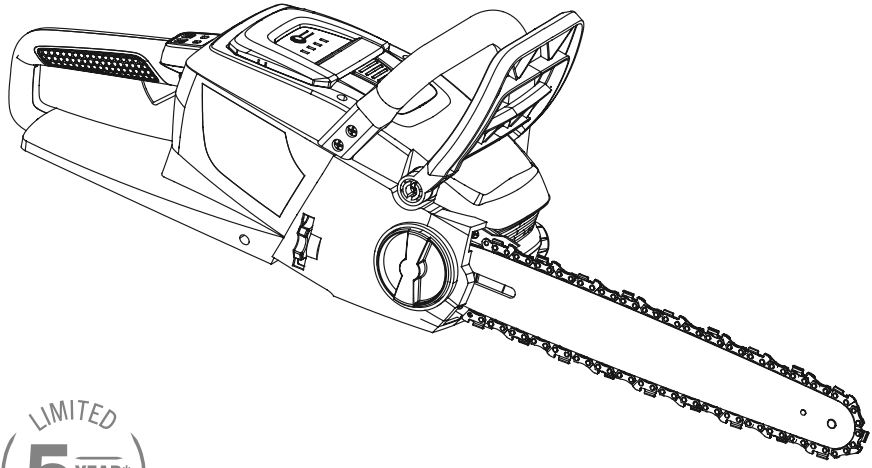
BENCHMARK™ MC

60V 16-INCH CORDLESS CHAINSAW



LIMITED 5 YEAR* WARRANTY

5 Year Limited Warranty on tool
3 Year on battery and charger

READ ALL INSTRUCTIONS BEFORE FIRST USE.
KEEP THIS MANUAL FOR FUTURE REFERENCE.
KEEP AWAY FROM CHILDREN.

Maximum initial battery voltage (measured without a load) is 60 volts. Normal voltage is 54 volts.

WEAR CSA APPROVED EYE PROTECTION

WEAR EAR PROTECTION

WEAR A FACE MASK

BENCHMARK

PRODUCT SPECIFICATIONS

60V 16-INCH CORDLESS CHAINSAW	
Sku No.	5240-050
Nominal Voltage of	60 v d.c. / 2.5 Ah Li-ion
Chain Speed	33 ft./s
Cutting Length	16 in. (400 mm)
Chain Type	Recommended Oregon type 90PX056X
Guide Bar Type	Recommended Oregon type 164MLEA041
Weight 17 lbs	17 lbs
Battery Pack Model	5350-018
Battery Capacity	60 V DC, 2.5 Ah
Battery Charger Model	5350-020
Input	100–240 V~, 50/60 Hz, 150 W
Output	63 V d.c., 2.5 A

NEED ASSISTANCE?

Call us on our toll-free customer support line:
1-833-818-4111
- Technical questions
- Replacement parts
- Parts missing from package

BENCHMARK 60V HAND-HELD TOOL HAS A 2-STEP BATTERY LATCH

INSTALLATION: The battery latch has 2 positions. Press down firmly until battery is fully inserted. If the battery is not fully inserted and secured in the deepest position #2 the tool will not run.

REMOVAL: Press the release button once, the battery will release from the first latch position. Then hold the battery firmly, press the release button again and pull battery out.

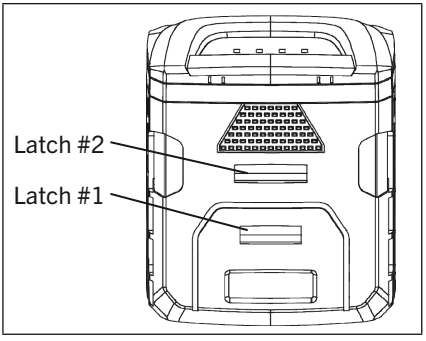


TABLE OF CONTENTS

Product Specifications 1
Benchmark 60V Hand-held Tool has a 2-Step Battery Latch 1
Table of Contents 2
General Safety Instructions 4
Eye, Ear & Lung Protection 4
Safety Symbols 5
Safety Instructions 5
Power Tool Safety 7
Work Area Safety 7
Electrical Safety 7
Personal Safety 7
Power Tool Use and Care 8
Battery Tool Use and Care 8
Service 9
Specific Safety Instructions for Chainsaw 9
Causes And Operator Prevention of Kickback 10
Kickback Safety Devices on This Chainsaw Chain 11
Brake 11
Low Kickback Saw Chain 12
Guide Bar 12
Additional Warnings 12
Technical Data 15
Functions 15
Delivery Parts 16
Installation 16
Install the Guide Bar and Saw Chain 16
Adjusting the Chain Tension 17
Filling Bar and Chain Lubricant Oil 18
Charging the Battery Pack 18
Power Indicator 19
To Obtain the Best Life From the Battery 19
Inserting and Removing the Battery Pack 19
Insert the Battery Pack 20
Remove the Battery Pack 20
Starting/Stopping the Chainsaw 20
To Start 21
To Stop 21
Indicator Panel 21
Proper Grip on Handles 22
Proper Cutting Stance 22
Instructions Concerning the Proper Techniques for Basic Felling, Limbing, and Cross-Cutting 22
Felling a Tree 22

Removing Buttress Roots 24
Bucking a Log 24
Limbing a Tree 25
Maintenance and Storage 26
Cleaning 26
Replacing the Bar and Chain 26
Disassemble the Worn Bar and Chain 27
Assemble the New Bar and Chain 27
Adjust the Chain Tension 27
Chain Maintenance 27
Guide Bar Maintenance 28
Transporting and Storing 28
Troubleshooting..... 29
Warranty 29

GENERAL SAFETY INSTRUCTIONS

⚠**WARNING:** Before using this tool or any of its accessories, read this manual and follow all Safety Rules and Operating Instructions. The important precautions, safeguards and instructions appearing in this manual are not meant to cover all possible situations. It must be understood that common sense and caution are factors which cannot be built into the product.

EYE, EAR & LUNG PROTECTION

SYMBOL	MEANING
⚠ DANGER 	**ALWAYS WEAR EYE PROTECTION THAT CONFORMS WITH CSA Z94.3 or ANSI SAFETY STANDARD Z87.1** FLYING DEBRIS can cause permanent eye damage. Prescription eyeglasses ARE NOT a replacement for proper eye protection. The usage of a safety standard compliant face shield placed over proper safety glasses or goggles can reduce the risk of facial injury. **Non-compliant eyewear can cause serious injury if broken during the operation of a power tool.**
⚠ WARNING 	Use hearing protection, particularly during extended periods of operation of the tool, or if the operation is noisy.
⚠ WARNING 	**WEAR A DUST MASK THAT IS DESIGNED TO BE USED WHEN OPERATING A POWER TOOL IN A DUSTY ENVIRONMENT.** Dust that is created by power sanding, sawing, grinding, drilling, and other construction activities may contain chemicals that are known to cause cancer, birth defects, or other genetic abnormalities. These chemicals include: • Lead from lead-based paints • Crystalline silica from bricks, cement, and other masonry products • Arsenic and chromium from chemically treated lumber The level of risk from exposure to these chemicals varies, according to how often this type of work is performed. In order to reduce exposure to these chemicals, work in a well-ventilated area, and use approved safety equipment, such as a dust mask that is specifically designed to filter out microscopic particles.

