

greenworks[®]

EN

CHAINSAW

OPERATOR MANUAL

FR

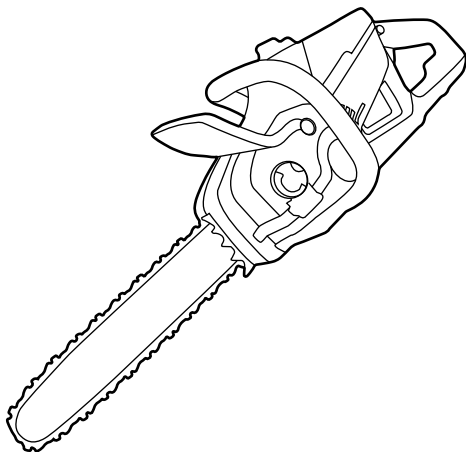
SCIE À CHAÎNE

MANUEL D'OPÉRATEUR

ES

SIERRA DE CADENA

MANUAL DEL OPERADOR



CSB410

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1 INTRODUCTION

 WARNING

READ AND UNDERSTAND THE SAFETY CHAPTER BEFORE YOU ASSEMBLE THE PRODUCT.

1.1 PRODUCT DESCRIPTION

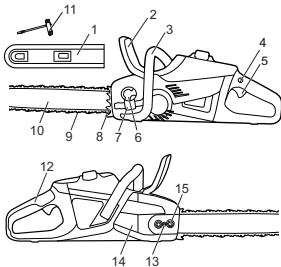
This product is a battery-operated chainsaw with an electrical motor.

We are committed to continuously improving our products, and reserve the right to modify the design and appearance without prior notice.

1.2 INTENDED USE









This product is designed for cutting branches, trunks, logs and beams of a diameter determined by the cutting length of the guide bar. It is only designed to cut wood.

1.3 PRODUCT OVERVIEW



- | | |
|----------------------------------|---------------------------|
| 1 Guide bar cover | 9 Saw chain |
| 2 Front hand guard / chain brake | 10 Guide bar |
| 3 Front handle | 11 T-Wrench |
| 4 Trigger lockout | 12 Rear handle |
| 5 Trigger | 13 Chain tensioning screw |
| 6 Oil cap | 14 Sprocket cover |
| 7 Oil window | 15 Bar nut |
| 8 Spiked bumper | |

1.4 SYMBOLS ON THE PRODUCT

Symbol	Explanation
	Direct current - Type or characteristic of current.
	Important Safety Precautions.
	Carefully read and understand all instructions before operating the product and follow all warnings and safety instructions.
	Always wear safety glasses with side shields marked to comply with ANSI Z87.1 and hearing protection marked to comply with ANSI S3.19 when operating this product.
	Do not expose the product to rain or moist conditions.
	Always operate product with both hands.
	DANGER! Be careful with kickbacks.
	Keep all bystanders at least 50 feet (15 m) away.

Note: Other symbols/decals on the product refer to certification requirements.

1.5 CALIFORNIA PROPOSITION 65

 WARNING

THIS PRODUCT CONTAINS OR EMITS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER OR BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

2 SAFETY

2.1 SAFETY DEFINITIONS

Warnings, cautions, and notes are used to point out especially important parts of the manual.

 WARNING

THERE IS A RISK OF INJURY OR DEATH FOR THE OPERATOR OR BYSTANDERS IF THE INSTRUCTIONS IN THE MANUAL ARE NOT OBEYED.

 CAUTION

THERE IS A RISK OF DAMAGE TO THE PRODUCT, OTHER MATERIALS, OR THE ADJACENT AREA, IF THE INSTRUCTIONS IN THE MANUAL ARE NOT OBEYED.

Note: Used to give more information that is necessary in a given situation.

2.2 GENERAL PRODUCT SAFETY WARNINGS

General product safety warnings

 WARNING

Read all safety warnings, instructions, illustrations and specifications provided with this product. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "product" in the warnings refers to your mains-operated (corded) product or BATTERY-operated (cordless) product.

1) Work area safety

- **Keep work area clean and well lit.** *Cluttered or dark areas invite accidents.*
- **Do not operate products in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** *Products create sparks which may ignite the dust or fumes.*
- **Keep children and bystanders away while operating a product.** *Distractions can cause you to lose control.*

2) Electrical safety

- **Product plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) products.** *Unmodified plugs and matching outlets will reduce risk of electric shock.*
- **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges, and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*
- **Do not expose products to rain or wet conditions.** *Water entering a product will increase the risk of electric shock.*
- **Do not abuse the cord. Never use the cord for carrying, pulling, or unplugging the product. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*

- **When operating a product outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*
- **If operating a product in a damp location is unavoidable, use a RESIDUAL CURRENT DEVICE (RCD) protected supply.** *Use of an RCD reduces the risk of electric shock.*

