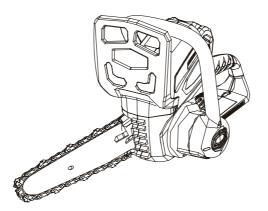


40V LITHIUM-ION CHAINSAW 2000219





Owner's Manual

TOLL-FREE HELPLINE: 1-888-90WORKS (888.909.6757)

www.GreenWorksTools.com

A Read all safety rules and instructions carefully before operating this tool.



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PRODUCT SPECIFICATIONS

40V LITHIUM-ION CHAIN SAW

Туре	Cordless, battery-powered
Motor	40V Brushed
Bar length	12" (30cm)
Chain pitch	
Chain gauge	0.050" (0.127cm)
Chain type	91PJ045X(Oregon)
Chain Bar	12"120SDEA041(Oregon)
Chain Profile	S Series
Chain oil tank capacity	1.8 oz (50 ml)
Weight	4.4kg (9.7 lbs)



A WARNING

Read and understand all instructions before using this product. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

WORK AREA SAFETY

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate chainsaw in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Chaisaws create sparks which may ignite the dust or fumes.
- Keep all children, bystanders, visitors, and animals out of the work area while starting or cutting with the chainsaw. Distractions can cause you to lose control.

ELECTRICAL SAFETY

- Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose the chainsaw to rain or wet locations. Water entering a chaisaw will increase the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a residual current device protected supply. Use of an RCD reduce the risk of electric shock.
- A battery-operated tool with integral batteries or a separate battery pack must be recharged only with the specified charger for the battery. A charger that may be suitable for one type of battery may create a risk of fire when used with another battery.

PERSONAL SAFETY

- Stay alert, watch what you are doing and use common sense when operating a chaisaw. Do not use a chaisaw while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating chaisaws may result in serious personal injury.
- Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, 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 a key left attached to a rotating part of the chaisaw may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the chainsaw in unexpected situation.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust-related hazards.

CHAINSAW USE AND CARE

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

SERVICE

• Have your chainsaw serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the chainsaw is maintained.

BATTERY & CHARGER

A CAUTION

USE ONLY GREENWORKS APPROVED REPLACEMENT BATTERIES, OTHER BATTERIES MAY CAUSE INJURY OR DAMAGE TO THE CHAINSAW. Use only GREENWORKS batteries (Model# 29462 or 29472). Use only GREENWORKS charger (Model# 29482).

BATTERY SAFETY RULES

- Ensure the switch is in the off position before inserting battery pack.
- 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 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 than 45°F but less than 104°F. To reduce the risk of serious personal injury, 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. If liquid gets into 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.
- 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 sparks, burns, or a fire.
- Always remove battery pack from your tool when you are assembling parts, making adjustments, cleaning, or when not in use. Removing battery pack will prevent accidental starting that could cause serious personal injury.
- Always remove battery pack before storing the device. When battery becomes fully charged, unplug the charger from the power supply and remove the battery pack from the charger.
- Always wear eye protection with side shields marked to comply with ANSI Z87.1, along with hearing protection. Failure to do so could result in objects being thrown into your eyes and other possible serious injuries.
- Keep battery pack dry, clean, and free from oil and grease. Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products, or any solvents to clean battery pack.
- Do not open or mutilate the battery. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.

PROPER CARE FOR BATTERY

Off-season storage

To obtain the longest possible battery life, we suggest the following:

- Remove the battery pack from the charger once it is fully charged and ready for use. For battery pack storage longer than 30 days:
- · Store the battery pack where the temperature is below 80°F and away from moisture.
- · Store battery packs in a 30%-50% charged condition.
- · Every two months of storage, charge the pack as normal.

CHARGER SAFETY RULES

 Charge the mower battery in a dry area that is protected from the weather. Do not expose the mower or the charger to rain. Do not charge the battery in a wet location. Operate the battery charger in temperatures between 45° and 104°F. In order to reduce the risk of electric shock, use only the charger that is provided by the manufacturer to charge the battery.

- **DO NOT ABUSE THE CHARGE CORD.** Never carry the charger by the cord. Do not disconnect the charger from the outlet or from the mower by pulling the charger cord.
- Do not use a damaged charger. Replace the charger cords or the charger immediately.
- Keep the mower and the charger away from water, heat sources (radiators, heaters, stoves, etc.), flames, and chemicals.
- Make sure the battery pack is secured in the charger before beginning operation.
- The battery pack will become slightly warm to the touch while charging. This is normal and does not indicate a problem.
- Do not place the charger and battery pack in an area of extreme heat or cold. They will work best at normal room temperature.
- When batteries become fully charged, unplug the charger from the power supply and remove the battery pack.

🛦 W A R N I N G

When transporting or servicing unit, always remove the battery.

SPECIFIC SAFETY WARNINGS

- Keep all parts of the body away from the saw chain when the chain saw is operating. Before you start the chain saw, make sure the saw chain is not contacting anything. A moment of inattention while operating chain saws may cause entanglement of your clothing or body with the saw chain.
- Always hold the chain saw with your right hand on the rear handle and your left hand on the front handle. Holding the chain saw with a reversed hand configuration increases the risk of personal injury and should never be done.
- Hold the chaisaw by insulated gripping surfaces only, because the saw chain may contact hidden wiring or its own cord. Saw chains contacting a "live" wire may make exposed metal parts of the chaisaw "live" and could give the operator an electric shock.
- Always use two hands when operating the chainsaw.
- · Contact of the guide-bar tip with any object should be avoided.
- Tip contact may cause the guide bar to move suddenly upward and backward, which may cause serious injury.
- Wear safety glasses and hearing protection. Further protective equipment for head, hands, legs and feet is recommended. Adequate protective clothing will reduce personal injury by flying debris or accidental contact with the saw chain.
- Do not operate a chain saw in a tree. Operation of a chain saw while up in a tree may result in personal injury.
- Always keep proper footing and operate the chain saw only when standing on fixed, secure and level surface. Slippery or unstable surfaces such as ladders may cause a loss of balance or control of the chain saw.
- When cutting a limb that is under tension be alert for spring back. When the tension in the wood fibres is released the spring loaded limb may strike the operator and/or throw the chain saw out of control.
- Use extreme caution when cutting brush and saplings. The slender material may catch the saw chain and be whipped toward you or pull you off balance.