SAFETY SYMBOLS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols and the explanations with them deserve your careful attention and understanding. The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

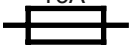
⚠**WARNING:** Be sure to read and understand all safety instructions in this Operator's Manual, including all safety alert symbolssuch as "DANGER," "WARNING," and "CAUTION" before using this tool. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

⚠**SAFETY ALERT SYMBOL:** Indicates DANGER, WARNING, OR CAUTION. May be used in conjunction with other symbols or pictographs.

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

SAFETY INSTRUCTIONS

SYMBOL	MEANING	
	Safety Alert	Indicates a potential personal injury hazard.
	Read & Understand Operator's Manual	To reduce the risk of injury, user must read and understand the operator's manual before using this product.
	Wear Eye Protection	Always wear safety goggles or safety glasses with side shields and a full face shield when operating this product.
	Wear Ear Protection	Chainsaw noise may damage your hearing. Always wear sound barriers (ear plugs or ear mufflers) to protect your hearing.
	Wear Head Protection	Wear an approved safety hard hat to protect your head.

SYMBOL	MEANING	
	Wear Protective Gloves	Protect your hands with gloves when handling saw and saw chain. Heavy duty, nonslip gloves improve your grip and protect your hands.
	Be aware of kickback	Contact of the guide bar tip with any object should be avoided.
	Guide Bar Tip Kickback	Tip contact can cause the guide bar to move suddenly upward and backward, which can cause serious injury.
	Two Handed Hold	Always use two hands when operating the Chainsaw.
	Be Aware of Water	Do not expose or operate the tool in rain.
⎓	Direct Current	Type or a characteristic of current
V	Volt	Voltage
T5A 	Protective 5A limited	
 Li-Ion	Batteries contain Li-ion.	Waste batteries should be sorted for eco-friendly. Do not dispose of waste batteries as unsorted municipal waste.
mm	Millimeter	Length or size
in.	Inch	Length or size
kg	Kilogram	Weight
lb	Pound	Weight
ml	Milliliter	Volume
fl. oz	Fluid Ounce	Volume
°C	Celsius Temperature	Temperature
°F	Fahrenheit Temperature	Temperature

POWER TOOL SAFETY

⚠**WARNING: Read all safety warnings and instructions.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

WORK AREA SAFETY

Keep work area clean and well lit. Cluttered or dark areas invite accidents.

Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.

Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

ELECTRICAL SAFETY

Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.

Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.

Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.

When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of a ground fault circuit interrupter (GFCI) reduces the risk of electric shock.

PERSONAL SAFETY

Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.

Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.

If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

POWER TOOL USE AND CARE

Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.

Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

Remove the battery pack, if detachable, from the power tool and/or activate any battery disabling device before clearing jammed material, making any adjustments, changing accessories, cleaning, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces may lead to unsafe handling and/or loss of control of the tool.

BATTERY TOOL USE AND CARE

Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.

When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.

Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contact eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.

Do not use a battery pack or tool 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 tool to fire or excessive temperature. Exposure to fire or temperature above 265 °F (130°C) may cause explosion.

Follow all charging instructions and do not charge the battery pack or tool 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.

SERVICE

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

Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorized service providers.

SPECIFIC SAFETY INSTRUCTIONS FOR CHAINSAW

Keep all parts of the body away from the saw chain when the chainsaw is operating. Before you start the chainsaw, make sure that the saw chain is not contacting anything. A moment of inattention while operating chainsaws may cause entanglement of your clothing or body with the chain.

Always hold the chainsaw with your right hand on the rear handle and your left hand on the front handle. Holding the chainsaw with a reversed hand configuration increases the risk of personal injury and should never be done.

Hold the chainsaw 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 chainsaw “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 sawchain.

Do not operate a chainsaw in a tree, on a ladder, from a rooftop, or any unstable support. Operation of a chainsaw in this manner could result in serious personal injury.

Always keep proper footing and operate the chainsaw only when standing on fixed, secure and level surface. Slippery or unstable surfaces may cause a loss of balance or control of the chainsaw.

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 chainsaw 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 chainsaw by the front handle with the chainsaw switched off and away from your body. When transporting or storing the chainsaw, always fit the guide bar cover. Proper handling of the chainsaw 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 chainsaw for purposes not intended. For example: do not use chainsaw for cutting metal, plastic, masonry or non-wood building materials. Use of the chainsaw 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.

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 chainsaw user, you should take several steps to keep your cutting jobs free from accident or injury.

Kickback is the result of chainsaw 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 chainsaw 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 chainsaw.
- Do not overreach and do not cut above shoulder height. This helps prevent unintended tip contact and enables better control of the chainsaw 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.

KICKBACK SAFETY DEVICES ON THIS CHAINSAW CHAIN BRAKE

The chainsaw comes equipped with a chain brake, which stops both the motor and the motion of the chain when kickback occurs. The chain brake can be activated by the forward motion of the chain-kickback brake handle as the saw rotates backward during kickback; it can also be activated by the inertial forces generated during rapid pushback.

⚠**WARNING:** Never modify or attempt to disable the chain brake.

Make sure that the chain brake is working properly before using the chainsaw. The chainkick back brake handle should move back and forth easily. To test the operation of the chain brake perform the following steps (Fig. 1).

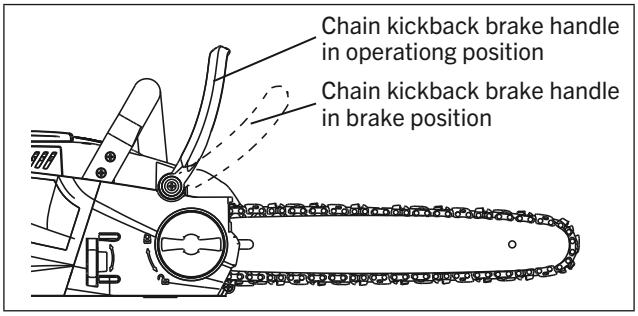


FIG. 1

- Place the chainsaw on a flat bare surface and make sure no objects or obstructions that could come in contact with the bar and chain are in the immediate vicinity.
- Disengage the chain brake by pulling the chain-kickback brake handle towards the front handle.
- Start the chainsaw.
- Push the chain-kickback brake handle towards the front of the saw. A properly functioning hand brake will stop the movement of the chain immediately. If the chain brake is not working properly, do not use the chainsaw until it has been repaired by a qualified service technician.

⚠**WARNING:** Confirm that the chain brake works properly before each use.

⚠**WARNING:** If the chain brake is clogged with wood chips, the function of the chain brake may deteriorate. Always keep the device clean.

LOW KICKBACK SAW CHAIN

The ramp-shaped 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 a replacement chain that is equivalent to the original chain or has been certified as a low kickback chain per ANSI B175.1. A low kickback tooth saw chain is a chain that has met the kickback performance requirements of ANSI B175.1 (American National Standard for Power Tools-Gasoline-Powered Chainsaws-Safety Requirements) when tested on the representative sample of chainsaws below 3.8 c.i.d. specified in ANSI B175.1.