3) Personal safety

- **Stay alert, watch what you are doing and use common sense when operating a product. Do not use a product while you are tired or under the influence of drugs, alcohol, or medication.** *A moment of inattention while operating products may result in serious personal injury.*
- **Use personal protective equipment. Always wear eye protection.** *Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.*
- **Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or BATTERY pack, picking up or carrying the product.** *Carrying products with your finger on the switch or energizing products that have the switch on invites accidents.*
- **Remove any adjusting key or wrench before turning the product on.** *A wrench or a key left attached to a rotating part of the product may result in personal injury.*
- **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the product in unexpected situations.*
- **Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing 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 dust collection can reduce dust-related hazards.*
- **Do not let familiarity gained from frequent use of products allow you to become complacent and ignore product safety principles.** *A careless action can cause severe injury within a fraction of a second.*

4) Product use and care

- **Do not force the product. Use the correct product for your application.** *The correct product will do the job better and safer at the rate for which it was designed.*
- **Do not use the product if the switch does not turn it on and off.** *Any product that cannot be controlled with the switch is dangerous and must be repaired.*

- **Disconnect the plug from the power source and/or remove the BATTERY pack, if detachable, from the product before making any adjustments, changing accessories, or storing products.** *Such preventive safety measures reduce the risk of starting the product accidentally.*
- **Store idle products out of the reach of children and do not allow persons unfamiliar with the product or these instructions to operate the product.** *Products are dangerous in the hands of untrained users.*
- **Maintain products and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the product's operation. If damaged, have the product repaired before use.** *Many accidents are caused by poorly maintained products.*
- **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 product, 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 product for operations different from those intended could result in a hazardous situation.*
- **Keep handles and grasping surfaces dry, clean, and free from oil and grease.** *Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.*

5) BATTERY tool use and care

- **Recharge only with the charger specified by the manufacturer.** *A charger that is suitable for one type of BATTERY pack may create a risk of fire when used with another BATTERY pack.*
- **Use products 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.*
- **Do not use a BATTERY pack or product that is damaged or modified.** *Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, EXPLOSION, or risk of injury.*
- **Do not expose a BATTERY pack or product to fire or excessive temperature.** *Exposure to fire or temperature above 130 °C (265 °F) may cause explosion.*

- **Follow all charging instructions and do not charge the BATTERY pack or product outside the temperature range specified in the instructions.** *Charging improperly or at temperatures outside the specified range may damage the BATTERY and increase the risk of fire.*

6) Service

- **Have your product serviced by a qualified repair person using only identical replacement parts.** *This will ensure that the safety of the product is maintained.*
- **Never service damaged BATTERY packs.** *Service of BATTERY packs should only be performed by the manufacturer or authorized service providers.*

2.3 SAFETY INSTRUCTIONS FOR CHAIN SAWS

General chain saw 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 chain saw by insulated gripping surfaces only, because the saw chain may contact hidden wiring. Saw chains contacting a "live" wire may make exposed metal parts of the chain saw "live" and could give the operator an electric shock.**
- **Wear eye protection. Further protective equipment for hearing, head, hands, legs, and feet is recommended.** *Adequate protective equipment will reduce personal injury from flying debris or accidental contact with the saw chain.*
- **Do not operate a chain saw, on a ladder, from a rooftop, or any unstable support.** *Operation of a chain saw in this manner could result in serious personal injury.*
- **Always keep proper footing and operate the chain saw only when standing on fixed, secure, and level surface.** *Slippery or unstable surfaces 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 fibers 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 the bar and chain.** *Improperly tensioned or lubricated chain may either break or increase the chance for kickback.*
- **Cut wood only. Do not use chain saw for purposes not intended. For example: do not use chain saw for cutting metal, plastic, masonry, or non-wood building materials.** *Use of the chain saw for operations different than intended could result in a hazardous situation.*
- **Do not attempt to fell a tree until you have an understanding of the risks and how to avoid them.** *Serious injury could occur to the operator or bystanders while felling a tree.*
- **Do not operate a chain saw in a tree unless you have been specifically trained to do so. Operation of a chain saw in a tree without proper training could increase the risk of serious personal injury.**
- **Follow all instructions when clearing jammed material, storing or servicing the chain saw. Make sure the switch is off and the battery pack is removed.** *Unexpected actuation of the chain saw while clearing jammed material or servicing may result in serious personal injury.*

Causes and operator prevention of kickback

Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut. Tip contact in some cases may cause a sudden reverse reaction, kicking the guide bar up and back towards the operator. Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator. Either of these reactions may cause you to lose control of the saw which could result in serious personal injury. Do not rely exclusively upon the safety devices built into your saw. As a chain saw user, you should take several steps to keep your cutting jobs free from accident or injury. Kickback is the result of chain saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

- **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.

- **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.
- **Only use replacement guide bars and saw chains specified by the manufacturer.** Incorrect replacement guide bars and saw chains may cause chain breakage and/or kickback.
- **Follow the manufacturer's sharpening and maintenance instructions for the saw chain.** Decreasing the depth gauge height can lead to increased kickback.

2.4 SAFETY FEATURES ON THE PRODUCT

WARNING

CAREFULLY READ THE WARNING INSTRUCTIONS THAT FOLLOW BEFORE YOU USE THE PRODUCT.

- Do not use a product with defective safety hardware.
- Regularly inspect the safety hardware for proper functioning.
- If the safety hardware is defective, consult your nearest service center for assistance.

Test front hand guard and inertia brake release

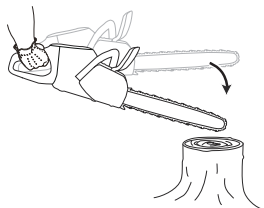
1. Make sure that the front hand guard is not damaged and that there are no defects, such as cracks.



