.
- **When blade is binding or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.** Investigate and take corrective actions to eliminate the cause of blade binding.
- **When restarting a saw in the workpiece, center the saw blade in the kerf and check that saw teeth are not engaged into the material.** If saw is binding, it may walk up or kickback from the workpiece as the saw is restarted.
- **Support large panels to minimize the risk of blade pinching and kickback.** Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.
- **Do not use dull or damaged blades.** Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.
- **Blade depth and bevel adjusting locking levers must be tight and secure before making cut.** If blade adjustment shifts while cutting, it may cause binding and kickback.

SPECIFIC SAFETY RULES

- **Use extra caution when making a "plunge cut" into existing walls or other blind areas.** The protruding blade may cut objects that can cause kickback.
- **Check lower guard for proper closing before each use. Do not operate saw if lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position.** If saw is accidentally dropped, lower guard may be bent. Raise the lower blade guard with the retracting handle. Make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.
- **Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.** Lower guard may operate sluggishly due to damaged parts, gummy deposits or a buildup of debris.
- **Lower guard should be retracted manually only for special cuts such as "plunge cuts" and "compound cut."** Raise lower blade guard by retracting handle. As soon as blade enters the material, the lower guard must be released. For all other sawing, the lower guard should operate automatically.
- **Always observe that the lower guard is covering the blade before placing the saw down on bench or floor.** An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.
- **Know your power tool. Read operator's manual carefully. Learn its applications and limitations, as well as the specific potential hazards related to this tool.** Following this rule will reduce the risk of electric shock, fire or serious injury.
- **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.
- **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.

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.

SAFETY RULES FOR CHARGER

- **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 those of plug on charger.
 2. That extension cord is properly wired and in good electrical condition; and
 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.

SAFETY RULES FOR CHARGER

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 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:

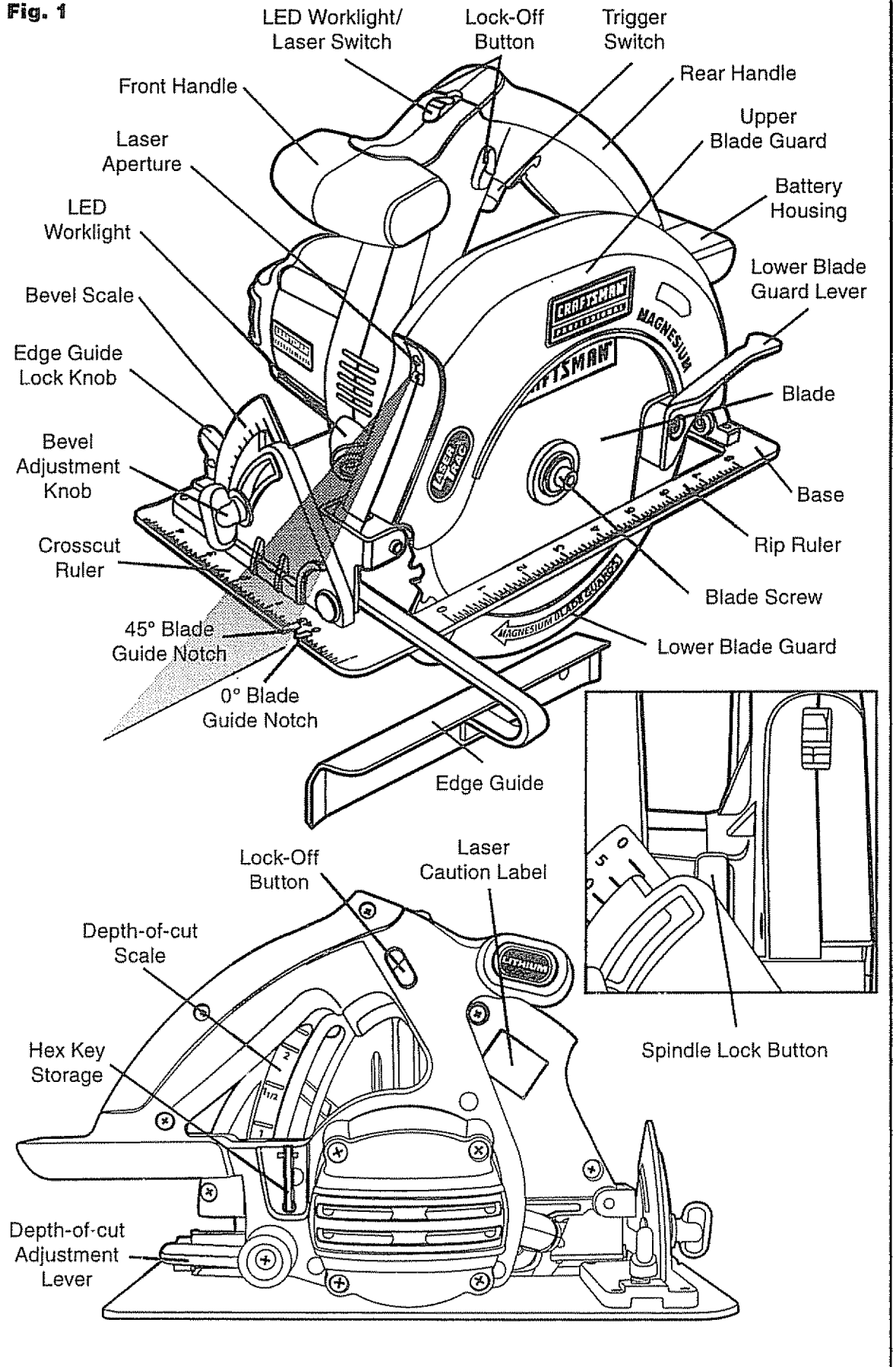
- Work in a well-ventilated area.
- Work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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.

SAVE THESE INSTRUCTIONS

DESCRIPTION

Fig. 1



DESCRIPTION

PRODUCT SPECIFICATIONS	
Blade Diameter	7 1/4-in.
Motor	20 Volt DC
Cutting Depth at 90° (0°)	2 3/8-in.
Cutting Depth at 45°	1 5/8-in.
Bevel	Adjustable 0°-50°
No Load Speed	2500 RPM
Laser	Class IIIa 650nm Max. output: ≤2.5 mW
Saw Weight (without battery)	7.76 lbs.
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 CIRCULAR SAW (Fig. 1)

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

MAGNESIUM UPPER AND LOWER BLADE GUARD WITH ANTI-SNAG FEATURE

Heavy-duty, lightweight blade guards provide protection from the blade. The self-retracting lower blade guard features an anti-snag design for more efficient cutting.

ELECTRIC BRAKE

The saw has an electric brake to quickly stop the blade from rotating.

ALUMINUM BASE

The saw has an oversized, lightweight aluminum base to provide stability when cutting.

0° TO 50° BEVEL ADJUSTMENT

The bevel adjustment lever allows you to set the circular saw for bevel cuts from 0° to 50°.

LASER TRAC™ LASER GUIDE

The laser guide projects a bright red beam onto the workpiece, aiding in alignment and accuracy.

LED WORKLIGHT

The fixed-position LED worklight, located on the front of the saw, allows better cut-line visibility.

INTEGRATED RIP AND CROSSCUT RULER

The base has integrated rip and crosscut rulers for quick reference when making repetitive cuts.

EDGE GUIDE

The saw is equipped with an edge guide for accurate parallel cuts. The edge guide can be used on either the left or right side of the saw blade.

HEX KEY STORAGE

The blade screw hex key is conveniently stored on board, behind the motor housing of the saw.

ERGONOMIC DESIGN

The design of the saw allows proper two hand control when cutting. It has been designed to be comfortable and easy to grasp.

DESCRIPTION

SPINDLE LOCK BUTTON

The spindle lock button allows you to secure the blade when turning the blade screw.

LOCK-OFF BUTTON

The lock-off button reduces the possibility of accidental starting. The button can be used on either the left or right of the trigger switch.

DEPTH OF CUT ADJUSTMENT LEVER

The depth of cut adjustment lever adjusts the depth of cut a maximum of 0 to 2 3/8-in. at 90° and 0 to 1 5/8-in. at 45°.

ASSEMBLY

⚠WARNING: If any parts are broken or missing, **DO NOT** attempt to plug in the power cord or operate saw until the broken or missing parts are 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 remove the battery pack from the drill when assembling parts.

UNPACKING

This product has been shipped completely assembled.

- Carefully remove the tool and any accessories from the box. Make sure that all items listed in the packing list are included.
- Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the saw.
- If any parts are damaged or missing, please refer to the numbers listed on the back page of operator's manual.