- Carry the chain saw by the front handle with the chain saw switched off and away from your body. When transporting or storing the chain saw always fit the guide bar cover.
 Proper handling of the chain saw will reduce the likelihood of accidental contact with the moving saw chain.
- Follow instructions for lubricating, chain tensioning and changing accessories. Improperly tensioned or lubricated chain may either break or increase the chance for kickback.
- Keep handles dry, clean, and free from oil and grease. Greasy, oily handles are slippery causing loss of control.
- Cut wood only. Do not use chain saw for purposes not intended. For example: do not use chain saw for cutting plastic, masonry or non-wood building materials. Use of the chain saw for operations different than intended could result in a hazardous situation.

🔺 W A R N I N G

When using an cordless chainsaw, basic safety precaution should be always followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

WARNING (PROPOSITION 65)

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains 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, and
- · Arsenic and chromium from chemically treated lumber.

Your risk of exposure to these chemicals varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work inven a well-ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

CHILD SAFETY

Tragic accidents can occur if the operator is not aware of the presence of children.

- Keep children out of the working area and under the watchful care of a responsible adult.
- Do not allow children under the age of 14 to operate this blower. Children who are 14 years of age and older must read and understand the operating instructions and safety rules in this manual and must be trained and supervised by a parent.
- Stay alert, and turn the blower off if a child or any other person enters the working area.
- Use extreme care when approaching blind corners, doorways, shrubs, trees, or other objects that may obscure your view of a child who may run into the path of the blower.

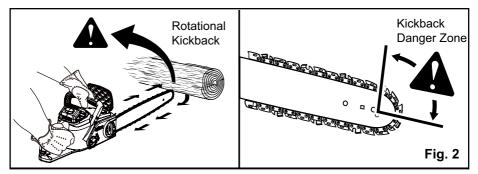
SAVE THESE INSTRUCTIONS

A WARNING

Kickback may occur when the moving chain contacts an object at the upper portion of the tip of the guide bar or when the wood closes in and pinches the saw chain in the cut. Contact at the upper portion of the tip of the guide bar can cause the chain to dig into the object and stop the chain for an instant. The result is a lightning fast reverse reaction which kicks the guide bar up and back toward the operator. If the saw chain is pinched along the top of the guide bar, the guide bar can be driven rapidly back toward the operator. Either of these reactions can cause loss of saw control which can result in serious injury. Do not rely exclusively upon the safety devices built into the saw. As a chainsaw user, you should take several steps to keep your cutting jobs free from accident or injury.

CAUSES AND OPERATOR PREVENTION OF KICKBACK

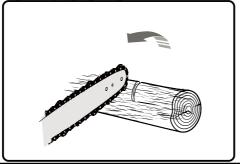
1. Maintain a firm grip, with thumbs and fingers encircling the chain saw handles, with both hands on the saw and position your body and arm to allow you to resist kickback forces. Kickback forces can be controlled by the operator, if proper precautions are taken. Do not let go of the chain saw.



2. Do not overreach and do not cut above shoulder height. This helps prevent unintended tip contact and enables better control of the chain saw in unexpected situations.

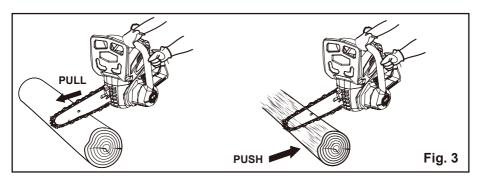
3. Only use replacement bars and chains specified by the manufacturer. Incorrect replacement bars and chains may cause chain breakage and/or kickback.

4. Follow the manufacturer's sharpening and maintenance instructions for the saw chain. Decreasing the depth gauge height can lead to increased kickback.

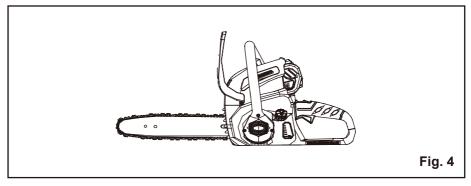


GENERAL SAFETY RULES

Push and pull - This reaction force is always opposite to the direction the chain is moving where wood contact is made. Thus, the operator must be ready to control the PULL when cutting on the bottom edge of the bar, and PUSH when cutting along the top edge. (See Figure 3)



UNDERSTANDING YOUR CHAINSAW SAFETY DEVICES



LOW-KICKBACK SAW CHAIN

The rakers (depth gauges) ahead of each cutter can minimize the force of a kickback reaction by preventing the cutters from digging in too deeply at the kickback zone. Only use replacement chain that is equivalent to original chain or has been certified as low kickback chain per ANSI B175.1. Low-kickback/skip tooth saw chain is a chain that has met the kickback performance requirements of ANSI B175.1 - 1991. When tested on the representative sample of chainsaws below 3.8 c.i.d. specified in ANSI B175.1 - 1991. As saw chains are sharpened during their useful life, they lose some of the low-kickback qualities and extra caution should be used.

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

SYMBOLS	DESIGNATION	EXPLANATION
v	Volts	Voltage.
A	Amperes	Current.
Hz	Hertz	Frequency (cycles per second).
w	Watts	Power.
hrs	Hours	Time.
n _o	No Load Speed	Rotational speed, at no load.
/ min	Per Minute	Revolutions, strokes, surface speed, orbits etc., per minute.
t de la companya de l	Lithium-ion Battery Recycling	Designates that this tool is in compliance with lithium-ion battery recycling program requirements.
	Safety Alert Symbol	Precautions that involve your safety.
(Read the Instruction Manual	To reduce the risk of injury, user must read and understand the Instruction manual before using this product.
	Eye Protection	Wear eye protection when operating this equipment.
	Wear Ear Protection	Wear ear protection when operating this equipment.
	Gloves	Wear non-slip, heavy-duty protective gloves when handling the chainsaw and the blade.
	Safety Footwear	Wear non-slip safety footwear when using this equipment.
	Kickback	DANGER! Beware of kickback.
	Operate With Two Hands	Hold and operate the saw properly with both hands.
	One Handed	Do not operate the saw using only one hand.
×	Bar Nose Contact	Avoid bar nose contact.
	Keep Bystanders Away	Keep all bystanders at least 50' (15 m) away.
	Wet Conditions Alert	Do not expose to rain or use in damp locations.