The bumper drive link (Fig. 2) also helps deliver low-kickback performance.

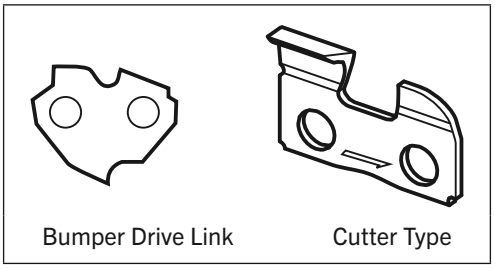


FIG. 2

⚠**CAUTION:** As saw chains are sharpened during their useful life, they lose some of the low kickback qualities and extra caution should be used.

GUIDE BAR

This saw comes equipped with a guide bar that has a small radius nose. Small radius noses generally have less potential for kickback. When replacing the guide bar, be sure to order the bar listed in this manual.

ADDITIONAL WARNINGS

With a basic understanding of kickback (Fig. 3-5), you can reduce or eliminate the element of surprise. Sudden surprise contributes to accidents.

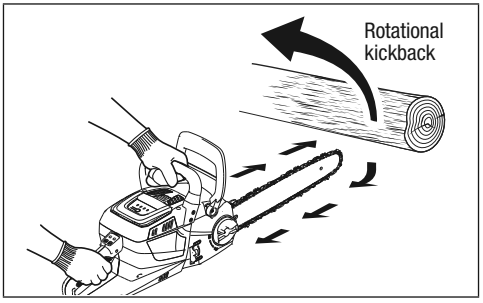


FIG. 3

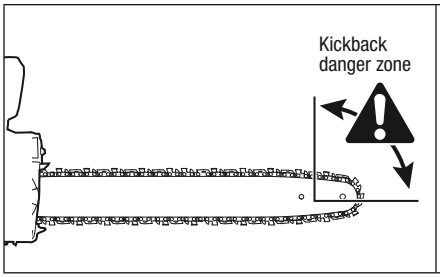


FIG. 4

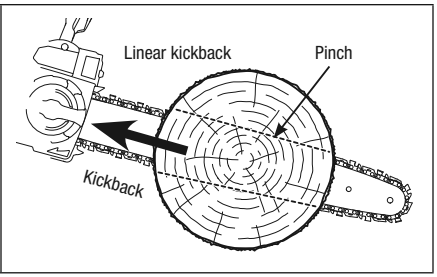


FIG. 5

- Make sure that the area in which you are cutting is free from obstructions. Do not let the nose of the guide bar contact a log, branch, fence, or any other obstruction that could be hit while you are operating the saw.
- Inspect the work piece for nails, wire, or other foreign objects prior to cutting.
- Plan the work, ensuring an obstacle-free work area and, in the case of felling, at least one escape path from the falling tree.
- When felling, keep bystanders at least two tree lengths away.
- Keep proper footing and balance at all times.
- A chainsaw is intended for two handed use. Serious injury to the operator, helpers, and/or bystanders can result from onehanded operation (Fig. 6).

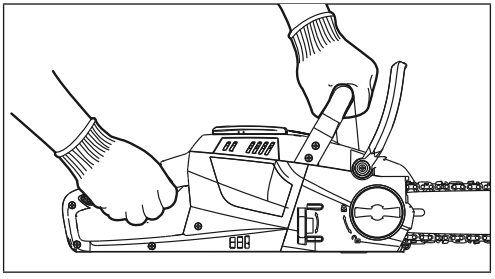


FIG. 6

- Always cut with the unit running at full speed. Fully squeeze the switch trigger and maintain cutting speed.
- Push and Pull – The 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 the PUSH when cutting along the top edge (Fig. 7).

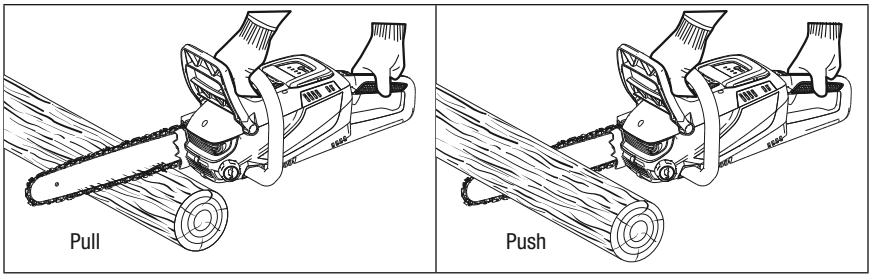


FIG. 7

- Avoid unintentional contact with the stationary saw chain or guide bar rails. These can be very sharp. Always wear gloves and long pants or chaps when handling the chainsaw, saw chain, or guide bar.
- Never operate a chainsaw that is damaged or improperly adjusted or that is not completely and securely assembled. Be sure that the saw chain stops moving when the trigger switch is released.
- When bucking, secure the work piece prior to cutting. When felling or pruning, identify and secure hazardous branches.
- Aggressive or abusive cutting or misuse of the chainsaw can cause premature bar, chain, and/or sprocket wear, as well as a broken chain or bar, leading to kickback, chain throw or the ejection of material.
- Never use the guide bar as a lever. A bent guide bar can cause premature bar, chain, and/or sprocket wear, as well as a broken chain or bar, leading to kickback, chain throw or the ejection of material.
- Cut only one work piece at a time.
- Use only with the battery packs and chargers listed below:

BATTERY PACK	CHARGER
5350-018 / YF60VRX2.5-BAT	5350-020 / YF60VRX2A-CHG
5350-019 / YF60VRX4.0-BAT	5350-021 / YF60VRX4A-CHG

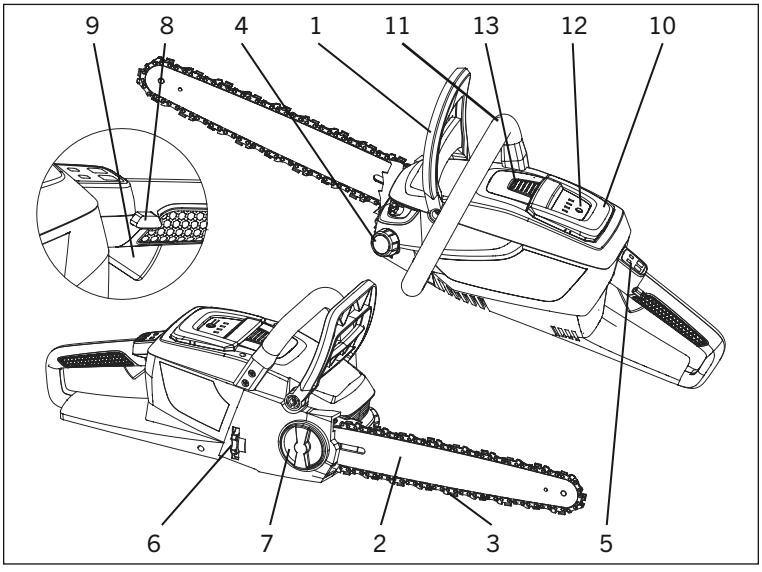
- Do not charge the battery pack in rain or in wet locations.
- If situations occur which are not covered in this manual, use care and good judgment. Contact Customer Service for assistance.