PACKING LIST

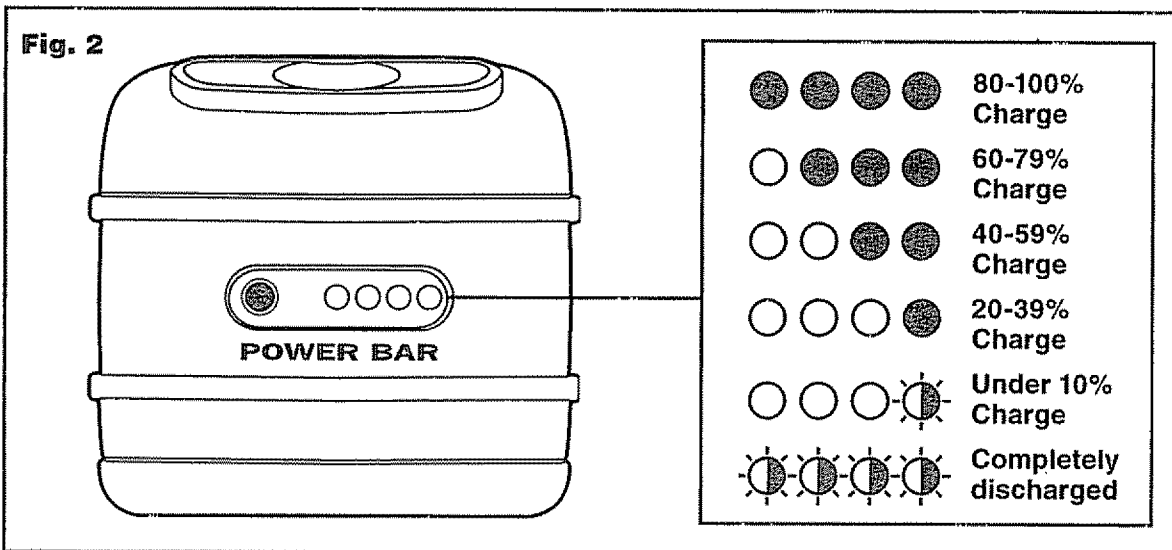
7 1/4-in. Circular Saw, Saw Blade, Edge Guide, Hex Key and Operator's Manual

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 when the battery is attached or removed 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 it is completely discharged. When this happens, remove the tool from the workpiece 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 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 shutdown 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) - 122°F (50°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 reset, place the battery pack on the charger to evaluate the battery condition (see Fig. 4).

OPERATION

NOTE: A significantly reduced run time after fully charging the battery pack indicates that the batteries are near the end of their 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.

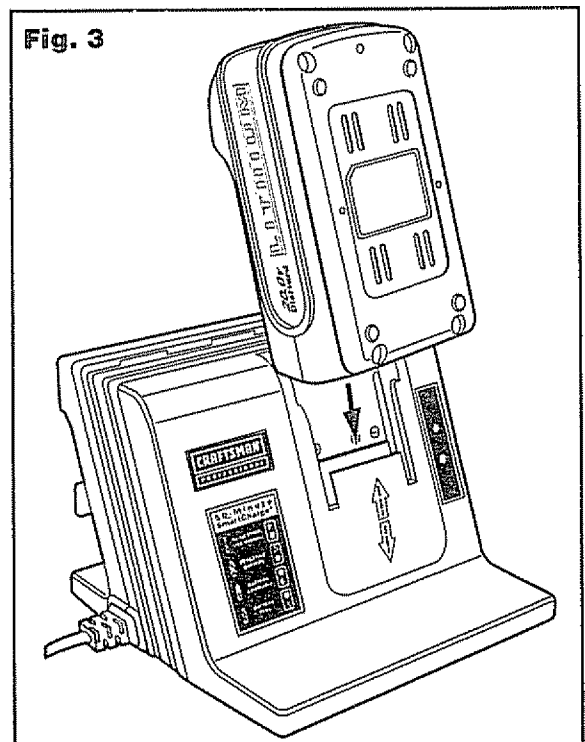
- Use the POWER BAR to determine when you need to recharge the battery pack.
- You can “top-off” your battery pack’s charge before starting a big job or long period of use.
- Due to Lithium-Ion’s fade-free properties, the only time it is necessary to charge the Lithium-Ion battery pack is when the pack 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.
- Connect the charger to a power supply.
- 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)
- The charger will communicate with the battery pack’s SmartChip™ circuitry to evaluate the condition of the battery pack.
- The POWER BAR LED lights will cycle from right to left during charging. This is part of the normal charging operation.
- 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.

OPERATION

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.

- 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.
- If a different battery pack charges normally, dispose of the defective battery pack (see Maintenance section).
- 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. Charge in a well ventilated area.

OPERATION

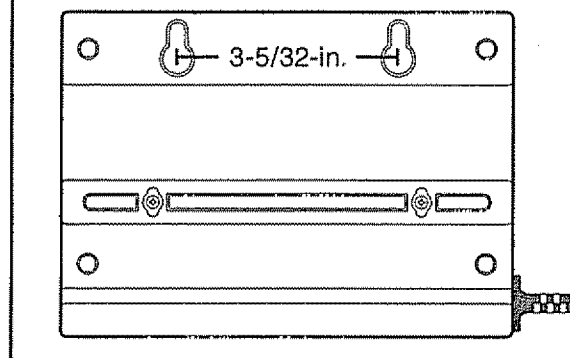
WALL-MOUNT CAPABLE (Fig. 5)

The charger has a key-hole hanging feature for convenient storage. Screws should be installed so that the center distance is 3-5/32-in. Use appropriate wall fasteners to accommodate the combined weight of the charger and battery pack. (approximately 3.5 lbs. combined)

CORD WRAP

The charger is equipped with a cord wrap on the rear of the unit. Utilize this feature to minimize workspace clutter and hazards.

Fig. 5



CAUTION: When placing the battery pack in the tool, be sure the raised rib on the battery pack aligns with the housing on the rear of the saw and 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.

WARNING: Always remove the battery pack from the tool when assembling parts, changing blade and making adjustments. Failure to obey this warning could cause serious personal injury.

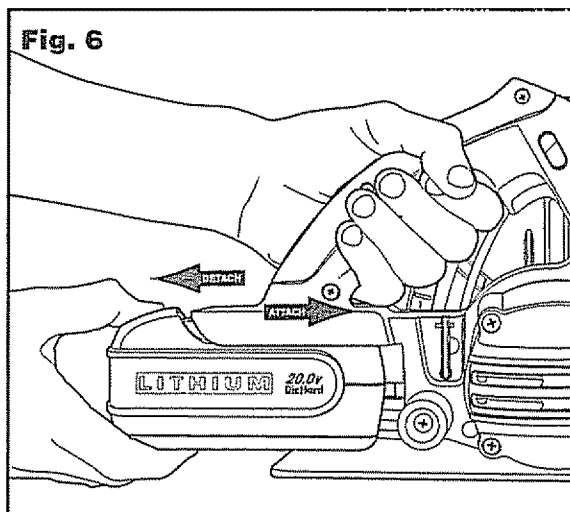
TO ATTACH BATTERY PACK (Fig. 6)

- Align the raised portion on the battery pack with the grooves on the bottom of the housing on the rear of the saw, then attach the battery pack to the saw as shown
- Make sure the latch on the battery pack snaps into place and the battery pack is secured to the saw before beginning operation.

TO DETACH BATTERY PACK (Fig. 6)

- Press the latch located on the front of the battery pack to release battery pack.
- Pull backward on the battery pack to remove from the saw.

Fig. 6



SAW BLADES

The best of saw blades will not cut efficiently if they are not kept clean, sharp and properly set. Using a dull blade will place a heavy load on the saw and increase the danger of kickback. Keep extra blades on hand, so that sharp blades are always available.

Gum and wood pitch hardened on the blades will slow the saw down. Use gum and pitch remover, hot water or kerosene to remove these accumulations. DO NOT USE GASOLINE.

OPERATION

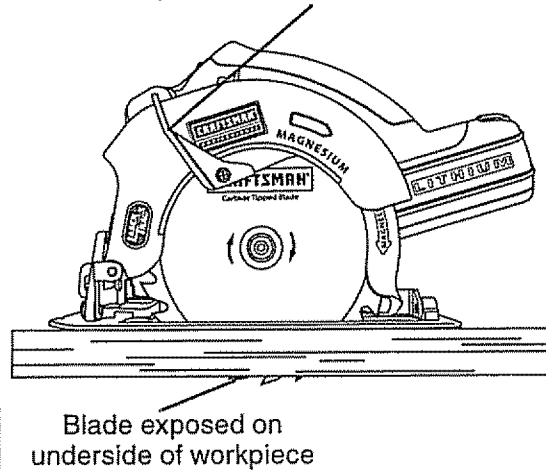
BLADE GUARD SYSTEM (Fig. 7)

The lower blade guard attached to your saw is there for your protection and safety. It should never be altered for any reason. If it becomes damaged or begins to return slow or sluggish, do not operate the saw until the damage has been repaired or replaced. Always leave blade guard in operating position when using the saw.