2. Make sure that the front hand guard moves freely and that it is attached safely to the product.



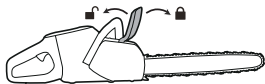
3. Hold the product over a stable surface, such as a stump, with the motor turned off.
4. Grasp the rear handle firmly and release the front handle, allowing the product to fall against the stump.



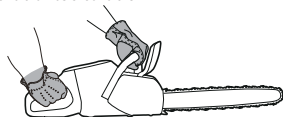
5. Confirm that the chain brake engages when the guide bar hits the stump.

Test the chain brake

This product is equipped with a chain brake designed to stop the saw chain in the event of a kickback. The chain brake plays a crucial role in reducing the risk of accidents, but it is ultimately your responsibility to prevent them. To engage the chain brake, push the front hand guard forward. To disengage the chain brake, pull the front hand guard rearward.



1. Put the product on stable ground and start it.
2. Firmly grip the handles, wrapping your fingers and thumbs around them.



3. Apply full power to the product and tilt your left wrist against the front hand guard to engage the chain brake. The saw chain should come to an immediate stop.



▲ WARNING

DO NOT LET GO OF THE FRONT HANDLE!

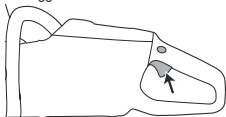
Test the trigger lockout

1. Verify that the trigger and trigger lockout move smoothly without any obstruction and ensure that the return spring operates correctly.

2. Press down on the trigger lockout and confirm that it returns to its initial position when released.



3. Ensure that the trigger locks in the idle position when the trigger lockout is released.



4. Start the product according to the manufacturer's instructions.
5. Release the trigger and verify that the saw chain comes to a complete stop and remains stationary. If the saw chain continues to rotate when the trigger is in the idle position, contact your servicing dealer for assistance.

2.5 BATTERY SAFETY

Refer to the Battery Operator Manual for warning instructions before you use the product.

2.6 BATTERY CHARGER SAFETY

Refer to the Battery Charger Operator Manual for warning instructions before you use the product.

2.7 SAFETY INSTRUCTIONS FOR MAINTENANCE

▲ WARNING

CAREFULLY READ AND UNDERSTAND THE WARNING INSTRUCTIONS BEFORE YOU DO ANY MAINTENANCE ON THE PRODUCT.

- Before performing any maintenance, checks, or installing accessories, always remove the battery to avoid accidental activation.
- The operator must only do the maintenance and servicing as detailed in this operator's manual. Consult your authorized service center for specialized maintenance and servicing.
- Make sure that all nuts, bolts, and screws are tightened properly to ensure the safe operation of the product.
- Replace any worn or damaged parts promptly to prevent damage or accidents.

- Neglecting regular product maintenance can reduce the product's lifespan and increase the risk of accidents.
- Specialized training is necessary for all servicing and repair work, particularly for the safety hardware on the product. If any checks in this operator's manual are not approved after the maintenance, contact your authorized service center for further assistance. Authorized service centers guarantee professional repairs and servicing for your product.
- Always use original spare parts to maintain optimal product performance and safety.

SAVE THESE INSTRUCTIONS

3 ASSEMBLY

This section describes how to assemble and adjust the product.

⚠ WARNING

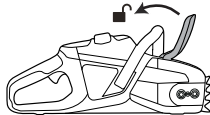
CAREFULLY READ AND UNDERSTAND THE SAFETY CHAPTER AND THE ASSEMBLY INSTRUCTIONS BEFORE YOU ASSEMBLE THE PRODUCT.

3.1 INSTALL THE GUIDE BAR AND SAW CHAIN

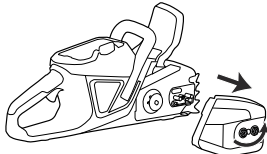
⚠ WARNING

ALWAYS REMOVE THE BATTERY BEFORE YOU ASSEMBLE THE PRODUCT.

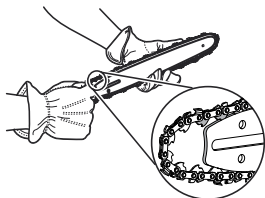
1. Disengage the chain brake to allow movement.



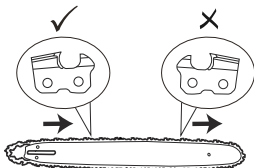
2. Use the wrench to loosen the bar nuts and remove the sprocket cover.



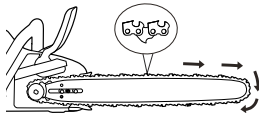
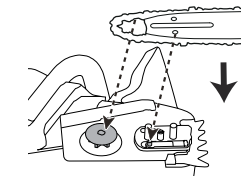
3. Place the chain drive links into the bar groove, forming a loop at the back of the guide bar.



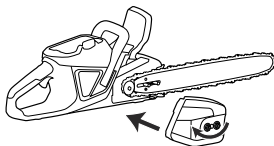
Note: Ensure that the chain is properly oriented and that the cutters are not assembled backward.