TECHNICAL DATA

60V CORDLESS CHAIN SAW	
Nominal voltage of product with battery	60V
Chain Speed	33 ft./s
Cutting Length	16 in.(400 mm)
Chain Type	Recommended Oregon type 90PX056X
Guide Bar Type	Recommended Oregon type 164MLEA041
Weight	13.2 lbs
Battery Pack Model	5350-018
Battery Capacity	60 V DC, 2.5 Ah
Battery Charger Model	5350-020
Input	100–240 V~, 50/60 Hz, 150 W
Output	63 V d.c., 2.5 A

FUNCTIONS

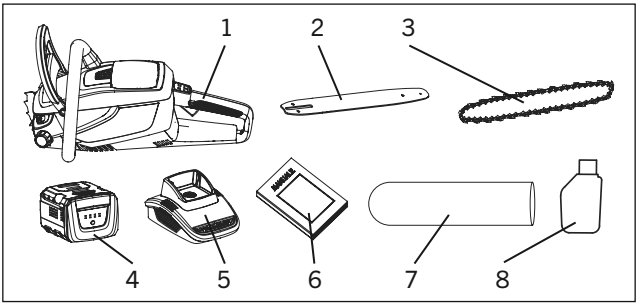
1. Front Guard/Chain Brake
2. Guide Bar
3. Saw Chain
4. Oil Tank Cap
5. Indicator Panel
6. Chain Tension Knob
7. Lock Knob
8. Lock-Off Button
9. Main Switch
10. Battery Pack
11. Front Handle
12. Power Indicator Button
13. Battery Releasing/ Locking Button



DELIVERY PARTS

Remove the machine from its packaging carefully and make sure that all of the following parts are present:

1. Chainsaw x 1
2. Guide Bar x 1
3. Saw Chain x 1
4. Battery Pack x 1
5. Charger x 1
6. Manual x 1
7. Guide Bar Cover x 1
8. Bar and Chain Lubricant Oil x 1



INSTALLATION

Install the guide bar and saw chain

1. Position the chainsaw power head on its side with the side cover facing upwards.
2. Turn the side cover knob counter-clockwise to remove the side cover and then loosen the chain tensioning knob as much as possible (Fig.10).

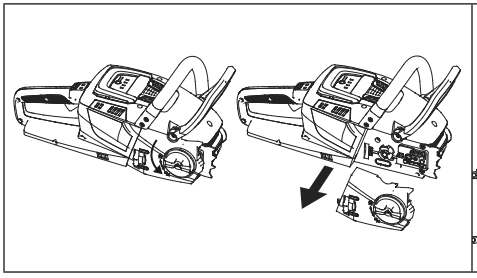


FIG. 10

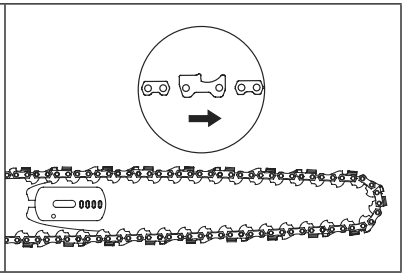


FIG. 11

3. Lay the new saw chain in a loop on a flat surface and straighten any kinks.
4. Place the chain drive links into the guide bar groove and make the chain a loop at the back of the guide bar (Fig.11).
5. Hold the chain in position on the guide bar and place the loop around the sprocket of the power head (Fig. 12).
6. Slide the guide bar slot over the alignment flanges until the tension adjusting pin is inserted in the lower hole in the tail of the bar.

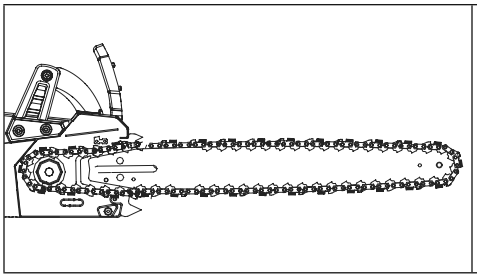


FIG. 12

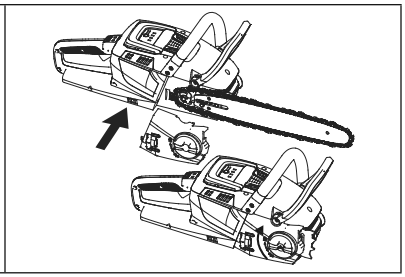


FIG. 13

NOTE: Small directional arrows are engraved in the saw chain. Another directional arrow is molded into the housing. When looping the saw chain onto the sprocket, make sure that the direction of the arrows on the saw chain will correspond to the direction of the arrow on the housing. If they face in opposite directions, turn over the saw chain and guide bar assembly.

7. Replace the side cover and slightly tighten the side cover knob (Fig. 13).
8. Lift the tip of the guide bar up to check for sag. Release the tip of the guide bar and turn the chain tensioning knob clockwise. Repeat this process until the sag is eliminated.
9. Tighten the side cover knob securely to ensure that the saw chain is properly tensioned before using.

NOTE: If chain is too tight, it will not rotate. Loosen the side cover knob slightly and turn the tensioning knob once from right to left. Lift the tip of the guide bar up and retighten the side cover knob securely. Assure that the chain will rotate without binding.

Adjusting the chain tension

- Stop the motor and remove the battery pack before adjusting the chain tension. Make sure the side cover knob is loosened. Turn the chain tensioning knob clockwise to tension the chain (Fig. 14)

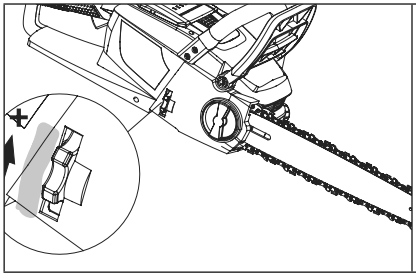


FIG. 14

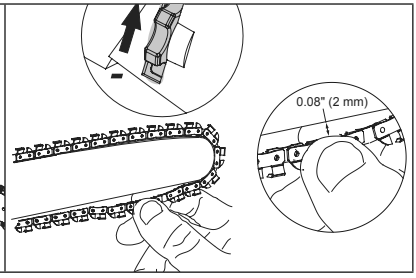


FIG. 15

- A cold chain is correctly tensioned when there is no slack on the underside of the guide bar and the chain is snug, but it can be turned by hand without binding. The chain must be re-tensioned whenever the flats on the drive links do not sit in the bar groove.

- During normal saw operation, the temperature of the chain will increase. The drive links of a correctly tensioned warm chain will hang approximately 0.08" (2 mm) out of the bar groove (Fig. 15).

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

NOTE: A chain tensioned while it is warm may be too tight upon cooling. Check the cold tension before next use.