⚠ DANGER: When sawing through workpiece, lower blade guard does not cover blade on the underside of workpiece. Since blade is exposed on underside of workpiece, keep hands and fingers away from cutting area. Any part of your body coming in contact with moving blade will result in serious injury.

Fig. 7

Lower blade guard is in up position when making a cut



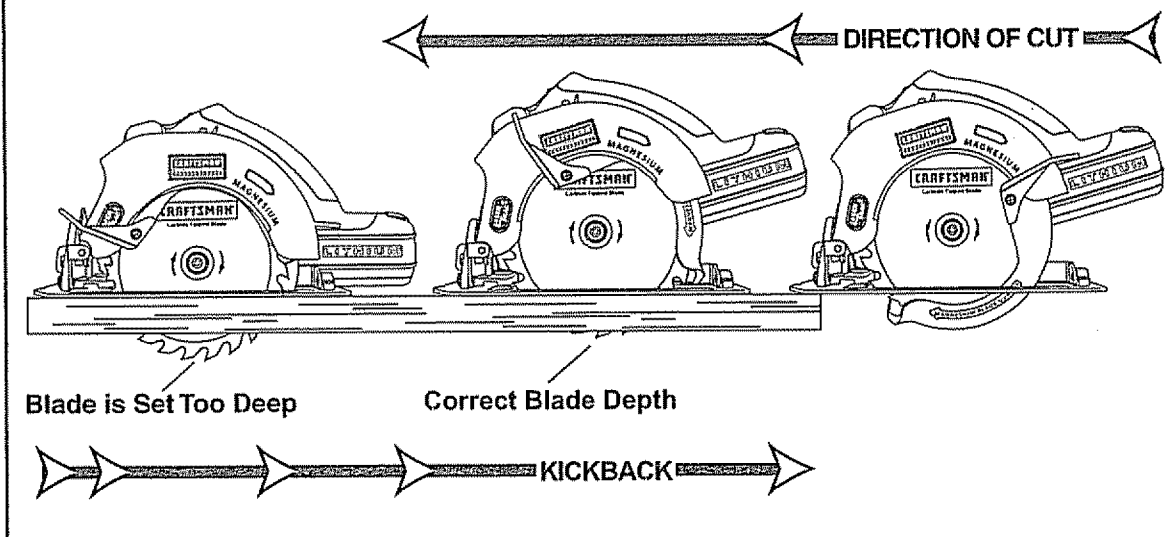
⚠ CAUTION: Never use saw when guard is not operating correctly. Check the guard for correct operation before each use. The guard is operating correctly when it moves freely and readily returns to the closed position. If you drop the saw, check the lower blade guard and bumper for damage at all depth of cut settings before reuse.

⚠ WARNING: When using the saw, always stay alert and exercise control. Do not remove the saw from the workpiece while the blade is moving.

KICKBACK (Fig. 8-11)

Kickback occurs when the blade stalls rapidly and the saw is driven back towards you. Blade stalling is caused by any action which pinches the blade in the wood.

Fig. 8



OPERATION

To guard against kickback, avoid dangerous practices such as the following:

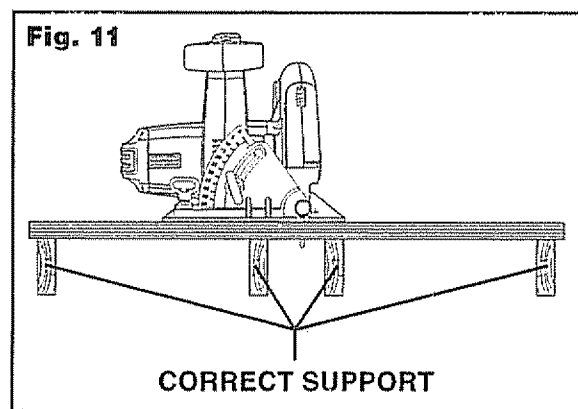
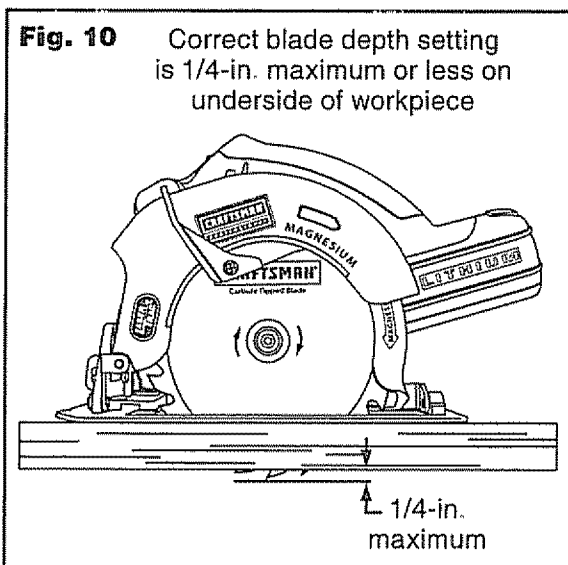
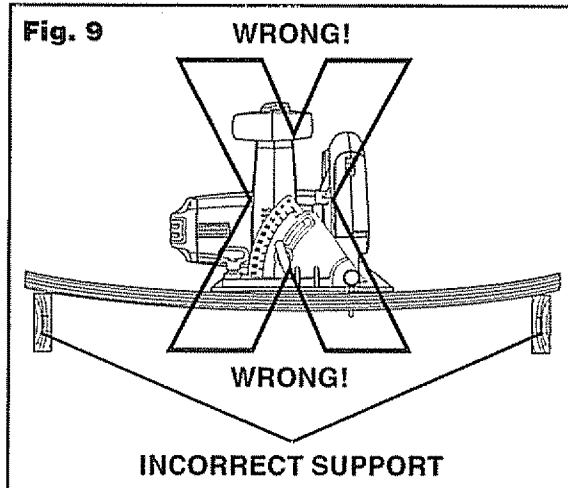
- Setting blade depth incorrectly.
- Sawing into knots or nails in the workpiece.
- Twisting the blade while making a cut.
- Making a cut with a dull, gummed up or improperly set blade.
- Supporting the workpiece incorrectly.
- Forcing a cut.
- Cutting warped or wet lumber.
- Operating the tool incorrectly or misusing the tool.
- Attempting to cut with blade at less than full speed.

⚠ WARNING: If the blade comes in contact with the workpiece before it reaches full speed, it could cause the saw to “kickback” towards you, which could result in serious injury.

To lessen the chance of kickback, avoid dangerous practices such as the following:

- Keep the blade at the correct depth setting. The depth setting should not exceed 1/4 inch below the material being cut.
- Inspect the workpiece for knots or nails before cutting. Never saw into a knot or nail.
- Make straight cuts. Always use a straight edge guide when rip cutting. This helps prevent twisting the blade.
- Use clean, sharp and properly set blades. Never make cuts with dull blades.
- Support the workpiece properly before beginning a cut.
- Use steady, even pressure when making a cut. Never force a cut.
- Do not cut warped or wet lumber
- Hold the saw firmly with both hands and keep your body in a balanced position so as to resist the forces if kickback should occur.

⚠ WARNING: To avoid kickback, release switch trigger immediately if blade binds or saw stalls. Kickback could cause you to lose control of the saw. Loss of control can lead to serious injury.



OPERATION

LOCK-OFF BUTTON (Fig. 12)

The lock-off button reduces the possibility of accidental starting. The lock-off button is located on the handle above the trigger switch. The lock-off button must be depressed before you pull the trigger switch.

NOTE: The lock-off can be operated from either the left or right side.

STARTING/STOPPING THE SAW (Fig. 12)

To start the saw:

- Depress the lock-off button.
- Depress the trigger switch.

Always let the blade reach full speed, then guide the saw into the workpiece.

To stop the saw:

- Release the trigger switch.

After you release the trigger switch, allow the blade to come to a complete stop. **Do not remove the saw from the workpiece while the blade is moving.**

ELECTRIC BRAKE

The saw has an electric brake to quickly stop the blade from rotating. The electric brake engages when the trigger switch is released. When the brake is functioning properly, sparks may be visible through the vent slots in the motor housing. This is normal and is the action of the brake.

NOTE: If the electric brake repeatedly fails to quickly stop the blade rotation, the saw should be repaired by a qualified service technician at Sears Service Center.