The following signal words and meanings are intended to explain the levels of risk associated with this product.

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.

SERVICE

Servicing requires extreme care and knowledge and should be performed only by a qualified service technician. For service we suggest you return the product to your nearest **AUTHORIZED SERVICE CENTER** for repair. When servicing, use only identical replacement parts.

🔺 W A R N I N G

- Not use for wet materials.
- Disconnect before cleaning or changing accessories.

🔺 W A R N I N G

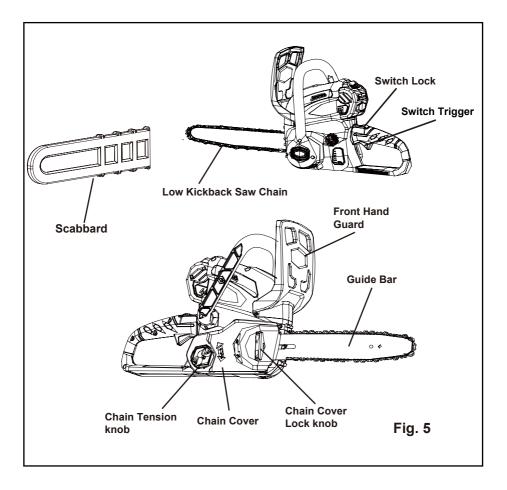
To avoid serious personal injury, do not attempt to use this product until you have read this Owner's Manual thoroughly and understand it completely. If you do not understand the warnings and instructions in this Owner's Manual, do not use this product. Call the Toll-free Helpline (1-888-909-6757) for assistance.

The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before operating a power tool, always wear safety goggles, safety glasses with side shields, or a full face shield when needed. We recommend a Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection that is marked to comply with ANSI Z87.1.

SAVE THESE INSTRUCTIONS

KNOW YOUR CHAINSAW

Read this operator's manual and safety rules before operating your chainsaw. Compare the illustration in Figure 5 to your chainsaw in order to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.



UNPACKING

This product has been shipped completely assembled.

- Carefully remove the product and any accessories from the box. Make sure that all items listed in the package contents section are included.
- · Inspect the product 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 product.
- If any parts are damaged or missing, please call 1.888.909.6757 for assistance.

PACKING LIST

- Chainsaw
- Scabbard
- Owner's Mannual
- Black bag
- Bar and chain
- · Battery and Charger

🛦 W A R N I N G

If any parts are damaged or missing, do not operate this product until the parts are replaced. Using a product with damaged or missing parts could result in serious personal injury.

🛦 w a r n i n g

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

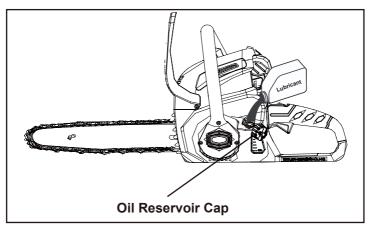
🛦 W A R N I N G

Do not insert the battery until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.

ADDING BAR AND CHAIN LUBRICANT

Use a bar and chain lubricant with this product. It is designed for chains and chain oilers, and is formulated to perform over a wide temperature range with no dilution required.

- · Remove oil cap.
- Carefully pour the bar and chain oil into the tank.
- · Wipe off excess oil and replace cap.
- Check and fill the oil tank when quick view oil indicator is below the MIN. line.
- Repeat as needed.



NOTE: Chainsaw comes from the factory with no bar and chain oil added. The level should also be checked after every 10 minutes of use and refilled as needed.

NOTE:

- Do not use dirty, used or otherwise contaminated oils. Damage may occur to the bar or chain.
- It is normal for oil to seep from the saw when not in use. To prevent seepage, empty the oil tank after each use then run for one minute. When storing the unit for a long period of time (three months or longer) be sure the chain is lightly lubricated; this will prevent rust on the chain and bar sprocket.

NOTE: There is foam inserted inside the oil reservoir to filter dirt and debris from the oil pump. DO NOT remove the foam.

🛕 I M P O R T A N T

To preserve natural resources, please recycle or dispose of oil properly. Consult your local waste authority for information regarding available recycling and/disposal options.

BATTERY PACK (See Figure 7)

IMPORTANT

The battery pack is not charged when it is purchased. Before using the chain saw for the first time, place the battery pack in the battery charger and charge it fully. Be sure to read all safety precautions, and follow the instructions in the section entitled Charging Procedure. With regular use, the battery will require shorter charging times. When storing the chain saw for a prolonged period of time, remove the battery. When the chain saw is going to be used again, charge the battery pack for at least a full charging period. This product has no memory effect.

INSTALLING THE BATTERY PACK

· Align the rails (3) of the battery pack with the cavity.

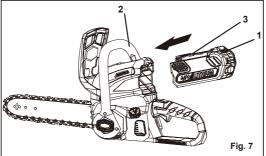
- · Grasp the chainsaw (2).
- Push the battery pack into the handle until the latch locks into place.

• Do not use force when inserting the battery pack. It should slide into position and "click".

TO REMOVE THE BATTERY:

1. Press the battery release button (1) on the chainsaw. This will cause the battery to raise out of the tool slightly.

2. Grasp the chainsaw (2) firmly and pull the battery out of the handle.



NOTE: The battery pack fits into the handle snugly in order to prevent accidental dislodging. It may require a strong pull to remove it.

🛕 W A R N I N G

Follow these instructions in order to avoid injury and to reduce the risk of electric shock or fire:

• Replace the battery pack or the charger immediately if the battery case or charger cord is damaged.

· Verify that the switch is in the OFF position before inserting or removing the battery pack.

• Verify that the battery pack is removed and the switch is in the OFF position before inspecting, adjusting, or performing maintenance on any part of the chainsaw.

• Read, understand, and follow the instructions contained in the section entitled Charging Procedure.

🛕 | M P O R T A N T

This lithium-ion battery pack is equipped with an internal circuit breaker which will automatically shut off the power to the tool and then reset itself once cooled. Follow these steps if an overload occurs while under heavy use:

1. Release the power switch and restart tool by depressing switch.

2. The battery may need to be removed for approximately 1 minute, allowed to cool, and then reinstalled for use.

STARTING AND STOPPING THE CHAIN SAW

A. To start the chainsaw:

• Make sure chain tension is at desired setting. Refer to adjusting the chain tension in the Care and Maintenance section of this manual.