Filling bar and chain lubricant oil (Fig. 16).

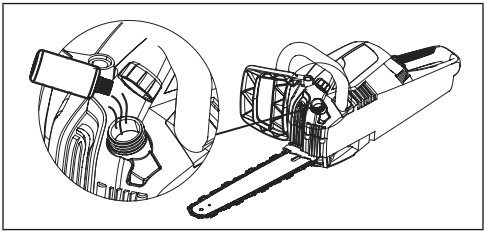


FIG. 16

⚠**WARNING:** Do not smoke or bring any fire or flame near the oil or the chainsaw. Oil may spill and cause a fire.

NOTE: The chainsaw is not filled with oil at the time of purchase. It is essential to fill the tank with oil before use.

The chain is automatically lubricated with chain oil during operation.

1. Position the chainsaw on its side with its oil tank cap facing towards.
2. Clean the cap as well as the area around and then turn it counter-clockwise to remove.
3. Carefully pour the specifically designed oil into the tank until reaching the bottom of the filter neck.
4. Wipe off any excessive oil and replace the cap.

NOTE: With upright position, oil should fill the inspection window. When the oil is no longer visible in the inspection window, stop use immediately and refill.

Charging the battery pack

NOTE: Remove the battery pack from the charger after it has been fully charged.

NOTE: Battery should be fully charged before first use.

NOTE: Make sure the mains voltage is the same as the rating label which is located on the charger.

1. Connect the charger to a power supply. The red LED will light up.
2. To insert the battery pack into the charger, align the raised ribs of the battery pack with the grooves of the charger then push it in (Fig. 17).

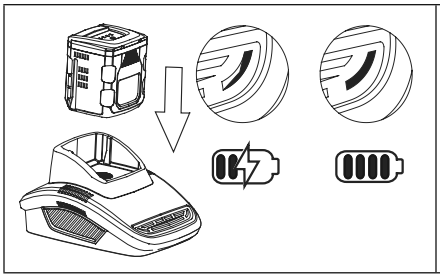


FIG. 17

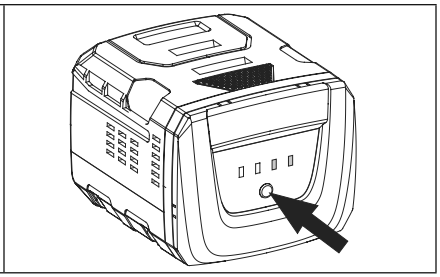


FIG. 18

3. The green LED light of the charger will flash continuously during normal charging.
4. After charging is complete, the charger light will turn to a solid green light.

Power indicator (Fig. 18).

This Li-Ion battery pack is equipped with a power indicator which is used to show the battery packs remaining charge. Press the power indicator button to check battery charge. The LEDs will stay lit for approximately 4 seconds.

To obtain the best life from the battery

NOTE:

1. Never allow the battery to completely discharge before recharging. The battery pack should be placed on the charger whenever the battery pack is noticeably running down or the tool no longer performs a task it previously performed.
2. Avoid conducting short charges. Make sure that the battery is fully charged each time by allowing the charger to complete its full charging cycle.
3. Avoid allowing loose items like screws or nails etc. to be stored with battery packs as these or similar items can short battery packs' life and cause a fire or explosion.
4. Always unplug the charger when not in use and store in a dry and secure place.
5. Avoid charging or storing your battery in temperatures below 5°C and above 45°C.
6. After use, allow the battery pack to cool down for approximately 30 minutes before attempting to recharge.

Inserting and removing the battery pack

NOTE: Hold the tool and the battery pack firmly when installing or removing the battery pack. Failure to hold the tool and the battery pack firmly may cause them to slip off your hands and result in damage to the tool and battery pack, potentially causing a personal injury.

Insert the battery pack (Fig. 19).
To install the battery pack, align the tongue on the battery pack with the groove in the housing and slip it into place.

NOTE: Always insert it all the way until it locks in place with a little click. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.

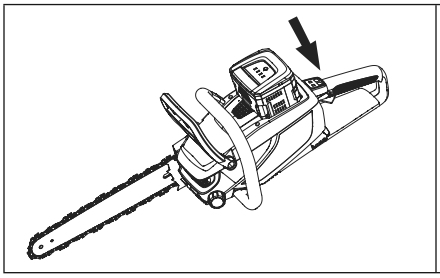


FIG. 19

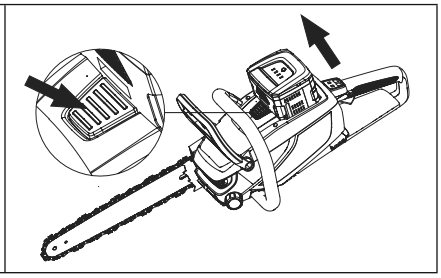


FIG. 20

Remove the battery pack

1. Depress the battery releasing/locking button on the housing.
2. The battery pack will pop up automatically.
3. Lift and hold the battery pack while pressing the releasing/locking button again, and then remove the battery pack.

NOTE: The second operation that needs to be performed when removing the battery pack is to avoid any mis-operations at work, especially for the Benchmark 60V hand-held tools, in case the battery pack falls and hurts consumers (Fig. 20).

NOTE: Do not use force when installing the battery pack. If the battery pack does not slide in easily, it is not being inserted correctly.

⚠**WARNING:** Verify that the switch is in the OFF position before inserting or removing the battery pack.

⚠**WARNING:** 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.

Starting/stopping the chainsaw

NOTE:

1. Before starting the chainsaw, check for the oil level, saw teeth sharpness and properly working kickback brake handle.
2. Besides, balanced footing and proper distance away from the ground are needed.

To Start

1. Pull the chain kickback brake handle towards the front handle to the operating position (Fig. 21).

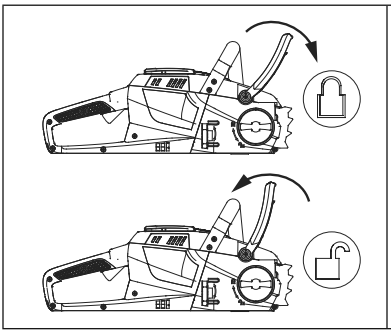


FIG. 21

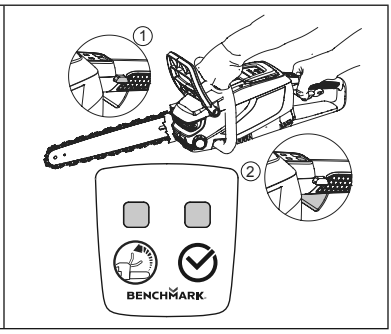


FIG. 22

2. Grasp the front and rear handles firmly, using both hands.
3. Press down the lock-off button first ①, then squeeze the trigger switch to start ② (Fig. 22).

Release the lockoff button and continue to squeeze the trigger for continued operation.

⚠**WARNING:** Do not attempt to start the saw when the saw chain is in a cut.

To Stop

1. Release the trigger switch.
2. Push the chain kickback brake handle forward to the brake position to engage the chain brake (Fig. 21).