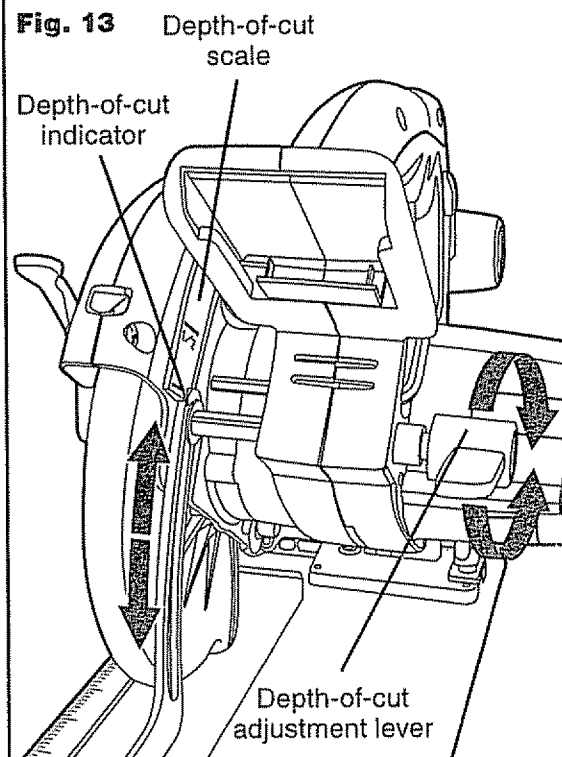
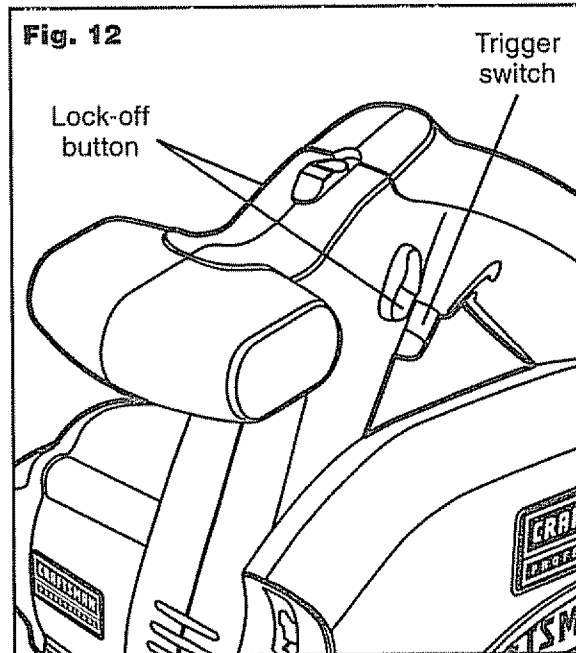
⚠WARNING: Always remove the battery pack from the tool when assembling parts, changing blade and making adjustments. Failure to obey this warning could cause serious personal injury.

DEPTH OF CUT ADJUSTMENT (Fig. 13)

Always keep correct blade depth setting. The correct blade depth setting should not exceed 1/4 inch below the material to be cut. Excess blade depth will increase the chance of kickback and cause the cut to be rough. One blade tooth below the material to be cut works best for efficient cutting action.

TO ADJUST BLADE DEPTH

- Remove battery pack from the saw.
- Loosen depth-of-cut adjustment lever.
- Hold the base flat against the workpiece and raise or lower the saw until indicator aligns with the desired depth on the scale.
- Tighten the depth-of-cut adjustment lever securely.



OPERATION

⚠WARNING: LASER LIGHT. LASER RADIATION. Avoid Direct Eye Exposure. DO NOT stare into beam. Only turn laser beam on when the saw is on the workpiece. The laser is factory installed and aligned. Class IIIa laser.

NOTE: Make a trial cut on a piece of scrap material to ensure the laser is aligned properly.

USING THE LASER TRAC™ LASER GUIDE (Fig. 14-15)

To operate the laser guide:

- Remove battery pack from saw.
- Mark the line to be cut on the workpiece.
- Adjust the depth and angle of the cut as needed.
- Install the battery pack.
- Slide the Laser/LED switch back to turn laser on.
- Start the saw.

NOTE: Do not touch the blade to the workpiece until the saw has reached maximum speed.

- Align laser beam with line-of-cut and slowly push the saw forward into the workpiece.
- Once the cut is complete, release the trigger switch and allow the saw to come to a complete stop.
- Always turn laser beam off when you have finished cutting.

USING THE LED WORKLIGHT (Fig. 14 & 16)

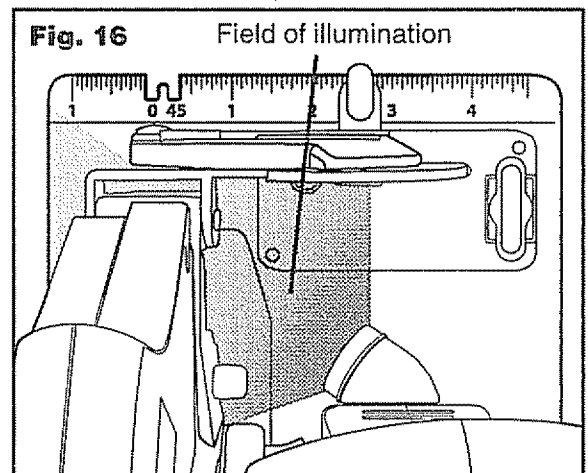
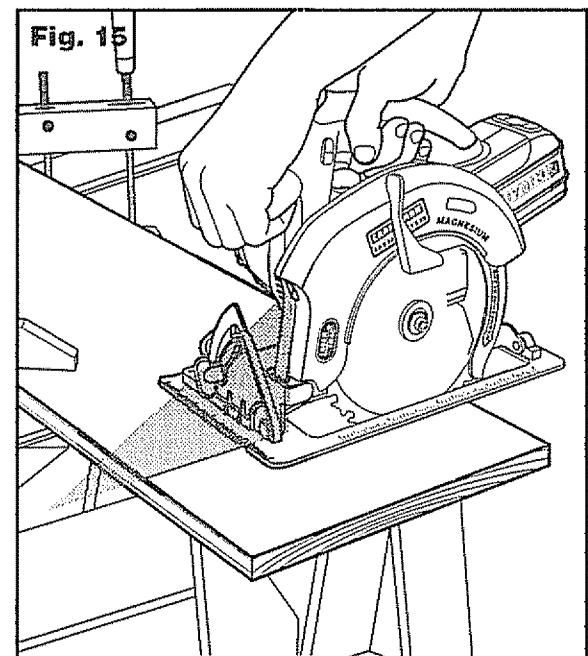
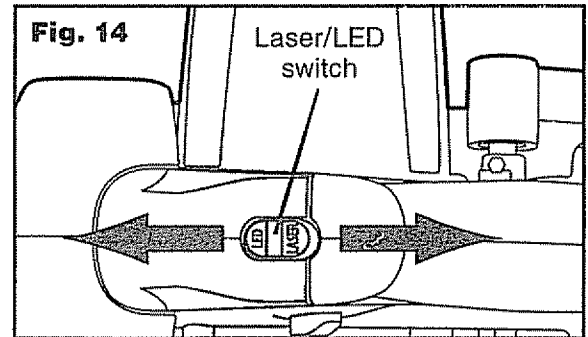
The saw is equipped with a fixed-position worklight for better visibility when cutting.

To operate the LED worklight:

- Slide the Laser/LED switch forward to turn worklight on.

NOTE: The laser guide or worklight will automatically shut off approximately four to seven minutes after the switch trigger is released.

⚠WARNING: The worklight aids in illuminating the cut-line. It is NOT a substitute for adequate work area lighting. Failure to obey this warning could cause serious personal injury.



OPERATION

OPERATING THE SAW (Fig. 17-18)

It is important to understand the correct method for operating the saw. Refer to the figures in this section to learn the correct and incorrect ways for handling the saw.

⚠ DANGER: When lifting the saw from the workpiece, the blade is exposed on the underside of the saw until the lower blade guard closes. Make sure the lower blade guard is closed before setting the saw down.

⚠ WARNING: To make sawing easier and safer, always maintain proper control of the saw. Loss of control could cause an accident resulting in possible serious injury.

To make the best possible cut:

- Hold the saw firmly with both hands
- Avoid placing your hand on the workpiece while making a cut.
- Support the workpiece so that the cut (kerf) is always to your side.
- Support the workpiece near cut.
- Clamp the workpiece securely so that the workpiece will not move during the cut.
- Always place the saw weight on the workpiece that is supported, not the "cut off" piece.
- Place the workpiece with the "good" side down.