• Make sure the chain cover lock knob is tight to the chain cover.

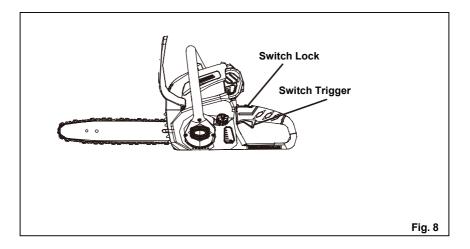
• Make sure no objects or obstructions are in the immediate vicinity which could come in contact with the bar and chain.

- Fit the battery into the chainsaw.
- Press in the safety lock. This makes the trigger switch operational.
- Press and hold the trigger switch and keep it pressed for continued operation.

B. To stop the chainsaw:

- Release the trigger switch.
- Upon release of the trigger switch, the safety lock will be automatically reset to the lock position.

NOTE: It is normal for the chain to coast to a stop once the trigger switch is released.stop once the trigger switch is released.



PREPARING FOR CUTTING

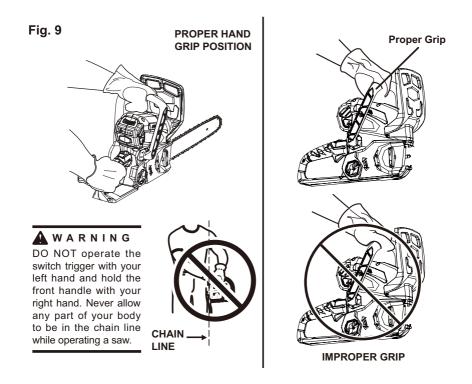
A. Proper grip on handles

See General Safety Rules for appropriate safety equipment.

- · Wear non-slip gloves for maximum grip and protection.
- Hold the saw firmly with both hands. Always keep your left hand on the front handle and your right hand on the rear handle so that your body is to the left of the chain line.
- Maintain a proper grip on the saw whenever the motor is running. The fingers should encircle the handle and the thumb is wrapped under the handlebar. This grip is least likely to be broken by a kickback or other sudden reaction of the saw. Any grip in which the thumb and fingers are on the same side of the handle is dangerous because a slight kick of the saw can cause loss of control.

🛕 W A R N I N G

Never use a left-handed (cross-handed) grip or any stance that would place your body or arm across the chain line.



PROPER CUTTING STANCE

- · Balance your weight with both feet on solid ground.
- Keep left arm with elbow locked in a "straight arm" position to withstand any kickback force.
- · Keep your body to the left of the chain line.
- Keep your thumb on underside of front handle.

BASIC OPERATING/CUTTING PROCEDURES

Practice cutting a few small logs using the following technique to get the "feel" of using the saw before you begin a major sawing operation.

• Take the proper stance in front of the wood.

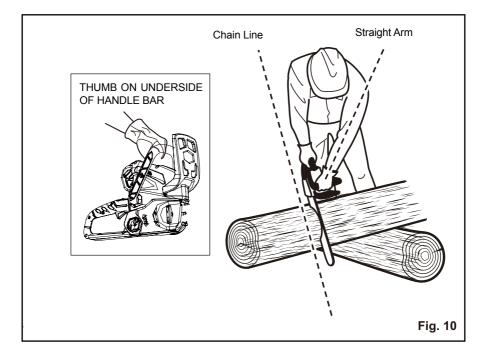
• Press the safety lock and squeeze the trigger switch then release the safety lock and let the chain accelerate to full speed before entering the cut.

- · Begin cutting with the saw against the log.
- Keep the unit running the entire time you are cutting, maintain a steady speed.

• Allow the chain to cut for you; exert only light downward pressure. Forcing the cut could result in damage to the bar, chain, or motor.

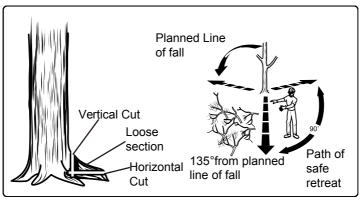
• Release the trigger switch as soon as the cut is completed, allowing the chain to stop. If you run the saw without a cutting load, unnecessary wear can occur to the chain, bar, and unit.

• Do not put pressure on the saw at the end of the cut.



REMOVING BUTTRESS ROOTS

A buttress root is a large root extending from the trunk of the tree above the ground. Remove large buttress roots prior to felling. Make the horizontal cut into the buttress first, followed by the vertical cut. Remove the resulting loose section from the work area. Follow the correct tree felling procedure as stated in Proper Procedure For Tree Felling after you have removed the large buttress roots.



PROPER PROCEDURE FOR TREE FELLING

• Felling a tree — When bucking and felling operations are being performed by two or more persons at the same time, the felling operation should be separated from the bucking operation by a distance of at least twice the height of the tree being felled. Trees should not be felled in a manner that would endanger any person, strike any utility line or cause any property damage.

If the tree does make contact with any utility line, the utility company should be notified immediately.

• Operator should keep on the uphill side of terrain as the tree is likely to roll or slide after it is felled.

Pick your escape route (or routes in case the intended route is blocked). Clear the immediate area around the tree and make sure there are no obstructions in your planned path of retreat. Clear the path of safe retreat approximately 135° from the planned line of fall.
Consider the force and direction of the wind, the lean and balance of the tree, and the

location of large limbs. These things influence the direction in which the tree will fall. Do not try to fell a tree along a line different from its natural line of fall.

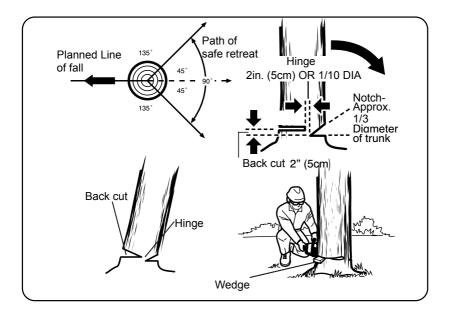
• Remove dirt, stones, loose bark, nails, staples, and wire from the tree where felling cuts are to be made.

• Notched Undercut. Cut a notch about 1/3 the diameter of the trunk on the side of the tree. Make the notch cuts so they intersect at a right angle to the line of fall. This notch should be cleaned out to leave a straight line. To keep the weight of the wood off the saw, always make the lower cut of the notch before the upper cut.