⚠**WARNING:** Always remove the battery pack from the chainsaw during work breaks and after finishing work.

Indicator panel

The indicator panel will be light ON while you squeeze the trigger switch. Status meaning as shown in (Fig. 23).

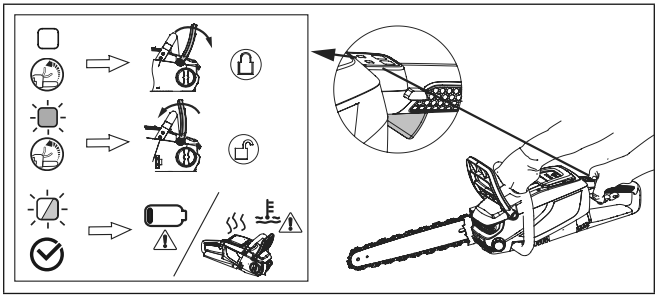


FIG. 23

Proper Grip on Handles

- Wear non-slip gloves for maximum grip and protection.
- With the saw on a firm, flat surface, hold the saw firmly with both hands.
- Always grasp the front handle with the left hand and the rear handle with the right.
- The fingers should encircle the handle, with the thumb wrapped under the front handle.

⚠**WARNING:** Never use a left-handed (cross-handed) grip, or any stance which would place your body or arm across the chain line.

Proper Cutting Stance

- Both feet should be on solid ground, with weight evenly spread between them.
- The left arm should be straight, with the elbow locked. This helps to withstand the forces generated by kickback.
- Your body should always be to the left of the chain line.

Instructions concerning the proper techniques for basic felling, limbing, and cross-cutting

FELLING A TREE (Fig.24)

⚠**WARNING:** Maintain a firm grip, with thumbs and fingers encircling the chainsaw 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 chainsaw (Fig.25).

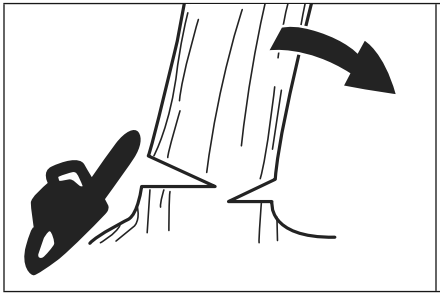


FIG. 24

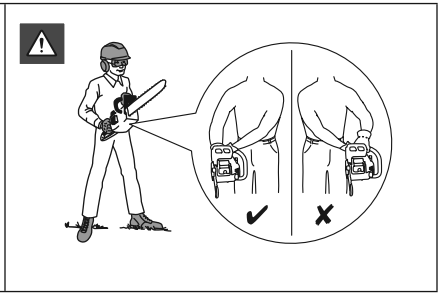


FIG. 25

⚠**WARNING:** 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 (Fig.26).

⚠**WARNING:** An escape path should be planned and cleared as necessary before cuts are started. The escape path should extend back and diagonally to the rear of the expected line of fall (Fig.27).

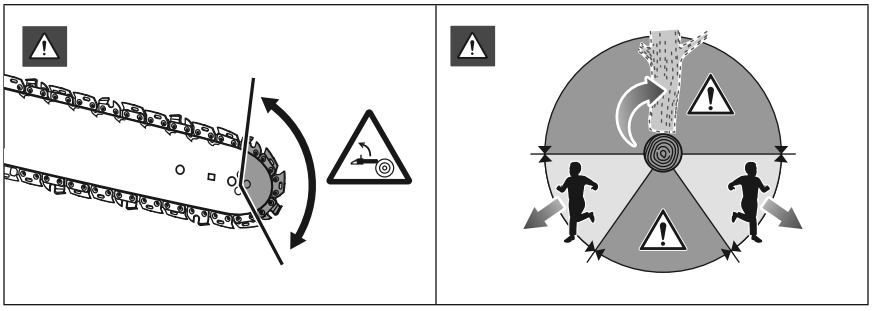


FIG. 26 FIG. 27

1. Make the felling back cut at least 5 cm. / 2 in. higher than the horizontal notching cut. Keep the felling back cut parallel to the horizontal notching cut. Make the felling back cut so enough wood is left to act as a hinge. The hinge wood keeps the tree from twisting and falling in the wrong direction (Fig.28).

⚠**WARNING:** Do not cut through the hinge (Fig.29).

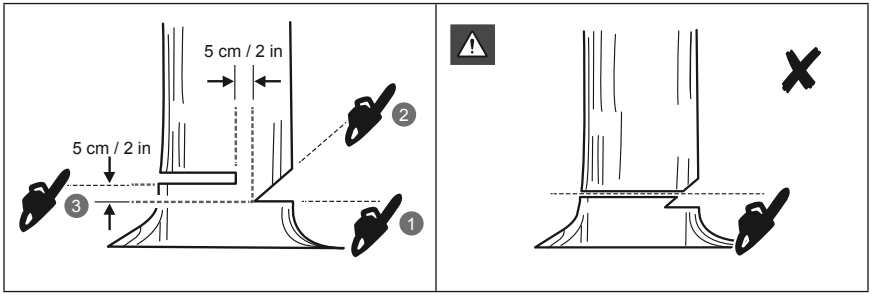


FIG. 28 FIG. 29

2. As the felling gets close to the hinge, the tree should begin to fall. If there is any chance that the tree may not fall in desired direction or it may rock back and 16 bind the saw chain, stop cutting before the felling back cut is complete and use wedges of wood, plastic or aluminium to open the cut and drop the tree along the desired line of fall (Fig.30).

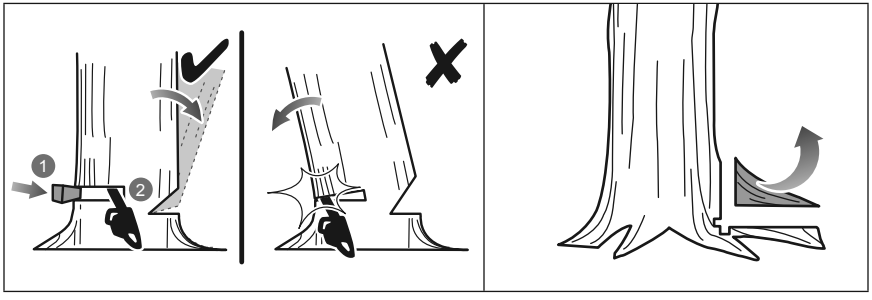


FIG. 30 FIG. 31

REMOVING BUTTRESS ROOTS (Fig.30)

1. 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 (Fig.32).
2. Remove the resulting loose section from the work area. Follow the correct tree felling procedure after you have removed the large buttress roots (Fig.33).