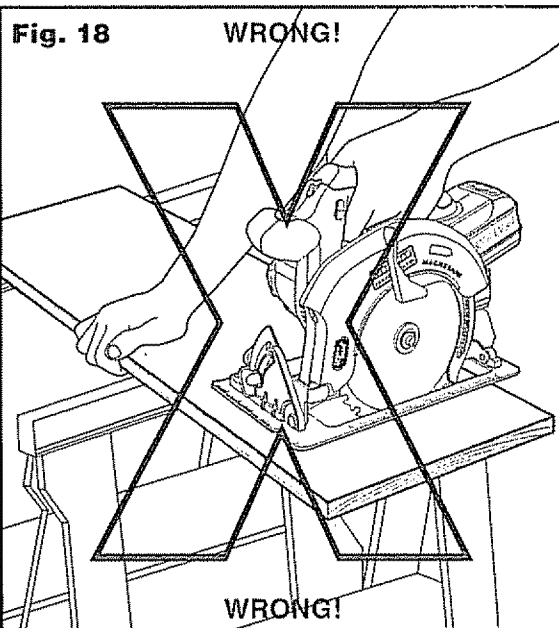
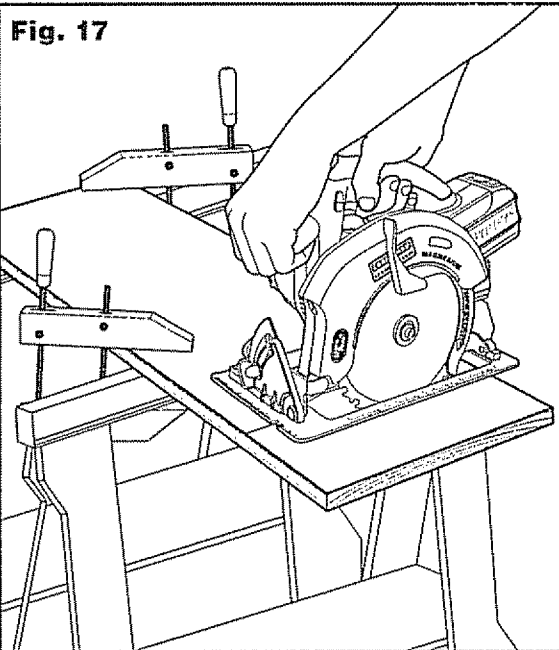
NOTE: The "good" side of the workpiece is the side where appearance is important.

- Draw a guideline along the desired line of cut before beginning your cut.

NOTE: Do not touch the blade to the workpiece until the saw has reached maximum speed.

⚠ WARNING: If the blade comes in contact with the workpiece before it reaches full speed, it could cause the saw to "kickback" towards you, which could result in serious injury.

⚠ WARNING: ALWAYS clamp and support workpiece securely. ALWAYS maintain proper control of saw. Failure to clamp and support workpiece and loss of control of saw could result in serious injury.



INTEGRATED RIP AND CROSSCUT RULERS

Marked along the base across the front of the saw is a ruler for measuring repetitive cuts. It is marked 1-inch to the left of the 0° and 4 5/16-inches to the right of 45° in 1/16-inch increments. A ruler for measuring length of cuts is marked along the left side of the base. It is marked 0 to 8 inches in 1/16-inch increments.

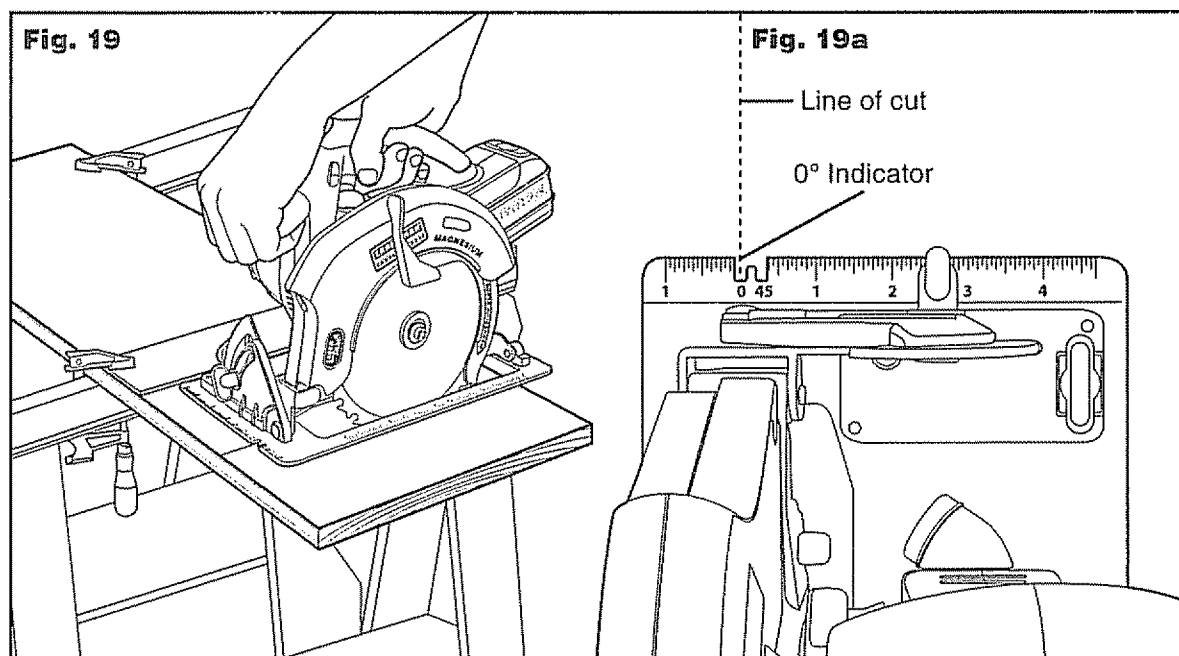
OPERATION

NOTE: The distance from the line of cut to the guideline is the amount you should offset the guide.

MAKING CROSS CUTS AND RIP CUTS (Fig. 19-19a)

When making a cross cut or rip cut, align your line of cut with the left side of the notch by the 0° indicator.

Since blade thicknesses vary, always make a trial cut in scrap material along a guideline to determine how much, if any, the guideline must be offset to produce an accurate cut.



⚠ WARNING: If the blade comes in contact with the workpiece before it reaches full speed, it could cause the saw to “kickback” towards you, which could result in serious injury.

NOTE: Do not bind the blade in the cut. It could cause the saw to “kickback” towards you, which could result in serious injury.

MAKING RIP CUTS

Always use a guide when making long or wide rip cuts with your saw. You can use either a straight edge or use the edge guide that was included with the saw.

- Secure the workpiece.
- Clamp a straight edge to the workpiece using C-clamps.
- Carefully guide the saw along the straight edge to achieve a straight rip cut.

⚠ WARNING: ALWAYS clamp and support workpiece securely. ALWAYS maintain proper control of saw. Failure to clamp and support workpiece and loss of control of saw could result in serious injury.

EDGE GUIDE

The saw comes with an edge guide which fence is measured 7-inches long. It allows you to make accurate parallel cuts when trimming a workpiece. The edge guide attaches to the saw base and is secured in place with a turn screw. The arm of the edge guide is stamped 0 to 7 inches in 1/8-inch and 18 centimeters in 1 millimeter increments for easy adjustment of your cut.

OPERATION

USING THE EDGE GUIDE (Fig. 20-21)

Always use a guide when making long or wide rip cuts with your saw. You can use either a straight edge or use the edge guide that was included with the saw.

⚠WARNING: Always remove the battery pack from the tool when assembling parts, changing blade and making adjustments. Failure to obey this warning could cause serious personal injury.

- Remove the battery pack from the saw.
- Position the edge guide so the arm with the ruler side is facing up. Slide the arm of the edge guide through the mounting slots at the front of the saw base.
- Adjust the edge guide to the desired width of cut.
- Tighten the edge guide lock knob.

⚠WARNING: ALWAYS clamp and support workpiece securely. ALWAYS maintain proper control of saw. Failure to clamp and support workpiece and loss of control of saw could result in serious injury.

When using the edge guide, position the face of the edge guide firmly against the edge of the workpiece. This will help make a true cut without binding the blade. The edge of the workpiece must be straight for the cut to be straight. Use caution to prevent the blade from binding in the cut.

NOTE: Do not bind the blade in the cut. It could cause the saw to “kickback” towards you, which could result in serious injury.

⚠WARNING: If the blade comes in contact with the workpiece before it reaches full speed, it could cause the saw to “kickback” towards you, which could result in serious injury.

NOTE: The edge guide can be used on the left or right side of the blade. (Fig. 20)

BEVEL CUTTING (Fig. 22-23)

The angle of cut can be adjusted to any desired setting between 0° and 50°.

NOTE: When making 50° bevel cuts, the blade should be set at full depth of cut.

Since blade thicknesses vary and different angles require different settings, always make a trial cut in scrap material along a guideline to determine how much you should offset the guideline on the workpiece to be cut.