OPERATION

• Felling Backcut. As the felling cut gets close to the hinge, the tree should begin to fall. If there is any chance the tree may not fall in the desired direction or it may rock back and bind the saw chain, stop cutting before the felling cut is complete and use wedges of wood, plastic or aluminum to open the cut and drop the tree along its desired line of fall. Make the backcut level and horizontal, and at a minimum of 2 in. (5 cm) above the horizontal cut of the notch.

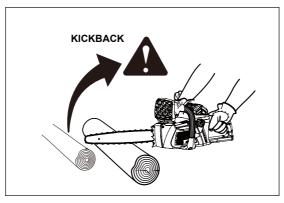
On large diameter trees, stop the back cut before it is deep enough for the tree to either fall or settle back on the stump. Then insert soft wooden or plastic wedges into the cut so they do.
As tree starts to fall, stop the chainsaw and put it down immediately. Retreat along the cleared path, but watch the action in case something falls your way.



BUCKING

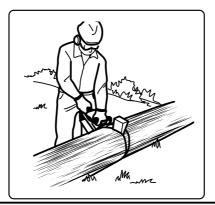
Bucking is the term used for cutting a fallen tree to the desired log length.

- Always make sure your footing is secure and your weight is distributed evenly on both feet.
- Cut only one log at a time.
- Support small logs on a saw horse or another log while bucking.
- Keep a clear cutting area. Make sure that no objects can contact the guide bar nose and chain during cutting as this can cause kickback. Refer to Kickback earlier in this manual.
- When bucking on a slope, always stand on the uphill side of the log. To maintain complete
 control of the chainsaw when cutting through the log, release the cutting pressure near
 the end of the cut without relaxing your grip on the chainsaw handles. Do not let the chain
 contact the ground. After completing the cut, wait for the saw chain to stop before you move
 the chainsaw. Always stop the motor before moving from tree to tree.



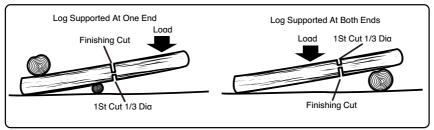
BUCKING WITH A WEDGE

If the wood diameter is large enough for you to insert a soft bucking wedge without touching the chain, you should use the wedge to hold the cut open to prevent pinching.



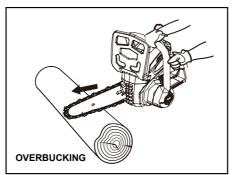
BUCKING LOGS UNDER STRESS

When the log is supported on one end, cut 1/3 the diameter from the underside. Then make the finished cut by overbucking to meet the first cut. When the log is supported on both ends, cut 1/3 of the diameter from the top overback. Then make the finished cut by under bucking the lower 2/3 to meet the first cut.



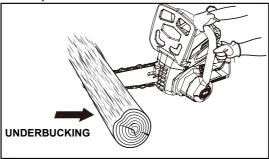
OVERBUCKING

Begin on the top side of the log with the bottom of the saw against the log; exert light pressure downward. Note that the saw will tend to pull away from you.



UNDERBUCKING

Begin on the under side of the log with the top of the saw against the log; exert light pressure upward. During under bucking, the saw will tend to push back at you. Be prepared for this reaction and hold the saw firmly to maintain control.



LIMBING

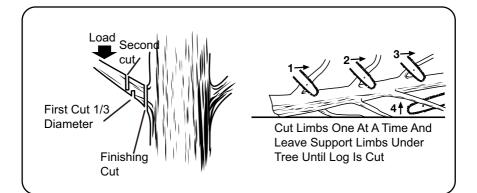
Limbing is removing branches from a fallen tree.

- Work slowly, keeping both hands on the chainsaw with a firm grip. Always make sure your footing is secure and your weight is distributed evenly on both feet.
- Leave the larger support limbs under the tree to keep the tree off the ground while cutting.
- Limbs should be cut one at a time. Remove the cut limbs from the work area often to help.
- Keep the work area clean and safe.
- Branches under tension should be cut from the bottom up to avoid binding the chainsaw.
- Keep the tree between you and the chainsaw while limbing. Cut from the side of the tree
 opposite the branch you are cutting.

PRUNING

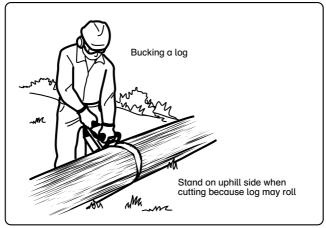
Pruning is trimming limbs from a live tree.

- Work slowly, keeping both hands on the chainsaw with a firm grip. Always make sure your footing is secure and your weight is distributed evenly on both feet.
- Do not cut from a ladder. This is extremely dangerous. Leave this operation for professionals.
- Do not cut above chest height as a saw held higher is difficult to control against kickback.
- When pruning trees it is important not to make the finishing cut next to the main limb or trunk until you have cut off the limb further out to reduce the weight. This prevents stripping the bark from the main member.
- Underbuck the branch 1/3 through for your first cut.
- · Your second cut should overbuck to drop the branch off.
- Now make your finishing cut smoothly and neatly against the main member so the bark will grow back to seal the wound.



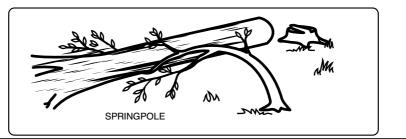
OPERATION

When bucking on a slope always stand on the uphill side of the log. when cutting through to maintain complete control release the cutting pressure near the end of the cut without relaxing your grip on the chainsaw handle. Don't let the chain contact the ground. After completing the cut wait for the saw chain to stop before you move the chainsaw. Always stop the motor before moving from tree to tree.



CUTTING SPRINGPOLES

A springpole is any log, branch, rooted stump, or sapling which is bent under tension by other wood so that it springs back if the wood holding it is cut or removed. On a fallen tree, a rooted stump has a high potential of springing back to the upright position during the bucking cut to separate the log from the stump. Watch out for springpoles — they are dangerous.



🛦 w a r n i n g

If the limbs to be pruned are above chest height, hire a professional to perform the pruning.

🛕 W A R N I N G

Springpoles are dangerous and could strike the operator, causing the operator to lose control of the chainsaw. This could result in severe or fatal injury to the operator.