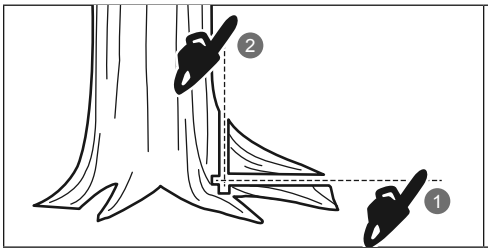


FIG. 32

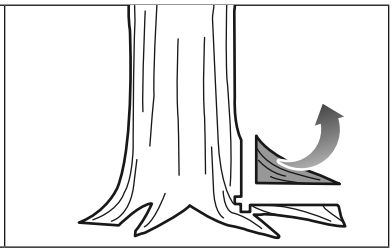


FIG. 33

BUCKING A LOG (Fig.34)

⚠**WARNING:** Kickback may occur whenthe nose or tip of the guide bar touchesan object, or when the wood closes in andpinches the saw chain in the cut (Fig.35).

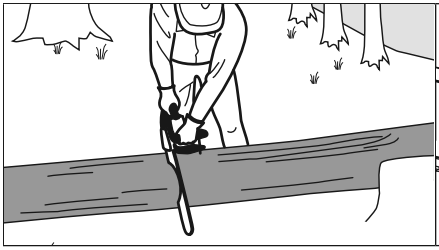


FIG. 34

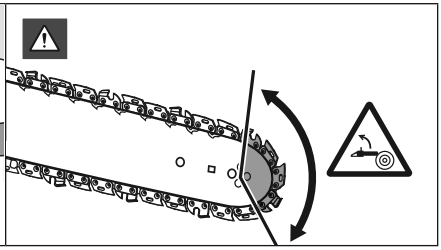


FIG. 35

⚠**WARNING:** The reaction force is always opposite to the direction the chain is moving.

Thus, the operator must be ready to control the tendency for the product to pull away (forward motion) when cutting on the bottom edge of the bar. Engage always firmly the bumper spike to avoid such movement. The product can be pushed backwards (towards the operator) when cutting along the top edge. To avoid this make sure the chain is not jammed when cutting along the top edge (Fig.36).

NOTE: When the log is supported on both ends, cut 1/3 the diameter from the top (overbuck). Then make the finished cut by underbucking the lower 2/3 to meet the first cut (Fig.37).

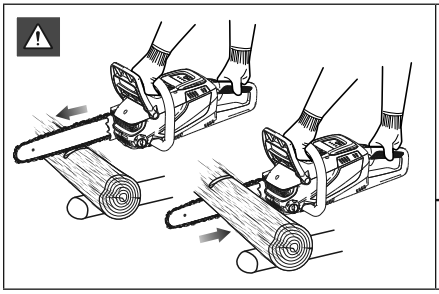


FIG. 36

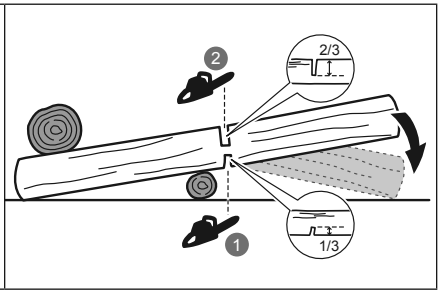


FIG. 37

NOTE: When the log is supported on one end, cut 1/3 the diameter from the underside (underbuck). Then make the finished cut by overbucking to meet the first cut (Fig.38).

LIMBING A TREE (Fig.39)

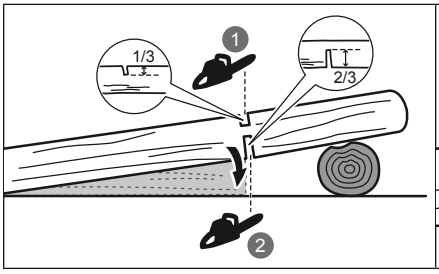


FIG. 38

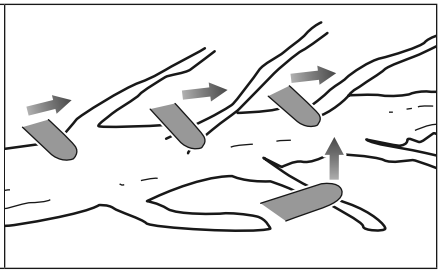


FIG. 39

WARNING: Do not stand on any unstable surface while using the product. This could include, but is not limited, to ladders, scaffolds, and trees (Fig.40).

NOTE: Limbing is removing the branches from a fallen tree. When limbing leave larger lower limbs to support the log off the ground. Remove the small limbs in one cut. Branches under tension should be cut from the bottom up to avoid binding the product (Fig.41).

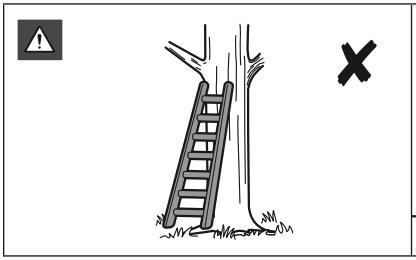


FIG. 40

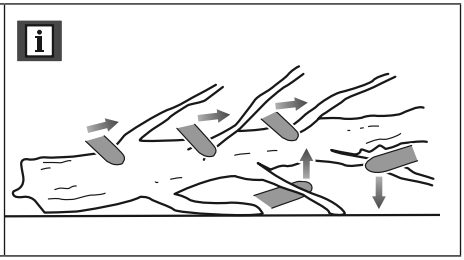


FIG. 41

⚠**WARNING:** 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. Do not attempt to cut bent branches or stumps which are under tension unless you are professionally trained and competent to do so (Fig.42).

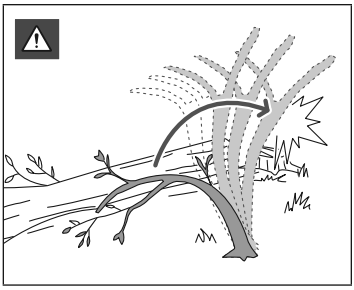


FIG. 42

MAINTENANCE AND STORAGE

⚠**WARNING:** When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.

⚠**WARNING:** Always wear protective gloves when performing any maintenance to the chainsaw.

⚠**WARNING:** To avoid serious personal injury, remove the battery pack from the chainsaw before inspecting, cleaning, or performing maintenance. A battery operated tool with the battery pack inserted is always on and can start accidently.

⚠**WARNING:** When cleaning the chainsaw, DO NOT immerse in water or other liquids.

⚠**WARNING:** Do not at any time let brake fluids, petrol, 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.

CLEANING

- After each use, clean debris from the chain and guide bar with a soft brush. Wipe the chainsaw surface with a clean cloth moistened with a mild soap solution.
- Remove the side cover, and then use a soft brush to remove debris from the guide bar, saw chain, sprocket and side cover.
- Always clean out wood chips, saw dust, and dirt from the guide bar groove when replacing the saw chain.

REPLACING THE BAR AND CHAIN

⚠**WARNING:** Never touch or adjust the chain while the motor is running. The saw chain is very sharp.

NOTE: When replacing the guide bar and chain, always use the specified bar and chain combination listed in the manual.

DISASSEMBLE THE WORN BAR AND CHAIN

1. Remove the battery, allow the saw to cool and tighten the oil tank cap.
2. Position the chainsaw on its side with the side cover facing upwards.
3. Wear gloves. Remove the side cover by turning the side cover knob counter-clockwise. Clean the side cover with a dry cloth.