Fig. 20

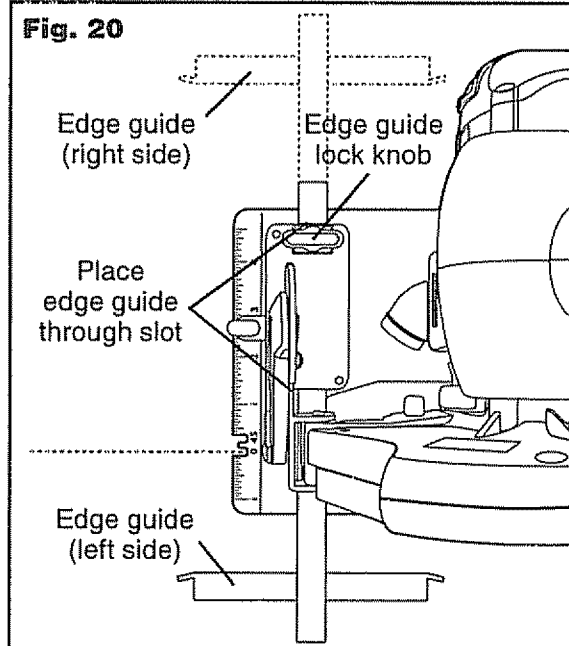
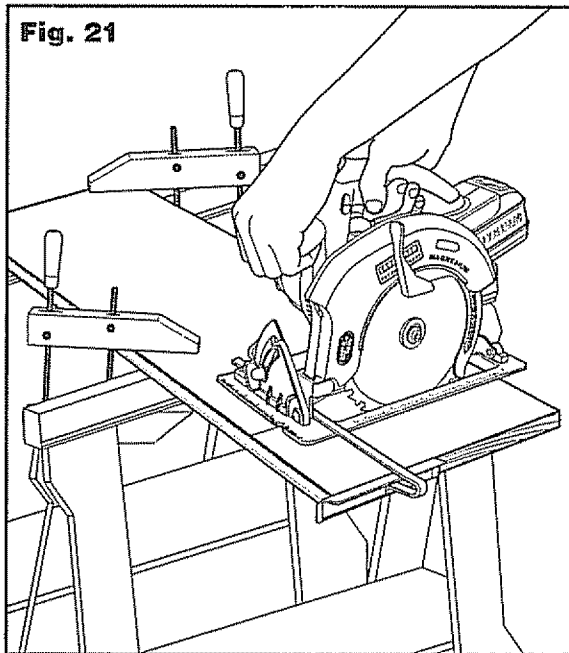


Fig. 21



OPERATION

TO ADJUST BEVEL SETTING (Fig. 22)

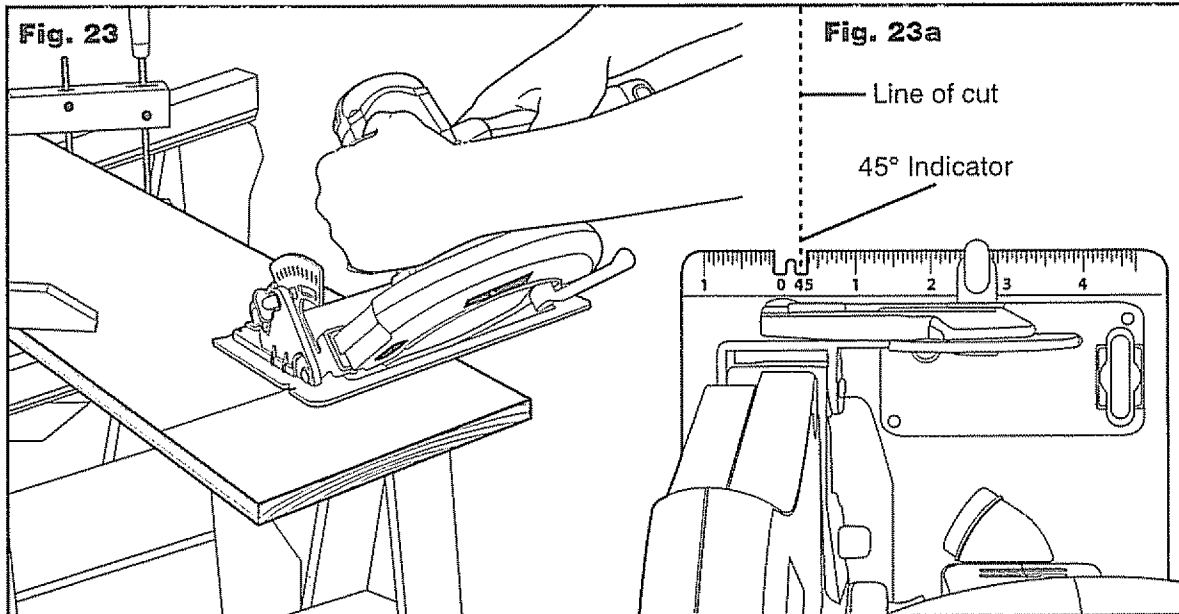
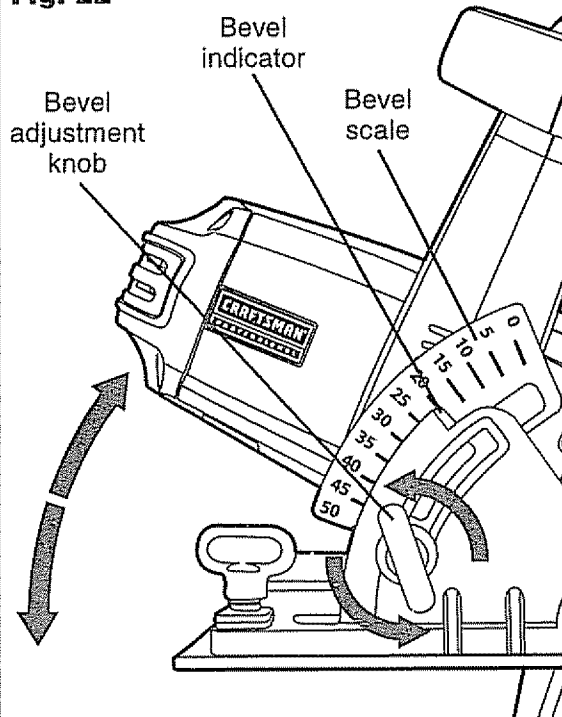
- Remove the battery pack from the saw.

⚠ WARNING: Always remove the battery pack from the tool when assembling parts, changing blade and making adjustments. Failure to obey this warning could cause serious personal injury.

- Loosen the bevel adjustment knob by rotating the knob counterclockwise.
- Raise the motor housing side of the saw until the bevel indicator reaches the desired setting on the bevel scale (0°-50°).
- Tighten the bevel adjustment knob by rotating the knob clockwise.

⚠ WARNING: If the blade comes in contact with the workpiece before it reaches full speed, it could cause the saw to “kickback” towards you, which could result in serious injury.

Fig. 22



MAKING A BEVEL CUT (Fig. 23)

- Secure workpiece with clamps. When making a bevel cut, hold the saw firmly with both hands.
- Rest the front edge of the base on the workpiece. Depress the lock-off button and squeeze the trigger switch to start the saw. Allow the saw to reach full speed before attempting to make a cut.
- After completing the cut, release the trigger switch and allow the blade to come to a complete stop. After the blade has stopped, remove the saw from the workpiece.

When making 45° bevel cuts, there is a notch in the saw base to help you line up the blade with the line of cut. Align your line of cut with the right side of the notch by the 45° indicator. (Fig. 23a)

⚠ WARNING: Attempting bevel cut without knob tightened can result in serious injury.

OPERATION

0° BEVEL STOP

The saw has a 0° bevel stop that has been factory adjusted to assure 0° angle of the saw blade when making 90° cuts.

TO CHECK 0° BEVEL STOP (Fig. 24)

- Remove battery pack from the saw.

⚠WARNING: Always remove the battery pack from the tool when assembling parts, changing blade and making adjustments. Failure to obey this warning could cause serious personal injury.

- Place the saw in an upside down position on a workbench.
- Using a carpenter's square, check the squareness of the saw blade to the base of the saw.

TO ADJUST 0° BEVEL STOP (Fig. 25)

- Remove battery pack from the saw.
- Loosen the bevel adjustment knob.
- Place the saw in an upside down position on a workbench.
- Using a 3/32-inch hex key, turn the 0° bevel stop adjusting screw until it is square with the saw blade.

⚠WARNING: Attempting to make cuts without the bevel adjustment knob securely tightened can result in serious injury.

POCKET CUTTING (Fig. 26)

⚠WARNING: Always adjust bevel setting to 0° before making a pocket cut. Attempting a pocket cut at any other setting can result in loss of control of the saw, possibly causing serious injury.

- Remove battery pack from the saw.
- Adjust the bevel setting to zero.
- Set the blade to the correct blade depth setting.
- Place battery pack in saw.
- Swing the lower blade guard up using the lower blade guard lever.