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, lubricant, grease, etc., firmly to maintain control.

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.

LUBRICATION

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



🕰 WARNING

- When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.
- Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If the operation is dusty, also wear a dust mask.

🛦 W A R N I N G

Never start the motor before installing the guide bar, chain, chain cover, and chain cover lock knob. Without all these parts in place, the clutch can fly off or explode, exposing the user to possible serious injury.

🕻 W A R N I N G

- To avoid serious personal injury, read and understand all the safety instructions in this section.
- Before performing any maintenance, make sure the battery is removed. Failure to heed this warning could result in serious personal iniurv.

🕰 W A R N I N G

Always wear gloves when handling the bar and chain; these components are sharp and may contain burrs.

Never touch or adjust the chain while the motor is running. The saw chain is very sharp; always wear protective gloves when performing maintenance to the chain to avoid possible serious lacerations.

NOTE: When replacing the guide bar and chain, always use the specified bar and chain listed in the bar and chain combinations section later in this manual.

MAINTENANCE

🔺 W A R N I N G

In order to avoid personal injury and the risk of fire and electric shock, remove the battery pack before adjusting, inspecting, or cleaning the chainsaw.

BATTERY PACK

• Store the battery pack fully charged.

• Once the charging light turns green, remove the battery from the charger and disconnect the charger from the outlet.

• After charging, the battery pack may be stored on the charger, as long as the charger is not plugged in.

CLEANING

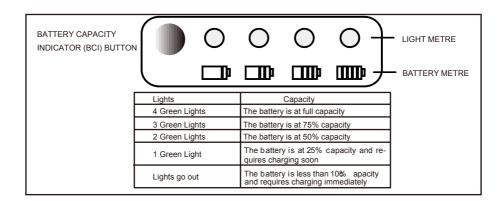
Remove the battery pack.

1. Brush or blow dust and debris out of the air vents using compressed air or a vacuum. Keep the air vents free of obstructions, sawdust, and wood chips. Do not spray, wash, or immerse the air vents in water.

2. Wipe off the housing and the plastic components using a moist, soft cloth. Do not use strong solvents or detergents on the plastic housing or plastic components. Certain household cleaners may cause damage, and may cause a shock hazard.

CHECKING BATTERY CAPACITY

Press the Battery Capacity Indicator (BCI) button. The lights will illuminate according to the battery's current power level. See chart below:



MAINTENANCE

BATTERY CHARGER

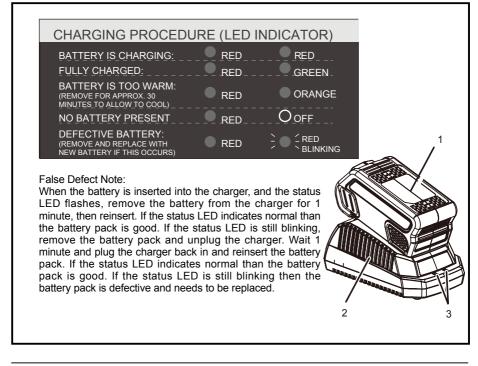
CHARGING PROCEDURE (See Figure 11.)

NOTE: The battery is not shipped fully charged. It is recommended to fully charge before first use to ensure that maximum run time can be achieved. This lithium-ion battery will not develop a memory and may be charged at any time. A fully discharged battery pack will require approximately 90 minutes to fully charge from a discharged state.

1. Plug the charger into an AC power outlet.

2. Insert the battery pack (3) into the charger.

This is a diagnostic charger. The Charger LED Lights will illuminate in specific order to communicate the current battery status. They are as follows:



NOTE: When the red indictor flickers, pull out the battery from the charger and insert again within 2 hours. If the indictor shows charging, that means the battery is good. After 2 hours, please pull out the battery and also pull out the AC power plug of the charger for 1 miniute, and then insert the AC power plug and the battery again. If the indictor shows charging, that means the battery is good. If not, the battery needs to be changed.

CHECKING THE CHARGE

If the battery pack does not charge properly:

- · Check the current at the power outlet with another tool. Make sure that the outlet is not turned off.
- · Check that the charger contacts have not been shorted by debris or foreign material.

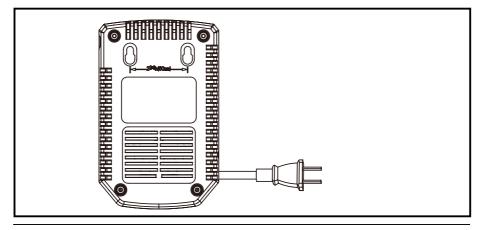
• If the surrounding air temperature is not normal room temperature, move the charger and battery pack to a lockation where the temperature is between 45°F and 104°F.

🛦 W A R N I N G

If the battery is inserted into the charger when warm or hot, the CHARGING LED indicator light on the charger may switch on and illuminate ORANGE. If this occurs allow the battery to cool outside of the charger from approximately 30 minutes.

CHARGER MOUNTING

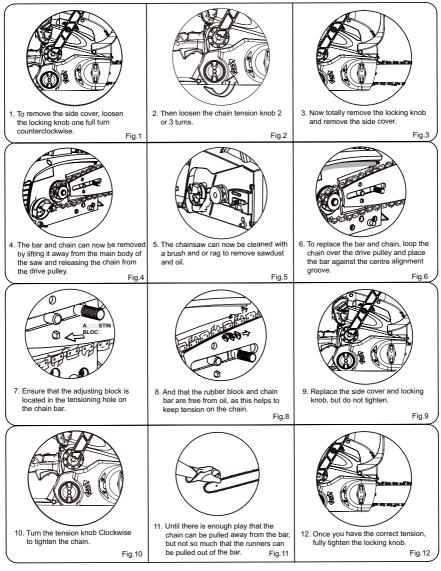
- 1. This charger can be installed hanging on a wall using two screws (not supplied)
- 2. Locate the placement for the charger to be wall mounted.
- 3. If fastening to wood studs use 2 wood screws.
- 4. Drill two holes 2 3/8" (6 cm) on center ensuring they are level.
- 5. If fastening to drywall use wall anchors and screws to secure the charger to the wall.



NOTE: If the battery and the charger won't be used for a long time, please remove the battery from the charger and pull out the AC power plug.