4. Hold the chain and bar securely in place.
5. Fit the chain loop around the sprocket.
6. Ensure that the hole in the guide bar aligns correctly with the chain adjuster pin.



7. Install the sprocket cover back onto the saw.
8. Refer to the chain tension adjustment instructions to adjust the chain tension appropriately.
9. Once the chain is properly tensioned, tighten the bar nuts securely.



Note: When starting the product with a new chain, it is recommended to conduct a test run for 2-3 minutes. A new chain may stretch slightly during initial use. After the test run, check the chain tension and tighten if necessary to ensure optimal performance.

4 OPERATION

This section describes how to operate the product.

⚠ WARNING

CAREFULLY READ AND UNDERSTAND THE SAFETY CHAPTER AND OPERATION INSTRUCTIONS BEFORE YOU OPERATE THE PRODUCT.

4.1 BEFORE YOU USE THE PRODUCT

4.1.1 CONNECT THE BATTERY CHARGER

1. Connect the battery charger to the proper voltage and frequency that is specified on the rating plate.
2. Refer to the Battery Charger Operator Manual for information about how to use the battery charger.

4.1.2 CHARGE THE BATTERY

Refer to the Battery Charger Operator Manual for information about how to use the battery charger.

4.1.3 BATTERY INFORMATION

Refer to the Battery Operator Manual for information about how to use the battery.

4.1.4 ADD BAR AND CHAIN OIL

i IMPORTANT

To ensure safe and proper operation, use only clean and uncontaminated bar and chain oil (not included). Avoid using dirty, used, or contaminated oil as it can cause damage to the bar or chain. Consult nearest service center for oil recommendations.

⚠ WARNING

INSUFFICIENT CHAIN OIL CAN RESULT IN THE BREAKAGE OF THE SAW CHAIN, POSING A SIGNIFICANT RISK OF SERIOUS INJURY OR DEATH TO THE OPERATOR.

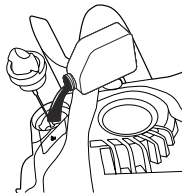
⚠ WARNING

ENSURE THAT THE BATTERY IS NOT INSERTED IN THE PRODUCT BEFORE ADDING BAR AND CHAIN OIL.

1. Place the product on a flat and stable surface, ensuring the oil cap is facing upward.
2. Flip up the oil cap lever and rotate it counterclockwise to detach the oil cap.



3. Pour the appropriate oil into the oil tank, taking care to prevent any spills or leaks. Wipe off any excess oil from the opening.



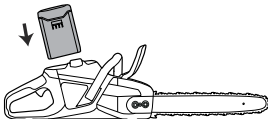
4. Keep a watchful eye on the oil window to prevent any dirt or debris from entering the oil tank while adding the oil.
5. Securely tighten the oil cap by turning it clockwise until it is snugly fitted in place.

4.1.5 CONNECT THE BATTERY TO THE PRODUCT

⚠ WARNING

ONLY USE THE ORIGINAL BATTERY WITH THE PRODUCT.

1. Make sure that the battery is fully charged.
2. Push the battery into the battery compartment. The battery locks into position when you hear a click.



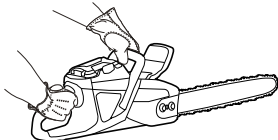
CAUTION

IF THE BATTERY DOES NOT MOVE EASILY INTO THE BATTERY COMPARTMENT, THE BATTERY IS NOT INSTALLED CORRECTLY. THIS CAN CAUSE DAMAGE TO THE PRODUCT.

3. Make sure that the battery is installed correctly.

4.1.6 HOLD THE PRODUCT

1. Hold the product securely with one hand on the rear handle and the other hand on the front handle. Always use both hands while operating the product.
2. Grip the handles firmly with your thumbs and fingers wrapped around them.
3. Ensure that the thumb of the hand holding the front handle is positioned below the handle for a secure grip.

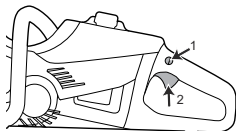


4.2 START THE PRODUCT

1. Disengage the chain brake to allow movement.



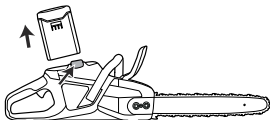
2. Firmly press and hold the trigger lockout (1) located on the handle.
3. Pull the trigger (2) to activate the product's operation.



4. Once the product has started, release the trigger lockout, allowing it to return to its initial position.

4.3 STOP THE PRODUCT

1. Release the trigger.
2. Push and hold the battery release button.
3. Remove the battery from the product to fully stop its operation.

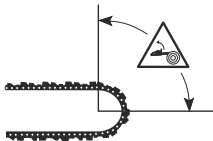


4.4 KICKBACK

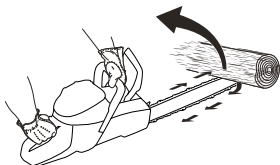
WARNING

A KICKBACK CAN CAUSE SERIOUS INJURY OR DEATH TO THE OPERATOR OR OTHERS. TO DECREASE THE RISK YOU MUST KNOW THE CAUSES OF KICKBACK AND HOW TO PREVENT THEM.

- Kickback occurs when the upper quadrant of the guide bar contacts a solid object or is pinched. The upper quadrant of the guide bar is therefore called the kickback zone. Kickback can occur suddenly and can throw the product in the direction of the operator.