NOTE: Always raise the lower blade guard up using the lower blade guard lever to avoid serious injury.

Fig. 24

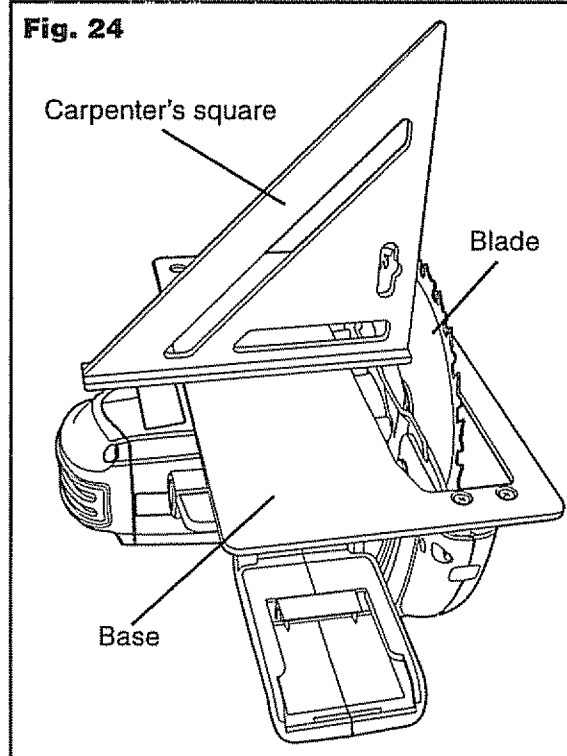


Fig. 25

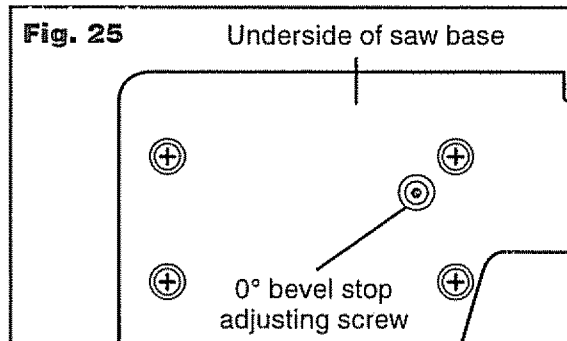
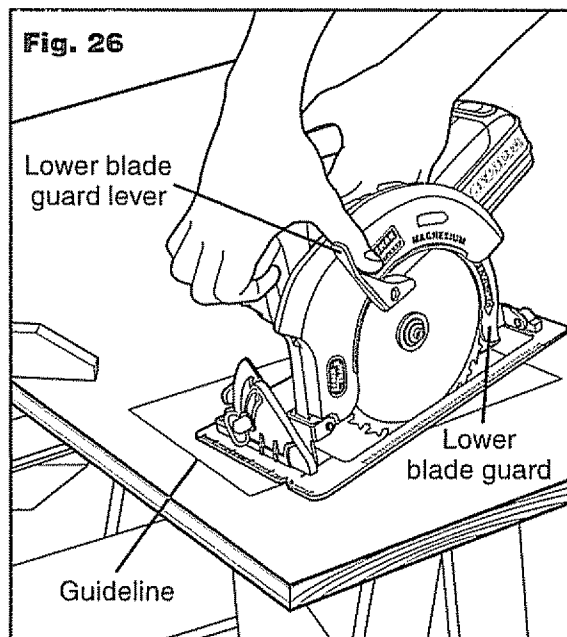


Fig. 26



OPERATION

- Hold the lower blade guard by the lever.
- Rest the front of the base flat against the workpiece with the rear of the handle raised so the blade does not touch the workpiece.
- Start the saw and let the blade reach full speed.
- Guide the saw into the workpiece and make the cut.

▲WARNING: Always cut in a forward direction when making a pocket cut. Cutting in reverse direction could cause the saw to climb up on the workpiece and back toward you, possibly causing serious injury.

- Release the trigger switch and allow the blade to come to a complete stop.
- Lift the saw from the workpiece.
- Clear corners out with a hand saw or sabre saw.

▲WARNING: Never tie the lower blade guard in a raised position. Leaving the blade exposed could lead to serious injury.

MAINTENANCE

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

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

It has been found that electric tools are subject to accelerated wear and possible premature failure when they are used to work on fiber glass boats and sports cars, wallboard, spackling compounds or plaster. The chips and grindings from these materials are highly abrasive to electrical tool parts, such as bearings, brushes, commutators, etc. Consequently, it is not recommended that this tool be used for extended work on any fiberglass material, wallboard, spackling compound or plaster. During any use on these materials, it is extremely important that the tool is cleaned frequently by blowing with an air jet.

▲WARNING: Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.

GENERAL MAINTENANCE

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

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

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

MAINTENANCE

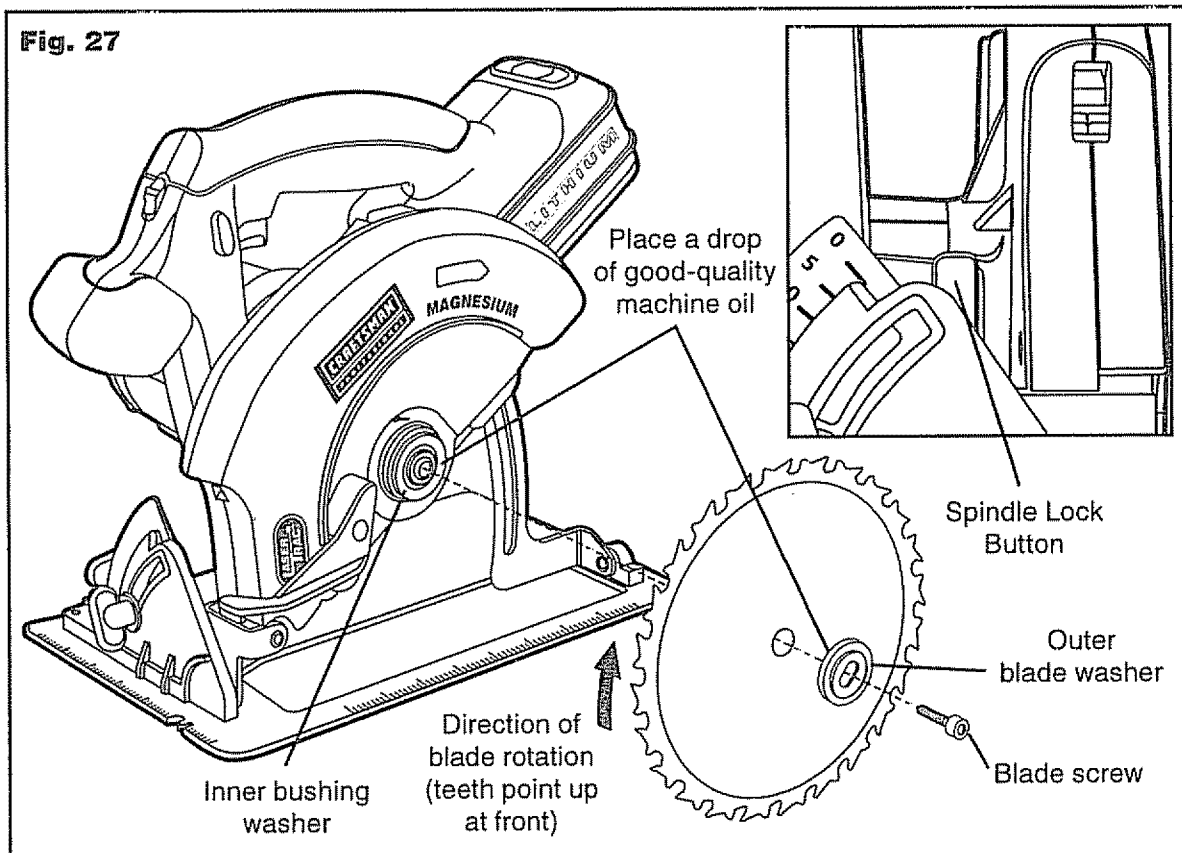
LUBRICATION

All of the bearings in this tool are lubricated with a sufficient amount of high-grade lubricant for the life of the tool under normal operating conditions. Therefore, no further lubrication is required.

CHANGING THE BLADE (Fig. 27)

⚠WARNING: A 7 1/4-in. blade is the maximum blade capacity of the saw. Use only 7 1/4-in. blade when replacing worn or damaged blades. Never use a blade that is too thick to allow the outer blade washer to engage with the flats on the spindle. Thicker blades will prevent blade screw from securing blade on spindle, resulting in serious personal injury.