MAINTENANCE

CHAIN & BAR ASSEMBLY

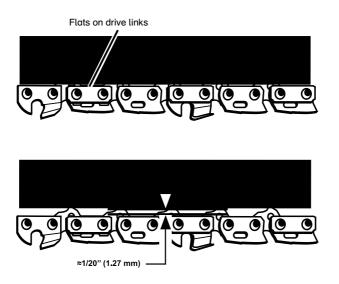


NOTE:

- Chains stretch with use, check and tension often.
- Never tension a warm chain before storing, as chains shrink when cool, this can damage chain, bar and saw.

ADJUSTING THE CHAIN TENSION

• Rotate the chain cover lock knob clockwise to secure. Re-tension the chain whenever the flats on the drive links hang out of the bar groove.



A WARNING

Never touch or adjust the chain while the motor is running. The chainsaw is very sharp. Always wear protective gloves when performing maintenance on the chain.

🛦 WARNING

A chain tensioned while warm may be too tight upon cooling. Check the "cold tension" before next use.

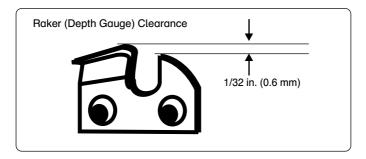
NOTE: During normal saw operation, the temperature of the chain increases. The drive links of a correctly tensioned warm chain will hang approximately 1/16 in. (1.3 mm) out of the bar groove.

NOTE: New chains tend to stretch; check the chain tension frequently and tension as required.

CHAIN MAINTENANCE

Use only a low-kickback chain on this saw. This fast-cutting chain provides kickback reduction when properly maintained. For smooth and fast cutting, maintain the chain properly. The chain requires sharpening when the wood chips are small and powdery, the chain must be forced through the wood during cutting, or the chain cuts to one side.During maintenance of the chain, consider the following:

- Improper filing angle of the side plate can increase the risk of severe kickback.
- Raker (depth gauge) clearance.
- Too low-- increases the potential for kickback.
- Not low enough-- decreases cutting ability.
- If the cutter teeth hit hard objects such as nails or stones, or are abraded by mud or sand on the wood, have an authorized service center sharpen the chain.

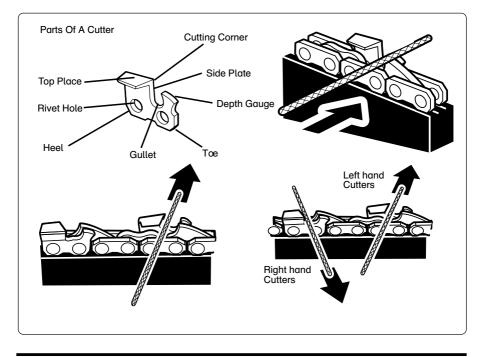


NOTE: Inspect the drive sprocket for wear or damage when replacing the chain. If signs of wear or damage are present in the areas indicated, have the drive sprocket replaced by an authorized service center.

NOTE: If you do not fully understand the correct procedure for sharpening the chain after reading the instructions that follow, have the saw chain sharpened by an authorized service center or replace with a recommended low-kickback chain.

SHARPENING THE CUTTERS

- Be careful to file all cutters to the specified angles and to the same length, as fast cutting can be obtained only when all cutters are uniform.
- Tension the chain prior to sharpening. Refer to Adjusting The Chain Tension.
- Use a 5/32 in. (4 mm) diameter round file and holder. Do all of your filing at the midpoint of the bar.
- Keep the file level with a top plate of the tooth. Do not let the file dip or rock.
- Using light but firm pressure. Stroke towards the front corner of the tooth.
- Lift the file away from the steel on each return stroke.
- Put a few firm strokes on every tooth. File all left hand cutters in one direction. Then move to the other side and file the right hand cutters in the opposite direction.
- Remove filings from the file with a wire brush.

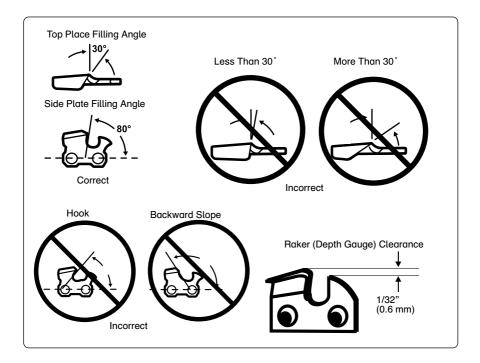


A WARNING

- · Make sure the battery is removed from the chainsaw before you work on the saw.
- The saw chain is very sharp. Always wear protective gloves when performing maintenance to the chain to prevent serious personal injury.
- A dull or improperly sharpened chain can cause excessive motor speed during cutting, which may result in severe motor damage.

TOP PLATE FILING ANGLE

- CORRECT 30° file holders are marked with guide marks to align file properly to produce correct top plate angle.
- LESS THAN 30° for cross cutting.
- MORE THAN 30° feathered edge dulls quickly.



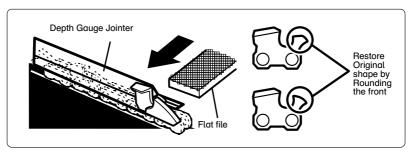
SIDE PLATE ANGLE

- Correct 80° Produced automatically if you use the correct diameter file in the file holder.
- Hook "Grabs" and dulls quickly; increases the potential of kickback. Results from using a file with a diameter too small or a file held too low.
- Backward Slope Needs too much feed pressure; causes excessive wear to the bar and chain. Results from using a file with a diameter too large or file held too high.

MAINTENANCE

SIDE PLATE ANGLE

- Maintain the depth gauge at a clearance of 1/32 in. (0.6 mm). Use a depth gauge tool for checking the depth gauge clearances.
- Every time the chain is filed, check the depth gauge clearance.
- Use a flat file and a depth gauge jointer to lower all gauges uniformly. Use a 1/32 in.
- (0.6 mm) depth gauge jointer. After lowering each depth gauge, restore original shape by rounding the front. Be careful not to damage adjoining drive links with the edge of the file.
- Depth gauges must be adjusted with the flat file in the same direction the adjoining cutter was filed with the round file.
- Use care not to contact cutter face with flat file when adjusting depth gauges.



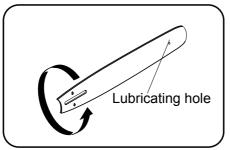
MAINTAINING THE GUIDE BAR

Every week of use, reverse the guide bar on the saw to distribute the wear for maximum bar life.