- The reaction of the cutting force of the chain causes a rotational force on the chainsaw in the direction opposite to the chain movement. This may fling the bar up and back in an uncontrolled arc mainly in the plane of the bar.



- Kickback occurs if the kickback zone of the guide bar contacts an object. Do not let the kickback zone touch an object.
- A smaller bar tip radius decreases the force of the kickback.
- Use a low kickback saw chain to decrease the effects of kickback. Do not let the kickback zone touch an object.

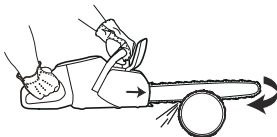
▲ WARNING

IT'S IMPORTANT TO NOTE THAT NO SAW CHAIN CAN ENTIRELY ELIMINATE THE POSSIBILITY OF KICKBACK.

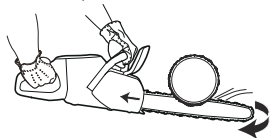
4.5 PULL STROKE AND PUSH STROKE

You can cut through wood with 2 different strokes: pull stroke and push stroke.

- The pull stroke is when you cut with the bottom of the guide bar. The saw chain pulls through the tree when you cut. In this position, you have better control of the product and the position of the kickback zone.

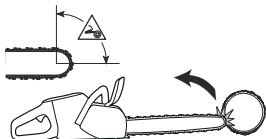


- The push stroke is when you cut with the top of the guide bar. The saw chain pushes the product in the direction of the operator.



▲ WARNING

IF THE SAW CHAIN IS CAUGHT IN THE TRUNK, THE PRODUCT CAN KICKBACK TOWARD YOU. HOLD THE PRODUCT TIGHTLY AND MAKE SURE THAT THE KICKBACK ZONE OF THE GUIDE BAR DOES NOT MAKE CONTACT WITH AN OBJECT.

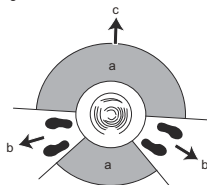


4.6 FELL A TREE

Before starting, ensure the trunk is clear and establish a safe path of retreat.

Cut off all branches from your shoulder height and below.

1. Start cutting from the top down using a pull stroke. Make sure that the tree is between you and the product.
2. Remove undergrowth from the work area around the tree. Remove all cut-off materials from the work area.
3. Carefully inspect the surrounding area for potential obstacles, such as stones, branches, and holes. You must have a clear path of retreat when the tree starts to fall. Your path of retreat must be approximately 135 degrees away from the felling direction.



- a) The danger zone
- b) The path of retreat
- c) The felling direction

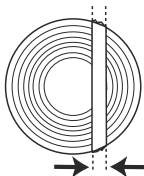
The felling hinge

The most important procedure during tree felling is to make the correct felling hinge. With a correct felling hinge, you control the felling direction and make sure that the felling procedure is safe. The thickness of the

falling hinge must be equal and a minimum of 10% of the tree diameter.

⚠ WARNING

IF THE FELLING HINGE IS INCORRECT OR TOO THIN, YOU HAVE NO CONTROL OVER THE FELLING DIRECTION.

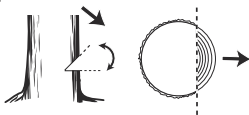


Make the directional cuts

- To make directional cuts, run the directional cuts $\frac{1}{4}$ of the diameter of the tree. Make a 45° angle between the top cut and bottom cut.
 - Make the top cut first. Align the felling direction mark (A) of the product with the felling direction of the tree (B). Stay behind the product and keep the tree on your right side. Cut using a pull stroke.
 - Make the bottom cut. Make sure that the end of the bottom cut is at the same point as the end of the top cut.

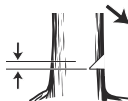


- Make sure that the directional cut line is perfectly horizontal and at a right angle (90°) to the felling direction. The directional cut line goes through the point where the two directional cuts touch.



Use the safe corner method

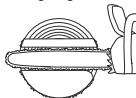
The felling cut must be made slightly above the directional cut.



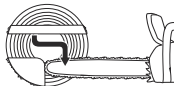
⚠ WARNING

BE CAREFUL WHEN YOU CUT WITH THE GUIDE BAR TIP. START TO CUT WITH THE LOWER SECTION OF THE GUIDE BAR TIP AS YOU MAKE A BORE CUT INTO THE TRUNK.

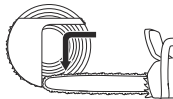
- If the usable cutting length is longer than the tree diameter, follow these steps.
 - Make a bore cut straight into the trunk to complete the felling hinge width.



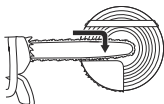
- Cut using the pull stroke until $\frac{1}{2}$ of the trunk is left.
- Pull the guide bar 2-4 in (5-10 cm) rearward.
- Cut through the remainder of the trunk to complete a safe corner that is 2-4 in (5-10 cm) wide.



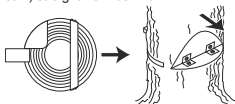
- If the usable cutting length is shorter than the tree diameter, follow these steps.
 - Make a bore cut straight into the trunk. The bore cut must extend $\frac{3}{5}$ of the tree diameter.
 - Cut using the pull stroke through the remaining trunk.