- Remove battery pack from the saw.
- Loosen depth of cut adjustment lever. Raise the saw to maximum height and tighten depth of cut adjustment lever. This practice allows easier access to blade mounting.
- Locate and remove the hex key from the storage area.
- Depress spindle lock button and place hex key in the blade screw and move it back and forth until you feel the spindle lock button depress further. This action locks the blade in position so the blade screw can be removed. With the spindle lock button firmly depressed, turn the blade screw clockwise to remove.
- Raise the lower blade guard using the blade guard lever and hold it in the raised position.
- Remove the blade screw and the outer blade washer and the blade.
- The remaining washer is the inner bushing washer that fits around the spindle shaft and does not need to be removed.



MAINTENANCE

- Put a drop of good-quality machine oil onto the inner bushing washer and outer blade washer where they will contact the blade (see Fig. 27).
- Place a new saw blade inside the lower blade guard, onto the spindle shaft and against the inner bushing washer.

NOTE: The teeth of the blade should point upward at the front of the saw

- Replace outer blade washer.
- Depress and hold spindle lock button as you replace the blade screw and hand tighten the screw in a counterclockwise direction. Use the hex key to tighten the blade screw securely.
- Return hex key into the storage area.

NOTE: Never use a blade that is too thick to allow the outer blade washer to engage with the flat side of the spindle.

GENERAL MAINTENANCE

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

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 in 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:

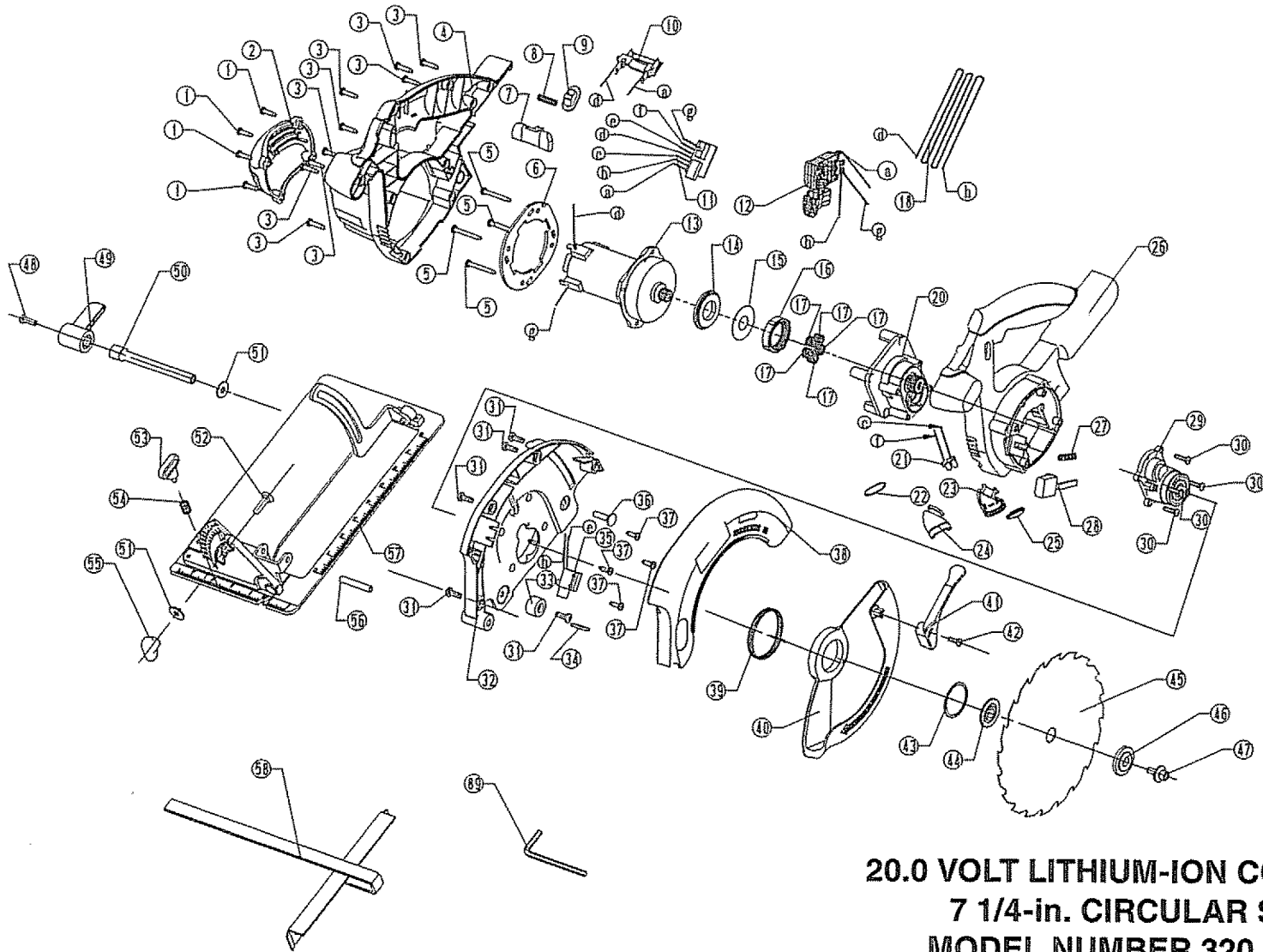
- Store the Lithium-Ion battery pack where the temperature is below 80°F (26°C) and free of moisture.
- Store Lithium-Ion battery packs in a 30%-50% charged condition.
- Every six months of storage, fully charge the Lithium-Ion battery pack.
- Exterior may be cleaned with a cloth or soft non-metallic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



**20.0 VOLT LITHIUM-ION CORDLESS
7 1/4-in. CIRCULAR SAW
MODEL NUMBER 320.28102**

PARTS LIST

20.0 VOLT LITHIUM-ION CORDLESS 7 1/4-in. CIRCULAR SAW MODEL NUMBER 320.28102

The Model Number will be found on the Nameplate attached to the motor housing on saw. Always mention the Model Number in all correspondence regarding your tool.

ITEM NO.	PARTS NO.	PART DESCRIPTION	QTY.
1	5610040000	Tapping Screw	4
2	3320420000	Rear Cover ASSY.	1
3	5610042000	Tapping Screw	9
4	3320258000	Right Handle ASSY.	1
5	5610046000	Screw	4
6	3122812000	Fan Baffle	1
7	3121548000	Locker-off Trigger	1
8	3660244000	Spring	1
9	3121547000	Switch Button	1
10	4930296000	Receptacle	1
11	4890288000	PCB Assembly	1
12	4870304000	Switch	1
13	2730120000	Motor & Gear ASSY.	1
14	3550609000	Bearing Support	1
15	5650164000	Washer	1
16	3520204000	Internal Gear	1
17	3520205000	Planet Gear	5
18	5440000000	Inner Wire	1
20	2822023000	Support ASSY.	1
21	4890287000	PCB Assembly	1
22	3650077000	Metal Bar	1
23	3122814000	LED Holder	1
24	3122815000	LED Holder	1
25	3122811000	Transparent Guard	1
26	3320257000	Left Handle ASSY.	1
27	3660244000	Spring	1
28	3400258000	Spindle Lock	1
29	2822022000	Gear Set	1
30	5610094000	Thread Forming Screw	4
31	5610057000	Thread Forming Screw	5
32	3420401000	Cover	1

PARTS LIST

20.0 VOLT LITHIUM-ION CORDLESS 7 1/4-in. CIRCULAR SAW MODEL NUMBER 320.28102

The Model Number will be found on the Nameplate attached to the motor housing on saw. Always mention the Model Number in all correspondence regarding your tool.

ITEM NO.	PARTS NO.	PART DESCRIPTION	QTY.
33	3121051000	Stopper	1
34	3120561000	Lens	1
35	3420468000	Laser Holder	1
36	5640155000	Bolt	1
37	5610039000	Tapping Screw	4
38	3420362000	Fixed Guard	1
39	3660255000	Spring	1
40	3420363000	Lower Guard	1
41	3121545000	Moving Guard Lever	1
42	5620040000	Screw	1
43	5660135000	Circlip for shaft	1
44	3520217000	Inner Flange	1
45	3703639000	185 Blade	1
46	3520218000	Outer Flange	1
47	3550688000	Flange Bolt	1
48	5620051000	Screw	1
49	3122852000	Depth Adjusting Lever	1
50	3550676000	Spindle Lock	1
51	5650017000	Plain Washer	2
52	5640027000	Bolt	1
53	5640047000	Wing Bolt	1
54	5660071000	Spring	1
55	5630067000	Wing Nut	1
56	5670008000	Spring Pin	1
57	2822101000	Base Plate ASSY.	1
58	3700574000	Rip Fence	1
59	5680028000	Hexagon Wrench	1

SEE BACK PAGE FOR PARTS ORDERING INSTRUCTIONS

NOTES

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