The bar should be cleaned every day of use and checked for wear and damage. Feathering or burring of the bar rails is a normal process of bar wear. Such faults should be smoothed with a file as soon as they occur. A bar with any of the following faults should be replaced:

- Wear inside the bar rails that permits the chain to lay over sideways
- Bent guide bar
- Cracked or broken rails
- Spread rails

Lubricate guide bars weekly with a sprocket at their tip. Using a grease syringe, lubricate weekly in the lubricating hole. Turn the guide bar and check that the lubrication holes and chain groove are free from impurities.



ENVIRONMENTALLY SAFE BATTERY DISPOSAL



The batteries used in this chainsaw's battery pack contain the following toxic and corrosive material: LITHIUM-ION.

A WARNING

Toxic materials must be disposed of in a specific manner in order to prevent contamination of the environment. Before disposing of damaged or worn out Lithiumlon battery packs, contact your local waste disposal agency or the local Environmental Protection Agency for information and specific instructions. Take the batteries to a local recycling and/or disposal center that is certified for disposal. If the battery pack cracks or breaks, whether it leaks or nort, do not recharge it and do not use it. Dispose of it and replace it with a new battery pack.

DO NOT ATTEMPT TO REPAIR IT!

Follow these instructions and to avoid damage to the environment:

- · Cover the battery's terminals with heavy-duty adhesive tape.
- Do not attempt to remove or destroy any of the components of the battery pack.
- Do not attempt to open the battery pack.
- If a leak develops, the electrolytes that are released are corrosive and toxic. Do not get the solution in the eyes or on the skin, and do not swallow it.
- Do not place batteries in regular household trash.
- DO NOT incinerate batteries.
- DO NOT place batteries where they will become part of any waste landfill or municipal solid waste stream.
- Dispose of batteries at a certified recycling or disposal center.

TROUBLESHOOTING

PROBLEM	POSSIBLE	SOLUTION	
Bar and chain running hot and smoking.	Check chain tension for overtightened condition.	Tension chain. Refer to Chain earlier in this manual.	
	Chain oil tank empty.	Check oil tank.	
motor runs, but chain is not rotating.	Chain tension too tight.	Refer to Chain Tension Guide earlier in this manual.	
	Check guide bar and chain assembly.	Refer to Replacing the Bar and Chain earlier in this manual.	
	Check guide bar and chain for damage.	Remove batery, after removing the battery from chainsaw, take off the side cover by removing the chain cover has been removed, remove the bar and chain. Before inserting the battery pack into the unit with the bolt and chain removed. Clean all the debris from the side of the saw. After all is cleaned, insert battery and run the chainsaw. If the sprocket is spining your motor is OK. If the sprocket is not spinning call customer service at 1-888-909-6757.	
Motor runs, chain	Dull chain.	Sharpen chain.	
rotates but does not cut.	Chain on backwards.	Reverse direction of chain.	
Chainsaw does not start.	Battery is not charged.	Place battery in to the charge and allow charging up to 1 hour (2Ah) or 2 hours (4Ah).	
	Switch is defective.	Call our customer service number at 1-888-909-6757 for a service dealer or replacement parts.	

LIMITED FOUR-YEAR WARRANTY



GREENWORKS[™] hereby warranties this product, to the original purchaser with **proof of purchase**, for a period of four (4) years against defects in materials, parts or workmanship. GREENWORKS[™], at its own discretion will repair or replace any and all parts found to be defective, through normal use, free of charge to the customer. This warranty is valid only for units which have been used for personal use that have not been hired or rented for industrial/ commercial use, and that have been maintained in accordance with the instructions in the owners' manual supplied with the product from new.

Battery carries a two (2) year warranty against defects in workmanship and materials. Batteries must be charged in accordance with the operator's manuals directions and regulations in order to be valid.

ITEMS NOT COVERED BY WARRANTY:

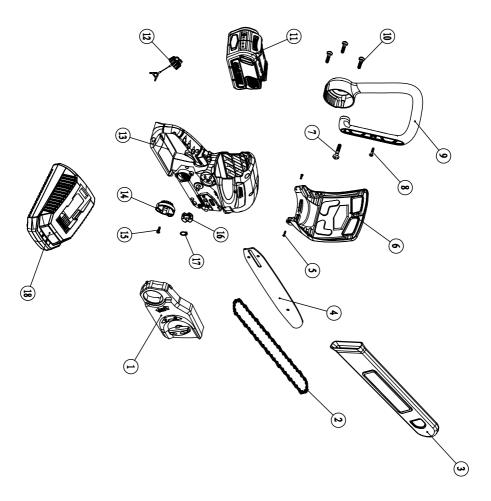
- 1. Any part that has become inoperative due to misuse, commercial use, abuse, neglect, accident, improper maintenance, or alteration; or
- 2. The unit, if it has not been operated and/or maintained in accordance with the owner's manual; or
- 3. Normal wear, except as noted below;
- 4. Routine maintenance items such as lubricants, blade sharpening;
- 5. Normal deterioration of the exterior finish due to use or exposure.

GREENWORKS HELPLINE (1 888 90WORKS):

Warranty service is available by calling our toll-free helpline, 9am to 5pm EST. at **1-888-909-6757** (1-888-90WORKS).

TRANSPORTATION CHARGES:

Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. It is the purchaser's responsibility to pay transportation charges for any part submitted for replacement under this warranty unless such return is requested in writing by GREENWORKS.



PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	311001889	Side cover assembly	1
2	31101420-1	12" Chain	1
3	34114155-1	Scabbard	1
4	31100581-3	12" Bar	1
5	32201583	Screw	2
6	34103581	Guard	1
7	3220404D	Screw	1
8	3220740	Screw	1
9	34102581A	Auxiliary handle	1
10	32201517	Screw	24
11	31103976(BK)	40V2Ah Battery Pack	1
12	311021889	Oil Cap Assembly	1
13	311011889	Housing assembly	1
14	34108583C	Tension knob	1
15	32201517	Screw	1
16	33902102-2	Sprocket	1
17	3290875-1	C-Clip	1
18	31102998	Charger	1

TOLL-FREE HELPLINE: 1-888-90WORKS (888.909.6757)