- Cut straight into the trunk from the other side of the tree to complete the felling hinge.
- Cut using the push stroke, until $\frac{1}{2}$ of the trunk is left, to complete the safe corner.



3. Put a wedge in the kerf (slit or notch made by the chainsaw) straight from behind.



4. Cut off the corner to make the tree fall.

Note: If the tree does not fall, hit the wedge until it does.

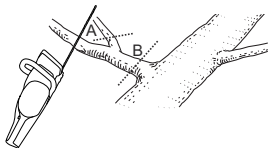
5. When the tree starts to fall, use the path of retreat to move away from the tree. Move a minimum of 15 ft (5 m) away from the tree.

4.7 LIMB A TREE

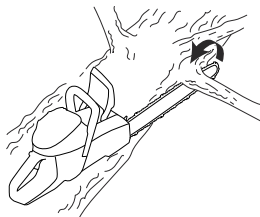
⚠ WARNING

CUT LIMBS ONE BY ONE. BE CAREFUL WHEN YOU REMOVE SMALL LIMBS AND DO NOT CUT BUSHES OR MANY SMALL LIMBS AT THE SAME TIME. SMALL LIMBS CAN GET CAUGHT IN THE SAW CHAIN AND PREVENT SAFE OPERATION OF THE PRODUCT.

Note: If it is necessary, cut the limbs piece by piece. Cut the smaller branches (A) before you cut the limb near the trunk (B).



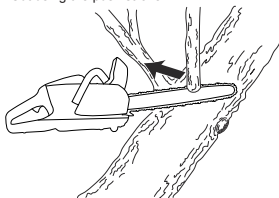
1. Remove the limbs on the right side of the trunk.
- Keep the guide bar on the right side of the trunk and keep the body of the product against the trunk.
 - Select the applicable cutting technique for the tension in the branch.



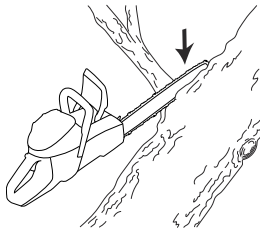
⚠ WARNING

IF YOU ARE NOT SURE ABOUT HOW TO CUT THE BRANCH, CONSULT A PROFESSIONAL CHAINSAW OPERATOR BEFORE YOU CONTINUE.

2. Remove the limbs on the top of the trunk.
- Keep the product on the trunk and let the guide bar move along the trunk.
 - Cut using the push stroke.



3. Next, remove the limbs on the left side of the trunk.
- Select the applicable cutting technique for the tension in the branch.



4.8 BUCK A LOG

To buck is to cut a log into lengths.

It is important to make sure your footing is secure, and your weight is evenly distributed. If possible, lift the log and hold it with branches, logs or chock. Obey the instructions below:

Cut a log on the ground

1. Cut through the log using the pull stroke. Ensure that you maintain full power during the cut while holding the product firmly.

WARNING

MAKE SURE THAT THE SAW CHAIN DOES NOT TOUCH THE GROUND WHEN YOU COMPLETE THE KERF.

2. Cut approximately 2/3 through the log and then stop. Turn the log and cut from the opposite side.

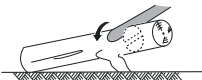


Cut a log that is held on one end

WARNING

MAKE SURE THAT THE LOG DOES NOT BREAK DURING CUTTING.

1. Cut using the push stroke approximately 1/3 through the trunk.
2. Cut through the trunk on the pull stroke until the two kerfs meet.



Cut a log that is held on two ends

WARNING

MAKE SURE THAT THE SAW CHAIN DOES NOT GET CAUGHT IN THE TRUNK DURING CUTTING.

1. Cut using the pull stroke approximately 1/3 through the trunk.
2. Cut through the remaining part of the trunk using the push stroke to complete the cut.



WARNING

IF THE SAW CHAIN GETS CAUGHT IN THE TRUNK, STOP THE MOTOR IMMEDIATELY. USE A LEVER TO WIDEN THE KERF AND REMOVE THE TOOL. AVOID ATTEMPTING TO EXTRACT IT BY HAND, AS THIS CAN LEAD TO INJURY WHEN THE TOOL UNEXPECTEDLY FREES ITSELF.

5 MAINTENANCE

This section describes how to maintain the battery, battery charger, and product.

WARNING

CAREFULLY READ AND UNDERSTAND THE SAFETY CHAPTER AND OPERATION INSTRUCTIONS BEFORE YOU DO ANY MAINTENANCE WORK.

Before you do maintenance:

- Stop the product.
- Remove the battery.
- Allow the motor to cool.
- Use correct clothing, protective gloves, and safety glasses.

5.1 EXAMINE THE BATTERY AND THE BATTERY CHARGER

Carefully inspect the battery, battery charger, and connection cord of the battery charger for any signs of damage, such as cracks or broken parts. Replace if necessary.

5.2 CLEAN THE PRODUCT, THE BATTERY, AND THE BATTERY CHARGER

- Clean the product after each use with a moist cloth and neutral detergent.
- Do not use strong detergents or solvents like "glass cleaner" to clean the plastic parts or handles.
- Keep the air vents clean and free of debris to avoid overheating and damage to the motor.
- Do not spray water on the motor and electrical components.