NOTE: This is a good time to inspect the drive sprocket for excessive wear or damage.

ASSEMBLE THE NEW BAR AND CHAIN

Follow the instructions in the ASSEMBLING/ REPLACING THE BAR AND CHAIN section in this manual.

ADJUST THE CHAIN TENSION

Follow the instructions in the ADJUSTING THE CHAIN TENSION section in this manual.

CHAIN MAINTENANCE

⚠**WARNING:** Always wear gloves when handling the saw chain; these components are sharp and may contain burrs.

Use only low-kickback chains on this saw. This fast cutting chain will provide kickback reduction when properly maintained.

A properly sharpened saw chain cuts through wood effortlessly, even with very little pressure.

Never use a dull or damaged saw chain. A dull saw chain cutter leads to increased physical strain, increased vibration load, unsatisfactory cutting results and increased wear.

For smooth and fast cutting, the chain needs to be maintained 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 your chain, consider the following:

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

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 qualified service technician.

GUIDE BAR MAINTENANCE

When the guide bar shows signs of wear, reverse it 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 which permits the chain to lay over sideways.
- Bent guide bar.
- Cracked or broken rails.
- Spread rails.

In addition, the guide bar has a sprocket at its tip. The sprocket must be lubricated weekly with a grease syringe to extend the guide bar life. Use a grease syringe to lubricate weekly with chain oil by means of the lubricating hole. Turn the guide bar and check that the lubrication holes and chain groove are free from impurities.

TRANSPORTING AND STORING

- Do not store or transport the chainsaw when it is running. Always remove the battery pack before storing or transporting.
- Always place the guide bar sheath on the guide bar and chain before storing or transporting the chainsaw. Use caution to avoid the sharp teeth of the chain.
- Clean the chainsaw thoroughly before storing. Store the chainsaw indoors, in a dry place that is locked and/ or inaccessible to children.
- Keep away from corrosive agents such as garden chemicals and de-icing salts.

TROUBLESHOOTING

FAULT/ MALFUNCTION	CAUSE	REMEDY
Product does not start	Battery pack not properly attached	Attach properly
	Battery pack ran out of power	Remove and charge the battery pack
	Battery pack damaged	Contact our service centre
	Other electrical defect to the product	Contact our service centre
Product does not reach full power	Battery pack capacity too low	Remove and charge the battery pack
	Air vents are blocked	Clean the air vents
Attach properly	Accessory is worn	Replace with a new one
Unsatisfactory result	Accessory not suitable for intended operation	Use suitable accessory
Product suddenly stops	Product overloaded	Remove the product from the workpiece and switch it on again
	Battery pack discharged	Remove and charge the battery pack
	Battery pack too hot	Remove the battery pack and let it cool down
Excessive vibration or noise	Accessory is dull / damaged	Replace with a new one
	Bolts/nuts are loose	Tighten bolts/nuts

WARRANTY

PRODUCT WARRANTY

Please keep your original purchase receipt in a safe place as proof of purchase.

Warranty coverage for this product must be verified by the original purchase receipt.

The warranty period begins on the day that the product was purchased from an authorized retailer of Benchmark products. Warranty coverage only applies to the original purchaser and is not transferrable. Warranty coverage is only provided on products purchased from authorized Benchmark retailers. Warranty only applies to products purchased and OPERATED in the Canada. Any product purchased or operated outside of the Canada is not covered by any warranty.

1. Five-Year Warranty on this Benchmark tool and Three-Year Warranty on Benchmark 60V Battery Pack and Charger

This Benchmark tool has a Five-Year Limited Warranty and Benchmark 60V Battery Pack and Charger has a Three-Year Limited Warranty from the date of purchase against manufacturer defects for residential use only. Commercial use voids the warranty. This warranty does not cover accidental damage, unreasonable use, normal wear and tear, neglect or non-compliance with the Operating, Safety and Maintenance Instructions. All service, outside of normal maintenance as described in this manual, must be done by an authorized service technician. Any unauthorized service or changes to the original configuration of this product will void the warranty. All parts and accessories used on and with this product must be manufactured and/or authorized by Customer service / Tech support center.

2. Ninety-Day Warranty – Accessories

The accessories included with the machine including cutting chain, bar sheath cover, and other similar parts are warranted against manufacturer defects for residential use only for a period of 90 days from date of purchase.

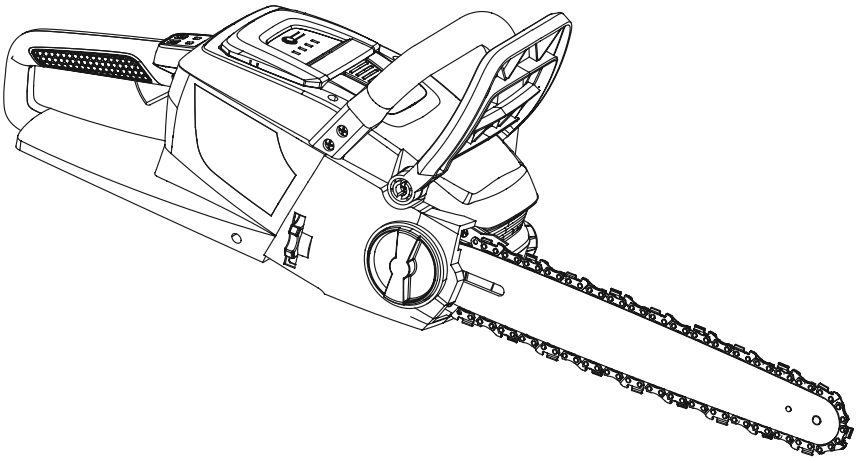
Warranty does not cover loss of use or other consequential damages arising from any of the above, nor does it cover repairs made or attempted by unauthorized persons.

This warranty is void if the product is used for commercial, rental or industrial purposes.

Certain parts, attachments and accessories are subject to normal wear and tear and are excluded from the warranty.

For more information or to ask questions, please call toll-free **1-833-818-4111**.

60V 16-INCH CORDLESS CHAINSAW



5 Year Limited Warranty on tool
3 Year on battery and charger

BENCHMARK™

5240-050

Made in China

BENCHMARK TOOLS CANADA
ST. JACOBS, ONTARIO N0B 2N0

CUSTOMER SERVICE/TECH SUPPORT
1-833-818-4111

LIMITED 5 YEAR* WARRANTY

* This Benchmark™ product carries a five (5) year LIMITED warranty against defects in workmanship and materials. The charger and batteries carry a three (3) year LIMITED warranty. See Owner's Manual for full details.

TÜV Rheinland of North America, Inc. C US

READ ALL INSTRUCTIONS BEFORE FIRST USE.
KEEP THIS MANUAL FOR FUTURE REFERENCE.
KEEP AWAY FROM CHILDREN.

Maximum initial battery voltage (measured without a load) is 60 volts. Normal voltage is 54 volts.

WEAR CSA APPROVED EYE PROTECTION

WEAR EAR PROTECTION

WEAR A FACE MASK