- Clean the battery and battery charger with a dry cloth. Keep the battery guide tracks clean.
- Prior to inserting the battery into the battery charger, ensure that the terminals on both the battery and the battery charger are clean.

5.3 ADJUST THE CHAIN TENSION

⚠ WARNING

IMPROPERLY TENSIONED SAW CHAINS CAN BECOME DETACHED FROM THE GUIDE BAR, POSING A SIGNIFICANT RISK OF SERIOUS INJURY OR DEATH.

A saw chain becomes longer when you use it. It is essential to regularly adjust the tension of the saw chain. Remember to inspect the saw chain tension every time you refill the chain oil.

Note: During the initial period of using a new saw chain, it goes through a run-in phase. It is important to check the tension of the chain more frequently during this time.

⚠ CAUTION

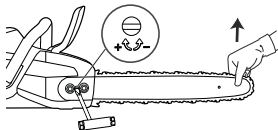
WEAR PROTECTIVE GLOVES IF YOU TOUCH THE CHAIN, BAR, OR AREAS AROUND THE CHAIN.

1. Switch off the chainsaw and engage the chain brake.
2. Remove the battery.
3. Loosen the bar nuts with the T-wrench.

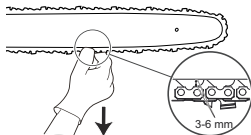


Note: It is not necessary to remove the sprocket cover to adjust the chain tension.

4. Raise the front of the guide bar and turn the chain tensioning screw clockwise to tighten the chain, or counterclockwise to loosen it.



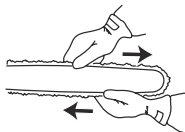
5. Pull the chain in the middle of the guide bar at the bottom away from the bar, the gap between the chain guide and the guide bar should be between 3 mm and 6 mm.



6. Tighten the bar nuts with the wrench.



7. Ensure that the saw chain moves freely when pulled by hand and does not sag or hang from the guide bar.



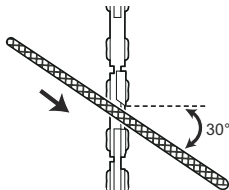
5.4 SAW CHAIN MAINTENANCE

Sharpen the cutters

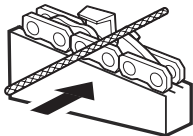
If the chain does not easily penetrate the wood, it is necessary to sharpen the cutters.

Note: For important sharpening work, we recommend taking the chainsaw to a service center equipped with an electric sharpener.

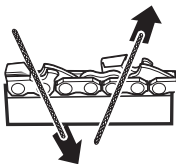
1. If sharpening by hand, use a round gauge file with holder to sharpen the cutting teeth.
2. Apply the holder correctly onto the cutter.
3. Move the file from the inner side of the cutting teeth and out. Decrease the pressure on the pull stroke.



4. Remove material from one side of all the cutting teeth.



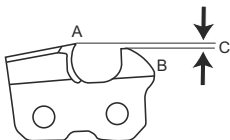
- Turn the product around and remove material on the other side.



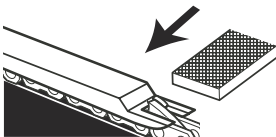
- Make sure that all cutting teeth are the same length.

Adjust the depth gauge setting

The depth gauge setting (C) decreases when you sharpen the cutting tooth (A). To ensure maximum cutting performance you must remove filing material from the depth gauge (B) to reach the recommended depth gauge setting.



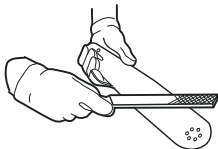
- Use a flat file and a depth gauge tool to adjust the depth gauge height.
- Put the depth gauge tool on the saw chain.
- Use the flat file to remove the part of the depth gauge that extends through the depth gauge tool.



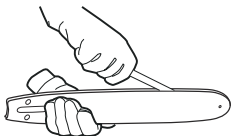
5.5 GUIDE BAR MAINTENANCE

- Make sure that the oil channel is not blocked. Clean if necessary.

- Examine if there are burrs on the edges of the guide bar. Remove the burrs using a file.



- Clean the groove in the guide bar.

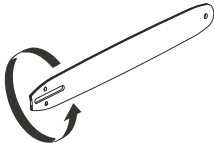


- Examine the groove in the guide bar for wear. Replace the guide bar if necessary.

- Make sure that the bar tip sprocket turns freely and that the lubricating hole in the bar tip sprocket is not blocked. Clean and lubricate if necessary.



- Turn the guide bar daily to extend its life cycle.



6 TRANSPORTATION, STORAGE, AND DISPOSAL

6.1 TRANSPORTATION AND STORAGE

- Follow special packaging and labeling requirements for commercial transportation, including by third parties and forwarding agents.
- Seek advice from a person with special training in dangerous materials before shipping the product and comply with all applicable national regulations.
- Use tape on open contacts when packaging the battery and ensure it is securely packed to prevent movement.
- Remove the battery before storing or transporting the product.
- Store the battery and battery charger in a dry, moisture-free, and frost-free space.
- Avoid storing the battery in an area where static electricity may occur, and do not store in a metal box.
- Charge the battery 30% to 50% before long-term storage.
- Store the battery charger in a closed and dry space.
- Keep the battery away from the battery charger during storage, and ensure that unauthorized persons, including children, do not touch the equipment. Store the equipment in a lockable space.
- Clean the product and perform full servicing before long-term storage.
- Use transportation guards on the product to prevent injury or damage during transportation and storage.
- Securely stow the product during transport to ensure safe handling.

6.2 DISPOSAL OF THE BATTERY, BATTERY CHARGER, AND PRODUCT

Symbols on the product or the package of the product mean that the product is not domestic waste. Recycle it at a recycling station for electrical and electronic equipment. This helps to prevent damage to the environment and persons.

Get in touch with your local authorities, domestic waste service, or your dealer for more information about how to recycle your product.

7 TROUBLESHOOTING

Problem	Possible cause	Solution
The guide bar and the chain become hot and release smoke.	The chain is too tight.	Adjust the chain tension.
	The oil tank is empty.	Add oil.

Problem	Possible cause	Solution
	Contamination causes a blockage of the discharge port.	Remove the guide bar and clean the discharge port.
	Contamination causes a blockage of the oil tank.	Clean the oil tank. Add new oil.
	Contamination causes a blockage of the guide bar and the oil tank cap.	Clean the guide bar and the oil tank cap.
	Contamination causes a blockage of the sprocket or guide wheels.	Clean the sprocket and the guide wheels.
The motor runs but the chain does not rotate.	The chain is too tight.	Adjust the chain tension.
	The guide bar and the chain are damaged.	Replace the guide bar and the chain if it is necessary.
	The motor is damaged.	<ol style="list-style-type: none"> Remove the battery pack from the machine. Remove the guide bar cover. Remove the bar and saw chain. Clean the machine. Install battery pack and operate the machine. <p>If the sprocket rotates, it means the motor works properly. If not, call service center.</p>

Problem	Possible cause	Solution
The motor runs and the chain rotates, but the chain does not cut.	The chain is dull.	Sharpen or replace the saw chain.
	The chain is in the incorrect direction.	Turn the chain loop to the other direction.
	The chain is tight or loose.	Adjust the chain tension.
The machine does not start.	The chain brake is engaged.	Pull the chain brake in the direction of the user to disengage it.
	The machine and battery are not connected correctly.	Make sure that the battery release button clicks when you install the battery pack.
	The battery level is low.	Charge the battery pack.
	The lock out button and the trigger are not pushed at the same time.	<ol style="list-style-type: none"> 1. Push the lock-out button and hold it. 2. Push the trigger to start the machine.
	The battery is too hot or too cold.	Refer to battery and charger manual.
The motor runs, but the chain does not cut correctly, or the motor stops after around 3 seconds.	The machine is in the protection mode to protect the PCB.	Release the trigger and start the machine again. Do not force the machine to cut.
	The battery is not charged.	Charge the battery. Refer to the battery and charger manual for correct charging procedures.

Problem	Possible cause	Solution
	The chain is not lubricated.	Lubricate the chain to decrease the friction. Do not let the guide bar and the chain operate without sufficient oil.
	Incorrect battery storage temperature	Cool the battery pack until it decreases to the ambient temperature.
The machine has stopped working to protect internal circuits.	Operating temperature of the machine is too high.	Move the machine to a cool, dry location. Let rest for 5-10 minutes at least. If the protection is frequent, extend the cooling time.

8 TECHNICAL DATA

Voltage	80 V DC
No load speed	20 m/s
Guide bar length	18" (458 mm)
Chain pitch	3/8" LP (9.5 mm)
Chain gauge	.050" (1.27 mm)
Drive links	62
Chain oil capacity	230 ml
Chain	91P062X/CL15062/ CL65062
Guide bar	180SDEA041/ M1501862-1041TL
Battery model	BAB742 and other BAB series
Charger model	2901402 and other CAB series

The recommended ambient temperature range:

Condition	Temperature
Product storage	32°F (0°C) - 113°F (45°C)
Product operation	32°F (0°C) - 113°F (45°C)
Battery charging	39°F (4°C) - 104°F (40°C)
Charger operation	39°F (4°C) - 104°F (40°C)
Battery storage	32°F (0°C) - 113°F (45°C)
Battery discharging	32°F (0°C) - 113°F (45°C)

9 LIMITED WARRANTY**90-Day Warranty**

Renewed/Refurbished products and batteries are protected against all defects in materials, parts or workmanship under normal use for a period of 90 days from the shipping date or in-store purchase date. All sales are final, no returns.

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 operator manual; or
3. Normal wear;
4. Routine maintenance items such as lubricants, blade sharpening;
5. Normal deterioration of the exterior finish due to use or exposure.

HELPLINE:

Warranty service is available by calling our toll-free helpline, at 1-855-345-3934.

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.

USA address:

Greenworks Tools

P.O. Box 1238, Mooresville, NC 28115

Canadian address:

Greenworks Tools Canada, Inc.

P.O. Box 93095, Newmarket, Ontario, L3Y 8K3

Mexico address:

TECNOLOGIA CAMPO Y JARDIN S.A. DE C.V.

ADMINISTRADORES No. 5336 A, COL. ARCOS DE GUADALUPE, ZAPOPAN, JALISCO, C.P. 45037

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